

# Golden Triangle Station Area Development Plan

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# GOLDEN TRIANGLE STATION AREA DEVELOPMENT PLAN

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## GOLDEN TRIANGLE STATION AREA

# EXECUTIVE SUMMARY

### INTRODUCTION

The introduction of the Southwest LRT into the Golden Triangle Area (GTA) brings with it a once in a generation opportunity to completely transform the property surrounding the planned Golden Triangle Station, as well as the GTA as a whole. The primary objective of this report is to provide a sustainable land use plan for the 66-acre site controlled by Liberty Property Trust, which includes the site of the proposed Golden Triangle LRT Station, the global headquarters of SuperValu Inc., several natural resource amenities, and numerous low-density industrial office complexes. It is the hope of this report that this plan will be used as a guide for future sustainable development on the Liberty Property site, as well as throughout the GTA.

Sustainable land use recommendations in this report are broken by three sustainability systems: 1. Community, Equity, and Prosperity 2. Connectivity 3. Natural Resources. Using these three systems as a starting point, guiding principles were established for each system, followed by specific recommendations for each guiding principle. The guiding principles and corresponding recommendations for each system are provided below.

### COMMUNITY, EQUITY, AND PROSPERITY

The addition of LRT into the GTA brings with it an opportunity to create not just a new development, but a sustainable development that encourages equitable access to community resources for residents, employees, and visitors alike. The LRT brings with it the opportunity to transform a suburban business park into a multi-faceted community that is comfortable, attractive, and aesthetically-pleasing. When such a place is created, there becomes a much higher likelihood that residents, employers, and visitors will invest more in that community over the long haul. Such long term investment is essential not only to the continued economic success of the GTA, but to the social and environmental well-being of the GTA community as a whole.

In order to realize the vision of a sustainable, equitable, and prosperous community built around the GTA station area, this report recommends the following actions be taken by the City of Eden Prairie:

*The addition of LRT into the Golden Triangle Area brings with it an opportunity to create not just a new development, but a sustainable development that encourages equitable access to community resources for residents, employees, and visitors alike.*



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**Create an environment that is visually appealing to businesses, employees, and residents by:**

- Involving stakeholders during the planning, design, and implementation processes.
- Utilizing form-based codes when appropriate as a means to encourage innovative and visually appealing development.

**Create a place that encourages community interaction by**

- Investing in public amenities that provide comfort and a unique identity to the development.
- Utilizing streetscaping design principles to encourage public interaction.
- Encouraging the establishment of a community-run GTA sustainability committee.

**Provide a mix of residential and commercial spaces by:**

- Designating the site a planned unit development (PUD) overlay district.
- Introducing retail space into the development that caters to both employees and residents.
- Emphasizing a mix of market rate and affordable housing onto the site.
- Intensifying office and commercial uses on the site.
- Working to develop a collocation business and community center on the site.

## **CONNECTIVITY**

The introduction of LRT into Golden Triangle provides a great opportunity to re-imagine what transit and connectivity looks like. This provides an opening to throw rulebooks and status quo thinking out the window and instead, replace them with new ideas based on creativity and sustainable solutions. Connectivity will be transformed from an auto-reliant environment to one which emphasizes pedestrians, bicycles, and public transit. Pedestrian and cycling trails ought to encompass the area and every street should have pleasant, pedestrian friendly sidewalks. Future development should occur in a manner that stresses easy pedestrian access with traditional town center designs and newly installed traffic calming measures. Business should also embrace new technologies and solutions to allow for more flexible employee schedules.

**Help stimulate a slow transition from an auto-oriented employment center to one which uses multiple modes of transportation by:**

- Transitioning from parking minimum requirements to parking maximum requirements to slowly reduce auto-dependency and to stimulate use of alternate modes of transportation.
- Incorporating innovative flexible work schedule alternatives.

*Future development should occur in a manner that stresses easy pedestrian access with traditional town center designs and newly installed traffic calming measures.*

- 
- Educating business on existing transportation demand strategies.

#### Increase pedestrian and bicycle trails/sidewalks throughout GTA by

- Having business collaborate to create a network of trails that can meander in between privately owned buildings to bring employees to the station area.
- Ensuring that every street has visually appealing sidewalks with crosswalks and pedestrian friendly environments.
- Providing bicycle infrastructure and facilities and attempt to establish an area-wide bike sharing program (similar to NiceRide), to enable employees to bike to and from the LRT station with accommodation facilities.

#### Create easy connections between employees and future services that will be developed in GTA by:

- Ensuring that future buildings are brought to the front of the street in accordance with New Urbanism principles.
- Relegating parking lots to the backside of future developments to minimize pedestrian distance to businesses and to improve the aesthetic quality of the development site.
- Installing traffic calming measures on streets and sidewalks.

*In order to attract and retain the type of highly-educated, motivated employees businesses hope to attract, employers must begin to offer a work environment that is in alignment with their employees' environmental and social aspirations.*

## NATURAL RESOURCES

The Liberty Property parcels surrounding the future Southwest Light Rail line are usual examples of the paradigm that drove development throughout the United States in the post World War II era: mono-use, auto-oriented, low density development. But the economic engines of that era failed to include the long-term, resource depleting impacts of this type of development. Those impacts are harder to ignore today, both from an environmental and a financial standpoint. Escalating energy and fuel costs creates pressure on employers to maximize efficiencies, and for workers to stretch their paychecks further. Government regulations are attempting to not only minimize environmental impacts, but to internalize these environmental costs by affecting a businesses' bottom line.

Almost as importantly, consumer preferences are changing. In order to attract and retain the type of highly-educated, motivated employees businesses hope to attract, employers must begin to offer a work environment that is in alignment with their employees' environmental and social aspirations. When leasing decisions are made, healthy, vibrant companies will gravitate towards similarly healthy and vibrant office space. Light rail transit through the Golden Triangle is a catalyzing event that can help elevate the desirability of the station area properties with a new, environmentally aware development paradigm. To that end, this report proposes the following natural resource enhancement strategies:

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**Design for hydrology to help minimize stormwater runoff and enhance water quality by:**

- Reducing the dependence on pipe and pond water management by using natural grading, channeling, and storage processes.
- Increasing the frequency of natural water filtration and storage areas throughout the development.
- Using compact design scenarios to help reduce impervious surface area.
- Incorporating greenroofs into future development scenarios.
- Use impervious surface alternatives when appropriate.
- Require stormwater and raw water for use in landscape irrigation.

**Expand natural areas, greenspace, and vegetation throughout the development area by:**

- Preserving and expand the amount of existing greenspace.
- Increasing tree canopy.
- Incorporating landscaping and natural areas into stormwater management practices.
- Using native, drought-tolerant vegetation for landscaping.

**Reduce energy impacts by:**

- Encouraging LEED certification on all new construction.
- Maximizing heating and cooling efficiency through passive solar design.
- Maximizing street light efficiency and reduce light pollution.
- Considering alternative energy sources when appropriate.

## PART 1:

### GOLDEN TRIANGLE STATION AREA

# DIAGNOSIS

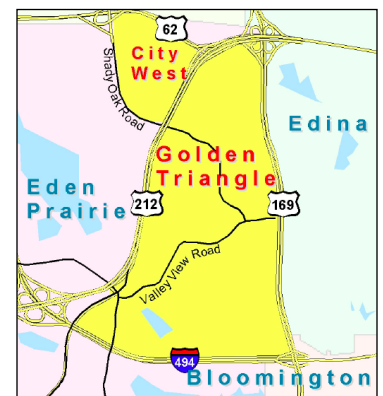


**Fig. 1:** View looking east towards the SuperValu headquarters.

## THE DEVELOPMENT SITE

The Golden Triangle Station is currently proposed to be constructed in the western portion of the Golden Triangle Area (GTA) in Eden Prairie. The GTA is a 1,370-acre industrial/office area located in Eden Prairie, Bloomington, and Edina that is bounded by three major roadways (US 212 to the west, US 169 to the east, and Interstate 494 to the south). The vast majority of the land in the GTA is located in Eden Prairie. However, there are portions in the extreme eastern side of the area that are part of Edina, as well as a portion in the extreme southeastern side of the area that is part of Bloomington.

The proposed Southwest Light Rail Transit line and the Golden Triangle Station will be located just east of US 212 in the western portion of the GTA (south of Shady Oak Road, east of Flying Cloud Drive, and just north of 70th St.). The redevelopment site being examined in this study is a 66-acre parcel that includes the proposed Golden Triangle Station area. A unique characteristic of the Golden Triangle Station area that sets it apart from many of the other proposed Southwest LRT stations is that the site is owned and



**Fig. 2:** Overview of the area commonly referred to as the Golden Triangle.

*Image courtesy of The City of Eden Prairie*



managed by a private company, Liberty Property Trust, one of the largest commercial developers in the United States.

The development site currently is home to SuperValu's corporate headquarters, numerous small businesses, a wetland area, a baseball field, and an unfinished 120,000 square-foot office complex known as Liberty Plaza that will be located north of the SuperValu headquarters and just west of the proposed Golden Triangle station area.

As for how the City of Eden Prairie and Liberty Property Trust envision the site being developed in the future, there are two assumptions the City and Liberty agree our study should make when determining possible future development scenarios. First, the City has requested the study assume that 70th St., which currently ends in a cul-de-sac just south of where the station is planned, will be extended to connect with Flying Cloud Dr. The extension of 70th St. will allow for increased auto and pedestrian access into and out of the GTA and the station area. Second, Liberty Property Trust would like the study to proceed under the assumption that the currently undeveloped Liberty Plaza site will be constructed in the near future. Currently, the foundation for Liberty Plaza has already been put in place. When construction is finally completed will be determined by how quickly Liberty is able to find suitable tenants for the property. Despite the uncertainty of when Liberty Plaza will be built, the fact that this study is to assume it will be built will certainly impact future development scenarios that this study will propose.

## BUSINESS AND EMPLOYMENT

According to a 2004 land use/multimodal transportation evaluation conducted on the Golden Triangle Area by the Hoisington Koegler Group, the IBI Group, and Bonz and Company for the City of Eden Prairie and Hennepin County Community Works, the Golden Triangle Area contains about 9.8 million square feet of office, commercial, and industrial property.<sup>1</sup> A market analysis conducted by United Properties and Bonz and Company for the same evaluation found that the amount of industrial/office space in the Golden Triangle Area accounts for over 9% of all office/industrial space in the Twin Cities area. To put this into perspective, the same market analysis found that the southwest metropolitan area of Bloomington, Edina, Eden Prairie, and part of Minnetonka contains more office space than downtown St. Paul. Only downtown Minneapolis contains more office space than the southwestern metropolitan area of the Twin Cities. The significant business presence in the area makes the Golden Triangle Area an ideal candidate for a LRT station in that it will increase access to jobs for those who do not have access to personal transportation. Also, it will help low-income people access a greater number of employment opportunities that match their skill set, which do not exist where they live, thereby reducing spatial mismatch.

The 2004 Golden Triangle evaluation also found that at the time of the study, estimates for employment in the Golden Triangle Area ranged from a Met Council estimate of 14,000 jobs in the area to a 2001 SRF Consulting Traffic Study that estimated there are as high as 26,000 jobs in the Golden Triangle Area. Given the large amount of small businesses that exist with the Golden Triangle, as well as the ever-changing characteristics of the market coupled with the recent economic recession, it is difficult to know for sure



**Fig. 3:** Warehouse buildings on the development site.

*The Golden Triangle Area contains about 9.8 million square feet of office, commercial, and industrial property. It accounts for over 9% of all office/industrial space in the Twin Cities area.*

the exact number of employees who currently work in the Golden Triangle Area. Whether the estimates are closer to the Met Council estimates or the SRF estimates, the fact remains that a significant number of employees work within the boundaries of the Golden Triangle Area. Given the current suburban, low-density, auto-oriented land use pattern within the Golden Triangle, it can be assumed that the vast majority of employees are commuting to work by car. Such an assumption is validated by the high degree of peak hour traffic congestion that exists in and around the Golden Triangle Area today.

The business types in the Golden Triangle area are primarily high-tech industrial/office uses. Some of the major employers in the area include SuperValu, Lifetouch Studios, Minnesota Vikings Football Club, Starkey Labs, Cigna, and Compellent Technologies Inc.

In terms of the proposed station area, one of the significant employers located in the 70-acre development site that the City of Eden Prairie wants this study to pay particular attention to is Visi Data Center. The Visi Data Center is located a block east of the proposed Golden Triangle LRT Station and is one of the largest data storage facilities in Minnesota, with over 18,000 square feet of data storage capability. Furthermore, Visi represents a significant tax revenue generator for the City. Because Visi is a business which employs high paying, white-collar jobs, the City has instructed this study to not propose any development in our plan that may cause Visi to consider relocating out of the Golden Triangle Area. Fortunately, in talking with the CEO of Visi, Mike Sowada, this study found that Visi is very supportive of the Southwest LRT. Mr. Sowada feels strongly that there is need for the Golden Triangle Area to reinvent itself in light of Light Rail Transit coming into the area. He supports any and all ideas that will make the station area more accessible from a transit and pedestrian perspective. He also believes mixed use development is essential for the Golden Triangle Area to meet its “untapped” potential. After meeting with Mr. Sowada the study has no reason to believe Visi is considering relocating from the Golden Triangle. If anything, Mr. Sowada sees the Southwest LRT as an opportunity to better his company by being able to market the increased accessibility that LRT will bring to potential employees.

The other major employer in the Golden Triangle Area that is of particular interest to the proposed development site is SuperValu. SuperValu’s corporate headquarters currently sit on the southwest portion of the site, just southwest of the proposed Golden Triangle Station. Liberty Property and the City of Eden Prairie have made it clear to this study that any development scenario it creates should take SuperValu’s future plans into account. SuperValu represents a major tenant for Liberty Property Trust, as well as a major tax revenue generator for the City of Eden Prairie. As such, SuperValu’s future plans will significantly impact any future development scenario this study creates for the site.

Additional employment analysis on the GTA utilized the Census Bureaus’ LEHD (Longitudinal Employer-Household Dynamics) tool to explore employment composition and commuting patterns in the area. Analysis reveals that only seven people who work in the GTA also live in the GTA. This is an astoundingly low number considering the approximate 15,000 jobs that exist in the study area. LEHD also reveals the significant number of high paying jobs and the relatively young workforce in the area as shown in the tables below.



**Fig. 4:** A Liberty Property parcel near the future LRT station.

*Some of the major employers in the area include SuperValu, Lifetouch Studios, Minnesota Vikings Football Club, Starkey Labs, Cigna, and Compellent Technologies Inc.*

**Table 1:** Jobs by Earnings, 2009

	Count	Share
\$1,250 per month or less	1,19	8.1%
\$1,251 to \$3,333 per month	4,211	28.3%
More than \$3,333 per month	9,461	63.6%

Source: U.S. Census LEHD Data

**Table 2:** Jobs by Worker Age, 2009

	Count	Share
Age 29 or younger	3,246	21.8%
Age 30 to 54	9,637	64.8%
Age 55 or older	1,987	13.4%

Source: U.S. Census LEHD Data

**Table 3:** Where Workers Live, 2009

City	Count	Share
Minneapolis	1,470	9.9%
Eden Prairie	1,225	8.2%
Bloomington	772	5.2%
Minnetonka	474	3.2%
St. Paul	454	3.1%
Plymouth	429	2.9%
Shakopee	421	2.8%
St. Louis Park	391	2.6%
Chaska	383	2.6%
Burnsville	363	2.4%
All other locations	8,487	57.1%
Total	14,870	100%

Source: U.S. Census LEHD Data

## RESIDENTIAL AND HOUSING

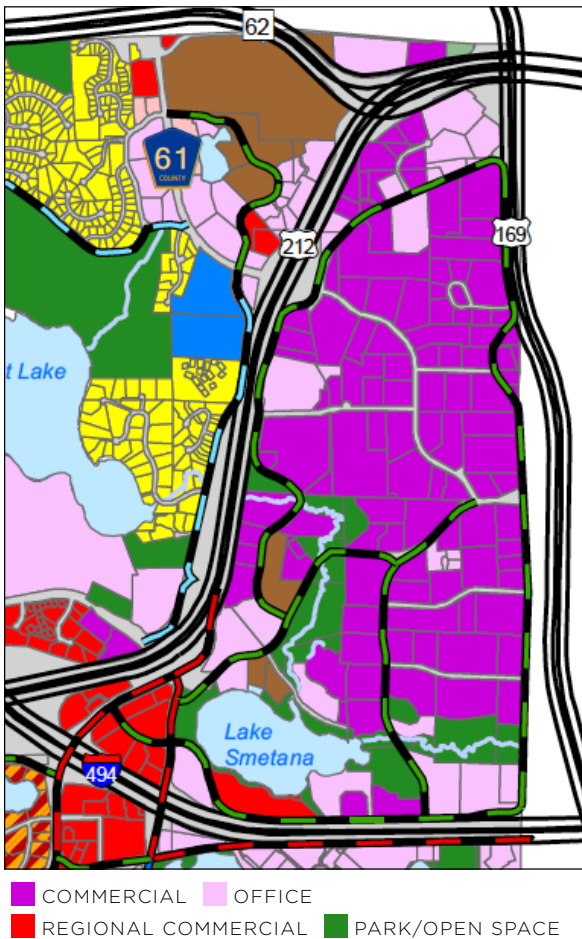
Currently residential housing in the Golden Triangle Area is minimal. There are only two high density residential apartment/condo properties within the Golden Triangle Area. There is a new high density condominium/apartment developed in 2002 in the southwestern portion of the Golden Triangle Area just east of US 212 and north of Prairie Center Drive. The other residential development is a high density, independent senior apartments located in the central southern portion of the Golden Triangle Area on Smetana Ln. Despite the current low amount of residential development in the GTA, the City of Eden Prairie has significant plans to drastically increase the amount of residential dwelling units and acreage in the GTA over the next 20 years (See Table 4).

**Table 4:** Existing and Forecast GTA Residential Development

	Existing	Forecast (2030)	Increase
Residential Dwelling Units	598	3,278	2680 (134 acres)

Source: Eden Prairie 2009 Comprehensive Plan Update

As for the 66-acre development site where this study will be creating its development scenarios, there is no existing housing on the site. The City of Eden Prairie’s 2009 Comprehensive Plan Update gives the following map of proposed 2030 land uses in and around the 66-acre development site our group is working with.<sup>2</sup>



**Fig. 5:** City of Eden Prairie’s 2030 Vision for the Golden Triangle Area

*Image courtesy of The City of Eden Prairie*

In general, residential land uses tend to take place in areas that offer high amounts of environmental amenities, such as wetlands and mature trees. The Golden Triangle Area offers many of these kinds of environmental amenities, suggesting residential development is feasible in the area. In discussing possible future land uses on the site, Liberty has indicated that they are open to trying residential development on the site if it makes sense long term. Even though there is no existing housing on the 66-acre development site, there seems to be a



willingness to incorporate residential development within the site given the City’s vision and Liberty’s willingness to examine residential development.

## NATURAL RESOURCES AND GREENSPACE

The station area is flush with natural resources that remain in their natural state. Wetlands, marshes in excellent, nearly unhindered state along with critical habitat that line the outer edges of Golden Triangle. Low intensity development has left ample open space between structures and along the perimeter of the area. Luckily however, all wetlands are placed in either conservation easements or are city-owned and are therefore undevelopable. In addition to publicly owned greenspace, Liberty Properties owns several vacant parcels.

A strength identified in a SWOT analysis conducted for the Liberty site recognizes the fact that there is little developable land inside the I-494/I-694 beltway. This places Golden Triangle in a competitive advantage for future development. Golden Triangle is one of very few places with parcels of land available for development inside the beltway that can accommodate mixed-use, multi-story, multi-family style developments.

## PARKS AND RECREATION

With an abundance of natural resources and open space, there is a surprising lack of active or utilized parks and recreational opportunities that exist in the GTA. This is a result of the prior visions to predominantly make GTA solely a business park. The few existing recreational facilities include a privately owned baseball field and a City-operated dog park, both of which are located across from the primary SuperValue office locations.

However, opportunities have made themselves apparent during preliminary interviews with stakeholders. Employers have expressed a desire to see trails and additional park space where there is no development. The wetlands provide an excellent opportunity to explore potential trail networks that abut marshes. Eden Prairie has a rather extensive trail network that can and should be expanded upon to insure pedestrian and bicycle connectivity to the station area. The existing dog park is seen as an amenity and could also be expanded on.

## LAND USE

Single story manufacturing and office buildings dominate the land use within the GTA. Convenient freeway access allowed the area to thrive as an easily accessible business park located reasonably close to the central cities. Abandoned or under-utilized manufacturing space is gradually being converted to more intensive office space use. More recently, several multi-story office buildings have been developed in the area, notably in the southwest corner of the GTA along Viking Drive.

Of the 960 parcel acres within the GTA, 52.6% of them are taken up by industrial and manufacturing use, with another 25.2% used as commercial space. 18.8% of the parcel space is vacant land of industrial, commercial, and residential usage types.

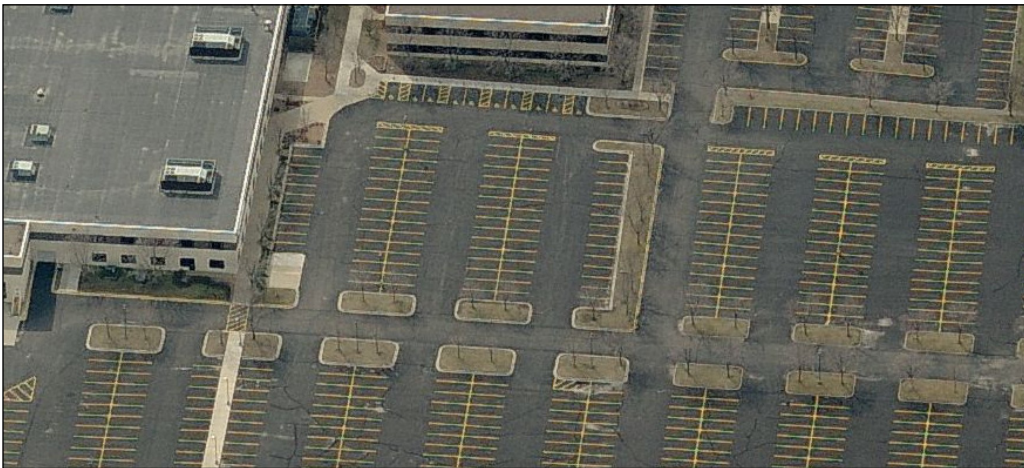


**Figs. 6, 7 & 8:** Parks, trails and open space are common in and around the development site.

**Table 5:** Land Uses

Land Use Type	Parcel Acres	Percent of Total Acres
Industrial	504.78	52.6%
Commercial	242.29	25.2%
Residential	22.41	2.3%
Cooperative	9.22	1.0%
Vacant	180.97	18.9%
<b>Total Acres</b>	<b>959.67</b>	<b>100%</b>

Source: Hennepin County Parcel Data, February 2011



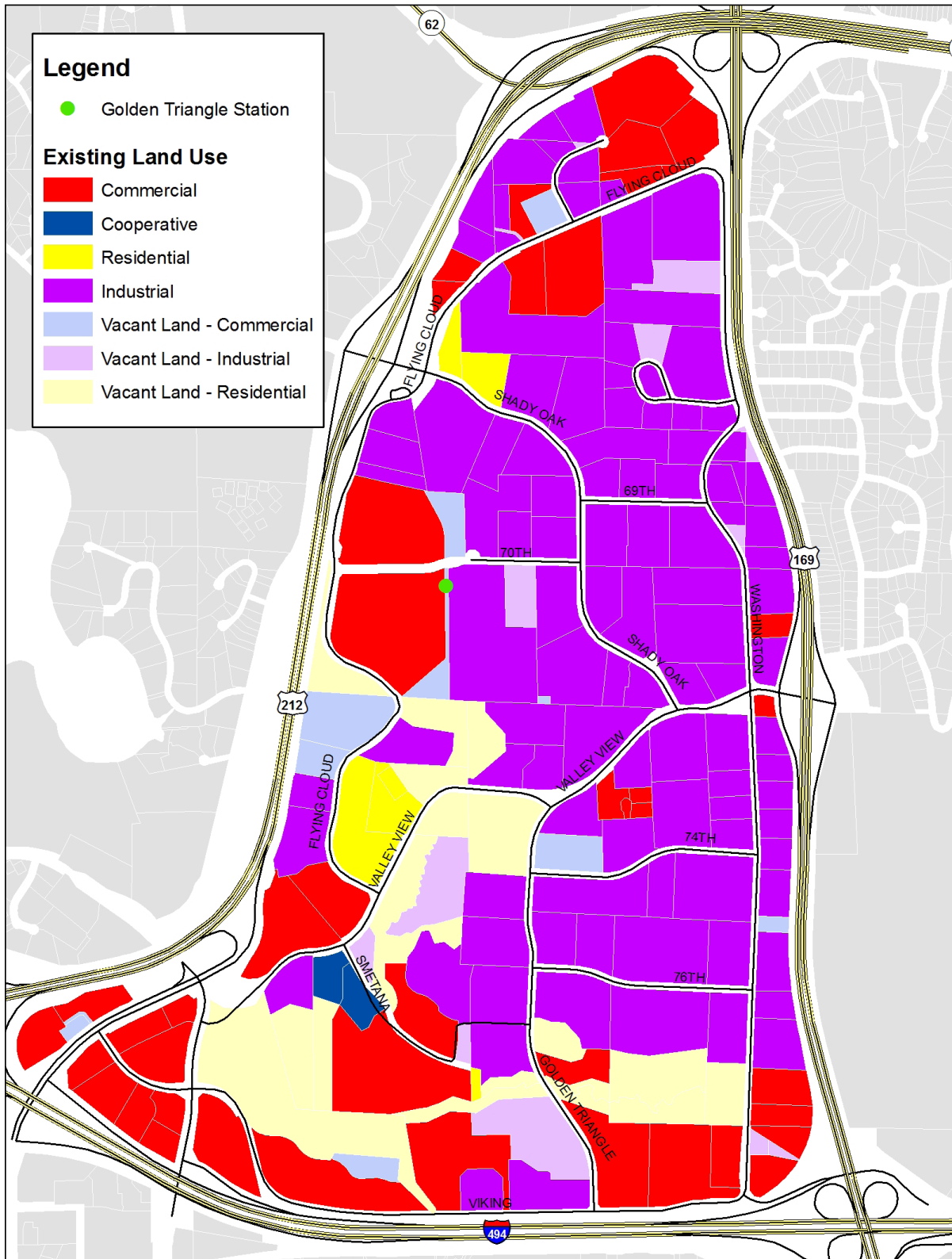
**Fig. 9:** The development site is dominated by surface parking. *Image courtesy of bing.com*

Land coverage within the GTA is dominated by impervious surfaces in the forms of low-rise warehouses and surface parking lots. Of the 1089 acres within the GTA, 749 of them are characterized by impervious surface coverage of greater than 75%. An additional 154.85 acres are seasonally flooded or permanent wetlands.

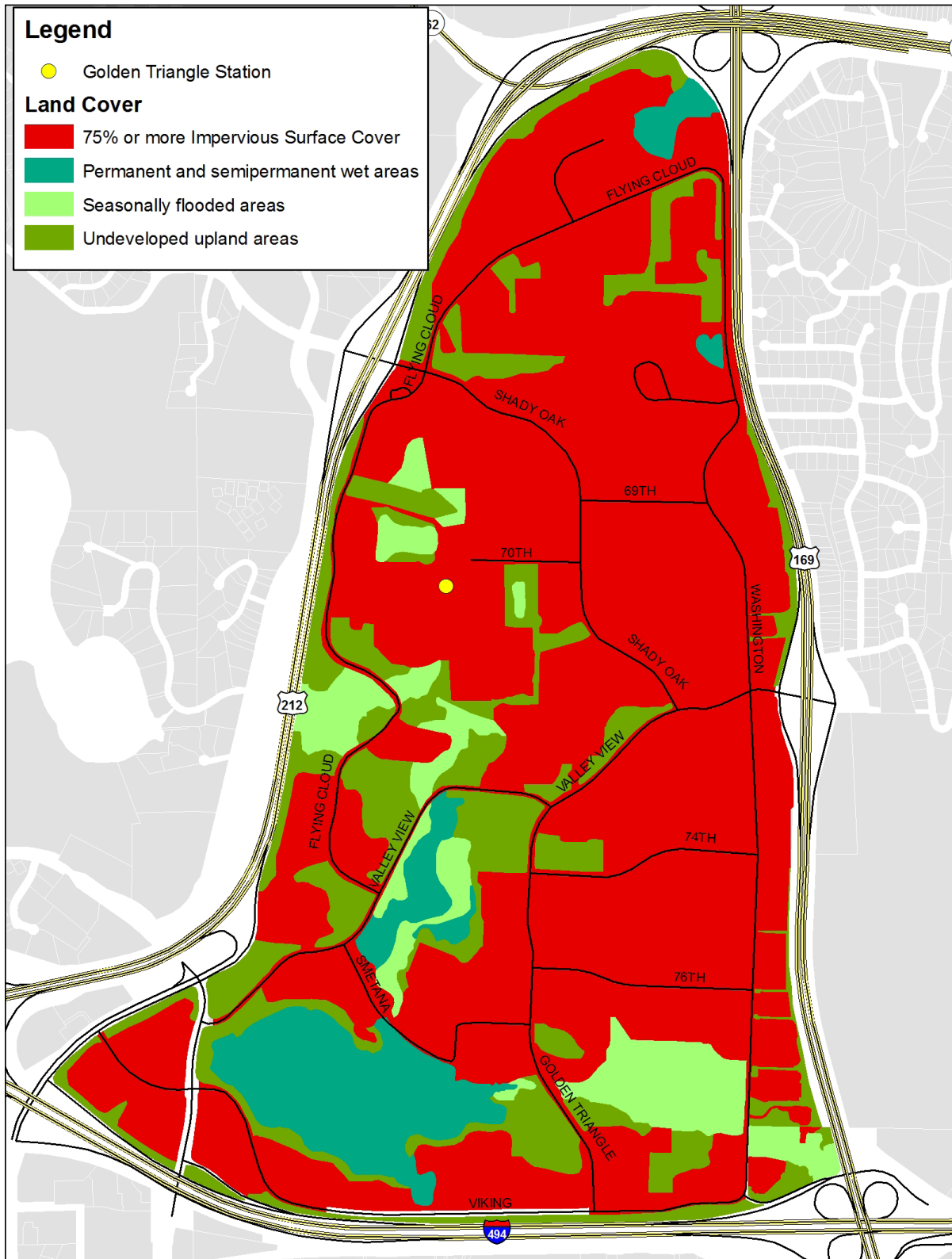
**Table 6:** Land Use Cover

Land Use Cover	Acres	Percent of Total Acres
Impervious Surface Areas >75%	749.31	68.8%
Upland Areas	184.93	17.0%
Seasonal or Permanent Wetlands	154.85	14.2%
<b>Total Acres</b>	<b>959.67</b>	<b>100%</b>

Source: MLCCS Data, 2003



**Fig. 10:** Existing Land Use in the Golden Triangle Area  
 Source: Hennepin County Parcel Data, February 2011



**Fig. 11:** Existing Land Coverage in the Golden Triangle Area  
 Source: Hennepin County Parcel Data, February 2011



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## TRANSPORTATION AND CONNECTIVITY:

The Golden Triangle area of Eden Prairie is served by four major limited-access highways: U.S. Highway 212 to the west, U.S. Highway 169 to the East, State Highway 62 to the South and Interstate 494 to the South. The adjacent interstate system, including I-494, MN 62, US 169 and US 212 provided the Golden Triangle area with continual growth and success in the past. However, that same auto accessibility has led to auto dependency, which is threatening the success of the GTA through increasing traffic volumes and congestion. Conversion of warehouse space to office space has increased the ratios of employees per square foot, further intensifying congestion issues. Traffic delays at southwest corner of the GTA have continued to decline, especially along Valley View road with signal delay times of up to three minutes, as expressed through stakeholder interviews.

One major improvement to traffic flow near the GTA will be the redesign of the U.S Highway 169 and Interstate 494 interchange. This interchange is one of the most congested interchanges in the state. Traffic issues will also be alleviated in the redesign by replacing several traffic signals with a series of flyover ramps.

Increasing the intensity of the land use from single story to multi-story, and improving traffic flow will be one of the biggest challenges in the future. The domination of industrial and commercial uses within the GTA creates unidirectional traffic flows in the A.M. and P.M. peak periods. The main strategy to intensify land use while not worsening congestion begins with developing a broader mix of uses, such as residential and retail, adding LRT and improving intersection capacity.

Currently, there are three bus routes that serve the Golden Triangle area, the 631, 634 and the 684. The 631 and the 684 have limited rush hour service to and from downtown Minneapolis and have travel times that exceed the estimated 31.5 minute end-to-end travel times of the Southwest LRT line. The 634 serves Burnsville to the south and thus does not overlap with the Southwest LRT service.

Public transportation will play a very limited role in reducing congestion. Because of the area's auto accessibility, the proposed Golden Triangle LRT station is projected to have only 500 daily boardings, the third fewest projected daily boardings among the proposed Southwest LRT stations.<sup>3</sup> Since the GTA is both highly accessible by automobile, but also generally isolated from the rest of the city due to the surrounding highways, the option of increasing station boardings via a park-and-ride lot are limited.

Auto travel within the GTA itself lacks connectivity, taking the form of indirect curvilinear roadways, and no direct north-south or east-west routes bisecting the area. The City of Eden Prairie has prioritized connecting 70th Street with Flying Cloud Drive. This would make a relatively direct connection to Washington Avenue via 70th and 69th Streets. The 70th Street connection would also improve the planned LRT station's placement at the end of what is now essentially a cul-de-sac, increasing the utility of the LRT station to properties to the east and north east.

Pedestrian accessibility is hampered by the lack of connectivity within the GTA. The large parcel and block sizes near the station area inhibit the walkability of the area. Additionally, the abundance of surface parking and the lack of sidewalk infrastructure creates an unfriendly pedestrian environment.

*Auto accessibility has led to auto dependency, which is threatening the success of the GTA through increasing traffic volumes and congestion.*

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A typical urban block within the City of Minneapolis measures 3.75 acres in size. The “blocks” to the north, south, and east of the proposed GTA station measure 78 acres, 131 acres, and 52 acres respectively. It would take a pedestrian walking at 3 miles per hour over 23 minutes to walk around the smallest (52 acres) of these “blocks”. Large parcel sizes within the GTA also limit the walkability of the area. The average parcel size within the GTA is approximately 4.77 acres—27% larger than a city block. The average parcel size within one-quarter mile of the proposed station is 7.08 acres, the equivalent of nearly two full city blocks. Parcel size is an issue for the station area since it limits destinations that can be reached within a reasonable 15 minute walking distance.

Another barrier to pedestrian connectivity is the lack of a comprehensive sidewalk system throughout the GTA. A pedestrian traveling within one-quarter mile of the station area to a destination would likely be walking within the street itself, walking through a parking lot, or cutting through vacant spaces in and around existing buildings.

Pedestrian amenities do exist, however, and offer opportunities for emphasis within any future land use plan. Paved walking and biking paths have been built through several wooded acres to the south of the Super Value headquarters. Flying Cloud Drive has paved pedestrian access along the west side of the street, with access to both a dog park and a baseball field. All of these amenities are within one-quarter mile of the proposed LRT station.

In general, the current parcel and block sizes, the abundance of surface parking, the lack of connectivity, and the lack of pedestrian infrastructure create a challenging pedestrian environment in and around the station area. A mixed use, walkable environment that maximizes the opportunity presented by the Southwest LRT station would need to confront all of these challenges.

*The “blocks” to the north, south, and east of the proposed GTA station measure 78 acres, 131 acres, and 52 acres respectively. It would take a pedestrian walking at a pace of 3 miles per hour over 23 minutes to walk around the smallest (52 acres) of these “blocks”*

## PART 2:

### GOLDEN TRIANGLE STATION AREA

# VISION



**Fig. 12:** A walkable, multimodal vision for Eden Prairie as proposed by SRF consultants in the city's 2009 Major Center Area Streetscape Master Plan.

*Image courtesy of The City of Eden Prairie.*

## INTRODUCTION

The arrival of the Southwest LRT into the Golden Triangle Area brings can serve as a catalyst to transform the spatial layout and character of the Liberty Property site. Instead of keeping the status quo and building more low density office/industrial space, what if the introduction of the Southwest LRT brought with it a whole new kind of thinking on how development can be approached in the GTA? The GTA is at the heart of Eden Prairie's economy, and any future development needs to ensure this stays the case. But isn't it possible to maintain the robust economic character of the GTA, or even improve it, while at the same time creating a whole new identity for the GTA as a place (not just a work site) where people live, work, relax, gather, and play in harmony? This report certainly believes so, and has a development strategy to make it happen.

In order to realize such a vision, future development on the 66-acre Liberty Property site must build on the GTA's inherent economic strengths and pair them with the competitive benefits of light rail transit. LRT brings with it the opportunity for people from all walks of life to access the numerous economic resources that exist within the GTA. But what are people going to do when they get off at the station and realize that they have to walk

*Isn't it possible to maintain the robust economic character of the GTA, or even improve it, while at the same time creating a whole new identity for the GTA as a place where people live, work, relax, gather, and play in harmony?*

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significant distances along auto-dominated roads to access the vast majority of economic resources the GTA has to offer? The Liberty Property site represents an opportunity to ensure LRT riders don't have to come to such a realization. In fact, the Liberty Property development represents an even greater opportunity to create a multifaceted identity for the GTA where people are able to live and work in an aesthetically pleasing environment, find abundant quality and affordable housing, gather and socialize with community members, access public open space rich with natural amenities, dine and shop at local restaurants and retailers, walk freely without having to worry about motorists, and of course, find a quality job that is easy and affordable to get to. Through the creation of such a sustainable, multimodal, flourishing neighborhood/business center that is desirable for both its location and various economic, social, and natural amenities, the Liberty Property site represents an opportunity to create the gold standard for economic and community redevelopment that can be incorporated not only throughout the entire GTA, but across the entire country.

## VISION STATEMENTS

The following is a series of vision statements that build on the overall vision for the Liberty Property development found above. They are broken down into the following categories: Business and Employment, Residential Housing, Parks/Natural Resources/Green Space, Transportation and Connectivity, and Land Use.

### Business and Employment

In terms of economic development, the primary goal of the any future development surrounding the Golden Triangle station area is to approach development in a fashion that promotes future business and job growth, while at the same time strengthening existing businesses in the area. In order to achieve this goal, retail and service industry development that caters to the employees located in the GTA should be encouraged. Growth in the retail and service industries will also serve to attract recreational LRT riders that do not live or work in the GTA. Encouraging the transformation from the current low density industrial landscape to higher density office space development will also serve to spur business and job growth around the station area. Finally, in an effort to create more high paying jobs, future office development should take place in a fashion that will foster expanded growth in the technology sector and incubate entrepreneurial start-ups.

### Residential Housing

Seeing that there is currently no residential development in the proposed station area, a primary goal for the area is to incorporate a medium to high density residential development into the area that will help create a sense of community in and around the station area. This study envisions a housing development that has a mix of market rate and affordable units that will be attractive to all levels of income earners. Future residential development should also be appealing to existing and future employees within the GTA. Encouraging employees who already work in the GTA to live in the GTA will serve to decrease congestion, increase pedestrian activity, and support future growth in the retail

*The development site represents an opportunity to create a multifaceted identity for the GTA where people are able to find quality housing, gather with community members, access open space, and find a quality job that is easy and affordable to get to.*



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and service industry by growing non-traditional work hour markets. Ultimately this study envisions creating a housing development near the Golden Triangle station area that will serve as an example for future residential development and can be emulated throughout the GTA as development intensifies.

### **Parks/Natural Resources/Green Space**

In terms of green space, the primary goal of this study is to preserve natural resources in a fashion that will create added amenity value to the development around the station area. This study envisions a park space adjacent to the station area that will ultimately serve as the genesis for an area-wide park system that can be incorporated throughout the GTA as development intensifies in the future. In order to protect the natural environment around the station area, any park space proposed in and around the station area will attempt to utilize existing natural resource amenities. Finally, this study envisions improving natural resource amenities near the station area by proposing development that expands on the already extensive trail network that the City of Eden Prairie has to offer.

### **Transportation and Connectivity**

Changing the transportation landscape of the proposed station area will be essential to creating a sustainable development. In terms of transportation, the primary goal of this study is to significantly increase connectivity in and around the station area by focusing on multimodal forms of transportation. In order to achieve this goal, this study will seek to create the start of a pedestrian network that will increase the walkability of the development site, with the LRT station serving as the nucleus of the pedestrian network. A robust pedestrian network will serve to encourage LRT use, as well as help alleviate congestion near the station area, and the GTA as a whole. Streetscaping design principles that promote increased non-motorized uses, as well as help foster a sense of community/"place" will also be utilized in achieving the primary transportation goal of increased connectivity around the station area. Finally, additional entry points into the development surrounding the station area will need to be created in order to alleviate congestion, as well create added connectivity for both motorized and non-motorized users.

### **Land Use**

This study believes there are several goals related to land use that need to be met in order to ensure a sustainable station area development is created. First, residential, office, and retail uses all need to be intensified around the station area in order to encourage increased transit ridership, increased residential growth, and increased business/job growth. Second, future land uses need to be incorporated in a fashion that will create a unique identity for the station area. The station area should be viewed as a destination, not just another stop along the LRT line. Streetscaping, TOD, and sustainable design principles will be incorporated in order to foster a greater sense of "place." Finally, all future land uses throughout the station area should be implemented with an emphasis on

*This study envisions a housing development that has a mix of market rate and affordable units that will be attractive to all levels of income earners.*

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sustainability. In summary, the ultimate goal in terms of land use for the station area is to create a mixed use sustainable development that makes sense economically and can be emulated throughout the GTA in the future.

## PHASED DEVELOPMENT

In a conversation with Tod Elkins—an architect at Urban Works Architecture in Minneapolis—about how to approach the challenge of redeveloping the GTA site, he recommended a phased development proposal that could both present a big-picture, full buildout development scenario as well as a more modest, market-based scenario. Based on this advice, this study developed a two-stage phasing plan. Phase 1 would represent changes that would be in place at the time of the Southwest LRT launch. These elements would be incremental changes that could readily be absorbed by the market. Phase 2 represents the full buildout scenario and is the broader vision for the station area as a whole. Phase 2 provides the vision for the development of the station area, but not the timing. Depending on market forces, the vision may develop rather rapidly, or it may take decades to complete.

### Phase 1

A major change in the perception of the area will be the extension of 70th Street through to Flying Cloud Drive. This will not only improve connectivity within the area, but also offer opportunity for street updates including sidewalks, boulevard trees, street lighting, on-street parking, and traffic signals. These improvements will offer a profound change to the area signaling the transition away from a strictly auto-oriented development to one of multimodality.

As the area moves towards a more balanced transportation scenario, it is important to acknowledge the fact that, for the foreseeable future, the vast majority of employees travelling to the GTA will be driving. We have to appreciate that from a business point of view parking is still essential to the success of the area. Thus, one of the main investments in Phase 1 is the creation of a multi-story parking ramp. The ramp will serve existing tenants, and will also provide parking for other high-density development within the area. Phase 1 also recommends the creation street-level convenience retail on the ground floor of the parking ramp facing 70th street. This retail can help serve the thousands of existing GTA employees, while also mitigating the street level impacts of the large parking structure.

High-density development takes the form of two small office buildings at the intersection of the LRT station and 70th street. These office buildings offer highly visible, desirable office space, but are small enough to be absorbed rapidly into the marketplace. The addition of Liberty Plaza at the intersection of Flying Cloud Drive and 70th Street represents the final office space expansion proposed for Phase 1.

Other changes include enhancing the amenity value of the area through improvements to parks and greenspace. By increasing the desirability of the area, the market potential of the area will also be increased. A pocket park adjacent to the LRT station will provide immediate appeal to the station area. Trail improvements around adjacent wetlands allow

*As the area moves towards a more balanced transportation scenario, it is important to acknowledge the fact that, for the foreseeable future, the vast majority of employees travelling to the GTA will be driving.*

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interaction with existing greenspace. The existing baseball field on Flying Cloud drive will be converted to a passive park with benches and trail connections. Finally, a picnic area/tot lot will allow for lunchtime escapes for employees and outdoor evening and weekend activities for families.

## Phase 2

Current LEHD data estimates that only 7 of the nearly 15,000 workers both live and work within the GTA. The addition of residential units in the area will help alleviate the spatial mismatch for workers and reduce peak traffic volumes. Amenity improvements from Phase 1 will serve as catalysts for residential development in Phase 2. Over 100 market rate and affordable apartments will be built overlooking the rolling natural area to the south of the development site. The proximity to trails, parks, and LRT make this development attractive housing for workers in the GTA area, as well as those in the core cities.

Additionally, 60 townhome units tucked quietly near the same rolling greenspace will offer housing in a quiet, secluded, walkable new development. The proximity to the LRT, trails and a new proposed community/fitness building will make these units highly desirable to young families.

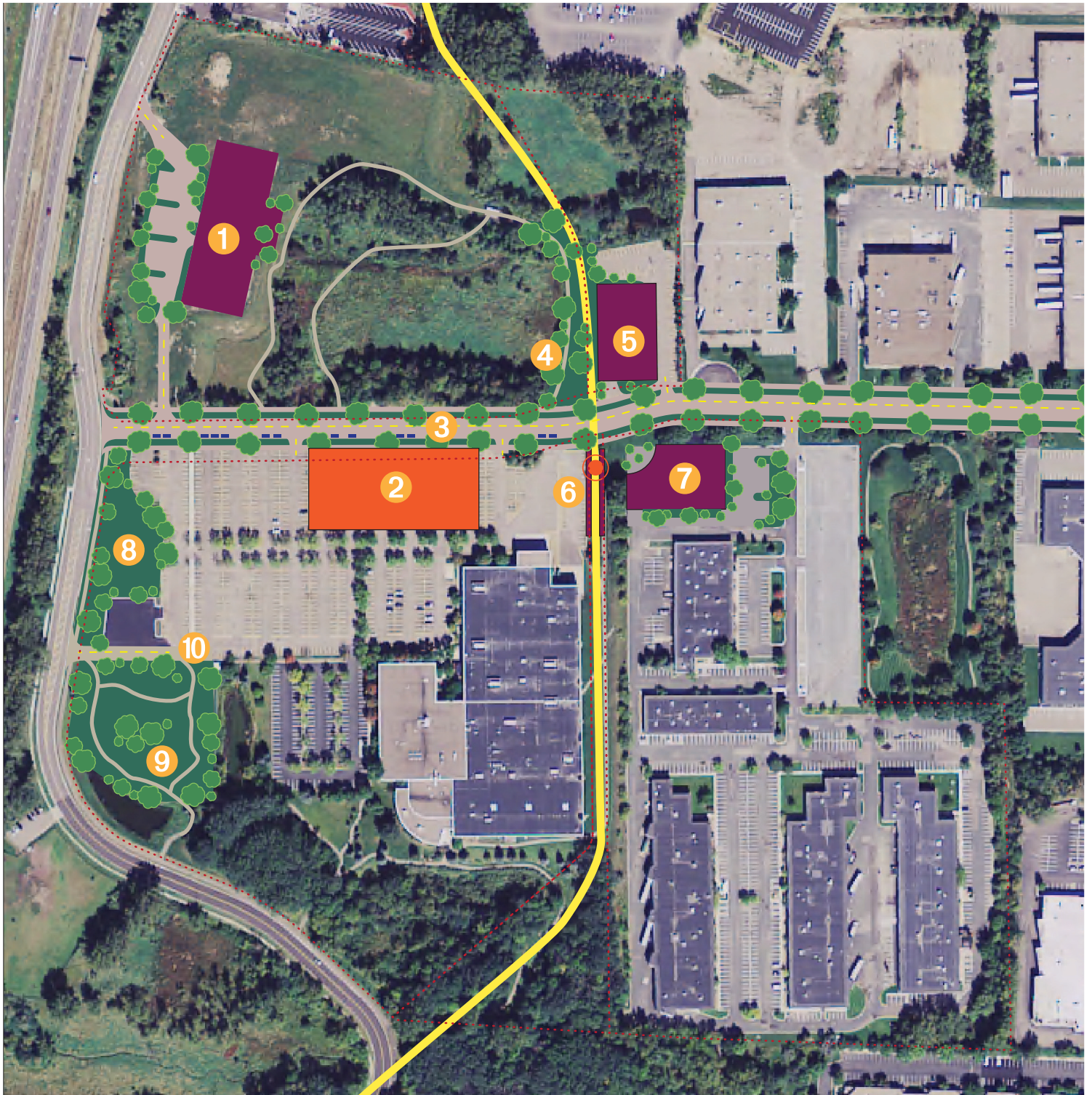
The existing SuperValu headquarters will be replaced with new, highly-visible offices on the corner of Flying Cloud and 70th Street. An adjacent office building with skyway connections to the main building could serve as a consolidated headquarters for the company, or as a separate office building in its own right. Two smaller buildings near the LRT station will create highly visible and connected office real-estate. A second structured parking garage tucked behind the station will provide parking to these new offices. A luxury hotel on the northwest portion of the site will serve the many businesses in the area. This location provides high-visibility and offers guests easy access to the surrounding metro area either by car or LRT.

Overall, the smaller building footprints and the subdivided parcels will serve to improve the connectivity of the area. This includes a private road dividing office uses from the residential apartments. Boulevard trees, sidewalks and other streetscape improvements will improve the walkability, vibrancy and desirability of the area in general.

It is possible, and the hope of this proposal, that this multimodal transition may expand beyond the development site to adjacent parcels in the area by providing a template for sustainable and thoughtful development patterns that are both attractive and profitable.

*Current LEHD data estimates that only 7 of the nearly 15,000 workers both live and work within the GTA. The addition of residential units in the area will help alleviate the spatial mismatch for workers and reduce peak traffic volumes.*

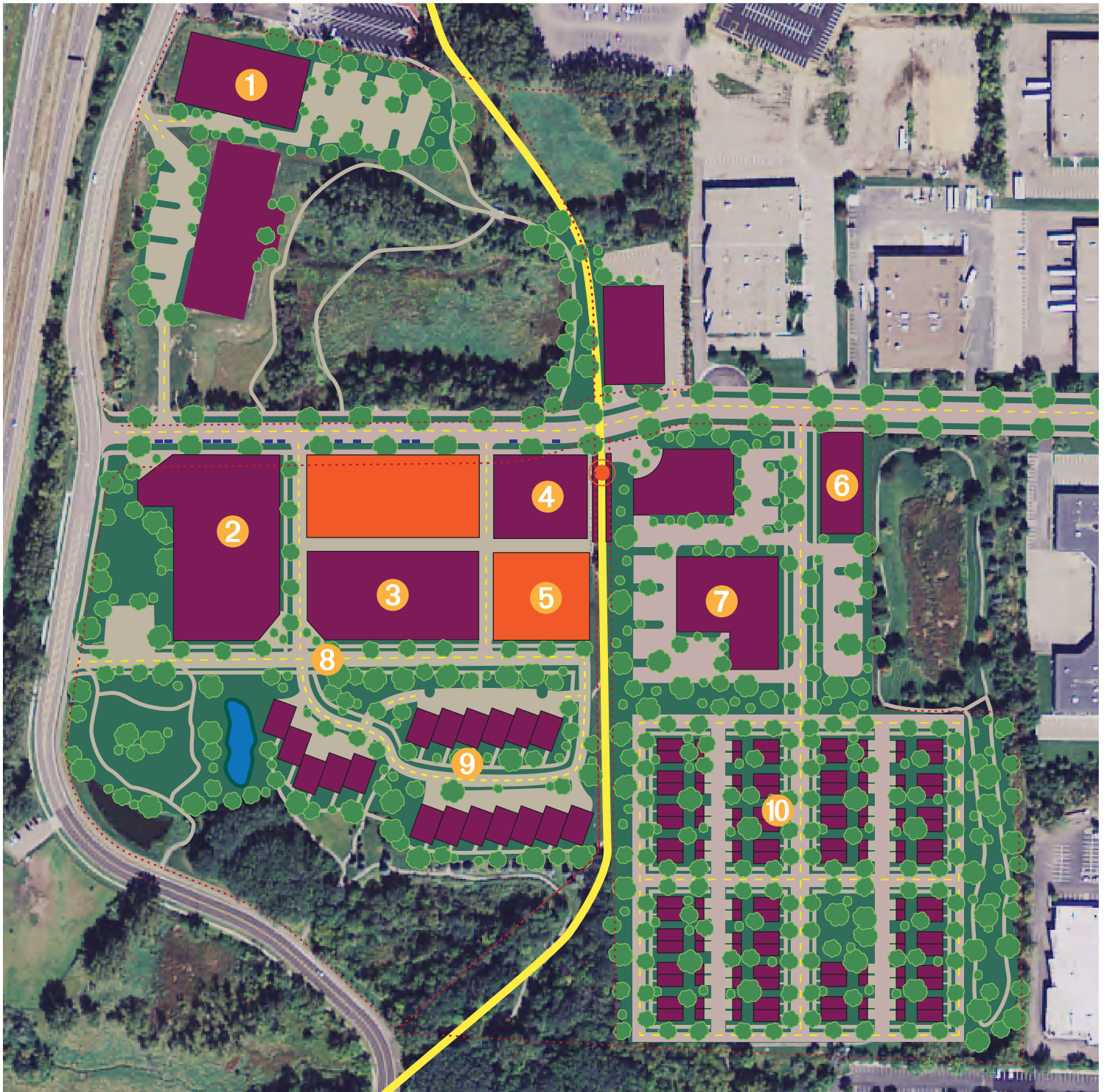




## GOLDEN TRIANGLE STATION AREA: PHASE 1

- |  |  |   |
|--|--|---|
| <p><b>1 Liberty Plaza</b> (120k sq/ft)</p>   | <p><b>4 Pocket Park</b></p>  | <p><b>7 Office Building</b><br/>(75k sq/ft)</p> |
| <p><b>2 Structured Parking</b><br/>(750 to 1000 stalls with ground floor office or retail)</p> | <p><b>5 Office Building</b><br/>(90k sq/ft with ground floor retail)</p> | <p><b>8 Picnic Area &amp; Tot Lot</b></p>       |
| <p><b>3 70th Street Extension and Improvements</b></p>   | <p><b>6 LRT Station</b></p>  | <p><b>9 Passive Park</b></p>                    |
|  |  | <p><b>10 Access to Flying Cloud Dr.</b></p>     |





## GOLDEN TRIANGLE STATION AREA: PHASE 2

- |   |   |   |
|---|---|---|
| <p><b>1 Hotel</b> (100 to 150 rooms)</p> <p><b>2 Office</b> (360k to 450k sq/ft)</p> <p><b>3 Office</b> (185k to 250k sq/ft)</p> <p><b>4 Office</b> (70k to 140k sq/ft)</p> | <p><b>5 Structured Parking</b><br/>(300 to 600 spaces)</p> <p><b>6 Office</b> (60k to 100k sq/ft)</p> <p><b>7 Live/Work Housing,<br/>Community Center</b></p> | <p><b>8 Connectivity Improvements</b></p> <p><b>9 Affordable and Market Rate<br/>Apartments</b> (72 to 108 units)</p> <p><b>10 Workforce Housing<br/>Townhome Units</b></p> |
|---|---|---|

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## PART 3:

### GOLDEN TRIANGLE STATION AREA

# ACTION PLAN

## INTRODUCTION

The Golden Triangle Station Area action plan is presented as a framework of three separate but overlapping systems: 1. Community, Equity & Prosperity, 2. Connectivity, and 3. The Natural Environment. Each system represents a lens through which we will approach enhancing the development area.

The Community, Equity & Prosperity section of the action plan focuses on principles that value quality of life considerations. These include physical and mental well-being, social interactions, amenities and aesthetics, and neighborhood pride.

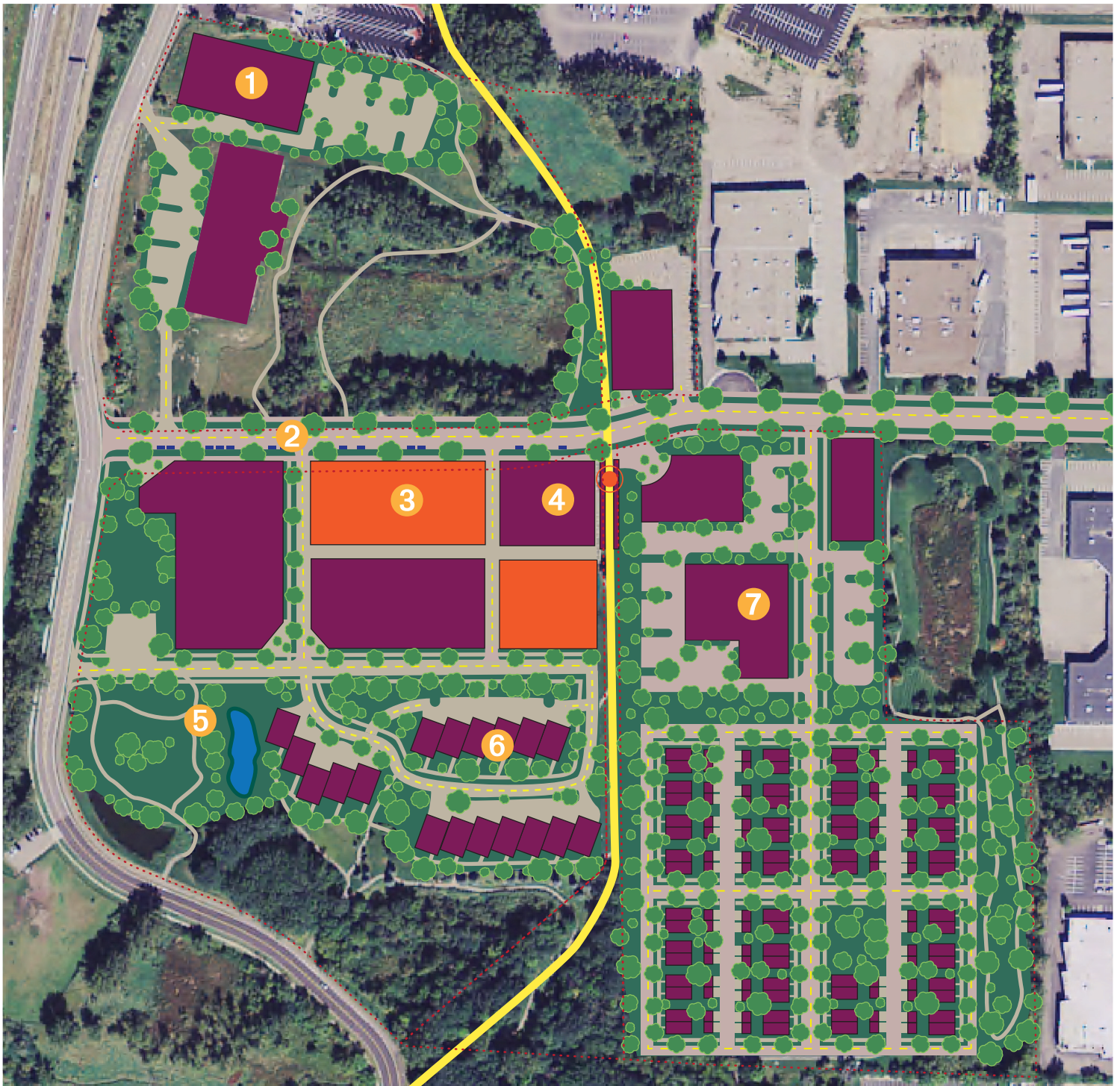
The Connectivity portion of the action plan recommends principles that serve to increase the viability of multi-modal transportation while reducing the auto-oriented nature of the development pattern. Connectivity principles are aimed at improving the pedestrian experience and infrastructure, creating pedestrian scale development, and improving the bike/walk trail systems throughout the area.

The Natural Environment section approaches the development area with the goal of preserving and protecting natural resources. Development scenarios are evaluated on how well they can, among other things, sustainably protect water quality, minimize air and soil pollution, improve habitat, and reduce greenhouse gas emissions.

All three of these action plan systems, working together, are meant to offer a means by which the development site can be transformed into a “place.” Thoughtfully considered and intentionally implemented, the Golden Triangle station area can be elevated from a location to a destination.

*Thoughtfully considered and intentionally implemented, the Golden Triangle development area can be elevated from a location to a destination.*





## COMMUNITY, EQUITY & PROSPERITY SYSTEM MAP

- 1 Luxury Hotel**  
Increase visibility, support off hour retail uses
- 4 High Density Office Space**  
Improve feel of area, increase LRT ridership, economic development
- 6 Market Rate & Affordable Housing**  
Support retail, diversify community
- 2 Streetscape Improvements**  
Pedestrian-friendly for increased interaction.
- 5 Additional Trails & Park Space**  
Improved community, aesthetics, increased social interaction.
- 7 Coworking/Collaborative Space, Community & Fitness Center**  
Communal feel to attract entrepreneurs and new businesses to the site.
- 3 New Structured Parking & Street Level Retail**  
Decrease auto-centricity, retail will attract pedestrians

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## COMMUNITY, EQUITY, & PROSPERITY



**Fig. 13:** Streetscape improvements as proposed in Eden Prairie's 2009 Major Center Area Streetscape Master Plan.

*Image courtesy of The City of Eden Prairie*

When attempting to create a sustainable transit oriented development it is important to create a comfortable, attractive, aesthetically-pleasing place that encourages equitable access to community resources for residents, employees, and visitors alike. When a comfortable place is created for people to live and work in, there becomes a higher likelihood that residents, employers, and visitors are going to invest in that community. Creating a sense of place that can be enjoyed by all is the guiding principle behind the community, equity, and prosperity sustainability system.

As noted in the diagnosis section of this report, the GTA is a stereotypical suburban, auto-oriented, low density office development that places a premium on economic development. Such an economic emphasis has hindered the growth of a space that has the potential to be a place that encourages community interaction through the interconnected growth of residential, retail, and greenspace. The recommendations in this section are guided by the belief that the GTA, with the introduction of light rail transit, can become a place that is comprised of various land uses, yet still is viewed as a place with a unique singular identity where residents, employees, and visitors of the area interact in a fashion that enhances the social, environmental, and economic well-being of the GTA.



## GUIDING PRINCIPLE 1.1:

Create an environment that is visually appealing to businesses, employees, and residents.

The market-based design of the GTA has led to a landscape predominantly comprised of wide streets, large parking lots, and visually unappealing structures. Such a landscape is not surprising given that developers have to build structures that have a high probability of being sold or leased in the market they are in. Whether it was a result of the market that existed at the time or simply what was considered stylish at the time, by today's standards there seems to have been little emphasis placed on architectural and landscaping detail for most of the buildings in the GTA. The reality is that developers who place a higher premium on quality architectural and landscape design do indeed have to incur higher construction costs and assume more risk. However, developers who take such risks often times command higher rates for their products, and if successful establish themselves as a leader in the market place. Furthermore, a significant intangible externality of such high risk development is that aesthetically-pleasing places become magnetic places for people to come to. If implemented carefully in cooperation with government actors, the development of such places can serve as the nexus for the introduction of new land uses into the GTA as demand for residential, retail, and additional office space increases.

### 1.1.1: Involve stakeholders during the planning, design, and implementation processes.

Securing buy-in from all stakeholders affected by major development decisions is essential to creating an attractive sustainable place. If community members are involved in determining the way in which an area is developed, then the likelihood they will be satisfied with the final product and will use it will be dramatically improved. Ensuring community involvement will also serve as a check to the natural tendency of strictly profit-driven markets to create developments that place a premium on financial growth at the expense of creating spaces that cater to the social and environmental well-being of people and places.<sup>1</sup>

Ensuring community involvement during the planning, design, and implementation stages of the GTA station area development will be especially challenging with the relatively low residential populations in and around the GTA. Community members are more likely to involve themselves in matters that directly affect them. With small residential populations in and around the GTA, it is unlikely there will be a significant amount of community members that will make a point to involve themselves during the development of the Liberty Property site. However, should the City decide to pursue the development proposals put forth in this report, it is essential that community involvement play a role in determining how development occurs around the GTA station area considering the significant land use changes proposed in this report. With the low likelihood that there will be significant community interest from the residents of Eden Prairie in the development of the GTA station area, it may be more feasible for the City to pursue input from business owners and developers that will be most impacted by future development. The commission structures that already exists within the City government should provide ample opportunity for



**Fig. 14:** Create an appealing environment

*Image courtesy of: theurban.com*



**Fig. 15:** Participants in a design charette.

*Image courtesy of: box.seattleschools.org*

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residents of Eden Prairie to voice their concerns or suggestions relating to future GTA development proposals.

There are several actions the City can take in eliciting stakeholder input as it relates to the future development on the Liberty Property site. The City of Eden Prairie has a very strong citizen-represented commission system as part of its local government decision making structure. These commissions can play an important role in eliciting and providing community input to City staff and the City Council. At the staff level the City's time may be best spent conducting a series of staff/developer/consultant charrettes in order to build a consensus among stakeholders of how to best go about future development on the Liberty Property site and the GTA as a whole. In summary, the City of Eden Prairie should look to be aggressive in eliciting stakeholder input and citizen participation.

*The City of Eden Prairie should look to be aggressive in eliciting stakeholder input and citizen participation.*

### Specific Actions

- Conduct a design charrette that includes business owners, developers, consultants, and City staff to determine the preferred types of land use and design that should be implemented around the GTA station area and the GTA as a whole
- Ensure the City of Eden Prairie's Planning Commission, Parks Recreation and Natural Resources Commission, Arts and Culture Commission, Conservation Commission, and Human Rights and Diversity Commission all play an important role in informing the development of the GTA station area
- Set up a GTA station area development website to inform community members of public meetings, elicit input on design proposals, provide easy access to public documents, etc.

### Potential Funding Sources

- Livable Communities Planning Grants
- Eden Prairie Economic Development Fund
- Public Private Partnerships

### 1.1.2: Utilize form-based codes when appropriate as a means to encourage innovative and visually appealing development.

Form-based codes offer a regulatory alternative to conventional Euclidean zoning codes that cities can use to regulate the physical form of development in a given area, not just general land use types. Form-based codes were created to address the relationship between physical development and the public realm in which it interacts with, the density and form of buildings in relation to one another, and the scale and types of streets throughout a development.<sup>2</sup>

Currently, the Liberty Property site where the GTA station area is proposed is zoned industrial by the City of Eden Prairie. Should the City choose to enact a form-based coding system, they are able to apply codes to just the areas designated as the GTA station.

Conversely, the City does not have to implement a city-wide form-based code system. By implementing a form-based code system for the station area, the City would be imposing stricter development standards on developers than currently exists under the Euclidean system. It should be noted that if implemented poorly, a form-based code system does risk making development unfeasible for developers and could potentially damage the City's reputation with the development community. So it is imperative that the City work with developers to create a form-based coding system that achieves the City's desired spatial layout, but at the same time is not imposing financially-unfeasible design standards on developers.

It is up to the City to determine the level it wishes to enact form-based coding on the GTA station area. But whatever the degree to which the City pursues form-based coding, it should first make sure it has a very clear and specific vision for the site that focuses on creating a pedestrian-oriented place that betters the social, environmental, and economic well-being of the GTA as a whole. Having a clear vision for the GTA station area site will serve to explain the logic behind specific codes and ensure that the City and developers are on the same page.

### Specific Actions

- Work with community members, business owners, Liberty Property Trust, design consultants, and other developers to establish a reasonable form-based coding system within the GTA Station Area

## GUIDING PRINCIPLE 1.2:

**Create a place that encourages community interaction.**

Central to creating a sustainable environment is ensuring that proposed development fosters community interaction. In the case of the GTA station area, creating such a place is a particularly difficult challenge. Currently, almost all users of the area are individuals who come into and out of the GTA for working purposes, making the likelihood of employees from different work sites congregating in a common, central area low. Further complicating the matter is the land use patterns surrounding the GTA station area. With land uses being predominantly low density industrial office space and lacking any common area structures, such as retail spaces and public parks, the opportunity for community interaction between employees from different work sites is considerably low. With the introduction of community gathering places and pedestrian friendly amenities, the GTA station area will have the capacity to foster the community interaction essential to any sustainable public environment.

### 1.2.1: Invest in public amenities that provide comfort and a unique identity to the development.

The development proposals laid out for the GTA station area in the report emphasize a need to create a pedestrian friendly environment that places a high premium on creating an area where people will want to live, work, and visit. Providing high quality public amenities is essential in creating such an space.

### The degree to which form-based codes can be enacted varies greatly:

- architectural standards, including building materials and quality
- landscaping standards, includes parking lot shading, sight line regulation, unobstructed pedestrian movement regulations
- signage standards
- environmental resource standards, including storm water drainage and infiltration regulations, development on slopes regulation, tree protection, and solar access
- annotation (texts and illustrations explaining the logic behind specific code regulations).

For the station area itself, providing covered shelters, ample lighting, benches, and transit information kiosks are all certainly essential. But the GTA station area needs to stand apart. It needs to have its own identity that is different from the rest of the station areas along the Southwest LRT line if it is going to become the unique sustainable place envisioned by this report. According to Jay Lotthammer, Parks and Recreation Director for the City of Eden Prairie (and interim City Manager at the time this report was being drafted), the Arts and Culture Commission at the City of Eden Prairie is working to create unique station area identities for the five planned Eden Prairie LRT stations through the use of public art. The City should continue to pursue the use of public art as a means to create a unique identity for the GTA station area. Finally, in addition to transit information kiosks located at the station, information kiosks providing maps and business information for the GTA community should also be added to the station to help direct visitors new to the GTA.

As noted in this report, providing park space within an area is essential to creating a pedestrian-friendly sustainable place. Park space can provide a variety of amenities to residents, employees, and visitors to the GTA. The expansion of the City’s trail network within the GTA will serve to create more of a community feel around the station area by providing the means for future residents to get outside and exercise, as well as allow for employees working in the area to get outside and stretch their legs. The proposed additional park space in this plan’s development scenarios will provide greater incentive for residents, employees, and visitors alike to get outside and explore the site.

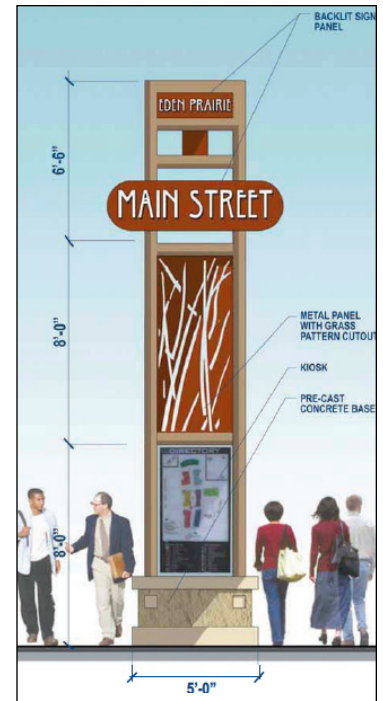
The City should look to provide additional amenities to existing and proposed park space in the GTA. Such amenities can include, but are not limited to the following: public art, benches, a basketball court, a tennis court, a refurbished baseball diamond, a playground and other recreation facilities. The addition of such public amenities will serve to help create a unique communal identity for the development site where residents, employees, and visitors can relax and feel safe throughout the day.

### Specific Actions

- Invest in public art to be incorporated into the station itself, along 70th St, and park space
- Insert informational kiosks providing maps and business information specific to the GTA into the station itself and along the 70th St. Boulevard
- Provide additional public amenities in expanded park space
- Work with developers to integrate public amenities into their development plans

### Potential Funding Sources<sup>3</sup>

- Public/Private Sector Collaborations
- Percent- and Non-Percent-for-Art Programs
- Soliciting Participation from Developers



**Fig. 16:** Kiosks proposed for Eden Prairie’s Streetscape Master Plan.

*Image courtesy of The City of Eden Prairie*



**Fig. 17:** Public art can help create a sense of place.

*Image courtesy of: elizabethkautz.org*



- Foundation Grants: National Endowment for the Arts & National Endowment for the Humanities
- Special Service District

**1.2.3: Utilize streetscaping design principles to encourage public interaction.**

Streetscaping is a set of street design principles that recognizes that streets are common areas where people engage in various activities, not just places for motor vehicles traffic. Streetscaping plays an essential role in creating an identity within a community. It helps to define a community’s aesthetic quality, health, and economic activity, as well as serving the traditional role of streets in increasing access and mobility within a site.<sup>4</sup> From a sustainability perspective, streetscaping can help play a vital role in fostering community interaction within a given place.

Streetscaping is not a new a phenomenon to the City of Eden Prairie. In 2009, SRF Consulting Group completed a Streetscape Master Plan for the Major Center Area of Eden Prairie. The plan’s primary focus is to create a pedestrian-friendly, mixed-use main street like environment within the Major Center Area of Eden Prairie. The SRF Plan suggests using a prairie style theme, incorporating the following streetscaping elements<sup>5</sup>: street lights, information kiosks, street furniture, bollards, screen fencing, sidewalk pavement, tree grates, planters, landscape plantings, and medians

The City should use the SRF Major Center Area Streetscaping Master Plan as a guide for incorporating streetscape design elements along 70th St. By utilizing the design elements and following the design guidelines outlined in the SRF plan, the City can establish some continuity between the Major Center Area and the GTA. If implemented effectively, streetscaping along 70th St. can serve as the possible nexus between the existing businesses that reside in the GTA station area today and future residential, retail, and open space that will be developed in the future. The resulting aesthetically-pleasing pedestrian-friendly environment will serve to facilitate greater community interaction among employees, residents, and visitors within the GTA station area, as well as enhance the economic and environmental well-being of the site.

**Specific Actions**

- Implement streetscaping design elements along 70th St. throughout the GTA Station Area
- Use the Major Center Area Streetscaping Master Plan created by SRF Consulting Group to help guide a main street like streetscape of 70th St.

**Potential Funding Actions**

- Transportation Utility Fees
- TIF (if eligible)
- Special Assessments

**Town Center Design Guidelines:** <sup>6</sup>

- Establish a walkable, pedestrian-oriented, mixed-use center.
- Create a vibrant public realm that fosters daily living activities within walking distances of homes and businesses.
- Promote high quality design and materials in the built environment.
- Accommodate vehicles while respecting pedestrians, bicyclists and the spatial form of public spaces.
- Encourage multiple transportation modes and greater connectivity to major destinations within the Town Center.
- Provide adequate, convenient and well-designed public parking facilities.
- Provide a well designed lighting system for streets, sidewalks and public spaces.
- Integrate ecological systems into public and private development

- Land Value Taxes
- Congestion Mitigation Air Quality (CMAQ) Grants

**1.2.3: Encourage the establishment of a community-run GTA sustainability committee.**

The combining of various interest groups and stakeholders within a given community to discuss and deal with issues relevant to that area can serve to greatly benefit the economic, social, and environmental well-being of that community. Neighborhood associations, as well as business associations have been around for decades and were created on the notion that it's in the best interest of a community if individual actors within an area are working together with the common goal of creating a place all people can live and work in comfortably and safely.

Currently, the GTA does not have any kind of business/community organization tasked with representing the interests of all businesses and residents that work or live in the GTA. Should development proceed as suggested in this report, which would include a series of interconnected actors sharing a space, the need for a representative organization is critical to meet the needs of those who work, reside or play in the GTA.

Another example can be found in the St. Cloud area where a group of public and private sector representatives came together and formed a sustainability committee in 2008 that seeks to educate residents of the area on sustainability issues and green practices that are or should be occurring in the St. Cloud area.<sup>8</sup>

The City of Eden Prairie should encourage businesses, developers, and residents of the GTA to work together to create a sort of hybrid sustainability committee comprised of GTA business owners, employees, developers, and residents that focuses on green initiatives and sustainability issues facing the GTA. Such a committee could serve to educate GTA businesses and residents on green initiatives similar to the St. Cloud Sustainability Committee, as well as come up with sustainability goals for the GTA that are similar to the duties the Red Wing Sustainability Commission is tasked with. Such a committee would serve to help create a unique identity for the GTA, encourage collaboration between businesses and residents in the GTA, and increase community interaction within the GTA. Ultimately, creating a sustainability committee tasked with ensuring the GTA is incorporating the latest green initiatives will serve to create a place that is comfortable for residents to live in and attractive for businesses to move to.

**Specific Actions**

- Encourage existing and future businesses, developers, and residents located in the GTA to form a community-run GTA Sustainability Committee
- Once formed, use the committee as an example that can be emulated in neighborhoods throughout the City

**Potential Funding Sources**

- Private Donations

**Sustainability  
Commission Duties**

Several sustainability commissions are already in existence in Minnesota that could serve as examples to a future GTA sustainability committee. The City of Red Wing's sustainability commission is tasked with the following duties:

- Ensure a healthy and safe environment
- Strive to enhance and preserve the community's natural resources
- Direct wise energy use by thoughtful consumption practices and energy production
- Reduce pollution of the environment and promote alternative practices <sup>7</sup>

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### **GUIDING PRINCIPLE 1.3:**

**Provide a mix of residential and commercial spaces.**

As already noted several times throughout this report, the current spatial layout of the GTA is dominated by low density industrial office space. While many of the measures recommended in this report up to this point will help create a greater sense of community in the proposed GTA station area, the reality is that significant land use changes need to take place in the GTA station area, and the GTA as a whole if a true community feel that fosters interaction between employees, residents, and visitors is going to be created. The introduction of residential, retail, and higher density office development into the area surrounding the proposed GTA station area is essential to creating a sustainable community that can be emulated throughout the GTA as a whole.

#### **1.3.1: Institute a planned unit development (PUD) overlay district that allows for a creative and flexible approach towards future development.**

A Planned Unit Development (PUD) is a land use regulatory tool that allows local governments to have significant control over how an entire area is (re)developed, yet at the same time allows enough flexibility for local governments to make implementing development as easy as they would like it to be on developers. Essentially, a PUD gives local governments and developers the opportunity to work together in creating attractive places in a way that traditional Euclidian zoning classifications do not allow for. PUDs allow developers to meet land use goals predetermined by local governments without having to be subject to existing zoning requirements. A PUD can be as restrictive or nonrestrictive as a city would like it to be. A PUD allows cities the flexibility to determine the rigidity of regulations as they relate to density requirements, the clustering of buildings, the preservation of open space, street and parking requirements, the mix of land uses and building types incorporated on a site, etc...<sup>9</sup> PUD overlay districts are most commonly found in urban redevelopment areas, similar to the type of redevelopment being proposed on the Liberty Property site in this report.

If the City of Eden Prairie's ultimate goal is to create a sustainable development around the proposed GTA station area, the action of implementing a PUD overlay district on the Liberty Property site is essential. By instituting a PUD overlay district on the site the City will have the authority to guide development in a sustainable fashion, while at the same time allowing Liberty Property the opportunity to work with the City in creating a development that is mutually beneficial for both parties. The use of a PUD overlay district on the site will be more administratively cumbersome for both parties when compared to traditional zoning processes. But given the economic and community development potential that exists on the site with light rail coming in, taking the time and effort to make sure the site is developed efficiently and sustainably would seem to be in the best interest of both Liberty Property Trust and the City of Eden Prairie.

*The introduction of residential, retail, and higher density office development into the area surrounding the proposed GTA station area is essential.*

### Specific Actions

- Create a PUD overly district on the Liberty Property site to ensure maximum flexibility when redeveloping the site.
- Work in close cooperation with Liberty Property Trust in creating a PUD that is mutually beneficial for both parties
- Incorporate form-based codes in conjunction with a PUD to ensure aesthetic quality and environmental quality are maintained throughout the site.

### Potential Funding Sources

- Developer Fees

### 1.3.2: Introduce retail space into the development that caters to both employees and residents.

Building an aesthetically-pleasing pedestrian-oriented environment alone will not just magically get people interacting more within a community. There has to be amenities within a community that make people want to get out and about and visit one another. Both the short range and long range development scenarios for the GTA station area in this report recommend numerous amenities that can be added to the site that will help foster a greater sense of community. Trails and parks will certainly serve to increase pedestrian activity in the area, but in any sustainable community there has to be that which not only better the social and environmental well-being of an area, but the economic well-being of an area as well. It is for this reason that it is essential the GTA station area incorporate retail into the development.

Currently, there is minimal retail space within GTA, and no retail space at all in the proposed GTA station area development site owned by Liberty Property Trust. With the GTA being home to almost 15,000 employees as of 2009, there is certainly demand for retail uses throughout the workday. However, the fact that almost all of the people who populate the GTA are employees working normal five day work weeks means the GTA is far from a suitable environment in which retail uses can flourish. The business park layout of the GTA makes it near impossible to support retail space due to the lack of retail demand in the evening and weekend hours. In order to generate demand for retail space in the evening and weekend hours there needs to be a significant increase in the amount of residents living in the GTA. This means that once there is a demand for retail in the GTA station area it will have to cater to both employees and residents alike.

The long range development scenario proposed in this report for the Liberty Property site suggests the City should incorporate retail space on the bottom level of a new parking ramp structure within walking distance of the proposed GTA station. Seeing that the proposed parking ramp is centrally located on the site as a means to produce increased pedestrian activity along 70th St. and throughout the site, the parking ramp lends itself as a natural location in which retail space can be created.

### Potential Benefits of PUDs: <sup>10</sup>

- Efficient site design
- Preservation of amenities such as open space
- Lower costs for street construction for the developer
- Lower costs for utility extensions for the developer
- Lower maintenance costs for the municipality



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There are several advantageous reasons for positioning retail on the first level of the ramp facing 70th St. First, as already noted, its central location is key to attracting employees, residents, visitors, and LRT users. Second, facing the retail space towards 70th St. will enhance the streetscaped main street feel of the boulevard. Third, the streetscaping proposed along 70th St. will lend itself to patio space that retail users can utilize throughout the spring, summer, and fall months. Fourth, the incorporation of retail space into the bottom level of the parking ramp will help create a more pedestrian-friendly feel along 70th St. Finally, the proposed location of the parking ramp and retail space across 70th St. from a natural marsh area that will enhance the environmental amenity value of the site, which will create an attractive place where employees, residents, and visitors can congregate throughout the week.

### Specific Actions

- Incorporate retail space into the street level of the proposed parking ramp along 70th St.
- Work with proposed sustainability committee to determine the desired retail users
- Propose intensified office development along 70th St. that is constructed with the option of installing retail on the street level.

### Potential Funding Sources

- TIF
- Land Value Taxes
- Special Assessments
- Community Development Grants
- Congestion Mitigation Air Quality (CMAQ) Grants

### 1.3.3: Emphasize a mix of market rate and affordable housing into future residential development.

As noted above, the incorporation of residential housing into the proposed GTA station area is essential to creating a sustainable and economically prosperous community. The introduction of residential development into the Liberty Property site will ultimately change the identity of the site. No longer will it be a single use business park, but a mixed use community with residents coming in and out throughout the day. In addition to creating a communal feel to the site, residential housing would serve to help create a destination for in which automobile users and LRT users would come to visit friends and family, as well as take advantage of the additional amenities that are proposed in this report to help create a more attractive residential development (additional park space, the introduction of retail space, additional trail access, the creation of a pedestrian-friendly environment, etc...). Finally, the incorporation of residential housing onto the site would likely serve to increase ridership on

*In order to generate demand for retail space in the evening and weekend hours there needs to be a significant increase in the amount of residents living in the GTA.*

the Southwest LRT line to and from the GTA station as people decide to purchase living space in the area in part due to its close proximity to the LRT.

The introduction of residential development into the Liberty Property Site would also serve as an opportunity to create a more equitable community—a key characteristic of a sustainable place. The addition of both market rate housing and affordable housing into the development site would allow for the creation of a more racially, economically, and socially diverse community. Implementing low income housing into the site would serve to increase accessibility for lower income earners who may not be able to afford an automobile, but would still experience increased accessibility within the metro area due to their close proximity to the Southwest LRT. Finally, the introduction of affordable housing onto the Liberty Property site would serve to increase the amount of workforce housing in the GTA. Such a development would allow for more employees who work in the GTA to live in the GTA, as well as increase accessibility and decrease commuting costs for employees who work in Downtown Minneapolis and along the Southwest LRT line.

At the same time it is in the interests of both Liberty Property Trust and the City of Eden Prairie to develop a mix of market rate housing to go along with any affordable housing that is constructed. The GTA has already seen how residential housing can be effectively incorporated into the area with the success of the Bluffs at Nine Mile Creek residential development, which is a 65/35 mix of market rate and affordable housing. This report suggests residential development within the Liberty Property site similar to the 65/35 market rate/affordable housing mix seen at the Bluffs at Nine Mile Creek, but at greater densities (the degree to which can be determined by the City and Liberty Property Trust). The long range development proposal in this report suggests that residential development should take place on both sides of the proposed LRT alignment on the southern portion of the site since it is the location that best takes advantage of the existing and proposed park and open space, as well as ensures minimal traffic flow due to its location away from the proposed intensified development along 70th St.

### Specific Actions

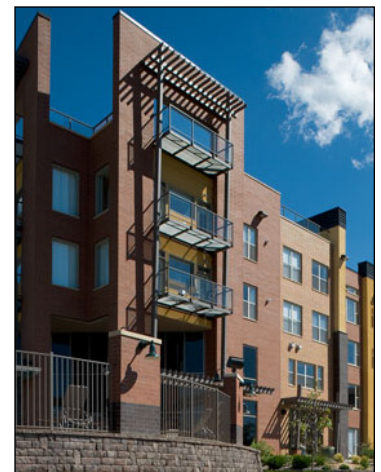
- Encourage Min./Max market rate/affordable medium to high density housing developments on the southern portion of the Liberty Property Site
- Work with Liberty Property Trust to create residential developments that meet the sustainability goals of the City, as well as are financially feasible for potential developers
- Provide affordable housing credits to developers as incentives for incorporating affordable housing into future development

### Potential Funding Sources

- Private Developers (via tax credits, etc...)
- TIF/Tax Abatement
- Community Development Block Grants
- Affordable Housing Land Trusts

### Possible retail uses to benefit both employees and residents:

- Restaurants
- Hair Salon
- Non-Drive-Through Fast Food
- Convenience Shop
- Specialty Shops



**Fig. 18:** The Bluffs at Nine Mile Creek within the GTA.

*Image courtesy of: walshbishop.com*

### 1.3.4: Create the “Diamond” Triangle.

Even though this report is primarily focused on incorporating new land uses and best practices that will aid in creating a sustainable identity for GTA station area development, it is important to not lose sight of what the GTA’s primary purpose is – to serve as a major employment destination within the southwest portion of the Twin Cities metro area. New residential housing, open space, and streetscapes are all certainly essential to creating lasting sustainable community that integrates seamlessly with the Southwest Light Rail, but the true strength of the GTA is its capacity to generate economic development.

The insertion of the Southwest Light Rail into the GTA brings with it an unprecedented opportunity for the area and the Liberty Property site in particular. The increased accessibility into the site will allow for increased densities in all areas of the site if the City so chooses. The City should make a concerted effort to significantly increase the densities of existing and future office development within the Liberty Property Site, particularly along the 70th St. boulevard running through the site and extending eastward. The addition of Liberty Plaza should act as a prototype for all future office development on the Liberty Property site and the GTA as a whole. Commercial development throughout the Liberty Property site should be intensified to the maximum density that future markets will allow. There should also be an overall shift from low density industrial uses to high density office uses on the site that can house a variety of tenants. Office space should be flexible enough to house large anchor tenants, as well as smaller start up businesses. Ground level office space along 70th St. should be flexible enough to house retail should the market demand it.

Finally, the transition from an industrial low density spatial layout to a high density office development will certainly bring with it increased business activity, and therefore business professionals visiting the GTA will need a place to stay. This is why this report’s long term development scenario for the Liberty Property site recommends building an upscale hotel on the property just north of where Liberty Plaza will be situated. The hotel will not only serve to house visiting professionals, but will also help stimulate the development of retail in the area as hotel guests are likely to take advantage of retail sites during the evenings and weekends. Additionally, the hotel would help create a unique identity for the site as a mixed use business center, as well increase the amount of pedestrian activity around the site since most hotel guests are likely to be within walking distance of their place of business.

Ultimately, this proposed transformation of the Liberty Property site from a low density primarily industrial business park to a high density mixed use office park will significantly increase economic development on the site and serve as an example to the rest of the GTA of the significant economic development capacity that exists in the GTA. If such a transition is implemented effectively over time, it is quite possible the name “Golden” Triangle will have to be upgraded to “Diamond” triangle.

#### Specific Actions

- Redevelop businesses along 70th St. into mid to high density office complexes
- Use the planned Liberty Plaza development as an example when considering future office development along 70th St.



**Fig. 19:** Proposed design for Liberty Plaza.

*Image courtesy of: bainey.com*

*The true strength of the GTA is its capacity to generate economic development.*



**Fig. 20:** A hotel can serve the existing business clientele.

*Image courtesy of: bainey.com*

- Construct an upscale hotel north of Liberty Plaza once the market is ready for it
- Encourage office space development aimed at attracting businesses that are part of the innovation economy

**Potential Funding Sources**

- Private Developers
- TIF
- Tax Abatement

**1.3.5: Create a form of business incubator that will foster innovation and job growth with an emphasis for small and emerging business.**

The modern workplace is changing rapidly as advances in technology have made it possible to conduct business from nearly anywhere. The new mobile workplace is especially attractive for small businesses and business start ups who do not have the funds or need for a traditional office environment. Yet these entrepreneurs still need a place to conduct business, and are often times resigned to conducting business in their homes, restaurants, coffee shops, or the golf course. To deal with this issue a new form of business collaborative space has started to pop up around the Twin Cities metro area. The spaces are called CoCos, short for Coworking and Collaborative Spaces. CoCos are complexes where entrepreneurs, small businesses and independent corporate workgroups pay a fee that is significantly less than paying rent for office space, but they are able to utilize a space that contains all of the modern office amenities (wi-fi, meeting rooms, a networked printer/copier, etc...). CoCos also provide small private desk spaces it will rent out to professionals needing a more permanent office, but not wanting to pay standard office rents.<sup>11</sup>

As a way to enhance the livability and communal feel of the proposed GTA station area, this report recommends that a CoCo-like complex be developed on the Liberty Property site. Given the already well established business character of the site, a business collaborative such as CoCo would seem to have a natural home in the GTA. Furthermore, a business collaborative would provide another amenity to the GTA station area development that would serve to attract new businesses and potential home buyers to the area. The long term vision for the Liberty Property site envisions a business collaborative just east of the future light rail tracks in order to provide incentive for light rail users to utilize the complex. The long term vision for the site also recommends that a community center and fitness center also be incorporated into the business collaborative complex. Ideally, such a complex would serve to significantly improve the economic and social well-being of the GTA station area and the GTA as a whole, especially in the winter months.

**Specific Actions**

- Encourage the development of a business collaborative similar to a CoCo that also provides a community center and fitness center to serve as a social center for the GTA station area and the GTA as a whole



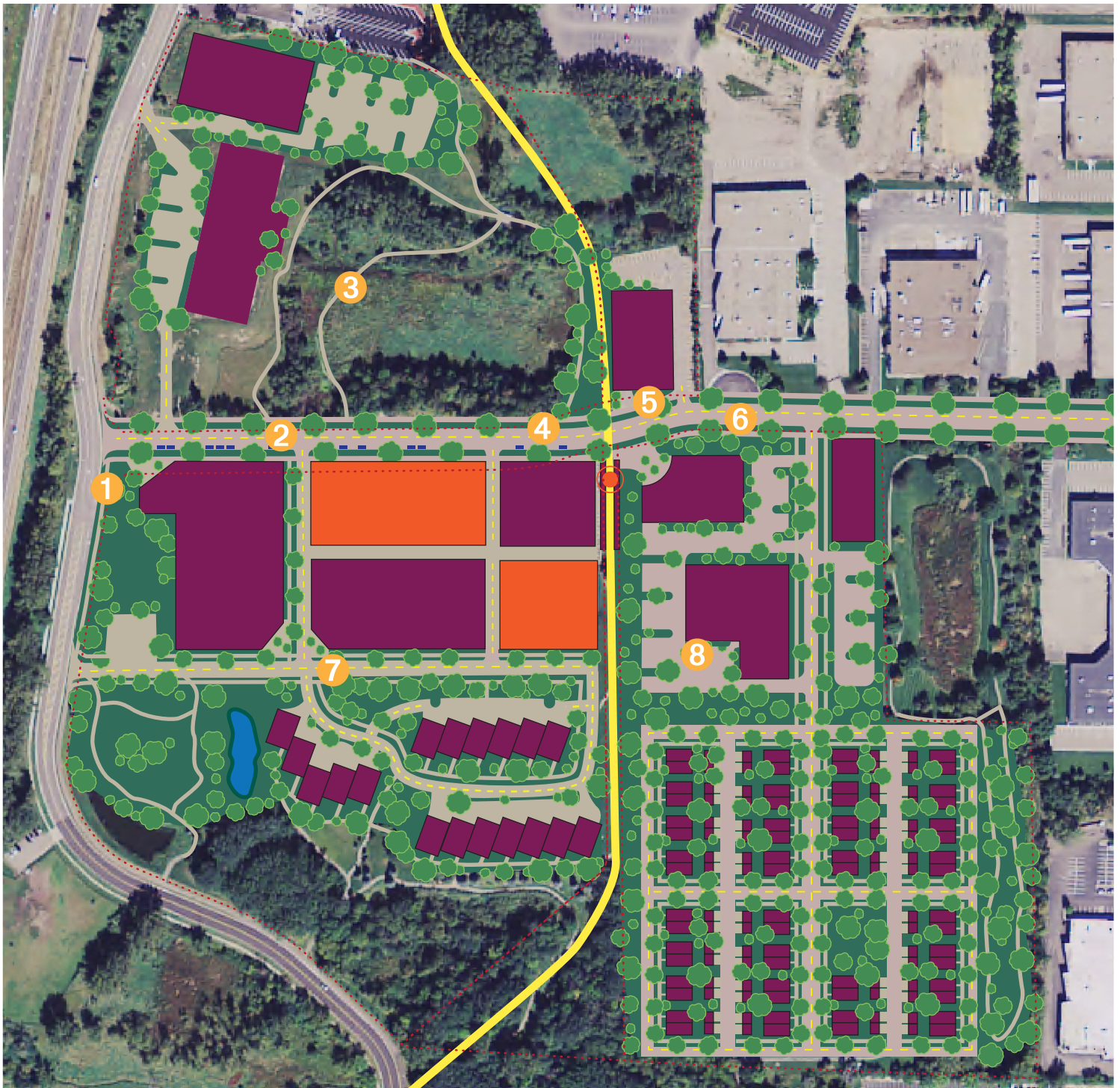
**Figs. 21, 22 & 23:** CoCo live-work spaces.



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### Potential Funding Sources

- Public Private Partnership
- Private Developers
- TIF/Tax Abatement



## CONNECTIVITY SYSTEM MAP

- |  |  |  |
|--|--|--|
| <p><b>1 Shared bike trails</b><br/>Bike and pedestrian access.</p> <p><b>2 Upgraded pedestrian infrastructure</b><br/>Encourages walkability</p> <p><b>3 Improved trail network</b><br/>Connectivity to area and regional trails</p> | <p><b>4 Traffic Calming</b><br/>Improve walkability and bikability</p> <p><b>5 Bike sharing program</b><br/>Opportunities for multi-modal transit</p> <p><b>6 Bicycle storage facilities</b><br/>Encourages biking</p> | <p><b>7 Improved connections between uses</b><br/>Encourages walkability, improved access</p> <p><b>8 Rear parking lots</b><br/>Reduces auto oriented perception, encourages walkability</p> |
|--|--|--|

# CONNECTIVITY



**Fig. 24:** Multimodalism in full swing: an LRT bike rack.

With the planned development of the Southwest LRT, the city has a unique opportunity to create a transit-oriented development in the heart of the business park. For this reason, this report is outlining policies and objectives to create an environment that facilitates the use of non-motorized transportation including public transit. The GTA station area, which will be anchored by redeveloping 70th St. as the central boulevard, is an integral part of the GTA's identity. Over time, the GTA has largely become industrial warehousing and low intensity office space, a land use that fails to celebrate the positive benefits of having an LRT station.

## **GUIDING PRINCIPLE 2.1:**

**Help stimulate a slow transition from an auto-oriented employment center to one which uses multiple modes of transportation.**

Continuing down the path of auto-dependency will result in a less attractive work environment for the young, emerging workforce, who demand alternate modes of transportation. The new creative class discussed by Richard Florida in his seminal book



**Fig. 25:** "Complete Streets" encourage biking and walking in addition to driving.

*Image courtesy of: Charnock.org*



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“Who’s Your City?” describes a new workforce mentality, one which demands healthy, active communities, and non-traditional work environments.<sup>1</sup> Remaking the GTA into an active business park will help it maintain a competitive advantage when attracting young, creative employees, and moving away from automobile use is one way to remake the area.

**2.1.1: Transition from parking minimum requirements to parking maximum requirements to slowly reduce auto-dependency and to stimulate use of alternate modes of transportation.**

Traditional parking minimum requirements are designed to provide a sufficient supply of free parking to satisfy peak hour demand. Minimum parking requirements, which are derived from the Institute of Transportation Engineers, are based on land uses and trip generation. This is assuming every trip generated will involve the automobile.<sup>2</sup> Fortunately, investment in a new LRT line provides greater access without the use of an automobile. Therefore, in order to promote ridership use among GTA employees, the City of Eden Prairie should transition from a minimum to a maximum parking requirement structure.

It is widely agreed upon that continuing to provide ample free parking will only perpetuate auto-dependent societies. Reforming current parking policies is an integral step the City should take if the GTA is to become a multimodal employment and residential destination. Similar to the strategy used for Blooming Central Station, this study recommends an immediate reduction in total parking spaces throughout the area. In addition, all future development should abide by parking maximum requirements. Specific space requirements can be set forth by the City. Furthermore, reducing the total paved surface area also has the positive spill over effect of reducing impermeable surface coverage, which is discussed in greater detail in a later section.

**Specific Actions**

- Transition to parking maximum requirements on all new developments
- Reduce existing parking minimum requirements by one space per 1,000 sq ft for all land uses.

**2.1.2: Incorporate innovative flexible work schedule alternatives.**

Never before has mankind been able to move information so quickly in such large quantities. We are living in the midst of the technology age, where communication and information is transmitted nearly at the speed of light, transforming how we work, live and play. It has not, however, transformed where we work. The information age has not been fully exploited to allow for more flexible and dynamic work schedules.

A complimenting strategy to reduce auto dependency is for employers to be educated on different employee flexible scheduling approach. Such strategies include Results Only Work Environment introduced by former Best Buy employees, and other flexible work schedule programs employers can participate in through the Minnesota Department of

*“The old rules that govern a traditional work environment—core hours, “face time,” pointless meetings, etc.—have been replaced by one rule: focus only on results.”*

—TIM FERRIS, AUTHOR OF  
*THE 4-HOUR WORKWEEK*



Employment and Economic Development. For the non-manufacturing or warehousing businesses in the GTA, Results Only Work Environment (ROWE) is a strategy designed to allow employees to create their own work schedules, hours and location as long as expectations are being met. As Tim Ferris, author of *Four Hour Work Week* notes, “each person is free to do whatever they want, whenever they want, as long as the work gets done,” and most importantly, wherever they want.<sup>3</sup> This is one example of many methods employers can use to further reduce the required number of parking spaces and the demand on transportation systems within the GTA.

An additional concept introduced in an interview with SuperValu Director of Facility Services Neil Libson, involves a type of work office environment which dramatically minimized office space per employee. The program, called “FlexOffice” allocates office space and cubicles to whoever wishes to use it for that day. Libson described a work environment in which people do not necessarily require permanent offices/cubicles. With an increasing ratio of people choosing to work remotely a few days a week, there is simply no need to allocate personal office space to workers. Instead, FlexOffice allows employees to grab an open workspace who wish to work on site on a given day.. Strategies similar to this can be used for future business to reduce building size.

#### Specific Actions

- Have employers participate in flexible work schedules
- Explore innovative ways for employees to choose schedules and location while increasing productivity.

#### 2.1.3 Educate business on existing transportation demand strategies.

Managing transportation demand is more economically efficient than simply building your way out of it. It involves creative ways to reduce demand for transportation infrastructure rather than having to increase supply. Employers can offer financial incentives to employees in an attempt to encourage alternate modes of transportation. For instance, although it is unpractical to issue parking permits or to charge for parking given the ample supply of free parking that exists today, employers can offer subsidized Go-To cards for the Metro Transit system for employees willing to leave their cars at home. Employers can seek ways to encourage their employees to utilize transportation demand strategies by promoting and possibly incentivizing ride sharing or vanpool programs. Improving overall transportation options, such as biking, car-sharing and bike-sharing programs are also an integral part in reducing overall auto dependency.

Municipalities everywhere can engage employers and employees to participate in innovative solutions to reduce their time in the automobile. Eden Prairie and employers in GTA need to implement solutions that can be operational in conjunction with the opening of the Southwest LRT. This is an additional tool to help promote LRT use, reduce auto-dependency and help create a more livable, attractive GTA for all employees and residents.

*“A robust transit and traffic demand management have the potential to shift 15,000 daily trips away from driving and to transit and other high occupancy modes.”*

—SCOTT GUTIERREZ,  
SEATTLEPI.COM



Fig.26: Two-way bike trail.



Fig. 27: Pedestrian connections between buildings.

### Specific Actions

- Offer incentives for those willing to leave their vehicles at home.
- Subsidize transit passes or the cost of cycling.

### **GUIDING PRINCIPLE 2.2:**

**Increase pedestrian and bicycle trails/sidewalks throughout GTA.**

The GTA is not conducive to pedestrian or bicycle activity. One of the primary focus should be to greatly increase the network of pedestrian and bicycle trails. Having pedestrians move about the area in a safe manner results in a more active, vibrant work environment.

#### **2.2.1: Have business collaborate to create a network of trails that can meander in between privately owned buildings to bring employees to the station area.**

The current layout in the GTA resembles that of a cul-de-sac in a suburb; winding roads, low accessibility, indirect routes, far distances from place to place. With less than ideal conditions to promote cycling and pedestrian activity. To get pedestrians and cyclists to and from the LRT station and their place of work, more direct routes need to be established. Trails directly connecting business with the GTA station will be integral components for improving connectivity and promoting ridership.

With the majority of the land being privately held or owned by Liberty Properties, public-private partnerships (PPPs) can enable businesses to construct trails that abut their buildings. PPPs make it so local governments and businesses can participate in an open conversation about building public amenities on private land financed by the public sector. Businesses that are located greater than ¼ mile away from the station can prevent employees from utilizing the LRT and therefore hindering its success. To improve accessibility to the station, more direct routes need to be established. To begin with, trails bisecting large lots and business complexes can bring people directly to the GTA station and connect them to the larger trail network that currently exists within the GTA and throughout Eden Prairie.

### Specific Actions

- Create public private partnerships between the city and the GTA business community.
- Build trail networks that bisect privately held property in order to create a network of trails.

### Potential Funding Sources

- Private business
- Eden Prairie Parks and Recreation Department Budget

*Public Private Partnerships are an essential tool in challenging economic times and are more common than one may think.*



**Fig.28 & 29:** Sidewalks create pedestrian connections and encourage walking.

**2.2.2: Ensure that every street has visually appealing sidewalks with crosswalks and pedestrian friendly environments.**

Short term visual transformation of the GTA can begin by providing a better, cleaner, safer, and more appealing pedestrian environment. Providing a pleasant, walkable experience has numerous benefits, from addressing public health and obesity issues to reducing automobile use and fossil fuel related pollution. Interviews with stakeholders and business owners in the GTA have stated a concern for their safety and the safety of their employees when using the few existing sidewalks in and around the Liberty Property site.

There is currently a lack of basic pedestrian infrastructure in the development site. During site visits, this report discovered very few, if any sidewalk or trails on any of the interior or access roads. The first obvious step is to do an area wide gaps/needs analysis to determine where there are or are not sidewalks. A sidewalk infrastructure audit will reveal where there are no sidewalks and what type of sidewalk to put in place. All streets must have sidewalks to accommodate future pedestrian activity.

Lighting and signage were also noted as problematic. Driving after sunset in the GTA, one will notice almost no lighting or visible signage. This will assist in transitioning the GTA from a predominantly 9 to 5 workspace environment to an area where people can walk, jog and cycle during all hours of the day.

**Specific Actions**

- Conduct an audit of existing pedestrian facilities and infrastructure. Use the audit to ensure every street has a sidewalk
- Install street lights and pleasant walking lamps along trails along with signs of the area's trail system.

**Potential Funding Sources**

- City of Eden Prairie Planning Department Budget

**2.2.3: Provide bicycle infrastructure and facilities and attempt to establish an area-wide bike sharing program (similar to NiceRide), to enable employees to bike to and from the LRT station with accommodation facilities.**

Perhaps one of the most immediate and necessary projects to be completed by the time the Southwest LRT is operational is an expansive and area wide network of bicycle trails. Current conditions do not permit for easy bicycle use, nor are there easily navigable routes to get from employers to the station area. There are several types of ways to accommodate bicycle traffic: exclusive bicycle only lanes, shared lanes with automobile traffic, and trails for all non-motorized users. Trail routes can be selected and built through a public/private partnership agreement to create right-of-way access on private land as mentioned above.

*“By expanding what is already the largest bike-sharing program in the country, we’re offering the residents of north Minneapolis a great opportunity to get out of their cars, get some exercise, green the neighborhood and connect to our city’s fast-growing bicycling community”*

—MINNEAPOLIS MAYOR  
R.T. RYBAK



**Fig. 30:** NiceRide bike sharing stalls in Minneapolis.

*Image courtesy of: NiceRidemn.org*

To further mobilize employees and residents in the GTA, an area-wide bike-sharing program is recommended. Bike sharing is a quick, easy and relatively cheap way to maneuver around an area like the GTA. Employees and residents can rent a bike to commute to and from the LRT station and places of employment or residence. Minneapolis now has a city wide bike-sharing program called NiceRide with over 450 bikes at 58 different kiosk stations spread across the city.<sup>4</sup> Eden Prairie should seek a NiceRide kiosk in the GTA to bring employees and future residents from the LRT to their final destination.

### Specific Actions

- Institute public/private partnerships to create extensive trail network
- Conduct sidewalk audit and make sure every street has an adjoining sidewalk
- Participate in a bike sharing program and provide necessary infrastructure

### Potential Funding Sources

- City/bike sharing program/company and Eden Prairie.

## GUIDING PRINCIPLE 2.3:

Create easy connections between employees and future services that will be developed in GTA.

Employees in the area need to have greater accessibility in order for any future retail and mixed use development to succeed. As it exists today, accessing any retail would almost entirely involve employees getting in their vehicles and driving less than ½ mile because of the lack of direct routes. This would require building streets in a more grid type fashion and placing future development closer to the street

### 2.3.1 Ensure that future buildings are brought to the front of the street in accordance with New Urbanism principles.

One of the greatest barriers that exists in the GTA today are the long distances between roads and entries into buildings. Large parking lots and convoluted roundabouts into corporate offices create an obstruction to any potential pedestrians/cyclists, and adds to the distance pedestrians need to travel. Building placement is encouraged to follow guidelines set forth by New Urbanism principles, which include the following: buildings that are close together and are near to a sidewalk, as well clustered developments that do not create vast empty spaces consisting of parking lots and retention ponds.<sup>5</sup>

Eliminating physical barriers by requiring that future development be placed near the street and the distance from existing buildings to the street front be shortened will help connect employees to future services and retail proposed for the GTA station area development.



**Figs. 31 & 32:** New Urbanist developments increase connectivity and reduce physical barriers to pedestrian access.



### Specific Actions

- Decrease the distance between the curb and buildings.
- Design new development in accordance with New Urbanism principles which include town center type design.

### Potential Funding Sources

- Will be accomplished by developer on new construction.

### 2.3.2 Place parking lots on the backside of future developments to minimize pedestrian distance to businesses and to improve the aesthetic quality of the development site.

Not only does eliminating parking capacity have the impact of changing travel behavior, but it also helps to create a greater sense of place and community as parking lots are transformed into other land uses. The majority of parking lots for GTA businesses are placed in between the building and the road as mentioned above. Reconfiguring the placement of parking lots to the exterior and backside of buildings can create a sense of a more compact, denser development.

Future parking should not only be required to abide by a maximum standard, but will also be relegated to the rear of buildings. Placing parking facilities in the rear of the buildings decreases the distance pedestrians need to cross to access shops and retail as well as minimizing visual obstructions to businesses. Parking lots can be accessed via an alley way or small entrance way. Out are the days of over-abundant, front placed parking lots and in are the days of emphasizing pedestrian activity, human-scale developments and green infrastructure.

### Specific Actions

- Relegate parking lots to the exterior/behind future development.

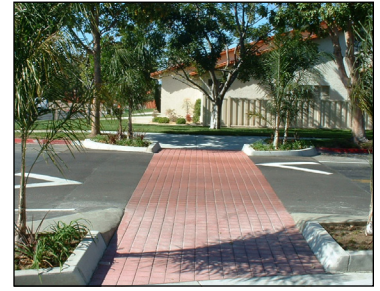
### Potential Funding Sources

- Will be accomplished by developer on new construction.

### 2.3.3 Install traffic calming measures on streets and sidewalks.

Traffic calming measures help promote a safe and friendly environment for non-motorized users. Traffic calming installations have the counter intuitive effect of actually increasing safety by narrowing streets, placing planters on sidewalks and other physical elements and streetscape designs.<sup>6</sup> Current observed traffic speed in the GTA is excessive—on the borderline of hazardous for pedestrians. Access roads and interior roads all experience high traffic volumes with speeds above posted speed limits.

The completion of 70th St, which will be expanded to connect with Flying Cloud Drive creates a prime opportunity to install various traffic calming measures. With 70th Street as the focal point of the GTA station area—the prime boulevard for retail and service business,



**Figs.33 & 34:** Traffic calming measures.

*“To get safer streets, traffic lights and stop signs aren’t the answer”*

—STREETSBLOG.ORG

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we propose median islands in the center to narrow traffic lanes and provide pedestrians with a safe stopping point during a crossing.

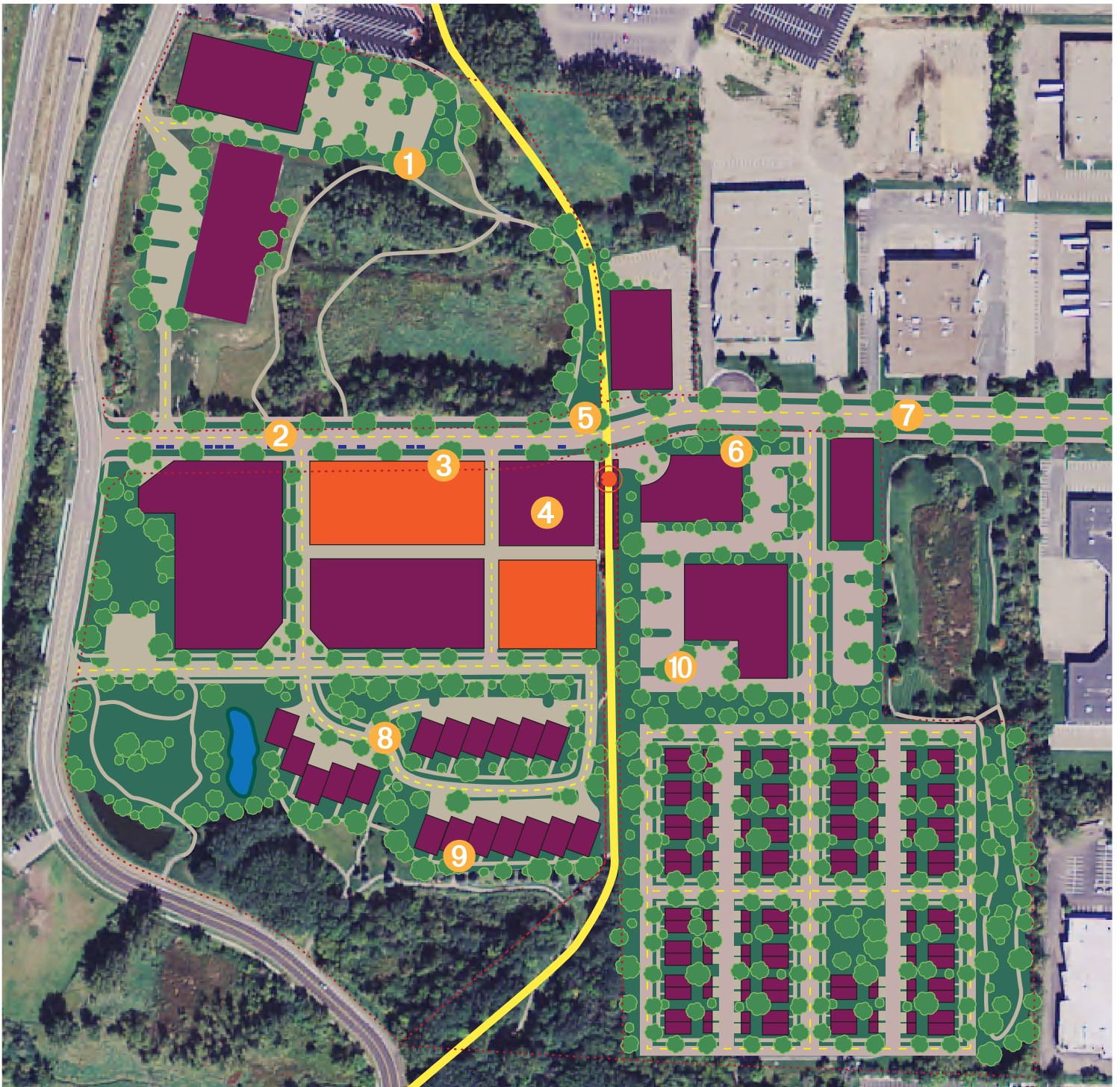
The treeless sky environment surrounding most streets in the development site could be improved with street tree plantings and other vegetation that create a canopy over the street and sidewalks, providing shade and shelter, as well as greater aesthetic quality. Creating a sense of a border between pedestrians and moving vehicles adds a perception of safety for both parties.

### **Specific Actions**

- Require new design and construction principles in accordance with principles of New Urbanism.
- Relegate parking lots to the rear and exterior of buildings
- Make any new roads narrower, add visible signs, roundabouts, curb bump outs and collars to calm traffic.

### **Potential Funding Sources**

- City planning and road maintenance department.



# NATURAL ENVIRONMENT SYSTEM MAP

**1 Natural Stormwater Infrastructure**

Facilitate absorption, reduce flows

**2 New Dark Sky Compliant Street Lighting & Solar Traffic Signals**

Energy efficiency, reduced glow

**3 Reduced Setbacks**

Compact design

**4 Green Roof**

Reduced runoff

**5 Expanded Green Space**

Reduced CO<sub>2</sub>, stormwater

**6 Native Landscaping**

Water conservation

**7 Boulevard Trees with Tree Wells**

CO<sub>2</sub>, stormwater reduction

**8 Compact Design**

Preserves green space

**9 Passive Solar Designed Apartments**

Energy Efficiency

**10 Pervious Parking & Sidewalk Pilot Project**

Reduced runoff



# NATURAL ENVIRONMENT



**Fig. 35:** Integrated greenspace reduces CO<sub>2</sub>, reduces runoff, and looks amazing.

*Image courtesy of: olsonplanning.com*

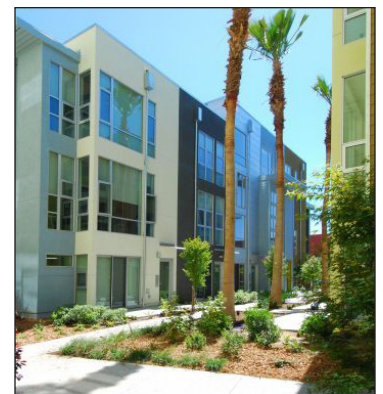
Too often when considering site design for development, the natural environment is viewed either as an obstacle to be overcome or as a mere aesthetic enhancement added after the fact. To the extent possible, a site is stripped and drained of its vegetation, water, and topography in an effort to create a blank slate for the needs of a project. The negative side effects of this kind of mindset are both long-lasting and wide-spread: decreased water quality, increased flooding, decreased carbon sequestration, habitat degradation, and energy over-consumption. These types of trade-offs are often created out of habit and haste, but they are not inevitable.

A more thoughtful approach to site design should view a site's natural resources as an asset to be integrated into the overall site design. By using a context-sensitive approach to a site plan, the final development can be both more efficient, more pleasant, and, in many instances, less expensive. Table 7 on the following page, provided by the Minnesota Pollution Control Agency's Stormwater Manual, lists some common site design techniques and their benefits.



**Fig. 36:** Natural amenities seamlessly integrated into a site design.

*Image courtesy of: consult.kettering.gov.uk*



**Fig. 37:** Pocket-sized greenspace.

*Image courtesy of: dbarchitect.com*



Better Site Design Technique	Minimizes Land Disturbance	Preserves Vegetation & Habitat	Lowers Capital Costs	Lowers O&M** Costs	Raises Property Value
Natural Area Conservation	●	●	●	●	○
Site Reforestation	○	●	○	●	●
Stream and Shoreline Buffers	●	●	●	●	○
Open Space Design	●	●	●	●	○
Soil Compost Amendments	○	●	○	○	○
Surface IC Disconnection	○	○	●	○	○
Rooftop Disconnection	○	○	●	●	○
Grass Channels	○	○	●	○	○
Stormwater Landscaping	○	●	○	○	●
Narrower Streets	●	○	●	●	○
Slimmer Sidewalks	○	○	●	●	○
Smaller Cul-de-sacs	○	○	●	●	○
Shorter Driveways	●	○	●	●	○
Smaller Parking Lots	○	○	●	●	○
<b>Key:</b> ● = often provides indicated benefit ○ = sometimes provides a modest benefit ○ = does not provide benefit					
<small>*Comparison is intended for general purposes; and will vary on a site-by-site basis.            **O&amp;M = Operation and Maintenance</small>					

**Table 7:** Site Design Benefits and Techniques<sup>1</sup>

The natural landscape of the 66-acres surrounding the Golden Triangle Southwest LRT station area have been profoundly modified to suit the development needs with little concern for the environmental impacts. Future development scenarios should carefully consider these impacts, and bring the area more properly into alignment with sustainable development practices. The good news is that this type of sustainable development is often more desirable to forward-thinking companies, their employees, and to local residents. Additionally, sustainable developments often demand premium rents, have higher occupancy rates and retain their value better than conventional designs.

The following pages offer a list of principles and policy suggestions that can help bring future development scenarios around the GTA station area more in balance with a long-term, sustainable development pattern.

**GUIDING PRINCIPLE 3.1:**  
 Design for hydrology to help minimize stormwater runoff and enhance water quality.

Historic urban development patterns have tended to ignore the natural hydrologic processes of an area and have instead imposed a desired outcome upon the landscape. The natural water flows of an area are then controlled and managed to maintain that outcome. While this traditional stormwater management approach creates more freedom for the development of a particular site, there are numerous detrimental side effects from this type of water management paradigm.

Traditional stormwater management techniques lead to increased runoff volumes, increased peak runoff discharges, and greater runoff velocities all of which can lead to the increased potential for

Annual runoff for different types of surfaces: <sup>2</sup>	
SURFACE	RUNOFF %
Undisturbed Woods	5%
Undisturbed Meadow	7%
Disturbed Trees	10%
Disturbed Lawn	15%
Greenroof	40%
Permeable Pavement	15 to 50%
Impermeable Surface	70 to 95%



**Fig. 38:** Wetland areas incorporated into housing development site design. Image courtesy of: MN Pollution Control Agency

severe flooding. Additionally, increased runoff can decrease baseflows which, during dry weather periods, can lead to lower stream levels and a reduction in groundwater aquifer recharge.<sup>2</sup>

Traditional stormwater management techniques also degrade aquatic habitat and water quality. Sharp rises in water temperature often accompany a stormwater event. This temperature increase is harmful to many desirable Minnesota aquatic species, notably coldwater brook trout. Water quality is also degraded by traditional stormwater management techniques by eliminating filtering opportunities and channeling nonpoint source pollutants more quickly into water bodies. Primary nonpoint pollutants include salt and sediment, automobile runoff (heavy metals and hydrocarbons), nitrogen and phosphorus.

Fortunately, there are many techniques in use today that can help reduce the impacts of urban development patterns. The fundamental concept behind these techniques is to create a site plan design that more closely mimics the natural hydrologic process which maintains pre-development hydrology standards for runoff, infiltration and evapotranspiration. These techniques attempt to break up the solid impervious surfaces with natural filtration and storage areas. These areas create opportunities for a more gradual absorption of stormwater back into the surrounding landscape as well as an opportunity to filter out pollutants before they reach surrounding water bodies.

### 3.1.1: Reduce the dependence on pipe and pond water management by using natural grading, channeling, and storage processes.

Traditional stormwater management techniques create a series of drains, pipes, and storage ponds to alleviate stormwater runoff caused by impervious surfaces. This type of water management is responsible for many of the negative side effects outlined above. A more thoughtful approach to site design can help to not only alleviate many of those side effects, but also reduce the costs of creating an elaborate drain and piping system.

One simple technique is to rely on stormwater sheet flow to move water across impervious surfaces. At a slight grade, stormwater can move on its own to pervious areas up to 200 feet away.<sup>3</sup> Directing this sheet flow to pervious areas within a larger impervious surface matrix can serve to reduce the need for drainage infrastructure. Also, replacing a pipe system with natural channels within a impervious surface matrix can direct water flow to water storage areas while also decreasing flow velocity and creating further opportunities for infiltration.

Disconnecting rooftop stormwater runoff from pipe systems is another method of reducing this type of infrastructure needs. Runoff can be redirected to natural pervious channels, rain gardens and cisterns or it can be minimized by using green roof technology.

Thoughtful planning can create a more natural system that is as efficient at stormwater management as traditional drain and pipe engineering, but that reduces or eliminates many of the deleterious side-effects, often at comparable or reduced costs.



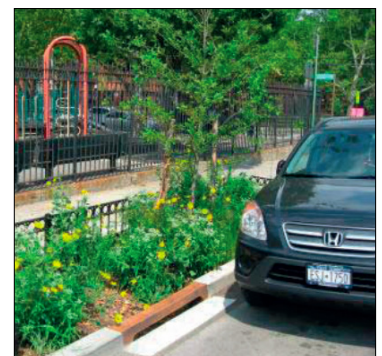
**Fig. 39:** Natural stormwater storage area at the edge of a parking lot.

*Image courtesy of: MN Pollution Control Agency*



**Fig. 40:** Pervious areas integrated into parking lot design.

*Image courtesy of: MN Pollution Control Agency*



**Fig. 41:** Sidewalk tree well.

*Image courtesy of: nyc.gov*

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### Specific Actions

- Encourage site-design proposals to consider natural sheet flow and channeling methods when developing stormwater management plans.
- Use drains and pipes only to supplement these natural processes.
- Adopt parking lot design standards that encourage natural absorption, storage and channeling methods.

### Potential Funding Sources

- Legacy Amendment Clean Water funds.
- EPA Clean Water State Revolving Fund
- TMDL and Phosphorus Reduction Grants

### 3.1.2: Increase the frequency of natural water filtration and storage areas throughout the development.

One way to eliminate the need for large stormwater infrastructure is by creating numerous, small water filtration and storage areas throughout a development site. The creation of parking islands, tree wells, parking lot buffers, filtration strips, and bioswales create opportunities for stormwater filtration and storage at a sub-site level. These natural stormwater areas also create opportunities for desirable greenspace and landscaping.

### Specific Actions

- Adopt a stormwater runoff volume limit to pre-development volumes for the 5-year, 24-hour rainfall maximum event.
- Adopt site design guidelines for pervious areas such as filtration strips, tree wells, rain gardens and other green stormwater infrastructure.
- Offer incentives for parking lot retrofits that include pervious filtration areas.
- Increase buffer areas around existing wetland areas.

### Potential Funding Sources

- Legacy Amendment Clean Water funds
- EPA Clean Water State Revolving Fund
- TMDL and Phosphorus Reduction Grants

### 3.1.3: Use compact design scenarios to help reduce impervious surface area.

Inexpensive land costs coupled with the expense of multistory buildings and structured parking helped create the typical suburban pattern of inefficient land use and widespread cover of impervious surface areas. However, with higher land prices and demand comes the opportunity to reimagine this paradigm.

By building up, instead of out, and clustering development to preserve open space, the development site can both reduce impervious surface area as well as increase the desirability and walkability of the site.

But compact development need not always require multistory development. More efficient use of a site can also lead to reduced impervious areas. A reduction in city setback and right-of-way requirements as well as reducing city parking minimum requirements can allow for a more intense utilization of a given lot. Also, land savings can come from reducing average parking space size, and reducing the width of parking lanes. Reducing the footprint of a building can also come from more efficiently proportioning common areas, minimizing formal building entryways, reducing or eliminating traffic turnaround areas, and scaling back atrium space.

#### Specific Actions

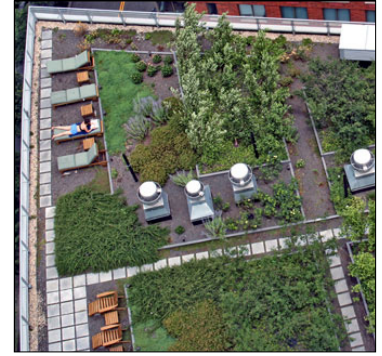
- Adjust local ordinances to reduce setbacks, reduce parking minimums (or create parking maximums), and reduce parking space sizes. Create more opportunities for on-street parking.
- Allow construction of 24-foot roads for public streets with 500 or fewer average daily trips.
- Consider building designs and site plans that more efficiently allocate space for atriums, entryways, turnaround areas, and other non-essential areas.

### 3.1.4: Incorporate greenroofs into future development scenarios.

Greenroofs can limit rooftop runoff by 40% to 70%.<sup>5</sup> Additionally, because they filter out harmful UV radiation, they can also extend the life of a roof by up to 20 years. Reductions in cooling costs and the urban heat island effect are other benefits of green roofs. Greenroofs have higher front-end costs, but over the life of the roof, costs can be comparable. Costs of a greenroof can also be mitigated by incorporating them into rooftop amenities such as patios and gardens. Additionally, as the green roof industry matures in the United States and becomes more competitive, costs are likely decline.

#### Specific Actions

- Offer development or permitting fee reduction incentives for green roofs.
- Provide education on costs and resources to business leaders and developers.



**Fig. 42:** A greenroof serves as both an tenant amenity and a stormwater mitigation strategy.

Image courtesy of: earthobservatory.nasa.gov

*Because they filter out harmful UV radiation, greenroofs can extend the life of a roof by up to 20 years.*



## Potential Funding Sources

- EPA's Pollution Prevention and Source Reduction grants
- Legacy Amendment Clean Water funds

### 3.1.5: Use impervious surface alternatives when appropriate.

The reduction of impervious surface area need not be limited to greenspace alone. Opportunities for impervious surface alternatives exist throughout the site. Driveways, walkways, pathways, and trails are all appropriate candidates for impervious surface alternatives. Additionally, less intensely used parking areas such as those adjacent to parks and trails could be converted from asphalt or cement to interlocking pavers or plastic reinforcement grids. Cement slabs for informal outdoor seating areas and picnic areas are also recommended for conversion to pervious surface options.

## Specific Actions

- Create a pilot project with sidewalks around the station area.
- Partner with local manufacturer, Percoa, as an economic development/sustainable development initiative.
- Use pervious surfaces for overflow parking areas.

## Potential Funding Sources

- Public Private Partnerships

### 3.1.6: Require stormwater and raw water for use in landscape irrigation.

The use of filtered city water for landscaping needs is not only inefficient and wasteful, it is expensive. By utilizing on-site stormwater holding areas and cisterns for irrigation needs, the development area can reduce its demand on city water services. During dry times of the year, untreated raw water line connections could serve as a back-up system for any irrigation needs.

## Specific Actions

- Encourage that sprinkler and irrigation systems be linked to on-site stormwater holding areas and raw water lines.

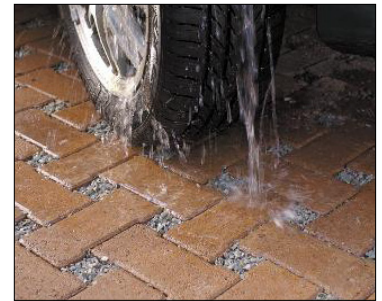
## GUIDING PRINCIPLE 3.2:

### Expand natural areas, greenspace, and vegetation throughout the development area.

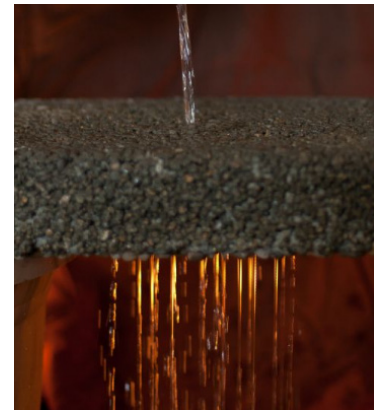
Greenspace is often an afterthought in development scenarios. However, the high amenity value and low implementation costs make greenspace a very cost effective development tool. A thoughtful development plan will not simply apply greenspace areas around the



**Fig. 43:** Pervious driveway/walkway.  
*Image courtesy of: reimaginingcleveland.org*



**Fig. 44:** Pervious interlocking pavers.  
*Image courtesy of: malamamaunua.org*



**Fig. 45:** Pervious pavers manufactured by Eden Prairie's own Percoa Inc.  
*Image courtesy of: percoausa.com*

margins of a site, but instead integrate them into every aspect of the development plan—from gardens, to greenwalls, to public space, to parking islands.

Because of its flexibility, greenspace can serve multiple, symbiotic needs for development scenarios. Greenspace can help mitigate stormwater flows and filter pollutants while also providing increased animal habitats and reducing greenhouse gas emissions. In fact, incorporating landscaping and stormwater management practices can help increase the functionality of both. Greenspace can also be used to increase the desirability of the property and the surrounding area while also reducing the noise impacts in an otherwise urban setting.

### 3.2.1: Preserve and expand the amount of existing greenspace.

Any new development scenario should preserve and expand the existing green space on the development site. Redevelopment proposals should not only avoid disturbing existing greenspace, but should actively seek to enhance the amount of greenspace.

While there are currently areas of greenspace in the form of wetlands and steep slopes along the borders of the development site, these areas are not well integrated into the site, and essentially serve as boundaries to the site layout. A more thoughtful approach would both integrate new greenspace areas throughout the site plan and work to integrate the existing greenspace features into future development scenarios. Additionally, future development scenarios should attempt to create green places that employees and residents can easily access and use as space to congregate in. These can be simple benches along greenways, or more formal planned courtyards.

#### Specific Actions

- Make incorporation of greenspace a priority at the site design stage.
- Set greenspace benchmarks on a per square foot or per employee metric.

### 3.2.2: Increase tree canopy.

Trees are one of the simplest and most cost-effective ways to improve both the natural resource value and property value of a site. Trees serve many benefits, including providing shade, reducing the urban heat island effect, absorbing stormwater, and serving as windbreaks. Trees also help reduce greenhouse gases through carbon sequestration, help to reduce erosion by slowing rainfall and holding soils in place with their root networks.

Beyond their environmental benefits, trees also offer simple amenity value as well. Simply put, people like trees. Planting and maintaining trees can help improve both the appeal and value of the development site.

#### Specific Actions

- Increase restrictions and oversight of tree removal
- Incorporate tree canopy coverage benchmarks for streets, sidewalks and parking areas.



**Fig. 46:** Green elements can be integrated in nearly every setting.

*Image courtesy of: tokyogreenspace.com*



**Fig. 47:** Landscaped stormwater area.

*Image courtesy of: switchboard.nrdc.org*

- 
- Create a budget line item for tree planting and maintenance.
  - Adopt landscaping design standards that include tree requirements.

### **3.2.3: Incorporate landscaping and natural areas into stormwater management practices.**

Stormwater management and landscaping need not always serve separate functions. By creating the means for a landscaped area to accept stormwater, it helps reduce both stormwater runoff and irrigation needs. Creating landscape amenities out of necessary stormwater areas is also an efficient use of the space and savvy site design.

#### **Specific Actions**

- Consider landscaping and stormwater management simultaneously as the design phase of site development.

### **3.2.4: Use native, drought-tolerant vegetation for landscaping.**

Native, drought-tolerant vegetation within landscaped areas will be more durable, require less maintenance, and maintain a healthier appearance than common non-native varieties. During dry months, these plants will also require less supplemental watering. By reducing maintenance and increasing durability, native plants can save time and expense while still providing beauty.

#### **Specific Actions**

- Encourage the use of native vegetation with educational outreach.

## **GUIDING PRINCIPLE 3.3: Reduce energy impacts.**

Most of us understand the value of reducing energy use, but as the benefits seem small and accumulate over long periods of time, energy efficient choices tend to get pushed aside for cheaper, short-term alternatives. However, when looking at the capital costs associated with new development using 10, 20 and 30 year timeframes, it should be easier to understand and take advantage of reducing energy use.

Aside from the obvious utility cost savings and greenhouse gas impacts, there are more invisible benefits that can be achieved from reduced energy impacts. This includes immunity from energy price spikes, improved equipment life expectancy, and reduced maintenance costs.

Apart from bottom line considerations, intangible benefits can also accrue from energy efficient practices. These include the ability to lease to energy conscious businesses, recruit and hire environmentally conscious employees, and an enhanced public image.

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### 3.3.1: Encourage LEED certification on all new construction.

Encouraging LEED certification has several obvious natural resource benefits. But, for any development or municipality, encouraging LEED certification is as much a competitive advantage as an environmental one. In a market with high commercial vacancies, increased telecommuting, and environmentally conscious business leaders, requiring LEED certification is one way to maintain a strong commercial tax base and recruit forward-thinking companies and their employees. Additionally, when compared to conventional buildings, green buildings command higher lease rates and sale prices, and have higher, more stable occupancy rates.<sup>6</sup>

However, the list of environmental benefits of LEED certification should not be ignored. One third of all greenhouse gases are produced by building construction and use.<sup>7</sup> LEED methods will play a large role in reducing this energy footprint. Other important, but less obvious benefits include better air quality, improved employee health, and increased employee productivity and satisfaction.

#### Specific Actions

- Provide LEED incentives to developers through reduced development and permitting fees.
- Create green building requirements for projects that receive city subsidies.

#### Potential Funding Sources

- Energy Efficiency and Conservation Block Grant
- The Energy Efficient Commercial Building Tax Deduction.
- Utility rebates.

### 3.3.2: Maximize heating and cooling efficiency through passive solar design.

Passive solar design aims to take maximum advantage of solar energy through site and building design. The “passive” term refers to use of non-mechanical systems (such as convection, conductance, and radiation) to achieve these efficiencies.

With passive solar design, each building is designed for a specific climate and site by strategic orientation of the building, through placement of windows and walls, and use of thermal storage building materials such as brick and concrete. Since the systems for gaining these efficiencies are non-mechanical, there is little ongoing maintenance once the site has been designed. Also, one of the primary benefits of passive solar design building solutions is that future energy savings can be projected for the life of the building.<sup>8</sup>

#### Specific Actions

- Provide resources for passive solar design techniques

*When compared to conventional buildings, green buildings command higher lease rates and sale prices, and have higher, more stable occupancy rates.*



## Potential Funding Sources

- Energy Efficiency and Conservation Block Grant
- The Energy Efficient Commercial Building Tax Deduction.
- Utility rebates.

### 3.3.3: Promote the use of sustainable and recycled materials in new construction.

According to the EPA, each year, U.S. industries produce over half a billion tons of potentially recoverable material waste.<sup>9</sup> Managing these materials more efficiently can help reduce landfill waste, decrease energy use and greenhouse gas emissions, while also limiting the impacts from mining, quarrying, and logging of virgin materials. Opportunities exist for the use of recycled materials in nearly every facet of building construction, from recycled concrete, asphalt, gypsum, shingles and insulation, to recycled glass, vinyl flooring, countertops, and carpet tiles. Many of these materials offer higher performance standards at a lower cost than do virgin materials.

## Specific Actions

- Encourage the use of recycled materials with educational outreach.

### 3.3.4: Maximize street light efficiency and reduce light pollution.

The City of Ann Arbor estimates that it is saving \$100,000 dollars a year with the conversion of its city street lights to LED technology. LED lights last five times as long and use half as much energy as traditional street lights. Factoring in the increased costs, an LED street light has an estimated 3.3 year payback period. In addition to the cost savings, greenhouse gas emissions are significantly reduced. Ann Arbor estimates that the LED streetlights have reduced CO<sub>2</sub> outputs by 267 tons.<sup>10</sup>

Another important consideration for urban areas is light pollution. As the International Dark Sky Association (IDA) puts it “Once a source of wonder—and one half of the entire planet’s natural environment—the star-filled nights of just a few years ago are vanishing in a yellow haze.” In addition to the loss of our night sky, the IDA estimates that the U.S. wastes 2.2 billion dollars annually in energy costs associated with light pollution.<sup>11</sup> The IDA recommends the use of full-cutoff light fixtures with warm white filtered LED bulbs to limit pollution. Additional light pollution reductions can be gained from “smart” fixtures with dimming capabilities that can brighten as pedestrians pass by.

## Specific Actions

- Require new light fixtures to be Dark-sky compliant, full-cutoff fixtures with warm white filtered LED bulbs.
- Create a pilot project within the station area to install Dark-sky compliant, automatic dimming lighting technologies.

*“Once a source of wonder, the star-filled nights of just a few years ago are vanishing in a yellow haze.”*

—INTERNATIONAL DARK SKY ASSOCIATION



**Fig. 48:** Light pollution washing out the night sky.

*Image courtesy of: corius.net*

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## Potential Funding Sources

- American Recovery and Reinvestment Act Energy Efficiency and Conservation Block Grant Program Awards

### 3.3.4: Consider alternative energy sources when appropriate.

Alternative energy innovations are evolving quickly, and the potential exists to incorporate some of these new technologies throughout the development site or city infrastructure. Solar powered lighting technologies are some of the most rapidly changing in the industry. With LED bulb efficiencies coinciding with the advance of solar technologies, solar lighting is moving beyond novelty garden lights into the realm of City infrastructure. A solar powered LED light fixture or traffic signal is carbon neutral and eliminates the cost of electricity which both saves money and reduces greenhouse gas emissions.

Small scale wind turbines are also an emerging technology for city infrastructure. Unlike the massive spires often associated with wind energy, small scale wind turbines can be installed inconspicuously on rooftops. Several city halls, including Reno and Boston, have already installed wind turbines on their rooftops as pilot projects. As these small scale wind technologies continue to evolve, unsubsidized commercial applications will likely become a viable means to offset energy costs.

## Specific Actions

- Create a low-interest financing fund for developments that propose alternative energy generation.
- Proactively develop ordinances that allow for and encourage on-site alternative energy technologies.
- Use the 70th Street rebuild as a pilot project to install solar powered traffic signals.

## Potential Funding Sources

- American Recovery and Reinvestment Act Energy Efficiency and Conservation Block Grant Program Awards
- Utility Rebates

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## APPENDIX I:

### STRENGTHS, WEAKNESSES, OPPORTUNITIES & THREATS

# SWOT ANALYSIS

#### STRENGTHS

- Plenty of surrounding wetlands and critical habitat in good condition
- Dog parks/trails
- One of very few places with development opportunity inside the 694/494 ring
- Well paying, white collar jobs
- Eden Prairie is a draw in and of itself

#### WEAKNESSES

- Over-abundance of surface lots
- Entry and exit into GTA is difficult. Few access points for automobile.
- No restaurants
- Overall traffic
- Auto-oriented landscape
- Homogeneous development

#### OPPORTUNITIES

- The future LRT is a huge opportunity
- Potential for mixed use development
- The structures are easily adaptable for reuse
- Infill development
- Connectivity flexibility
- Provide employee services within GTA
- Incorporate LEED technologies
- Incrementally change driving behavior

#### THREATS

- Infrastructure limitations. i.e. energy/power
- Liberty sticks with what has worked in the past
- Too content with the status quo
- Path dependence
- Uncertainty of LRT
- Low projected ridership

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