

Maplewood 3M Station Report



Aubrey Austin
Lisa Elliott
Jennifer Melin Miller
Jill Smith

HUMPHREY SCHOOL
OF PUBLIC AFFAIRS

UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

(THIS PAGE WAS INTENTIONALLY LEFT BLANK)



Table of Contents

Part I: Executive Summary	Page 5 - 10
Part II: State of the Community/ Diagnosis	Page 11-38
Problem Statement	pp. 12
Gateway Corridor Overview	pp. 13-14
Community Profile – Maplewood, MN	pp. 15-19
3M Station Area	pp. 19-22
Area Housing Stock and Land Use	pp. 23-25
3M Headquarters	pp. 26-28
East Tanner’s Lake Development	pp. 29-32
Parks and Trails Meta Analysis	pp. 33-36
Area Residential Survey	pp. 37-38
Part III: Vision	Page 39-44
Part IV: Action Plan	Page 45-86
Transit and Living Street Development	pp. 46-57
Parks and Trails	pp. 58-62
Economic Development Opportunities	pp. 63-71
3M Partnership and Station Development	pp. 71-74
Part V: Conclusion	Page 87-88
Works Cited	Page 89-96
Appendix A: Residential Survey Questions	Page 98-99
Appendix B: Residential Survey Results	Page 100

(THIS PAGE WAS INTENTIONALLY LEFT BLANK)

Part I: Executive Summary



Part I: Executive Summary



MAPLEWOOD

The City of Maplewood has requested that a graduate class at the University of Minnesota Humphrey School evaluate a proposed Gateway Corridor rapid transit station at the 3M Campus in Maplewood (See Exhibit 1). This transitway would operate on a separate right-of-way connecting Union Station in St. Paul with various stops on Hudson Road along the I-94 corridor and would extend to Hudson, Wisconsin and ultimately beyond to Eau Claire, Wisconsin. Stations from Sun Ray Shopping Center in St. Paul and eastward would include park and ride facilities, but the Maplewood 3M station would not include an accommodation for parking.

Issues of interest to the city are the connections of the Gateway Corridor with 3M Center, business development opportunities for commercial areas along Tanners Lake and the southwest area at I-94 at Century Avenue, and greater multimodal connectivity between the north and south sides of I-94 that provide better access to businesses, transit, and community facilities including Battle Creek Park.

Project goals include identification of issues, a vision of the potential outcome of what the area could be, areas for further study and planning, and an action plan for next steps to achieve the vision. Incorporation of considerations regarding sustainability, safety, multi-modal connectivity, environment and community were included in design of the outcomes.

Exhibit 1: Maplewood Study Area Map



Part I: Executive Summary



MAPLEWOOD

Transit in the eastern portion of the Twin Cities is currently underserved and the Gateway Corridor would provide a greatly needed transit connection to the communities along the I-94 corridor. This connection would provide a number of benefits to residents and businesses in this area, to the transportation system and to the environment. I-94 is currently suffering from significant congestion during rush hours, and this situation will only get worse. When traffic is slowed to a greater extent, it produces higher levels of emissions that reduce regional air quality. An appealing rapid transit system would provide a welcome alternative for commuters as well as transit-dependent riders.

The Twin Cities has embraced multi-modal transportation options and has the highest proportion of bike riders in the United States. A survey of the subject area indicated that many residents also walk to destinations and for recreation. Support of these activities requires safe and appealing trails and designated lanes and a regional approach. Ramsey County, Washington County, Maplewood and Oakdale all support the goal of greater connectivity of their systems. Design of these facilities to provide a safe method, appealing experience and coordinated system is imperative to its ultimate success.

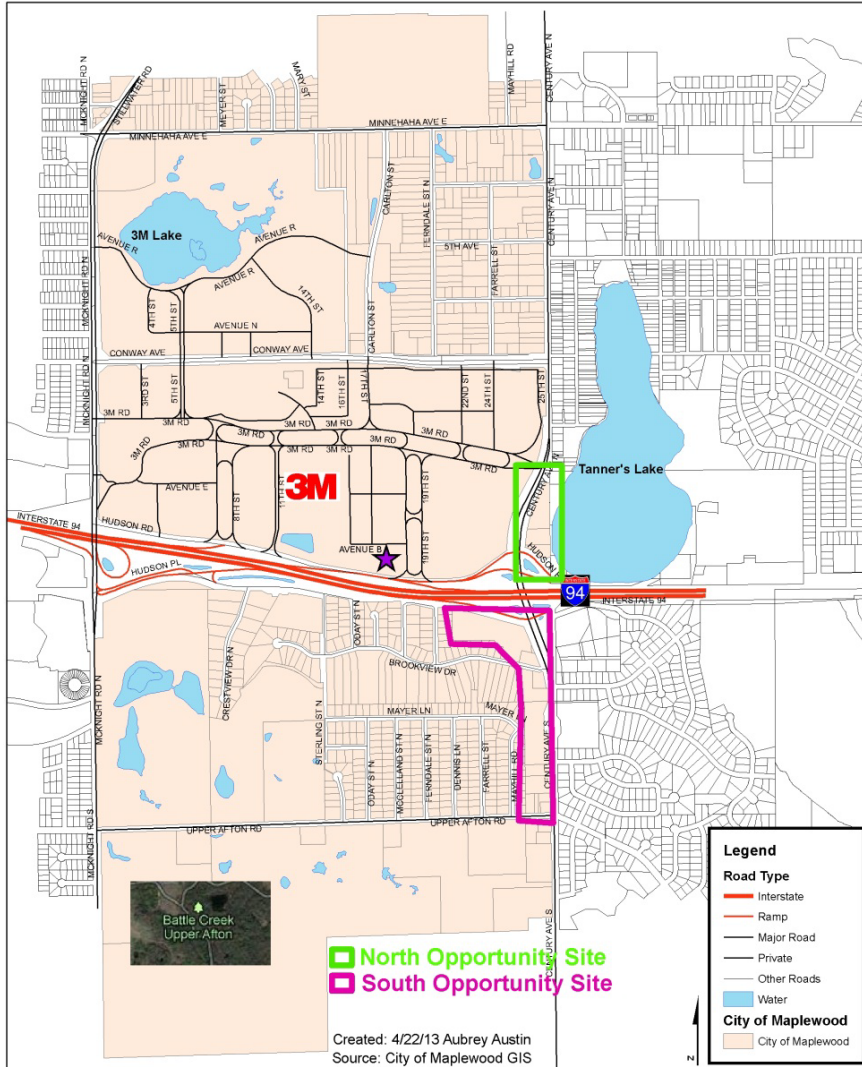


Example of "cow path" or heavily used but not defined trail on the 3M Campus off Innovation Drive



Part I: Executive Summary

Exhibit 2: Opportunity Sites



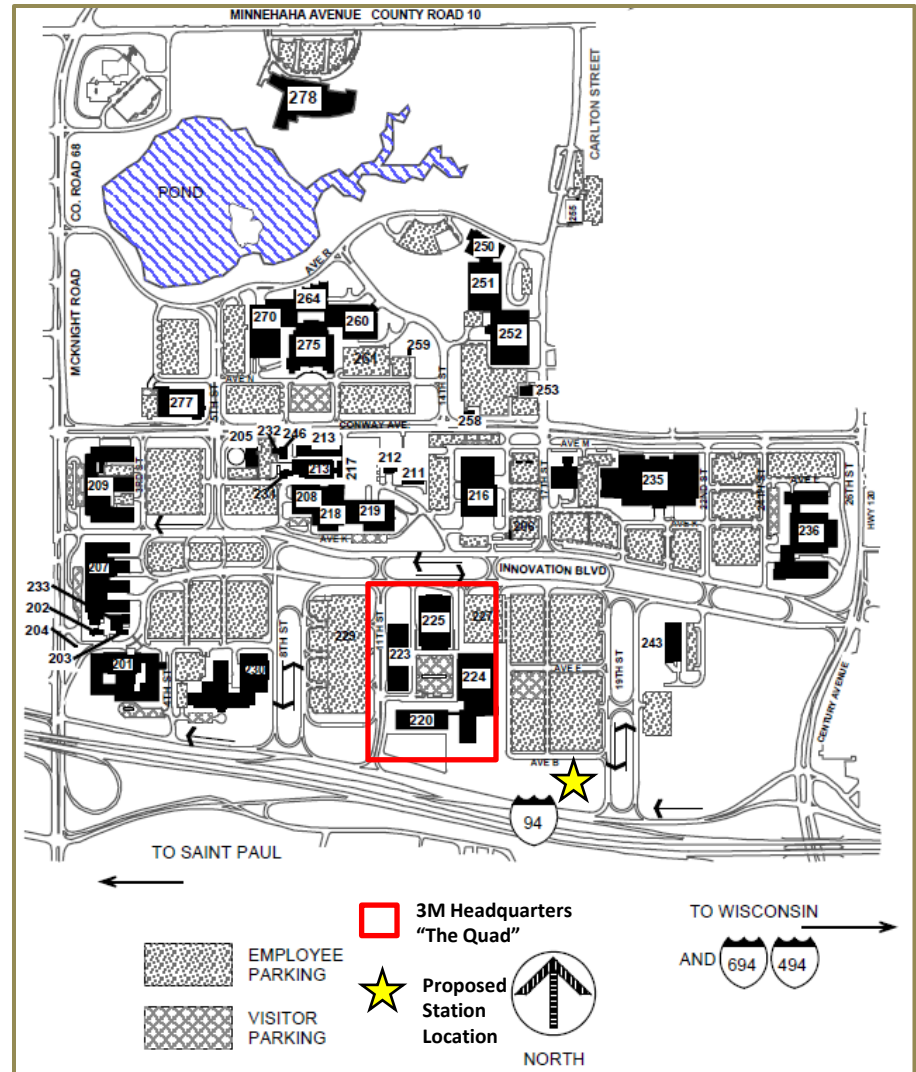
An ideal opportunity for a rapid transit station is to promote transit oriented development in the area. Since the Maplewood 3M station is located along a frontage road and is adjacent to the large 3M Campus, it does not have this direct opportunity. However, the proximity of two commercial areas at Tanners Lake and south of I-94 along Century Avenue does present the opportunity for greater commercial development in these areas (see Exhibit 2). The Tanners Lake commercial area is a narrow strip of land that is under the jurisdiction of Maplewood and Oakdale. Oakdale is currently seeking a new restaurant and other development in their jurisdiction. The Maplewood area is currently developed, but has the potential for a higher level of development in the future that better serves the community. Maplewood and Oakdale must work together to develop an overall plan for this commercial area to ensure optimal coordination of businesses and circulation design. The commercial parcel at the southwest corner of I-94 and Century Avenue is underbuilt and also has potential for greater development for, perhaps, a retail center designed to serve the neighboring communities. Both areas could incorporate attractive public gathering places and use sustainable building practices as well as environmentally sound water quality measures. Development of these areas creates the opportunity to heighten community identity through monument identification and landscaping.

Part I: Executive Summary



The Maplewood 3M rapid transit station will primarily serve 3M employees, but will also serve the public. This station adjacent to 3M creates the opportunity to show the relationship of Maplewood and 3M. It also presents an opportunity for 3M to show a measure of hospitality to its employees and the community with a refreshment kiosk and a display showcasing the 3M materials used in the transit system and station.

The recommendations in this report present a number of opportunities that arise as a direct and an indirect result of planning the Gateway Corridor. As this complex project progresses, many of the Maplewood goals will be able to be realized.



Building Map Guide from the employee directory

(THIS PAGE WAS INTENTIONALLY LEFT BLANK)

Part II: State of the Community/ Diagnosis



Part II: State of the Community/ Diagnosis



MAPLEWOOD

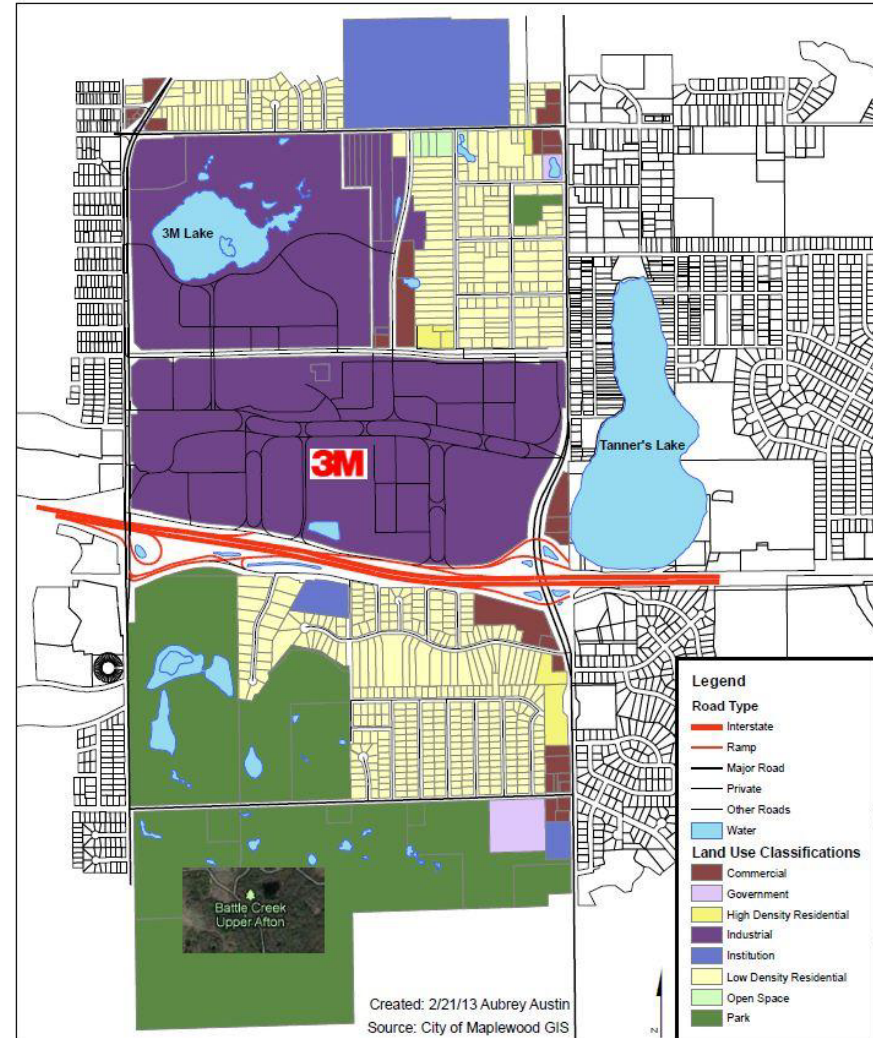
Problem Statement

Maplewood has an opportunity to explore the feasibility of implementing a transitway corridor station as part of the Ramsey/Washington County Gateway Corridor project. This brings additional opportunities for transit-oriented development in the station area, redevelopment vacant property near Tanners Lake, and increases in non-motorized pedestrian and bike connections through trail and streetscape improvements. A key stakeholder in this site plan is the current landowner 3M. A major goal will be to incorporate any station development opportunities that exist in conjunction with 3M renovation plans. 3M employees are perceived to be future major users of the transitway, however there lacks any parking or traffic congestion problems, making difficult to compete with current commute times and the convenience of personal transportation.

Project Goals:

- Develop recommendations to integrate public rapid transit services with 3M transportation needs and services
- Develop site proposals that meets the transit and amenity needs of 3M employees and Maplewood residents
- Explore connectivity and trail improvements to regional trails and recreational sites
- Explore feasibility and economic development opportunities at Tanners Lake and south of I-94
- Suggest public outreach plans to involve Maplewood residents and understand their needs

Exhibit 3: Study Area Land Use Map



Gateway Corridor Overview

The Gateway Corridor Commission was formed in 2009 to help address current and future traffic congestion along I-94 with a rapid transit system. Over 90,000 vehicles cross the St. Croix River Bridge each day and this corridor now carries over 150,000 vehicles into St. Paul. This volume exceeds the interstate's current capacity. In addition, the area's population is expected to grow by 30 percent by 2030. Adding rapid transit would provide a welcome alternative to driving on increasingly congested roads.

The I-94 corridor is a major arterial through the Twin Cities and east to Wisconsin. The Gateway Corridor would create a much-needed transit link between St. Paul, the Wisconsin border and beyond to Eau Claire. I-94 passes by and through several cities in the eastern metro area. St. Paul and Maplewood in Ramsey County, and Oakdale, Landfall, Lake Elmo, West Lakeland and Lakeland in Washington County are located north of the freeway. Cities bordering to the south include St. Paul, Maplewood, Woodbury and Afton. All cities and counties support the Gateway Corridor. The Gateway Corridor Commission is comprised of officials from each jurisdiction. The Metropolitan Council and MnDOT also provide support to the Commission.

In 2010 the Commission embarked on a Gateway Corridor Alternatives Analysis Study to determine possible routes, methods of transit, ridership, travel times and costs for each alternative. Results from the study led to the conclusion that the corridor plan shown on Exhibit 4 using BRT or LRT are the most feasible and optimal for the success of the line.

This route is expected to attract 9,000 riders per day and connect with existing local and express bus routes. The preferred route also provides greater opportunities for economic development. This route will commence at Union Station in St. Paul, continuing along Hudson Road north of I-94 and crossing to Hudson Road south of I-94 at Radio Drive. Stops with park-and-ride facilities would be located at Sun Ray Shopping Center in St. Paul, Crossroads/Oaks Business Park in Oakdale, Woodbury Drive/Keats Avenue as well as Manning Avenue both in Woodbury, and Carmichael Road in Hudson, WI. Both the BRT and LRT would follow the same route and have the same stops (see Exhibit 4).

Estimated optimized capital costs for BRT are \$404M and \$922M for LRT. Other costs and benefits are generally comparable. Both BRT and LRT are eligible for FTA New Starts funding. Completion time is estimated to be between 2020 and 2025.



Part II: State of the Community/ Diagnosis



Exhibit 4: Gateway Corridor Alternatives Analysis Map





Community Profile – Maplewood, MN

Maplewood, Minnesota is an inner ring suburb located in Ramsey County. The city boundaries stretch along most of the northern and eastern borders of St. Paul. According to the 2010 Census Bureau, the city has a total area of 17.99 square miles of land and 1 square mile of water.

Demographics

As of the Census of 2010, there were 38,018 people, 14,882 households, and 9,620 families residing in the city. The population densities reflect a medium density statistic, reflecting the suburban urban form. The primary races of residents are Caucasian and Asian, and African American, with a combine total of 93% of the population. The household statistics reflect 30 percent of household have children under 18. A large percentage (52 percent) of the population are single householders and non families. The median age is 39 years with 52 percent of the population between the ages of 25-64. The median household income of \$51,596 is slightly higher than the county and state.

Education

Level of educational attainment contributes to the local economy, influences economic development, and also suggests potential demands of current residents. A high school diploma is the highest level of education completed for about 32 percent of the population. Nearly 25 percent of the population has attended some college. Another 17 percent completed a bachelor's degree, and 8 percent have obtained a graduate or professional degree.

Exhibit 5: Population Snapshot of Maplewood

Statistics	
Population	
Total	38,018
Total Housholds	14,882
Population Density (persons per square mile)	2,239
Total Housing Units	15,561
Housing Density (Units per square mile)	916
Race	
White	76%
Asain	10%
African American	8%
Other	2%
Native American	1%
Pacific Islander	0%
Two or More Races	3%
Hispanic or Latino of any race	6%
Housholds	
Average Houshold size	2.48 persons
Family Size	3.08 persons
With children under 18	30%
Married Couples	47%
Single Female Housholder	12%
Single Male Housholder	5%
Non Families	35%
Single over 65 yrs	12%
Age	
Median	39 years
Under 18 years	22%
18 - 24 years	9%
25-44 years	25.20%
45-64 years	27%
65 + years	15%
Gender	
Male	48%
Female	52%

Part II: State of the Community/ Diagnosis



Population Forecast

Maplewood's population grew quickly in the 1990's and 2000's and is projected to grow 3-6% over the next 20 years. In the next 20 years the city and the county will soon face the challenges of an aging population as the baby boomer generation moves towards retirement (See Exhibit 6).

Economic Development

The economic health is a vital contributor to quality of living and for attracting new residents. The area has experienced economic growth and as demonstrated through the 2030 comprehensive plan, is forecasted to experience continued growth. Two major employers reside within the city limits, and the city has three major employment centers.

Education, healthcare, social assistance, manufacturing, professional, scientific, retail, and financial services, and administrative services are major industries that employ Maplewood residents. Sixty five percent of the population is in the civilian labor force and 35 percent are not in the labor force. The percent unemployed is 6.4 percent. The median household income of Maplewood is \$57,594.

Exhibit 6: Population History and Forecasts

	Actual				Estimate	Forecasts		
	1970	1980	1990	2000	2006	2010	2020	2030
Maplewood	25,186	26,990	30,954	35,258	36,397	37,500	38,500	40,900
<i>Change</i>	x	7.16%	14.69%	13.90%	3.23%	3.03%	2.67%	6.23%
Ramsey Co.	476,255	459,784	485,765	511,035	515,059	547,700	570,860	598,900
<i>Change</i>	x	-3.46%	5.65%	5.20%	0.79%	6.34%	4.23%	4.91%
Twin Cities	1,874,612	1,985,873	2,288,721	2,642,062	2,821,779	3,005,000	3,334,000	3,608,000
<i>Change</i>	x	5.94%	15.25%	15.44%	6.80%	6.49%	10.95%	8.22%

Source: U.S. Census, 2000; * Metropolitan Council forecast estimates, April 1, 2006

Exhibit 7: Change in Employment Numbers

	2000	2010	2020	2030
Maplewood	29,259	36,600	41,000	44,500
<i>Change</i>	x	25.1%	12.0%	8.5%
Ramsey	333,305	372,030	404,380	429,440
<i>Change</i>	x	11.6%	8.7%	6.2%
Twin Cities	1,606,263	1,816,000	1,990,000	2,126,000
<i>Change</i>	x	13.1%	9.6%	6.8%

Source: Metropolitan Council



Baby Boomers moving towards retirement is a national trend that Maplewood needs to be attentive to

Part II: State of the Community/ Diagnosis



MAPLEWOOD

Commuting

Many of Maplewood's residents are employed outside of the city boundaries, and are faced with considerable commuting time. The majority (81 percent) of residents travel to work alone and access employment by car, truck or van. However, 9 percent of residents carpool to work, 3.5 percent took public transportation and 3.7 percent work from home. On average, commuters spend nearly 22 minutes commuting to their place of employment, which is comparable to the state and national average (See Exhibit 8).

Travel Demand Management Policies

Travel Demand Management (TDM) is designed to increase the efficiency and utilization of transitways through engaging in management strategies to reduce demand at peak times. Management strategies include rides shares, utilization of transit options, and reduction of single occupancy vehicle trips during rush hours. As stated in the 2030 plan, the city will encourage companies to implement a TDM Plan when justified.

Exhibit 8: Maplewood Commuting Statistics

COMMUTING TO WORK	Persons	Percent
Workers 16 years and over	17,889	
Car, truck, or van -- drove alone	14,645	81.90%
Car, truck, or van -- carpooled	1,605	9.00%
Public transportation (excluding taxicab)	627	3.50%
Walked	199	1.10%
Other means	143	0.80%
Worked at home	670	3.70%
Mean travel time to work (minutes)	22.4	

Source: Census 2010



Increased traffic along I94 from population pressures and the desire to live outside of the city

Part II: State of the Community/ Diagnosis



Land Use

The city has conducted a land use inventory to identify existing development. This inventory combined with other information can be used to analyze areas for potential development/redevelopment. The current acreage of the city is approximately 11,563 acres. 88% of the city has already been defined as developed.

Existing Land Use

As stated in the 2030 comprehensive plan, “single-family residential is the largest land use in Maplewood at 38 percent. The overall condition of the city’s housing units is good, although there are small, isolated areas that have homes with the potential to deteriorate. However, as the housing stock in Maplewood continues to age, steps need to be taken to ensure high quality housing. Multi-family housing consists of 33.1 percent of the city’s total housing stock and manufactured housing consists of 5.6 percent. Maplewood has traditionally had a higher than average percentage of owner-occupied housing units, with 76% being owner occupied. Parks, Recreation and Preserves make up the second largest land use in the city, with 18 percent. Twelve percent of the city is undeveloped and 1 percent is dedicated to Agriculture uses”.

Snap Shot of Station Area

To gain a local perspective of the neighborhoods surrounding the station area, as these people will gain the most access to the transitway, and be the primary local users. Information was collected and synthesized from the block level from the 2010 American Community Survey.

The geographic boundaries include Century Avenue, Ruth Street, Minnehaha Avenue, and Lower Afton Road. Some of these areas are outside of the boundaries of Maplewood but are useful to include due to the low population of blocks in and around the 3M land area.

Almost 13,000 people live in the surrounding area. There are about 5,500 houses, with the average median housing price of \$199,471. The area has a population density of 4,070 people per square mile. The median household income is \$53, 949 with a poverty rate of 9 percent. Compared to the age distribution of Minnesota, the station area has higher percentages of people less than 5 years, 20-35 years, and 75-84 years. This reflects the possibility of young families and retirees in the area, who could potentially benefit from increased access to additional public transit options (See Exhibit 9).

Exhibit 9: Station Area Population

	Station Area
Population	12,947
House Units	5,527
Population Density (persons/sq mile)	4,070
Median Household Income	\$53,949
Family in Poverty	9%
Median House Price	\$199,471

Source: Census 2010

Part II: State of the Community/ Diagnosis



MAPLEWOOD

The level of education reflects that on average people living in the station area have less than a bachelor degree, with percentages higher than state averages for education attainment of less than high school degree, a high school degree, or some college/an associates degree. Major areas of employment include: Management, Professional, and Related Occupations, Sales and Office Occupations, Production, Transportation, and Material Moving Occupations, and Service Occupations. English, Spanish, and Asian Pacific languages are the three primary languages spoken in the station area. This should be noted and accommodated for in community outreach plans regarding the transitway.

3M Station Area – Current Transportation Networks and Connectivity

The area surrounding the proposed Maplewood 3M Station on the Gateway Corridor is a complex mix of jurisdictions. 3M dominates the area north of I-94 between McKnight Road and Century Avenue. The Maplewood 3M Station is proposed to be located along Hudson Road (the frontage road to I-94) and immediately south of the large 3M parking lot east of the campus headquarters – the “Quad.” While this will officially be a public stop, it will primarily serve riders for whom 3M is the destination. The 3M Maplewood campus currently has over 12,000 employees, most of whom now drive. Since the Campus is so large, 3M operates an internal shuttle service between buildings. This shuttle would include the transit stop on its internal route.

3M world headquarters is located in Maplewood and occupies the full width of the city in the area. This location is the only opportunity for Maplewood to have a direct stop within city limits. Since 3M and I-94 / Hudson Road surround the stop, access by the public will be limited to walkers or bikers. At this time a private path connects the station area to Century Avenue. Public interest has been expressed for having a trail connection along Hudson Road. A major stop and transit hub with a park and ride will be located west of 3M and McKnight Road at the Sun Ray Shopping Center. This could be a more convenient location or preferred choice for residents of Maplewood to use the new transit way since distance from the stop would not be an issue with the Park and Ride.



The 3M Campus looking east: A potential stop along the Gateway Corridor Route

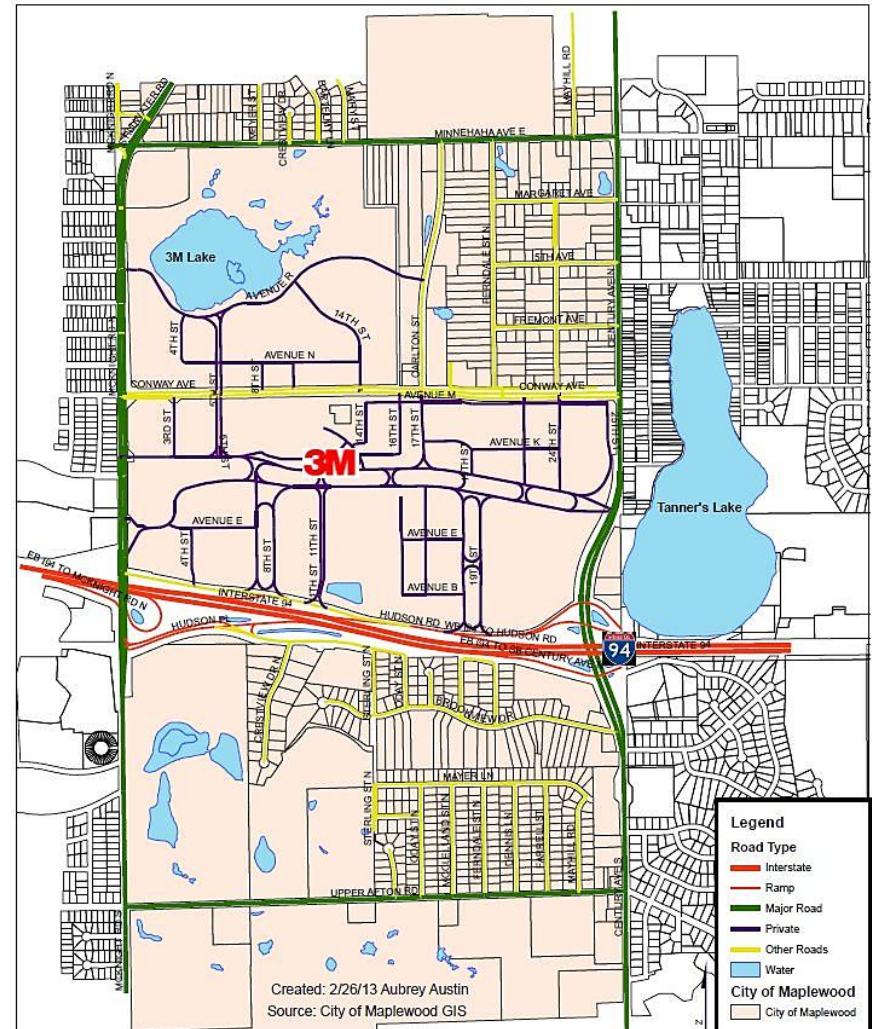
Part II: State of the Community/ Diagnosis



MAPLEWOOD

Streets and highways in the area of the proposed 3M Station fall under several jurisdictions. MnDOT manages I-94 and Century Avenue / TH 120 (See Exhibit 10). Several slip ramps connect I-94 and Hudson Road immediately south of the 3M Campus. Hudson Road, where the 3M Station would be located, is now one-way going west between Century Avenue and McKnight Road to accommodate rush hour ingress to and egress from 3M during morning and afternoon rush hours and to provide easy access to I-94. The transit way would be a two way road for exclusive use of transit and be located immediately north of Hudson Road. Each lane would be 13 feet in width and the facility would require 30 to 50 feet of right-of-way. The wider width could also accommodate a pedestrian / bike path. 3M has recently made significant improvements to the internal roadway system and landscaping in front of their headquarters, so a full 50 foot width could present an issue. It may be possible to use some existing right-of-way from Hudson Road for the dedicated transit lane. The introduction of a new two-way transit road, which would be adjacent to the parking areas, between the major 3M egresses from the east parking lot and the west parking ramp could provide challenges for access and egress to the frontage road. This could create backups or alter traffic patterns within the campus.

Exhibit 10: Current Area Road Network



Part II: State of the Community/ Diagnosis



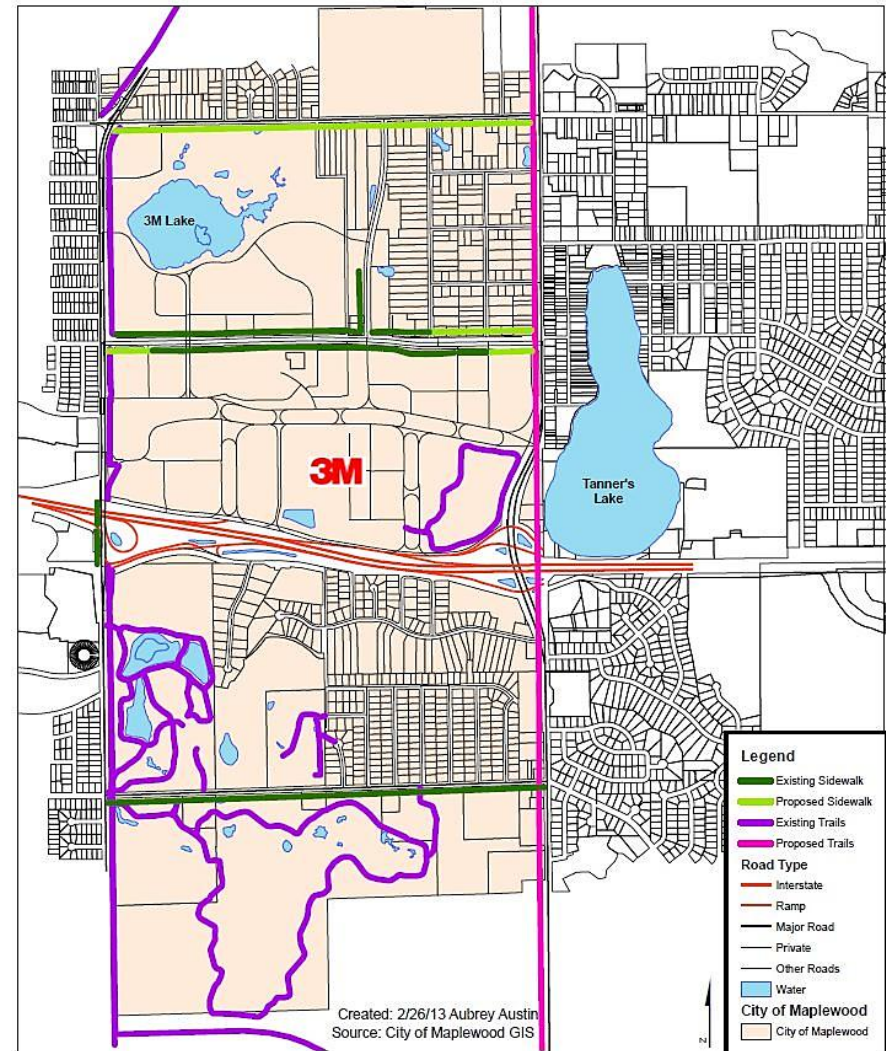
MAPLEWOOD

Both Washington County and Ramsey County are developing their walking and biking trail networks and making connections with the Met Council's regional trail system. In addition, the cities of Maplewood and Oakdale have more local trail systems that connect neighborhoods, parks and other local destinations. In many cases, these connections are not complete, but work is in progress to complete them. A county trail runs north/south along the western edge of 3M at McKnight. 3M also has private trails along Century Avenue and through the campus. The region aspires to have greater trail connectivity and is working towards that goal. The area around the Maplewood/3M Station is significantly built-up, so acquiring the right-of-way for these connections is a challenge (See Exhibit 11).



Battle Creek Regional Park is the largest park in the area and draws visitors regionally

Exhibit 11: Current Trail and Sidewalk Network



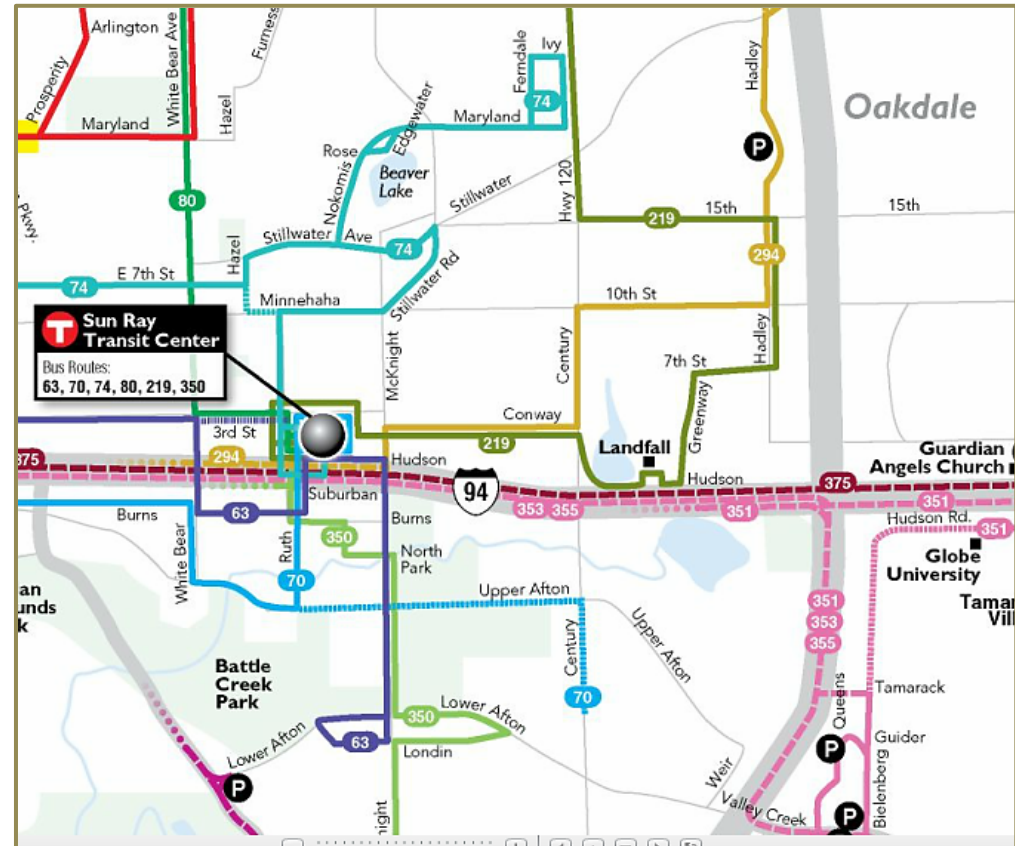
Part II: State of the Community/ Diagnosis



MAPLEWOOD

Two bus routes directly serve the 3M area and follow Century Avenue, Conway Avenue and McKnight Road. Route 219 is a local route that goes between Sun Ray Shopping Center and Maplewood Mall. Route 294 is an express route from St. Paul to Stillwater and runs only during morning and afternoon rush hours. Neither of these routes currently intersects with the proposed Maplewood 3M station. However, Sun Ray Shopping Center is a major transfer hub and connects with routes to the north and south and beyond. A Gateway Corridor transit way would extend the existing service to the east and provide the platform for adding needed connections to areas on either side of the corridor. A Maplewood 3M station would provide a transportation choice for 3M employees and help to alleviate congestion at both I-94 intersections with Century Avenue and McKnight Road as well as on I-94 itself. Four current express routes along I-94 stop at the Sun Ray Transit Center seen in Exhibit 12.

Exhibit 12: Bus Network of Study Area



Part II: State of the Community/ Diagnosis



Area Housing Stock and Land Use

The study area includes sections of two neighborhoods defined by the City of Maplewood, Battle Creek and Beaver Lake. Battle Creek Neighborhood is the neighborhood south of interstate 94, directly abutting Battle Creek Park in the southwest section of the proposed Maplewood 3M Station site (See Exhibit 13 and 14 for detailed EMV/Acre and Residential Structure Age Maps). Residents in these two neighborhoods are the most likely users of the Maplewood 3M station.



Battle Creek Park is a residential draw to the area

Battle Creek

In the Battle Creek area, the land is primarily zoned as park space for the area of Battle Creek and Upper Afton Park. This park area includes both walking and biking trails, athletic fields, and open park space. Two areas zoned institutional, one in the northern section of the neighborhood along highway 94 and the other along Century Ave S on the east side of the neighborhood, are both churches. One is Christ United Methodist church and the other is the Lutheran Church of Peace respectively. Also along Century Ave S, there are thirteen commercially zoned parcels, the largest of which is the Merit Chevrolet dealership at the cross section of Century Ave S and highway 94. Other commercial businesses along Century Ave S include an Indian Restaurant, Gas Station, Pharmacy, Dental Clinic, and others. The Government zoned parcel is the Carver Elementary School campus that directly abuts Battle Creek Park. Residential parcels in the Battle Creek neighborhood are small to medium size lots and primarily zoned as low density residential. Two parcels located in the east section of the study area are zoned as higher density residential and house two larger apartment complexes. Cul-de-sacs dead-end this neighborhood section in four places, creating curvilinear streets that have one or two outlets in and out of the neighborhood on major access roads such as Century Avenue and Upper Afton Road. In this area the estimated market value per acre is higher than that of the Beaver Lake neighborhood. The parcels with the highest estimated market value per acre are located in the southern portion of the neighborhood or those areas in which end in a cul-de-sac. These properties have a more recent build date than other parcels in the area, which could be attributing to the increase in estimated market value. The highest estimate market value per acre is located where the larger multi-family housing is on the east side of the neighborhood.

Part II: State of the Community/ Diagnosis



MAPLEWOOD

Beaver Lake

Beaver Lake neighborhood extends north of interstate 94 including the property of 3M. Much of this area is zoned as industrial due to the size of the 3M Campus. There are four commercial clusters in this area, one along Tanner's Lake, one along the edge of the 3M campus, one on the boarder of Oakdale and Maplewood on the east side of Maplewood, and one along McKnight Road in the Northwest corner of the neighborhood. The Tanner's Lake commercial development contains a hotel, restaurant, and auto repair shop. The commercial development along the 3M campus contains the 3M-auto repair shop and various office spaces. In the commercial node along Century Ave N there is a pharmacy, a convenience store, nail salon, tire and auto store, grocery store, and restaurants. The commercial node at the intersection of Minnehaha and McKnight contains restaurants, clinic, and liquor store. These businesses are all in close proximity to the Wells Fargo Bank Offices that are located in this area. The open space located along Minnehaha Ave E is owned by the City of Maplewood, most likely un-developable land due to the swampy nature of the soil. The government-zoned parcel along N Century Ave is a storm water retention pond owned and operated by the Ramsey County Public Works Department. Also along Century Ave N is Lions Park, owned and operated by the City of Maplewood.

Another large land use in this neighborhood is the Union Cemetery located along Minnehaha Avenue; this parcel is zoned as institutional, owned and operated by the Union Cemetery Association, a private organization. The Beaver Lake neighborhood residential parcels are smaller within this study area, and are split along the short end of the blocks to allow for more parcel development. This area is zoned all high density residential except three parcels in the southern portion of the neighborhood across from the 3M campus. This neighborhood has a grid-like pattern with streets running east to west and north to south. This creates multiple access points to the neighborhood by major access roads of Century Avenue and Minnehaha Avenue East. Estimated market values per acre in this area are lower than that Battle Creek, however some parcels sporadically spread through the area, are of higher value. These higher valued parcels correlate with the age the structure built on the land, the newer the structure the higher estimated market value per acre.



Beaver Lake neighborhood is named for the large lake north of the 3M site

Part II: State of the Community/ Diagnosis



MAPLEWOOD

Exhibit 13: EMV/Acre Residential Parcels

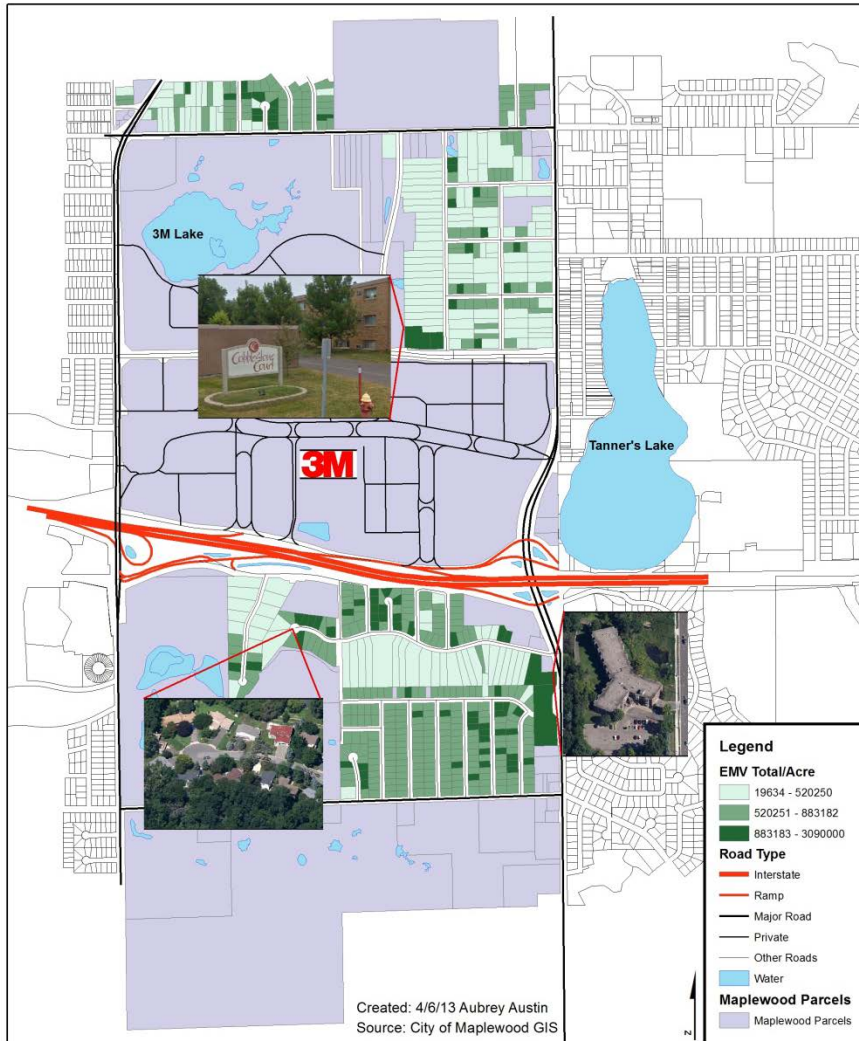
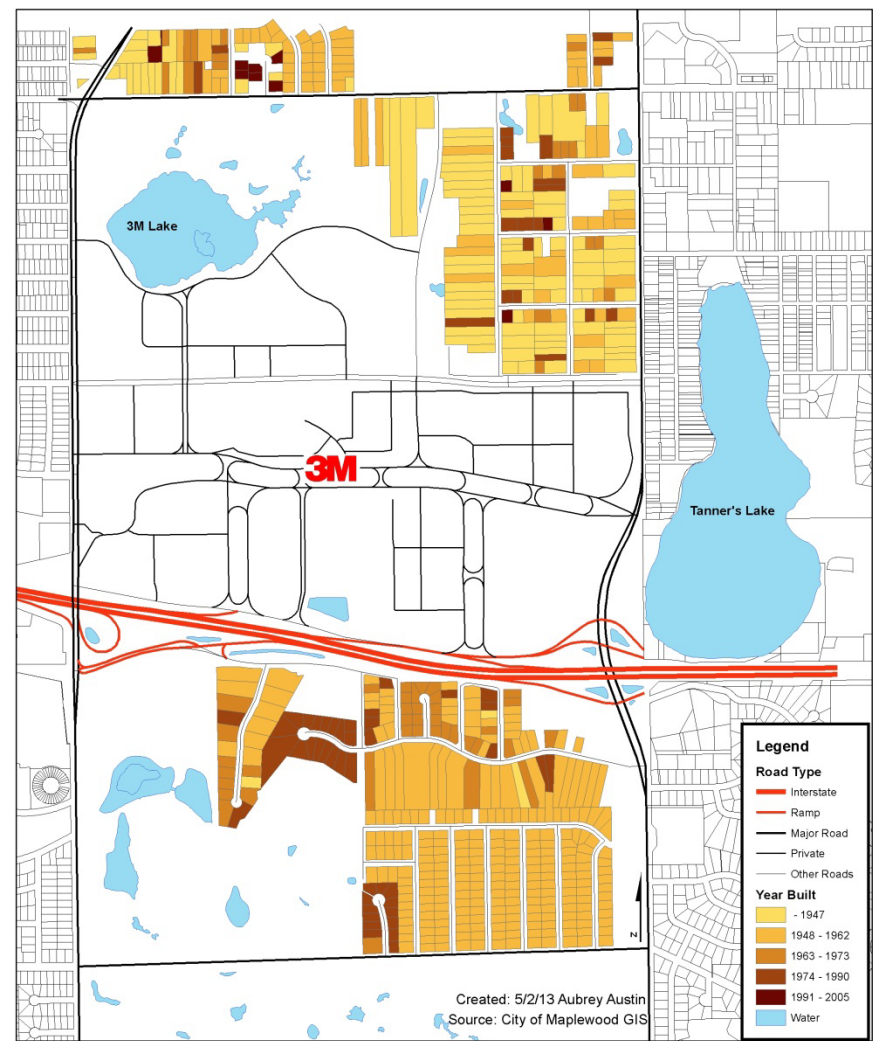


Exhibit 14: Age of Residential Structure on Parcel





3M Headquarters

The world headquarters of Fortune 500 company 3M is located in the south-central area of Maplewood. 3M employees work in over 50 buildings on the site, and 3M is Maplewood's largest employer. The proposed Maplewood Gateway Corridor transit station site is on land currently owned by 3M and located on the southern border of 3M Center's 475 acres.

In 2013, 3M finished a 2-year renovation of four of its main buildings known as "The Quad," as well as the surrounding landscaping. A representative in 3M Administrative Services suggests that the change in facilities reflect the image of a \$30 billion global company and accommodate the change in how employees work. Communication needs are greater than ever, with a focus on group efforts, and people are time-starved and working at various times 24 hours a day, 7 days per week. Therefore, the transformation of the 3M headquarters includes more on-site amenities and collaboration spaces to make modern-day working easier and more productive for employees. 3M employees do not want to be in their cubicle all the time, and the new spaces allow for work to be accomplished throughout the headquarters.



"The Quad" on the 3M campus consists of the tallest building on campus, easily visible from I94

This is the first extensive redesign since 3M headquarters were first built in 1963, which, at the time, helped spur the development of residential areas in Maplewood, Oakdale and Woodbury. Features include more wide-open spaces, glass-enclosed collaboration sites, a redesign of the employee cafeteria, and casual furniture with a younger, more modern feel. Work features include private catered dining spaces for customer meetings, as well as desirable amenities targeted towards maximizing employee time on campus that includes a company store, Aveda salon, Starbucks, Subway quick service restaurant, vision center, bank, pharmacy, wellness center and space for exhibits, which are all housed in what is called "The Mall."

Part II: State of the Community/ Diagnosis



MAPLEWOOD

For outdoor spaces, new landscaping on the I-94 side of the building now contains the second largest perennial garden in the U.S. after Millennium Park in Chicago. Additionally a large center plaza with trees and seating now sits between the four headquarters “Quad” buildings that is fully equipped with wireless access and will be used for outdoor dining, gatherings and events. Visitors enter the main building through an entrance facing I-94.

3M’s own products, such as lighting, floors, flat-panel screen optics and wall treatments, were proudly used throughout the designs and renovation. Lee Fain, Design Manager for 3M Products, said, “It can do nothing but help the 3M image when we have visitors and people wanting to see 3M. It’s what you expect from the headquarters of a large, multinational conglomerate.”¹ The new looks also sends a needed message to visitors that 3M is part of the information and technology revolution. “And we’re using our own technology, which delivers a positive message to our customers.”

Marlene McGrath, Senior VP of Human Resources added that the 3M makeover was aiming to make headquarters a modern showcase and “get employees excited to come to work.”²

Marc Liciardello, Chairman of International Facility Management Association adds that Millennials (generation born between 1976 and 2001) will make up almost half of the American workforce by 2020.

And as corporations look to hiring, they’ll need to replace retiring baby boomers, and modern workplaces are one tool to help them attract the best talent. Adding amenities “... goes right on down to recruitment and retention. It sets the stage for where the company wants to go.”³

A representative in 3M’s Real Estate Department says that available car parking on 3M headquarters is an issue for employees, and they have had to rent parking space at nearby office buildings. The use of public transit as an option has not been aggressively pursued yet, but a survey of employee attitudes could be useful. Public transit could help to address the parking challenges, contribute to the company’s sustainability initiatives and potentially be a valuable recruitment tool for young people. However, the location of the proposed stop on the 3M campus is not centrally located and could present logistics challenges for employees. 3M currently has an internal shuttle bus service operating at stops every 15 minutes to move employees throughout the campus.



Modern employee lounge made from 3M designed materials

Part II: State of the Community/ Diagnosis



MAPLEWOOD

A representative in 3M Public Affairs noted that the bike group within 3M is looking for more options around headquarters. Part of the headquarters transformation includes a path that stretches across the south side of the campus that added 1-½ miles for walking, and it could potentially be used as a connection between the proposed transit station and under 1-94 to Battle Creek Park.

Representatives at 3M say the company is conceptually supportive of the Gateway Transit project and potential 3M campus station location; however, that more concrete discussions have not taken place in the last year and half and there are concerns that 3M may have with the transit station location including security concerns about a public station location on the 3M campus. There are also concerns in how a transitway stop would affect current traffic patterns, change in employee access to work and the interstate, and if more trails create hazards with current traffic. Finally, 3M places great value on the limited property they own on the headquarters site, so there could be challenges in securing 3M's private property for public transit use.



Welcome desk at building 220 on the 3M Campus

3M is an important partner to the City of Maplewood, and both 3M and city representatives believe that relations are good. 3M taxes are approximately 12% of the Maplewood's revenues, and is the largest single employer for the city's residents. 3M and the City of Maplewood are currently working together on a \$150 million state-of-the-art laboratory on 3M's campus, part of which will be TIF eligible, and 3M is providing nearby property to the city to build a new fire station and response center. In the past, the 3M Foundation has provided funds to the City of Maplewood to purchase land to expand Battle Creek Park.

East Tanner's Lake Development

Development and redevelopment opportunities exist adjacent to the southeast side of Tanners Lake near the proposed Maplewood 3M Gateway Corridor transit stop. The LivINN Hotel, Denny's restaurant and Precision Tune Auto Care occupy the three land parcels located in Maplewood. The remaining land in this area is located in the neighboring City of Oakdale and includes an apartment rental complex and vacant lot formerly occupied by two different restaurants



*Auto care center along Century Avenue and
Tanner's Lake*



*Seasonally
open
boatyard
along
Tanner's Lake*

With the Tanners Lake proximity to The 3M Company's campus, redeveloped businesses, such as a destination restaurant and business-friendly hotel, could potentially attract the company's employees and visitors. Additionally, apartment renters could utilize the nearby public transit stop to commute into St. Paul. A future public transit stop on the east side of 3M's campus also presents the opportunity to create bike and pedestrian trail connections from Tanners Lake to the station, then along the south side of 3M's campus parallel to I-94, with a linkage to Battle Creek Park.

Part II: State of the Community/ Diagnosis



Representatives of the City of Maplewood say that the city is continually looking for opportunities to spur redevelopment in the city, since Maplewood is considered nearly fully developed. Although the Tanners Lake parcels could be candidates for redevelopment, all three businesses are happy there, and the city receives important revenue from their tax base. There are other potential redevelopment areas in Maplewood that could be considered bigger priorities and opportunities for the city, and that the Gateway Corridor Maplewood 3M Station could be too far away to have any significant impact on the businesses in the Tanners Lake location.

Representatives of the City of Maplewood suggest that the biggest benefits for the proposed Maplewood 3M Station on the Gateway Corridor is for 3M and the employees; however, there could be benefits to Maplewood residents if additional trails and are built with improved connectivity, specifically, access for Maplewood residents living south of I-94 to the north, and for additional accessibility to Battle Creek Park. The City of Oakdale's Community Development is currently considering a redevelopment for the area that would include 60 housing units of market rate rentals, approximately 10,000 sq. ft. in commercial space, and a 5 to 8,000 sq. ft. fast casual or full service independent restaurant with a lake facing patio and deck over the water to attract lunch and dinner crowds.

Presently the one-acre of undeveloped area is half owned by Oakdale and half privately owned. The vision would be to create a desirable "unique destination" opportunity for the location, tying in new and existing development in the area. The City of Oakdale desires to collaborate with the City of Maplewood for uniform landscaping that would include the current three businesses in Maplewood. The City of Oakdale is also almost fully developed, so their mayor and city council are proactive in redevelopment of this area.

Benchmark Commercial Real Estate owns the acre of vacant land in Oakdale in the Tanners Lake area. A representative expresses a vision of developing the land into a mixed-use multi-family housing development with an upscale but affordable restaurant and other potential amenities targeted towards these residents and 3M employees.

Management from the LivINN Hotel says that the property is owned and operated by a local family and that they have been investing into the renovation of the interior of the building and pride themselves on offering in-room amenities to guests. The primary users of the hotel are business travelers, but suggest there would be more use from 3M if there were amenities such as a pool or fitness room and more restaurants nearby. Currently there is no access to parks and trails from the hotel, and the bus service going downtown St. Paul is not convenient because it has many connections.

Part II: State of the Community/ Diagnosis



MAPLEWOOD

Exhibit 15: Breakdown of Commercial Property Taxes

Maplewood Commercial Property Taxes

Maplewood Commercial Property Taxes							
<u>Taxes and Assessor's Market Value</u>							
Property	2012 Taxes	2012 Land	2012 Bldg	2012 Total	2013 Land	2013 Bldg	2013 Total
LivINN Hotel	91,122	1,685,800	594,200	2,280,000	1,404,800	875,200	2,280,000
Denny's Restaurant	34,018	739,600	134,100	873,700	739,600	194,400	934,000
Precision Auto Care	27,808	555,400	150,600	706,000	555,400	150,600	706,000
Boat storage yard	25,478	507,000	3,000	510,000	481,700	1,000	482,700
TOTALS N of I-94	178,426	3,487,800	881,900	4,369,700	3,181,500	1,221,200	4,402,700
NWC at I-94 & Century	129,287	2,995,000	1,000	2,996,000	1,996,700	999,300	2,996,000



Parking lot at a chain restaurant along Tanner's Lake

Part II: State of the Community/ Diagnosis



MAPLEWOOD

When asked about potential development in the area, a representative from the nearby St. Paul Harley Davidson just to the south of Tanners Lake, feels that a visible gas station from I-94 would be a good addition to the area, because it would attract non-residents who have a hard time finding the surrounding gas stations. He also mentions event space for public use and accessibility to the outdoors as well as pedestrian space since there are connectivity issues, but acknowledges a need for better road design since currently people need to make a U-turn to drive from the frontage road to I-94 West. The representative believes the proposed public transit line and station would probably benefit their business in the long run, but he would be concerned about the construction time and how it would affect their business



Current hotel site along Tanner's Lake with parking directly abutting the lake



Vacant Lot along Tanner's Lake is a possible site for development in the area

Parks and Trails Meta Analysis

This section outlines the current transportation and parks and trails plans of Maplewood and surrounding areas, including both Ramsey and Washington Counties. The other cities included in the analysis include both Oakdale and Saint Paul's comprehensive plans. Focus is primarily on the connection of these areas to Maplewood parks and trail and alternative transit opportunities. Each section begins with the major goals of the area and then relates transportation initiatives and park and trail planning to the study area in Maplewood.

Maplewood

The City of Maplewood's major goals via their parks and trails portion of their comprehensive plan surround making parks and trails more accessible and creating more opportunities for existing parks and trails to be used. One of Maplewood's major goals is to make recreation opportunities less than a half and hour from resident's homes and in most cases the ultimate goal is a half of a mile distance from their homes. The comprehensive plan focuses on commuting trails because most land in Maplewood is already developed. One objective outlined in the plan is to create a strong vision and marketing system to encourage residents to use parks and trails, especially focusing on access to parks and trails for all people in the community. Maplewood's trail system goals focus on connecting Maplewood to other communities, as a part of their comprehensive parks and trail plans and for transit purposes.

Maplewood's trail goals include developing comprehensive trail plan that connects areas in the community, providing opportunities for alternative transportation, and focusing on north-south and east-west corridors. The most recent trail development in the area is the Century Ave Trail, which is a large north-south connection trail. This trail is expected to be a part of the street improvement project, a 5.6-mile sidewalk trail. The McKnight Trail, another major and completed north-south connection, is a 7.0-mile connection trail. There are many other connector trails in the area such as Minnehaha and Upper Afton Road (1 mile trails), which are classified as connector trails. Connector trail are defined as trails that connect one or more neighborhoods or areas. Maplewood has 36.2 miles of proposed trail development; the majority is considered road trails (32.4 miles).

The Maplewood park plan establishes areas in which park development could occur. Although Maplewood is mostly developed, there is still a high demand for turning existing open space into park space, connecting neighborhoods. Maplewood has included prioritization of development as a central goal to their comprehensive plan using criteria such as community demand, population density and funding opportunities. Within the study area there are two major parks; within the Beaver Lake neighborhood there is a mini neighborhood park called Lion's Park (3.4-acres), and within the Battle Creek neighborhood there is the Battle Creek Regional Park which is a 292.2-acre park. The Battle Creek Regional Park includes both the Afton Heights athletic fields and the regional parkland. Lastly, Maplewood's other goals include a permanent city community garden and city owned Dog Park.

Part II: State of the Community/ Diagnosis



MAPLEWOOD

Oakdale

The City of Oakdale's major goals via their parks and trails master plan focus expanding connections to other cities including the City of Maplewood at Larpenteur Avenue. Oakdale mentions Battle Creek Park as a large destination park for Oakdale Residents as a regional park trail system. The city would like to see more major connections to Maplewood through the Greenway extension trail north of 3M. The Oakdale trail plan section focuses on Century Avenue as an area that needs major improvements including separating bicycles and automobiles and repainting lines to better show right turn lanes. Included in this section, Oakdale aims to establish bike trails that focus on the ability to cross-large transit-ways including I-94 and Century Avenue.

In the Oakdale transportation plan, the major area of operational concern is along Century Ave connecting to 3M. 3M is a major transportation concern in this area because of the traffic to and from the campus during the work hours. Oakdale is mainly concerned with Hudson Road, which is the north frontage road of Interstate 94. For this issue, the City of Oakdale has suggested a folded diamond interchange, which will allow for greater access to Tanner's Lake commercial development. Oakdale also suggests the widening of Century Ave to accommodate the increased traffic.



Biking as an alternative mode of transportation is an initiative for Ramsey and Washington Counties



Local neighborhood parks are a catalyst for connecting regional trails in the area



Connections to other cities, including Maplewood by bike is an important part of the Saint Paul Comprehensive Plan

Saint Paul

Saint Paul's major transit and parks and trail goals include: supporting transit-oriented development through zoning and design guidelines including street oriented design for the needs of the pedestrian. Saint Paul aims to support infill development of areas for transportation-oriented purposes. Saint Paul transportation plan states that BRT and LRT should support street design and development but not replace current bus routes. The city has a specific goal of connecting downtown St. Paul to the east metro through increased express bus routes. The east metro is an area that is underserved in their transportation network, in particular the funding for bus service in this area. Saint Paul aims to require a travel demand management analysis for all businesses looking to expand or in need to city approval for projects to better understand where increased transportation is needed. The city has a goal of connecting all modes of transportation including bicycles, pedestrians, public transit and automobiles including supporting bicycle sharing stations near public transit to minimize parking need in some areas.

The city sees trends of gas prices rising over time as a cause and a need for alternative transportation. One of Saint Paul's main goals is to expand choice ridership, especially focused on bicycle transit. MNDOT has stated that there are too many roads that need general improvements and little to no funding can go to road development solely for automobiles. One recommended transit corridor for concentration is from downtown Saint Paul to the east metro and Maplewood. Major trail connection between Saint Paul and Maplewood is the Battle Creek regional trail that cuts through the regional Battle Creek Park south of Interstate 94.

Part II: State of the Community/ Diagnosis



Ramsey County

Ramsey County's major goals include integrating bike trails into the regional system by creating options for alternative transit and recreation. Ramsey County's land use vision promotes the use of low-energy-use models of transportation and keeping current transportation systems sustainable. As part of this goal, coordination with local communities and cities is cited as an important step in this comprehensive plan.

Active Living Ramsey County (ALRC) is a partnership to help develop healthy communities by making alternative ways of transportation easier and safer. Part of their goals is to develop a bicycle commission and to conduct community-walking workshops. Ramsey County does not provide transportation yet they are active in advocating for various types of transportation networks including trail connectivity. As an example, in the study area, Ramsey County is planning a biking/hiking trail that extends from Century Ave to the existing trails in the Battle Creek Regional Park. Suggested bus improvements include increased express routes to downtown Saint Paul and express routes for reverse commuters, increased park and ride lots, increased safety elements including lighting, etc., and improved pedestrian access to transit centers.

Washington County

Washington County's major goals include connecting communities and specifically economic assets of communities through a multi-modal transportation system. The county aims to acquire land that serves recreation purposes and to develop alternative transportation opportunities for the area. Washington County is especially focused on designing streets to foster development of bikeways and to connect these bikeways to office parks and other economic hubs or centers in the community. Washington County's plan points out less connectivity seen on the border of landfall (directly abutting the study area) except one connection to a county trail and one connection to a regional trail (Afton Bluffs Regional Trail).



Regional bike trails are integral to creating a fluid regional bike system

Area Residential Survey

During the period from March 30 through April 7 a survey of the neighborhoods in the study area both north and south of I-94 was conducted. A random sampling of 100 single-family homes for each of the neighborhoods on the north side of I-94 (Beaver Creek) and south of I-94 (Battle Creek) was identified. The survey was conducted over two weekends in April. From this sample, we were able to interview 21 residents: ten respondents in the Beaver Creek neighborhood and eleven in the Battle Creek area.

The survey questions and the full data from the survey are attached as Appendices A and B respectively. Following is a summary of the survey responses:

Demographics

- 38% of the respondents were over 65 years of age
- 67% of the respondents have lived in their home over 10 years and the same percentage planned on remaining for the foreseeable future

Work and Transportation

- Most who were still working were employed in or east of the Minneapolis area
- All respondents owned automobiles and over 40% also owned bikes
- 67% drove their vehicles to work; a few walk or bike to nearby work locations; only one took transit
- 67% do not use transit. While there is some limited service in the areas (2 routes: 219 between Sun Ray Shopping Center and Maplewood Mall, and 294, a rush hour express route from St. Paul to Stillwater), the primary reason is that transit routes do not currently serve their destinations. Some would take transit to entertainment events rather than for commuting to work.
- Most residents would walk at least 2 blocks to a transit station, with another 38% willing to walk 4 blocks or more
- Over 75% would use trails to access Battle Creek Park and the same proportion would use either a pedestrian / bike overpass or a safer underpass to cross I-94 by walking or biking

Gateway Corridor

- Only 33% were aware of the proposed Gateway Rapid Transit Corridor
- Over 75% indicated that they would use this rapid transit service either for work or for access to recreational or entertainment activities
- Over half would walk to the 3M station, but the rest would likely use the park and ride at the Sun Ray station
- Benefits of the transitway station at 3M included reduced traffic in the area, benefit to 3M employees, and the proximity to their homes
- The only concern expressed about a transit stop at 3M was possible disruption of through traffic to cross streets – as with the Hiawatha line. However, this is a potential issues with or without the 3M stop

Area Development

- Over 40% of those surveyed had no opinion about their perception of the development north of I-94 along Century Avenue with an equal number having a negative perception. Only one respondent offered a favorable impression.
- An overwhelming majority of the community favored a “nice” restaurant or a family restaurant. This is consistent with Oakdale’s plans for their site. Other options included a hotel, a park, personal services, or an office building

General Comments

- Several respondents expressed concern about safety in the Sun Ray area
- Most respondents would like a better and safer pedestrian crossing at I-94 with either a pedestrian / bike bridge or safer underpass
- The Gateway Corridor proposal received universal approval among respondents

Conclusions

- The east side of the Twin Cities is currently underserved by transit
- More people would take transit if it were convenient to both their homes and their destinations
- Many residents are walkers and/or bikers and would welcome safer trail connections, primarily along the main arteries
- Existing commercial development in the study area is generally not well thought of and does not serve the adjacent community

Part III: Vision





The Future Story: Using the Maplewood 3M Transit Station

Picture this: Mary lives with her husband Joe, two kids and dog on Fremont Avenue in Maplewood where they have been residents for over 15 years. They love the community, and the location so close to downtown St. Paul where Mary works. Mary used to sit in rush hour traffic as she drove downtown each morning, paying almost \$200 in monthly parking fees. Now, she is thrilled with the new rapid public transit option near her neighborhood that allows her a stress-free commute into Union Depot in downtown St. Paul, while she is able to check her emails and read books on her Kindle on the quick ride into the city. After a short walk to the Maplewood 3M Station from her home, Mary purchases hot tea from the kiosk vendor, appreciates the design of the contemporary platform and waiting area, and loves to admire the public art installations throughout. Mary and Joe believe that the new station helped to create new connecting trails for biking and walking their dog from the neighborhood to along the south border of 3M to Battle Creek Park just south of I-94 to the beautiful new dog park. Before the new trails, walking under I-94 used to be difficult and unsafe, the recent improvements to the sidewalks and the new trees, lighting and art has made the walk a pleasure. They have also enjoyed visiting Amore, a new family restaurant adjacent to Tanners Lake, where they have dinner every Friday night and sit outside on the patio overlooking the beautiful lake in the summer.



Mary and Joe enjoy their local pumpkin patch in the Fall

Now, also picture this: Bill is a young, accomplished engineer working at 3M's prominent new design lab located within the company's world headquarters. He was recruited from his previous tech position in New York City, and as an avid runner and biker, was attracted to the abundance of outdoor activities that the Twin Cities has to offer. Bill lives in downtown St. Paul, where he commutes to the contemporary 3M campus every day through modern rapid public transit that drops him off conveniently right at 3M.

Part III: Vision



MAPLEWOOD

Upon arrival at the 3M station, Bill picks up coffee and a fresh bagel from the Starbucks kiosk and either jumps onto the campus-wide shuttle service to his building or grabs one of the many available free shared bikes that he can park right in front of his office about a half mile away. Bill likes the freedom and environmental impact of not having a car, in fact, the ability for an easy commute on a modern transitway to the 3M campus was one of the reasons he chose to move to Minnesota. Additionally, free Wi-Fi is available during his commute, so he is able to go through emails or read the newspapers online each way, and 3M offers employees greatly reduced rate transit passes to incentivize use.

He is pleased seeing all of the 3M technologies that were incorporated into the station design, including flooring, lights and even flat-panel screens using 3M optical film, and he loves to show friends back East photos of the giant iconic art piece installed in the 3M sculpture garden next to the station. During lunch, Bill joins other employees in the 3M bike club to get some exercise and inspiration during a long ride on new trails connecting the 3M campus with surrounding areas, including Battle Creek Park.

Both Mary and her family and Bill enjoy working or living in Maplewood. They have a sense of pride in the community and value what the area has to offer.



The 3M Campus allows Bill to work outside and answer emails on his lunch break



The Vision for The Future: Creating Stronger Communities

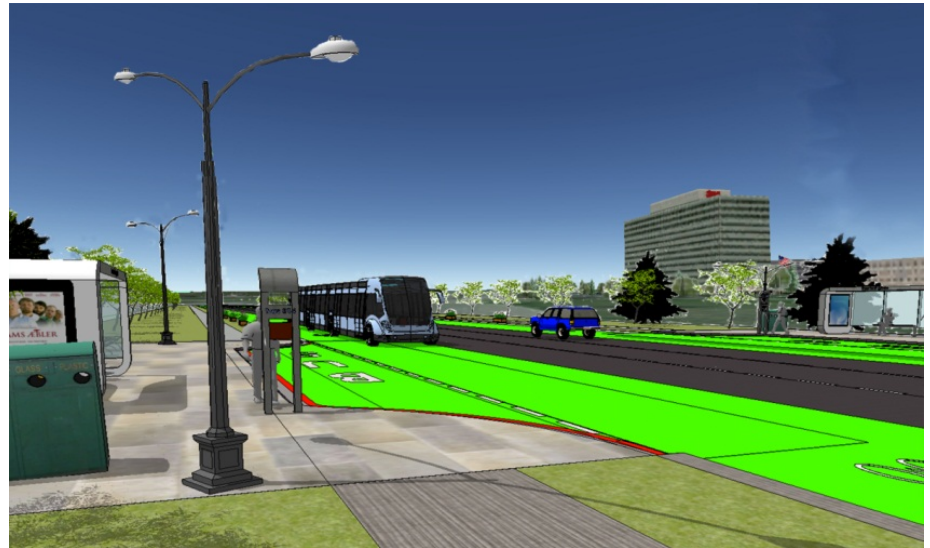
The proposed Maplewood 3M Transit Station along the Gateway Corridor presents the City of Maplewood opportunities to strengthen the surrounding area by expanding public transit options, improving pedestrian and bicycle trail access and connectivity, increasing local economic development and fostering a greater sense of community. The transit station also provides the neighboring 3M Companies, such as Wells Fargo, benefits such as providing employees additional commuting options, promoting healthy lifestyles through a better adjacent trail system, offering new nearby amenities and enhancing the 3M brand and image.

Expand Public Transit Opportunities

The Maplewood 3M Station presents a viable transit option for both 3M employees and Maplewood residents. The development of a mass transit station on the southeast side of 3M's campus will offer their employees from suburbs, such as Woodbury and locations further east, as well as workers reverse commuting from downtown St. Paul and locations west, a faster and more convenient option to commute to 3M.

Additionally, Maplewood residents in nearby neighborhoods both north and south of I-94 will have the flexibility to access public transit without the need of a car, and secure bike racks will be available at the station. Alternatively, they can take their bikes with them on the racks provided on the transit vehicle. Pedestrian and bike access to the station from the south will be safely reached under the new pedestrian/ bike tunnel through I-94. The Gateway Corridor vehicles will be modern and comfortable, and run on convenient schedules to attract riders.

Exhibit 15: Example of 3M Station Development



West along Hudson Road: A vision of the 3M/Maplewood stop along the Gateway Corridor

Part III: Vision

Improve Trail Access and Connectivity

The Maplewood 3M Station will be much more than a transit stop. With the development of the station, there will be expansion of the current trail network, all the while preserving natural resources. Maplewood will be recognized as a livable city for access to recreational trails and transit options, and robust pedestrian activity surrounding the Maplewood 3M Station will provide increased safety and security for the area.

Promote Area Economic Development

The Maplewood 3M Station will act as a catalyst for nearby economic development by Tanners Lake east of Century Avenue and just north of I-94. The City of Maplewood will partner with the City of Oakdale to create a unique destination including the development of a family restaurant on the lake and a newly remodeled hotel that 3M business travelers use will replace the old one. This new development will also spur further economic activity south of I-94 that offers higher density with services for the community. At the station, kiosk-owners will sell hot and cold beverages, pastries and snacks to the commuters during rush hours.

Exhibit 16: Example Vision of Tanner's Lake Development



West Bank of Tanner's Lake: Restaurant and Business Class hotel overlooking Tanner's Lake is a opportunity for tourism and use by 3M employees

Part III: Vision

Build a Greater Sense of Community

The Maplewood 3M Station area will create a strong identity with iconic maple leaf signage and markers welcoming you to the city, while employing streetscaping design principles to help foster a sense of community. Public artwork will be installed to stimulate station appeal and inspire creativity.

3M will utilize the Maplewood 3M Station as a benefit offering employees greater access in taking public transportation to work with reduced rate transit passes.

The improved trail access adjacent to the 3M campus will provide employees the opportunity to take walks or bike rides as a break during the day. In conjunction with the recent renovation of 3M's main buildings and outdoor landscaping, the station is yet another amenity that attracts employee recruitment and the retention of current employees by providing desired options for young professionals. 3M technologies will be promoted and used throughout the station design, and 3M will be recognized for green business and sustainable activities with their commitment to mass transit ridership, participation in the creation of the station and assistance in increased connectivity to surrounding walking trails and mass transit.

Exhibit 17: Example Vision of Birds-eye-view of Tanner's Lake Development



Placing parking behind the greater structures, along Century Avenue, allows for a picturesque view of the west side of Tanner's Lake

Part IV: Action Plan



Introduction

The action plan outlines opportunities surrounding topics such as transit and living streets, parks and trails, economic development, station development and place making. The sections are broken into broad objectives, more refined goals, and action items to guide the development of the Maplewood 3M station area. An accompanying table with specific responsibilities and suggestions for timing of each action item can be found in at the end of the action plan. These guidelines provide only a rough estimate of timing and responsibility and can be altered as needed.

1. Transit and Living Street Development

When the design and construction of the transitway begins there will be many opportunities to improve street and transportation network design to create a safe, inviting space that accommodates and encourages all modes of travel. The following section addresses design recommendations adapted from the *Los Angeles Model Design Manual for Living Streets* and the *David Evans Associates Best Practices for Light Rail Design*. Components of each design manual could be incorporated into the Maplewood 3M Station area, and can be used as guidelines during the development of the Gateway Corridor.

1.1: INCREASE TRANSIT OPTIONS

The transitway should be planned and designed as part of the street system and should interface seamlessly with other modes. Transit depends on walking patterns, as most users walk to and from transit stops. Adequate sidewalks, trails, safe crossings, and bicycle infrastructure will contribute to a successful transit corridor.

Exhibit 18: Living Streets Design Principles

BASIC DESIGN PRINCIPLES

- The busiest transit lines should have designated transit lanes
- Technology should be applied to increase the average speeds of transit vehicles
- Transit stops should be easily accessible with safe and convenient opportunities
- Transit stops should be active and appealing public spaces that attract people at different times of day, and all days of the week
- Transit stops should function as community destinations
- Zoning codes, local land use ordinances, and design guidelines around the transit station should encourage walking and a mix of land uses
- Streets that connect neighborhoods to transit facilities should be especially attractive, comfortable, and safe

Part IV: Action Plan



MAPLEWOOD

1.2: CREATE MULTIPLE CONNECTIONS TO STATIONS

The design and quality of the pedestrian, bike, and transit connections to transitway stations have a significant influence on transit use and community impacts. Through the construction period of the transitway there will be many opportunities to enhance connections along Century Boulevard and McKnight Road.

1.2.1: Provide connections to the station that are safe, secure, and convenient for pedestrians and bicycle riders.

- ✓ **Action Item:** Provide pedestrian connections from parking and surrounding areas to the Maplewood 3M station.
- ✓ **Action Item:** Invest in public bike share programs to be installed at the Maplewood 3M station area, Maplewood Mall, Battle Creek Park, Sun Ray Shopping Plaza, and other identified high traffic areas.
- ✓ **Action Item:** Redesign the underpasses of McKnight Road and Century Avenue to be more inviting with public art and lighting, bicycle lane striping, and pedestrian way finding.



Bike/Car sharing lanes can be an easy and low cost alternative to dedicated bike lanes

1.2.2: Provide transit feeder service to the transitway.

- ✓ **Action Item:** Coordinate feeder line connections with existing transit routes. Express route 294, and Route 219 run near the station area. Service connections could be coordinated to increase accessibility to the station area and other community hubs that the lines service.

Part IV: Action Plan



MAPLEWOOD

1.2.3: Provide a walking environment that is safe, inviting, and accessible to people of all ages and physical abilities.

Pedestrians with mobility impairments include a wide range of users such as individuals using wheelchairs, crutches, canes, orthotics, prosthetic devices, as well as users who face constraints of walking long distances on changing grades.

Consider constraints for Mobility Impaired:

- Uneven surfaces
- Rough surfaces that restrict rolling and/or cause pain
- Steep grades
- Narrow sidewalks
- Long Distances
- Lack of time to cross
- Visual Impairments/ Perception
- Limited visual information for way findings
- Limited peripheral vision

✓ **Action Item:** Determine Pedestrian Signaling

Time the walk signals by calculating 3 feet per second for the walk interval. Additionally, give a 2 to 5 second WALK display prior to the green traffic signal. This allows the pedestrian to enter the crosswalk before the drivers are signaled, increasing their chance of being seen by drivers.

Exhibit 19: Living Streets Sidewalk Guides for Study Area

SIDEWALK ZONE GUIDES	
<p><u>Tanners Lake Development</u> Frontage: 30", with 8' width for Café Seating Pedestrian: 6' Furniture: 5', 6-8' at transit stops Curb: 6" Min Width: 14'</p>	<p><u>Hudson Road</u> Frontage: 18" Pedestrian: 5' Furniture: 5' Curb 18' Min Width: 13'</p>

- ✓ **Action Item:** Conform to the Americans with Disabilities Act of 1990 Minimal Accessibility Guidelines and the Public Rights of Way Accessibility Guidelines.
- ✓ **Action Item:** Inventory physical pedestrian obstacles along the proposed transitway and surrounding trail systems.
- ✓ **Action Item:** Design a network with continuous, complete trails, sidewalks, well-designed curb ramps, and street crossings.
- ✓ **Action item:** Prepare the budget, provide a yearly maintenance schedule for modification, and name a city staff person who will be responsible for implementing the plan.

1.3: SHARED BUS/BIKE LANES

An exclusive or semi-exclusive use for transit vehicles can improve the entire transit system's travel time and operating efficiency. A two-way split side, with one direction of transit flow in each direction of 13 feet wide can provide exclusive access for rapid transit riders.

A quality transitway system must integrate pedestrian and bicycle facilities, transit, drop-off areas. All transit riders start their journey as pedestrians. Therefore, providing a high quality pedestrian environment is important. Bicycle amenities should include areas around stations, as well as clear routes to the station within a two-mile radius.

A well-designed bicycle infrastructure guides cyclists to ride in a manner where bikers are moving in the same direction as traffic, usually 3 to 4 feet from the edge of the curb. The minimum width for the bike lane is 5 to 6 feet. Shared bus/bike lanes should be 13 to 15 feet wide. Continued markings through intersections create continuity along the corridor and act as way finding for cyclists.

Bike lanes have the following advantages:

- Enables cyclists to ride at a constant speed
- Increases visibility of cyclists to other motorists
- Encourage cyclists to use the roadway not the sidewalks



Creating a bike and bus shared lane for the BRT development could enhance the bike system for the area

Part IV: Action Plan



MAPLEWOOD

1.3.1: Increase bike and pedestrian connections between Tanners Lake, Maplewood 3M Station, Sun Ray Shopping Center and Battle Creek Park.

Opportunities to increase access between major economic and community facilities along the transitway will increase the use of all facilities. Creating a station area with adequate and inviting connections could increase the attraction of developers to the defined commercial sites. The city will need to support design activities that invite users to the commercial area, and give them a reason to stay. The city will need to show that the station area is attractive for all users.

- ✓ **Action Item:** Use sharrows and paint to differentiate bike line within the shared road. Bike signal heads maybe an appropriate choice to cross-difficult intersections at McKnight Road and Century Avenue.
- ✓ **Action Item:** Use bike boxes at intersections with high volumes of traffic or where there are left turn conflicts to provide cyclists with a safe and visible way to get ahead of queuing traffic during the red light signal.
- ✓ **Action Item:** Require bicycle parking facilities in the design proposal.



Bike signal heads are crucial to maintaining rider safety in hard to cross intersections



Sharrows define lanes that should be shared by bikes and motorists

1.4: STATION LOCATION AND STREET DESIGN

The station area design should reflect and preserve distinctive community character. The design should protect the surrounding neighborhoods from potential negative impacts including noise, added congestion, reduced accessibility, parking infringements, and station security.

The street configuration must balance the needs of the different travel modes within the station area. A concern with the 3M site location is accessibility and increase in congestion. Recent improvements to street designs along McKnight Road, Hudson Road, and Century Avenue make the prospect of redesign for a transitway, and the station's impact on accessibility and congestion a concern. Finding the balance between motorized, non-motorized, public transportation, and private commuters will be essential in the design plan of the station area.

1.4.1: Design transit way facilities and stations to be an extension of the community.

Station design should use complementary building materials and landscaping. Mitigation for project impacts should be incorporated as early as possible into the design and engineering of the project.

A common concern among communities is that a transitway will bring crime from the urban core to suburban communities or generate new crime. However, studies of cities with transitway systems show that crime rates near stations are closely related to the surrounding area (David Evans). Users need to feel safe, and residents in surrounding neighborhoods, especially the employees of 3M, need to be ensured that potential safety conflicts will be mitigated with the addition of the transitway.

- ✓ **Action Item:** Hold a design charrette within the first month of the design process with 3M, city staff, council members, and Gateway Corridor staff.
- ✓ **Action Item:** Increase security measures around station area with appropriate lighting and surveillance equipment. Station and track lighting should be designed to illuminate the platform and pedestrian access area while preventing light pollution in adjacent areas.

1.4.2: Minimize confusion and maximize predictability for all street users.

Predictability can be achieved by limiting movement choices. The use of street design features, materials, street signage, and lane markings provides clear direction to drivers, pedestrians, and bicyclists. When designing these elements, it is important to keep in mind that pedestrian safety is a function of the size, age, and ability of the individual pedestrian.

Multi-leg intersections near McKnight Road and Century Avenue are inevitable and critical to the transportation network management along the corridor. The complicated intersections add multiple conflict points from several directions, making it difficult for users to assess all approaches and identify possible conflicts with motorists.

To mitigate problems with multi-leg intersections, the *Living Streets Design Manual* suggests these essential principles:

- Good intersections are compact
- Unusual conflicts should be avoided
- Simple right angle intersections are best
- Free flowing movements should be avoided

- ✓ **Action Item:** As reasonable, assess feasibility of incorporating the mitigation techniques of multi-leg intersections as identified by the *Living Streets Design Manual*.
- ✓ **Action Item:** In design, consider the visibility from the perspective of all users including transit operators, other vehicle drivers, bicyclists, pedestrians, and wheelchair users.

1.4.3: Design the station area layout that clearly defines the stop, provides visual cues on where to wait for the transit vehicle, and does not block the path of travel on adjacent paths and sidewalks.

- ✓ **Action item:** Consolidate the streetscape elements to create a clear waiting area.
- ✓ **Action item:** Consider the use of special paving materials and curb extensions to differentiate the station area from adjacent sidewalks.



Use of greenery along major routes helps collect storm water runoff and create a sense of place



Exhibit 20: Examples of Guidelines for Streetscaping

STREETSCAPE ELEMENTS

- *Flag signs* indicating where people are to wait and board and *maps* showing the transit lines servicing that stop
- *Benches* should be provided at stops with headways longer than 5 minutes
- *Shelters* that are 3-7 feet wide and 6-16 feet long provided at transit stops with headways longer than 10 minutes. Have electrical connections to power lighting or real time transit information, and accommodate solar power. Be set back from the front of the transit to allow for transit to merge into travel lanes. The shelter should be located in the sidewalk furniture zone so they don't conflict with the pedestrian zone.
- *Trash and recycling receptacles* on site
- *Electronic readouts* to inform passengers of next transit trip
- *Pay facilities* that allow passengers to pay for their fare before boarding the transit
- *Wide doors* on the transit vehicle to reduce travel time by reducing dwell time at stops
- *Bicycle storage* in the form of bike racks or lockers

1.4.4: Increase Accessibility

Complex and skewed intersections pose many challenges for both motorized and non- motorized users. Intersections that are greater than 90 degrees cause pedestrian users to crane their necks to assess motorized traffic. This creates a unsafe environment and detracts from use of access to the station area. When redesigning the intersection at Century Ave and McKnight Road to accommodate the transitway and provide for non-motorized vehicle crossings, efforts should be made to reduce intersection skew, increase the pedestrian experience to create safe intersections and a satisfactory environment for both motorized and non- motorized users.

- ✓ **Action Item:** Every reasonable effort should be made to design or redesign the intersections near the station area and Tanners Lake development as close to a right angle as possible.
- ✓ **Action Item:** Make every reasonable effort to design intersections so there are no more than four legs.
- ✓ **Action Item:** Note that pedestrian refuges should be provided if the crossing distance exceeds 40 feet.
- ✓ **Action Item:** Stripe bicycle and trail lanes to guide bicyclists and motorists through undefined areas.



Part IV: Action Plan

1.5: USE OF TRAFFIC CALMING MEASURES TO ENHANCE PEDESTRIAN EXPERIENCE AND INCREASE SAFETY

Traffic calming measures around the development can reduce the negative effects of motor vehicle use, alter driver’s behavior, and improve conditions for non-motorized users. Traffic calming measures should be incorporated into the design to create the inviting environment for non-motorized users. It will be critical to find the perfect balance between traffic and pedestrian demand. It will be critical that the design and use of these measures do not hinder the drive time of a rapid transit line or the congestion periods during rush hour.

Exhibit 21: Mitigation of Right-of-way Issues

CHANGING STREETS WITHOUT CHANGING RIGHT-OF-WAY

- Narrow travel lanes to 10 – 11 feet, if applicable
- Eliminate superfluous travel lanes
- Convert a four lane undivided road to the center turn lane, two travel lanes, and two bus/bike lanes
- Tighten corner curb radii to the minimum needed to provide usable turning radius for an appropriate design
- Paint bike lanes
- Add sidewalks
- Add raised medians
- Provide landscaping
- Add bulb-outs to reduce pedestrian crossings distances and improve site lines at crossings near the station area and Tanners Lakes

1.5.1: Increase pedestrian usability at McKnight Road and Century Avenue intersections with Hudson Road with traffic calming measures.

- ✓ **Action Item:** Use appropriate traffic calming measures in the McKnight Road area with speeds of 35 mph or greater: bump-outs, pedestrian scale lighting, textured or colored paving materials, street trees.
- ✓ **Action Item:** Use stop lines - solid white lines 12 to 24 inches wide set back 4 to 6 feet from a cross walk – at Century Avenue to improve vehicle’s view of pedestrians.



An example of a painted intersection, safe for pedestrians



1.6: BALANCE STATION PARKING SUPPLY AND DEMAND

The project must address how access to a non-parking station can be successfully integrated into transit design. There is no parking along Hudson road so parking likely could spill over into surrounding neighborhoods. 3M is particularly concerned with spill over parking in their facility. They are nearing full capacity of their existing parking facilities and cannot accommodate public parking spill over.

1.6.1: Carefully locate and design parking near transit.

A major concern for 3M is the public use of their private parking lots. Providing access to parking options at the Sun Ray area will be an important component of a successful partnership and integration of the Maplewood 3M station area. The nearby station at the Sun Ray Shopping Center will have full park and ride facilities.

- ✓ **Action Item:** Conduct a ridership survey to assess demand for parking around the station area.

1.6.2: Be proactive in addressing potential parking impacts to adjacent neighborhoods and the environment.

Spillover issues that may affect neighborhoods adjacent to transit stations include parking on neighborhood streets, and at 3M facilities. A best practice for preventing unwanted parking in the nearby residential areas is a residential parking permit program.

- ✓ **Action Item:** Enforce non-public parking at 3M private lots.
- ✓ **Action Item:** Street Narrowing Designs. As appropriate design streets to have minimal width, this reduces the use of impervious pavements that contribute to storm water runoff.
- ✓ **Action Item:** As appropriate incorporate the use of pervious pavement surfacing as appropriate on trails, sidewalks, and surface parking lots.



Impervious parking lots creates issues with storm water runoff, particularly so close to a water body



Part IV: Action Plan

1.7: COMMUNITY BUILDING THROUGH DESIGN PROCESS

The Gateway Corridor project and the geographic location of the commercial areas make cross-jurisdictional outreach efforts an essential piece to the success of implementation of this change in land use. Partnerships between governments, elected officials, businesses, and citizens will be essential to the success of the area. To gain local support for any land use changes, it will be critical to focus on ways to collaborate with the community to develop a transitway system, while supporting the community's vision. A plan that is complimentary with the surrounding residential neighborhoods and the 3M campus will minimize community resistance to the changes.

Exhibit 22: Participation Toolkit

TOOLKIT

- Engage key partners early as defined by the stakeholder analysis
- Identify politically neutral meeting site
- Consider comfort and abilities of the participating public
- Consider alternate language and technical abilities
- Encourage relationship building

Exhibit 23: Living Streets Participation Levels

LEVELS OF PARTICIPATION (from *Living Streets*)

Inform: community members about the project

Consult: allow the public opportunity to provide feedback on analysis, alternatives, and decisions

Involve: allow feedback loops for community members to influence multiple stages of drafts for the project

Collaborate: the public is partner in each phase of the decision making process

Empower: Empower the community members and major stakeholders to play an active role in the form of decision making groups, councils, and commissions



Community participation is a huge driver of success for a transit project



1.7.1: Engage the community in the planning, design, construction, and operation of the system.

Local community members and 3M employees have wisdom and knowledge that will enhance project success. Maplewood city staff can solicit feedback and incorporate ideas during the initial phase of development, with continuing opportunities for engagement during major milestones of the project.

✓ **Action Items:**

- Hold community meetings to inform the public about the design and construction phases of the project.
- Establish a primary point of contact from Maplewood City staff and 3M. Establish shared communication expectation and norms with each entity.
- Hold a public design charette with developers, city staff, 3M representatives, general public, and regional bodies to establish a baseline for the vision of the station area.
- Engage citizens and local businesses updated with frequent update publications
- Include outreach materials that are translated into Spanish and Asian Pacific languages, as well as alternatives for literacy challenged participants

1.7.2: Incorporate the land use vision from Maplewood's Comprehensive Plan into surrounding neighborhoods.

The transitway should be consistent with the goals and policies of the city's Comprehensive Plan and Sub-area Plans, and city staff should work with the Community Design Review Board to ensure compliance during the design and construction phases.

Specific goals from the comprehensive plan include:

- *Maplewood Goal 1:* Encourage that the quality of housing in residential neighborhoods be maintained to meet the needs of current and future residents.
 - *Maplewood Goal 2:* Promote efforts to upgrade, enhance and maintain existing housing stock.
 - *Maplewood Goal 3:* Accomplish the adopted Livable Communities Goals for affordable housing.
 - *Maplewood Goal 4:* Maintain citywide housing goal of 75 percent owner-occupied units and 25 percent rental units.
- ✓ **Action Item:** As demand for housing around the station area changes, Maplewood will need to ensure that housing stock remains affordable and accessible.
- ✓ **Action Item:** Use storm water management practices as defined by the City of Maplewood for development of Tanners Lake area.

Part IV: Action Plan

2. Parks and Trails

The current parks and trails system is an integral part of the economic and community development opportunities along the Gateway Corridor. The development of a transit line in this area is an opportunity to connect livable communities to one another via transit and biking and walking modes.

2.1: CONNECTING PARK AND TRAIL DEVELOPMENT IN ONE CONTINUOUS SYSTEM

Connecting the current parks and trail system together so that it is a continuous system, creates a livable, walk-able, and bike-able community. Connecting this continuous park system to the Gateway Corridor makes Maplewood and the 3M transit site a destination opportunity for parks and trail use.

2.1.1: Partner with neighboring cities and counties to create one-area parks and trail plan.

Partnering with neighboring cities is part of the current plan for the Gateway Coalition; take this collaboration one step further to include connections to parks and trails along the corridor.

- ✓ **Action Item:** Appoint one representative from each city and county involved to a Parks and Trails Commission for Gateway Corridor improvements.

- ✓ **Action Item:** Evaluate current comprehensive plans for opportunities to re-evaluate priorities along the Gateway Corridor.
- ✓ **Action Item:** Meet with Saint Paul and Oakdale planning staff to evaluate current park performance and opportunities within the area, especially surrounding the development along the I-94 corridor.



Biking in Battle Creek Regional Park is activities for families from Maplewood and surrounding areas



2.1.2: Plan future trail and park development to maintain strong interconnectedness.

Future development of parks and trails should be focused on connecting current parks and trails to each other to create a strong network.

- ✓ **Action Item:** Write goals for future trail connections into the Maplewood Comprehensive Plan.
- ✓ **Action Item:** Reach out to community members within the corridor to better understand community needs via parks and trails.

2.1.3: Use bike trails or bikeways to connect neighborhood parks.

Neighborhood parks are typically those parks that serve only the small block surrounding them. If these areas are more connected, then neighborhoods themselves will be more connected.

- ✓ **Action Item:** Evaluate current bike connections between parks and propose development along these areas.
- ✓ **Action Item:** Reach out to community members to find out where connections are lacking.

2.1.4: Focus planning efforts on east-west and north-south connections.

Using current thoroughfares to develop parks and trail connections is a quick but very effective way of developing strong connections within a community.

- ✓ **Action Item:** Evaluate area for the highest traffic counts north and south and east and west and focus development of alternative transportation along these routes.



Neighborhood Parks are a great place for local kids to build their communities

2.2: INCREASE BIKE USE AS AN ALTERNATIVE MODE OF TRANSPORTATION

2.2.1: Redevelop current streets to allow for bicycle traffic.

Bicycle traffic can be used as a traffic calming measure, and increases connections between neighborhoods.

- ✓ **Action Item:** Create a bicycle master plan for the City of Maplewood for redevelopment of current roads to allow bicycle traffic.
- ✓ **Action Item:** Research possible ways to integrate bike traffic in automobile or already developed roadways.

2.2.2: Develop future roads with bike transit as a focus. See Objective 1.

2.2.3: Educate community members about the benefits of alternative transportation modes.

Increasing community awareness of alternative modes of transportation will increase use of parks and trails.

- ✓ **Action Item:** Hold community meetings to better understand community needs and also educate the community on existing trail and park networks
- ✓ **Action Item:** Encourage local businesses to host workshops to educate community on bike safety and trail use

2.2.4: Encourage local businesses to develop amenities for bike transit users.

Engaging local businesses in the needs of their community will help them cut parking costs and open up potentials for neighborhood connectivity.

- ✓ **Action Item:** Hold a meeting for local businesses within the community to discuss transitway and opportunities for development.
- ✓ **Action Item:** Provide tax incentives to build public alternative transit amenities in office parks, particularly the 3M site, once the Gateway Corridor is in the final development stages.
- ✓ **Action Item:** Educate local businesses on traffic demand principles that highlight the need for alternative transportation.



Biking is a clean, alternative mode of transportation that can benefit communities



Part IV: Action Plan

2.3: CREATE PEDESTRIAN AND BIKE FRIENDLY ROADWAYS AND INTERSECTIONS THROUGHOUT TOD PRINCIPLES

The Gateway Corridor is a perfect opportunity to develop the I-94 area into a more integrated roadway with better transit oriented development (TOD) principles in mind. This includes much of which is included in the transit and living streets portion of the action plan.

2.3.1: Acquire land that can be used as transportation centers but that also focuses on recreation opportunities

It is important to recognize that not only is transportation a critical asset to a community but also presents recreation opportunities.

- ✓ **Action Item:** Do a land use study and acquire land that will connect Battle Creek Regional Park with the neighborhood north of I-94.
- ✓ **Action Item:** Study other areas of opportunity in connecting recreation opportunities to neighborhoods.



Using Tanner's Lake as a recreation opportunity will serve both the retail and the larger community



Oakdale's sign along the West Bank of Tanner's Lake designating the area as a redevelopment site

2.3.2: Identify underserved populations in the area and design transitways that better meet the needs of these populations.

The current comprehensive plan of Oakdale and Maplewood both highlight areas in which they know there are transportation opportunities, especially serving low-income populations.

- ✓ **Action Item:** Specifically outline these underserved areas by way of a comprehensive plan update.
- ✓ **Action Item:** Complete a transportation analysis pre- and post-transit development to ensure the underserved population is being served.

Part IV: Action Plan



MAPLEWOOD

2.4: HIGHLIGHT PARK AND TRAIL CONNECTIONS AS COMMUNITY ECONOMIC ASSETS

Along with mitigating for travel demand policies, businesses can also encourage alternative transportation use and vice-versa, highlighting local business and commercial centers.

2.4.1: Work with local businesses to encourage employees to use alternative transportation modes including rapid transit.

By working with local businesses, the City of Maplewood can maintain good working relationships and also encourage use of the Gateway Corridor transitway.

- ✓ **Action Item:** Schedule workshops in local businesses to educate workers on the benefits of transit and ease of use.
- ✓ **Action Item:** Build bike centers at local commercial hubs for those who bike to work to shower and store their bikes during the workday.

2.4.2: Connect bikeways and transit routes specifically to access office park development and commercial centers.

Create strong connections to business areas increases traffic from both employees to that site and those who are public transit dependent.

- ✓ **Action Item:** Work with local business to understand where their employees are coming from to better serve their working populations.
- ✓ **Action Item:** Maintain and build strong relationships with local businesses to involve them in the planning process for parks and trails and encourage their presence at planning meetings.



An example of modern and innovative bike storage downtown Chicago, IL



3. Economic Development Opportunities

A major goal of rapid transit is to encourage economic development in the area of the station. Often this is through transit-oriented development (TOD), which is typically defined as mixed-use development that provides higher density opportunities for comprehensive uses that can include housing, working, recreation and transportation choices. While the proposed Maplewood 3M rapid transit station at 3M global headquarters is adjacent to the corporate property and will certainly serve the 3M workforce, it is approximately two blocks from Century Avenue and four blocks from the entrance to the nearest commercial property. This distance limits opportunities in the nearby Tanners Lake commercial area.

The Tanners Lake commercial area is a narrow strip of commercially zoned land at the northeast corner of Century Avenue and Hudson Road and west of Tanners Lake. This commercial area is jurisdictionally complex and includes areas of oversight by Washington County, Ramsey County, the City of Maplewood and the City of Oakdale. Two parcels in Oakdale and Washington County are the sites of two former restaurants that have been demolished. The City of Oakdale acquired one of the parcels and is actively pursuing redevelopment of both parcels. Four parcels to the south are in Maplewood and Ramsey County and include a hotel, a restaurant, an auto care facility and a boat storage yard. This quadrant has high visibility from both I-94 and Century Avenue. Higher profile businesses that require this level of visibility could make better use of the opportunity.

Ramsey County property tax records for these four parcels list the 2013 appraised value for the land at \$3,487,800 and the buildings at \$881,900. This proportion indicates that the land is underdeveloped in relation to the location. Building opportunities in this area are constrained by the narrow width of the land and internal circulation challenges. A 2013 survey of residents both north and south of I-94 indicated that this area is not generally considered attractive or of service to the residents in the area. This commercial area could benefit from capturing this opportunity by including businesses that appeal to the area and enhance the ambience of being along the lake as well as creating an appealing entrance to the community.

A 6.8 acre parcel in the southwest corner of I-94 and Century Avenue is currently the home of a new and used car dealership – the only one in the area. Dealerships are often located in high visibility locations such as this, but they are also more usually located with other similar businesses. If this business were relocated to a more traditional location, this site would provide an excellent opportunity for a higher commercial use that serves the local community and creates a greater sense of connection for Maplewood on both sides of I-94. While I-94 creates a physical and psychological barrier between the north and south sides of Maplewood, opportunities exist for creating destinations appealing to both sides of the highway that could draw residents across the highway. Improved street, trail and crossing designs as well as underpass lighting and appeal would reduce the impacts of this barrier. Again, establishment of a city monument could provide an appealing entrance to the southern part of the community.

Part IV: Action Plan



3.1: CREATE A MASTER PLAN TO CAPTURE THE OPPORTUNITIES IN THE NORTHEAST CORNER OF I-94 AND CENTURY AVENUE

Since this commercial area spans two cities, both cities must be involved for optimal results. The City of Oakdale has expressed a desire for a higher-end destination restaurant with a deck overlooking the lake. A survey of local residents indicates that this type of restaurant would be a welcome addition. However a destination restaurant such as this should appeal to a larger market and would require sufficient parking. Others would ultimately like to see a business-style hotel with open views of the lake from the dining room. The sites should be landscaped to enhance the views of the lake and provide for improved water quality from runoff. A public open space with benches between the restaurant and the hotel would offer users of the nearby trail an opportunity to stop, relax and enjoy the tranquility of the lake. A landscaped Maplewood monument at the corner of Century Avenue and Hudson Road would provide greater identity to the northern part of the community. These additions would create a renewed and welcoming image that reflects the pride that the community takes in itself.

3.1.1: Create a master plan for the Tanners Lake commercial area in both Maplewood and Oakdale.

Ensure that commercial areas are planned to maximize goals in both cities comprehensive plans. This is a critical first step since a coordinated effort will produce a more cohesive plan. The Oakdale parcel is ready for development and will likely be built before the Maplewood properties can be redeveloped. Therefore Maplewood should initiate a joint planning effort immediately to ensure optimal coordination.

- ✓ **Action Item:** Establish a task force of public officials to identify common goals for area.
- ✓ **Action Item:** Enter into a joint powers agreement to collaborate on coordinated planning of the joint area. It is imperative that Maplewood and Oakdale work together to ensure that the commercial area achieve a balance of complimentary uses and well planned circulation through the entire area.
- ✓ **Action Item:** Identify potential building areas and circulation patterns that comply with goals and regulations of the cities and show potential for development.

3.1.2: Determine collective preliminary vision for area. A vision will set the stage for a coordinated approach to achieving optimal development of the commercial area.

- ✓ **Action Item:** Collect data on project area and building envelope, surrounding linkages, neighborhood, strengths and constraints to identify possibilities and issues. Building envelope must allow for setbacks from Tanner's Lake established by the Watershed District and the Department of Natural Resources.
- ✓ **Action Item:** Review visions from Maplewood and Oakdale Comprehensive Plans to find common areas of direction

Part IV: Action Plan



3.1.3: Establish controls that set the direction and standards for future plans for the land.

Ensure that any interim construction or changes to the properties are limited until vision and plans are established. Start considering optimal land use controls that will achieve the collective vision.

- ✓ **Action Item:** Create an Overlay District over all parcels in the target commercial area that reflects the collective overall vision for the area and ensures that both Maplewood and Oakdale will have input when properties in the other city are considered for approval. This district could set standards for new development that encourage best environmental practices for water quality and building options.
- ✓ **Action Item:** Consider a Commercial Planned Unit Development District (PUD) with a minimum acreage to encourage assemblage of the parcels in the area. A PUD would also give flexibility in designing this challenging area since an optimal outcome would be to plan the area comprehensively.
- ✓ **Action Item:** Consider a temporary moratorium on any construction or improvements during the period when establishing the Overlay District.
- ✓ **Action Item:** Minimize the footprint of allowable parking to increase open space potential. A joint parking facility could also reduce the area required for circulation.

3.2: CREATE A MASTER PLAN FOR DEVELOPMENT OF THE SOUTHWEST CORNER OF I-94 AND CENTURY AVENUE

This 6.8 acre L-shaped parcel is wholly within the City of Maplewood and maximizing the opportunities for this parcel would be similar to but less complex than that at Tanners Lake. The property has broad frontage along I-94 and excellent visibility. Many of the residents surveyed would welcome the opportunity to use the expanded trail system to access nearby shopping and services in a welcoming and friendly environment. Residents from north of I-94 could use an expanded and redesigned trail system with safe crossings and a lighted ambience that continues under the highway. This shopping area would include not only an array of stores, but also a central open green space with a fountain and casual dining.

3.2.1: Create general goals for the parcel.

Ensure that commercial area is planned to maximize goals in the comprehensive plans.

- ✓ **Action Item:** Establish general goals for the parcel that meet the needs of the community.
- ✓ **Action Item:** Identify potential building areas and circulation patterns that comply with goals of project and area conditions.



Part IV: Action Plan

3.2.2: Determine preliminary vision for area.

A vision will give direction to the project and set the stage for optimal development of land.

- ✓ **Action Item:** Collect data on project area and building envelope, surrounding linkages, neighborhood, strengths and constraints to identify possibilities and issues.
- ✓ **Action Item:** Review Maplewood City's vision in the Comprehensive Plan to establish direction of project.

3.2.3: Establish controls that set the direction and standards for future of the land.

Ensure that any interim building improvements or changes to properties are limited until vision and plans are established.

- ✓ **Action Item:** Consider a Commercial Planned Unit Development District (PUD) with a minimum acreage to ensure comprehensive development of the site and flexibility in planning.
- ✓ **Action Item:** Consider a temporary moratorium on any construction or improvements during the period when establishing the Overlay District.



Community vision for the area will be essential in creating a place that is walkable and community oriented



Part IV: Action Plan

3.3: REFINE PRIORITIES FOR EACH SITE.

Possibilities for each of the commercial areas can be refined through a study of the relationship between retail demand and demographics. In the case of neighborhood retail, the initial concept for the parcel south of I-94, area residents would be the main source of income for most retailers. Further categories of patrons include daily workers, intermittent visitors, commuters and destinations shoppers. Each provides a decreasing level of purchasing potential in neighborhood centers. Demographics, such as income and age, can also play an important part in analyzing the marketing potential for a retail area. Maplewood's median household income is \$57,600, Washington County is at \$80,400 and the 13-County Metro Area is \$66,300. The Maplewood population is somewhat older than the Washington County and Metro area populations with 15% over 65 years old and the outside areas under 10% for that age group. Other younger age groups were proportionally smaller in Maplewood. Since the planning of both areas is intended to serve the local and greater community, residents' knowledge of the areas, their perceptions of what they would like and would patronize, and how they want their neighborhoods to look are invaluable inputs to creating vibrant additions to the community.

3.3.1: Review demographic information to determine potential demand for types of development and uses.

- ✓ **Action Item:** Summarize demographic information about areas to help identify types of uses that could be successful within the targeted areas.

3.3.2: Seek community and business input on future uses based upon established goals and visions of cities.

Community input from residents, businesses and community leaders will help determine interest in and demand for future uses in area.

- ✓ **Action Item:** Conduct charrettes and/or workshops for both the north and south sites with area residents and businesses to obtain their input on how they would like to see the areas planned and what types of uses they would welcome and patronize. (See Resident Survey X for preliminary input)
- ✓ **Action Item:** Incorporate community input into a report summarizing area potential and preferences and showing how suggestions could be considered in the plan



An addition of a Maplewood City Monument marks the threshold to the community

Part IV: Action Plan

3.4: GUIDE FUTURE DEVELOPMENT TO ACHIEVE VISION AND GOALS

Cities must take an active role in the process to achieve the vision it desires. The market is a strong player in development, but just relying on the market could leave much of the result to chance. When a city has a vision of what it could be and wants to be, it is much more likely to achieve that vision by being an active player in guiding the process.

Sustainability is an overriding theme in Maplewood's comprehensive plan, and the city strives to improve the natural and built environment by using best practices to achieve sustainability. As stated in the comprehensive plan, in order to ensure stewardship of the environment Maplewood will promote sustainable development and practices for the preservation, design, and maintenance of natural and built environments. Opportunities exist to integrated Best practices from the city's green building code, support of rain gardens, and storm water management best practices into the station area and redevelopment areas.

3.4.1: Determine future plans of existing businesses and property owners.

The future of the two commercial areas will depend to a great extent on the short- and long-term plans of the existing businesses and property owners. Often when property owners see that the community is taking an interest in improvements in their area, they are motivated to seize the opportunity and make a change.

- ✓ **Action Item:** Meet with current commercial property owners in target areas to share community vision and plans and demonstrate how this would strengthen opportunities for the land owners.
- ✓ **Action Item:** Determine the property owners' future plans and discuss potential options. Maintain periodic contact with owners to learn of any changes in their plans.
- ✓ **Action Item:** Make energy efficiency and conservation a priority through building code improvements. Offer incentives for developers who adhere to the Maplewood Green Building Code.



Neighborhood shopping center is a prime location for community gathering



3.4.2: Identify and interview potential developers for information and interest

Once a parcel of land is available and a community concept has been developed, developers should be consulted to refine the potential for the site and to determine interest in and market for the development.

- ✓ **Action Item:** Seek input from developers and businesses on potential development of proposed uses. These responses would give an indication of feasibility, interest and timing in the market for achieving those preferences.
- ✓ **Action Item:** As properties become available for sale, work with owners to identify potential buyers who are most likely to embrace the goals in the area plan. Facilitate meetings with those parties and the owner to share the vision and potential for the site.
- ✓ **Action Item:** If the best way to ultimately achieve the city's goal is to acquire the property, seek grants for purchase of properties for holding and resale. Determine whether the property would meet the test as blighted for grant opportunities. Depending on the extent of land available, this could be an opportune time to work with a selected developer to assemble the land and develop to agreed-upon standards to achieve the planning and economic goals desired.

- ✓ **Action Item:** Create a Green Points program that provides incentives to developers who achieve high scores for integrating energy efficiency, landscaping, water conservation, and waste management into the design of new buildings around the station area and redevelopment sites.

3.4.3: Identify planning tools, financing sources and desired amenities

A number of planning and financing tools are available to assist Cities in realizing their goals and making their communities more livable for those who work, live and play there.

- ✓ **Action Item:** Identify potential incentives to attract developers, such as Tax Increment Financing (TIF), density bonuses, parking accommodations, land write-down, and public grants for redevelopment of underutilized or blighted areas. Setting a time limit on incentives offered, could hasten developer response. Consider providing internships for grant-writing to University of Minnesota Humphrey School graduate students.
- ✓ **Action Item:** Consider areas of participation by the city for providing public amenities such as public gathering areas and landscaping to establish community identity with signature Maplewood plantings.

Part IV: Action Plan



MAPLEWOOD

- ✓ **Action Item:** Provide support for planning and installation of rain gardens in public areas to improve quality of stormwater entering Tanners Lake and the stormwater system. Rain gardens could be accompanied with signage near the trail and gathering areas to showcase this solution for other residents. Pervious pavers should be required for public areas adjacent to Tanners Lake and other public gathering places to reduce off-site drainage.
- ✓ **Action Item:** Incorporate way-finding (trail signage) and place-making strategies to be consistent with other areas in Maplewood.

3.5: DEVELOP PARCELS AS DETERMINED THROUGH THE PLANNING PROCESS

Once developers are selected and concept plans are in place, the projects can move forward in accordance with approved plans and developers' agreements. This is the last official opportunity for the city to ensure that their goals will be achieved with the proposed development. The realization of having an attractive restaurant, an business-class hotel and a village shopping center becoming a reality will be the reward to the city for its diligent planning and efforts.



Community ribbon cutting establishes the community investment and interest in local development

3.5.1: Ensure that development meets city and community expectations.

Attention to the community intent of a project and the details that distinguish it will help ensure that the project is completed as intended and is successful.

- ✓ **Action Item:** Process applications and plans through the review and approval process to ensure that the plans meet all requirements before building permits are issued.
- ✓ **Action Item:** Monitor construction of development for those design features and details beyond building code items to ensure that it is consistent with the image that has been approved and fulfills city expectations.



Part IV: Action Plan

3.5.2: Promote and support development throughout the city.

City support of a new project and information to community can create increased interest throughout the community and result in a more successful project.

- ✓ **Action Item:** Participate with developer and tenants to create an event in support of grand opening of new facilities.

4. 3M Partnership and Station Development

The 3M Company is one of the largest stakeholders in the Maplewood/3M transit station, so it is crucial that the City of Maplewood engage with 3M to alleviate concerns, discuss positions and align station concept visions.

With the proposed station currently located directly at the site of 3M's global headquarters, it is understandable that some of the following concerns from 3M be considered:

- Will 3M be asked to give up any land ownership, and what is the current use and future plan for this area?
- Will a public transit station present any new security issues?
- How will the traffic patterns change from the current situation that may affect access to and from 3M buildings?
- How will the Maplewood 3M station affect current employees' driving routes to their offices?
- Do new trail connections in the area present potential new traffic hazards?

For a successful partnership with 3M, The City of Maplewood should focus on the benefits to the 3M company as well as the approximately 12,000 employees working within the headquarters.

Similarly to the Gateway Corridor station location at 3M in Maplewood, United Healthcare was faced with opportunities to integrate a new Southwest Corridor LRT station into its new campus in Eden Prairie. A representative from the City of Eden Prairie described a very collaborative process between United Healthcare and their city, with several meetings, substantial back and forth in negotiations and a lot of hard work, that paid off with a successful public/private partnership in the station area, benefitting both United Healthcare employees, the City and the public.

4.1: PARTNER WITH 3M FOR STATION SUCCESS

4.1.1: Emphasize opportunities to build 3M branding and image.

As a global Fortune 500 company, 3M invests in the company's branding and image as part of their business strategies to build customer relationships, strengthen stockholder perceptions and recruit and retain employees. 3M is also committed to be a good global citizen through corporate social responsibility initiatives related to areas such as sustainability and philanthropy. The City of Maplewood can offer 3M opportunities surrounding the transit stop that could contribute to building the 3M brand and image:

- ✓ **Action Item:** Propose the station to be named the **Maplewood 3M Station** in order to give recognition on all Gateway Corridor materials for both 3M as the actual location, as well as the only stop on the corridor within the City of Maplewood.

Part IV: Action Plan



- ✓ **Action Item:** Work with 3M representatives to incorporate and identify 3M products and technologies throughout the station design to build recognition.
- ✓ **Action Item:** Create a destination through public art by asking 3M to commission a large outdoor sculpture from a well-known artist that will be located on their property near the station. This will increase the beauty of the surroundings and raise interest in visiting the 3M station as a local landmark.
- ✓ **Action Item:** Incorporate activities and features that contribute towards 3M’s sustainability strategies, including use of renewable energy, waste management, and pollution reduction. Additionally, more 3M employees taking mass transit means fewer cars on the roads.

4.1.2: Address 3M issues and challenges through public transit options as solutions.

A new convenient and quality rapid transit option can help 3M address some of their current challenges and issues related to the headquarters location and employee travel to and from the office.

- ✓ **Action Item:** Encourage 3M to analyze current employee commuting patterns and conduct a parking analysis.

- ✓ **Action Item:** Emphasize how transit can help 3M with current challenges and concerns, as detailed in Exhibit 24:

Exhibit 24: Transit Solutions to 3M Challenges and Concerns

3M Issue	Transit Solution
<p>Parking 3M is nearing capacity in current parking stalls and walk times from parking spot to office can be long.</p>	Employee use of public transit presents an alternative to building more parking on campus.
<p>Security Public activity on the 3M campus brings additional security concerns.</p>	A public transit stop on the 3M campus with a connecting trail system means more people and more eyes, with less opportunity for suspicious activities.
<p>Recruitment Many 3M employees are nearing retirement and demand for young highly skilled workers is increasing.</p>	Younger generations value the opportunity to use public transit and have the freedom of not owning cars. A public transit option allows for reverse commuting from Downtown St. Paul as well as quality transportation options to those people living further away from Maplewood.
<p>Employee Time Employees desire to have the flexibility to work at any time.</p>	The Gateway Corridor will provide many employees a fast commuting option and allow the opportunity to perform work and personal tasks during travel time.

Part IV: Action Plan



MAPLEWOOD

4.1.3: Highlight benefits for 3M employees.

The addition of a major rapid transit station along I-94 will provide many benefits to the employees of 3M. Additionally, the ridership of 3M employees will greatly contribute to the overall use and success of the Gateway Corridor. Currently, driving to 3M is fairly easy and parking is free. It is important to understand the current commuting patterns of 3M employees, and their opinions and intentions surrounding the use of accessible public transit and the amenities associate with a campus station.

Potential recommendations for 3M include:

- Create a free bicycle ride share program for 3M employees with hubs located in key areas through the 3M campus.
- Provide greatly reduced transit passes to employees as an incentive to take public transit.
- Promote new Gateway Corridor public transit options through maps and links on employee website.
- Link the Maplewood 3M transit station to the internal 3M shuttle service for added convenience.
- Support station coffee kiosk to enhance arrival and departure experience or to create an outdoor workday destination.
- Encourage healthy living with use of new trails and connections for mid-day walking.
- Provide bike enthusiasts with bike storage and nearby trail maps.

- Partner with new nearby businesses as part of economic development initiatives to offer employees discounts for their patronage.
 - Explore partnership with new hotel to provide special services and amenities to 3M visitors, such as free wireless and a shuttle to the 3M campus.
- ✓ **Action Item:** Encourage 3M to conduct an employee survey on opinions related to transit and potential amenities.



Example of a branded BRT stop in a suburb in New York

Part IV: Action Plan



MAPLEWOOD

4.2: USE MAPLEWOOD 3M STATION AS A PLATFORM TO CREATE A SENSE OF PLACE

4.2.1: Make investments and use thoughtful design to increase awareness of Maplewood, interest in the station area and use of associated amenities.

- Improve community through station planning through use of:
 - Welcoming Maplewood signage
 - Lighting for safety and way-finding
 - Public art incorporated throughout, particularly at station and on tunnel underpasses
 - New garbage and recycling receptacles
 - Natural environment development surrounding the station
- ✓ **Action Item:** Investigate opportunities for City of Maplewood to use place-making strategies surrounding station.
- Promote the benefits of 3M Station to Maplewood residents:
 - Increased trails for walking and biking
 - More area activity translates to increased safety
 - Increase public transit connectivity through East Metro and Downtown Saint Paul
 - Potential increase in property values near station
 - Additional city amenities offered through economic development strategies
- ✓ **Action Item:** Endorse benefits of the new Maplewood 3M Station to residents.



An example of underpass public art in Boulder, CO and Seattle, WA

Timeline of Goals and Responsibilities of Action Plan

TRANSIT AND LIVING STREET DEVELOPMENT

	Goal	Action Item	Responsibility	Timing
1.2	Create Multiple Connections to Stations			
1.2.1	Provide connections to the station that are safe, secure, and convenient for pedestrians and bicycle riders.	Provide pedestrian connections from parking and surrounding areas to the Maplewood 3M station.	3M or Maplewood city staff	At transitway opening
		Invest in public bike share programs to be installed at the Maplewood 3M station area, Maplewood Mall, Battle Creek Park, Sun Ray Shopping Plaza, and other identified high traffic areas.	Maplewood city staff	Post-transitway construction
		Redesign the underpasses of McKnight Road and Century Ave to be more inviting with public art and lighting, bicycle lane striping and pedestrian wayfinding.	Maplewood city staff	During construction of Gateway Corridor
1.2.2	Provide transit feeder service to the transitway.	Coordinate feeder line connections with existing transit routes.	Metro Transit	At transitway opening
1.2.3	Provide a walking environment that is safe, inviting, and accessible to people of all ages and physical abilities.	Determine Pedestrian Signaling: Time the walk signals by calculating 3 feet per second for the walk interval. Additionally, give a 2 to 5 second WALK display prior to the green traffic signal. This allows the pedestrian to enter the crosswalk before the drivers are signaled, increasing their chance of being seen by drivers.	Maplewood city staff	Design phase of transitway plan
		Conform to the Americans with Disabilities Act of 1990 Minimal Accessibility Guidelines and the Public Rights of Way Accessibility Guidelines.	Maplewood city staff	Design phase of transitway plan
		Inventory physical pedestrian obstacles along the proposed transitway and surrounding trail systems.	Maplewood city staff	Design phase of transitway plan
		Design a network with continuous, complete trails, sidewalks, well-designed curb ramps, and street crossings.	Maplewood city staff	Design phase of transitway plan
		Prepare the budget, provide a yearly maintenance schedule for modification, and name a city staff person who will be responsible for implementing the plan.	Maplewood city staff	As soon as possible

Part IV: Action Plan



1.3 Shared Bus/Bike Lanes				
1.3.1	Increase pedestrian and bike connections between Tanners Lake, Maplewood 3M Station, Sun Ray Shopping Center and Battle Creek Park.	Use sharrows and paint to differentiate bike line within the shared road. Bike signal heads maybe an appropriate choice to cross-difficult intersections at McKnight Road and Century Avenue.	Maplewood city staff	Design phase of transitway plan
		Use bike boxes at intersections with high volumes of traffic or where there are left turn conflicts to provide cyclists with a safe and visible way to get ahead of queuing traffic during the red light signal.	Maplewood city staff	Design phase of transitway plan
		Require bicycle parking facilities in the design proposal.	Maplewood city staff	During the design review/building permit process
1.4 Station Location and Street Design				
1.4.1	Design transit way facilities and stations to be an extension of the community.	Hold a design charette within the first month of the design process with 3M, city staff, council members, and Gateway Corridor staff.	Maplewood city staff and 3M representatives	Early in the design phase
		Increase security measures around station area with appropriate lighting and surveillance equipment. Station and track lighting should be designed to illuminate the platform and pedestrian access area while preventing light pollution in adjacent areas.	Maplewood city staff and 3M representatives	Early in the design phase
1.4.2	Minimize confusion and maximize predictability for all street users.	As reasonable, assess feasibility of incorporating mitigation techniques of multi leg intersections as identified by the Living Streets Design Manual.	Maplewood city staff and 3M representative	Early in the design phase
		In design, consider the visibility from the perspective of all users including transit operators, other vehicle drivers, bicyclists, pedestrians, and wheelchair users.	Maplewood city staff and 3M representative	Early in the design phase
1.4.3	Design the station area layout that clearly defines the stop, provides visual cues on where to wait for the transit vehicle, and does not block the path of travel on adjacent paths and sidewalks.	Consolidate the streetscape elements to create a clear waiting area.	Maplewood city staff	Design phase of transitway plan
		Consider the use of special paving materials and curb extensions to differentiate the station area from adjacent sidewalks.	Maplewood city staff	Design phase of transitway plan
1.4.4	Increase accessibility.	Every reasonable effort should be made to design or redesign the intersections near the station area and Tanners Lake development as close to a right angle as possible.	Maplewood city staff	Design phase of transitway plan
		Make every reasonable effort to design intersections so there are no more than four legs.	Maplewood city staff	Design phase of transitway plan
		Pedestrian refuges should be provided if the crossing distance exceeds 40 feet.	Maplewood city staff	Design phase of transitway plan
		Stripe bicycle and trail lanes to guide bicyclists and motorists through undefined areas.	Maplewood city staff	Design phase of transitway plan

Part IV: Action Plan



1.5 Traffic Calming to Enhance Pedestrian Safety				
1.5.1	Increase pedestrian usability at McKnight Road and Century Avenue intersections with Hudson Road with traffic calming measures.	Use appropriate traffic calming measures in the McKnight Road area with speeds of 35 mph or greater: bump-outs, pedestrian scale lighting, textured or colored paving materials, street trees	Maplewood city staff	Design phase of transitway plan
		Use stop lines - solid white lines 12 to 24 inches wide set back 4 to 6 feet from a cross walk – at Century Avenue to improve vehicle’s view of pedestrians	Maplewood city staff	Design phase of transitway plan
1.6 Balance Station Parking Supply and Demand				
1.6.1	Carefully locate and design parking near transit.	Conduct a ridership survey to assess demand around the station area.	Maplewood city staff	Before construction of station area
1.6.2	Be proactive in addressing potential parking impacts to adjacent neighborhoods.	Enforce non-public parking at 3M private lots.	3M or Maplewood city staff	At transitway opening
		Street Narrowing Designs. As appropriate design streets to have minimal width, this reduces the use of impervious pavements that contribute to storm water runoff.	Maplewood city staff City Engineers	Conjunction with redevelopment opportunities
		As appropriate incorporate the use of pervious pavement surfacing as appropriate on trails, sidewalks, and surface parking lots.	Maplewood city staff City Engineers	Conjunction with redevelopment opportunities
1.7 Community Building Through Design Process				
1.7.1	Engage the community in the planning, design, construction, and operation of the system.	Hold a public design charette with developers, city staff, 3M representatives, general public, and regional bodies to establish a baseline for the vision of the station area.	Maplewood city staff	Every six months of the project, and with any major changes
		Hold community meetings to inform the public about the design and construction phases of the project.	Maplewood city staff	Every six month of the project starting immediately
		Establish a primary point of contact from city staff and 3M. Established shared communication expectation and norms with each entity.	Maplewood city staff/ 3M	As soon as possible
		Include outreach materials that are translated into Spanish and Asian Pacific languages, as well as alternatives for literacy challenged participants.	Maplewood city staff	In coordination with outreach efforts
1.7.2	Incorporate the land use vision from Maplewood’s Comprehensive Plan in surrounding neighborhoods.	As demand for housing around the station area changes, Maplewood will need to ensure that housing stock remains affordable and accessible.	Maplewood city staff, Community Design Review Board	During and post-construction of the transitway

Part IV: Action Plan



PARKS AND TRAILS				
	Goal	Action Item	Responsibility	Timing
2.1	Connecting Park and Trail Development Into One Continuous System			
2.1.1	Partner with neighboring cities and counties to create one-area parks and trail plan.	Appoint one representative from each city and county involved to a Parks and Trails Commission for Gateway Corridor improvements.	Gateway Coalition, cities, and counties	As soon as possible
		Evaluate current comprehensive plans for opportunities to re-evaluate priorities along the Gateway Corridor.	Maplewood city staff	As soon as possible, continuing
		Meet with Saint Paul and Oakdale planning staff to evaluate current park performance and opportunities within the area, especially surrounding the development along the I-94 corridor.	Maplewood, Saint Paul, and Oakdale planning staff	As soon as possible, continuing
2.1.2	Plan future trail and park development to maintain strong interconnectedness.	Write goals for future trail connections into the Maplewood Comprehensive Plan.	Maplewood city staff	Future Comprehensive Plan update
		Reach out to community members within the corridor to better understand community needs via parks and trails.	Maplewood city staff	As soon as possible
2.1.3	Use bike trails or bikeways to connect neighborhood parks.	Evaluate current bike connections between parks and propose development along these areas.	Maplewood city staff	As soon as possible
		Reach out to community members to find out where connections are lacking.	Maplewood city staff	As soon as possible
2.1.4	Focus planning efforts on east-west and north-south connections.	Evaluate area for the highest traffic counts north and south and east and west and focus development of alternative transportation along these routes.	Maplewood city staff	As soon as possible

Part IV: Action Plan



2.2 Increase Bike Use as an Alternative Mode of Transportation				
2.2.1	Redevelop current streets to allow for bicycle traffic.	Create a bicycle master plan for the City of Maplewood for redevelopment of current roads to allow bicycle traffic.	Maplewood city staff	As soon as possible
		Research possible ways to integrate bike traffic in automobile or already developed roadways.	Maplewood city staff	As soon as possible
2.2.2	Develop future roads with bike transit as a focus.	Create a bicycle master plan for the City of Maplewood for redevelopment of current roads to allow bicycle traffic.	Maplewood city staff	As soon as possible
		Research possible ways to integrate bike traffic in automobile or already developed roadways.	Maplewood city staff	As soon as possible
2.2.3	Educate community members about the benefits of alternative transportation modes.	Hold community meetings to better understand community needs and also educate the community on existing trail and park networks.	Maplewood city staff	As soon as possible
		Encourage local businesses to host workshops to educate community on bike safety and trail use	Maplewood city staff and local businesses	Once trail network is fully developed
2.2.4	Encourage local businesses to develop amenities for bike transit users.	Hold a meeting for local businesses within the community to discuss transitway and opportunities for development	Maplewood city staff and local businesses	As soon as possible
		Provide tax incentives to build public alternative transit amenities in office parks, particularly the 3M site.	Maplewood city staff	Gateway Corridor final development stages
		Educate local businesses on traffic demand principles that highlight the need for alternative transportation.	Maplewood City Staff	As soon as possible

Part IV: Action Plan



2.3 Create Pedestrian and Bike Friendly Roadways and Interactions				
2.3.1	Acquire land that can be used as transportation centers but that also focuses on recreation opportunities.	Do a land use study and acquire land that will connect Battle Creek Regional Park with the neighborhoods north of I94.	Maplewood city staff and developers	As soon as possible
		Study other areas of opportunity in connecting recreation opportunities to neighborhoods.	Maplewood city staff	As soon as possible
2.3.2	Identify underserved populations in the area and design transitway that better meet the needs of these populations.	Specifically outline these underserved areas by way of a comprehensive plan update.	Maplewood city staff	During update of comprehensive plan
		Complete a transportation analysis pre- and post-transit development to ensure the underserved population is being served.	Maplewood/Ramsey County staff	Six months prior to completion and one year after completion
2.4 Park and Trail Connections as Community Economic Asset				
2.4.1	Work with local businesses to encourage employees to use alternative transportation modes.	Schedule workshops in local businesses to educate workers on benefits of alternative modes of transit and ease of use.	Maplewood city staff	Six months after Gateway Corridor is complete
		Build bike centers at local commercial hubs for those who bike to work to shower and store bikes during workday.	Maplewood city staff	As soon as possible
2.4.2	Connect bikeways and transit routes specifically to access office park development and commercial centers.	Work with local business to understand where their employees are coming from to better serve their working populations.	Maplewood city staff	As soon as possible
		Maintain and build strong relationships with local businesses to involve them in the planning process for parks and trails and encourage their presence at planning meetings.	Maplewood city staff	As soon as possible

Part IV: Action Plan



ECONOMIC DEVELOPMENT OPPORTUNITIES

	Goal	Action Item	Responsibility	Timing
3.1	Create a Master Plan to Capture Opportunities for Tanners Lake			
3.1.1	Create a master plan for the Tanners Lake commercial area in both Maplewood and Oakdale.	Establish a task force of public officials to identify common goals for area.	Maplewood and Oakdale city staff and city councils	As soon as possible
		Enter into a joint powers agreement to collaborate on a coordinated development of the joint area. It is imperative that Maplewood and Oakdale work together to ensure that the commercial area achieve a balance of complimentary uses and well planned circulation through the entire area.	Maplewood and Oakdale city staff, city attorneys and city councils	As soon as possible
		Identify potential building areas and circulation patterns that comply with goals of the Gateway Corridor Project and show potential for development.	City engineering and consultants	Early in the design process in conjunction with the Gateway Project
3.1.2	Determine collective preliminary vision for area.	Collect data on project area and building envelope, surrounding linkages, neighborhood, strengths and constraints to identify possibilities and issues. Building envelope must allow for setbacks from Tanner's Lake established by the watershed district and the DNR	Maplewood and Oakdale city staffs	Prior to design phase
		Review visions from Maplewood and Oakdale Comprehensive Plans to find common areas of direction.	Maplewood and Oakdale city staffs	As soon as possible
3.1.3	Establish controls that set the direction and standards for future plans for the land.	Create an Overlay District over all parcels in the target commercial area that reflects the collective overall vision for the area and ensures that both Maplewood and Oakdale will have input when properties in the other city are considered for approval. This district could set standards for new development that encourages best environmental practices for water quality and building options	Maplewood and Oakdale city staff, city attorneys and city councils	During design phase
		Consider a Commercial Planned Unit Development District (PUD) with a minimum acreage to encourage assemblage of lots, ensure comprehensive development of the site and flexibility in planning.	Maplewood and Oakdale city staff, city attorneys and city councils	During design phase
		Consider a temporary moratorium on any construction or improvements during the period when establishing the Overlay District.	Maplewood and Oakdale city staff, city attorneys and city councils	As soon as possible
		Minimize the footprint of allowable parking to increase open space potential. A joint parking facility could also reduce the area required for circulation.	Maplewood and Oakdale city staff	During and post development of Tanner's Lake site

Part IV: Action Plan



MAPLEWOOD

3.2 Create a Master Plan to Capture Opportunities in the Business Area South of I-94				
3.2.1	Create general goals for the parcel.	Establish general goals for the parcel that meet the needs of the community.	Maplewood city staff and City Council	As soon as possible
		Identify potential building areas and circulation patterns that comply with goals, project, and area conditions	Developers, Maplewood city staff	As soon as possible
3.2.2	Determine preliminary vision for area.	Collect data on project area and building envelope, surrounding linkages, neighborhood, strengths and constraints to identify possibilities and issues.	Maplewood city staff	As soon as possible
		Review City's visions in the Comprehensive Plan to establish direction of project.	Maplewood city staff	As soon as possible
	Establish controls that set the direction and standards for future of land.	Consider a Commercial Planned Unit Development District (PUD) with a minimum acreage to ensure comprehensive development of the site and flexibility in planning.	Maplewood city staff, city attorneys, city councils	As soon as possible
		Consider a temporary moratorium on any construction or improvements during the period when establishing the Overlay District.	Maplewood city staff, city council	As soon as possible
3.3 Refine Priorities for Each Site				
3.3.1	Review demographic information to determine potential demand for types of development and uses.	Summarize demographic information about areas to help identify types of uses that could be successful within the targeted areas.	Maplewood city staff	Early in the planning process
3.3.2	Seek community and business input on future uses based upon established goals and vision of cities.	Conduct charrette and/or workshops for both the north and south sites with area residents and businesses to obtain their input on how they would like to see the areas planned and what uses they would welcome and patronize (See Survey for preliminary input)	Economic development commission, Maplewood city staff, community residents	Early in the planning process
		Incorporate community input into a report summarizing area and showing how suggestions could be considered in the plan.	Economic development commissions, city planning staffs	Early in the planning process

Part IV: Action Plan



MAPLEWOOD

3.4 Guide Future Development to Achieve Vision and Goals				
3.4.1	Determine future plans of existing businesses and property owners.	Meet with current commercial property owners in target areas to share community vision and plans and demonstrate how this would strengthen opportunities for the land owners.	Maplewood city staff, property owners.	Early in the development process and ongoing
		Determine the property owners' future plans and discuss potential options. Maintain periodic contact with owners to learn of any changes in their plans.	Maplewood city staff, property owners.	Ongoing
		Make energy efficiency and conservation a priority through building code improvements. Offer incentives for developers who adhere to the Maplewood Green Building Code.	Maplewood city staff, developers	Conjunction with development opportunities
3.4.2	Identify and interview potential developers for information and interest.	Seek input from developers and businesses on potential development of proposed uses. These responses would give an indication of feasibility, interest and timing in the market for achieving those preferences.	Maplewood city staff, business community, developers	Early in the development process
		As properties become available for sale, work with owners to identify potential buyers who are most likely to embrace the goals in the area plan. Facilitate meetings with those parties and the owner to share the vision and potential for the site.	Maplewood city staff, property owners, development community	Ongoing
		If the best way to ultimately achieve the City's goal is to acquire the property, seek grants for purchase of properties for holding a resale. Determine whether the property would meet the test as blighted for grant opportunities. Depending on the extent of land available, this could be an opportune time to work with a selected developer to assemble the land and develop to agreed-upon standards to achieve the planning and economic goals desired.	Maplewood city staff, government and private granting agencies, property owners	Early in the development process
		Create a Green Points program that provides incentives to developers who achieve high scores for integrating energy efficiency, landscaping, water conservation, and waste management into the design of new buildings around the station area and redevelopment sites.	Maplewood city staff	As soon as possible

Part IV: Action Plan



MAPLEWOOD

3.4.3	Identify planning tools and financing sources available to cities.	Identify potential incentives to attract developers, such as Tax Increment Financing (TIF), density bonuses, parking accommodations, land write-down, and public grants for redevelopment of underutilized or blighted areas. Setting a time limit on incentives offered could hasten developer response. Consider providing internships for grant-writing to University of Minnesota Humphrey School graduate students.	Maplewood city staff, Economic Development Commission	Early in the development process
		Consider areas of City participation for providing public amenities such as public areas at Tanners Lake and proposed retail area south of I-94, landscaping to establish community identity with signature Maplewood plantings.	Maplewood city staff in coordination with developers	As development occurs
		Provide support for planning and installation of rain gardens in public areas to improve quality of stormwater entering Tanners Lake and the stormwater system. Rain gardens could be accompanied with signage near the trail and gathering areas to showcase this solution for other residents. Pervious pavers should be required for public areas adjacent to Tanners Lane and other public places to reduce off-site drainage.	Maplewood city staff	As development occurs
		Incorporate way-finding (trail signage) and place-making strategies to be consistent with other areas in Maplewood.	Maplewood city staff	Ongoing
3.5 Develop Parcels as Determined Through the Planning Process				
3.5.1	Ensure that development meets city and community expectations.	Process applications and plans through the review and approval process to ensure that the plans meet all requirements before building permits are issued.	Maplewood city staff	Once development plans have been submitted
		Monitor construction of development for those design features and details beyond building code items to ensure that it is consistent with the image that has been approved and fulfills city expectations.	Maplewood city staff and building inspectors	As development occurs
3.5.2	Promote and support development throughout the City.	Participate with developer and tenants to create an event in support of grand opening of new facilities	City leadership, business owners, community	As development occurs

Part IV: Action Plan



3M PARTNERSHIP AND STATION DEVELOPMENT

	Goal	Action Item	Responsibility	Timing
4.1	Partner with 3M for Station Success			
4.1.1	Emphasize opportunities to build 3M branding and image.	Propose the station to be named the Maplewood 3M Station in order to give recognition on all Gateway Corridor materials for both 3M as the actual location, as well as the only stop on the corridor within the city of Maplewood.	Maplewood city staff working with Gateway Corridor Commission and the Metropolitan Council	Early in design phase
		Work with 3M representative to incorporate and identify 3M products and technologies throughout the station design to build recognition.	Maplewood city staff and 3M representatives	Early in design phase
		Create a destination through public art by asking 3M to commission a large outdoor sculpture from a well-known artist that will be located on their property near the station.	Maplewood city staff and 3M representatives	Early in design phase
		Incorporate activities and features that contribute towards 3M's sustainability strategies, including use of renewable energy, waste management, and pollution reduction. Additionally, more 3M employees taking mass transit means fewer cars on the roads.	Maplewood city staff and 3M representatives	Early in design phase
4.1.2	Address 3M issues and challenges through public transit options as solutions.	Encourage 3M to analyze current employee commuting patterns and conduct a parking analysis.	3M	Now
		Emphasize how transit can help 3M with current challenges and concerns.	3M	Now
4.1.3	Highlight benefits for 3M employees.	Promote potential benefits including: free bicycle ride share program, reduced transit passes, transit maps and links, links to 3M shuttle service, station coffee kiosk, use of trails, bike storage, nearby business offers and new hotel partnership.	3M	Before opening day
4.2	Use Maplewood 3M Station as a Platform to Create a Sense of Place			
4.2.1	Make investments and use of thoughtful design to increase awareness of Maplewood, interest in the station area and use of associated amenities.	Investigate opportunities for City of Maplewood to use place-making strategies surrounding station	Maplewood city staff	Before opening day
		Endorse and promote benefits of the new Maplewood 3M Station to residents.	Maplewood city staff	Before opening day

(THIS PAGE WAS INTENTIONALLY LEFT BLANK)

Part V. Conclusion



Part V: Conclusion



MAPLEWOOD

The Gateway Corridor rapid transitway presents many opportunities surrounding the development of a station on the 3M campus in Maplewood, and there are potential benefits for 3M employees and company business, the City of Maplewood and residents as well as local businesses and developers. The vision of a connected, well-designed station with outstanding amenities and nearby business development can be accomplished. It is important for the City of Maplewood to create strategies and timelines and to engage important stakeholders now in order to take full advantage of the project. Recommended tactics are detailed in the action plan.

There are challenges to accomplishing goals and achieving the vision of what the Maplewood 3M station area can become. These include issues such as lack of funding and political will, insufficient interest in ridership, competing priorities and inability to collaborate with crucial partners. Concerns, such as changing commuting patterns and safety from 3M must be addressed, and Maplewood residences must be given the opportunity to voice opinions and ask questions.

Success will be measured as an appealing and useful transit station serving 3M and surrounding Maplewood residents and attracting significant ridership. Residents will utilize an improved trail system with increased connections. 3M will help address the growing needs of a global business and maximize opportunities to build the brand and company image. And finally, Maplewood will strengthen the city's identity in the south central area and while realizing gains from redevelopment and public/private partnerships. By investing now, the City of Maplewood will realize the full potential of the Gateway Corridor project.



Works Cited



Literature

Billings, Stephen. "Estimating the Value of New Transit Options" *Regional Science and Urban Economics*. Vol. 41 (525-536).(2011).

Brown, B;Werner, C. "The Residents' Benefits and Concerns Before and After a New Rail Stop: Do Residents Get What They Expect?" *Environment and Behavior* 43: 789-806.(2011).

Cain, Alasdair, Georges Darido, and Jennifer Flynn. Mass Transit, "BRT Update." Last modified May 02, 2007. Accessed February 27, 2013. <http://www.masstransitmag.com/article/10221176/brt-update>.

California Redevelopment Association. "Monterey Redevelopment Agency - Uptown Monterey Shopping Center - Redevelopment of Safeway Site." Accessed April 8, 2013.
<http://www.calredevelop.org/External/WCPages/WCWebContent/WebContentPage.aspx?ContentID=1852>.

City of Boulder Colorado. " Green Building and Green Points Booklet" (2013) Accessed April 2013:http://www.bouldercolorado.gov/www/publications/forms/902_GP%20Guideline%20Booklet.pdf

City of Milwaukee. "Redevelopment Zoning District (RED). Accessed April 8, 2013.
<http://www.mkedcd.org/planning/zoning/red.html>.

Demma, Jay. "Oakdale Mall Redevelopment Market Study of Potential Commercial Uses, Oakdale, Minnesota." *Memo to Bob Streetar, City of Oakdale*. Stantec, formerly Bonestroo. January 18, 2010.

[Dunphy](#), Robert T. "Bus or Rail". *Urban Land Institute*. (2012)

Accessed February 2013:

http://urbanland.uli.org/Articles/2013/Feb/DunphyBusorRail?utm_source=uli&utm_medium=eblast&utm_campaign=021113

Hoffman, Alan. "Advanced Network Planning for Bus Rapid Transit: The "Quickway" Model as a Modal Alternative to "Light Rail Lite"." *U.S. Department of Transportation*. no. 7104-4 (2008): (1-116). Federal Transit Administration (accessed February 27, 2013).

Works Cited



- Kildee, Dan. "Land Banks as a Redevelopment Tool." Cascade: No. 75, Fall 2010.
http://www.philadelphiafed.org/community-development/publications/cascade/75/04_land-banks-as-redevelopment-tool.cfm.
- Kim Ph.D., Eugene J., Georges Darido, and Donald Schneck. "Las Vegas Metropolitan Area Express (MAX) BRT Demonstration Project Evaluation." *Federal Transit Administration U.S. Department of Transportation*. no. 2005.1 (2005): (1-54). Federal Transit Administration (accessed February 28, 2013).
- Levinson, D. and Krizek, K. *Planning for Place and Plexus: Metropolitan Land Use and Transport*.(2008).
- Los Angeles County. *Model Design Manual for Living Streets*. (2013).
- Omnitrans sbX , "About sbX: BRT Fact Sheet." Accessed February 28, 2013. <http://www.estreet-sbx.com/about/index.html>.
- Positively Minnesota, Department of Employment and Economic Development. "Other Tax Incentives - Tax Increment Financing." Accessed April 3, 2013. http://www.positivelyminnesota.com/Business/Locating_in_Minnesota/Incentives/Other_Tax_Incentives.aspx.
- Stern, J.; MacCleery, R. ; Walker, C. " Promoting Cross Sector Partnerships for Equitable Transit Oriented Development". *Washington, DC. Urban Land Institute & Annie E Casey Foundation*. (2011).
- Thompson, Michael. "City of Maplewood, Minnesota Living Streets Policy" (2013). Accessed April 2013:
<http://www.smartgrowthamerica.org/documents/cs/policy/cs-mn-maplewood-policy.pdf>
- Urban Land Institute."Minneapolis Minnesota: Implementing a Vision for Transit-Oriented Development" Rose Center Advisory Center . Washington DC.(2010).
- Urban Land Institute. "Shifting Suburbs: Reinventing Infrastructure for Compact Development". *Washington, D.C.: Urban Land Institute*. (2012).

Works Cited



Urban Land Institute. "Shifting Suburbs: Reinventing Infrastructure for Compact Development". *Washington, D.C.: Urban Land Institute*. (2012).

Weinstock, Annie. "Bus Rapid Transit: Planning and executing a successful system." *SSTI Webinar Series*. State Smart Transportation Initiative November 29 2012. Web, <http://www.ssti.us/Events/bus-rapid-transit-planning-and-executing-a-successful-system/>.

Welbes, John. "3M's Maplewood Headquarters Gets First Major Makeover in 50 Years". St. Paul Pioneer Press, January 21st, 2013. Accessed February 2013: http://www.twincities.com/business/ci_22403916/3m-made-more-modern

Wikipedia. "Bus rapid transit." Accessed March 27, 2013.
http://en.wikipedia.org/wiki/Bus_rapid_transit.

Interviews

Over a three month period the consulting group conducted a variety of interviews with professionals across the multiple jurisdictions and across both public and private sectors to gain insights about the Gateway Corridor project and the specific Maplewood 3M station area (listed below).

V. Paul Bilotta, Planner, Stantec Consulting

Jason Cao- Professor, University of Minnesota

Stephanie Eiler, Principal Project Manager, Vice President, **CH2MHILL**

Andrew Eisenchenk- Manager, LivInn Hotel

Shann Finwall, Environmental Planner, City of Maplewood

Steve Fox, Manager, Administrative Services, 3M Company

Virginia Gaynor, Natural Resources Coordinator, City of Maplewood

Patti Gibbs- Agent, Edina Realty

Tom Heim, Director, Administrative Services, 3M Company

Kim- Agent, Benchmark Commercial Real Estate

David Lindahl, Economic Development Manager, City of Eden Prairie

Works Cited



Allen Lovejoy, Principal Planner, St. Paul Public Works Department, City of St. Paul
Michael Martin, Planner, City of Maplewood
Pat Masica- Senior Vice President, Duke Realty
Dan Okeefe- Associate, Harley Davidson Group
Jennie Read, Engineer, MnDOT
Evan Rice, Attorney, Principal, Rice Legal Services LLC
Paul Rice- Development Assistance, City of Lakewood
Will Rossbach, Mayor, City of Maplewood
John Shardlow, Planner, Stantec Consulting
F. Doyle Shea, Manager, Real Estate Department, 3M Company
Doug Stang, Public Affairs, 3M Company
Bob Streetar, Community Development Director, City of Oakdale
Michael Thompson, Director of Public Works / City Engineer, City of Maplewood

Review of Comprehensive Plans

In addition to multiple interviews from various professionals, the consulting group performed a detailed analysis of various comprehensive plans that effected the study area including but not limited to:

- City of Maplewood
- City of Oakdale
- City of Saint Paul
- Ramsey County
- Washington County

Works Cited



Images

Google Image. "Troll under bridge" Accessed April 2013 at: www.myspace.com/bikersusan.blogspot.com

Google Image. "Boulder CO underpass" Accessed April 2013 at: boulderbikeunderpasschoir.wordpress.com

Google Image. Rails to Trails. "Multi Use St. Anthony Falls

Rails to Trails" Accessed April 2013 at: <http://community.railstotrails.org/blogs/trailblog/archive/2012/01/05/from-strength-to-strength-minneapolis-contines-to-build-bike-and-walk-ability.aspx>

Google Image. City of Minneapolis. "Nice Ride" Accessed April 2013 at: www.ci.minneapolis.mn.us

Google Image. Trusted Age. "Happy Elderly" Accessed April 2013 at: www.trusted.org

Google Image. Transit Miami. "Sharrows" Accessed April 2013 at: www.transitmiami.com

Google Image. "Bike Boxes" Accessed April 2013 at: ladotbikeblog.wordpress.com

Google Sketch Up Models

Hudson Road Vision

Google Sketchup 8. Trimble 3D Warehouse. "metro bus BRT İstanbul" by uluocak,
<http://sketchup.google.com/3dwarehouse/details?mid=c970097584110627b012af5689af8c1e&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "car suv" by crab nebula stop...,
<http://sketchup.google.com/3dwarehouse/details?mid=fb09f6642e414e1f967bf54a1f364120&prevstart=36>

Google Sketchup 8. Trimble 3D Warehouse."double street light pole at..." by Marlowe
<http://sketchup.google.com/3dwarehouse/details?mid=f8f15312c58ae103c195f37b3c26ba2a&prevstart=12>

Google Sketchup 8. Trimble 3D Warehouse."Regal mist grass" by SketchUp
<http://sketchup.google.com/3dwarehouse/details?mid=7f88322d838392e95fad2bf33ddbcd4d&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse."Flower Box - Basic" by Sickfish
<http://sketchup.google.com/3dwarehouse/details?mid=ec73c4f111bd41b3b6132265853f52a7&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "Wood park bench" by SketchUp
<http://sketchup.google.com/3dwarehouse/details?mid=666d9cceca3ccf23f4716a118b19c938&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "Recycle bins #1, Dursley" by John
<http://sketchup.google.com/3dwarehouse/details?mid=cae12a60f40589a0d1dcd8521df056c4&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "Pine tree 2 (very detailed)" by C.G. World
<http://sketchup.google.com/3dwarehouse/details?mid=1db15930260e6723d68b734cc19267d9&prevstart=0>



Works Cited

Google Sketchup 8. Trimble 3D Warehouse. "3d tree - Aceraceae" by Ganyedes
<http://sketchup.google.com/3dwarehouse/details?mid=de2ddd24f0bd6505e08bcdb812e5e7f3&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "Bus Stop" by Miki.
<http://sketchup.google.com/3dwarehouse/details?mid=1bc53ef5e76372544b9c8631be937b4d&prevstart=0>

Tanners Lake Vision

Google Sketchup 8. Trimble 3D Warehouse. "Courtyard by Marriott downtown Miam" by Igloo Studios
<http://sketchup.google.com/3dwarehouse/details?mid=bbc26bf9516352a67a50afc9c93f8a50&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "Model of a Mixed-use Building" by Google 3D Warehouse
<http://sketchup.google.com/3dwarehouse/details?mid=e4b4016d9d3d239e16fd541bd71e682c&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "Amore Pizza Cafe" by Cordelle
<http://sketchup.google.com/3dwarehouse/details?mid=18abfbaa44b88ae1240e04c88991690c&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "Exotic Car Parking Lot!!!" by merfin
<http://sketchup.google.com/3dwarehouse/details?mid=785651b4de0d3564a1065f6a75428e8b&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "planter box" by yy
<http://sketchup.google.com/3dwarehouse/details?mid=40b2699428f68a225117083e4484ae48&prevstart=108>

Google Sketchup 8. Trimble 3D Warehouse. "Optimum flower" by Visual Factory
<http://sketchup.google.com/3dwarehouse/details?mid=2a7b8b4ca97d7c1a51bc5193f439cafe&prevstart=12>

Google Sketchup 8. Trimble 3D Warehouse. "Fountain in Park Royal in" Brussels by 3rd Angle
<http://sketchup.google.com/3dwarehouse/details?mid=12b5842cc96c4504e614139d93df2bc0&prevstart=0>

Google Sketchup 8. Trimble 3D Warehouse. "Wood park bench" by SketchUp
<http://sketchup.google.com/3dwarehouse/details?mid=666d9cceca3ccf23f4716a118b19c938&prevstart=0>

Appendices



Appendix A: Residential Survey Questions



MAPLEWOOD

Maplewood Residential Survey

Demographics

1. What is your age group:
 - a. Under 18
 - b. 19-64
 - c. 65+
2. How long have you lived in the neighborhood?
 - a. Under 1 year
 - b. 1 – 4 years
 - c. 5 – 10 years
 - d. Over 10 years
3. How long do you plan on remaining in the neighborhood?
 - a. Under 1 year
 - b. 1 – 4 years
 - c. 5 – 10 years
 - d. Over 10 years

Working and Transportation

4. If you are currently working, in what city do you work?
5. Do you own a car or bike?
6. How do you usually get to work?
 - a. Car
 - b. Bus
 - c. Car Pool
 - d. Bike
 - e. Walk
 - f. Other _____

Transportation Use and Availability

7. Do you currently use public transportation?
8. Why or why not?
9. Is public transportation available in your area?
10. How far would you walk or bike to a transit station?
11. Do you use the trails in your area for walking or biking?
 - a. Where would you like to have the trail system expanded?
 - b. If there was a trail connection to Battle Creek Park, would you use it?
 - c. Would you use a pedestrian / bike bridge across I-94?

Appendix A: Residential Survey Questions



MAPLEWOOD

Gateway Corridor

12. Are you familiar with the proposed Gateway Corridor rapid transit project along I-94? (Show and explain map) (Stations at Union Depot, Mounds Blvd, Sun Ray, 3M, Oakdale, Radio Drive, Woodbury Drive, Manning Avenue, Hudson, WI)
13. Would you use this limited access / rapid transit system?
14. Would you be more likely to use a transit station near 3M or a Park and Ride at Sun Ray Shopping Center to access the Gateway Corridor?
15. What do you think the benefits of a station would be for the neighborhood
 - a. More or improved amenities
 - b. Improved aesthetics
 - c. Increased transportation options to work, shopping or entertainment
 - d. Increased area vitality
 - e. Increased property values
 - f. Increased safety
 - g. Improved connections to trails and parks
 - h. Other benefits _____
16. If a Gateway Corridor transit station were located near 3M, what concerns, if any, would you have?
 - a. Increase in traffic
 - b. Increase in noise
 - c. Availability of parking
 - d. Decrease in safety
 - e. Issues with accessibility
 - f. Changes in neighborhood aesthetics
 - g. Proximity to 3M
 - h. Proximity to I-94
 - i. Other concerns _____

Area Development

17. The area west of Tanners Lake currently has a LivINN Hotel, Dennys and Precision Auto Repair, apartments and vacant lot. What are your perceptions of this area?
18. If the area were developed or redeveloped, what would you like to see in that area?
 - a. Restaurant (what kind)?
 - b. Hotel
 - c. Local services
 - d. Apartments
 - e. Other _____

Appendix B: Residential Survey Results



MAPLEWOOD

Gateway Corridor
Survey Responses
April, 2013

#	Address	Area	Demographics			Work & Transportation							Gateway Corridor					Area Development		Comments				
			1	2	3	4	5	6	7	8	9	10	11	11a	11b	11c	12	13	14		15	16	17	18
			1 = <18 2 = 19-64 3 = >65	< 1 Yr 2 = 1-4 Yrs 3 = 5-10 Yrs 4 = >10 Yrs	> 1 Yr 2 = 1-4 Yrs 3 = 5-10 Yrs 4 = >10 Yrs	Work City	Car / Bike 1 = Car 2 = Bike 3 = Both 4 = None	To Work 1 = Car 2 = Bus 3 = C Pool 4 = Bike 5 = Walk 6 = Other	Transit 1 = Yes 2 = No	Why 1 = Work 2 = Recreat 3 = car easy 4 = convenient 5 = inconvenient	Available 1 = Yes 2 = No	Get to Strn 1 = 1 bl 2 = 2 bl 3 = 3 bl 4 = 4 bl 5 = >4 bl	Use Trails 1 = Yes 2 = No	Expand Trails	To BC Park 1 = Yes 2 = No	P/B Bridge 1 = Yes 2 = No	Know 1 = Yes 2 = No	Use 1 = Yes 2 = No	3M or SR 1 = 3M 2 = SR 3 = Both	3M Benes 1 = 3M 2 = -traffic 3 = close	Concerns 1 = Yes 2 = No 3 = 0	Perceptions 1 = + 2 = - 3 = 0	Prefer 1 = Restaurant 2 = Hotel 3 = Services 4 = Apartments 5 = Other	
1	657 Ferndale	1	2	3	4	Maplewood	1	5	1	1	1	2	1	Minnehaha	1	1	2	1	2	1,2	2	2	1, 2	#17-Crack house hotel, #18-nice restaurant
2	665 Ferndale	1	3	4	1	St. Paul	3	1,2	2	3	1	1	2	Century	2	1	2	1	2	2	2	3	1,2,4	#18-Nice restaurant / condos. Why Conway bus shelters gone?
3	679 Ferndale	1	3	4	4	Maplewood	1	1	1	4	1	3	2	over Hwy 36	1	1	2	1	1	1	2	1	1	#18-Nice restaurant w/ deck
4	520 Farrell	1	2	3	2	Retired-St. Paul	1	1	2	1	1	2	2		1	2	1	1	1	2	2	3	1,2,3	#18-franchise restaurant
5	533 Farrell	1	1	4	4	South St. Paul	1	1	2	5	1	2	2		2	2	1	2	1	2	2	3	1,2	#7-Transit to events
6	548 Farrell	1	3	1	4	Retired	1	0	2	3	1	2	2	Conway/McKnight/Mhaha	2	2	2	1	2	1	2	3	1	#8-free parking, #17-Nice restaurant
7	580 Farrell	1	3	4	4	St. Paul	3	1	2	5	1	4	1		1	1	1	1	3	1,2	2	2	1,4	#18-Nice restaurant, Senior housing, shops
8	2633 - 5th	1	2	2	2	Minneapolis	1	1	1	4	1	4	2	Minnehaha	1	1	2	1	1	2	1	3	1	#18-Nice restaurant, #16-transit impact on intersections
9	2667 - 5th	1	3	2	4	Retired	1	0	2	5	1	2	1		2	2	1	1	1	2	2	3	1,2	#18-Nice restaurant-Mancinis, service station
10	771 Mary	1	2	4	4	St. Paul	3	1,4	2	5	1	3	1	McKnight	1	1	2	1	1	1,2	2	3	1	#18-Nice restaurant, #15-school buses on Mhaha unsafe
11	187 Brookview Ct.	2	2	4	4	Oakdale	3	1	2	5	1	4	2		2	1	2	2	1	1,2	2	2	?	#17-run down
12	2594 Brookview Dr.	2	3	4	4	Retired - 3M	3	5	2	5	1	3	1		1	1	1	2	1	1	1	2	5	#17-unkempt, #18-serve area, park
13	2627 Brookview Dr.	2	2	4	4	TC Area	1	1	2	5	1	5	2		1	1	2	1	3	2	2	3	1	#18Nice restaurant
14	33 Dennis	2	2	4	4	Minneapolis	1	1	1	4	1	2	1		1	1	1	2	3	2,3	2	2	1,5	#11-access to high school, #17-dismal, #18-use lakefront
15	28 Farrell	2	3	2	4	Minneapolis	3	1	2	1	1	5	1		1	1	1	1	3	1,2	2	2	1,5	#18-strip mall
16	2517 Mayer	2	2	4	1	Home-Mplwd	1	6	2	3	1	2	1	Battle Creek	1	2	2	1	1	3	2	2	4,5	#17-hotel run down, #18-Sr. housing, park
17	2525 Mayer	2	2	4	4	White Bear Lake	1	1	1	4	1	5	1		1	1	2	1	1	1	2	2	?	#17-traffic in area, better use for boat storage land
18	2539 Mayer	2	2	4	3	Blaine	3	1	2	3	1	5	1		1	1	2	1	2	2	2	2	1,3	#17-looks bad, #18-nice restaurant, better auto shop
19	2619 Mayer	2	2	4	3	Eagan	3	1	2	5	1	2	1	to St. Paul	1	1	2	2	1	1	1	2	1	#17-undesirable, #18-family restaurant
20	2681 Mayer	2	2	1	5	TC Area	3	1	1	2	1	5	1	to Hudson,Stillwater	1	1	2	1	1	1,2	1	3	1,5	#16-transit interrupt traffic,i.e.Hiawatha, #18-park
21	28 Mayhill	2	3	4	4	Retired	1		1	4	1	3	1	Safe areas	1	1	2	1	3	1,2	2	2	1,5	#17-doesn't like it, #18-nice restaurant, use lake

Notes:
 #9 - bus stops generally available in area, but busses do not go to destination
 #11 - almost all respondents would like a better pedestrian crossing at I-94, either bridge or underpass

Comments:
 Several respondents expressed concerns for personal and vehicle safety at Sun Ray station
 The Gateway Corridor proposal received univesal approval, whether or not all would use it