EDEN PRAIRIE, MN

SUSTAINABLE NEIGHBORHOOD ASSESSMENT

October 10 - October 12, 2012

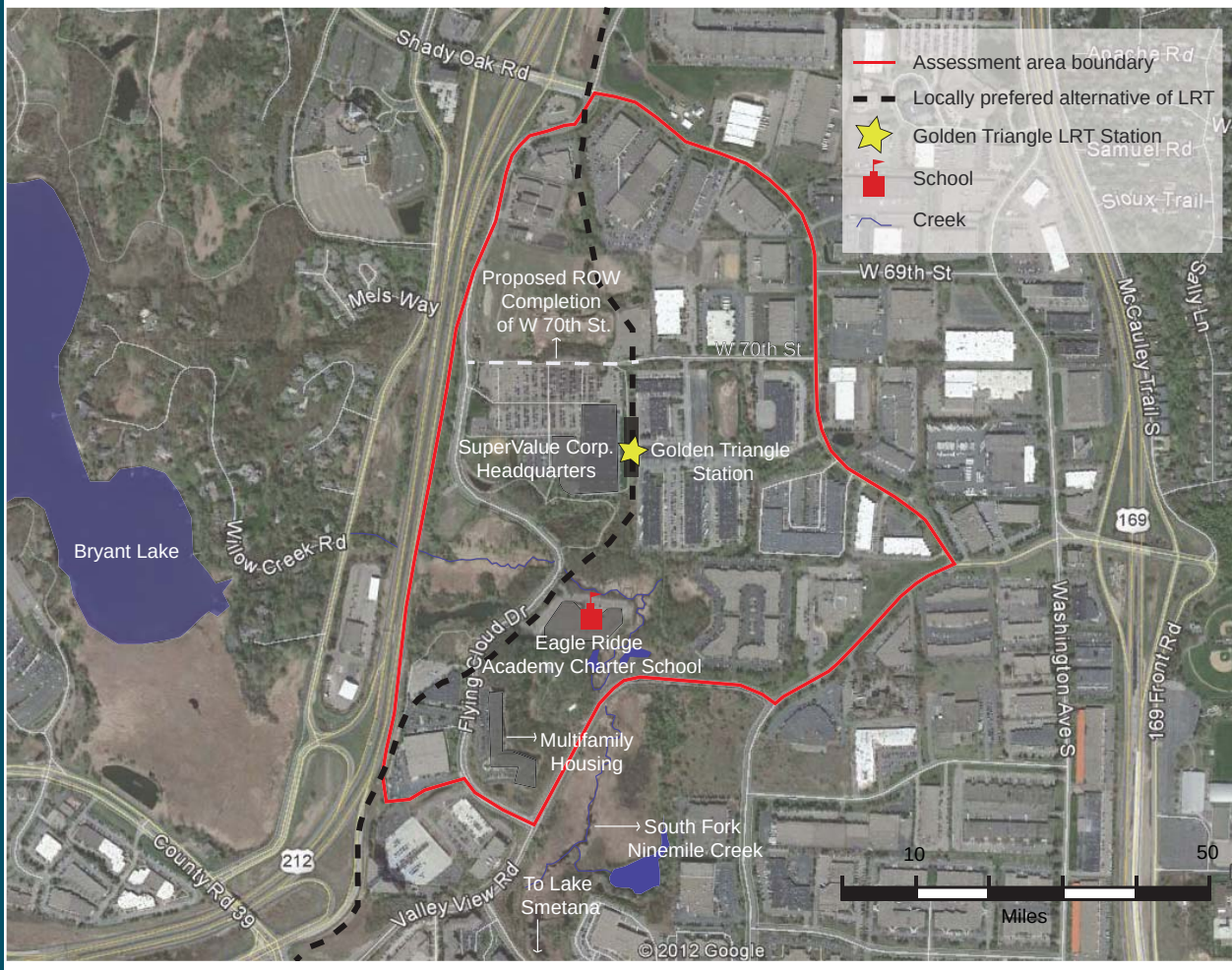
Sustainable Neighborhood Assessment Using LEED-ND

Through the Sustainable Neighborhood Assessment Tool developed by Global Green USA, public officials and local government staff are using the LEED for Neighborhood Development (LEED-ND) rating system to determine ways that future development in their communities can achieve high levels of environmental, economic, and social sustainability. LEED-ND integrates the principles of smart growth, walkable urbanism and green building into the first national rating system for neighborhood design. In Eden Prairie, MN, Global Green used the assessment tool to reveal the existing, planned, and potential sustainability levels of the City's Golden Triangle Area and to make sustainability-related recommendations.

Environmental Protection Agency

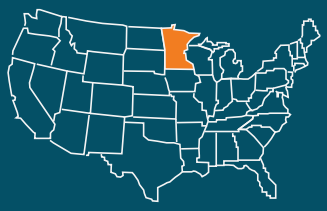
Technical Assistance provided by Global Green USA with Raimi and Associates and the US Green Building Council to the City of Eden Prairie was made possible through funding from the US EPA's Office of Sustainable Communities Building Blocks for Sustainable Communities Grant Program.

Contents

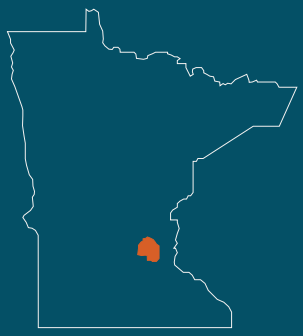


Neighborhood Location

Minnesota



Hennepin County



Eden Prairie

Golden Triangle Area

Sustainable Neighborhood Assessment Process

The goal of the sustainable neighborhood assessment process is to establish focus areas where policy and planning changes can promote sustainable urban development over the short and long term. To define these focus areas, Global Green USA and its team use a Sustainable Neighborhood Assessment tool whose backbone is a modified LEED-for Neighborhood Development (ND) checklist. Prior to visiting the target neighborhood, the team conducts a thorough review of relevant planning documents, code requirements, and city and stakeholder priorities for the neighborhood and creates an initial LEED-ND checklist, marking each credit as “achieved,” “not achieved,” “unknown,” or “not applicable” according to baseline conditions. This initial checklist also ranks credits within the three LEED-ND categories (Smart Location & Linkages, Neighborhood Pattern & Design, and Green Infrastructure & Building) as they compare to local policy priorities, regulatory support, technical feasibility, market support, and stakeholder input. The checklist for the Golden Triangle Area is provided on pages 11-13.

Using the initial assessment as a point of departure, the Global Green team then conducts a three-day site visit. The team walks each block of the selected neighborhood and conducts a series of meetings with targeted stakeholders, city staff, and other relevant agencies. Initial findings are then presented and discussed at a community workshop. Throughout this process, the checklist is edited and augmented to incorporate the team’s visual observations, issues raised during stakeholder meetings, and priorities developed during the community workshop. The checklist helps to group individual sustainability components into the broad focus areas noted on the next page in the green box. It also provides specific sustainability performance metrics – taken directly from LEED-ND – for those focus areas. These metrics then serve as the technical criteria for the team’s specific policy and planning recommendations.

At the end of the process in Eden Prairie, the Global Green team developed specific recommendations in three topic areas. Many of these recommendations have components that can be implemented quickly, while others will require long-term dedication and collaboration with private-sector and community-based partners. The intention behind the recommendations is not to formally certify the area under the LEED-ND rating system, but rather to suggest policy, planning, and development changes that promote the sustainable growth of the Golden Triangle Area. By following the recommendations outlined in this report, which focus on integrating the new transit station with the areas existing assets — including the proximity to jobs, an extensive stream network, and mature tree canopy — the Golden Triangle Area could over time look, feel, and perform like a LEED-ND neighborhood.

Neighborhood Background

The Golden Triangle Area (GTA) is located in the western portion of Eden Prairie. Since 1960 the GTA has been an industrial/office park with approximately 976 acres of land bound by three major roadways. Currently, the larger Golden Triangle Area is home to 26,000 jobs. The LEED-ND assessment area, however, is a smaller subset of the larger GTA area at approximately 240 acres. Liberty Property Group owns a significant majority of land area within the assessment boundary. The boundaries is Highway 212 to the west, Shady Oak Road to the north and east, Valley View Road to the southeast, and Flying Cloud Road to the southwest.

The assessment area has a limited street network and few sidewalks currently exist. Pedestrian accessibility is hampered by this lack of connectivity and the large parcels that create irregularly shaped superblocks. The industrial and office buildings found within the assessment area are typically surrounded by surface parking lots connecting to private driveways off of three major roads- Shady Oak Rd, Flying Cloud Drive, and Valley View Road. The lack of both internal and external connections results in major congestion during peak traffic hours.

The area is, however, part of an extensive trail system used for walking and biking. The area also has numerous wetlands, creeks, and tributaries which flow into Lake Smetana (just south of the assessment area), or to the larger Bryant Lake (located to the west of the assessment area). The main creek within the assessment area boundary is South Fork Ninemile Creek.

In recent years, a significant number of buildings that formerly housed manufacturing, assembly and warehousing operations have been converted, at least in part, to office uses. Other buildings have been vacated during the economic downturn. The area also has one school- Eagle Ridge Academy Charter – and one residential housing development, the Bluffs at Nine Mile Creek, located on the south end of the assessment area with 186 residential units of which 20 percent are affordable. Beyond this development and a few single family homes in the area, there is a relatively low residential population in and around the assessment area and in the Golden Triangle Area as a whole.

Neighborhood Highlights

NATURAL FEATURES

JOBS

DEVELOPMENT POTENTIAL

FOCUS AREAS

Related LEED-ND Credits

First Impression of Transit

Category: Smart Location & Linkage
- Preferred Location (credit 1)
- Locations with Reduced Automobile Dependence (credit 3)
- Bicycle Network & Storage (credit 4)

Category: Neighborhood Pattern & Design
- Walkable Streets (prerequisite & credit 1)
- Connected & Open Community (prerequisite & credit 2)
- Mixed Use Neighborhood Centers (credit 3)
- Reduced Parking Footprint (credit 5)
- Street Network (credit 6)
- Access to Civic & Public Open Space (credit 9)
- Access to Recreational Facilities (credit 10)

Identity and Branding-Green?

Category: Neighborhood Pattern & Design
- Walkable Streets (prerequisite 1 & credit 1)
- Mixed-Use Neighborhood Centers (credit 3)

Category: Green Infrastructure & Building
- Certified Green Buildings (prerequisite & credit 1)
- Stormwater Management (credit 8)
- On-site Renewable Energy Sources (credit 11)
- District Heating and Cooling (credit 12)
- Infrastructure Energy Efficiency (credit 13)
- Wastewater Management (credit 14)
- Recycled Content in Infrastructure (credit 15)

Natural Features

Category: Smart Location & Linkages
- **Imperiled Species & Ecological Communities (prerequisite 2)**
- Wetland & Water Body Conservation (prerequisite 3)
- Floodplain Avoidance (prerequisite 5)
- Design for Habitat or Wetland & Water Body Conservation (credit 7)

Category: Neighborhood Pattern & Design
- Access to Civic & Public Spaces (credit 9)

Category: Green Infrastructure & Building
- Stormwater Management (credit 8)

Catalytic Projects

The major catalytic project in this area is the Southwest Green Line Light Rail Transit (LRT) extension. Alternatives for improved transit in the Southwest Corridor have been under study since the mid-1980s. In November 2009, the Hennepin County Regional Railroad Authority (HCRRA) recommended construction of a 15-mile light-rail transit (LRT) line between Eden Prairie and downtown Minneapolis, known as the Southwest Corridor. The proposed line would connect the existing Blue Line with the Central Corridor (Green Line) LRT routes, as well as the Northstar commuter rail line. As currently proposed, the $1.25 billion line would have 17 new stations.

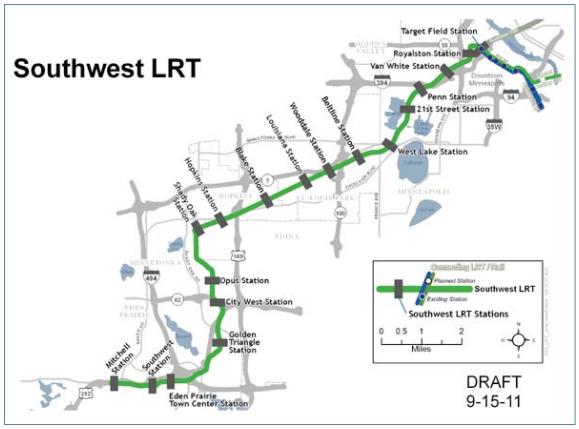
The Metropolitan Council, which is the regional planning agency serving the Twin Cities seven-county metropolitan area, selected the "Locally Preferred Alternative" (LPA) alignment as of September 2011 which includes the Golden Triangle Station located in the heart of the assessment area (see attached map). This station would be the fourth stop on the Green Line extension just northeast of the Eden Prairie Town Center Station.

In 2011 The Metropolitan Council received a $5 million HUD Sustainable Communities Regional Planning Grant. These funds will be used to creating a corridor wide communication plan, create transitional (between now and when the LRT is operational) station area access plans, and develop stormwater management options for the station areas. All activities align well with the Six Principles of Livability adopted by the Partnership for Sustainable Communities.

The Southwest LRT Community Works project, a partnership of the county and cities along the LRT corridor is a sub-grantee that will identify housing and economic development opportunities and enhance transportation connections to existing residential and commercial nodes within the station area and along the corridor. The Planning Grant funds will also be used for community engagement to promote equity on an ongoing basis; this includes affordable housing, access to jobs, economic development including entrepreneurial opportunities for underrepresented communities. Additionally, the Eden Prairie non-profit, New American Academy, was awarded funds from this grant to strengthen outreach to underrepresented (low income, new immigrant, persons of color and persons with disabilities) communities.

The County commissioned a Golden Triangle Area plan; however the plan was not adopted by the Eden Prairie City Council as the vision relied to heavily on bringing in new land uses given the relatively new investment in some existing buildings over the past decade. There are no preliminary designs of the actual station to date.

On September 2, 2011, the Federal Transit Administration (FTA) gave the go-ahead to enter Preliminary Engineering (PE). The Metropolitan Council will lead the PE efforts to finalize design decisions through about 30 percent of the design work. A consultant has been selected to develop a transitional station area plan that will inform the PE plans. The Transitional Station Area Plan is intended to address land use issues between opening day, in 2018, through the first five years of operation. The Environmental Review process is also currently underway for the entire alignment within approximately 500 feet on either side of the planned LRT extension.



Locally Preferred Alternative of the new Southwest LRT route as of September 2011.

Recommendation 1

TOD Overlay District

RESPONSIBLE DEPARTMENT

City Planning, Housing Department, with support from the LRT Community Works Projects

With its five new station areas, the City of Eden Prairie is well situated to build on the major investment in light rail and improve city-wide sustainability for a number of neighborhoods. In order to specifically leverage the investment in the Golden Triangle Station (GTS) area, the City should begin to sketch out the future land use mix and resulting infrastructure needs around the station area's sphere of influence. LEED-ND goals and metrics can help guide this visioning process, which should ultimately result in a TOD overlay district being created for the Golden Triangle Area as called for in the October 2012 Strategic Plan for Housing and Economic Development.

Successful transit oriented developments often emerge from an overarching visioning and engagement process, similar to the Town Center planning process where visual preference surveys and design guidelines were identified in order to transform the uses and the experience around the station. While the City will benefit from the Southwest LRT Community Works Transitional Station Area Action Plans (TSAAP) process, which will promote opening day readiness in the short term and prioritize infrastructure investment over the long-term, its primary task is to develop alternatives for consideration during the Preliminary Engineering (PE) process for the actual station. The PE drawings will focus on the immediate uses and infrastructure needs at a scale of approximately 100 feet. While the TSAAP plan is a crucial step towards creating a functioning station that can support TOD, it does not substitute for the broader work of creating a framework to enable TOD to take place on a larger scale. Hence, the Global Green team recommends that additional land use and infrastructure analysis based on the area's unique assets and challenges be undertaken. By augmenting the TSAAP's tasks on infrastructure, community engagement, and resulting action plans, a TOD overlay district can take shape in parallel to the TSAAP, ensuring that future infrastructure and land use potential is consistent and supportive of the Action Plan.

The GTS has both assets and challenges that will define its success as a station. The obvious asset is the existing employee population of 26,000 which could provide high ridership on a daily basis from other parts of the City and the region. Since the GTS is not envisioned as a park- and-ride station and has high ridership potential, the area needs amenities that will serve this employee population. In order to capitalize on high number of potential riders employed in the area, special attention needs to be paid to the area's infill development opportunities, and employer and employee engagement process. The obvious challenges of the GTS are its lack of accessibility, motorized and non-motorized connectivity, and its minimal pedestrian amenities among the large light industrial and non-residential blocks.

The main objectives of the TOD overlay district that are not captured by the TSAAP include identifying the GTS station identity, engaging employees of surrounding business, and using LEED-ND to articulate specific density requirements, urban design standards, street connectivity requirements, and access to amenities needed by transit riders.

TOD overlay area analyzed by Hoisington Koegler Group

TOD Overlay District

Recommendations:

Short Term

1. Establish a transit campaign with all Golden Triangle business park employers and employees with the objective of having everyone ride the train during opening week.

2. Establish a vision for the GTS by engaging employers and employees in a visual preference survey of business parks and campuses that include a mix of jobs, housing, and amenities-such as South Lake Union in Seattle, WA. (www.q13fox.com)

3. Work with employees to gather data on point of origin, commute time, and cost with the objective of creating a Commuter Trip Reduction program supported by employers that provides resources and incentives to reduce vehicle trips prior to the station opening.

4. Identify Transportation Demand Management (TDM) methods that will need to be prioritized in the overlay district such as preferential parking for car share vehicles, guaranteed-ride-home programs, circulator bus routes and stops, secure well-lit and sheltered bike parking facilities.

5. Identify and map the intended pedestrian network initiated by the TSAAP around the immediate station area extending throughout the Golden Triangle Area, ensuring that direct connections exist from major employers to the planned light rail station.

Long Term

6. Establish a trail through the GTA that follows the LRT corridor in order to create a larger trail system which follows the new LRT right of way through the City.

7. Establish a goal for the percentage of housing that should be built in the GTS and develop design standards for new public infrastructure to complement future land uses. Ensure that LEED-ND standards, outlined on page 6, are included in future development.

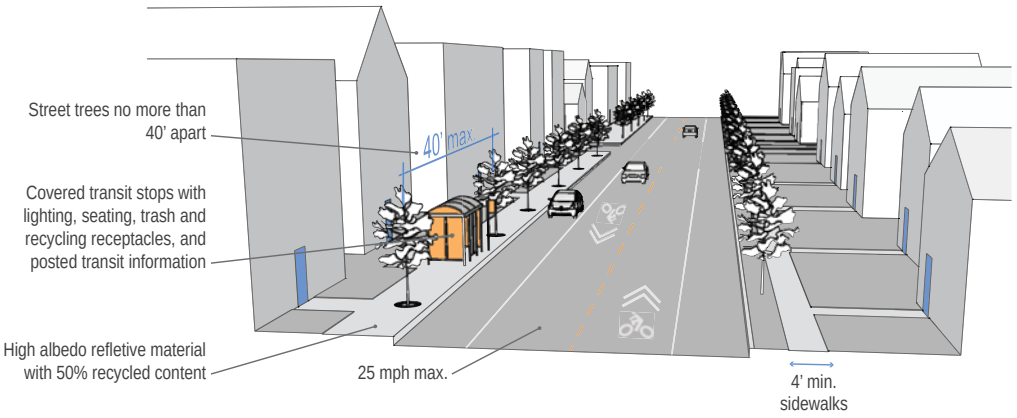
8. Establish priority sites for housing and retail for the potential transition that is on the horizon. Implement a parking assessment of all existing buildings as a tool to identifying where key infill development sites may emerge as transit patterns evolve and transit ridership increases.

TOD Overlay District

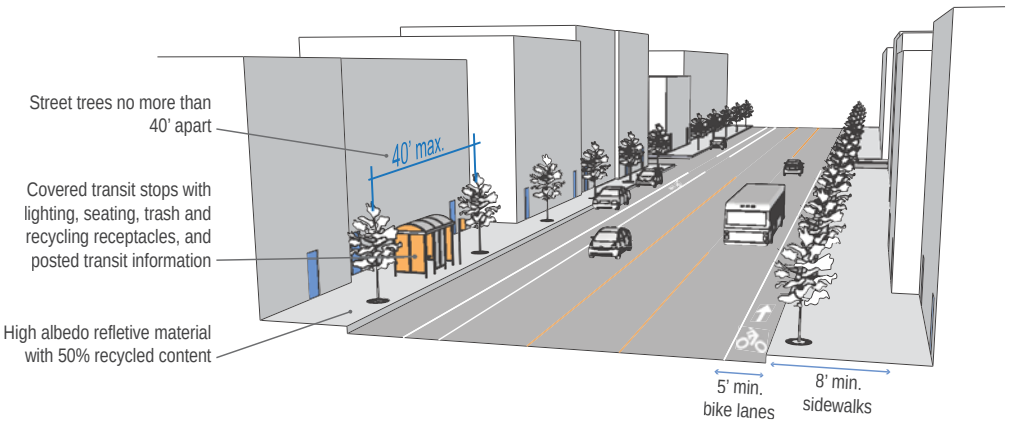
MINIMUM LEED-ND STANDARDS FOR FUTURE SUSTAINABLE PUBLIC INFRASTRUCTURE

	SIDEWALK	BIKE LANES	STREET TREES	TRANSIT SHELTERS	STREET LIGHTING
DIMENSIONS	8 feet on retail or mixed-use blocks 4 feet on all other blocks (widths are inclusive of planter strips	Striped 5 feet (on street lanes or one way path or trail), or 8 feet (off-street two-way path or trail)	Intervals averaging 40 feet on center (excluding driveways and utility vaults)	N/A	N/A
STANDARDS	Sum of recycled content equals 50% or more of the total mass used for new sidewalks High albedo reflective material	Designate streets with a design speed of 25 mph or slower as part of the bike network	Noninvasive species, soil volume, root medium and well width	Covered shelter, with lighting and seating Trash receptacles (including recycling) Bulletin for posting transit information	15% annual energy reduction below conventional infrastructure items

RESIDENTIAL STREET



COMMERCIAL STREET



Recommendation 2

Shared Infrastructure and Shared Benefits

RESPONSIBLE DEPARTMENT

City Planning, Engineering, Transportation

The arrival of the LRT will bring about many changes for Golden Triangle station. Within the Green Infrastructure and Building credit category, LEED-ND encourages the efficient use of resources such as energy, water and existing materials. In preparing for the upcoming changes, the City has a unique opportunity to develop a strategy around sharing and reusing infrastructure in order to make the area even more attractive for future investment.

On the topic of energy, LEED-ND encourages the development of energy-efficient neighborhoods by employing district energy strategies that reduce energy use and the environmental impact associated with that use. District energy systems have a long implementation timeline, but can be a significant driver for the growth and development of business, for the health and welfare of residents, and offers energy security for municipalities. With a number of existing buildings that have high demand loads, the local expertise of District Energy St. Paul™, and future plans to densify and mix the land-uses within the GTS, the Global Green team believes that the GTS area may be a good candidate for a district energy system as additional developments are constructed.

In addition to district energy, other short-term shared infrastructure strategies can also lead to a more streamlined development process with environmental and social benefits. In light of future infill development opportunities, the City should consider implementing multi-purpose stormwater management facilities that serve multiple properties. By serving more than one property, the burden of individual stormwater management requirements in an increasingly densifying job and housing campus can be significantly reduced. To the extent possible these new facilities could also serve as public open spaces that can create a sense of place and provide passive recreational opportunities within the Golden Triangle. Although task 5 of the TSAAP does look at creating stormwater management options, the GTS is not one of the select four stations to be studied. Findings may be applied from a similar station area to the GTS; however there should be a strategic assessment of land suitable for potential shared stormwater facility sites.

Communities' that take steps to create neighborhood scale systems that improve their energy security and share development responsibilities are more attractive to businesses, which provide employment for residents who will, in turn, be attracted by a lower-cost, less polluting, and more secure energy supply.

Shared amenities for employees and future residents of the Golden Triangle Area

Shared Infrastructure and Shared Benefits

Recommendations:

Short Term

1. Develop incentives for residential buildings that meet 2009 IGCC building code standards and for commercial buildings that exceed ASHRAE 90.1-2007 by 10% or better, until the State adopts current IGCC code.

2. Meet with District Energy St. Paul™ with the goal of determining the feasibility of a district energy solution for the GTS.

3. Review Community Energy: Planning, Development, and Delivery published by the International District Energy Association and follow their feasibility methodology, which includes:
    - Collecting energy consumption data on existing buildings,
    - Estimating future energy use of new construction, and existing buildings, taking into account energy efficiency improvements and updates to energy codes, and;
    - Developing building density and/or heat density estimates to calculate the financial viability of distribution line installation.

Long Term

1. Designate a holding zone for crushed concrete during demolition to be reused for the base and/or sub-base of new streets and sidewalks within the TOD district.

2. Develop procedures to allow stormwater management requirements for individual parcels to be met by shared stormwater infrastructure within the TOD district.

3. Explore financing methods and structures for constructing shared stormwater infrastructure, possible using business improvement district or in-lieu fee models.

Image of district energy network instillation by District Energy Saint Paul ™

Recommendation 3

Ensuring a Positive Transit Experience

RESPONSIBLE DEPARTMENT

City Planning and Department of Engineering

Transportation habits form quickly and, once ingrained, can be difficult to change. Even when presented with more seemingly attractive transportation options – from an economic or travel time perspective – people will look for reasons to stick with what they know and are familiar with. In the Golden Triangle Area, this means there will be a strong bias by many employees and residents to continue to use private automobiles unless the "station-to-door" experience is an overwhelmingly positive one. By focusing on improving this move from the train station to current and future destinations in the GTA, the City of Eden Prairie can ensure that the potential benefits of light rail investment are fully realized.

Due to its focus on the design of the public realm, access to amenities, and multi-modal connectivity, LEED-ND contains a series of best practices that, if implemented, will help improve the pedestrian experience and pave the way for GTA drivers to become transit riders. However there is a risk that the Transitional Station Area Action Plan could miss out on a number of the opportunities articulated by LEED-ND, because either the physical scale of the TSAAP is too small, the site plan resolves issues presented by station engineering in ways that negatively impact broader area goals, or simply that the plan's stated goals do not match the proposed site plan and list of priority infrastructure investments. An example of this latter mismatch can be seen in the Development Agreement for Liberty Plaza, where the positive rhetoric regarding connectivity and walkability found in the development agreement cannot be seen in the actual site design, which remains auto-dominated and largely turns its back on the future transit station.

In order to ensure that key elements for ensuring a positive transit experience are not missed by the TSAAP or other future planning and design exercises in the area, the Global Green team recommends that the City of Eden Prairie use LEED-ND criteria as a screening tool. By asking a series of questions, city staff can quickly evaluate the completeness of any plan for the area and find specific ways that those plans can be improved. Below is a list of those questions that should be asked as part of the screening exercise; in the future this list, modified to suit local experience, can be presented to site planners at the initiation of a planning process as a way of specifically articulating what the city is looking for.

Transit facilities including covered transit shelters provide a more enjoyable transit experience

Ensuring a Positive Transit Experience

Screening Questions:

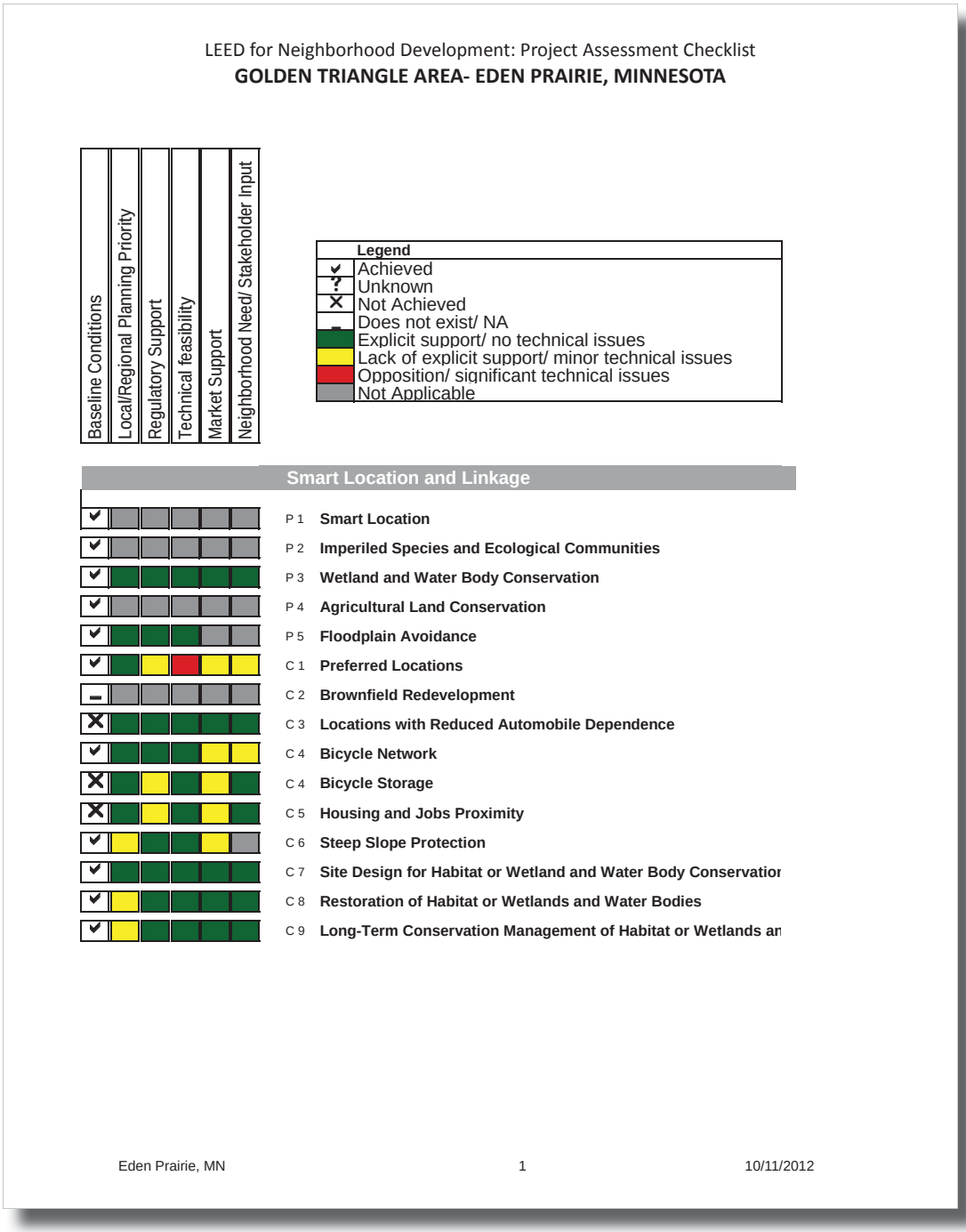
1. Does the site plan enhance east west and north south connectivity?
2. Does the site plan help the area reach a future state where 50% of jobs in the area are accessible in a one-half mile walking distance of the transit station?
3. Is there a place for future bike and car sharing service?
4. Do building massing and pedestrian infrastructure meet LEED-ND Walkable Street prerequisite (NPDp1), particularly with regards to building entrances facing public space and not parking lots?
5. Does the site plan contemplate future shared parking arrangements, including on-street parking?
6. Does the site plan help the area reach a future state where building entrances are within one-quarter mile walking distance of open or recreation space?
7. Is the tree canopy maintained?
8. Are there provisions for public infrastructure such as trash receptacles, recycling bins, street lighting and bicycle parking?

Pedestrians waiting to access the new streetcar in Seattle's South Lake Union business and residential core

Sustainability Assessment

Checklist

The Sustainable Neighborhood Assessment tool includes an annotated LEED-ND checklist created by Global Green. It is a key component of the process used to document and compare the assessment area against the LEED-ND prerequisites and credits. Each credit within the three credit categories (Smart Location & Linkage, Neighborhood Pattern & Design, and Green Infrastructure & Building) is marked as "achieved," "not achieved," "unknown," or "not applicable" under baseline conditions. Additional analysis has been done based on local planning policy, regulatory support, technical feasibility, market support and stakeholder input. The preliminary checklist analysis was edited and augmented during our site visit, stakeholder meetings, and after the community workshop. This information was then translated into an overall assessment of sustainable neighborhood performance.



LEED for Neighborhood Development: Project Assessment Checklist

GOLDEN TRIANGLE AREA- EDEN PRAIRIE, MINNESOTA

Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Input

Legend	
✔	Achieved
?	Unknown
✘	Not Achieved
–	Does not exist/ NA
	Explicit support/ no technical issues
	Lack of explicit support/ minor technical issues
	Opposition/ significant technical issues
	Not Applicable

Smart Location and Linkage

P 1	**Smart Location**
P 2	**Imperiled Species and Ecological Communities**
P 3	**Wetland and Water Body Conservation**
P 4	**Agricultural Land Conservation**
P 5	**Floodplain Avoidance**
C 1	**Preferred Locations**
C 2	**Brownfield Redevelopment**
C 3	**Locations with Reduced Automobile Dependence**
C 4	**Bicycle Network**
C 4	**Bicycle Storage**
C 5	**Housing and Jobs Proximity**
C 6	**Steep Slope Protection**
C 7	**Site Design for Habitat or Wetland and Water Body Conservatior**
C 8	**Restoration of Habitat or Wetlands and Water Bodies**
C 9	**Long-Term Conservation Management of Habitat or Wetlands an**

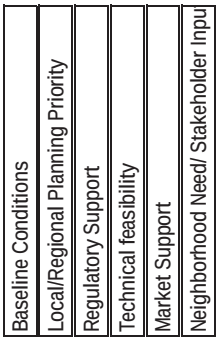
Eden Prairie, MN 1 10/11/2012

Sustainability Assessment

Checklist

LEED for Neighborhood Development: Project Assessment Checklist

GOLDEN TRIANGLE AREA- EDEN PRAIRIE, MINNESOTA



	Legend
✔	Achieved
?	Unknown
✕	Not Achieved
–	Does not exist/ NA
	Explicit support/ no technical issues
	Lack of explicit support/ minor technical issues
	Opposition/ significant technical issues
	Not Applicable

Neighborhood Pattern and Design

P 1	**Walkable Streets- Principal Entries**
P 1	**Walkable Streets- Building Height to Street Width Ratio**
P 1	**Walkable Streets-Continuous Sidewalks**
P 1	**Walkable Streets-Garage and Service Bays**
P 2	**Compact Development**
P 3	**Connected and Open Community**
C 1a	**Walkable Streets : Facades and Entries**
C 1b	**Walkable Streets: Ground-Level Use and Parking**
C 1c	**Walkable Streets:Design Speed for Safe Ped and Bike Travel**
C 1d	**Walkable Streets: Sidewalk Intrusions**
C 2	**Compact Development**
C 3	**Mixed-Use Neighborhood Centers**
C 4	**Mixed-Income**
C 4	**Diverse Communities**
C 5	**Reduced Parking Footprint**
C 6	**Street Network**
C 7	**Transit Facilities**
C 8	**Transportation Demand Management**
C 9	**Access to Civic and Public Spaces**
C 10	**Access to Recreation Facilities**
C 11	**Visitability and Universal Design**
C 12	**Community Outreach and Involvement**
C 13	**Local Food Production**
C 14	**Tree-Lined and Shaded Streets**
C 15	**Neighborhood Schools**

Sustainability Assessment

Checklist

LEED for Neighborhood Development: Project Assessment Checklist

GOLDEN TRIANGLE AREA- EDEN PRAIRIE, MINNESOTA

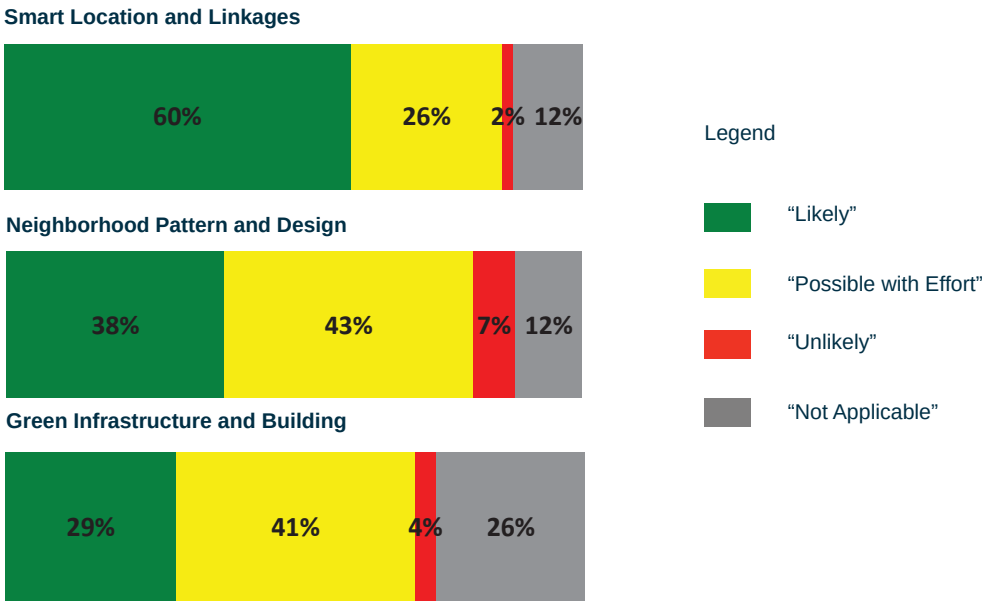
Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Inpu		
							Green Infrastructure and Buildings
✗						P 1	**Certified Green Building**
✗						P 2	**Minimum Building Energy Efficiency**
✗						P 3	**Minimum Building Water Efficiency**
✔						P 4	**Construction Activity Pollution Prevention**
✗						C 1	**Certified Green Buildings**
✗						C 2	**Building Energy Efficiency**
✗						C 3	**Building Water Efficiency**
✔						C 4	**Water-Efficient Landscaping**
–						C 5	**Existing Building Use**
–						C 6	**Historic Resource Preservation and Adaptive Reuse**
✔						C 7	**Minimized Site Disturbance in Design and Construction**
✔						C 8	**Stormwater Management**
✗						C 9	**Heat Island Reduction**
–						C 10	**Solar Orientation**
✗						C 11	**On-Site Renewable Energy Sources**
✗						C 12	**District Heating and Cooling**
✗						C 13	**Infrastructure Energy Efficiency**
✗						C 14	**Wastewater Management**
✔						C 15	**Recycled Content in Infrastructure**
✗						C 16	**Solid Waste Management Infrastructure**
✗						C 17	**Light Pollution Reduction**

Legend
✔ Achieved
? Unknown
✗ Not Achieved
– Does not exist/ NA
Explicit support/ no technical issues
Lack of explicit support/ minor technical issues
Opposition/ significant technical issues
Not Applicable

Sustainability Assessment

Summary

Based on in-field assessment, planning document review, various stakeholder meetings, and the community workshop, the Global Green team estimated which LEED-ND credits were "Likely," "Possible with Effort," "Unlikely" to be achieved, or "Not Applicable," considering existing conditions, technical feasibility, policy readiness, financial burden, and applicability to neighborhood conditions. The bar graph summary identified the overall level of sustainable neighborhood performance for the Golden Triangle Area. To that end, in all three of the LEED-ND credit categories, credits fall into the "Likely" category, which affirms the teams perception that the area has existing attributes of sustainability. Of the remaining credits, many fall in the "Possible with Effort" category, which shows the large potential for improving the neighborhood's level of sustainability specifically by pursuing the high-priority recommendations described in this report.



The summary table below shows the numeric values extrapolated from the percentage of credits identified as "Likely" above. While these values do not correlate exactly to specific LEED-ND points, they provide an estimate of the neighborhood's potential level of future achievement. It should be noted that this is a rough measure of performance, and not an exact representation of the project's level of possible certification. It should also be noted that all the prerequisites would need to be achieved if certification was to be pursued.

Point Requirements for LEED-ND Certification

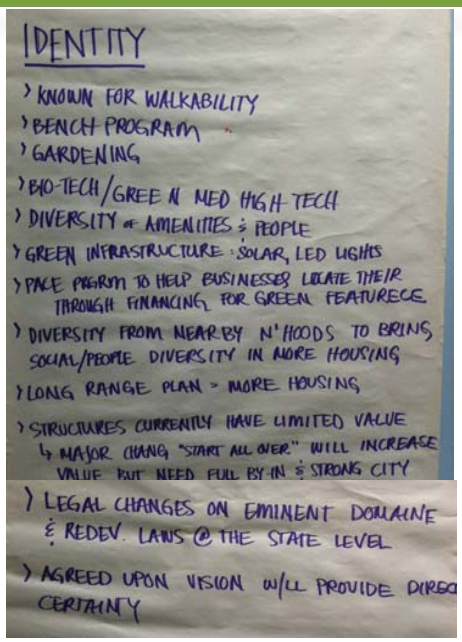
Certified:	**40-49**
Silver:	**50-59**
Gold:	**60-79**
Platinum:	**80+**

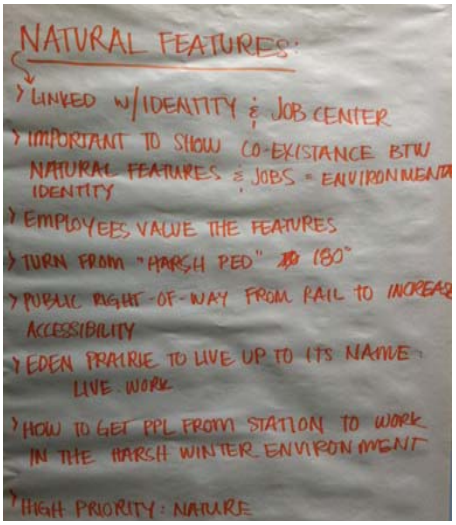
Golden Triangle Area

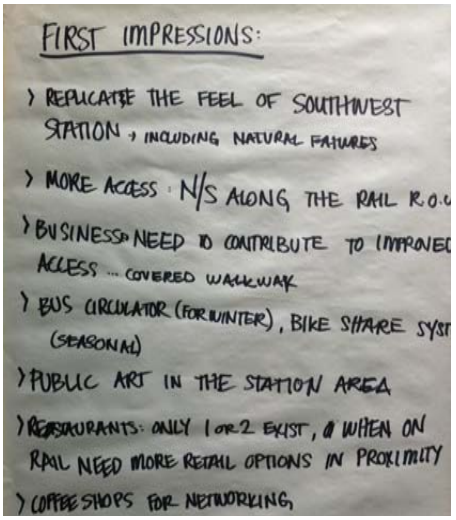
LEED for Neighborhood Development

	Total	Achievable
Smart Location and Linkage	27	16
Neighborhood Pattern and Design	44	17
Green Building and Infrastructure	29	9
	100	41

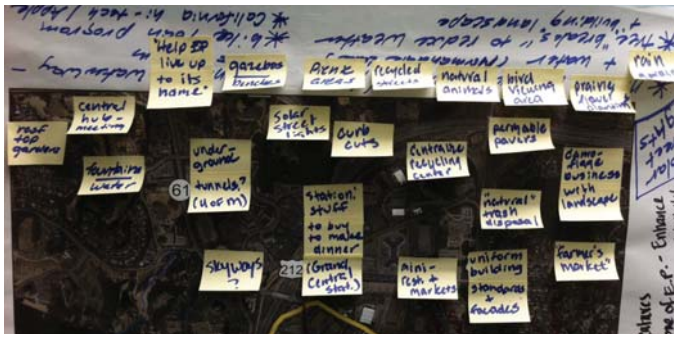
Workshop Notes

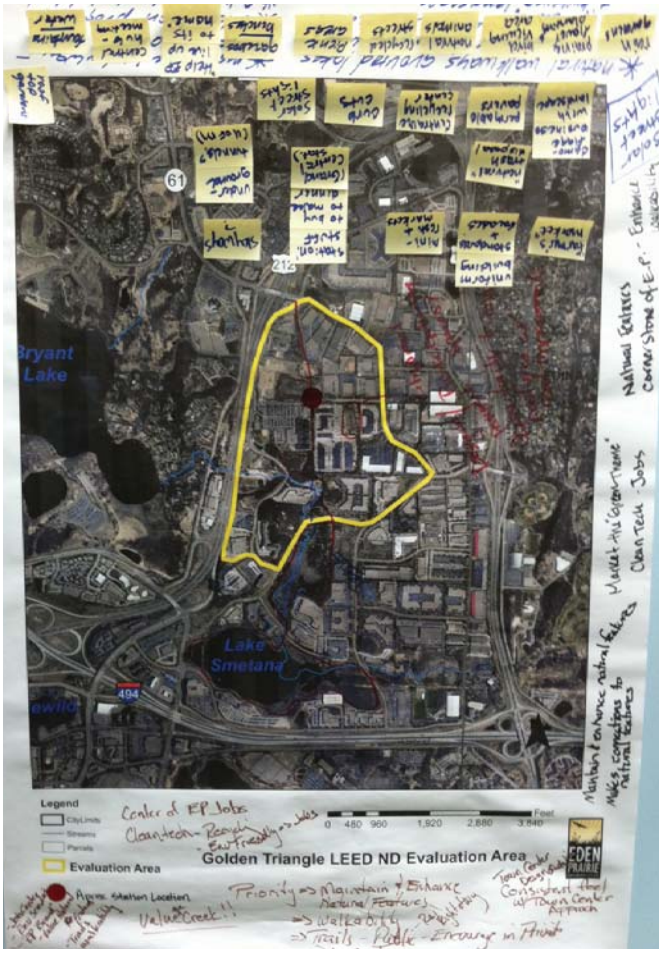






Golden Triangle Area map annotated during workshop:





This Page Is Intentionally Left Blank

Sustainable Neighborhood Assessment Team

Global Green USA

Walker Wells
Ted Bardacke
Hagu Solomon

Raimi + Associates

Aaron Welch

US Green Building Council

Meghan Bogaerts

Green urbanism program

GLOBAL GREEN USA

2218 Main Street
Second Floor
Santa Monica, CA 90405
310.581.2700 ph
310.581.2702 fax
www.globalgreen.org