

Marshall GreenStep Cities Health Impact Assessment

August

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Prepared by
Southwest
Regional
Development
Commission

CITY OF MARSHALL

GREENSTEP CITY HEALTH IMPACT

ASSESSMENT

Executive Summary

The Marshall GreenStep Cities Health Impact Assessment (HIA) will guide the City of Marshall and the GreenStep Committee in prioritizing its involvement in the Minnesota GreenStep Cities Program to advance best practices that improve community health. The main goal is to outline the health benefits of the various best practices, so the decision makers can allocate their scarce resources to the highest valued best practice.

The HIA will focus on eleven best practices related to land use, transportation, economic and community development, active living, and healthy eating. The health impact of land use decisions is often overlooked. Recognizing that health extends beyond indicators such as death, diseases and disability, this project will address factors impacting quality of life, active living, healthy eating, and other social and environmental determinants of health.

The HIA will help illustrate the positive impact of compact efficient developments and how the best practices below impact active living and healthy eating. Compact efficient developments encourage walkability, which in turn will help reduce obesity and the chronic diseases related to obesity. These positive changes to the built environment will help to facilitate growth in Marshall by improving quality of life and making it a desirable place to live and work. Of the 11 best practices, six were identified as significantly impacting health and five of them are necessary for becoming a Step 3 GreenStep City. Below are the best practices this HIA recommends the City of Marshall pursue.

GreenStep Cities

Minnesota GreenStep Cities is a voluntary program to help cities achieve their sustainability and quality of life goals. This free continuous improvement program, managed by a public-private partnership, is based upon 28 best practices. Each best practice can be implemented by completing one or more actions at a 1, 2 or 3-star level, from a list of four to eight actions. These actions are tailored to all Minnesota cities, focus on cost savings and energy use reduction, and encourage civic innovation.

The GreenStep Cities program evolved during the Minnesota's Clean Energy Resource Teams (CERTs) regional listening sessions around the state to discuss community-based energy opportunities and the state's Next Generation Energy Act of 2007. The idea was raised of creating a sustainable cities program, free to cities, that would challenge, assist and recognize cities that were "green stars." This idea was taken up by the 2008 Legislature, which directed the MPCA, the Division of Energy Resources at the Minnesota Department of Commerce, and CERTs to recommend actions cities could take on a voluntary basis. For more information refer to the link below.

<http://greenstep.pca.state.mn.us/>

For more information regarding Marshall GreenStep HIA, contact:



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MARSHALL GREENSTEP

Reduce | Reuse | Recycle

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Table of Contents

CHAPTER I: SCREENING

Introduction.....	1
Screening.....	1, 2
Partners.....	2, 3
HIA Screening Worksheet.....	3 – 7

CHAPTER II: SCOPING

Introduction.....	8
Scoping.....	8 – 12
Research Modifications.....	12
HIA Goals.....	13
Stakeholders.....	13, 14
Impacted Populations.....	14
Pathway Diagrams.....	15
Background Health Statistics.....	16, 17
Marshall GreenStep City Documented Best Practices	17 – 20
Research Questions.....	20 – 40
Comprehensive Plan and Implementation – BP #6.....	21 – 23
Efficient City Growth – BP #7.....	23 – 25
Mixed Use – BP #8.....	26 – 28
Efficient Highway and Auto Oriented Development – BP #9.....	29, 30
Conservation Design – BP #10.....	30 – 32
Living Streets – BP #11 (Complete Green Streets.....	32 – 34
Mobility Options – BP #12.....	34 – 36
Parks and Trails – BP #18.....	36, 37
Local Foods – BP #27.....	37 – 40

CHAPTER III: ASSESSMENT

Introduction.....	41
Active Living.....	41, 42
Access to Healthy Foods.....	42 – 44
Existing Health Issues.....	44 – 46
Planning Process.....	46 – 49
Community Input.....	49 – 55
Traffic Volumes.....	55, 56
Crash Data.....	57 – 58
Sidewalk Maps.....	59 – 67
Gaps in the Sidewalk / Trail Network.....	68 – 87
Food Store Survey Results.....	87 – 89
Review of GreenStep Cities Best Practices.....	90 – 118

CHAPTER IV: RECOMMENDATIONS

Introduction	119 – 120
Objectives & Strategies.....	120 – 165
BP #7 – Efficient City Growth.....	120 – 125

BP #9 – Efficient Highway and Auto Oriented Development.....	125 – 127
BP #11 – Living Streets (Complete Green Streets).....	127 – 155
Infrastructure Objectives & Strategies.....	130 – 145
Non-infrastructure Objectives & Strategies.....	145 – 155
BP #17 – Innovative Stormwater Management.....	156 – 160
BP #18 – Parks and Trails.....	160 – 164
BP #27 – Local Foods.....	164, 165
 CHAPTER V: REPORTING	
Introduction.....	166
Reporting.....	166
Continued Public Involvement.....	166
 CHAPTER VI: MONITORING & EVALUATION	
Introduction.....	167
Plan Monitoring.....	167
Evaluation.....	167
 Conclusion.....	168
 APPENDIX	
Pathways Diagram.....	169 – 174
Neighborhood Assessment Survey.....	175, 176
Food Store Survey.....	177
Wikimapping Bulletin Board Handout.....	178
Wikimapping Handout.....	179
Community Meeting #1 Handout.....	180
Community Meeting #1 Agenda.....	181
Community Meeting #2 Handout.....	182
Community Meeting#2 Agenda.....	183
Bike Safety Day Flyer.....	184
Complete Streets Policy.....	185 – 188

Tables

Table #1	Partners Diagram.....	3
Table #2	HIA Screening Worksheet.....	4 – 7
Table #3	GreenStep Best Practices – Description Summary.....	8 – 12
Table #4	Health Metrics Summary – Lyon County.....	16
Table #5	Health Metrics Summary – Lyon Co, MN & U.S. Top Performers.....	17
Table #6	Marshall Best Practices Progress Summary.....	18 – 20
Table #7	Residential Street Pattern Design Comparison.....	24
Table #8	Business Streetscape – Example.....	26
Table #9	Adult Obesity in Lyon County.....	45
Table #10	Trends in Childhood Obesity & Overweight.....	46
Table #11A	Community Survey Summary.....	49
Table #11B	Community Survey Summary – City Sections.....	50
Table #12	Neighborhood Assessment Survey Map.....	50, 58
Table #13	Traffic Volumes, 2013 – City of Marshall.....	56
Table #14A	Crash Data – City of Marshall.....	57
Table #14 B	Fatal Crashes – City of Marshall.....	58
Table #14 C	PED & Bike Crashes – City of Marshall.....	58
Table #15 A	Sidewalk Map, Section A – City of Marshall.....	60
Table #15 B	Sidewalk Map, Section B – City of Marshall.....	61, 62
Table #15 C	Sidewalk Map, Section C – City of Marshall.....	63
Table #15 D	Sidewalk Map, Section D – City of Marshall.....	65
Table #15 E	Sidewalk Map, Section E – City of Marshall.....	66, 67
Table #16	Highway 59 North Gap.....	69, 131
Table #17	North 7 th Street Gap.....	70
Table #18	North Sidewalk Gap #3.....	71, 132
Table #19	Bumpout (Curb Extension) Visibility Comparison.....	73, 158
Table #20	Central Connection Gap.....	73, 133
Table #21	Western Connection Gap – Middle School.....	74, 134
Table #22	Horizon Drive Sidewalk Gap.....	75, 135
Table #23	Nature Trail Connection & Division Channel Nature Trail.....	76, 162
Table #24	West College Drive Gap.....	77, 136
Table #25	Cheryl Avenue Sidewalk Gap.....	78, 137
Table #26	South 2 nd Street Sidewalk Gap – Freedom Park.....	79, 138
Table #27	Canoga Park Drive Sidewalk Gap.....	80, 139
Table #28	Bruce Street Sidewalk Gap.....	81, 140
Table #29 A	East Southview Drive – On Street Bike Lanes.....	82
Table #29 B	On Street Bike Lanes & Needed Bike Lanes.....	83
Table #30	Lighting is an Issue.....	84, 155
Table #31 A	Pedestrian Scale Lighting Examples.....	85
Table #31 B	Pedestrian Lighting Examples – Sizing Scale.....	85
Table #32	Bike Racks – Examples.....	86
Table #33	Food Stores Map.....	89
Table #34	City Owned Properties.....	94, 163
Table #35	WalkScore – Ranking Description.....	107
Table #36	Progress Table – GreenStep HIA Best Practices.....	119

Table #37	Recommended Strategies.....	120
Table #38	Windstar Street Walkscore Map.....	122
Table #39	South 4 th Street Walkscore Map.....	123
Table #40	Paris Road Walkscore Map.....	123
Table #41	North 5 th Street Walkscore Map.....	124
Table #42	Sunrise Lane Walkscore Map.....	124
Table #43	West Lyon Street Walkscore Map.....	125
Table #44	East College Drive – very difficult to cross.....	142
Table #45	Mid-Block Crossing – Example.....	143
Table #46	Rapid Flashing Beacon.....	143
Table #47	Trail Heads Map.....	145
Table #48	Protected Bike Lane – Examples.....	148
Table #49	Street Configuration – Example.....	149
Table #50 A	Curbside Landscaping – Examples.....	156
Table #50 B	Curbside Landscaping – Examples.....	157
Table #51	Removable Curb Extensions.....	158
Table #52	Curb Extensions – Landscaping Examples.....	159
Table #53	Removable Curb Extensions – Planters.....	159
Table #54	Curb Extension – One Side Only – Example.....	160
Table #55	South Saratoga and East James Avenue – possible location.....	160
Table #56	Adopt a Trail Signage.....	164

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CHAPTER I: SCREENING

Introduction

The screening section of an HIA is intended to determine whether an HIA is needed, feasible, and likely to be used. The screening section provides the rationale for proceeding or not proceeding with the HIA. The screening section will provide the policy, program, or project to be analyzed.

Screening

The City of Marshall is a Step Two GreenStep City and is working towards becoming a Step Three GreenStep City by 2016. The City of Marshall must meet 16 of the 28 best practices to become a Step Three GreenStep City. The Marshall GreenStep Committee has expressed that they want to be more informed in their decision-making of pursuing one best practice over another. Researching various GreenStep best practices will help to provide evidence for pursuing one best practice over another. The Marshall Committee does not want to spend time documenting past projects that may qualify as a GreenStep best Practice. The Committee wants to help move forward projects that will have the largest return in regard to reducing energy use, increasing livability, and increasing positive health outcomes.

The HIA will guide the City of Marshall and the GreenStep Committee in prioritizing its involvement in the Minnesota GreenStep Cities Program. There are 168 unique actions a city can implement in order to complete the 28 best practices. The 28 best practices fall under the following five core areas: Building and Lighting, Transportation, Environmental Management, Land Use, and Economic and Community Development. The City of Marshall has documented 10 best practices thus far. The HIA will examine the eleven best practices that most closely associate with the goals of City of Marshall and related groups to improve active living and healthy eating. The HIA will help to build consensus among the City of Marshall, community groups, and residents regarding the allocation of community resources for city improvement projects.

The direct impact of the HIA will be on the residents of Marshall. The City of Marshall is a regional hub in southwest Minnesota, and therefore, other communities look to the City of Marshall as a leader on many issues. As a result, the HIA will produce a ripple-effect of health-focused activity throughout southwest Minnesota. Actions that the City of Marshall chooses to implement in order to work toward becoming a Step Three Green Step will be studied by other cities in the region. It is anticipated that other communities will look at the City of Marshall as a model on this front and follow their lead.

This ripple will also extend across the state of Minnesota. As of August 24th, 2015, there were 86 GreenStep Cities in Minnesota. These cities are well-connected and support each other's advancement in the program in a number of ways. GreenStep Cities meet approximately five times each year at in-depth workshops aimed at making progress on specific best practices. The GreenStep Cities website clearly lists which cities have achieved each best practice, showing a contact person and their information. Cities use this information to interact informally and directly with one another to understand any successes and lessons learned for each best practice. The GreenStep HIA will guide

GreenStep Cities from across the state regarding the implementation of best practices that better leverage positive health outcomes.

Partners

The Southwest Regional Development Commission (SRDC) will be leading the HIA, along with representatives from the City of Marshall, the Marshall GreenStep Committee, Healthy 56251, and Southwest Statewide Health Improvement Program (SHIP). The Marshall HIA Planning Team was made up of representatives from the groups and organizations. The various partners all bring different expertise to the project, which will help to create a holistic planning process. The SRDC has working relationships with the partners and is in a position to work with the partners on implementing recommendations outlined in the HIA.

The Southwest Regional Development Commission (SRDC) is a nine county planning and development agency providing services to local units of government, non-profit agencies, and various individuals and groups, in both public and private sectors throughout the region. Membership is comprised of 36 representatives of townships, cities, counties, school boards and public interest groups. The SRDC provides a forum for the discussion and resolution of issues common to the area. The Commission provides professional expertise and leadership to enhance regional opportunities in the following areas: Energy, Land Use, Active Living, Transportation, Capital Resource Development, Area Agency on Aging, Infrastructure, Solid Waste, Development Services, Management and Policy, Community Driven Planning, Administration, Strategic Planning, Agency and Legislative Advocacy.

The City of Marshall is located in the Southwest region of Minnesota and has a population of 13,680 reported on the 2010 census. It is the home of The Schwan Food Company, Southwest Minnesota State University, Archer Daniels Midland (ADM) Corn Processors, and Avera Marshall Medical Center, all major employers in the area. Marshall was recently named number 28 on the Top 100 Most Livable Small Towns in America by Liveability.com, reported by the Marshall Independent on June 2, 2015. The city administration has committed resources to improving the liveability, walkability, and health of Marshall, including but not limited to, The Minnesota GreenStep Cities and My Marshall.

Marshall GreenStep Committee was formed to pursue city goals of achieving sustainability and quality of life through Minnesota Greenstep Cities. In 2011, a group of private and public sector citizens started meeting to talk about ways Marshall and its businesses and organizations could improve efficiency, save money and at the same time protect the environment. We presented to the Marshall City Council on March 27, 2012 to request that they pass a resolution for Marshall to move forward to become a Minnesota GreenStep City. The resolution passed unanimously and an official Marshall GreenStep Committee was formed. The committee meets monthly to share information and to work on various initiatives to help Marshall complete Minnesota GreenStep Best Practices. Progress to date includes:

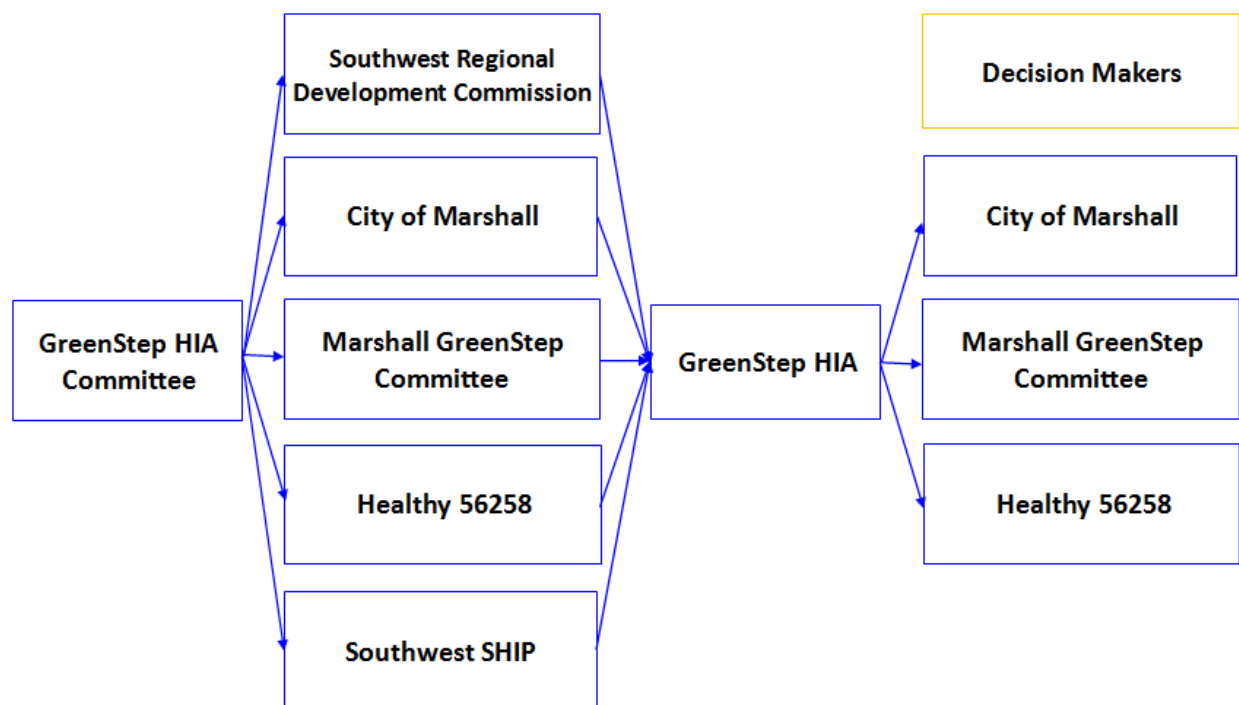
- Marshall was officially recognized by the Minnesota Pollution Control Agency as a **"Step One GreenStep City"** on April 26, 2012.
- A Marshall GreenStep Business Recognition program was established in January 2013.
- A **"Step 2 GreenStep City Award"** was presented to the City of Marshall on June 20, 2013.

- To reach our goal of becoming a “**Step 3 GreenStep City**” by 2016, Marshall must meet 16 of the 28 Best Practices.

My Marshall is a community initiative that is focusing on engaging citizens and connecting neighbors to build a more positive and livable community. The initiative is connecting people, projects, and resources to build consensus on use of community resources. Marshall 56258 is a subgroup of My Marshall, that is working on projects specific to health.

Southwest SHIP is organized out of Southwest Health and Human Service (SWHHS) offices. SWHHS oversees SW SHIP work in the 6 county region that includes the following counties: Lincoln, Lyon, Murray, Pipestone, Redwood, and Rock. SWHHS is a multi-county agency committed to strengthening individuals, families and communities by providing quality services in a respectful, caring and cost-effective manner. The Minnesota Statewide Health Improvement Program (SHIP) seeks to create sustainable, systemic changes in schools, worksites, communities and health care organizations that make it easier for Minnesotans to incorporate healthy behaviors into their daily lives.

Table #1 Partners Diagram



HIA Screening Worksheet

The HIA Screening Worksheet contains basic issues that should be considered when screening potential subjects for HIA. The work sheet is intended to provide useful information for decision-makers and improve the health impacts of the outcome. The worksheet will help organizations determine whether to proceed with an HIA on a particular subject, and also help inform the scoping phase of the HIA.

Table #2

HIA Screening Worksheet

Screening Questions	Response and Supporting Facts
Project and Timing <i>Has a project, plan or policy been proposed?</i> <i>Is there sufficient time to conduct an analysis before the final decision is made?</i>	<p>YES</p> <p>Yes</p>
Health Impacts <p>A. <i>Does the decision have the potential to affect environmental or social determinants that impact health outcomes? If so, which determinants and which health outcomes?</i></p> <p>B. <i>Would health inequities be impacted? In what ways?</i></p> <p>C. <i>Are the proposal's impacts to health likely to be significant in terms of the number of people impacted, the magnitude, breadth and/or immediacy of impacts?</i></p> <p>D. <i>Do evidence, expertise, and/or research methods exist to analyze health impacts of the decision?</i></p>	<p>A. Yes, The decision will impact land use, transportation, economic and community development, active living, and health eating. It will impact both mortality (length of life) and morbidity (quality of life) for residents of Marshall, specifically related to reduction of incidence or severity of chronic disease. For example, recommended projects could include mixed use neighborhoods that would provide housing opportunities throughout the lifecycle and businesses with goods and services like healthy foods; allowing residents to walk or bike for activities of daily living.</p> <p>B. Yes, Health inequities will be impacted for those with limited resources and minorities who often do not have access to safe transportation and need other transportation modes to community services. These population cohorts often are less politically active and may not advocate for themselves and their needs.</p> <p>C. Yes, The impact of this decision will include all residents of Marshall, and may impact residents of other cities in Minnesota as best practices are shared state-wide. The decision will lead to changes in 2016, but results could impact changes prior to 2016.</p> <p>D. Yes, the Green Step Cities website provides evidence in activities completed in other cities as well as literature and a consultant to access. Likewise at MDH and Centers for Disease Control and Prevention, access to literature and experts are available who have worked with similar cities in similar</p>

	<p>projects. Locally, county and city staff will help facilitate the development of the HIA.</p>
<p>Potential Impact of HIA Findings</p> <p><i>A. Is health already being considered in the proposal or as part of the decision-making process?</i></p> <p><i>B. Are the links between the proposal and health or health determinants clear?</i></p> <p><i>C. Is the decision-making process open to the HIA and/or recommendations for changes to design, mitigations and/or alternatives?</i></p> <p><i>D. If applied, would HIA findings and recommendations potentially improve the impact that the proposal has on health?</i></p>	<p>A. No, the city does not know how to consider health in their decision making processes</p> <p>B. Yes, the three most significant determinants of health are tobacco use, physical activity and healthy eating, the proposal will focus on physical activity and health eating.</p> <p>C. Yes, the city is the decision-maker and they have supported the HIA process and will be open to recommendations made.</p> <p>D. Yes, the HIA will outline and research existing conditions, how GreenStep policies related to active living, and health eating will impact health and provide recommendation for addressing gaps and deficiencies.</p>
<p>Potential Impact of the HIA Process</p> <p><i>A. What are the potential impacts of the HIA process? (e.g., building relationships, empowering community members, demonstrating how health can be used in decision making)</i></p>	<p>The HIA will help to show the impact land use, transportation, economic and community development, active living and healthy eating can have on the health of a community. The impact of the HIA could be local, regional, and statewide. The direct impact of the HIA will be on the residents of Marshall. The City of Marshall is a regional hub in southwest Minnesota, and therefore, other communities look to the City of Marshall as a leader on many issues. As a result, the HIA will produce a ripple-effect of health-focused activity throughout southwest Minnesota. Actions that the City of Marshall chooses to implement in order to work toward becoming a Step Three Green Step will be studied by other cities in the region. It is anticipated that other communities will look at the City of Marshall as a model on</p>

	<p>this front and follow their lead.</p> <p>This ripple could also extend across the state of Minnesota. The results of the City of Marshall's HIA, and it being completed from the perspective of a GreenStep City, will guide other GreenStep Cities across the state regarding the implementation of best practices that better leverage positive health outcomes. As of August 24th, 2015, there were 86 GreenStep Cities in Minnesota. These cities are well-connected and support each other's advancement in the program in a number of ways. GreenStep Cities meet approximately five times each year at in-depth workshops aimed at making progress on specific best practices. The GreenStep Cities website clearly lists which cities have achieved each best practice, showing a contact person and their information. Cities use this information to interact informally and directly with one another to understand any successes and lessons learned for each best practice.</p>
<p>Stakeholder Interest and Capacity</p> <p><i>A. Have public concerns about the health impacts of the decision been voiced or documented?</i></p> <p><i>B. Who are the stakeholders and interest groups involved in the decision-making process?</i></p> <p><i>C. Do stakeholders have the interest to participate in the HIA?</i></p>	<p>A. Yes, several community organizations have formed to help address obesity and poor nutrition in the community. This HIA can assist the city, partner organizations, and the residents understand the GreenStep City process and the potential impact on health and can give them a voice in the process.</p> <p>B. City of Marshall is the primary decision maker regarding projects in the city of Marshall. Other community organizations include Marshall GreenStep Committee, My Marshall Initiative, and the Southwest Statewide Health Improvement Program Community Leadership Team provide expertise, recommendations and funding for smaller scale projects.</p> <p>C. Yes, the stakeholders all have representation on the planning committee</p>

<p><i>D. Do stakeholders have the capacity (resources, skills, etc.) to participate in the HIA?</i></p> <p>E. <i>Would stakeholders use the HIA to inform or influence the decision-making process? How?</i></p>	<p>D. Yes, all stakeholders have experts in their area of study and have similar goals</p> <p>E. Yes, stakeholders can use the HIA to guide decision based on return in regards to reducing energy use, increasing livability, and increasing positive health outcomes.</p>
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CHAPTER II: SCOPING

Introduction

The scoping section of an HIA is intended to determine the important health effects, affected population, available evidence, and roles of stakeholders. The scoping section of an HIA will create a plan that defines the priority issues and a timeline. Research questions will be written with indicators, data sources, and methodology. The data researched will be used in the assessment section of the HIA.

Scoping

The City of Marshall is committed to developing a healthier community, but research on the health co-benefits and costs of various GreenStep best practices and other community initiatives does not exist. The City of Marshall Health Impact Assessment (HIA) will help to allocate resources to their most productive use by researching the health impact of eleven GreenStep best practices. The HIA will help to build consensus on the allocation of community resources.

The eleven GreenStep best practices included in the City of Marshall HIA were selected based on their relationship to active living and healthy eating. Active living and healthy eating will be the focus of this HIA so the information can be utilized by other community groups such as the Statewide Health Improvement Program and Healthy 56258. These groups as well as the City of Marshall and the GreenStep City committee can make well informed decisions based on this assessment for future projects to be conducted in the city. These best practices are most applicable to the core goal of advancing best practices that leverage improving the community's health. The GreenStep City best practices to be researched include the following:

Table #3 GreenStep Best Practice – Description Summary

No.	Best Practice	Description
LAND USE SECTION		
6	Comprehensive Plan and Implementation	Land uses delineated in comprehensive plans provide the foundation for city government and private actions that have a substantial long-term effect on whether our cities move toward carbon neutrality and energy efficiency or accelerate climate change and increase energy costs. Land development decisions are infrastructural - once made, they are extremely difficult and expensive to undo. Consequently, land use plans either enable other best practices, or hinder their effectiveness. In order to have public support and legal validity, land use strategies, zoning and regulatory ordinances must be grounded in a comprehensive plan.

7	Efficient City Growth	Accommodating and paying for city growth on the existing city grid and by expanding the grid at the same or higher population density has multiple and long-term financial (property taxes/acre), retail commercial, environmental and social benefits to a city. Returns on such public investments are high. The alternative - large-lot single-family neighborhoods outside the city grid and distant business parks and malls financed and maintained by anticipated future low-density development - cements in long-term, typically higher costs for provision of city services, higher transportation costs and carbon emissions, and more driving and stormwater generation.
8	Mixed Use	Meeting sustainable urbanism's goal of complete, compact and connected development depends on mixing land uses, which lowers infrastructure costs, increases property taxes/acre, minimizes environmental impacts and increases a community's quality of life, increasing walkability and decreasing traffic fatalities. A city can use its land use authority and other tools to help create a vibrant community that attracts jobs, fosters economic development, and that is an appealing place in which people can live, work, and recreate without having to drive everywhere for every activity of daily living. Growth can happen in a manner where roads, transit, schools, ecologic services, and access to retail, commercial, jobs, and industrial facilities are planned for and efficiently provided through connection and coordination with existing local and regional infrastructure and services.
9	Efficient Highway and Auto Oriented Development	<p>Limited-access highway-oriented commercial development is a common land use pattern. In many Minnesota towns a highway transects three distinct contexts: rural, "sub-urban," and the town center, or urban core. The sub-urban or 'at the edge of town' area is the most challenging context and is the focus of this best practice, which also addresses the common "in-town" land use of auto-oriented commercial developments (both commercial arterials and large-format superblocks).</p> <p>Typical highway commercial development is appropriately oriented towards automobile traffic, but often lacks visual appeal, creates a linear development pattern rather than clusters, and reduces highway functionality by creating problem intersections. Auto-oriented development also is typically lower density, consuming development acres less efficiently and yielding lower property tax revenues per acre. This style of development fragments habitat and imposes higher infrastructure maintenance costs onto cities. As gateways into - and the places that visitors get their first impressions of - communities, highway commercial development can be made more context-sensitive, attractive, ecological, efficient and even bikeable/walkable.</p>
10	Conservation Design	The primary goal of conservation design is to conserve natural or economic resources or community character through low-impact development

		<p>techniques and coupling development and restoration efforts. Rural conservation design protects agricultural practices, working forests, or open space for rural community character. Transitional conservation design creates a permanent urban-to-rural transition (transect) that maintains rural character and buffers rural economic uses from urban development. Natural resource conservation design protects or restores valuable natural systems and a community's natural resource heritage where these resources are in potential conflict with development. Conservation design actions retain or expand ecologically healthy woodlands, wetlands and open lands that sequester carbon. These actions also aim to lower development costs, decrease maintenance costs, preserve more usable natural areas, and protect surface and ground water when compared to the traditional models of development.</p>
TRANSPORTATION SECTION		
11	Living Streets	<p>The competitive advantage of cities - and a key distinction among cities, rural areas and many suburbs - is that city dwellers live and work in proximity to so many other people. Despite electronic networking, cities still thrive on proximity and daily physical interaction with a diverse group of people whose skills and abilities are mutually complementary. Therefore think of a street as a place-making platform or engine for wealth creation - it is an outdoor room that adds value to the surrounding properties, by providing safe and pleasant access. A well-designed, aesthetically appealing street network, that in its totality serves vehicles, walkers and bikers, facilitates social and economic interactions and a commitment to place, and delivers other benefits to a city and its people:</p> <ul style="list-style-type: none"> • Improved safety for all users • Improved access for transit users, bicyclists and pedestrians • Increased walking, biking and thus community health • The potential for a household to cut transportation costs by selling a car • Reduced emergency response times • A healthy tree canopy and reduced and cheaper stormwater management • More inviting public spaces that facilitate public art and increase the economic viability of businesses
12	Mobility Options	<p>41% of U.S. auto trips are less than 2 miles, and 28% are less than 1 mile - a healthful, walkable distance for many people much of the year in Minnesota - yet most of these trips are taken by car. Cities - through what they directly administer and in what they influence - can provide more transportation options to their residents, businesses and employees. Other trip modes - walking, biking, transit, ridesharing - deliver and contribute to numerous benefits:</p>

		<ul style="list-style-type: none"> • improved physical and mental health • fewer carbon and toxic emissions • reduced dependence on foreign oil • decreased health and transportation costs • more street activity, resulting in safer streets • improved public transit • more people-to-people connections than is facilitated by auto-only travel • adaptability, resilience, redundancy, reliability, and robustness in the local transportation system <p>Transportation options are essential for 40% of Minnesotans who do not have a driver's license: those who cannot afford a car and who are either too young or old or too disabled to drive a car. And thinking about access to people, services and products as the goal, as opposed to mobility, puts a focus on web-based communication/commerce options.</p> <p>This best practice focuses mostly on helping community members change their travel routines. Several other GreenStep best practices in the transportation and land use categories focus on changing the physical environment of a city in ways that make it easier for individuals to take advantage of the actions in this Mobility Options best practice.</p>
13	Efficient City Fleets	Whether a city - or other taxpayer-funded entity such as a park or school district - leases or owns vehicles, or contracts for vehicle services such as road grading, planned actions can cut costs per taxpayer and cut total mobility costs and carbon emissions per employee.
ENVIRONMENTAL SECTION		
16	Urban Forest	Investments that protect and enhance a city's green infrastructure, which includes trees, living snow fences and other plant cover, deliver many financial, energy, quality of life and carbon sequestration benefits, just as do investments in a city's traditional grey infrastructure of roads and utilities (sewer, gas, electric and telecommunication lines). People love and gravitate toward tree-lined streets. Given a limited city budget, which always includes money for streets, the most effective expenditure of funds to improve a street would probably be on trees.
18	Parks and Trails	Along with city trees, city parks and trails soften our daily life spent in buildings, satisfying an innate affinity for the natural world. These green and open spaces can be a defining feature of a city, providing civic gathering spaces, venues for exercise and cost-free recreation, and connections to open space beyond city limits. City parks and trails provide many important ecosystem services, including the purification of air, reduction in the urban heat island effect, stormwater management, wildlife habitat, and carbon sequestration. Parks and trails are also economic development tools, increasing property values in their vicinity. For example,

		<p>\$14 million of 2008 tax revenue of ten GreenStep cities in Hennepin County is attributable to homes located within a half-mile of green space.</p> <p>And finally, trails can serve important transportation functions, connecting recreational destinations, job centers, retail centers, schools, neighborhoods and points beyond the city.</p>
ECONOMIC AND COMMUNITY DEVELOPMENT		
27	Local Foods	<p>The goals of this best practice are to:</p> <ul style="list-style-type: none"> • Protect and expand food- and fiber-producing land within and near the city. • Increase the availability of locally produced food for residents and food businesses. <p>Depending on the specific action(s) taken, benefits of implementing this best practice include increased food security, more healthful food and improved human health, enhanced soil and water quality, reductions in energy use and CO2 emissions, improved wildlife habitat, enhanced community livability and vitality, creation of green jobs, and stronger local economies. For farmers markets alone, of each \$100 spent, \$62 stays in the local economy and \$99 stays in Minnesota's economy.</p>

Source: greenstep.pca.state.mn.us/

Research Modifications

Best practice #13, Efficient City Fleets, was removed from the list of best practices the HIA was researching. Efficient city fleets pertains more to encouraging trip bundling, video conferencing, vehicle sharing, and fuel efficient vehicles. Efficient City Fleets was originally included in the HIA to research optimizing bus routes and encourage walking and biking. We are still going to analyze bus stops within the City of Marshall, but the recommended best practices fit better under best practice 12, Mobility Options.

Best practice #16, Urban Forest, was removed from the list of best practices the HIA was researching when the City of Marshall became certified as a Tree City USA in June of 2015. This provided Marshall with a one-star best practice for Urban Forest. Marshall has also done extensive tree planting in the downtown business district. These two actions are sufficient for Marshall to be recognized as fulfilling this best practice.

Best practice #10, Conservation Design, was removed from the list of best practices the HIA was researching. The actions that were being discussed to achieve the Conservation Design best practice fit better under best practice #17, Innovative Stormwater Management. Actions that were being researched were related to active living and healthy eating. Retention gardens were the primary action being discussed to achieve the best practice.

HIA Goals

The HIA working group has identified two primary goals that will direct the HIA planning process:

Prioritization – All of stakeholders within the City of Marshall are limited due to their budgets restraints, thus the HIA will provide guidance regarding the allocation of scarce resources.

Goal: Guide the City of Marshall and the Marshall GreenStep Committee in prioritizing its involvement in the Minnesota GreenStep Cities Program, to advance best practices that leverage improving the community's health.

Strategy: Through the reporting of the HIA, the HIA Planning Team will present recommendations to the City of Marshall and Marshall GreenStep Committee that leverage improving the community's health.

Building Partnerships – There is overlap between creating a healthier community, a more livable community, and economic development.

Goal: Foster a long term working relationship among community groups (the City of Marshall, Healthy 56258, Southwest Statewide Health Improvement Program (SHIP), and Marshall GreenStep Committee) through the HIA planning process.

Strategy: Involve community groups throughout the HIA planning process, so these groups can learn and grow together towards a consensus regarding recommendations for active living and healthy eating strategies.

Stakeholders

The City of Marshall HIA planning process will be led by Drew Hage, Development Planner from Southwest Regional Development Commission; and Cris Gilb, Public Health Nurse. Important partners include the City of Marshall; the Green Step Committee; the Southwest Statewide Health Improvement Program (SHIP), and Healthy 56258. These community groups are working towards common goals of a healthier more livable community, increasing economic opportunity, and social inclusion. These community groups have similar goals and can ensure that the City of Marshall HIA will address the issues facing all groups.

Each partner has representation on the working group that is guiding the HIA process. The working group will meet as needed to review goals, provide input into strategies, review research material and prioritize recommendations. They will be integral in facilitating the HIA process, connecting with local stakeholders, and communicating with their respective groups.

On March 27, 2012, the City of Marshall committed to participate in the Minnesota Green Step City because efforts to address solid waste, energy and environment issues provides an opportunity to move toward more efficient use of natural resources and improved public health. Particular focus is placed on creating environmentally healthy and more efficient public buildings, encouraging economic development, and supporting the availability of local foods. Those efforts can be enhanced through the City of Marshall HIA process. The Green Step Committee formed at that time to research, consider

public opinion, and recommend projects for the City of Marshall to pursue on its GreenStep City initiative.

SHIP is a program designed to improve healthy options in schools, workplaces, healthcare organizations and communities and seeks to create sustainable, systemic changes that make it easier for Minnesotans to incorporate healthy behaviors into their daily lives. SHIP, an integral part of Minnesota's nation-leading 2008 health reform law, strives to help Minnesotans lead longer, healthier lives by preventing the chronic disease risk factors of tobacco use and exposure, poor nutrition, and physical inactivity. SHIP staff at SWHHS work with communities, healthcare organizations, employers, and schools to implement strategies to promote healthy eating, physical activity and tobacco reduction.

My Marshall is a grassroots effort of individuals and organizations working since 2009 to create a focus for a better future. We are:

- Working collaboratively to engage citizens and connect neighbors.
- Connecting people, projects and resources
- Building consensus on use of community resources.
- Identifying and working toward meaningful strategies that engage residents in their health.

Healthy56258, a community health initiative under the My-Marshall umbrella, is working to improve the health of those who live, work and play in Marshall.

Throughout the HIA process, stakeholders will be involved and will have an interest in the final report as well as the recommendations and projects the City of Marshall decides to pursue. Residents of Marshall will have an opportunity to express their opinions through written or on-line surveys or face-to-face discussions through personal interviews or focus groups. City administration staff, downtown business owners, neighboring township leaders, Marshall Chamber of Commerce, Minnesota Extension Service, Marshall Economic Development Association, City Engineer, Park and Recreation staff, and SHIP staff will be consulted to provide information important to the HIA. As recommendations are formulated other stakeholders will become involved because they will either be affected by decisions, such as students in primary and secondary schools, or may be able to get involved in projects, such as service organizations (e.g., Lions, Rotary, Kiwanis) and student organizations (e.g., 4-H, FFA, SMSU student organizations). When decisions are made, promotion will be done by all partners as well as local media stakeholders. Encouragement is a key strategy in promoting active living and healthy eating.

Impacted Populations

The population of Marshall, MN is 13,680, according to the U.S. Census Data. The population has increased 5.6% since 2000. The median age of residents is 29.7 which is less than the Minnesota median age of 42.9. The estimated median household income is \$44,409 which is up from \$37,950 in 2000. The majority of Marshall residents are white (82.8%) while other races include Hispanic/Latino (7.8%), Black (0.1%), American Indian (0.2%), some other race (3.5%) and those with two or more races include 0.5%. Marshall has 8.4% of residents over 65 years old and 8.4% of residents under 65 and disabled. These

rates are comparable to Minnesota and United States populations.¹ In addition, SMSU has a mission to serve disabled students at the university. Currently, SMSU has 157 students enrolled with documented disabilities, but not all are mobility disabilities.

Residents of Marshall will be directly impacted by the recommendations made as a result of the City of Marshall HIA. Upon implementation of the recommendations, the city will become a healthier place to live with opportunities for active living and healthy eating. As we complete the HIA planning process, special considerations will be taken regarding students, low income residents, and elderly or physically handicapped residents. These populations are at higher risk because students may develop poor health habits, like sedentary activities or fast food options; and the elderly and physically handicapped may not have options for active living or healthy foods when those choices are difficult to obtain. Walkability, bikeability and access to healthy foods are more difficult to attain for these populations. Decisions made will benefit those who live in Marshall, visit the City of Marshall, or those who consider moving to Marshall for employment, school opportunities or a new start.

Since the City of Marshall is a regional hub and hosts many visitors throughout the year, the improvements made based on the recommendations of the City of Marshall HIA will be replicated. Many communities look to Marshall as a leader and the HIA recommendations may be applicable to other cities in the area or in the state, producing a ripple-effect of health-focused activity throughout Southwest Minnesota.

Pathway Diagrams

Pathway diagrams outline the ways in which health might be affected and guide the formulation of appropriate research questions. Pathway diagrams were completed by the working group and have been included in this summary. Short term, intermediate, and longer term health outcomes have been identified for each of the nine best practices selected to be reviewed as part of the Green Step City process. The health outcomes identified in this step, as well as the goals of partnering organizations, have helped us to narrow the scope of the City of Marshall HIA specifically on active living and healthy eating.

Walkability and bike-ability enable people to have social connectedness which contribute to reducing stress and improving mental health. Public safety directly affects walkability and bike-ability, as does air quality for those with respiratory diseases. Access to healthy foods can be challenge when grocery stores and farmer's markets are limited to select areas of the city. Providing other sources of healthy foods becomes essential. For people without alternative transportation, access to healthy food may only available if you can walk or bike to purchase it. Being physically active and having access to healthy food is directly related to reduction of obesity and chronic disease. As the HIA progresses, all of these health outcomes will be considered while active living and healthy eating remains the main focus. Refer to the appendix for the GreenStep HIA Pathway Diagrams.

¹ U.S Census. Accessed: 2/10/2015. Available:
http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml#none

Background Health Statistics

The 2010 Southwest/South Central Adult Health Survey was conducted between April and July, 2010 as part of the Statewide Health Improvement Program (SHIP) to learn about the health and health habits of residents living in 19 counties in southwest and south central Minnesota. The Lyon County data can be applied to the City of Marshall since Marshall represents more than 50% of the county population. Survey data showed that two-thirds of Lyon County residents are overweight, including one-third who are obese. Lyon County residents are more likely to be obese than the state average in Minnesota. About 3 out of 10 Lyon County residents ate five or more servings of fruits and vegetables on the day prior to taking the survey. Six out of 10 residents agree with the statement, "The fresh fruits and vegetables where I usually shop are too expensive."

Table #4 Health Metrics Summary – Lyon County

Health Metrics	Lyon County residents
Are Overweight	67%
Are Obese	33%
Eat 5 or more servings of fruit/vegetables	30%
Think fruits and vegetables are too expensive	60%
Get recommended amount of moderate activity per day	38%
Get recommended amount of vigorous activity per day	30%
Have never smoked	>50%
No longer smoke	30%
Current or former smokers	42%
Have tried to quit smoking in past 12 months	60%

Only 38 percent of Lyon County residents get the recommended amount of moderate activity and about 3 out of 10 get the recommended amount of vigorous activity each week. Almost one-quarter said they had not done any physical activity other than their job in the past 30 days. The biggest self-reported barriers to getting physical activity are: lack of self-discipline or willpower, lack of time, and cost.²

The data showed that Lyon County residents are equally as likely as other regional residents to have chest pain, a stroke, or diabetes but less likely to have high blood pressure, high cholesterol or have had a heart attack. Thirteen percent of survey respondents have or have had asthma. Over half of Lyon County residents have never smoked, and about another third no longer smoke. Of the 42 percent who are current and former smokers, about 6 out of 10 said they had tried to quit within the past 12 months. The survey data confirmed the SHIP goals of active living, healthy eating and tobacco reduction.³

Healthy 56258 conducted multiple surveys in Marshall in the spring of 2014. Adults listed the top three barriers to healthy living as 1) don't have time or take time to be active or prepare healthy meals, 2) lack of education of how to be more active or purchase or prepare healthy foods, and 3) financial implications to join fitness centers or activities or to purchase healthy foods. An additional barrier was

² Lyon County Survey data. Southwest and South Central Adult Health Survey. Southwest Health and Human Services. 2010

³ Lyon County Survey data. Southwest and South Central Adult Health Survey. Southwest Health and Human Services. 2010

listed as not having opportunities at the worksite to be more active or choose healthier foods. A survey given to 3rd to 12th grade students demonstrated that over 90% of students considered being healthy important to them and over 80% of students would like to exercise more. Choices for active living and healthy eating would need to be readily available and financially feasible.

A group of three senior citizens noted that it was difficult to walk in Marshall safely. They began a pedestrian safety campaign and conducted studies, developed educational programs for elementary children, and worked with city officials to obtain signs that alerted drivers of pedestrians. A pedestrian safety rally conducted in June of 2013 asked participants various questions related to difficult crossings, driver attention, and suggestions for the future. Comments focused on signage for drivers, enforcement for drivers who do not yield for pedestrians, education, sidewalk presence and maintenance, and maintenance of crosswalks. Observers selected four intersections to observe and found that 60% – 73% of vehicles did rolling stops through intersections and 13% - 16% did not stop at all. The group of three senior citizens have turned over all of the information to the city to continue the safety initiative.

The County Health Rankings 2014 ranked Lyon County as 38 out of 87 counties in Minnesota for health outcomes (length of life and quality of life) and 28 out of 87 counties for health factors (tobacco use, diet and exercise, alcohol and drug use, access to care, quality of care, education, employment, income family and social support, community safety, air and water quality and housing and transit). The *Rankings* are based on a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play. Rankings can compare a county with state level data, other county data or top ranking or top performing counties in the US. Twenty percent of Lyon County respondents aged 20 and over reported that they have no leisure time physical activity which compares to Minnesota overall at 20% and top U.S. performers at 21%. In addition, 71% of Lyon County respondents report that they have adequate access to locations for physical exercise which compares to Minnesota at 80% and top U.S. performers at 85%. Adult obesity was defined as those with BMI over 30, and was 28% for Lyon County, 26% for Minnesota and 25% for top U.S. performers.⁴

Table #5 Health Metrics Table – Lyon County, Minnesota & U.S. Top Performers

Health Metrics	Lyon County	Minnesota	Top U.S. Performers
No leisure time physical activity	20%	20%	21%
Adequate locations to exercise	71%	80%	85%
BMI > 30	28%	26%	25%

Marshall GreenStep City Documented Best Practices

The City of Marshall is currently a Step Two GreenStep City. Marshall joined the program in March 2012. Below is a summary of the best practices that have been completed and the best practice that need to be documented or completed to become a Step 3 GreenStep City.

Recognition at a Step 3 level involves, at a minimum:

- Implementing 16 best practices, including:

⁴ Robert Wood Johnson Foundation. County Health Rankings & Roadmaps. Accessed: 7/14/15. Available: <http://www.countyhealthrankings.org>

- 9 specific BPs: #1, #6, #11, #12, #15, #16, #17, #24, #25
 - BPs #15 and #24 are not addressed in the HIA, but are required to become a Step 3 GreenStep City.
- 2 Building and Lighting BPs (have been completed)
- 2 Land Use BPs (have been completed – the HIA is addressing 2 more BPs)
- 2 Transportation BPs (1 has been completed – one is addressed in the HIA)
- 4 Environmental Management BPs (#15 is required but is not addressed in the HIA – BPs #16 has been completed but not published)
 - BPs #17 and #18 are being addressed in the HIA
- 3 Economic and Community Development BPs (#24 is required but is not addressed in the HIA)
- Completing 26 actions, including:
 - 8 specific actions:
 - #1.1 & #1.2 (Completed)
 - #6.1 & #6.2 (Completed)
 - #11.1 (addressed in the HIA)
 - #15.1 (needs to be done but is not addressed in the HIA)
 - #24.1 & #24.2 (needs to be done but is not addressed in the HIA – working towards)

Table #6 Marshall Best Practice Progress Summary

Best practices (required)	BP implemented?	Action summary by # and star level achieved
Action rules (req. actions in bold)		
BUILDINGS AND LIGHTING :		
1. Efficient Existing Public Buildings	YES	1.1 COMPLETE @ 2 STARS 1.2 COMPLETE @ 1 STAR 1.3 COMPLETE @ 2 STARS 1.4 COMPLETE @ 2 STARS 1.7 COMPLETE @ 1 STAR
2. Efficient Existing Private Buildings	YES	2.1 COMPLETE @ 1 STAR 2.2 COMPLETE @ 2 STARS 2.5 COMPLETE @ 2 STARS
3. New Green Buildings		
4. Efficient Outdoor Lighting and Signals	YES	4.2 COMPLETE @ 2 STARS 4.3 COMPLETE @ 2 STARS 4.5 COMPLETE @ 2 STARS
5. Building Reuse		Working Towards
LAND USE:		

6. Comprehensive Plan and Implementation	YES	6.1 COMPLETE @ 1 STAR 6.2 COMPLETE @ 1 STAR 6.3 COMPLETE @ 1 STAR
7. Efficient City Growth	HIA Goal	Working towards HIA is outlining additional measures to reach this goal
8. Mixed Uses	YES	8.3 COMPLETE @ 1 STAR 8.5 COMPLETE @ 1 STAR
9. Efficient Highway and Auto Oriented Development	HIA Goal	Working towards HIA is outlining additional measures to reach this goal
10. Conservation Design	HIA Goal	HIA originally researched this BP but recommendations fit better under BP #17
TRANSPORTATION		
11. Living Streets – Complete Green Streets	HIA Goal	Working Towards HIA is outlining additional measures to reach this goal
12. Mobility Options	YES	12.1 COMPLETE @ 2 STARS 12.3 COMPLETE @ 1 STAR
13. Efficient City Fleets		Not Complete
14. Demand-Side Travel Planning		Working towards
Environmental Management		
15. Purchasing	NO	15.2 COMPLETE @ 2 STARS renewable energy supplies 32% of total purchases by the City of Marshall 15.7 COMPLETE @ 2 STARS
16. Urban Forest	X	Needs to submit work – The City of Marshall recently became a Tree City USA. Marshall has also done extensive tree planting in the downtown business district. These two actions are sufficient for Marshall to be recognized as fulfilling this best practice. 16.1 COMPLETE @ 1 STAR 16.4 COMPLETE @ 2 STARS
17. Innovative Stormwater Management		Not Complete HIA is outlining additional measures to reach this goal
18. Parks & Trails	HIA	Working towards

	Goal	HIA is outlining additional measures to reach this goal any three actions
19. Surface Water Quality		Not Complete if state public water: 4; and one additional action if no state water: any one action
20. Efficient Water and Wastewater Facilities		Not Complete 1 & 2; and one additional
21. Septics		Not Complete any one action
22. Solid Waste Reduction		Working towards 1 or 2; & one from 4-8
23. Local Air Quality		Not Complete any two actions
Economic and Community Development		
24. Benchmarks & Community Engagement		Working towards Actions 1 & 2 MANDATORY
25. Green Business Development	YES	25.6 COMPLETE @ 2 STARS Marshall GreenStep Business recognition program 25.7 COMPLETE @ 3 STARS \$100,000 in local dollars sold annually, redeemable at over 380 local businesses
26. Renewable Energy	YES	26.2 COMPLETE @ 2 STARS 26.5 COMPLETE @ 3 STARS
27. Local Food	YES	27.2 COMPLETE @ 2 STARS 27.3 COMPLETE @ 1 STARS
28. Business Synergies		action 2, 3 or 4

5

Research Questions

Existing research questions were based on City of Marshall Comprehensive Plan policies that pertain directly or indirectly to active living and healthy eating. The policies were designated for each best practice, although some policies addressed more than one best practice.

⁵ Marshall GreenStep. Accessed: 7/14/15. Available: <http://www.marshallgreenstep.org/>

Comprehensive Plan and Implementation – BP #6

The Marshall Comprehensive Plan is an official public document. The current Marshall Comprehensive Plan was adopted by the Marshall City Council as a policy guide to decision-making in 1996. The Marshall Comprehensive Plan was updated and amendments were made in 2004. The update to the Comprehensive Plan was not a complete rewrite, but sections of the plan were updated.

The Comprehensive Plan presents a general concept for the future land uses within the incorporated boundaries of Marshall. The Comprehensive Use Plan provides the basis for the implementation of planning activities such as zoning and subdivision regulations, the annual budget and work program, the Capital Improvements Plan, and any related grant or loan programs. Comprehensive Plans typically include the following sections: demographics, housing, economy, transportation, parks and recreation, physical features, community facilities, infrastructure, and existing and future land use.

In the past pedestrian planning and active living was included in different sections of Comprehensive Plans. A fundamental change has taken place in the way planning has been traditionally considered. This new vision of planning provides a unique opportunity for new partnerships between planning staff and engineers with advocates for active transportation and health related organizations. Updates to Comprehensive Plans now often include a separate section regarding Active Living. An update to the Marshall Comprehensive Plan with a section on Active living would help to strengthen the link between planning and health and foster an environment that enables people to lead healthy lives.

Communities need to address active living and healthy eating in planning processes. People do not change health habits because they are expected to improve their health. They need a combination of easy choices made possible by planning and education as when communities, professionals, friends, and families present or demonstrate healthy habits.

Progress – BP#6

The City of Marshall has completed three one star land use best practices related to the Comprehensive Plan best practice. The City of Marshall has adopted a comprehensive plan, demonstrated the regulatory ordinances comply with the comprehensive plan including but not limited to having the zoning ordinance explicitly reference the comprehensive plan as the foundational document for decision making, and included requirements in comprehensive and/or other plans for intergovernmental coordination addressing land use and watershed impacts, infrastructure, economic development and city/regional services.

- 8/22/2012: Comprehensive Plan was completed in 1996 with updates and amendments in 2004. Discussion is taking place about a plan update.
- 8/22/2012: Regulatory ordinances comply with the city comprehensive plan and the plan is referenced in the CODE OF ORDINANCES CITY OF MARSHALL. The comprehensive plan is listed as a basis for several ordinances.
- 11/19/2013: The 2004 plan references the 2002 Lyon County comprehensive plan which addresses models of township-city interaction. The Lyon County Plan also provides a framework

for orderly annexation agreements. Further information can be found on pages 127-130 of the 2004 Marshall Comprehensive Plan.⁶

BP#6 – GreenStep Implementation Summary - Actions

- 1.1 COMPLETE @ 2 STARS
- 1.2 COMPLETE @ 1 STAR
- 1.3 COMPLETE @ 2 STARS
- 1.4 COMPLETE @ 2 STARS
- 1.7 COMPLETE @ 1 STAR

A number of the documented actions are only one and two star. There are additional actions the City of Marshall can pursue. These actions will not get them closer to becoming a Step 3, but they will help to make the city more pedestrian friendly.

★ Adopt a comp plan that is less than ten years old or adopt a land use plan that was adopted by the county or a regional entity less than 15 years ago, or Category B & C cities may adopt a city vision that looks at least 20 years into the future.

★★ Include in your plan a sustainability section/chapter, an active living/placemaking/bike-ped section, or integrate sustainability goals and strategies into all chapters of your comprehensive plan, or articulate land development principles for creating a complete, compact and connected community. Report climate protection or energy independence goals and objectives under action 6.5

★★★ Adopt a development goal that new/infill projects generate enough tax revenue to pay for the related public infrastructure maintenance/replacement over multiple life cycles; reference a capital improvement plan that catalogues public system maintenance obligations by date and cost.

Potential Recommendation – BP #6

To accomplish a two star Comprehensive Plan best practice, the City of Marshall could include a sustainability section/chapter. A sustainability section or chapter could include: an active living/placemaking/bike-ped section, or integrate sustainability goals and strategies into all chapters of the comprehensive plan, or articulate land development principles for completing a complete, compact, and connected community.

⁶ Minnesota GreenStep Cities: City of Marshall. Accessed 6/26/2015. Accessed: <http://www.marshallgreenstep.org/>

Marshall could add an Active Living Section in the Comprehensive Plan that addresses land development principles for completing a complete, compact, and connected city. The Active Living Section would identify destinations, gaps, areas of concern, and projects for addressing pedestrian infrastructure.

Existing Research Questions

- How has the City of Marshall encouraged and supported a civic atmosphere that values all members of the community of Marshall regardless of culture, age, race, creed, color, sex, or economic status?
- Has the city addressed the issue of active living in future Comp Plan updates?

Potential Impact Research Question

- How does updating the Comp Plan with an active living section that addresses land principles that encourage a complete, compact, and connected community affect active living and access to healthy food in the City of Marshall?

Efficient City Growth – BP #7

Helping to promote clustering of businesses and compact development not only makes economic sense in some cases, but helps to promote an active lifestyle. If the majority of businesses are located in a main business district, then it would be manageable to walk from shop to shop. This would increase the community's activity levels and would be another positive externality from shopping. Having a compact business district will help to make the community healthier and more sustainable.

Having higher density housing and compact housing developments helps to contain urban sprawl. Urban sprawl is the outward spread of a city, which decreases population density. Urban sprawl often results in an auto-dependent subdivision. Connectivity within the city decreases as the city spreads out and obesity and other health outcomes are a negative externality of urban sprawl.

Traditional grid development increases connectivity and promotes walking and biking. Promoting compact developments will make it more convenient to walk and bike, which has lasting healthy benefits. As you move to the right in the figure below, connectivity decreases and you move towards a more car dependent development. This shift from the square grid development has taken place over the past half a century. This shift can be seen by older developments being more compact and walkable to newer developments being spread out and auto-dependent. Land use and the design of the community can have a significant impact on the health of the community.

Table #7

Residential Street Pattern Design Comparison

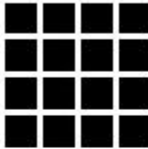
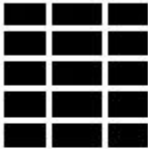


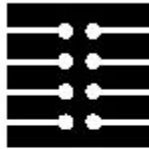





Figure 1: Comparison of area used for streets, among five typical patterns .					
					
	Square grid (Miletus, Houston, Portland, etc.)	Oblong grid (most cities with a grid)	Oblong grid 2 (some cities or in certain areas)	Loops (Subdivisions - 1950 to now)	Culs-de-sac (Radburn - 1932 to now)
Percentage of area for streets	36.0%	35.0%	31.4%	27.4%	23.7%
Percentage of buildable area	64.0%	65.0%	68.6%	72.6%	76.3%

Figure 2: Evolution of street patterns since 1900 showing gradual adaptation to the car (M. Southworth, 1997).					
	Gridiron (c. 1900)	Fragmented parallel (c. 1950)	Warped parallel (c. 1960)	Loops and lollipops (c. 1970)	Lollipops on a stick (c. 1980)
Street patterns					

Residential Street Pattern Design⁷

[Progress – BP #7](#)

The City of Marshall has not documented any actions in the Efficient City Growth best practices. All category A, B, and C cities that choose to implement this best practice are recognized upon completion of at least one action.

[BP#7 – GreenStep Implementation Summary – Actions](#)

The City of Marshall could consider one star, two star, and three star actions. Below are potential actions.

- 7.1 Limit barriers to higher density housing by including in the city zoning ordinance and zoning map:

⁷ Residential Street Pattern Design. Accessed: 7/14/15. Available: <http://www.cmhc-schl.gc.ca/publications/en/rh-pr/tech/socio75.html>

- Neighborhood single-family density at seven units per acre or greater.
- Multi-family housing at a gross density of at least 15 units per acre adjacent to a commercial zoning district or transit node.

7.2 Encourage higher density housing through at least two of the following strategies:

- Incorporate a flexible lot size/frontage requirement for infill development.
- Use density and floor area ratio (FAR) bonuses in selected residential zoning districts.
- Tie a regulatory standard to comprehensive plan language defining compact city expansion zones that limit low-density development.
- Allowing accessory dwelling units or co-housing or tiny houses / apartments by right in selected zoning districts.

7.3 Encourage a higher intensity of commercial land uses through at least one of the following strategies:

- Include in the city zoning ordinance and zoning map a commercial district with reduced lot sizes and zero-lot-line setbacks, or a FAR minimum of 1.
- Set targets for the minimum number of employees/acre in different commercial zones.

7.4 Provide incentives for infill projects, or for life-cycle housing at or near job or retail centers, or for achieving an average net residential density of seven units per acre.

Potential Recommendation – BP #7

Create a more positive environment for encouraging compact efficient development within this City of Marshall.

Existing Research Questions

- How has the City of Marshall discouraged the concentration of low and moderate cost housing in any one area of the City?
- Does the City of Marshall have areas of concentrated low and moderate cost housing in any areas of the city?
- How has the City of Marshall provided for opportunities in cooperative planning with adjacent townships in the area of residential growth?
- How has the City of Marshall supported the orderly growth of residential, commercial, and industrial areas?
- How has the City of Marshall maintained and upgraded the City's zoning ordinances, subdivision regulations, and performance standards to promote the efficient use of land and the creation of a strong tax base?

Potential Impact Research Questions

- How does providing incentives for infill projects for efficient city growth impact active living and access to healthy foods?
- How does life-cycle housing at or near job or retail centers impact active living and access to healthy foods?

Mixed Use – BP #8

Mixed land use is when you zone an area to allow residential, commercial, and recreational uses in the same area. Having residential, commercial, and recreational uses in the same area or having this land uses next to one another helps to create a neighborhood that encourages active living. There are a number of positive externalities associated with a walkable and bikeable community.

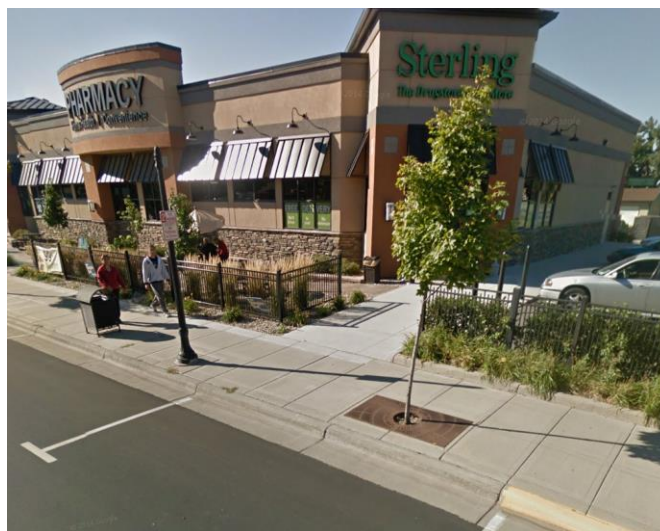
Economic Benefits

A more walkable community has been found to be correlated to high property values. “Houses with the above-average levels of walkability command a premium of about \$4,000 to \$34,000 over houses with just average levels of walkability in the typical metropolitan areas studied.”⁸ “Walkability is defined by the Walk Score algorithm (www.walkscore.com), which works by calculating the closest amenities – restaurants, coffee shops, schools, parks, stores, libraries, etc. – to any U.S. address. The algorithm then assigns a ‘Walk Score’ from 0-100, with 100 being the most walkable and 0 being totally car-dependent. Walk Scores of 70+ indicate neighborhoods where it’s possible to get by without a car.”⁸ Next generation home buyers are looking for homes that are walkable, so this trend is projected to continue.

Businesses see an opportunity to capitalize on this trend. Walgreens and Sterling Drug is one business that has different external store designs for different areas. In a downtown area, like Worthington, Minnesota, you will see a more walkable and bikeable drug store. This design has vehicle parking on the side or back, sidewalks and other pedestrian amenities that encourage walking or biking on the front, and streetscape that enhances the aesthetic character of the building. A more typical design in the past would have been parking in the front and less pedestrian amenities that encourage walking and biking. These design standards are shifting in favor of a more pedestrian friendly approach. Businesses recognize the benefits associated with locations that attract more people and in turn increase economic activity.

Table #8

Business Streetscape - Example



⁸ CEOs for Cities. Walk the Walk (2009). Accessed: 3/20/15. Available: http://blog.walkscore.com/wp-content/uploads/2009/08/WalkingTheWalk_CEOsforCities.pdf

Increases in property values and economic activity also generate high local tax receipts. As the quality of life increases, the community's population grows and this adds to the local tax receipts. Investing in a more walkable community is an economic development strategy that really pays off. Cities can use walkability and bikeability as tools to attract and retain residents as well as attracting tourism. Allowing for mixed use in new developments and redevelopments encourages the means to increase walkability, bikeability, and livability in a community.

Health Benefits

When communities prioritize strategies to encourage walking and biking, the end result is a more active and healthy lifestyle. In addition, being able to walk or bike to businesses with healthy foods facilitates residents of all ages, incomes, and travel modes to make healthy food choices. Active living and healthy foods results in less obesity, fewer chronic diseases and fewer complications from existing chronic diseases. Currently, residents report that they do not have time or they do not make time to be more active. If walking and biking is more accessible and an easy choice, residents will more likely choose to walk or bike.

Mixed Use Encourages Active Living

- Easier to walk/bike to work if housing is near employment
- Easier to walk/bike to stores if shopping is near housing
- Easier to walk/bike to school if schools are near housing

Progress – BP #8

The City of Marshall has completed two one star land use best practices related to the Mixed Uses best practice. The City of Marshall has a planned use development ordinance that allows for mixed uses in addition to high density uses, as outlined in Action #3. The second best practice is establishing a downtown zoning district. The City of Marshall has a downtown zoning district which allows for mixed uses of building (ie apartments on top of businesses). The downtown zoning district is outlined in the comprehensive plan, as noted in Action #5.

- 11/19/2013: The City's PUD ordinance allows for mixed uses in addition to higher density uses.
- 11/19/2013: There is as downtown zoning district which allows for mixed uses of buildings (ie apartments on top of businesses). The district is outlined in the comprehensive plan.⁹

BP#8 – GreenStep Implementation Summary – Actions

- 8.3 COMPLETE @ 1 STAR
- 8.5 COMPLETE @ 1 STAR

The City of Marshall has documented two actions towards BP #8. Both of the actions were one star actions. The City of Marshall can pursue additional two star and three star actions. These actions will not get them closer to becoming a Step 3, but they will help to make the city more pedestrian friendly.

⁹ Minnesota GreenStep Cities: City of Marshall. Accessed 6/26/2015. Available: <http://www.marshallgreenstep.org/>

★ **Action 8.3:** Modify a **planned unit development** - PUD - ordinance to emphasize mixed use development or to limit residential PUDs to areas adjacent to commercial development

★ Ordinance allows mixed uses.

★★ Ordinance requires residential-only PUDs to be adjacent to commercial development or to be served by frequent transit.

★★★ Ordinance requires a mix of uses.

★ **Action 8.5:** Have a **downtown zoning district** that allows residential and compatible commercial development.

★ Describe to what degree the district used the Minnesota *Model Ordinances for Sustainable Development*.

★★ Existence of horizontal mixed use; a downtown overlay district; light industrial uses.

★★★ Allow mixed use of office, retail, educational, civic, and residential units all located within the same building.

Potential Recommendation – BP #8

The City of Marshall could consider two star and three star actions. Below are potential actions.

- 8.1 Organize or participate in a community planning/design process for the city/a mixed use district.
- 8.2 Locate or lease a school, city building or other government facility that has at least two of the following attributes; adjacent to an existing employment or residential center, designed to facilitate and encourage access by walking and biking, or accessible by regular transit service.
- 8.3 Incorporate form-based zoning approaches into the zoning code, in those areas where a diverse mix of used is desired.
- 8.4 Create incentives for vertical mixed-use develop in appropriate locations (downtown commercial districts, near colleges or universities, or historic commercial districts).

Existing Research Questions

- Do any schools, city buildings, or government facilities facilitate connectivity and promote walking and biking?

Potential Impact Research Questions

- How does organizing a planning process for the City's mixed use district impact active living and access to healthy foods?

Efficient Highway and Auto Oriented Development – BP #9

Urban planning can be traced by to ancient Greece. Hippodamus of Miletus is credited with being the first Greek city planner, and is the ‘Father’ of urban planning. The Greeks recognized the need to ensure there was necessary infrastructure to support the population. Orderly development was and is a critical part of planning. What is similar today as in the past is the use of planning as a means of sustainability.

“Typical highway commercial development is appropriately oriented towards automobile traffic, but often lacks visual appeal, creates a linear development pattern rather than clusters, and reduces highway functionality by creating problem intersections. Auto-oriented development also is typically lower density, consuming development acres less efficiently and yielding lower property tax revenues per acre. This style of development fragments habitat and imposes higher infrastructure maintenance costs onto cities. As gateways into - and the places that visitors get their first impressions of communities, highway commercial development can be made more context-sensitive, attractive, ecological, efficient and even bikeable/walkable.”¹⁰

There are a number of best practices a city can adopt to improve the flow of highway traffic, while...

- Lowering the risk of accidents
- Discouraging leap frogging and lowering the costs of extending and maintaining infrastructure
- Decreasing the number of vehicle miles traveled due to more compact development
- Increasing the synergy for clustering of retail business
- Increasing development pressure for infill sites
- Promoting aesthetically pleasing development

Public safety is impacted when highway development encourages lower volumes and lower speeds. Active living and access to healthy foods is also promoted when people can walk between businesses, shoppers access retail stores via walking or biking and neighborhoods and recreational facilities are connected with safe routes to walk and bike.

Progress – BP#9

The City of Marshall has not documented any actions in the Efficient Highway and Auto Oriented Development best practices. All Category A, B, and C cities that choose to implement this best practice are recognized upon completion of at least one action.

BP#9 – GreenStep Implementation Summary - Actions

- 9.1 Establish design goals for at least one highway/auto-oriented corridor/cluster.
- 9.2 Participate in regional economic development planning with representatives from surrounding townships, cities, the county and business interests to:

¹⁰ Minnesota GreenStep Cities. Accessed: 3/20/15. Available:
<http://greenstep.pca.state.mn.us/bestPracticesDetail.cfm?bpid=9>

- Estimate commercial/industrial needs among all jurisdictions.
- Jointly implement recommendations to stage highway/auto-oriented commercial development in order to avoid overbuilding and expensive low-density development.

9.3 Adopt infrastructure design standards that protect the economic and ecologic functions of the corridor through clustering of development and incorporating access management standards.

Potential Recommendation – BP #9

Establish design goals for at least one highway/auto-oriented corridor/cluster.

Existing Research Questions

- How has the City of Marshall designed and located industrial and commercial developments to avoid through truck traffic in residential areas?
- How has the City encouraged appropriate truck traffic through town, while maintaining safe pedestrian crossings?
- How has the City of Marshall encouraged the interconnectedness of different land uses?

Potential Impact Research Question

- How will designing goals for pedestrian related projects along a major corridor affect active living and access to healthy foods?

Conservation Design – BP #10

“The primary goal of conservation design is to conserve natural or economic resources or community character through low-impact development techniques and coupling development and restoration efforts. Rural conservation design protects agricultural practices, working forests, or open space for rural community character. Transitional conservation design creates a permanent urban-to-rural transition (transect) that maintains rural character and buffers rural economic uses from urban development. Natural resource conservation design protects or restores valuable natural systems and a community's natural resource heritage where these resources are in potential conflict with development. Conservation design actions retain or expand ecologically healthy woodlands, wetlands and open lands that sequester carbon. These actions also aim to lower development costs, decrease maintenance costs, preserve more usable natural areas, and protect surface and ground water when compared to the traditional models of development.”¹¹

Well-managed open lands and rural development, whether fields, forests, agriculture lands, parks or wetlands, help sustain the community in a variety of ways, including:

- Reduced volume of stormwater runoff, surface water pollutants and sediment
- Enhanced groundwater recharge
- Reduced erosion

¹¹ Minnesota GreenStep Cities. Accessed: 3/20/15. Available: <http://greenstep.pca.state.mn.us/bestPracticesDetail.cfm?bpid=10>

- Improved air quality
- Additional wildlife habitat and recreational space
- Preservation of rural community character

Maintaining or restoring native vegetation and protecting natural systems sequesters carbon and limits the release of stored carbon.

Studies among workers, college students, hospital patients, inner-city girls, public housing residents, and apartment residents have found a variety of psychological, emotional, and mental health benefits correlate with having a view of nature through their windows. The presence of enjoyable scenery is a factor that has been positively associated with physical activity.¹²

Progress – BP #10

The City of Marshall has not documented any actions in the Conservation Design best practice. All Category A, B, and C cites that choose to implement this best practice are recognized upon completion of at least one action.

BP#10 – GreenStep Implementation Summary - Actions

- 10.1 Conduct a Natural Resource Inventory or Assessment (NRI or NRA); incorporate protection of priority natural systems or resources through the subdivision or development process.
- 10.2 For cities outside or on the fringe of metropolitan areas, adopt an urban growth boundary and a consistent capital improvement plan that provides long-term protection of natural resources and natural systems, and agricultural practices outside the boundary.
- 10.3 For cities with undeveloped natural resource areas use, or adopt as policy the use of, a conservation design scorecard as a tool in negotiating development agreements.
- 10.4 Develop/fund a conservation easement program, such as a purchase of development rights program, in collaboration with a land trust.

Potential Recommendation BP #10

Establish natural resources inventory or assessment or an urban growth boundary to protect natural resources

Existing Research Questions

- How has the City of Marshall strengthened flood control measures for the City by coordinating with area and regional efforts and by securing funding for flood mitigation measures?
- How has the City of Marshall promoted protection of wetland areas and establishment of storm water retention areas in urban development?

¹² Bedimo-Rung, Ariane L., Andrew J. Mowen, and Deborah A. Cohen. "The significance of parks to physical activity and public health: a conceptual model." *American journal of preventive medicine* 28.2 (2005): 159-168.
[http://www.ajpmonline.org/article/S0749-3797\(04\)00304-6/fulltext](http://www.ajpmonline.org/article/S0749-3797(04)00304-6/fulltext)

- How has the City of Marshall continued to implement and administer programs to preserve, maintain, and further enhance natural ecological systems, including: lakes, ponds, aquifers, drainage areas, and wetlands with Federal and State assistance when available?
- How has the City of Marshall promoted a natural resources master plan to inventory and preserve areas?
- How has the City incorporated retention ponds and recreational paths and public amenities?
- How has the City promoted natural ecosystems that also enhance the aesthetic characteristics of the community?

Potential Impact Research Question

- How will establishing a natural resources inventory or assessment or an urban growth boundary affect active living and access to healthy foods?

Living Streets – BP #11 (Complete Green Streets)

A Complete Street does not have a singular definition. A Complete Street is any street you feel safe walking or biking on. The street does not necessarily have to have a sidewalk on both sides of the street or a trail conveniently located along the street. The street may simply be wide enough and have lower traffic volumes and traffic speeds for pedestrians to feel safe.

The best practice Living Streets includes Complete Streets but also addresses street trees and storm water. “The presence of trees in a streetscape, neighborhood, and community can decrease the amount of storm water runoff and pollutants that reach local waters. Trees reduce storm water runoff by capturing and storing rainfall in their canopy and releasing water into the atmosphere. Tree roots and leaf litter create soil conditions that promote the infiltration of rainwater into the soil. Trees help slow down and temporarily store runoff and reduce pollutants by taking up nutrients and other pollutants from soils and water through their roots. Trees transform pollutants into less harmful substances.”¹³ There is a wide array of benefits of having street trees.

The establishment and preservation of trees along streets is important for the following reasons:

- To increase the economic value of properties and neighborhoods, this increases local tax revenues. Investing in the streetscape of a neighborhood is an economic development strategy.
- To help reduce air pollution by increasing the number of trees producing oxygen and sequestering carbon dioxide.
- To provide shade and act as a noise barrier.
- To enhance the aesthetic and scenic beauty of the city, this in turn will encourage walking, biking, and thus community health.

¹³ EPA. Stormwater to Street Trees. Accessed: 3/23/15. Available: <http://water.epa.gov/polwaste/green/upload/stormwater2streettrees.pdf>

The benefits of living streets, including safe and peaceful routes to walk or bike, good air and water quality, and aesthetically pleasing scenery all have benefits to health. People with disabilities, chronic diseases, or are elderly rely on safety and clean air to enjoy outdoor activities. Without outdoor activities, more time is spent with sedentary activities which negatively contributes to their condition and their mental health. When a person can enjoy nature and feel good about being in nature, he/she is more likely to do more of it. Research has strongly correlated that being in nature improves physical and mental well-being.¹⁴

Progress – BP #11

The City of Marshall has not documented any actions in the Living Streets best practices. Category A city is required to complete Action #1 and two additional recommendations to be recognized upon completion of the best practice.

BP#11 – GreenStep Implementation Summary – Actions

- 11.1 Adopt a complete streets policy that also addresses street trees and stormwater.
- 11.2 Document inclusion/installation of green infrastructure elements as well as grey infrastructure elements in at least one complete streets reconstruction project.
- 11.3 Identify, prioritize and remedy complete streets gaps and lack of connectivity within your road network by, for example, adding a bike route/lane, truck route, sidewalk or mid-block alley.
- 11.4 Identify and remedy street-trail gaps between city streets and off-road trails/bike trails to better facilitate walking and biking.
- 11.5 Implement traffic calming measures, including road diets, roundabouts, shared space and depaving, in at least one street redevelopment project.

Potential Recommendation BP #11

The City of Marshall could complete a complete streets policy; identify, prioritize and remedy complete street gaps and lack of connectivity; identify and remedy street-trail gaps between city streets and off-road trails/bike trails; or implement traffic calming measures to ensure biking and walking.

Existing Research Questions

- How has the City of Marshall designed traffic circulation to maintain the residential character of neighborhoods?
- How has the City of Marshall provided an adequate and safe pedestrian, bicycle, truck, rail, and air transportation system that is designed to support the overall physical, social, and economic goals and objectives of the community?
- How has the City of Marshall continued to expand the area bikeways and walkways so they can serve both the transportation and recreation needs of the community?

¹⁴ Professional Practice: Adult Obesity. American Society of Landscape Architects. Accessed 6/18/2015. Available: www.asla.org

Potential Impact Research Question

- How will developing a complete streets policy, eliminating street gaps or street-trail gaps, or implementing traffic calming measures affect active living and access to healthy foods?

Mobility Options – BP #12

Mobility Options focuses mostly on encouraging community members to change their travel routines. Other GreenStep best practices, transportation and land use categories, focus on changing the physical environment of a city. Mobility Options works towards making it easier for individuals to promote active transportation and alternatives to single-occupancy car travel.

“Forty-one percent of U.S. auto trips are less than two miles, and 28 percent are less than one mile - a healthful, walkable distance for many people much of the year in Minnesota - yet most of these trips are taken by car. Cities - through what they directly administer and in what they influence - can provide more transportation options to their residents, businesses and employees. Other trip modes - walking, biking, transit, ridesharing - deliver and contribute to numerous benefits.”¹⁵

- improved physical and mental health
- fewer carbon and toxic emissions
- decreased health and transportation costs
- more street activity, resulting in safer streets
- improved public transit
- more people-to-people connections than is facilitated by auto-only travel
- adaptability, resilience, redundancy, reliability, and robustness in the local transportation system

Progress – BP #12

The City of Marshall has documented two one star transportation best practices related to Mobility Options and could consider a two star land use best practice to accomplish the four additional best practices needed to become a GreenStep Step 3 city.

- 8/22/2012: Pioneering a Healthier Marshall in conjunction with the City of Marshall has developed and distributed updated maps to encourage walking and biking. There are also several kiosks located on the trail system to promote trail use.
- 8/22/2012: The Marshall Visitors and Conventions Bureau home page has a link for various transportation options and Western Community Action, Inc. has specific route information

¹⁵ Minnesota GreenStep Cities. Modility Options. Accessed: 7/14/15. Available: <http://greenstep.pca.state.mn.us/bestPracticesDetail.cfm?bpid=12>

available on their site as well. The bus service website is also prominently linked on the Marshall city homepage.¹⁶

BP#12 – GreenStep Implementation Summary – Actions

- 1.1 COMPLETE @ 2 STARS
- 1.2 COMPLETE @ 1 STAR
- 1.3 COMPLETE @ 2 STARS
- 1.4 COMPLETE @ 2 STARS
- 1.7 COMPLETE @ 1 STAR

A number of the documented actions are only one and two star. There are additional actions the City of Marshall can pursue. These actions will not get them closer to becoming a Step 3, but they will help to make the city more pedestrian friendly.

★★★ **Action 1: Promote walking, biking and transit** use by one or more of the following means:

- ★ A basic map that shows (by neighborhood if a larger city) key civic/commercial sites, best bike and pedestrian routes, and transit routes and schedules; OR report increases in walk/bike counts.
- ★★ Installed infrastructure such as designed bike or pedestrian or transit facilities like park and ride lots (report sidewalks/bike lanes under action 11.4), OR document the increase in employee-offered transportation fringe benefits, OR report a Walk Score of 70+ or an increase in your city's Walk Score.
- ★★★ Be recognized as a Bicycle or Walk Friendly Community, OR require routine installation of infrastructure, such as bike parking, for all new multifamily and non-residential developments, OR allow property owners to substitute bike parking spaces for required car parking spaces.

★ **Action 3: Prominently identify mobility options:** transit; paratransit/Dial-A-Ride; cab service; rental cars; bikes.

- ★ Page on chamber of commerce site includes links to one or more services.
- ★★ Page on city web site includes links to one or more services.
- ★★★ Information includes or has easy links to costs, routes, operation hours, etc.; promote a peer-to-peer taxi service.

Potential Recommendation – BP #12

Be recognized as a walk friendly or bike friendly community by routine installation of infrastructure such as annual striping of bike lanes, sidewalk maintenance including snow removal, or bike parking.

¹⁶ Minnesota GreenStep Cities: City of Marshall. Accessed 6/26/2015. Available: <http://www.marshallgreenstep.org/>

Launch an Active Living Campaign.

Existing Research Questions

- How has the City of Marshall continued efforts in achieving accessibility for the handicapped in public areas?
- How has the City of Marshall supported adequate parking lot circulation patterns which include parking for the handicapped?
- Does public transit annually evaluate bus stops?
- How has interconnectedness and access impacted walk and bike-ability?

Potential Impact Research Question

- How does becoming a walk friendly and bike friendly community impact active living and access to healthy foods?

Parks and Trails – BP #18

“Along with city trees, city parks and trails soften our daily life spent in buildings, satisfying an innate affinity for the natural world. These green and open spaces can be a defining feature of a city, providing civic gathering spaces, venues for exercise and cost-free recreation, and connections to open space beyond city limits. City parks and trails provide many important ecosystem services, including the purification of air, reduction in the urban heat island effect, storm water management, wildlife habitat, and carbon sequestration. Parks and trails are also economic development tools, increasing property values in their vicinity. For example, \$14 million of 2008 tax revenue of ten GreenStep cities in Hennepin County is attributable to homes located within a half-mile of green space. And finally, trails can serve important transportation functions, connecting recreational destinations, job centers, retail centers, schools, neighborhoods and points beyond the city.”¹⁷

Parks facilities and services offer various opportunities to fulfill individual, social, economic, and environmental benefits. People who visit parks are more apt to engage in vigorous exercise, report less stress and better moods after visiting parks, and usually enjoy social interactions while at the park. Finally, the value of home in the immediate vicinity of the parks is reported to be higher. ¹⁸

Progress – BP #18

The City of Marshall has not documented any actions in the Parks and Trails best practices. Category A city is required to complete at least three actions to be recognized upon completion of the best practice.

BP#18 – GreenStep Implementation Summary - Actions

18.1 Identify and remedy gaps within your city's system of parks, off-road trails and open spaces.

¹⁷ GreenStep Cities. Accessed: 3/23/15. Available:

<http://greenstep.pca.state.mn.us/bestPracticesDetail.cfm?bpid=18>

¹⁸ Bedimo-Rung, Ariane L., Andrew J. Mowen, and Deborah A. Cohen. "The significance of parks to physical activity and public health: a conceptual model." *American journal of preventive medicine* 28.2 (2005): 159-168.

[http://www.ajpmonline.org/article/S0749-3797\(04\)00304-6/pdf](http://www.ajpmonline.org/article/S0749-3797(04)00304-6/pdf)

18.2 Plan and budget for a network of parks, green spaces, water features and trails for areas where new development is planned.

18.3 Achieve minimum levels of city green space.

Potential Recommendation – BP #18

Marshall could implement one or more of the following Parks & Trails best practices: identify and remedy gaps in city's parks, off-road trails and open spaces; plan and budget for parks, green spaces, water features and trails where new development is planned; achieve minimum levels of city green space.

Existing Research Questions

- How has the City of Marshall promoted adequate active and passive open space to meet the needs of the community of Marshall and to establish a positive image for the community by working with the Community Service Board and by developing a parks master plan?
- How has the City of Marshall provided adequate and appropriate recreational and community park facilities, including bikeways and walking trails?
- How has the City of Marshall maintained a high level of recreational facilities throughout the community?
- How has the City of Marshall promoted passive park and recreational facilities to meet the need of elderly community residents, persons with disabilities, and support the incorporation of cultural elements with the total park and recreation program?
- How has the City of Marshall worked with the Community Services Board to develop a park and recreation master plan that develops recreational facilities consistent with changing community and neighborhood needs?
- Are parks and greenspaces distributed fairly throughout the City of Marshall?
- How has the City incorporated parks and recreational amenities into new developments?

Potential Impact Research Questions

- How does identification and remedying gaps in city's parks, off-road trails and open spaces impact active living and access to healthy foods?

Local Foods – BP #27

The goals of the Local Foods best practice is protect and expand food- and fiber-producing land within and near the cities, and increase the availability of locally produced food for residents and food businesses.

Along with air, water, and shelter, food is a basic necessity for life. The World Health Organization and the United Nations consider access to safe and nutritious food a basic individual right, however many rural and urban residents have limited access to fresh produce and other healthful foods.

Disparities in food access are influenced by geographic, economic, and social factors. Food access is not simply a health issue but also a community development and equity issue. For this reason, access to healthy, affordable, and culturally appropriate food is a key component not only in a healthy, sustainable local food system, but also in a healthy, sustainable community.

Access to healthy food is dependent on many factors. Residents should be able to purchase fresh fruits and vegetables within one mile from their neighborhood. If grocery stores are not close to home, small neighborhood stores or convenience stores may be closer and should offer nutritious food options at reasonable cost. In addition, if residents are on food assistance programs, the local stores should be able to accommodate the resident. If transportation is a factor for residents, the path to healthy food purchases must be walkable or bike-able. Restaurants also need to be available to residents and should offer a healthy option at reasonable prices.

Healthy foods, including whole grains, low-fat dairy products, fresh fruits and vegetables are essential to reduce obesity, control blood pressure and diabetes, and to build strong muscles and bones in children. People can learn to enjoy healthy foods when they are available for daily use.

Progress BP #27

The City of Marshall has documented a one star and two star best practice related to the best practice Local Foods. The one star best practice was in regards to summarizing what exists in the city in regards to local foods: farmers markets, farm to school, farm to fork, urban ag businesses, etc. The inventory found the following local foods activities:

- 8/22/2012: Marshall has a Farmers Market that provides diverse local foods during the growing season near downtown. Marshall Area Christian School, Holy Redeemer School and Marshall Public School participate in the Farm to School Program. Community Members can rent a small plot of land that they can plant and tend throughout the growing season. Marshall Area Food Coop provides food service directors, restaurants, grocery stores and community members an ordering system with access to local producers.¹⁹
 - Marshall has a Farmers Market that provides diverse local foods during the growing season near downtown.
 - Marshall Area Christian School, Holy Redeemer School and Marshall Public School participate in the Farm to School Program.
 - Community Members can rent a small plot of land that they can plant and tend throughout the growing season.
 - Marshall Area Food Coop provides food service directors, restaurants, grocery stores and community members an ordering system with access to local producers.
- 8/27/2012: The two star best practice was in regards to the creation of a home/ community garden.
 - Community Blooms is a transformative model of community gardening that creates community, provides affordable nutritious food to participants, gives back to the community by providing surplus produce to the local free food shelf, and generates revenue to sustain the garden by also selling some of the surplus produce at the local farmers market. The community gardens are located on Western Community Action grounds which are located directly across the street from a low-income trailer park. The

¹⁹ Minnesota GreenStep Cities: City of Marshall. Accessed 6/26/2015. <http://www.marshallgreenstep.org/>

goals of Community Blooms include: grow nutritious affordable food for participants from low-income neighborhood, reduce the number of missed meals among low-income people, increase the family budget by reducing money expended on produce, be a catalyst for community development. Future expansion includes a water reclamation pond to recycle water from the parking lot and roof as well as a hoop house for extending the growing season and starting our own seedlings.

BP#27 – GreenStep Implementation Summary – Actions

★ **Action 3:** Inventory and promote **local food production**/distribution within the city.

- ★ Summarize what exists in the city: farmer's markets, urban ag businesses, etc.
- ★ ★ Report on supportive actions taken by the city such as use of city land for a farmer's market, garden plots in city parks, hiring a garden/market coordinator, supporting season extension techniques such as hoop houses or greenhouses; donations from markets/gardens to food shelves.
- ★ ★ ★ Report on percent of residents within a 1/4 mile of a healthy food source (farmer's market, community garden, CSA drop point, and stores with an NAICS code of 445110 or 455230); convert top level of a parking ramp for a local food growing business.

★ ★ **Action 2:** Facilitate creation of **home/community gardens, chicken & bee keeping**, and incorporation of food growing areas/access in multifamily residential developments.

- ★ Remove restrictions to food gardening/raising of chickens/bees in residential areas. Report beehives on city property under action 18.5
- ★ ★ Proactively zone for and promote food gardening/raising of chickens/bees; report one or more developments that have dedicated, permanent and managed growing space, such as resident garden space, and/or related facilities (such as greenhouses). Report under GreenStep action 3.5 adopted city guidelines that prevent the restriction of food production through homeowner (HOA) agreements (CC&Rs).
- ★ ★ ★ Work with a rental building owner to establish a community garden, farmer's market or CSA/food buying club drop-point within 1/2 mile; establish tax incentives to use vacant lots for urban agriculture.

Potential Recommendation BP #27

The City of Marshall could consider a three star economic and community development best practice to accomplish the four additional best practices needed to become a GreenStep Step 3 city. Marshall could expand access to community gardens, provide more Farmer's Markets or food stands with CSA availability. Pressure

Existing Research Questions

- How has the City of Marshall encouraged accessibility of healthy local foods?

- Are fresh fruits and vegetables accessible throughout the City of Marshall?

Potential Impact Research Questions

- How does establishing community gardens, farmer's markets, CSA/food buying drop point with ½ mile impact active living and access to healthy foods?
- How does a tax incentive to use vacant lots for urban agriculture impact active living and access to healthy foods?

CHAPTER III: ASSESSMENT

Introduction

The City of Marshall desires to become a healthier place to live and work. The health determinants highly desired by the city, its residents and community groups are active living and access to healthy foods. Marshall's goal is to become a Step Three GreenStep city and to evaluate the project or projects that would satisfy the GreenStep city guidelines. The assessment phase of the City of Marshall HIA will outline existing conditions in Marshall and evaluate the potential health impacts of nine best practices defined by the GreenStep Cities program.

Sources of existing data will include a literature review, key informant interviews, Neighborhood Assessment Survey data from Marshall residents, community meeting responses, a food store survey, existing condition research questions and potential impact – research questions. Each health determinant will be assessed for each best practice and recommendations will be developed based on the results of the assessment.

Active Living

Active living is defined as a way of life that integrates physical activity into everyday routines, such as walking to the store or biking to work. Active living brings together urban planners, architects, transportation engineers, public health professionals, activists and other professionals to build an infrastructure that encourages active living and physical activity. Becoming more physically active requires opportunity and availability as well as choice. In the Surgeon General's 1996 report on physical activity and health, it was stated that people living in walkable neighborhoods get about 35–45 more minutes of moderate-intensity physical activity per week, and are substantially less likely to be overweight or obese, than do people of similar socioeconomic status living in neighborhoods that are not walkable.²⁰ Fewer than 5% of adults and half of all children meet national guidelines of 150 minutes per week or 60 minutes per day of moderate to vigorous activity.²¹

An inactive lifestyle leads to obesity in children that can persist in adulthood. Obesity in the United States, Minnesota and Marshall continues to be a leading public health concern. Ogden, et al, found that the prevalence of overweight in children and adolescents in the U.S. increased from 13.9% to 17.1% from 1999 to 2004 and obesity in men increased from 27.5% to 31.1% in the same time period. Hispanic and non-Hispanic black residents have a greater prevalence of overweight than non-Hispanic white

²⁰ Shoup, Lilly, and Reid Ewing. "The economic benefits of open space, recreation facilities and walkable community design." Active Living Research, San Diego CA (2010).

http://activelivingresearch.org/sites/default/files/Synthesis_Shoup-Ewing_March2010_0.pdf

²¹ Cohen, Deborah A., et al. "The potential for pocket parks to increase physical activity." American Journal of Health Promotion 28.sp3 (2014): S19-S26. <http://www.ajhpcontents.com/doi/pdf/10.4278/ajhp.130430-QUAN-213>

residents.²² Obesity rates in Minnesota were 25% according to BRFSS – 2009,²³ however, obesity rates in Minnesota have stabilized since 2010.²⁴ The Behavioral Risk Factor Surveillance System (BRFSS) is the nation's premier system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services.

Obesity leads to increased incidence or severity of chronic diseases, specifically, high blood pressure, heart disease, and diabetes. Adults need exercise to limit risks of chronic diseases and children need physical activity to build healthy bones and muscles.²⁵

The obesity epidemic rose so rapidly and it was discovered that most interventions to help individuals change their eating and physical activity behaviors do not result in permanent changes in behavior.²⁶ Diet and physical activity interventions that attempt to change an individual's behavior must be accompanied by environmental changes to be successful. If done at multiple levels in the community, the healthy choice becomes the easy choice, e.g. by renovating a park or offering low fat milk options; enhancing social support by media campaigns; educating and motivating; and using policy to reduce prices for healthy foods or provide activity programs in parks.²⁶

Access to Healthy Foods

Poor dietary habits are formed for various reasons and can be associated with obesity in childhood leading to obesity in adulthood. Dietary habits are formed early in life. When there is not enough money to have nutritious food available in the home, people choose food that is cheaper, which is most commonly high energy, high caloric foods. Maintaining a healthy diet can be difficult because of lack of money, lack of a supermarket, and lack of transportation. In addition, there is lack of education about what foods are healthy, how to prepare the healthy foods, and why it is important in daily life.

Few people consume the recommended 5 servings of fruits and vegetables every day. On average 6.8% to 20% of children eat five or more servings a day. Fruits and vegetables are important for children to

²² Hedley, Allison A., et al. "Prevalence of overweight and obesity among US children, adolescents, and adults, 1999-2002." *Jama* 291.23 (2004): 2847-2850. Available at:

<http://jama.jamanetwork.com/article.aspx?articleid=202627&resultClick=3>

²³ BRFSS-MN data. The Behavioral Risk Factor Surveillance System (BRFSS) CDC 2009. Available at:

<http://www.cdc.gov/brfss/>

²⁴ Minnesota alone trims obesity rates among upper Midwest states. Minnesota Department of Health. News Release. April 20, 2015. Available at: <http://www.health.state.mn.us/news/pressrel/2015/ship042015.html>

²⁵ Cohen, Deborah A., et al. "The potential for pocket parks to increase physical activity." *American journal of health promotion* 28.sp3 (2014): S19-S26. Available at:

<http://www.ajhpcontents.com/doi/pdf/10.4278/ajhp.130430-QUAN-213>

²⁶ Sallis, James F., and Karen Glanz. "Physical activity and food environments: solutions to the obesity epidemic." *Milbank Quarterly* 87.1 (2009): 123-154. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0009.2009.00550.x/pdf>

grow, develop and learn.²⁷ In Lyon County, 5%-15% of children from grades 5, 8, 9, and 11 ate the recommended amounts of fruit and vegetables.²⁸

Food insecurity means that there may not be consistent access to food because of lack of money or other resources. Food insecurity exists when people lack choice, fear running out of food, or are forced to make major changes in their preferred eating habits due to economic constraints. People who are food insecure or low income face the same issues as other Americans, such as sedentary lifestyles and increased portion sizes but they also face challenges in being able to choose healthy behaviors. When there are not enough resources for nutritious food, people buy cheaper foods like pastas and fast food that are calorically dense and nutrient poor, thus contributing to obesity. When people eat less or skip meals because they can't afford food or don't have access to purchasing food, they tend to overeat when they have food. These variations in eating habits results in weight gain and an unhealthy pre-occupation with food. These people usually resort to cheap, high energy foods. This is especially noted for mothers who sacrifice for their children and do not have regular eating habits.²⁹

Food insecure or low income people often lack access to full service grocery stores, thus access to fresh fruits and vegetables, whole grain foods, and low-fat products. Studies show that those with access to grocery stores choose healthier diets. Healthy foods are more expensive so those with limited resources choose energy dense, lower nutritional foods that are higher in calories. Stores in low income neighborhoods have lower quality produce that is also less appealing and restaurants in low income neighborhoods are usually fast food chains.²⁹

In Southwest Minnesota, 14.5 – 15.4% of children are food insecure, while 20 – 29.9% of households in Lyon County are food insecure.³⁰ According to the United States Department of Agriculture, food insecurity is found in 19.5% of households and 9.9% of adults and children. Food insecurity in Minnesota is listed as “below U.S. average”, but that does not reflect data found in the Southwest Minnesota health assessment.³¹ Marshall has only two supermarkets located within one mile of each other. Another supermarket closed within the last three years and left one side of town without access to a grocery store. Convenience stores have tried to fill the gap but food variety and cost makes convenience stores a less than desirable substitute for grocery stores. Automobile travel from most residential areas in Marshall to a grocery store is less than a 10 minute drive, however, residents are frustrated with the loss of a grocery store in the west side of town.

²⁷ McCann, Barbara A., and Reid Ewing. "Measuring the health effects of sprawl: A national analysis of physical activity, obesity and chronic disease." (2003). Available at: <http://trid.trb.org/view.aspx?id=661006>

²⁸ 2013 Student Survey. Minnesota Department of Health. Available at: <http://www.health.state.mn.us/divs/chs/mss/countytables/lyon13.pdf>

²⁹ Why Low-Income and Food Insecure People are Vulnerable to Overweight and Obesity. Food Research Action Center 2010. Available at: <http://frac.org/initiatives/hunger-and-obesity/why-are-low-income-and-food-insecure-people-vulnerable-to-obesity/>

³⁰ Community Health Assessment. 2014. Southwest Health and Human Services.

³¹ State Level Prevalence of Food Insecurity. Accessed 5/10/2015. USDA Economic Research Center. 2013. Available at: <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx>

A food desert is an area without a supermarket or an urban area where residents cannot buy affordable food. In the U.S., 8.4% of residents are more than one mile from a supermarket, and 2.2% are more than one mile without access to a car.³² The USDA Economic Research Service posts a *Food Access Research Atlas* to identify food deserts in the U.S and defines a food desert as an area where significant number of residents live more than one mile in the urban area and ten miles for the rural area from a supermarket. The USDA labels Marshall a food desert and Marshall also fits the definition of food desert in other metrics including low vehicle access, with 16.2% of households not having vehicles and living more than one-half mile from a supermarket.³³

A food swamp is an area where there is easy access to less healthy foods, as in fast food restaurants. In low-income neighborhoods, it is often easier to get to and eat at fast food restaurants. In Marshall, the majority of fast food restaurants are along East College Drive or near Walmart. Since they are not more easily accessible than grocery stores, Marshall would not fit the definition of a food swamp. See Table #36 for a map of fast food restaurants in Marshall.

Existing Health Issues

Research conducted by the USDA shows that one in three American children are overweight or obese, putting them at risk of preventable disease like diabetes, high blood pressure, and heart disease.³⁴ In 2010, the obesity rate in Lyon County was 29 percent while the state average is 26 percent. In 2014, the obesity rate in Lyon County was 28 percent while the state average is 26 percent.³⁵

According to the 2013 Minnesota Student Survey, on a typical day 25 percent of Lyon County 5th graders reported that they spend zero hours going outside, taking a walk, or going for a bike ride. Only 21 percent of 5th graders reported being physically active for at least 60 minutes per day.³⁶ In 2013, 31 percent of Lyon County 8th grade students were categorized as overweight or obese based on reported heights and weights.³⁶

Being overweight or obese not only increases the risk of premature death and many other diseases and health conditions, but there are substantial economic costs as well. There are both direct and indirect costs associated with being overweight or obese. Direct costs are the higher medical costs associated with diagnosing, treating, and trying to prevent conditions related to being overweight or obese.

³² Ver Ploeg, Michele. "Access to affordable, nutritious food is limited in "food deserts."" *Amber Waves* 8.1 (2010): 20-7. Available at: <http://ageconsearch.umn.edu/bitstream/122142/2/02FoodDeserts.pdf>

³³ State Level Prevalence of Food Insecurity. Accessed 5/10/2015. USDA Economic Research Center. 2013. Available at: <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx>

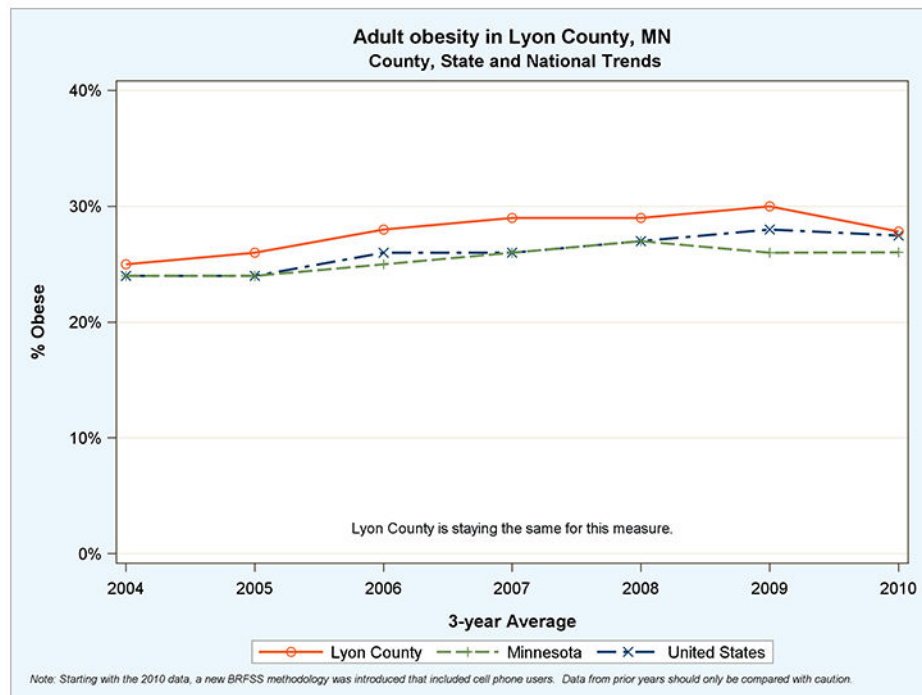
³⁴ Kuphal Kyle and Fodness Mavis. New school meal standards target obesity. Accessed 12/26/14. Available at: <http://www.pipestonestar.com/Stories/Story.cfm?SID=38130>

³⁵ Robert Wood Johnson Foundation. County Health Rankings. Accessed 12/26/14. Available at: <http://www.countyhealthrankings.org/app/minnesota/2010/rankings/lyon/county/outcomes/overall/snapshot>

³⁶ Minnesota Department of Health. Minnesota Student Survey. Accessed: 12/29/14. Available at: <http://www.health.state.mn.us/divs/chs/mss/countytables/lyon13.pdf>

Table #9

Adult Obesity in Lyon County



37

Indirect costs of being overweight and obese include morbidity and mortality costs such as loss productivity, absenteeism, and premature death. Based on national estimates, the overall financial burden of obesity in Minnesota in 2006 was estimated at \$2.8 billion.³⁸ The medical costs associated with obesity nationally were estimated at \$147 billion in 2008. This translates into a \$1,429 higher yearly medical cost for people who are obese over those of normal weight.³⁸

Since the late 1960's, there has been a dramatic decline in the percentage of students who walked or bicycled to school. Nationally, only 13 percent of students grades Kindergarten through 8th grade reported usually walking or bicycling to school in 2009, while 48 percent of students' kindergarten through 8th grade reported usually walking or bicycling to school in 1969. Distance is a strong indicator associated with how children get to school, but only 35 percent of Kindergarten through 8th grade students nationally, who lived within a mile of school, reported usually walking or bicycling to school once a week. In 1969, 89 percent of Kindergarten through 8th grade students, who lived within a mile of school, reported usually walking or bicycling to school once a week.³⁹

³⁷ Robert Wood Johnson Foundation. County Health Rankings. Accessed: 12/30/14. Available at: <http://www.countyhealthrankings.org/app/minnesota/2014/rankings/lyon/county/outcomes/overall/snapshot>

³⁸ Minnesota Medicine. The Obesity Challenge. Accessed: 12/26/14 Available at: <http://www.minnesotamedicine.com/PastIssues/December2012/theobesitychallenge.aspx>

³⁹ The National Center for Safe Routes to School. How Children Get to School: School Travel Patterns from 1969 to 2009. Accessed: 12/26/2012. Available at: http://saferoutesinfo.org/sites/default/files/resources/NHTS_school_travel_report_2011_0.pdf

Table #10**Trends in Childhood Obesity & Overweight**

Just a decade or two ago, a large number of children were free-range children. These children walked or bicycled around the neighborhood and community being more independent. Increasingly children are dependent on their parents for transportation. Instead of walking or bicycling children are getting rides. Five to seven percent of vehicle miles traveled and 10 to 14 percent of all personal vehicle trips made in high traffic times in the morning are personal vehicles taking Kindergarten through 8th grade students to school.⁴⁰

Reducing the number of vehicle trips would create a more efficient, safe, and connected community. Getting children walking and bicycling again is one way to combat inactivity and the dramatic rise in obesity. Addressing obesity through SRTS and promoting an active lifestyle has a number of positive externalities.

Access to healthy foods is also a major factor when addressing the overweight and obesity issues. Children's eating habits are formed early in life and when they are exposed to healthy foods, they enjoy them. Fresh produce, whole grains and low-fat dairy products must be accessible and affordable to all residents in a community. Without easy access, high caloric, dense foods become easier to purchase and eat, leading to obesity.

Planning Process

The Marshall GreenStep HIA Planning Process was an efficient planning process that was based on HIA Planning Team meetings, Wikimapping, two HIA community meetings, attending other community events and existing meetings, and a Neighborhood Assessment Survey. These meetings and events were opportunities to discuss active living and healthy eating with community members. Wikimapping and the Neighborhood Assessment Survey provided community members with an opportunity to participate in the planning process online. Engaging the community through multiple avenues helped to

⁴⁰ The National Center for Safe Routes to School. How Children Get to School. Accessed 12/31/2014. Available at: http://saferoutesinfo.org/sites/default/files/resources/NHTS_school_travel_report_2011_0.pdf

gather effective public input. Public input was critical to the success of HIA and identifying issues regarding active living and healthy eating.

Wikimapping

Wikimapping is an online public input tool community members can use to identify issues regarding walking and biking in the City of Marshall. Community members can provide input by adding a point or route on an interactive map or by commenting on existing posts. Wikimapping was an effective way of engaging community members who were not able to attend the two HIA community meetings or other community event or meetings.

Community members could add points on an interactive map regarding: barriers to walking and biking, bus and transit stops, existing bike parking, lighting is poor, need bike parking, places I go, problem intersection, school, driving issue, traffic and congestion, and trash is an issue. Community members could add a route on the interactive map regarding: existing on street bike route, high stress area (speed/ traffic), no sidewalk, on street bike route needed, recreational route, routes I'd like to use, route to and from after school activity, route to and from school, shortcut I use (not a trail or road), or sidewalk in poor condition. When a community member clicks on a point the user can select one of these categories and a box will appear. The user can then write a description of the issue in the box. Other users can click on the point or route and agree, disagree, or abstain with the comment. Other users can also comment on the existing comment.

Campus Connect

The Southwest Minnesota State Campus and Community Connect was held on Tuesday April 28th, 2015, from 2pm to 7pm. The event is intended to connect underserved populations with community resources and free services. It was held in the Conference Center Ballroom at Southwest Minnesota State University. The event featured three key elements: health clinic, wellness fair, and community resource exhibit. Educational presentations and health demonstrations were held throughout the event. The Marshall HIA Planning Team distributed flyers for Wikimapping and the first community meeting to attendees. Reception staff also highlighted the flyers, asking attendees to complete the survey and attend the meeting.

Food Store Audit

The Marshall HIA Planning Team visited all of the grocery stores and convenience stores in the City of Marshall. The purpose of the audit was to learn about health food options within the city. During each visit planning team members spoke to clerks or managers about the shopping habits of their customers as well as what healthy foods they sold and at what price.

Community Meeting #1

The first community meeting was held at Marshall – Lyon County Library on April 29th, 2015, from 5pm to 6:45pm. The agenda for the meeting was to discuss the local issues and concerns that were identified via Wikimapping and conversations with community members. The presentation highlighted crash data, traffic volumes, sidewalk gaps, and community input already received. Community members were also able to identify additional issues and concerns that were not identified before the meeting. The

first meeting was an opportunity to discuss the existing conditions and voice opinions and concerns regarding walking and biking in Marshall.

Neighborhood Assessment Survey

A Neighborhood Assessment Survey was distributed between the first and second community meeting. The survey was distributed through planning team member and city staff email lists as well as websites and social media. The survey was another tool to engage community members who were not able to attend the two community meetings. The survey asked community members eight questions. Five of these questions had community members quantify the category on a scale of one to 10. The Marshall Neighborhood Assessment Survey can be found in the Appendix to this plan.

The quantitative and qualitative questions include:

- Did you have room to walk?
- Was it is to cross the street?
- Did drivers behave well?
- Could you follow safety rules?
- Was your walk pleasant?
- General atmosphere (summary of all the categories)

The qualitative questions included:

- Are there any routes you would like to walk and currently cannot due to safety issues, existing gaps in the sidewalk network, or other pedestrian infrastructure that discourages you from walking or biking?
- Please highlight on the map the route you walked or biked in Marshall.

Bicycle Safety Day

Bicycle Safety Day was held at the YMCA on May 18th, 2015, from 4pm to 7pm. Bicycle Safety Day is an annual event hosted by the Marshall Police Department and the YMCA. The event consisted of a free bike registration, free bike skills course, free hotdogs, free bicycle and pedestrian maps, and other prizes. SRDC staff had a booth at the event highlighting the HIA. This was a great opportunity to ask community members about walking and biking in Marshall. Community members could discuss walking and biking issues, use Wikimapping at the event to identify an issue, or complete a survey.

Community Meeting #2

The second community meeting was held at the Marshall YMCA on May 27th, 2015, from 5pm to 6:30pm. The agenda for the meeting was to discuss potential goals and strategies regarding walking and biking in Marshall. There were a number of issues that were identified and discussed at the first community meeting on April 29th. At the second meeting, community members were still able to discuss existing conditions that were not identified at the first meeting.

SW SHIP Meetings

Southwest Statewide Health Improvement Program (SHIP) hosts monthly Community Leadership Team (CLT) meetings in Marshall. There are representatives from Marshall and the 6 counties in southwest Minnesota that are members of the Southwest Health and Human Service area. The CLT is composed of food service directors, dietitians, active living campaign representatives, planners, family services, community organizations, aging organizations, and the healthcare field.

The different steps of the HIA Planning Process were discussed at multiple CLT meetings. The CLT meetings are a great venue to discuss public outreach regarding and the HIA Planning Process. There is a wide range of occupations and specialties on the CLT, so recommendations from the CLT are very valuable.

City Council Meeting

A draft Marshall GreenStep HIA was presented to the Marshall City Council on August 25th, 2015.

The city council is the main decision maker and will be directing city staff to implement the strategies outlined in the HIA. The city council was asked to review the HIA, ask questions, and provide feedback. City staff did have an opportunity to review the HIA before the council meeting. City staff was also involved in the development of the HIA.

During the council meeting the objectives and strategies outlined in the Recommendation Chapter were presented and discussed. The recommendations are general guidelines that explain what the City of Marshall could pursue. The HIA was finalized the week following the meeting and an electronic copy was given to the City of Marshall, the Marshall GreenStep Committee, Healthy 56251, and Southwest SHIP.

Community Input

Community input was critical in the development of the HIA. The Planning Process section above highlighted the various opportunities community members could participate in the planning process. Below is a summary of community input from the Neighborhood Assessment Survey.

Neighborhood Assessment Survey

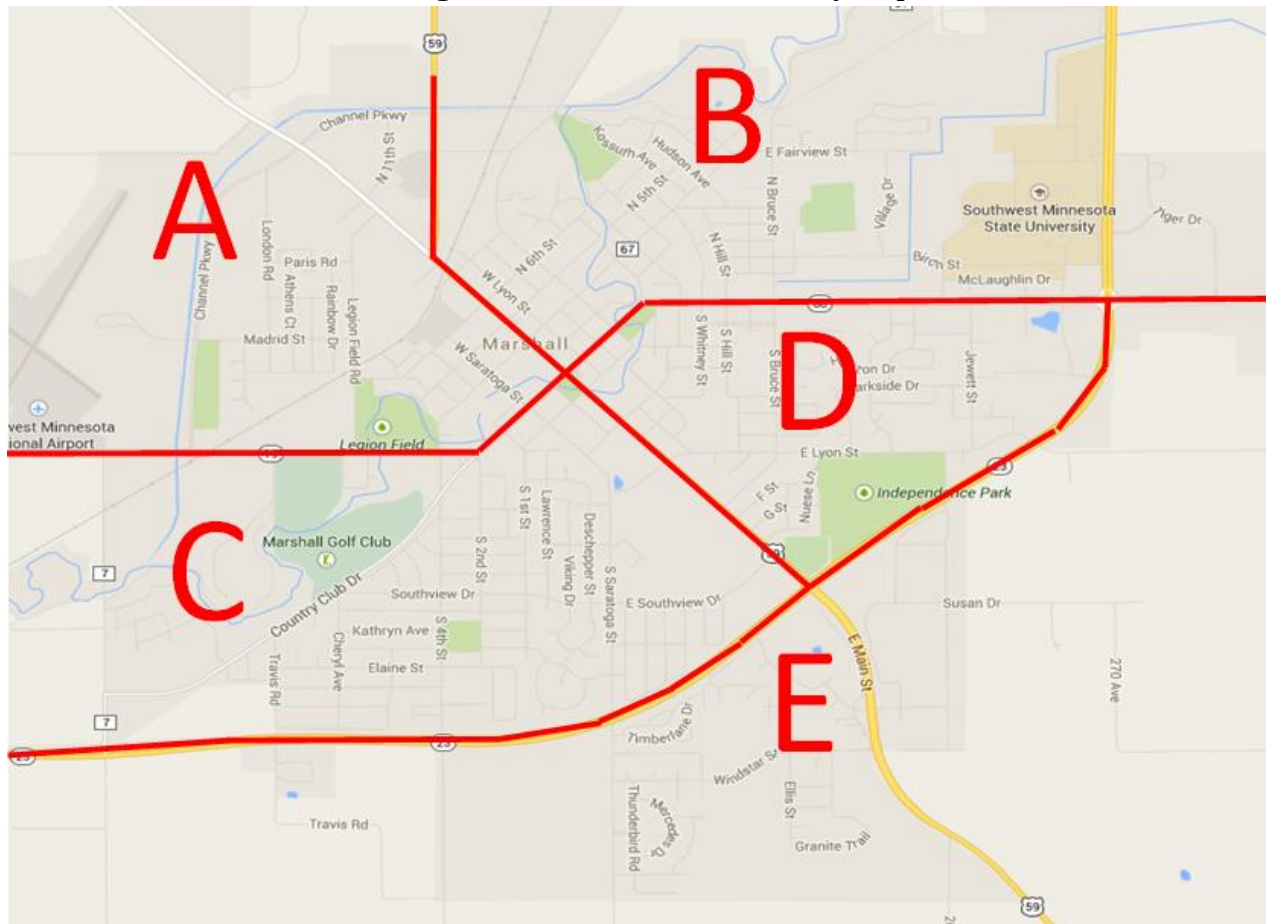
Community members in the City of Marshall had an opportunity to rank the existing conditions in regards to walking and biking on a scale of one to 10 (10 being best and 1 being the worst). The categories that were ranked include: general atmosphere, did you have room to walk, was it easy to cross streets, did drivers behave well, could you follow safety rules, and was your walk pleasant. Refer to Appendix for the survey and the variables that impact each category. Below is a summary of the ranking for arrival and departure.

Table #11 A Neighborhood Assessment Survey Summary

1. General Atmosphere	2. Room to Walk	3. Easy to Cross Street	4. Drivers Behave Well	5. Follow Safety Rules	6. Was Walk Pleasant	Average 1,2,3
6.8	6.2	6.6	6.2	7.8	7.7	6.5

Table #11 B**Neighborhood Assessment Survey Summary**

Section of the City	1. General Atmosphere	2. Room to Walk	3. Easy to Cross Street	4. Drivers Behave Well	5. Follow Safety Rules	6. Was Walk Pleasant	Average 1,2,3
A	5.6	6.1	5.7	5.6	8.1	6.9	5.8
B	6.5	5.1	6.6	5.3	7.7	6.9	6.1
C	6.7	6.2	6.2	5.7	7.7	7.7	6.3
D	7.1	6.5	6.6	6.3	7.5	7.3	6.7
E	5.9	5.4	6.6	6.6	7.4	8.6	6

Table #12**Neighborhood Assessment Survey Map****Main Themes**

- Sidewalks start and stop.
- A number of blocks do not have sidewalks.
- Sidewalks not cleared of snow.
- Bike path / trails are nice.
- It is difficult to access other sections of Marshall – busy roadways divide the city.

- Drivers do not yield to pedestrians in crosswalks.
- Connectivity to trails in Marshall.

Below is a summary of comments – this is not an exhaustive list of comments. The list of comments highlights issues and needs that were identified in the Neighborhood.

General Atmosphere:

- “Needs sidewalks.”
- “During the summer it's pretty good. During the winter however, shoveling of sidewalks isn't enforced and it makes walking difficult.”
- “We enjoy the bike trail but it is a little dangerous for us to get to.”
- “Lack bike/walk lanes/sidewalks.”
- “Nice...not a lot of traffic and nice trees, etc.”
- “Generally good, but biking on Saratoga is not safe.”
- “The bike path is nice.”
- “All walking is done on the streets - we have no sidewalks.”
- “Low traffic nice, clean, well lit.”
- Cars parked across sidewalks, dirty yards with trash on side walk, and loose dogs.”
- “Sidewalks are nasty, cracking, tore up in parts, some areas with heavier traffic don't have sidewalks or are on opposite sides of streets.”

Room to walk:

- “No sidewalks, hard to walk on the side of the road with parked cars.”
- “Parked cars blocking sidewalks.”
- “Cars were parked over the sidewalk.”
- “In winter time, many sidewalks are NOT shoveled, forcing street walking.”
- “Winter sidewalk maintenance needs to be addressed. It's not cool to be forced onto the street walking your dog.”
- “Many lots do NOT have sidewalks - started and stopped situation.”
- “Adult bike riders do not belong on residential sidewalks expecting young walkers to get out of their way.”
- “Ramps missing for strollers and wheelchairs at corners, and there are many broken sidewalks.”

- “Very limited sidewalks or trail. End up having to walk in streets.”
- “Patchwork of sidewalks and crosswalks - need continuity and repair.”
- “grass growing over sidewalks can make it difficult and narrow.”
- “Bike trails could be better connected.”

Easy to Cross Street:

- “Cars do not pay attention to "walk" signals and folks in crosswalks.”
- “County Hwy 7 high speed and no crosswalk!!!”
- “cars do not yield to pedestrians or bikers.”
- “Drivers unaware of pedestrian right-of-way.”
- “Although acting as a pedestrians (while walking bicycle in crosswalk) almost 100% of vehicles do not stop when I am in the crosswalk.”
- “Problematic - downtown area with conflicts with heavy traffic.”
- “No respect for pedestrians in crosswalks.”
- “The busy congestion makes it hard to cross heavily traveled roads.”
- “Biggest issue is crossing Country Club Drive by the Armory.”
- “Traffic doesn't stop”
- “Views blocked by parked cars.”
- “Crosswalk signals don't give enough time to cross.”
- “Parked cars block a lot of the intersections for viewing oncoming traffic.”

Drivers Behave Well:

- “To many people are busy texting and driving and not paying attention to pedestrians.”
- “Drivers are just distracted period. Not necessarily all cell phones either, tuning music, kids, in a hurry, etc.”
- “People on their phone ignore crosswalks.”
- “People drive too fast on West College Drive.”
- “Most drivers are respectful.”
- “Drivers need to pay more attention.”
- “Drivers do not stop at stop signs, just roll through even if you are trying to cross. And the come up too fast and slam on the brakes right in front of the pedestrian.”

- “Very hard to cross Main Street to get to the YMCA, drivers illegally pass on the right all the time, there needs to be more police monitoring of this.”
- “We have a lot of speeders on Fairview!”
- “Speeding is a problem on East Lyon St and stopping at the stop sign at East Lyon and Parkside.”
- “Drivers are respectful.”
- “Speeding on south 4th is awful.”
- “Did not yield to pedestrian/bicyclist in crosswalk.”
- “Drivers go very fast on Westwood Drive.”
- “Driving too fast on Southview Drive, around apartments in area.”
- “Did not yield to pedestrians in crosswalks.”
- “Do not yield to pedestrians in crosswalks, drive too fast.”
- “Drive too fast!!! It is 45 MPH on County Hwy 7 - and people speed. There are no cross-walks but there is a bike path -- and no sidewalks!! Something needs to be done there before it is too late and an accident happens!!!!”
- “People blow through the stop signs at Boxelder and North Hill Street and Boxelder Avenue and North 4th Street all the time. Lots of kids and people drive way to fast down this road. Would like to see better enforcement.”
- “In general traffic does not yield. I am a runner and have almost been hit and I have seen other runners, actually pound on cars because they have also almost been hit.”
- “Cars speed around the curve of Horizon Drive and Parkside Drive.”
- “No understanding of yielding to pedestrians in the crosswalks.”
- “Too much distracted driving.”
- “They drive too fast and it complicates walking in the street (because there are no sidewalks in certain areas) so pedestrians have to walk around parked cars and into the street. (I'm talking about South First Street).”
- “Yesterday had a lady look right at me at a 4-way stop and then I started walking and she turned left and almost ran me over.”
- “Many drivers do not look to their right if they are making a right turn to see if there is a pedestrian there.”
- “Drive too fast coming around the curve where 4th Street changes direction by Legion Park.”
- “Need more traffic enforcement.”
- Drive too fast but that’s everywhere!!”

- “I bike to work every day and it appears that about 1/3 of drivers are texting and not paying attention, more aggressive police enforcement of anti-texting laws is needed.”
- “Backing without looking is always a concern on sidewalks in front of residences.”
- “Drivers are courteous and use to seeing kids around.”

Follow Safety Rules:

- “Areas with sidewalks are great with the kids but when we have to venture down a road without it's always tougher to keep them to the side and watching for cars.”
- “Crossing at crosswalks or at an intersection is a challenging situation.”
- “There are not always lights to cross at, and there aren't always sidewalks along the road.”
- “We all could follow safety rules better.”
- “Crosswalks are not always available.”
- “I feel the rules are straightforward and easy to follow.”
- “Bikers are on sidewalks at times when they should be riding the streets.”
- “I don't count on drivers to follow good habits, realizing I am in charge of my safety as a pedestrian.”
- “Trouble with vehicles not yielding.”
- “Yes because residential but we need more enforcement downtown.”
- “I feel that it is drivers that need more education. In some states like Florida, if a person is at an intersection waiting to cross, drivers stop to let the person proceed. Here, pedestrians are hesitant to cross at intersections, especially ones with no traffic lights.”
- “don't always have crosswalks.”
- “Traffic light often changes before getting across 4th Street and Main Street for example.”
- “I always cross in safe ways.”
- The “yield to pedestrians in crosswalk” signs seem to make crossing Main Street dangerous. Some drivers stop while others do not.”

Other Comments:

- Some scary dogs and a few people make comments when you walk by.”
- “Scary neighborhoods when it is not the middle of the day.”
- “The bike path is great and the side roads that don't have sidewalks are not that busy, so walking/biking is fine.”
- “The quality and level of sidewalks is inconsistent. But, I have always felt safe when walking.”

- “No crosswalks or lights or bike paths.”
- “I love walking and riding around Marshall. Other than College Drive, Southview (with the construction) and Saratoga, I feel this city is extremely easy to navigate by bike. I feel it is easy to navigate everywhere when you are on foot. I'm proud to call Marshall my home and feel we have done a great job so far.”
- “I wish more people would clean up after their dogs.”
- “Scary dogs, not well lit, no continuous sidewalk, and when there are sidewalks they are often uneven, pocked, cracked, and not continuous.”
- “The access points to the bike paths should have space for cars to park.”
- “The bike path is poorly lit.”
- “Marshall has a number of bike/walking trails, but they are not connected. End up having to use streets in many areas. Need a nice connected loop throughout town.”
- “A bike or walking path would be nice through Freedom Park connecting 4th and 2nd Streets.”
- “Undeveloped lots in Carr Estates for a starter!” (gaps in the sidewalk/trail network).
- “We need many more off street bike paths. Not sidewalks... bike paths.”

Traffic Volumes

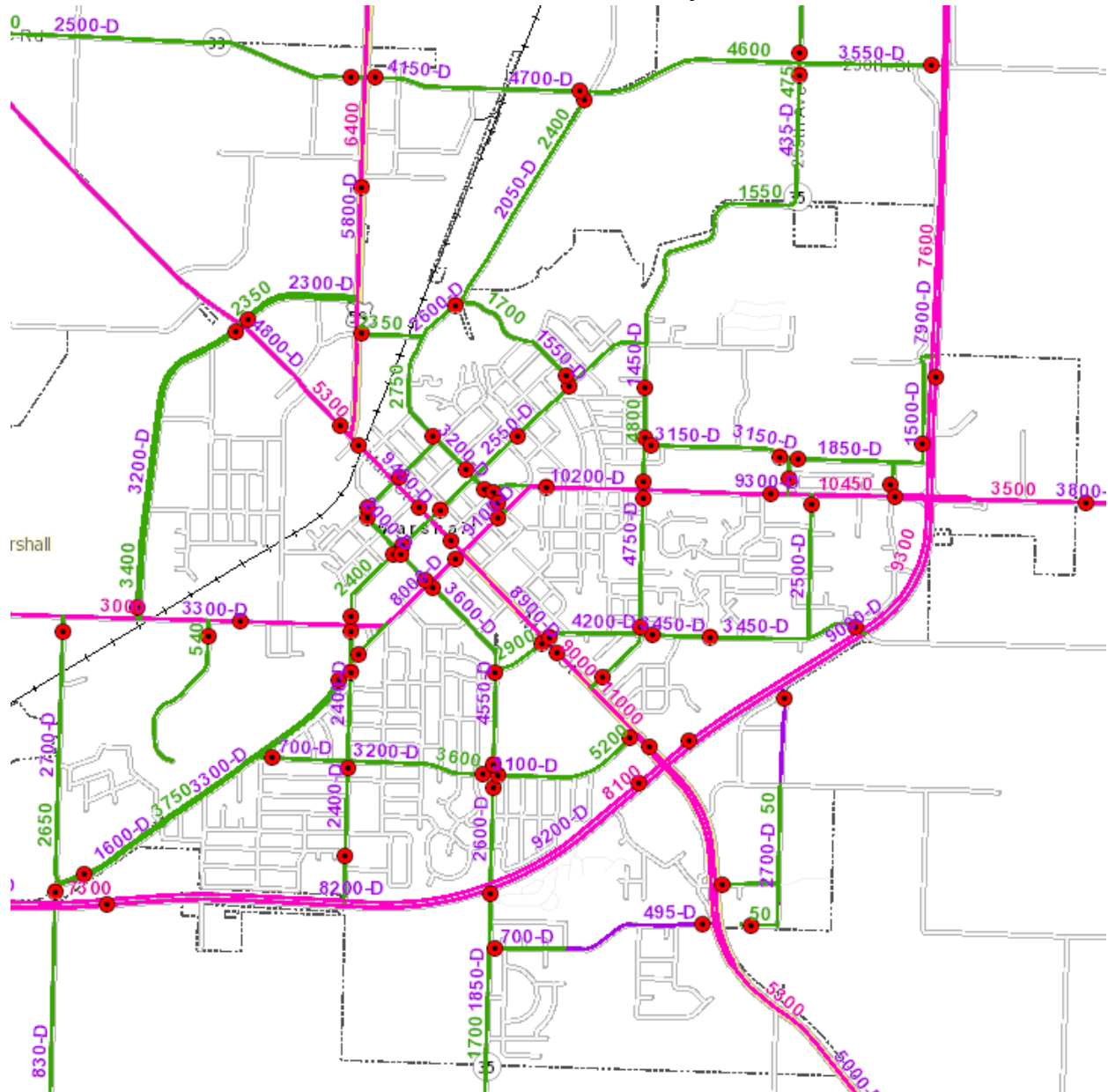
The HIA Planning Team analyzed average daily traffic volumes and crash data within the City of Marshall. Traffic volume information was available for streets that function as a Connector or Neighborhood Connector. Throughout the HIA planning process, the HIA Planning Team analyzed streets in regards to the function of that street.

- ▶ Connector Streets
 - Connects primary destinations
 - Highest traffic volumes streets
 - Typically require the highest level of pedestrian amenities - Sidewalks on both sides of the street or a trail conveniently located along the corridor that connects key locations.
- ▶ Neighborhood Connector Streets
 - Connects Residential Streets to Connector Streets
 - Medium level traffic volume streets
 - Typically require some pedestrian amenities – A sidewalk on one side of the street or the other is required or a trail conveniently located that connects the neighborhood to key locations. The sidewalk needs to have continuity throughout, so the route is not jumping back and forth from one side of the street to the other.
- ▶ Residential Streets
 - All other streets

- Lower traffic speeds
- Lower traffic volumes
- Typically have no sidewalk requirement. Sidewalks are encouraged but there is no sidewalk requirement.

Table #13

Traffic Volumes, 2013 - City of Marshall



Crash Data

Crash data within Minnesota is reported to the Minnesota Department of Public Safety. With conjunction with the Minnesota Department of Transportation, crash data is available for analysis. Within the City of Marshall, there were 257 reported crash occurrences from 2004 through October 2014. Two of the outlined crashes involved a pedestrian (neither crash was fatal).

Table #14 A Crash Data, May 2005 through September 2014 – City of Marshall

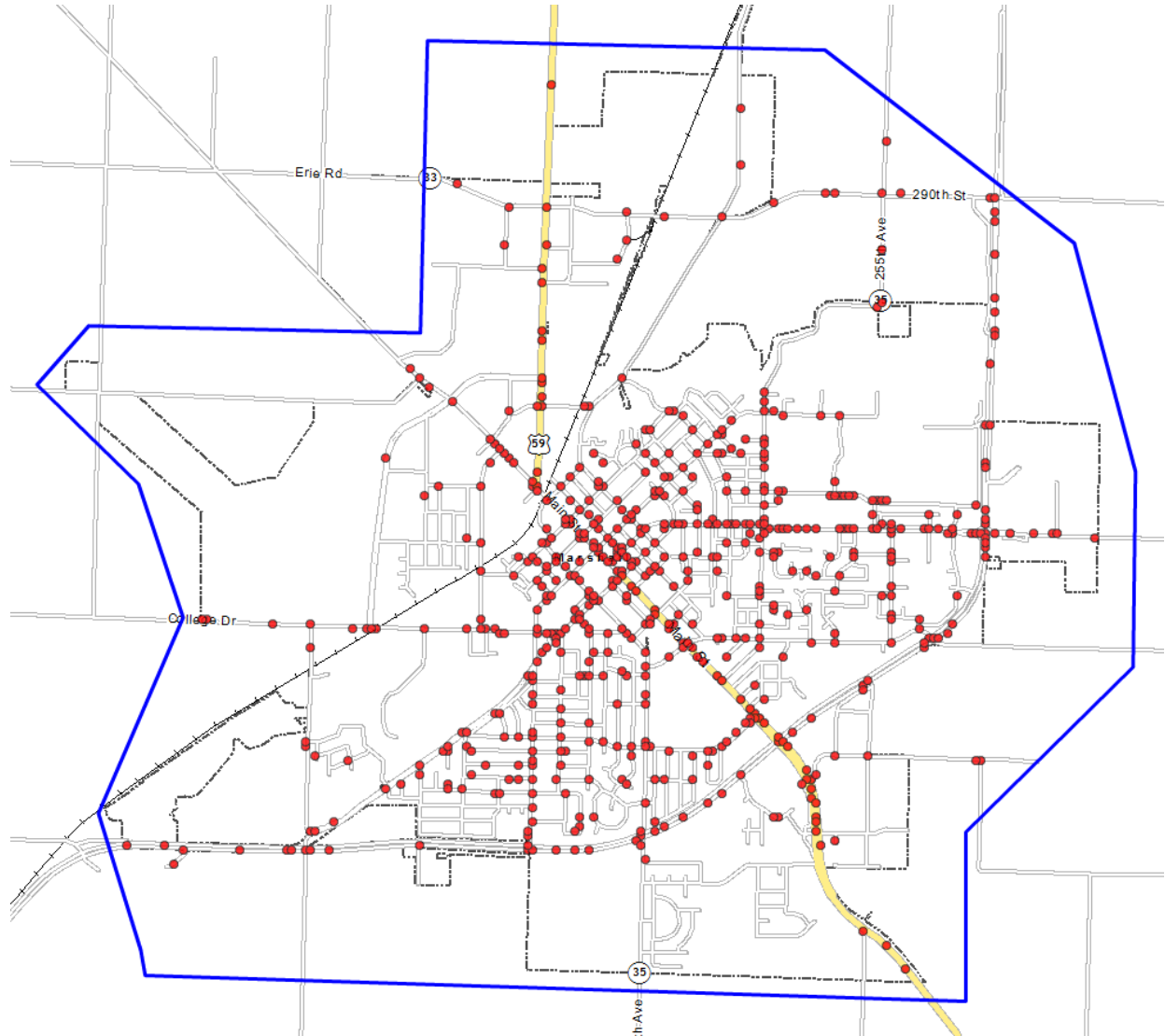


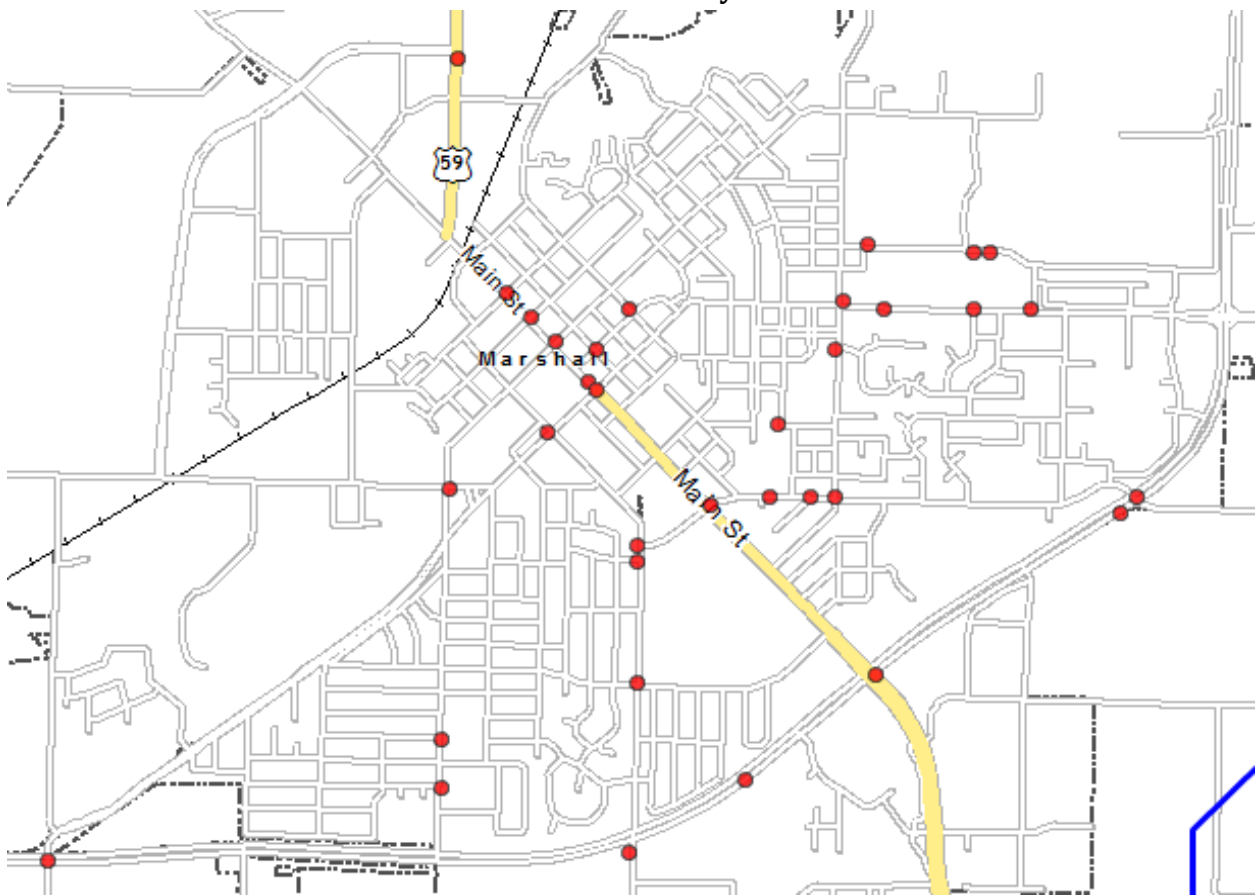
Table #14 B

Fatal Crashes - City of Marshall



Table #14 C

PED & Bike Crashes - City of Marshall



Sidewalk Maps

The City of Marshall was divided into five sections, labeled A through E, using main thoroughfares as dividing lines. The sections were used in surveys and meetings to identify sidewalk presence, sidewalk gaps and other pertinent information related to analyzing active living in the city. In Sections B, C, and E, two tables are needed to include all sidewalks in the section.

Table #12

Neighborhood Assessment Survey Map

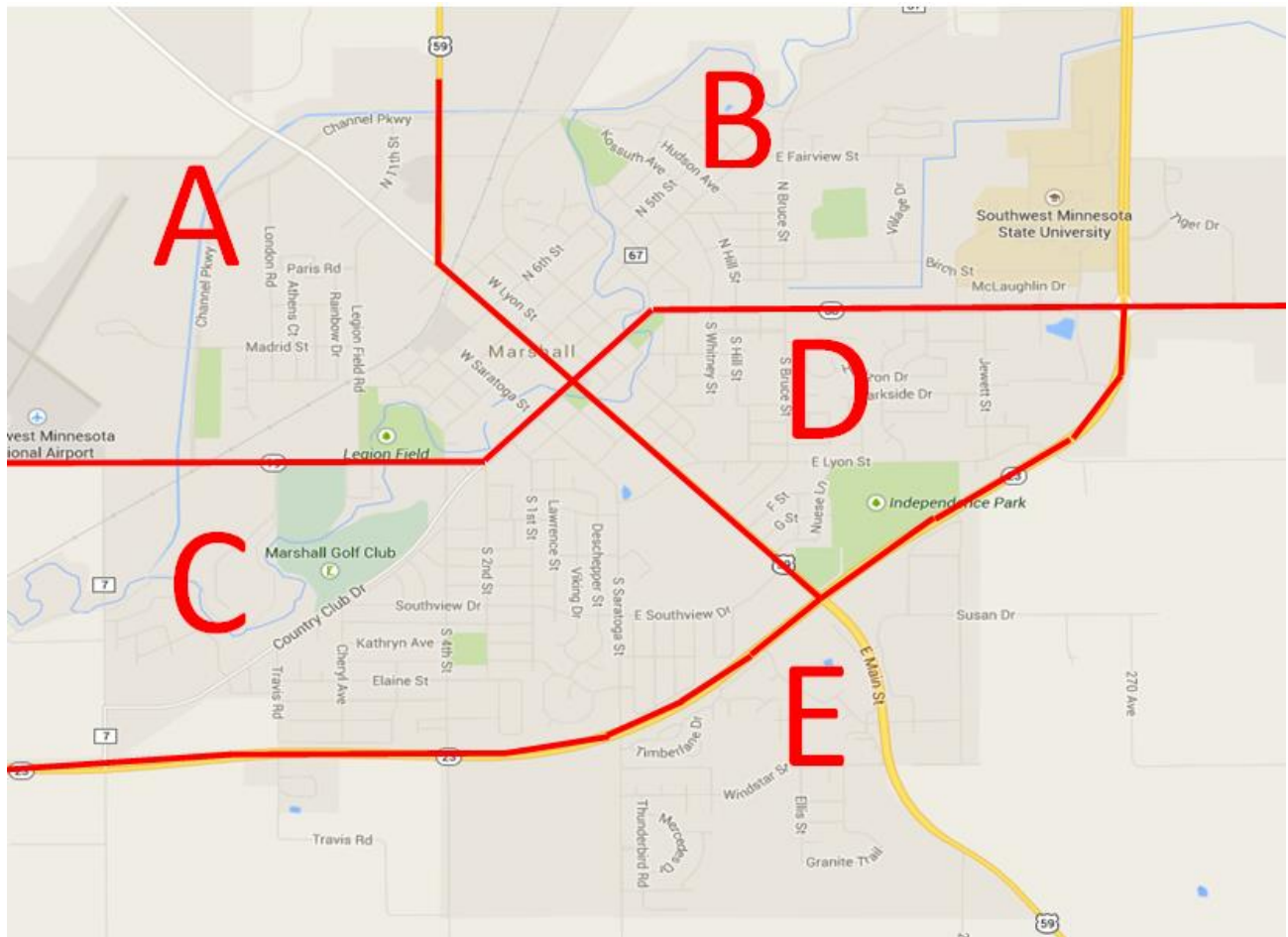


Table #15 A

Sidewalk Map, Section A - City of Marshall

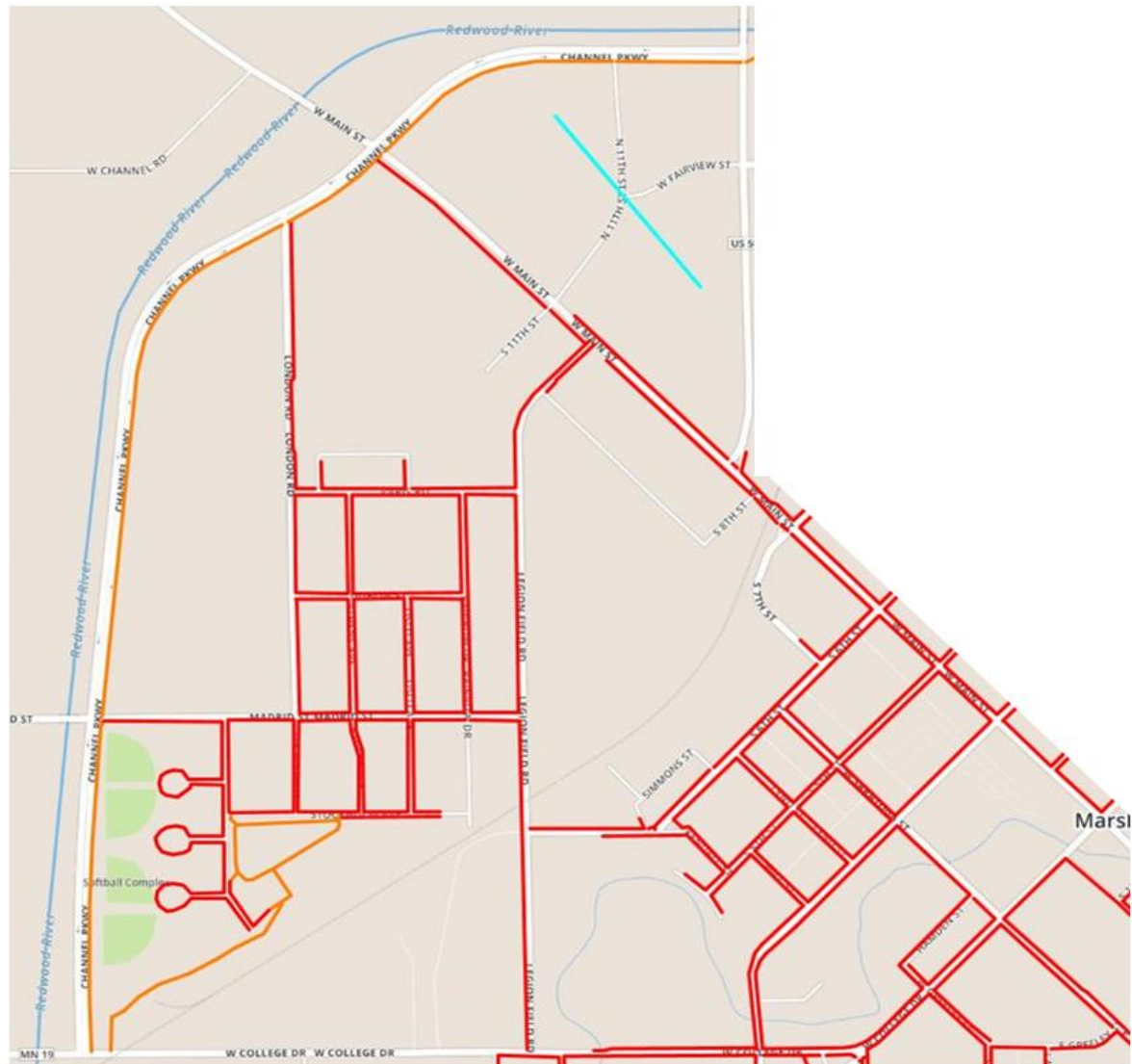
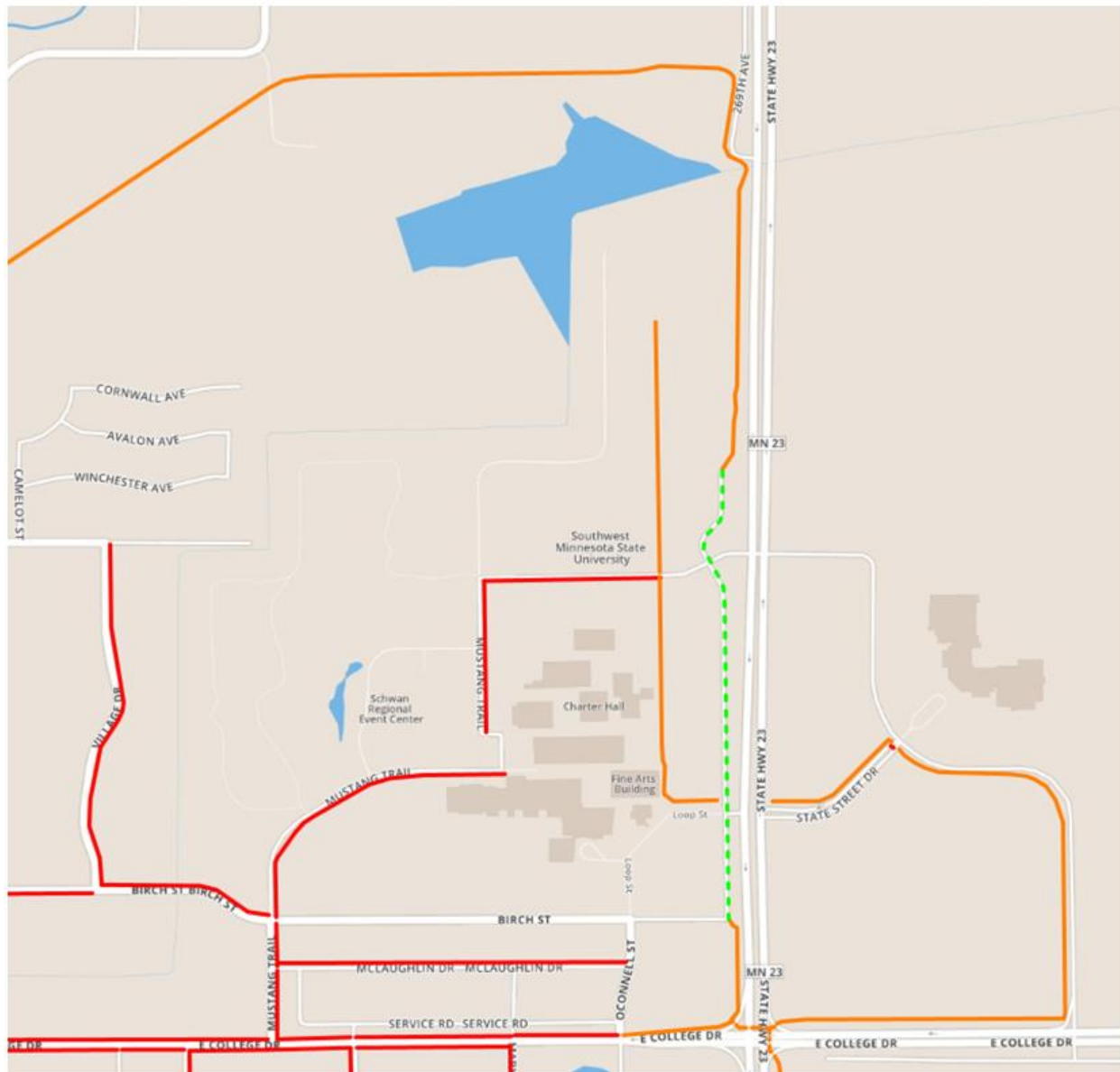


Table #15 B

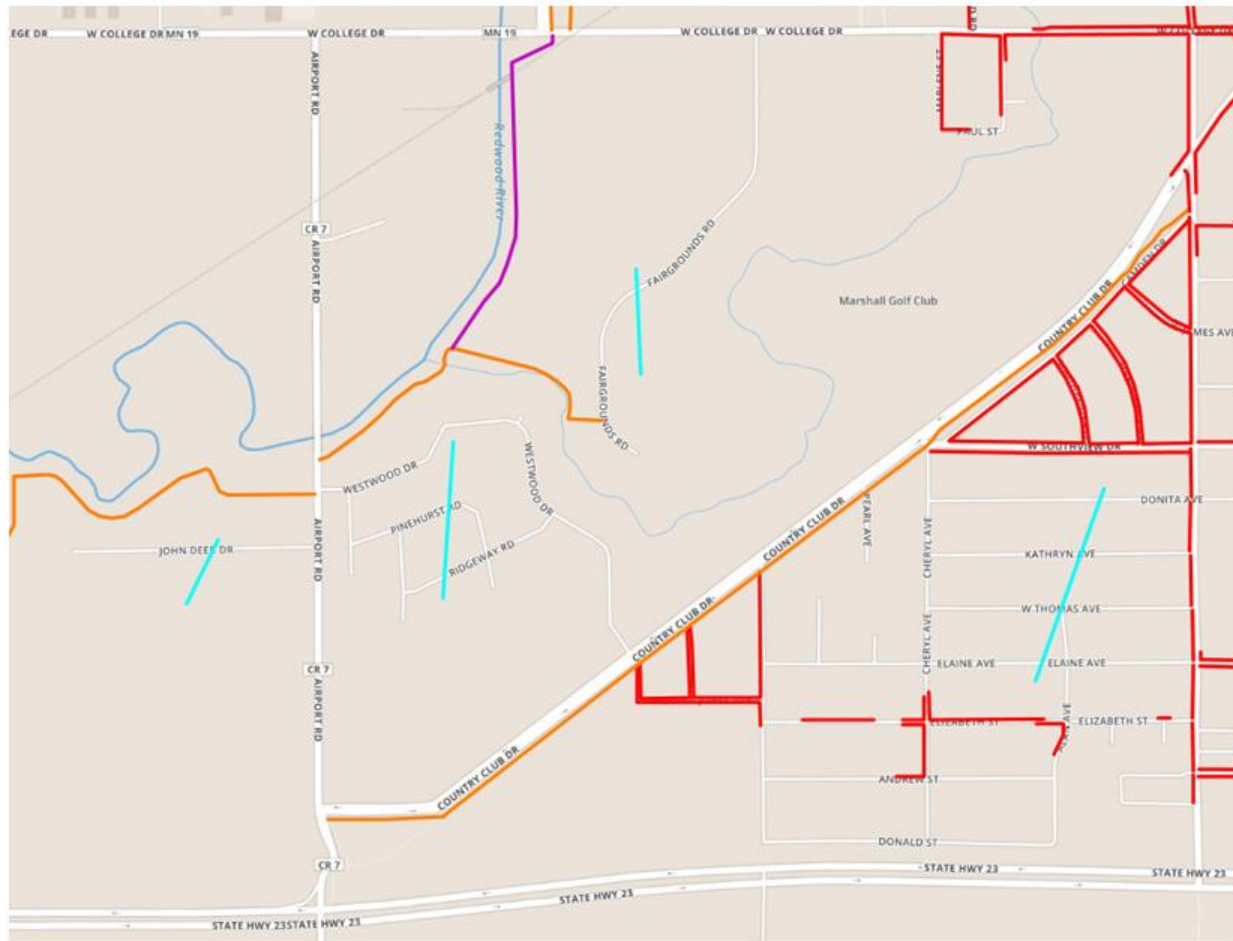
Sidewalk Map, Section B – City of Marshall (continued)



- Existing Trail ————
- Existing Sidewalk ————
- No Sidewalks ————
- On Street ————
- Pedestrian Area

Table #15 C

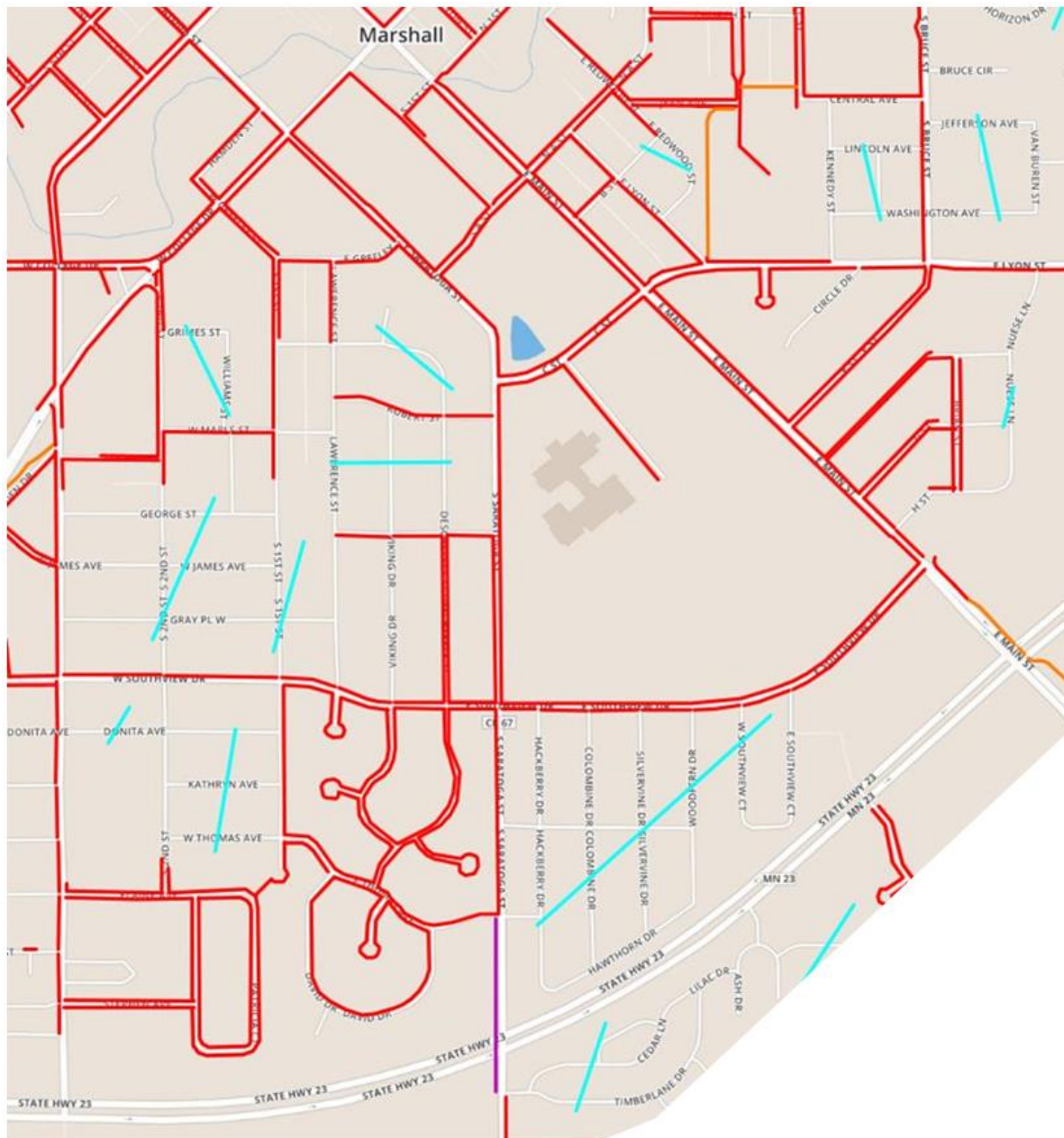
Sidewalk Map, Section C - City of Marshall



- Existing Trail ————
- Existing Sidewalk ————
- No Sidewalks ————
- Planned Sidewalk / Trail ————

Table #15C

Sidewalk Map, Section C – City of Marshall (continued)



- Existing Trail ———
- Existing Sidewalk ———
- No Sidewalks ———
- Planned Sidewalk / Trail ———

Table #15 D

Sidewalk Map, Section D – City of Marshall

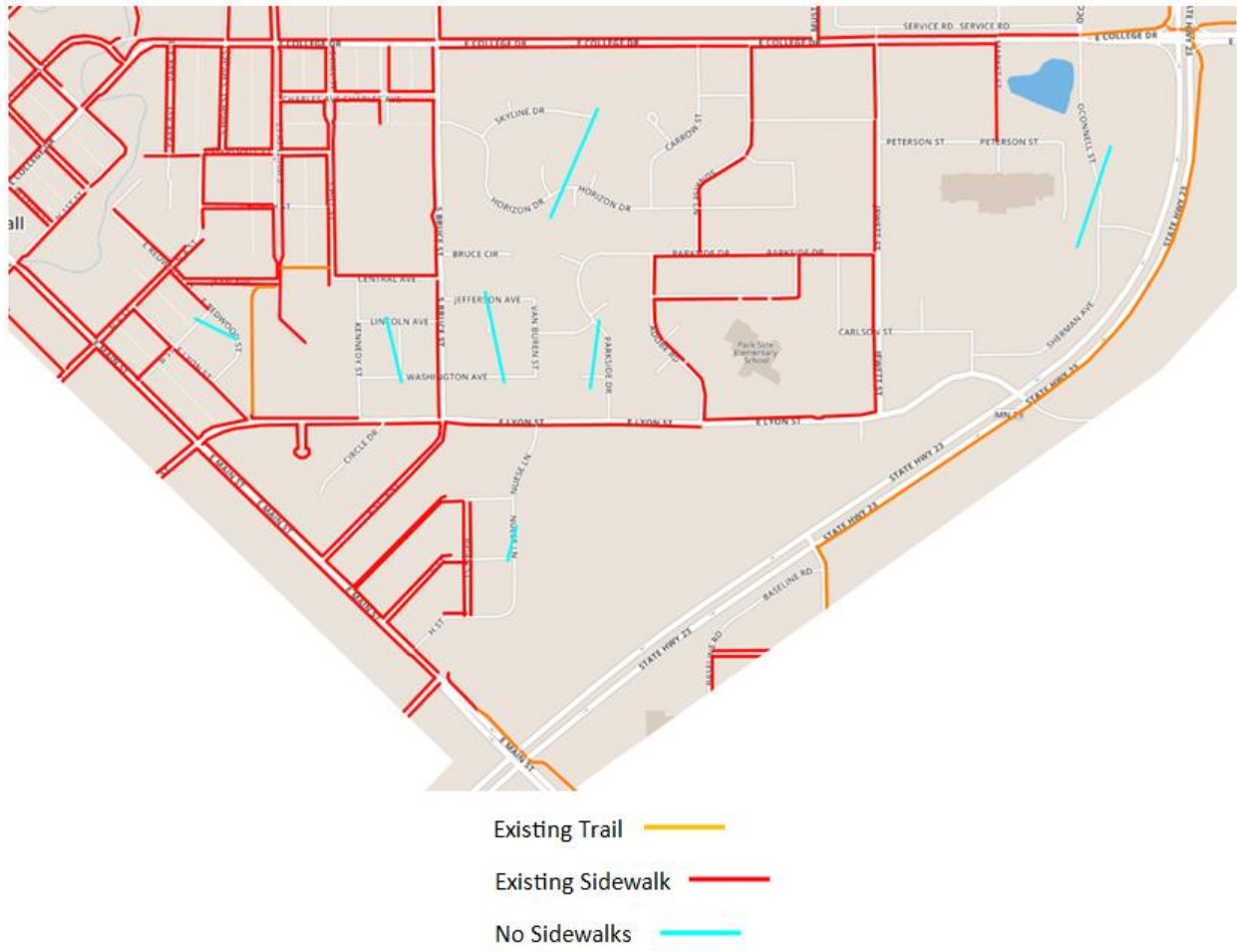


Table #15 E

Sidewalk Map, Section E - City of Marshall

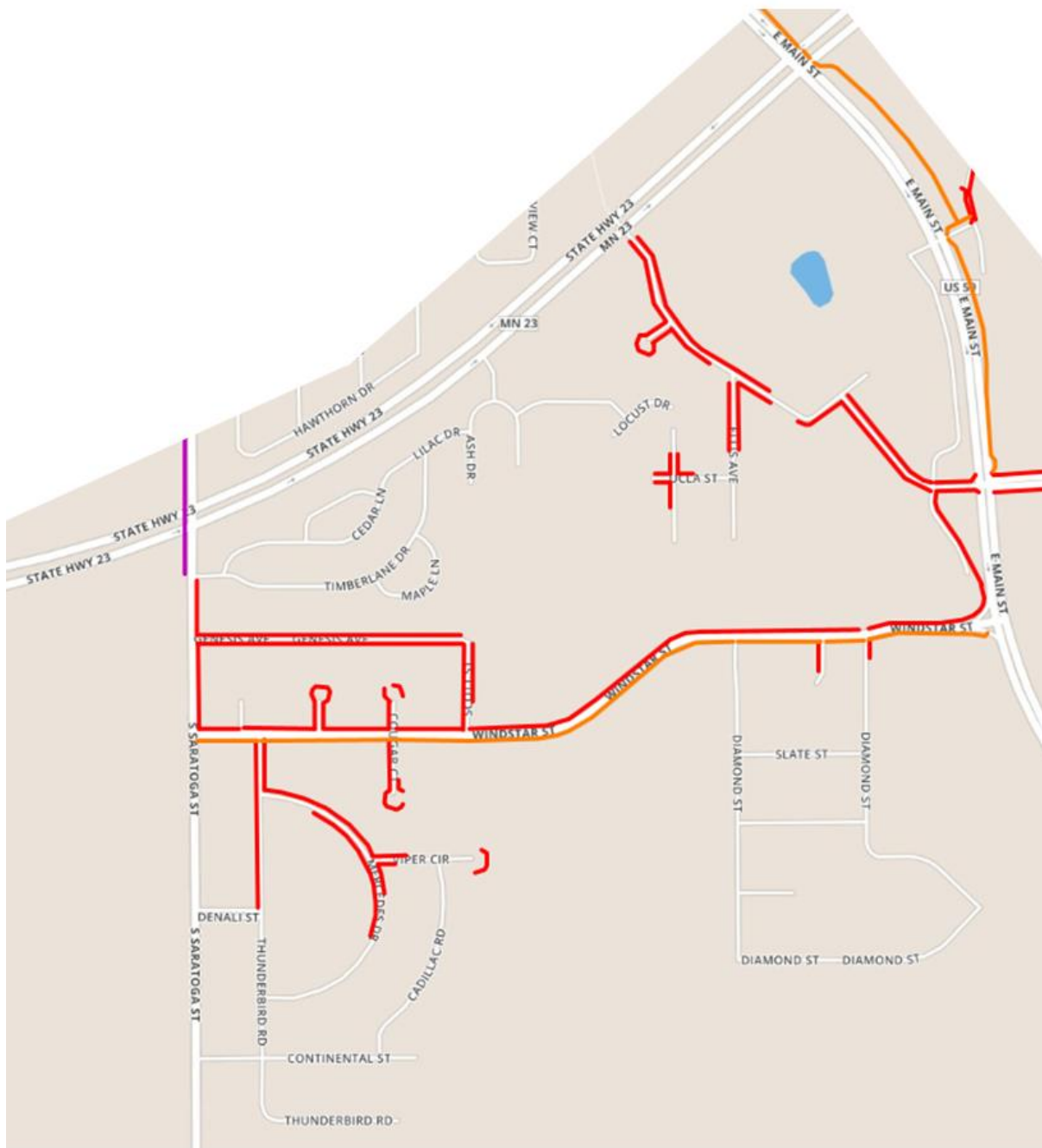


Table #15 E

Sidewalk Map, Section E - City of Marshall (continued)



Gaps in the Sidewalk & Trail Network

A number of gaps in the sidewalk / trail network were discussed at the community meeting as part of the GreenStep Cities Health Impact Assessment Planning Process (refer to Chapter III: Assessment for a summary of the planning process). When examining different sidewalk gaps you have to consider the function of the streets.

A Complete Street does not have a singular definition. A Complete Street is any street you feel safe walking or biking on. A Complete Street does not have to have a sidewalk on both sides of the street, but you have to consider all users when deciding if is safe for pedestrians.

Different Streets require different pedestrian amenities. Younger children may need a sidewalk to separate them from vehicle traffic. Younger children may be learning how to ride a bike, so it is not safe for them to share the road with vehicle traffic. When making a decision whether a street needs sidewalks or not, the function of the street needs to be considered.

Below are three classifications that will be used when describing a street and the need for sidewalks and other pedestrian infrastructure. The streets in Marshall have not been classified in regards to their pedestrian infrastructure needs. A pedestrian functional classification system would help to provide guidance when making transportation decisions.

► Connector Streets

- Connects primary destinations
- Highest traffic volumes streets
- Typically require the highest level of pedestrian amenities - Sidewalks on both sides of the street or a trail conveniently located along the corridor that connects key locations.

► Neighborhood Connector Streets

- Connects Residential Streets to Connector Streets
- Medium level traffic volume streets
- Typically require some pedestrian amenities – A sidewalk on one side of the street or the other is required or a trail conveniently located that connects the neighborhood to key locations. The sidewalk needs to have continuity throughout, so the route is not jumping back and forth from one side of the street to the other.

► Residential Streets

- All other streets
- Lower traffic speeds
- Lower traffic volumes
- Typically have no sidewalk requirement. Sidewalks are encouraged but there is no sidewalk requirement.

New Developments

For new developments sidewalks are typically required. A developer should have to get an exemption from the City Council for why a sidewalk is not needed (street is a Residential Street - wide, low traffic volumes, it is reasonable to walk on the street...).

Existing Sidewalks

To remove an existing section of sidewalk the landowner should be required to get approval from the City Council. This will help to prevent gaps in the sidewalk and trail network.

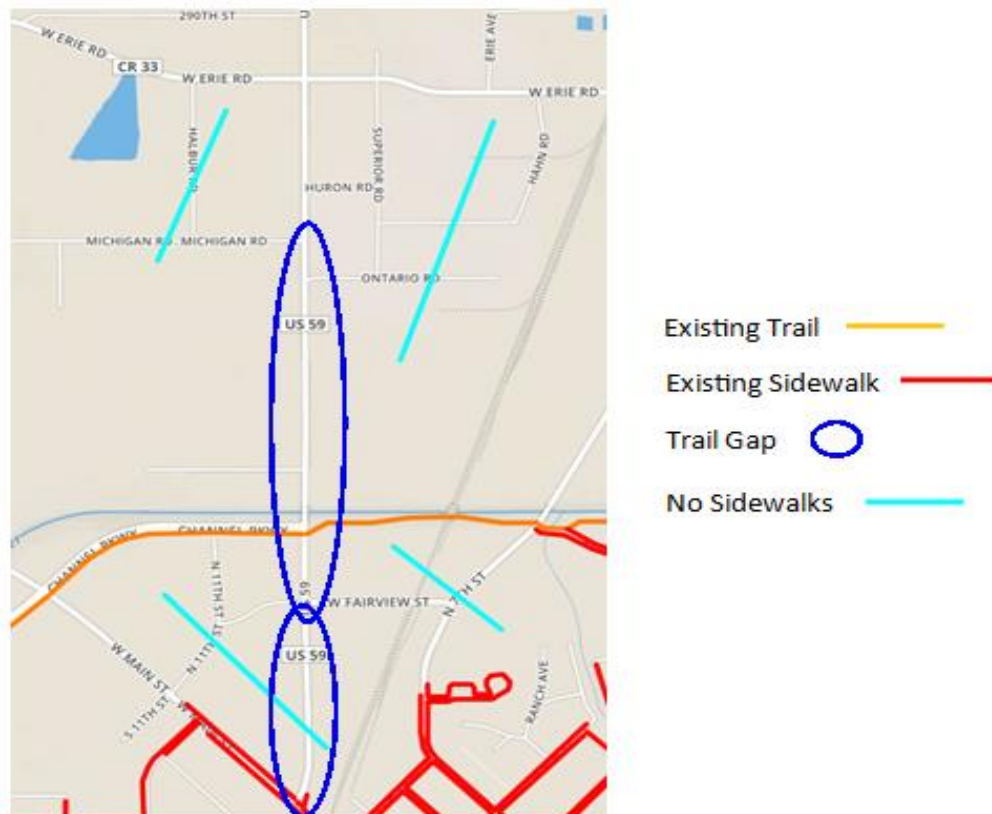
Highway 59 North Gap

People are walking and biking to work in the industrial park on Highway 59. There are also no pedestrian connections to the neighborhoods around West Erie Road. There are paved shoulders along part of Highway 59, but turning lanes and a narrow bridge are two issues.

Fog lines are painted on Highway 59 in this area. MnDOT typically does not paint fog lines within city limits. Painting fog lines helps to create a defined place for vehicles and pedestrians.

Having an improved pedestrian connection to the industrial park (bike lane, sidewalk, or trail connection) will make it safer for workers currently walking and biking to work. Businesses in this industrial park are destinations and a number of workers would benefit from a safer route to work.

Table #16 Highway 59 North Gap

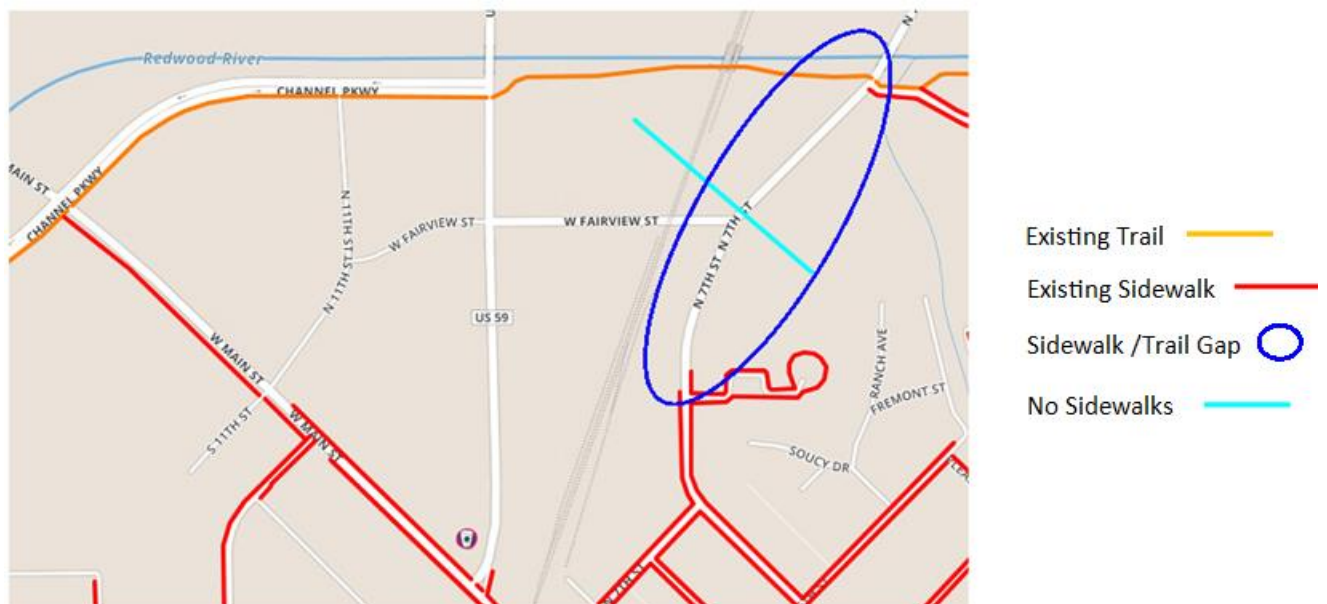


North 7th Street Gap

North 7th Street provides access to the businesses in the industrial park and the trail that loops around the City of Marshall. Having an incomplete pedestrian network does not encourage workers to walk and bike to work and residents to walk and bike to the trail. Filling in this gap would provide a more appealing connection to businesses along West Fairview Street and the industrial park than Highway 59. Highway 59 has significantly higher traffic than North 7th Street and North 7th Street is more esthetically pleasing than Highway 59.

There is a reconstruction planned for North 7th Street in the near future. The City of Marshall is already in the planning stages for this reconstruction. A pedestrian connection to the trail from the existing sidewalks would increase connectivity to the trail and businesses in the industrial park.

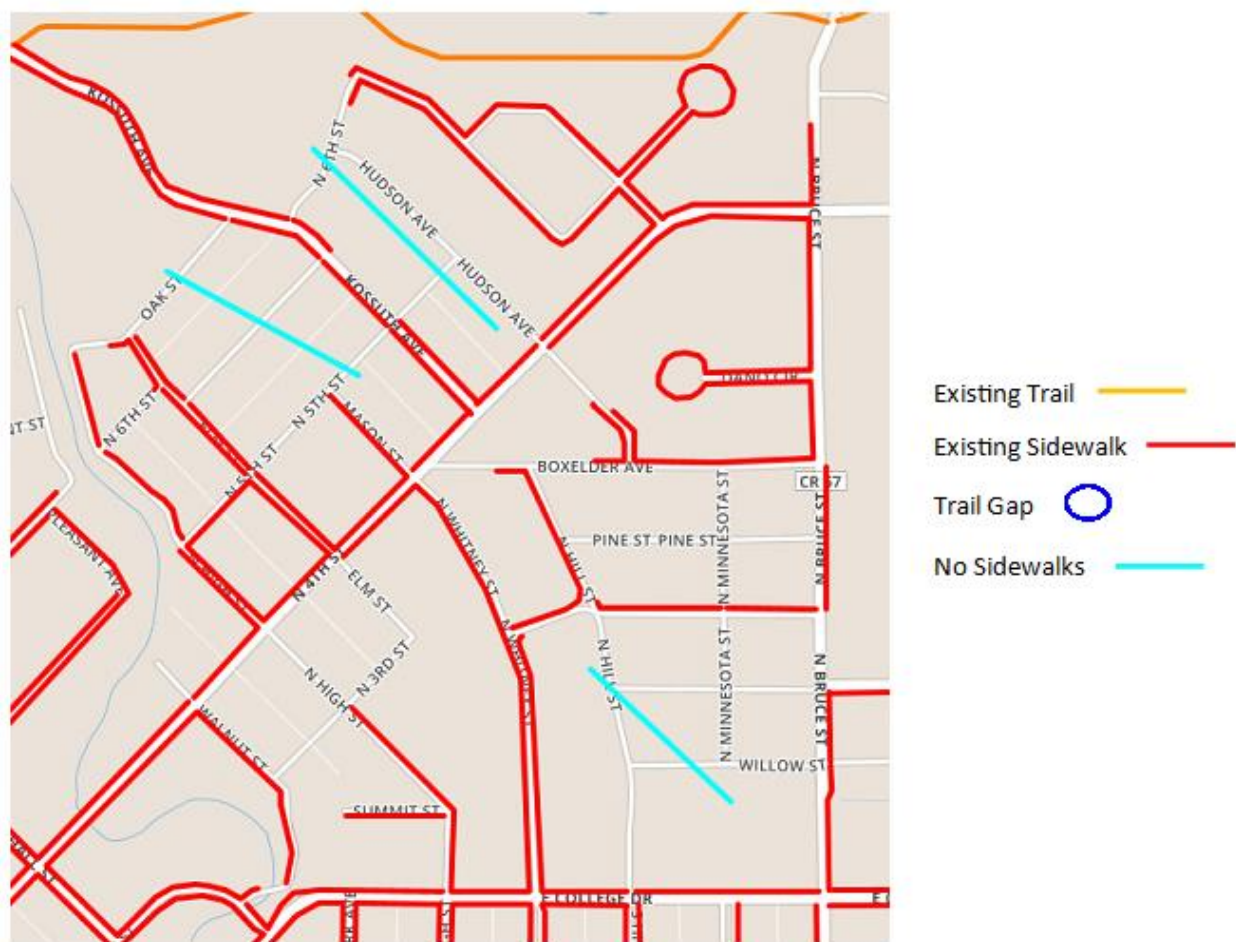
Table #17 **North 7th Street Gap**



North Sidewalk Gap #3

These streets without sidewalks were generally considered lower traffic volume and fall into the Residential Street Classification. Refer to the Pedestrian Functional Classification Goal for more information regarding pedestrian street classifications.

Table #18 **North Sidewalk Gap #3**



Central Connection Gap – Middle School

The Marshall Middle School has an effective network of sidewalks leading to the school. The bike rack as the Middle School is often overflowing, so there are a number of students who walk and bike to school. There is one identified route to farther enhance the sidewalk network leading to the Middle School.

East Southview Drive is the main connection to the Middle School from neighborhoods to the south and east of the school. There are sidewalks on both sides of East Southview Drive that improve safety when walking to school. There are also on street bike lanes on East Southview Drive, South Saratoga Street, and C Street that lead to the school. These pedestrian infrastructure improvements encourage walk and

biking to school, but students from neighborhoods to the south and east of school do not have a direct route to school.

Not having a direct route to school discourages walking and biking to school. The Central Connection Gap is the area between the Middle School and East Southview Drive. The Central Connection Gap was identified at the first community meeting. The City of Marshall reported that this connection has been identified.

A sidewalk or trail connecting the Middle School directly south to East Southview Drive will make it more convenient to walk and bike to the Middle School. The connection will provide more of a direct route, which will encourage students to walk and bike from neighborhoods in this area. Discussion of this gap also lead to a discussion regarding crossing East Southview Drive.

East Southview Drive has a long stretch from East Main Street to South Saratoga Street where there are no convenient crossings. Traffic speeds and traffic volumes along East Southview Drive make it more difficult to cross. If pedestrians have a central connection to the Middle School along East Southview Drive, more pedestrians are going to be crossing in that area.

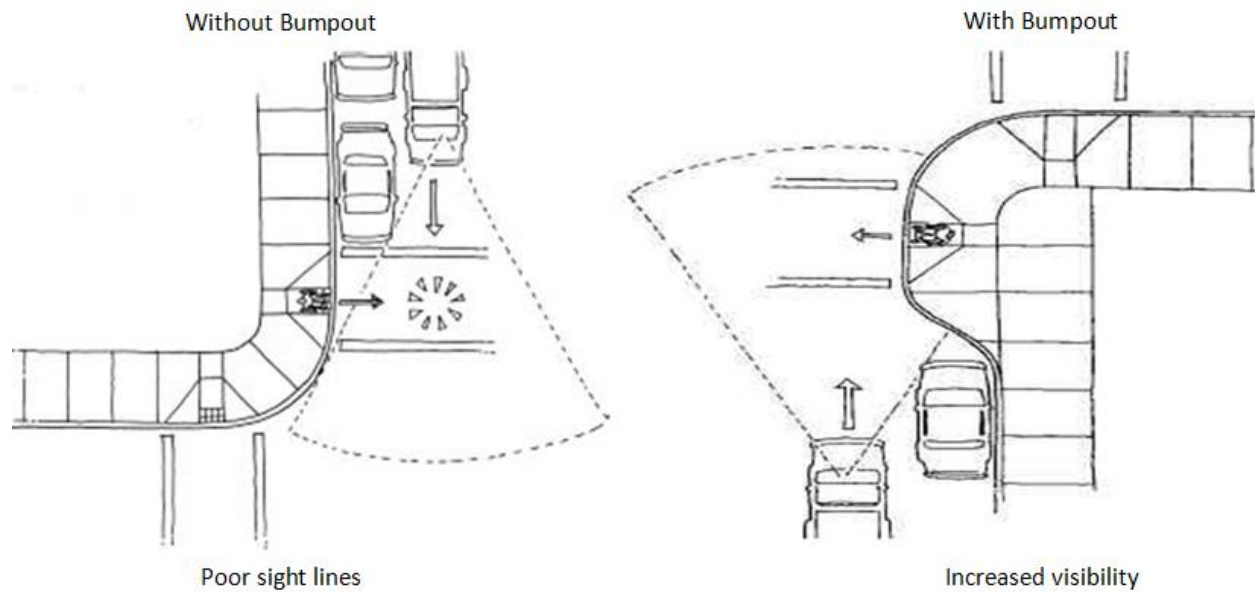
To improve safety by the proposed central connection sidewalk or trail, traffic calming and a designated crossing should be established. Several options should be considered by the city. A curb extension was discussed. A curb extension would act as a traffic calming device and would help to direct pedestrians to this crossing.

Curb extensions are a traffic calming device that helps to slow traffic speeds, increase visibility, and reduce crossing times. Curb extensions narrow the street crossing distance for pedestrians. This helps to increase safety at the crossing. Pedestrians are in a better position to look past parked vehicles to see oncoming traffic.

The Central Connection Gap – Middle School should be incorporated into the Marshall Public Schools Comprehensive Long-Range Facilities Plan. “Marshall Public Schools Board of Education has established a Comprehensive Long-Range Facilities Planning Committee that will convene regularly to complete the work necessary to provide long-term planning direction and input for the administration’s and the Board of Education’s consideration. The committee may review the district’s educational facilities, their utilization, enrollment trends and developing for consideration by the Board of Education recommendations for any changes or modifications necessary to ensure the district’s ongoing operating efficiency.” The Comprehensive Long-Range Facilities Planning Committee is currently in the process of updating the school’s Comprehensive Long-Range Facilities Plan. Information outlined in this plan pertaining to Marshall Public Schools should be shared with the Comprehensive Long-Range Facilities Planning Committee. This also includes the Western Connection Gap – Middle School. The assessment of the Western Connection Gap – Middle School is outlined on page 71.

Table #19

Bumpout (Curb Extension) Visibility Comparison



A public transit representative also participated in the discussion regarding East Southview Drive. Transit frequently has requests for stops along East Southview Drive between East Main Street and South Saratoga Street. A transit stop should also be considered as of the larger sidewalk or trail, traffic calming and a designated crossing project.

Table #20

Central Connection Gap – Middle School



Western Connection Gap – Middle School

From George Street south to West Southview Drive there are no direct sidewalk routes to school.

The streets in the neighborhood around George Street to Gray Place West and from South 2nd Street to Lawrence Street all have similar widths and have no sidewalks. George Street and Gray Street have been reported as not being very wide and there not being a safe place to walk. Since these streets all have a similar width, it may not be safe for the majority to walk and bike along the shoulder of these streets.

South 2nd Street, South 1st Street, and Lawrence Street all provide through traffic access. South 1st and 2nd Street are reported as providing connections to downtown. Providing access for through traffic generally results in high traffic volumes and speeds, so a safe sidewalk connection may be needed along those streets.

These neighborhoods are within walking distance to the Marshall Middle School and the Marshall-Lyon County Public Library. Additional consideration should be taken to examine the function of these streets. The streets serving through traffic and streets functioning as a Neighborhood Connector may need sidewalks to provide a safe place for pedestrians.

The Western Connection Gap – Middle School should be shared with Marshall Public Schools Comprehensive Long-Range Facilities Planning Committee. Refer to page 69 for more information regarding the Comprehensive Long-Range Facilities Plan.

Table #21 Western Connection Gap – Middle School



County Club Drive & 4th Street Intersection

This is a long intersection that was identified as a dangerous intersection. Participants reported that the crosswalk was moved to a shorter distance but then does not result in crossing with a traffic light. There is also an island that could be used if moved even further west on Country Club Dr. The intersection does need to be addressed. Bumpouts, curb extensions, or other traffic calming and street narrowing improvements should be considered to make this intersection safer.

Horizon Drive Sidewalk Gap

Horizon Drive was discussed at both community meetings. Horizon Drive provides through traffic access. Through traffic generally results in high traffic volumes and speeds. It would be beneficial from a safety aspect and transportation efficiency aspect to direct through traffic to East College Drive or East Lyon Street, but there are currently limited measures in place to direct through traffic away from Horizon Drive.

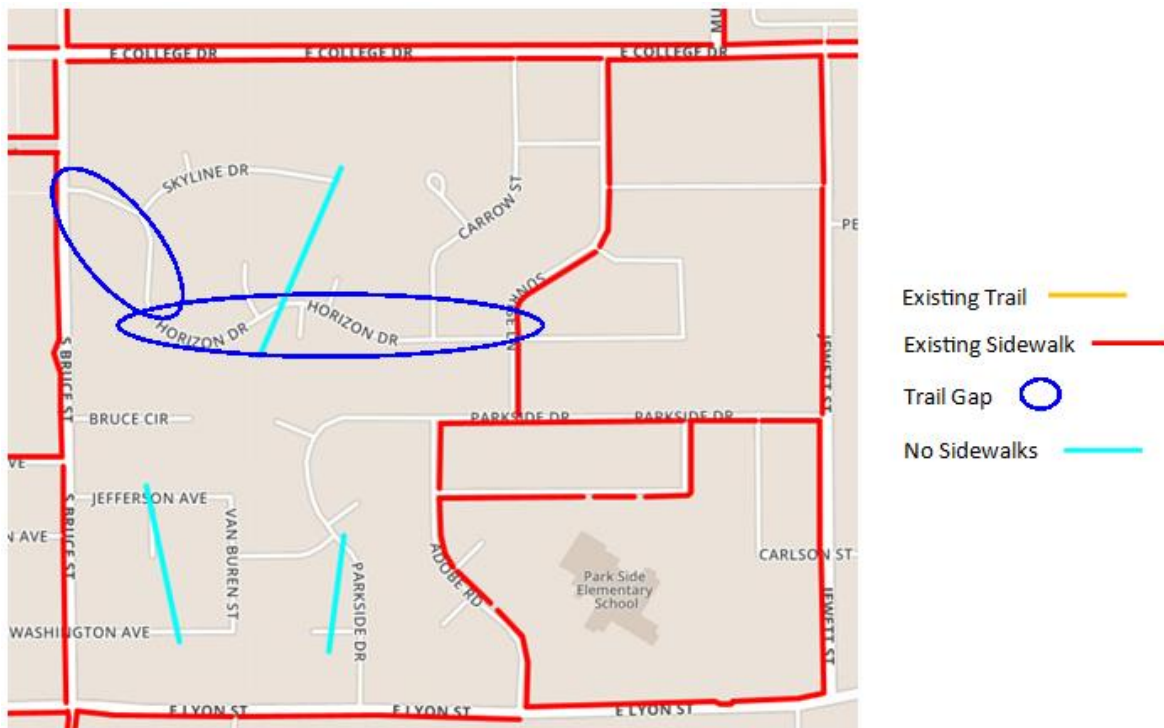
Implementing traffic calming on Horizon Drive would be one measure to help direct through traffic away from Horizon Drive. When considering the current function of the street, Horizon Drive is serving as a Neighborhood Connector. Without traffic calming and other measures to discourage through traffic on Horizon Drive, sidewalks may be needed.

“No sidewalks on Horizon drive, cars drive too fast.” Neighborhood

“We're close to Independence Park which is a great place to walk but when walking in neighborhoods, there aren't sidewalks and cars come around curves on Horizon and Parkside Drive really fast.” Neighborhood

Table #22

Horizon Drive Sidewalk Gap



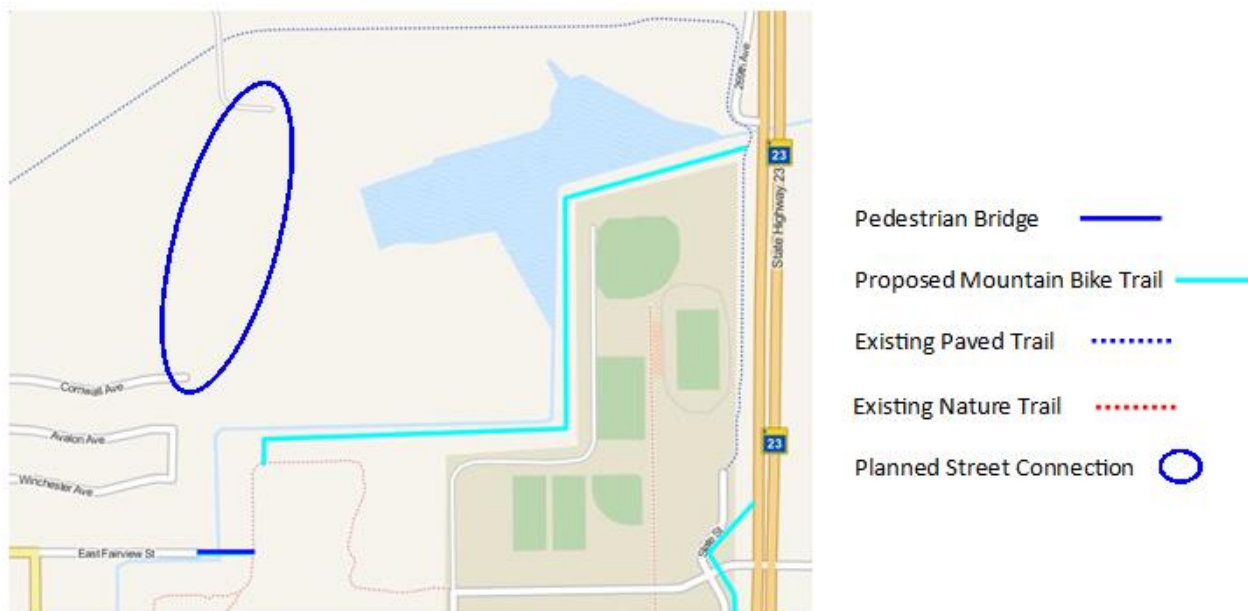
Nature Trail Connection / Mountain Bike Route

There is an established nature trail on the Southwest Minnesota State University campus. This nature trail is used by students and community members. Currently, residents in neighborhoods along East Fairview Street have to take Village Drive to Birch Street and then Mustang Trail to access the nature trail. A connection across the city diversion channel would help to improve access to the nature trail. Improving access will encourage use.

There is public right away along the city diversion channel, so the nature trail could be expanded. A nature trail along the city diversion channel could also provide access to the paved trail that loops around the City. A connection across the city diversion channel along with a recreational trail along the channel would improve the connectivity of the trail network. A city diversion channel nature trail could also be marketed as a mountain bike route within the City of Marshall.

“We're close to Independence park which is a great place to walk but when walking in neighborhoods, there aren't sidewalks and cars come around curves on Horizon and Parkside Drive really fast.”
Neighborhood

Table #23 Nature Trail Connection & Diversion Channel



West College Drive Gap

Fairgrounds Road and access to the Camden Trail was discussed at the community meetings. Fairground Road is currently the main connection to the Camden Trail. There is a planned connection to the Camden Trail south of Channel Parkway along the Redwood River during the summer of 2016. This connection will improve access to the Camden Trail and encourage use.

As part of the discussion regarding the Camden Trail and the planned connection, West College Drive was also discussed. College Drive functions as a Connector Street and the majority of College Drive has sidewalks and or a trail conveniently located nearby. Having pedestrian infrastructure along College

Drive is essential due to traffic volumes and traffic speeds along College Drive. It is not safe to walk on College Drive.

There is a gap in the pedestrian infrastructure along College Drive. The gap is between Legion Field and Channel Parkway. Filling in this gap would provide access to Fairgrounds Road and the existing connection to the Camden Trail, the trail along Channel Parkway, and the planned Camden Trail connection along the Redwood River.

Table #24 **West College Drive Gap**



Cheryl Avenue Sidewalk Gap

Cheryl functions as a Neighborhood Connector, but community meeting participants comment that the traffic is slower because many people do walk and bike on the street. Walking on the street is generally considered safe along Cheryl Street and in the nearby neighborhoods. City staff should continue to monitor Cheryl Avenue and see if off street pedestrian infrastructure is needed.

Sidewalk gaps on Elizabeth Street and streets to the south will be filled in when lots sell. Sidewalks are mandatory in new developments. Sidewalks are added as lots sell and construction is finished. This helps to ensure sidewalks are not broken up during construction when heavy machinery is moving in and out.

Table #25

Cheryl Avenue Sidewalk Gap



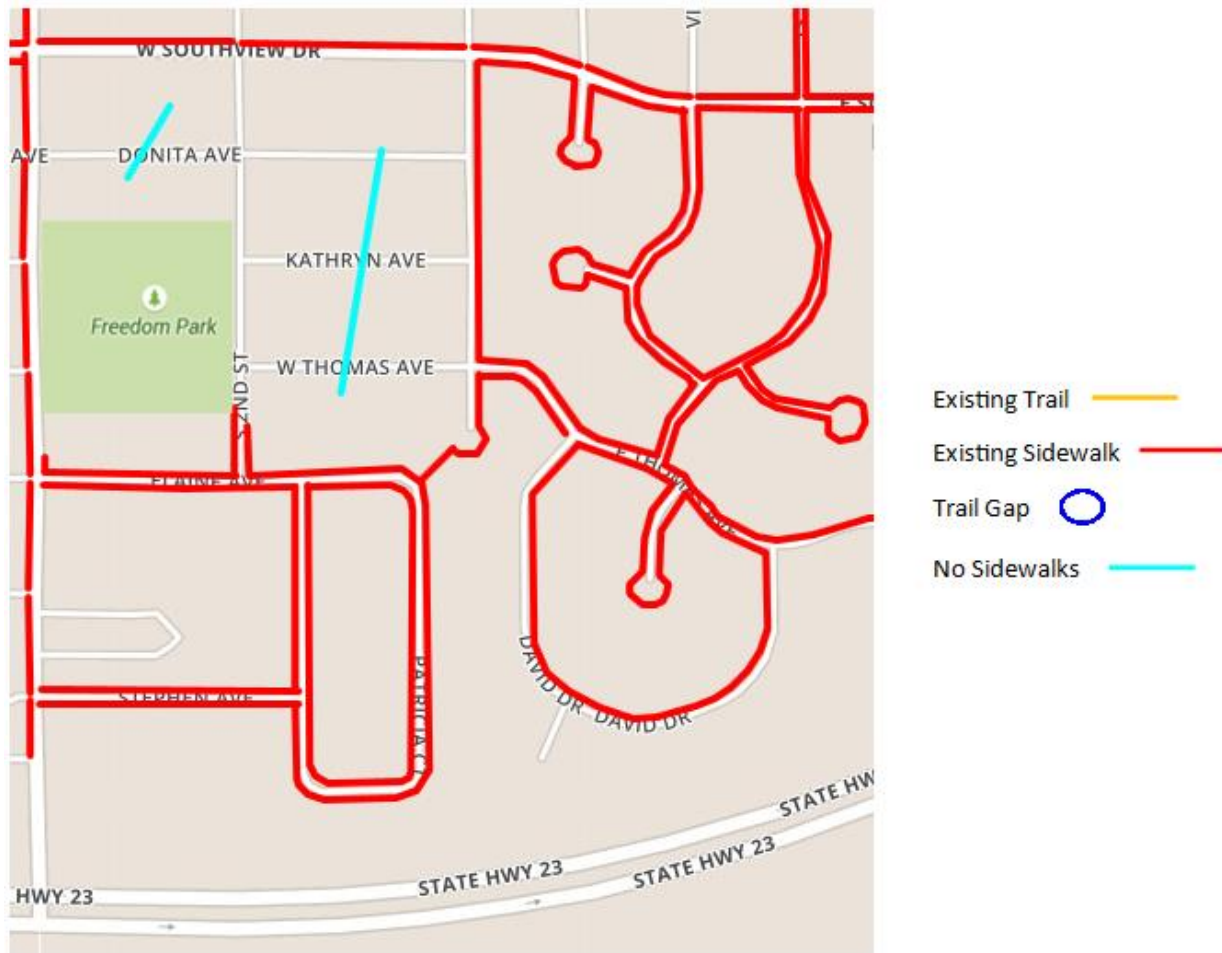
2nd Street Sidewalk Gap & Freedom Park

Community meeting participants commented that South 2nd Street does have higher traffic volumes because of Freedom Park. Freedom Park is a destination for residents who live in nearby neighborhoods. Higher traffic volumes to Freedom Park may be associated with limited pedestrian connectivity to the east.

There is also no paved trail in the Freedom Park. Community meeting participants commented that it would be nice to have a trail in the Freedom Park that connects to the sidewalk on South 4th Street, which connects the sidewalks on West Southview Drive and the trail along County Club Drive. Freedom Park could function as a neighborhood trail head.

Table #26

South 2nd Street Sidewalk Gap – Freedom Park



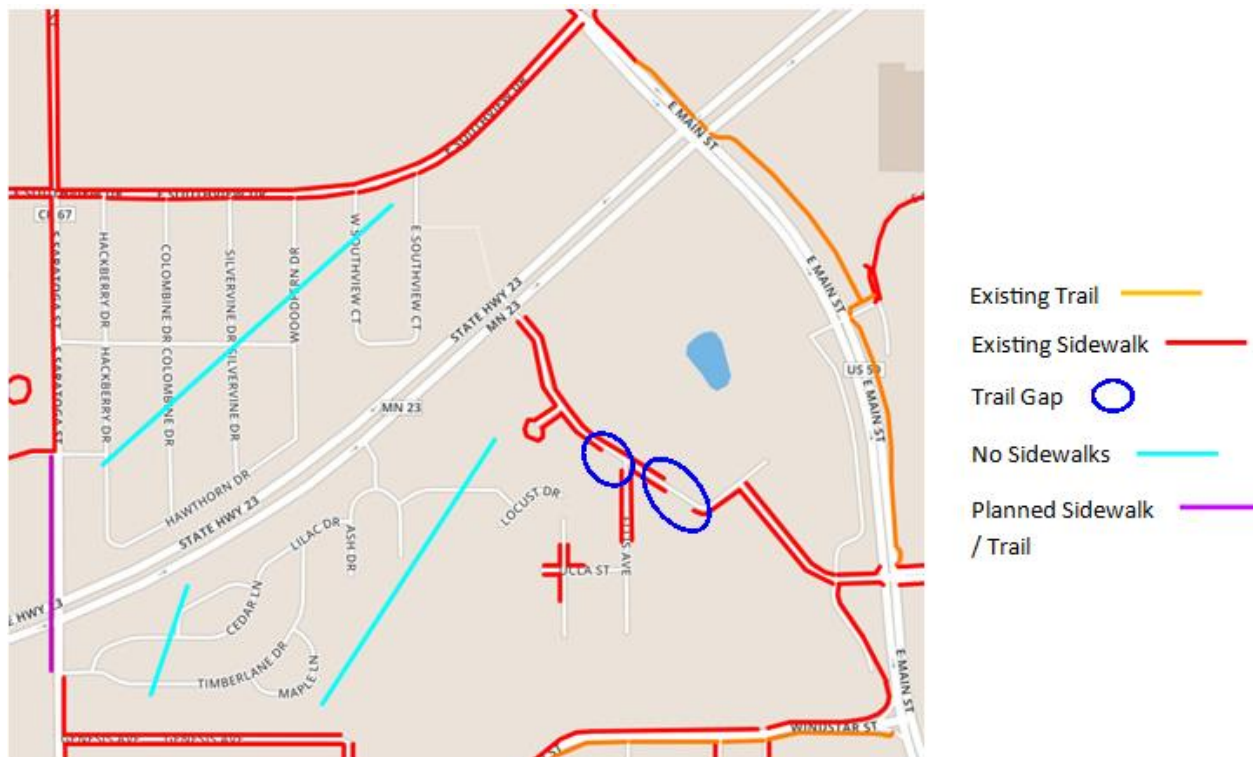
Canoga Park Drive Sidewalk Gap

Most of the area south of Highway 23 in the Canoga Park Drive Sidewalk Gap map below is privately owned. City staff are working with the developer to fill in the sidewalk gaps on Canoga Park Drive. Filling in these gaps would provide connectivity to pedestrian infrastructure leading to Shopko, Walmart, and other businesses along Highway 59.

Sidewalk gaps on Canoga Park Drive will be filled in when lots sell. Sidewalks are mandatory in new developments. Sidewalks are added as lots sell and construction is finished. This helps to ensure sidewalks are not broken up during construction when heavy machinery is moving in and out.

Table #27

Canoga Park Drive Sidewalk Gap



On Street Bike Lanes

The City of Marshall has a well-developed network of on street bike lanes. The on street bike lanes connect a number of key destinations, but through the Neighborhood and the two community a meetings other key destinations were identified. These destinations include Turkey Valley Farms and businesses in the industrial park around Highway 59, West Fairview Street, and North 7th Street.

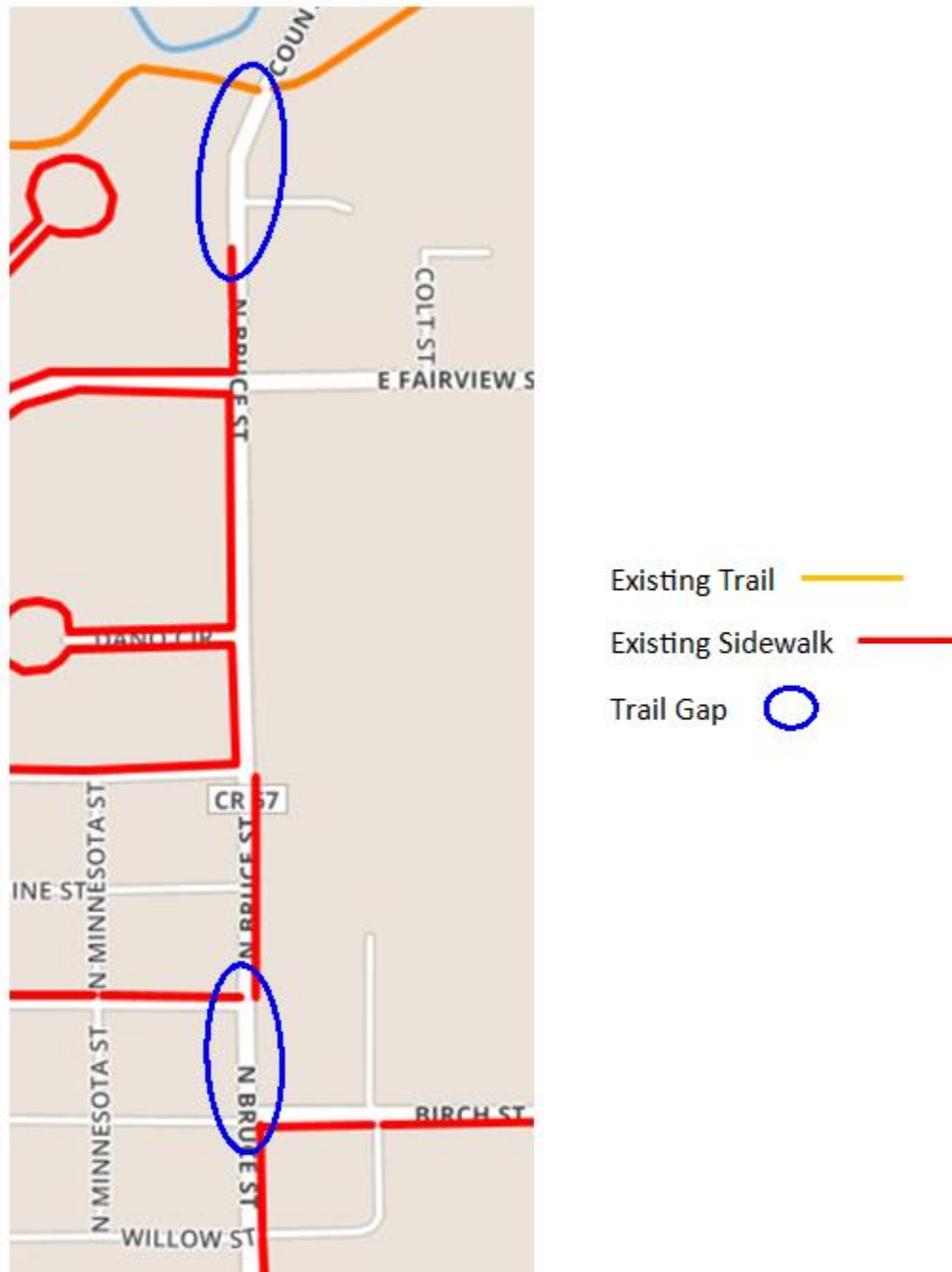
Bruce Street Sidewalk Gap

“There are only partial sidewalks on Bruce Street. I have to walk on the grass, in the street, or cross street when the sidewalk jumps to the other side. Sidewalks should always be on the same side, so you don't have to cross the road to just stay on the side walk.” Neighborhood

“The sidewalk stops in front of Assembly of God church and Great Plains gas on Bruce Street. It is very frustrating, especially with young kids.” Neighborhood

Table #28

Bruce Street Sidewalk Gap



On Street Bike Lanes

A number of streets in the City of Marshall have on street bike lanes. The bike lanes are striped and have bike route signage. Signing, promoting, and maintaining the bike lanes will help to increase visibility and usage. As usage increases, visibility will also increase making the loop safer.

Table #29 A

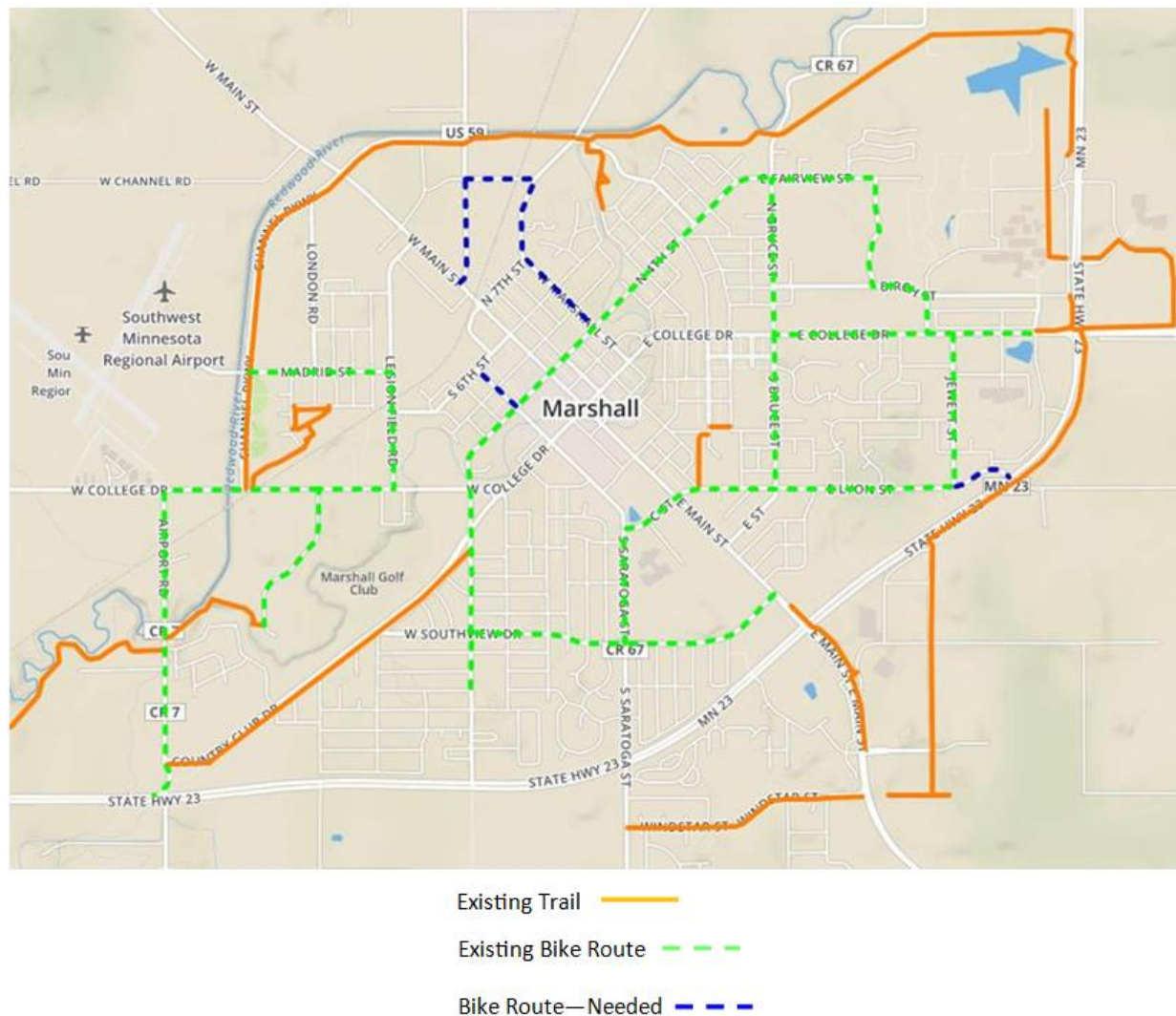
East Southview Drive – On Street Bike Lanes



The existing bike lanes do help to encourage biking in the City of Marshall, but there are several gaps that were identified through the GreenStep HIA Planning Process. Turkey Valley Farms is one of the locations that should be connected to the existing bike lanes. There are currently a number of Turkey Valley Farm employees who bike to work. Turkey Valley Farms is only two blocks north of the existing bike lanes on 4th Street, so a connection on Saratoga could be established.

Table #29B

On Street Bike Lanes & Needed Bike Lanes



Pedestrian Scale Lighting Issues

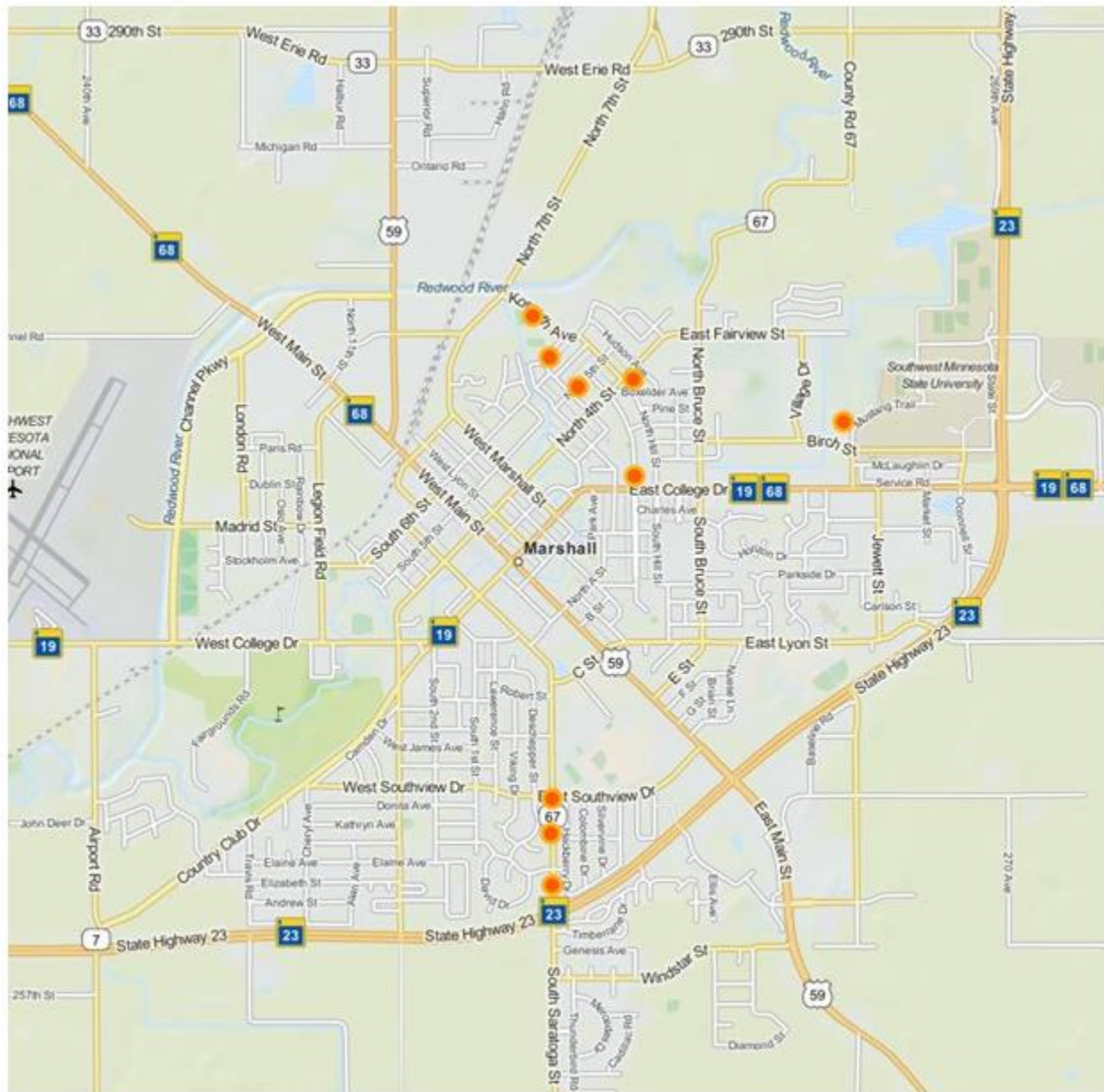
Pedestrian scale lighting helps to encourage walking and biking. With work and school some people may only have time to walk or bike in the morning or in the evening. Evening shifts also result in some people having to walk or bike to and from work when it is dark outside. It is important to have good visibility, so pedestrians can see where they are going and vehicles can see pedestrians. Well lit trails and streets also make pedestrians feel safer from harassment and abduction.

Mustang Trail – Streetlights either out or flickering. Also minimal light in public lot for sporting events. Neighborhood

The three lighting issues along South Saratoga Street are currently being addressed by the City of Marshall.

Table #30

Lighting is an Issue



Pedestrian Lighting Issue



Trail Lighting

- Pedestrian scale lighting issues – there is limited lighting along the trail, which does not encourage walking and biking later in the evening.

Table 31 A

Pedestrian Scale Lighting Examples



Table #31 B

Pedestrian Lighting Examples – Sizing Scale



Bike Parking

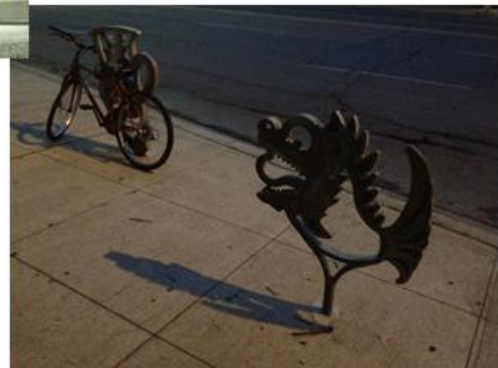
Bike racks make it convenient and safe to ride, store, and lock your bike. Not having bike racks in convenient locations discourages biking and leads potential bikers to not ride their bikes. During the Marshall Active Living Plan Planning process a number of locations were identified that need bike parking. These locations are major destinations in the community. Comments include:

- Middle School –bike racks are overflowing during school – additional bike parking needed.
- Brau Brothers – beer & bikes is common in other communities.
- Walmart and the stores out there need bike parking.
- Main Street – along main business district.



The bike racks could be unique and double as art in the community. Having unique bike racks will increase the community feel and promote biking. Bike rack use may increase, since children may be more likely to use a bike rack shaped like a fish than a plain metal bike rack. The HIA Planning Team did not choose a specific bike rack. Below are a few examples.

Table #32 **Bike Rack – Examples**



Larger bike racks are great for schools, libraries, and other places that see higher volumes of bike traffic. It is also important to think about locations that need bike parking but a larger bike rack is not needed. Main Street may be one of these locations. The picture below shows animal outlines that work well for one or two bikes. You can have a few of these smaller bike racks along Main Street or in other shopping areas.



Stopping for Pedestrians

Drivers in Minnesota are supposed to stop for pedestrians in a crosswalk, but the majority of drivers do not stop for pedestrians. 'Stop for Pedestrian' signs will help to educate drivers on their responsibility to stop for pedestrians. Seeing more of these signs will help to make all crosswalks safer for pedestrians.

These signs help to make drivers aware of their responsibility to stop for pedestrians. The City of Marshall can rotate these signs between high pedestrian traffic intersections. These signs could also be used during community events.

The Minnesota Crosswalk Law

- ▶ Drivers **MUST** stop for crossing pedestrians at marked crosswalks and at all intersections without crosswalks or stop lights.
- ▶ Pedestrians **MUST** obey traffic signs and signals at all intersections that have them.
- ▶ Vehicles stopped for pedestrians can proceed once the pedestrian has completely crossed the lane in front of the stopped vehicle.
- ▶ Pedestrians **MUST NOT** enter a crosswalk if a vehicle is approaching and it is impossible for the driver to stop. There is no defined distance that a pedestrian must abide by before entering the crosswalk; use common sense.
- ▶ When a vehicle is stopped at an intersection to allow pedestrians to cross the roadway, drivers of other vehicles approaching from the rear **MUST NOT** pass the stopped vehicle. Failure to obey the law is a misdemeanor. A second violation within one year is a gross misdemeanor.⁴¹



Food Store Survey Results

Marshall has one supermarket (Hy-Vee), one Walmart superstore, eight convenience stores and three ethnic grocery stores. See city mapping of locations. Each store was visited and survey questions asked at each store. Availability of healthy foods, such as low-fat dairy products, whole grain breads, fresh fruits and fresh vegetables, and cost of healthy foods was noted at each store. Store managers or clerks at convenience stores were asked about shopping habits of their customers, including whether they have regulars who buy groceries at the convenience store, whether customers walk or bike to the store, and whether healthy foods were purchased or requested.

⁴¹ Minnesota Safety Council. Accessed: 4/17/15. Available at:
<http://www.minnesotasafetycouncil.org/facts/factsheet.cfm?qs=BD3BE1A6DFA3335E>

Results of the survey demonstrated that both Hy-Vee and Walmart serve as a place to buy groceries and both have a variety of healthy foods. Prices were similar in each major store. These two stores are within one mile of each other.

The convenience stores were also very similar. They all had low fat milk to purchase and two stores reported that they sell lots of milk. Several convenience stores sold milk equal to or cheaper than the grocery stores. One convenience store had low fat milk cheaper than whole or 2% milk. All had whole wheat bread, but not whole grain bread and bread was more expensive than cheaper breads in Hy-Vee or Walmart. They all had some fresh fruits, including primarily bananas and apples and prices varied from 50 cents each to \$1.00 each, comparable to the grocery stores. Several stores were out of fruit by the afternoon survey time. No convenience stores had fresh vegetables, although one had ready-made salads for sale. Most of the stores had no prices listed on the products making it difficult for those with limited resources to know if they could pay for what they wanted to purchase.

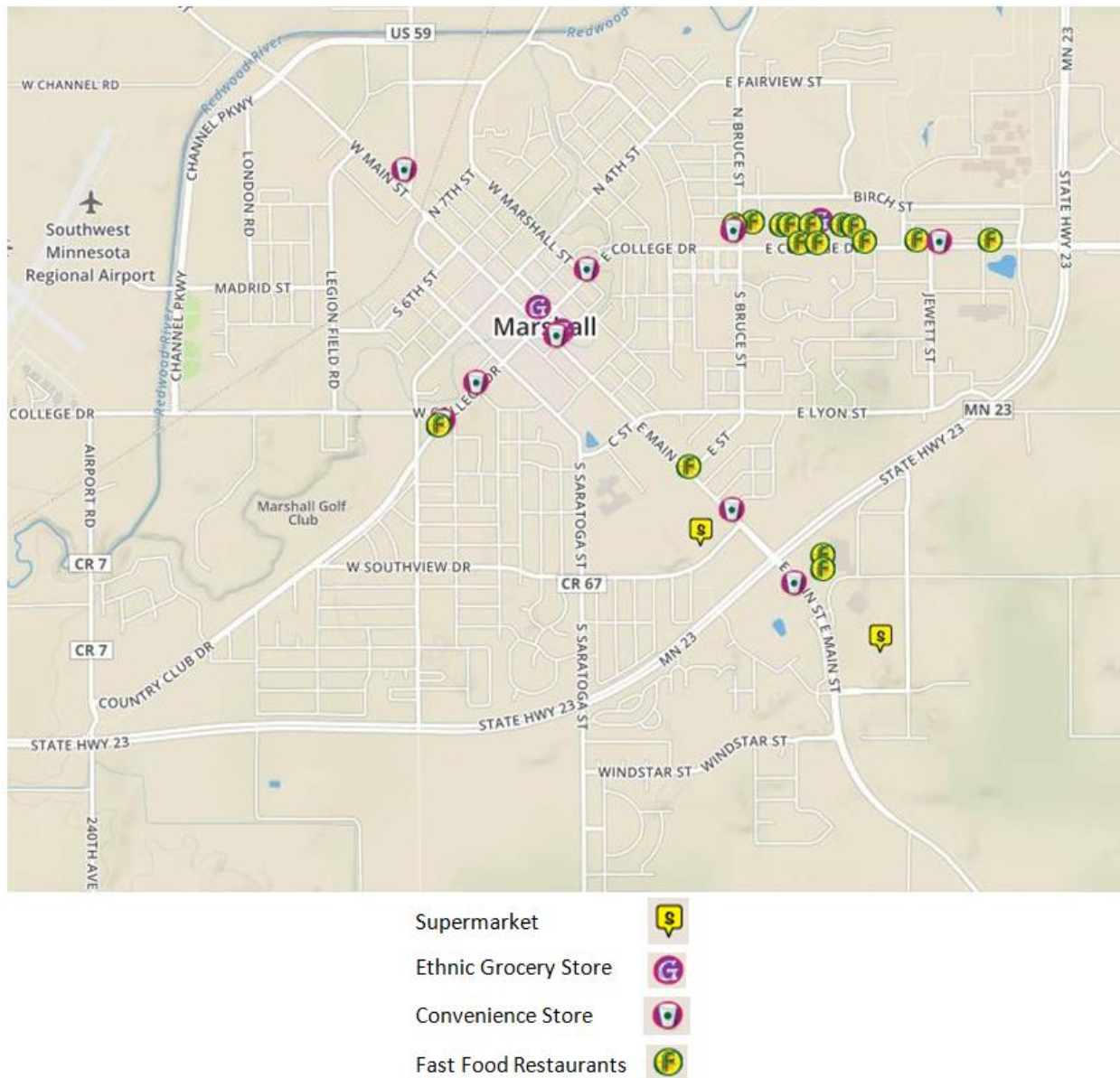
Shopping habits at the convenience stores were also comparable. It was common for regular customers to stop in for groceries, especially bread and milk. Most stores had added products such as eggs and butter for that reason. They did not notice that regular customers from adjacent neighborhoods routinely walked or biked to the store however, they did notice that people that routinely biked instead of drove, would bike to the store also. This does not support the concept that those without transportation would walk or bike to the nearest store for groceries. Boyd from the University of Minnesota also found that in low-income neighborhoods in inner city Minneapolis and St. Paul, residents did not shop in stores closest to their own neighborhoods.⁴²

No information was received at the ethnic grocery stores since no one at those stores were able to speak English. A review of foods sold noted that the foods were not comparable to other stores visited for dairy products or breads. They did have selections of fresh fruits and vegetables, although prices were not listed.

⁴² Boyd, Cynthia, (2014) U of M research indicates low-income families don't limit shopping to "food deserts". Minnpost Community Sketchbook. Available at: <http://www.minnpost.com/community-sketchbook/2014/03/u-m-research-indicates-low-income-families-don-t-limit-shopping-food-de>

Table #33

Food Stores Map



Several strategies can be undertaken to promote access to local healthy foods. For example, designating community gardens on land-use maps and using zoning to protect current and future gardens are options that communities might consider. After comprehensive planning and community policies provide the infrastructure to encourage local food production, efforts need to be devoted to sustaining the work, through education, promotion, and publicizing benefits and successes of local producers or gardens.⁷⁶

Review of GreenStep Cities Best Practices

In order to fully assess the correlation between GreenStep Cities best practices and active living and healthy eating, a full review was done of the GreenStep City implementation tools and guidance strategies; and the literature that supports or does not support each strategy for the nine best practices selected by the City of Marshall HIA planning committee. Key informant interviews were then conducted to compare City of Marshall specific data with the research. The existing condition research questions and health impact questions were answered with the information found.

Comprehensive Plan and Implementation – BP #6

Best Practice - Adopt a Comprehensive Plan and tie regulatory ordinances to it.

Background

Cities plan for land use with three tools. The comprehensive plan helps the city look to the future and guides administration of its zoning ordinances and subdivision ordinances. The city subdivision ordinance regulates the division of land into smaller lots, blocks, and neighborhoods with safe streets, environmental features, and character. Finally, the city zoning ordinance regulates the use and density of city zones for commercial, residential, and industrial purposes.⁴³ All three tools have an impact on developing an environment of active living and access to healthy foods within the City of Marshall. Planning that involves the community's residents ensures that the project represents a vision set by the community.⁴⁴

High quality decision making is essential in transportation planning. Current planning and policy making throughout the nation favors automobile travel. Automobile travel discourages and can even prevent active transportation if the built environment does not provide for walking and biking. The City of Marshall is interested in a more active community and city officials prefer to consider future projects that improve the walkability and bikeability of the city.

City planning tools can have a direct impact on the health of the community if used to build an environment that fosters an active lifestyle. Development and promotion of active living can be accomplished through compact neighborhoods, safe streets, sidewalks, bike paths, natural open spaces, parks, and trails, all of which encourages walking and biking. Active living and physical exercise reduces risk factors of obesity and chronic diseases, teaches children to develop healthy habits early in life, and reduces the stress and anxiety of daily demands on families. Families who are able to feel safe and secure as well as have access to healthy foods and recreational activities in their neighborhoods are able to focus on healthy behaviors for themselves and their children.

Comprehensive plan priorities can also affect access to healthy foods by focusing on increasing grocery stores and reducing fast food restaurants. The current Comprehensive Plan has policies for working with the Economic Development Commission (EDC), Housing and Redevelopment Authority (HRA), the

⁴³ Handbook for Minnesota Cities. League of Minnesota Cities. 2014. Chapter 14: Comprehensive Planning, Land Use and City-Owned Land. Pp 2 – 12. Available at: <http://www.lmc.org/media/document/1/chapter14.pdf?inline=true>

⁴⁴ Burden, Dan, and Todd Litman. "America needs complete streets." ITE Journal 81.4 (2011): 36-43. Available at: <http://www.auoy.grpc.com/Data/Sites/1/jeff/ite-complete-streets-article-april-2011-burden-litman.pdf>

Chamber of Commerce and the Industrial Foundation to encourage quality commercial and industrial businesses, select appropriate sites, and identify and recruit or expanded businesses to the city. Karen VanKeulen, from the Economic Development Commission, has indicated that conversations have revolved around the fact that there are only two supermarkets in Marshall and they are both located in the same part of the city, however they are not actively pursuing a new grocery store for the city.

Literature Review

Being physically active involves more than personal choice. The community should plan, design, and promote open spaces, recreational areas, parks and trails to strongly influence how active people are.⁴⁵ Currently, many city policies still focus on automobile use. Minimal investment is made on pedestrian and cycling facilities, parks are low priority, building codes do not consider physical activity, and school sites are not coordinated with community planning.⁴⁶

Communities can address local food accessibility through their comprehensive plans and ordinances including land-use policies that allow neighborhood retail near residential areas and ordinances that protect and foster community gardens and local agriculture. Often zoning ordinances contribute to the distance residents may have to travel to supermarkets or restaurants, which is even more difficult for those with limited transportation.⁴⁷ After comprehensive planning and community policies provide the infrastructure to encourage local food production, efforts need to be devoted to sustaining the work through education, promotion, and publicizing benefits and successes of local producers or gardens.⁷⁶

Key Informant Interviews

Ben Martig, City Administrator: The Comprehensive Plan has not been updated since 1996. An entire update would be time-consuming and overwhelming but updating the Land Use section would be beneficial to the city as new projects are proposed. At this time projects are being considered without formal community planning. Community involvement in planning is important to allow input from residents from various cultures, ages, races, creeds, sexes and economic status.

Darlyce Rangaard, University of Minnesota Extension: The lack of grocery stores in Marshall should be a concern of Marshall and its residents. The loss of one grocery store had a great impact on accessibility of groceries in the city.

Existing Research Questions

- How has the City of Marshall encouraged and supported a civic atmosphere that values all members of the community of Marshall regardless of culture, age, race, creed, color, sex, or economic status?

⁴⁵ Poon, Leonard W., Wojtek J. Chodzko-Zajko, and Phillip D. Tomporowski, eds. Active living, cognitive functioning, and aging. Vol. 1. Human Kinetics, 2006. Available at: <https://books.google.com/books?hl=en&lr=&id=XoHXEmM-ZiEC&oi=fnd&pg=PA1&dq=Active+living,+cognitive+functioning+and+aging&ots=agG9Qlsqel&sig=6jJ3O1Aocfi1A1iq162g8tFexZU#v=onepage&q=Active%20living%2C%20cognitive%20functioning%20and%20aging&f=false>

⁴⁶ Sallis, James F., and Karen Glanz. "Physical activity and food environments: solutions to the obesity epidemic." *Milbank Quarterly* 87.1 (2009): 123-154. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0009.2009.00550.x/pdf>

⁴⁷ Planning Information Sheet: Promoting Food Access with Comprehensive Planning and Ordinances August 2007 Design for Health, University of MN. GreenStep Cities.

All residents with access to computer and internet have access to city information via website, facebook, and other media sources. In addition, the city officials maintain that they have invited and encouraged new minority residents to address the city. In studies completed by Southwest Health and Human Services, Joining Hands for Healthier Living, the Hispanic community⁴⁸ and Somali communities⁴⁹ were surveyed via convenience survey in 2010. In those studies, 83% of Hispanic respondents and 98% of Somali respondents reported that they were treated with respect in their communities. Fifty three percent of Hispanic respondents and 23% of Somali respondents reported that they experienced discrimination or prejudice. The results demonstrate that most Hispanic and Somali residents are treated with respect, however, more than half still experience discrimination. The studies included respondents from four counties, Lincoln, Lyon, Murray and Pipestone, so interpretation is limited in its generalization to Marshall alone, however, at the time of the survey, Somali residents only lived in Marshall. When asked whether they felt safe to exercise, walk or bike in their community, 82% of the Hispanic respondents reported they agreed or strongly agreed and 99% of the Somali respondents reported that they agreed or strongly agreed.

Marshall has three ethnic grocery stores. Half of Hispanic participants reported that they agreed that they could purchase healthy foods in Marshall and about half stated they needed assistance or resources to purchase healthy foods. Seventy percent of Somali participants strongly agreed that they had access to healthy foods, however, 78% needed assistance or resources to purchase healthy foods.

- *Has the city addressed the issue of active living in future Comp Plan updates? Future updates to the Comprehensive Plan have not been specifically planned. However, city officials acknowledge the need to update at least portions of the plan. When updated, the city would consider an active living section.*

Potential Impact – Research Questions

- *How does updating the Comp Plan with an active living section that addresses land principles that encourage a complete, compact, and connected community affect active living and healthy eating in the City of Marshall? The Comprehensive Plan allows the City of Marshall to promote strategies and projects that encourage active living; including trails, sidewalks, or lanes for walking and biking, parks with and without organized activities, and open spaces with aesthetic amenities. However, it would not affect healthy eating. Marshall has acknowledged that Comprehensive Plan updates are needed. Literature indicates that community planning is important but many factors contribute to active living and healthy eating. Other GreenStep City actions would have more impact on the city's goals.*

⁴⁸ Hispanic Community Assessment Data. Wilder Research. Joining Hands for Healthier Living. 2011.

⁴⁹ Somali Community Assessment Data. Wilder Research. Joining Hands for Healthier Living. 2011.

Efficient City Growth – BP #7

Best Practice - Promote financial and environmental sustainability by enabling and encouraging walkable housing and commercial land use.

Background

Efficient city growth relates to less dependence on vehicle travel and more opportunity for pedestrian travel, walking or biking. Studies show that a majority of future U.S. housing demand lies in smaller homes and lots, townhouses and condominiums in walkable neighborhoods where jobs and activities are close at hand.⁵⁰ The need to drive reduces significantly with compact development that has a mix of land uses, transportation options and pedestrian-friendly designs. Benefits of compact development include financial stability with increased property taxes, stable climate change effects, as well as a more active lifestyle. To achieve this, cities should make transit, pedestrians, and biking an important part of community development. Jane Jacobs, author of *The Death of Life of Great American Cities*, wrote in 1961 “we are overbuilding our cities for cars, making vehicles required” and that is still happening today.⁵¹

Infill projects represent efficient use of vacant lots within the city, so projects don’t require new development and city sprawl. Literature suggests that there are barriers as well as advantages to infill development. In some cases, the infrastructure and legal barriers prevent obtaining the properties, answering public concern, finding developers who are interested, and following city policy and regulations. On the other hand, these properties already have city utilities, allow use of lots in neighborhoods that benefit from area shops, pocket parks, or other conveniences, and provide a useful, economic use of unused property in the city limit. These types of infill projects are becoming very popular.⁵²

Vacant lots in the city can be developed into community gardens, which provide healthy foods for the gardeners and others in the neighborhood. The garden becomes a place for social gathering as well as provides use for a vacant lot that usually becomes a place for litter or vandalism.⁵³ City-owned property, such as school yards, vacant lots, or greenspaces, for community gardens within neighborhoods allow for local access to garden space. Vacant lots or vacated houses can also be used for small neighborhood grocery stores or produce food stands. Access to healthy foods is enhanced when it is less than 1 mile from home and can be reached with walking or biking.

The City of Marshall has 13 properties that could be developed. These properties are tax forfeited lots or are lots the city has acquired through other means. Some of these lots have no structures on them,

⁵⁰ Bedimo-Rung, A. L., Mowen, A. J., & Cohen, D. A. (2005). The significance of parks to physical activity and public health: a conceptual model. *American journal of preventive medicine*, 28(2), 159-168. Available at: [http://www.ajpmonline.org/article/S0749-3797\(04\)00304-6/fulltext](http://www.ajpmonline.org/article/S0749-3797(04)00304-6/fulltext)

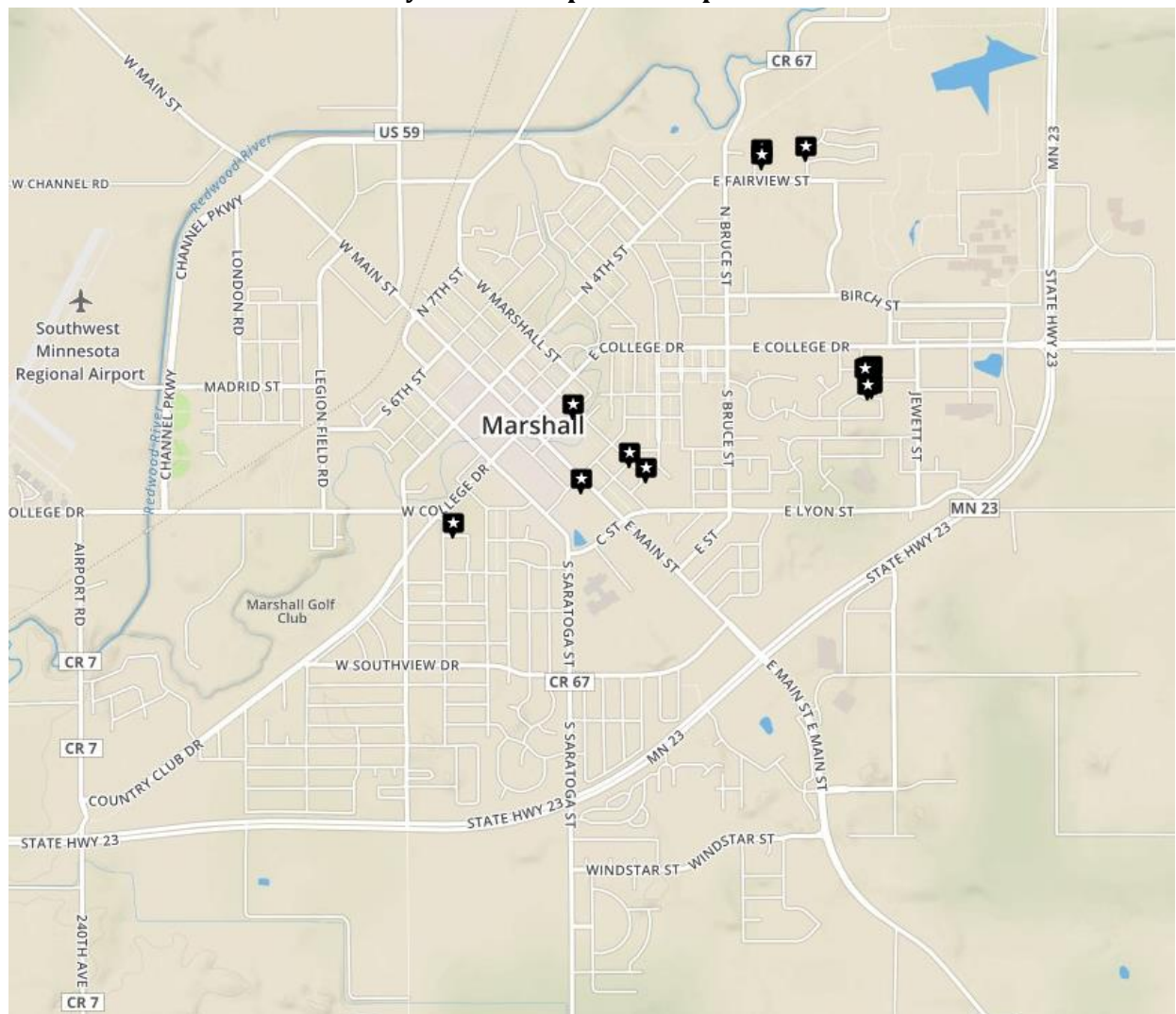
⁵¹ Burden, Dan, and Todd Litman. "America needs complete streets." *ITE Journal* 81.4 (2011): 36-43. Available at: <http://www.auoy.grpc.com/Data/Sites/1/jeff/ite-complete-streets-article-april-2011-burden-litman.pdf>

⁵² Beasley, Ellen. *Design and development: infill housing compatible with historic neighborhoods*. No. 41. National Trust for Historic Preservation, 1988.

⁵³ Gardening matters. *Community Gardens help mitigate food insecurity and malnutrition fact sheet* 5/15/2015 Available at: <http://www.gardeningmatters.org/sites/default/files/cgs-mitigate-hunger.pdf>

while others have houses and or other buildings. A comprehensive housing study is being considered by the City of Marshall to identify total vacancies and availability of lots.

Table #34 City Owned Properties Map



Life-cycle housing provides for children, the next generation; working-age adults, the most financially and civically engaged community members; and retirees, a repository of community wisdom and volunteer energy. Designing neighborhoods for safe, independent living at all stages of life - which includes providing life-cycle housing - is critical for a vibrant city.⁵⁴

⁵⁴ Gordon-Larsen, Penny, Melissa C. Nelson, and Kristen Beam. "Associations among active transportation, physical activity, and weight status in young adults." *Obesity Research* 13.5 (2005): 868-875. Available at: <http://onlinelibrary.wiley.com/doi/10.1038/oby.2005.100/full>

Literature Review

Consumers are interested in compact, mixed use, and pedestrian-oriented areas as an alternative to conventional low-density, automobile-oriented developments. A neighborhood that is smaller in area and has smaller food stores, restaurants, and other businesses can serve more residents.⁵⁵ Developers profit as well, because of cost savings, higher sales, and better marketability. Compact, walkable developments which preserve open spaces and concentrates development on smaller lots are more desired and achieve financial benefit for the city.

In a compact neighborhood, social environment and social cohesion result in the adoption of a more healthful lifestyle, a culture that favors fitness, and parents who watch out for all children. A study was conducted with 650 5th grade students and a caregivers in California, Texas and Alabama as part of phase 1 of Healthy Passages, a multisite, community-based cross-sectional study of children's health. The study showed that neighborhood cohesion influences physical activity.⁵⁶ Thus, the social environment should not be ignored while the physical environment is the sole focus of city projects. For children, less traffic, good sidewalks, and less physical disorder are associated with public safety and more walking and biking.

People who live in communities that are sprawled out are more likely to be obese and suffer from high blood pressure. People in a sprawled neighborhood walk less and get less moderate physical exercise which is necessary to maintain healthy weight. A study compared county sprawl to the health characteristics of more than 200,000 individuals living in 448 counties nationwide. People in sprawling areas are likely to weigh six pounds more than people who live in compact neighborhoods. In addition, the odds of having hypertension are 6% higher when walking for daily routine is not feasible.⁵⁷

Key Informant Interviews

Ben Martig, City Administrator: Marshall has a couple leapfrog communities, one that has been present for many years and one more recently developed. We would rather not have more leapfrog communities. We have worked with townships to expand the orderly annexation boundary to include more adjacent land and to limit urban sprawl.

Chuck Buysse, Chairman, Lake Marshall Township and Mike Buesing, Chairman, Lynd Township: The township(s) has not routinely met with the City of Marshall to discuss potential projects related to active living and access to healthy eating. We have discussed issues of annexation.

Existing Research Questions

- How has the City of Marshall discouraged the concentration of low and moderate cost housing in any one area of the City?

⁵⁵ Planning Information Sheet: Promoting Food Access with Comprehensive Planning and Ordinances. August 2007. Design for Health, University of MN.

⁵⁶ Franzini, Luisa, et al. "Influences of physical and social neighborhood environments on children's physical activity and obesity." American Journal of Public Health 99.2 (2009): 271. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2622771/>

⁵⁷ McCann, Barbara A., and Reid Ewing. "Measuring the health effects of sprawl: A national analysis of physical activity, obesity and chronic disease." (2003). Available at: <http://trid.trb.org/view.aspx?id=661006>

Holistically, concentrations of any one type of housing is resolved through the market and shaped by the city,, with low and moderate cost housing available in neighborhoods. When developments are considered in Marshall, the city pays attention to providing for a variety of housing opportunities.

- Does the City of Marshall have areas of concentrated low and moderate cost housing in any areas of the city?
Marshall does not have a concentration of low income housing, however, the mobile home park and Channel Parkway may be considered primarily low income residents.
- How has the City of Marshall provided for opportunities in cooperative planning with adjacent townships in the area of residential growth?
Marshall has fairly small extraterritorial annexation plans to avoid leapfrogging and to encourage filling existing developments before adding new housing developments. The orderly annexation boundary has been expanded in the past to help keep growth efficient and compact. Compact, efficient growth has occurred throughout the city, but in some cases, the growth was not orderly. For example, the city has allowed development on both sides of the Highway 23 bypass, even though MNDOT discouraged that development.
- How has the City of Marshall supported the orderly growth of residential, commercial, and industrial areas?
The City owns and markets properties in all three categories. Homes would be affordable housing with income restrictions. New industrial park houses and current and future projects are incentivized on job creation and tax base growth.
- How has the City of Marshall maintained and upgraded the City's zoning ordinances, subdivision regulations, and performance standards to promote the efficient use of land and the creation of a strong tax base?
The city has identified potential goals of promoting housing in the downtown area and development of smaller housing developments designed for the 55 plus population. The city has an unwritten practice that if a house uses at least two city utilities, it will be annexed into the city, but that practice has not been put into policy. The city also discourages the use of frontage roads that are an inefficient use of tax dollars since it only benefits one side of the road. Instead, it prefers that roads behind businesses are used for delivery and additional access to reduce traffic congestion.

Potential Impact – Research Questions

- How does providing incentives for infill projects for efficient city growth impact active living and healthy eating?
Use of city owned properties or vacant lots for infill projects promote compact neighborhoods, active lifestyles, and access to healthy foods. Infill projects, encouraging mixed use zoning, in the City of Marshall could include neighborhood grocery stores, community gardens, pocket parks, and other retail businesses that

would provide for services not currently available or available via active transportation.

- How does life-cycle housing at or near job or retail centers impact active living and healthy eating?

Life cycle housing at or near jobs or other common destinations would allow residents to walk or bike instead of driving a car. It encourages active living, allows residents to get their daily quota of exercise daily, and also teaches children to choose active transportation. The City of Marshall recognizes life-cycle housing as an opportunity specially for the senior population.

Mixed Uses – BP #8

Best Practice - Develop efficient and healthy land patterns that generate community wealth.

Background

Land use mix occurs when a variety of residential, workplace and retail uses are found in close proximity to each other. Various types of activities complement each other and allow people the opportunity to combine trips for multiple needs. Reducing the overall number of trips and increasing the density of residential, employment or commercial activity supports an active lifestyle. Fifty-five percent of Americans would prefer to walk more than drive and 52% would rather bike.⁵⁸

Mixed use development requires planning and consideration of what the community and its residents need. The neighborhood should be unique and developed with respect for environmental, physical, social, and economic characteristics. Redevelopment can utilize existing infrastructure and uses resources efficiently. The city should promote a range of housing types that provide for residents of varying incomes, lifestyles, ages, and preferences. Commercial and industrial buildings should entail appropriate employment choices as well as access to goods and services.

A successful mixed use neighborhood is accessible and people are engaged in activities; the space is comfortable and visually appealing; and it is a sociable place where people enjoy getting together. Public space is safe, clean, and has services desired by the residents. The success of the space is how well it is managed and that people use the space throughout the day for a variety of purposes.

Literature Review

Developments of mixed use neighborhoods have multiple benefits for the city as well as the residents of the neighborhood. Factors that increase property values and ultimately, higher property tax revenues for the city include land use mix, street pattern, municipal amenities, proximity to transit stations, and proximity to commercial centers.⁵⁹

⁵⁸ McCann, Barbara A., and Reid Ewing. "Measuring the health effects of sprawl: A national analysis of physical activity, obesity and chronic disease." (2003). Available at: <http://trid.trb.org/view.aspx?id=661006>

⁵⁹ Shoup, Lilly, and Reid Ewing. "The economic benefits of open space, recreation facilities and walkable community design." Active Living Research, San Diego CA (2010). Available at: http://activelivingresearch.org/sites/default/files/Synthesis_Shoup-Ewing_March2010_0.pdf

To develop a more walkable and bikeable environment city leaders need to invest in walking/biking facilities, e.g. traffic calming measures to slow cars down, Safe Routes to School (SRTS) projects so students can walk and bike to school, focus on appropriate public transit stops, and revitalize older neighborhoods. Decision makers can make communities more walkable and bikeable as they plan for transportation and development projects.

Key Informant Interviews

Ben Martig, City Administrator: New housing developments are not going to be pursued until existing developments have been filled. We don't want to encourage new areas for neighborhoods, e.g by the new high school. The city could offer incentives to increase densities in the downtown areas by rehabilitating the upper levels of the downtown buildings. The city also has an under availability of townhomes and developments for the 55 plus population.

Darlyce Rangaard, University of Minnesota Extension: The western side of the town, where the Extension service offers cooking classes, does not have access to healthy nor affordable foods. When you do need supplies, it is not feasible to get them at the closest convenience store, and it takes time to drive across town and shop at the supermarkets.

Convenience Store Clerks and Managers: We do see more people stopping in for grocery needs rather than drive across town to shop at the supermarkets, especially when County Fair grocery store closed and now that there is road construction on East Main Street.

Existing Research Questions

- Do any schools, city buildings, or government facilities facilitate connectivity and promote walking and biking?

Several public buildings are connected with trails or sidewalks but gaps also exist in some cases. The Main Street leads to the city and county buildings and has sidewalks but the volume of traffic is high, including truck traffic. The public library and Middle School see more walking and biking traffic along Saratoga Street and have bike parking but there is a sidewalk gap for those in the central part of the city along 1st, 2nd, and Lawrence Street plus access to those streets for a direct route to the Middle School and library. An underpass and sidewalks were developed near the high school but crossing two major highways during busy traffic times encourage automobile use to the high school and college.

Potential Impact – Research Questions

- How does organizing a planning process for the City's mixed use district impact active living and healthy eating?

Planning for mixed land use with consideration for adding stores and businesses close to residential neighborhoods or locating residences near business districts encourage more walking and biking to reach desired destinations. The City of Marshall could take the opportunity to address mixed land use in planning so that locations of future developments encourage walking and biking. Since Marshall has

completed the necessary actions for GreenStep Cities in this best practice, other opportunities would be more appropriate for the time and resources of the city.

Efficient Highway and Auto Oriented Development – BP # 9

Best Practice - Adopt commercial development and design standards for auto-oriented development corridors and clusters.

Background

Road designs and improvements should be part of all planning and MnDOT should be consulted early and throughout the development process. Several issues need to be addressed as planning is done; including planning for growth, considering where entrances should be located to reduce congestion, or to look at current roadway problems when the opportunity arises. Different roads are appropriate for different purposes, e.g. a highway is intended for higher speed traffic and streets are intended for lower volume, slower traffic usually in residential areas. Businesses or strip malls should be visible from highways but not close to them, while businesses are appropriate for streets. Those businesses can benefit by shared driveways or central entrances to make things easier for customers. In addition, streets should connect neighborhoods.

Active transportation is not appropriate on or near highways because of the danger of high speed, high volume traffic but crossing those highways may be the only way that walkers or bikers can reach desired locations. A city attempting to promote active living, like Marshall, should plan for how those highways can be incorporated into walkways, bikeways, and trails.

Public transit can play a significant role in the ability for people to access healthy foods but also increases volume of pedestrian traffic on main highways in cities. Western Community Action has voiced concerns about being able to offer bus stops on some Marshall streets because of safety issues.

Literature Review

Traffic congestion and physical disorder discourage activity because of danger and fear for public safety.⁶⁰ Roadway improvements that encourage walking and biking can reduce traffic volumes when people do not have to drive to reach destinations a few blocks away.⁶¹ Public transit can also reduce traffic volumes but when bus stops cannot be managed safely or within walking distance from the destination, it serves little value.

The GreenStep city description of highway development points out that typical highway commercial development is appropriately oriented towards automobile traffic, but often lacks visual appeal and reduces highway functionality by creating problem intersections. Highways typically transect the city as with Marshall having State Highways 19, 59, and 23. Visitors get their first impressions of communities

⁶⁰ Franzini, Luisa, et al. "Influences of physical and social neighborhood environments on children's physical activity and obesity." *American Journal of Public Health* 99.2 (2009): 271. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2622771/>

⁶¹ Burden, Dan, and Todd Litman. "America needs complete streets." *ITE Journal* 81.4 (2011): 36-43. Available at: <http://www.auoy.grpc.com/Data/Sites/1/jeff/ite-complete-streets-article-april-2011-burden-litman.pdf>

when they arrive in the city by main highways, so highway commercial development should be made more context-sensitive, attractive, ecological, efficient and even more bikeable/walkable.⁶²

Traffic related crashes are more concentrated in metropolitan areas but highways in suburban areas can be problematic. A study was conducted in King County near Seattle which looked at crash data and analyzed whether the site was a pedestrian congested area. Pedestrian areas were defined as bus stops, retail, supermarkets, schools, fast food restaurants, and housing units. Roadway variables included traffic volumes, roadway width, number of lanes, traffic speed and speed limits. Bus stops were found to be associated with higher traffic crashes. Other roadway and pedestrian variables affected other results but it was predicted that traffic volumes and number of lanes in the roadway also affected the number of crashes.⁶³ This study was conducted in a larger city but it was concentrated in a suburban area which may be comparable to the City of Marshall.

Road design programs are being developed and implemented to address the growing demand for multimodal transportation on significant destinations within metropolitan areas. Although Marshall is not a metropolitan area, the studies and programs developed can be applied to increase safety for non-motorized travel. Since both grocery stores are on or near major highways, public safety is a concern. This research supports the development of these programs and policies, and specifically the need for safety investments in areas where more pedestrians are present.⁶³

Key Informant Interviews

Ben Martig, City Administrator: Marshall has a challenge that the main roads through town are state highways so under the jurisdiction of MnDOT. Regarding street design, the city discourages new developments to have frontage roads. Frontage roads are an inefficient use of transportation infrastructure, since they only serve one side of main roadway. The city would rather have roads constructed behind the larger businesses to decrease traffic congestion and spread out traffic type. Customers can exit via back and front entrance and deliveries can enter through the rear entrance.

MnDOT: Minnesota State Highway 23 was constructed as a bypass around Marshall. The Minnesota Department of Transportation (MnDOT) strongly encouraged restricting development around the bypass. Over the past decade development has occurred around the bypass. The bypass is less of a bypass now with housing developments and business developments around the bypass. The function of Minnesota State Highway 23 is to bypass Marshall, allow for higher traffic speeds, and free flow of traffic. Highway 23 can be barrier to walking and biking.

Existing Research Questions

- How has the City of Marshall designed and located industrial and commercial developments to avoid through truck traffic in residential areas?

Truck routes to industrial parks and commercial areas can go through Main Street or can take the bypass. The main street route is shorter but MNDOT has designed stop

⁶² Minnesota GreenStep Cities. Accessed: 4/14/15. Available at: <http://greenstep.pca.state.mn.us/bestPracticesDetail.cfm?bpid=9>

⁶³ Hess, Paul Mitchell, Anne Vernez Moudon, and Julie M. Matlick. "Pedestrian safety and transit corridors." *Journal of Public Transportation* 7 (2004): 73-93. Available at: <http://scholarcommons.usf.edu/jpt/vol7/iss2/5/>

lights so that it takes longer to go through downtown, to discourage that route. Efforts have not been taken to educate truck drivers. It is uncommon for trucks to use residential neighborhoods to get to industrial or commercial areas.

- How has the City encouraged appropriate truck traffic through town, while maintaining safe pedestrian crossings?

Trucks also take East College Drive and problems have been noted with pedestrians trying to cross East College Drive. Traffic lights have been removed which has exacerbated the problem. There are only two traffic lights on that street to slow truck traffic and allow pedestrian crossing.

- How has the City of Marshall encouraged the interconnectedness of different land uses?
Marshall has developed plans for the trail system that connects parts of the city and encourages walking and biking. All parks are accessible via the trails except for the downtown area. Gaps have been identified for residents to walk or bike to work, some businesses, and the Middle School. On-street biking lanes and sidewalks have added to the connectedness throughout the city. These strategies successfully allow for non-automobile transportation, instead of auto-oriented travel.

Potential Impact – Research Questions

- How will designing goals for pedestrian related projects along a major corridor affect active living and healthy eating?

The City of Marshall has started a pedestrian related project to construct a pedestrian bridge over Highway 23 that will affect active living. Since there have been housing and retail developments on both sides of the Highway 23 bypass, attention has been provided to safe, active transportation near Highway 23, as well as safe speeds on the bypass. The city should also develop further design strategies that address highway and automobile traffic that make it easier and safer to access retail businesses and housing developments.

Conservation Design – BP #10

Best Practice - Adopt development ordinances or processes that protect natural systems

Background

Conservation design involves green infrastructure that conserves the natural ecosystem, e.g. wildlife refuge, working landscapes, parks, greenways or natural areas. Functionally, these areas serve to protect plant or animal habitat; provide for outdoor recreation; protects people from natural hazards like floods, water supply, etc.; and gives the community character.

A natural resource inventory and assessment identifies and prioritizes the natural resources that a community needs to manage through its comprehensive plan and operational strategies. It includes: lakes; rivers; streams; watersheds; floodplains; wetlands; water quality; water supply; forestlands and urban forests; native plant communities; rare, endangered, and threatened species; wildlife and wildlife

habitat; soils, landforms, and geological features; and air quality.⁶⁴ Open areas or natural areas refer to sites where the habitat is unaltered by humans, and native vegetation occurs naturally. It can be used as a wildlife habitat, part of the trail system, or forest land. In city planning, it can be related to land use, housing, parks and recreation, water resources, or transportation.

Marshall does not contain a lot of natural resources and has not developed a natural resources inventory or assessment. The Redwood River passes through Marshall and there is a small lake within the city that is not used for recreational water sports. There are 10 – 15 acres of natural prairie area at Victory Park and more natural areas near Southwest Minnesota State University.

Natural resources can be a desired area for outdoor activities. Adults and children, alike, enjoy natural grasses, wildflowers, wildlife, rivers, lakes, and open spaces. When the environment is aesthetically pleasing and people enjoy getting outdoors, they will get more physical exercise daily and less sedentary activities, like TV watching. They also have better mental health, as physical exercise, open spaces and greenspace reduce anxiety and stress.⁶⁵

Literature Review

Building greenways within a city can be a challenge. For the greenway to achieve its goal of increasing physical exercise, it must be accessible. In addition, the greenway or its access should not negatively affect connectedness with other parts of the city.

A study conducted in Lansing and Battle Creek, MI, demonstrated greenways attracted people doing physical activity when the area was in an area of lower population but had access to higher populations areas and mixed use areas. A park associated with the greenway also increased the use of the space.²³

Key Informant Interviews

Ben Martig, City Administrator: Marshall has many areas and projects related to open areas, greenspace, and native vegetation but many of those areas are not utilized to its fullest potential. Currently native grasses are mowed, funding is available federally or through the Department of Natural Resources (DNR), and several great projects have been successful. Conservation design would be a great opportunity.

Shane Waterman, City Engineer: FEMA and the Corps of Engineers funded the levy project that diverts water around town and controls how much water flows through Marshall. As part of the obligation, a large portion of the area is mowed. The levy system is multipurpose, however, with a bike trail and green space. DNR grants have been used to enhance the trail system. Marshall has enough retention ponds for its current needs and some of them have been incorporated with trails. The natural

⁶⁴ Natural Resource Guidance Checklist - Addressing Natural Resources in a Comprehensive Plan - December 2001
Available at: <http://files.dnr.state.mn.us/assistance/nrplanning/community/nrchecklists/complan.pdf>

⁶⁵ Why Low-Income and Food Insecure People are Vulnerable to Overweight and Obesity. Food Research Action Center 2010. Available at: <http://frac.org/initiatives/hunger-and-obesity/why-are-low-income-and-food-insecure-people-vulnerable-to-obesity/>

ecosystem is used for aesthetic purposes but there are very little natural resources in Marshall, only the Redwood River and a small non-recreational lake.

Doug Goodmund, Assistant Director, Marshall Community Services: Having open space within the city has been a priority for the Marshall Parks and Recreation Department and both active and passive recreation is offered in open green space and open gym space. Open green space plays a larger role than having an organized league for people who do not enjoy organized sports activities.

Existing Research Questions

- How has the City of Marshall strengthened flood control measures for the City by coordinating with area and regional efforts and by securing funding for flood mitigation measures?
Marshall has addressed areas that flood during spring thaws or summer rains and some of the flood plain areas can be promoted as public green space. Currently, a good portion of the flood plain is mowed. If left to natural grasses, this mowed area could be transformed into a natural aesthetic appealing natural area and enjoyed by residents who hike through those areas. The DNR may have funding available.
- How has the City of Marshall promoted protection of wetland areas and establishment of storm water retention areas in urban development?
New regulations are coming regarding storm water retention areas. Natural trails can be developed near ponds in the city and could be marketed as greenspace, or open spaces. There are few wetlands within the city and it would not be feasible to develop those areas.
- How has the City of Marshall continued to implement and administer programs to preserve, maintain, and further enhance natural ecological systems, including: lakes, ponds, aquifers, drainage areas, and wetlands with Federal and State assistance when available?
Projects implemented include: – Marshall dike system through the Army Core of Engineers, tree planting, prairie grass planting at the Wayside Park (now called Victory Park) through a Federal grant, a storm water retention pond with a dog park by the Middle School which was a joint project between Middle School, City and MPCA.
- How has the City of Marshall promoted a natural resources master plan to inventory and preserve areas?
No, Marshall does not have a formulated plan or an inventory. Since the Redwood River is essentially the only natural resources within the city, a plan has not been needed.
- How has the City incorporated retention ponds and recreational paths and public amenities?
Storm retention ponds can be developed and some examples include the large pond in Independence Park, the new pond at the intersection of Highways 23 and 19 called the Minnesota Lake and the dog park area. There are walking and biking trails around them. A potential area that could be developed is the retention pond north of SMSU, if it was needed and if there was funding to develop it.

- How has the City promoted natural ecosystems that also enhance the aesthetic characteristics of the community?

The natural prairie area at the Wayside Park, now called Victory Park, is about 10-15 acres near the river and is not mowed. The area is planted with natural grasses and wild flowers. A potential area to develop as a natural ecosystem is north of SMSU. Currently, the space is not mowed except for small areas. There are no trails through the city owned portion of the space and no roads lead to it. There is a bike trail that goes near it, but the space is off limits to the public. SMSU does have a dirt trail that runs through their portions of the space.

Potential Impact – Research Questions

- How will establishing a natural resources inventory or assessment or an urban growth boundary affect active living?

Since Marshall only has one natural resource, an inventory or assessment would not make an effective impact on active living. Instead, addressing BP# 17, Innovative Stormwater Management, may provide opportunities for Marshall to develop water retention gardens that would improve landscaping, streetscapes, or bump out areas to control storm water while providing aesthetically pleasing and safe environments for residents to enjoy.

Living Streets – BP #11 (Complete Green Streets)

Best Practice - Adopt a Comprehensive Plan and tie regulatory ordinances to it.

Background

Different categories and uses of streets require different pedestrian amenities. A Complete Street does not have a singular definition. A Complete Street is any street you feel safe walking or biking on. A Complete Street does not have to have a sidewalk on both sides of the street, but you have to consider all users when deciding if is safe for pedestrians. Different users require different levels of pedestrian amenities, so the function of the street needs to be considered along with different users. For example, younger children may need a sidewalk to separate them from vehicle traffic. Younger children may be learning how to ride a bike, so it is not safe for them to share the road with vehicle traffic.

Currently, less than 10% of all trips in the U.S. are made via non-motorized vehicles.⁶⁶ When the environment supports automobiles, it is not safe for children to walk to school or to cross streets. Complete streets are needed to enable children to walk to school, which encourages children to be more physically active. Complete streets will work for new developments as well as existing roadways to improve vehicle capacity, pedestrian and biking options and public transit.

Safe Routes To School programs encourage children to walk or bike to school which offers daily moderate-vigorous activity as well as less sedentary transportation options. Western Community Action has stated that there are more youth using public transit, which is a better option than car travel but a

⁶⁶ Sallis, James F., and Karen Glanz. "Physical activity and food environments: solutions to the obesity epidemic." *Milbank Quarterly* 87.1 (2009): 123-154. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0009.2009.00550.x/pdf>

less healthy option than active transportation to school. Walking and biking to school also provides social interaction with other children who are from the same neighborhoods, thus increasing neighborhood cohesion for the children and their families.

Literature Review

Automobile domination which has occurred from 1920 to 2000 results in traffic and parking congestion, energy consumption and pollution emissions, rate and severity of accidents, and inadequate mobility for non-drivers.⁶⁷ People should be able to choose the best mode for the trip intended e.g. walking and biking for short trips, public transit for congested roads and for non-drivers, and automobiles for destinations with limited access or for carrying loads. Using a variety of travel modes should benefit both drivers and non-drivers. In the past 20 years in the U.S there have been 43,000 fatal accidents, 2.5 million people injured, over 50% of those killed were pedestrians, and over 40% of pedestrians killed had no sidewalks to use. Motor vehicle accidents are the leading cause of death for teens.⁶⁷ In Marshall, over a ten year period from 2005 to 2014, there were 1,735 accidents with 40, about 2%, of the accidents involved pedestrians or bikers. There were 4 fatal accidents in that time period, none involving pedestrians or bikers.⁶⁸

When a community is livable, parents allow their children to walk to school, the elderly and disabled are able to regain their independence, and visitors have access to transportation, shopping, and recreational activities.⁶⁷ Environmental and social quality ensures safety, well-being, social equality, economic opportunity and cultural and environmental resources. The community benefits as does retail, tourism, and social capital.

There is no support in the literature that active commuting to school reduces body mass index (BMI), however, studies do show that decreasing TV viewing and other sedentary activities does result in a lower BMI.⁶⁹ Commuting to school can lead to higher total physical activity, so the importance of active commuting to school should not be underestimated.

Tom Litman, the founder of Victoria Transport Policy Institute, once stated, "The ultimate goal of transportation is access to goods and services".⁷⁰ People can choose from the various modes of transportation to fit the purpose of the trip; automobiles, biking, or public transit. Automobiles or public transit is needed if the trip is not safe to walk or bike, or to carry larger loads. Walking and biking can be the mode of choice when the streets are safe and the loads are smaller and lighter to carry home.

⁶⁷ Burden, Dan, and Todd Litman. "America needs complete streets." ITE Journal 81.4 (2011): 36-43. Available at: <http://www.auoy.grpc.com/Data/Sites/1/jeff/ite-complete-streets-article-april-2011-burden-litman.pdf>

⁶⁸ City of Marshall, Crash data

⁶⁹ Rosenberg, Dori E., et al. "Active transportation to school over 2 years in relation to weight status and physical activity." Obesity 14.10 (2006): 1771-1776. Available at: <http://onlinelibrary.wiley.com/doi/10.1038/oby.2006.204/full>

⁷⁰ Burden, Dan, and Todd Litman. "America needs complete streets." ITE Journal 81.4 (2011): 36-43. Available at: <http://www.auoy.grpc.com/Data/Sites/1/jeff/ite-complete-streets-article-april-2011-burden-litman.pdf>

About 1/3 of the U.S. population do not have access to transportation and cannot easily access basic needs such as healthy foods, medical care, jobs and education. In addition, transportation accounts for the second largest household expense, more than clothing, food or healthcare.⁷⁰ The *Food Access Research Atlas* published by the USDA categorizes Marshall as a food desert with low vehicle access because 16.2% of households in the city do not have access to vehicles and live more than one-half mile from a supermarket.⁷¹

Key Informant Interviews

Ben Martig, City Administrator: The city has addressed sidewalks and trails in many areas and will address gaps in several others. We are interested in what the residents report in this assessment about other gaps. Promotion and education may be an opportunity for Marshall at this time.

Existing Research Questions

- How has the City of Marshall designed traffic circulation to maintain the residential character of neighborhoods?

The City of Marshall evaluates traffic patterns and determines the function of the road. Vehicle traffic is encouraged to use higher classification streets, which helps to limit vehicle traffic on residential streets. Drivers are encouraged to use certain streets by allowing higher traffic speeds and the convenience of the route. Drivers are discouraged to use residential streets by traffic calming, requiring frequent stops, and not making the route as convenient.

*Streets in Marshall are classified using the Minnesota Department of Transportation Functional Classification System. "Functional classification is the grouping of streets and highways into classes or systems according to the character of service they are intended to provide. Basic to this process is the recognition that most travel involves movement through a network of roads. Functional classification defines the role that any particular road or street plays in serving the flow of trips through an entire network."*⁷²

- How has the City of Marshall provided an adequate and safe pedestrian, bicycle, truck, rail, and air transportation system that is designed to support the overall physical, social, and economic goals and objectives of the community?

To evaluate the walkability of Marshall, Walkscore.com was used to measure the walkability of different neighborhoods. Walk Score is a rating system based on a number between 0 and 100. This rating system allowed for a comparison of different neighborhoods in Marshall. Below is a summary of how the Walk Score is calculated.

⁷¹ State Level Prevalence of Food Insecurity. Accessed 5/10/2015. USDA Economic Research Center. 2013. Available at: <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx>

⁷² Minnesota Department of Transportation. What is Functional Classification. Accessed: 7/14/15. Available: http://www.dot.state.mn.us/roadway/data/functional_class.html

“For each address, Walk Score analyzes hundreds of walking routes to nearby amenities. Points are awarded based on the distance to amenities in each category. Amenities within a 5 minute walk (.25 miles) are given maximum points. A decay function is used to give points to more distant amenities, with no points given after a 30 minute walk. Walk Score also measures pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density. Data sources include Google, Education.com, Open Street Map, the U.S. Census, Localeze, and places added by the Walk Score user community.”⁷³

Table #35 **Walk Score – Ranking Description**

Walk Score®	Description
90–100	Walker's Paradise Daily errands do not require a car.
70–89	Very Walkable Most errands can be accomplished on foot.
50–69	Somewhat Walkable Some errands can be accomplished on foot.
25–49	Car-Dependent Most errands require a car.
0–24	Car-Dependent Almost all errands require a car.

- How has the City of Marshall continued to expand the area bikeways and walkways so they can serve both the transportation and recreation needs of the community?
Marshall has bikeways and walkways but promotion is an opportunity. Turkey Valley Farms encourages employees to bike to work and has bike parking available. Bike parking is a priority but could be offered in more sites. Other employers or destinations, e.g. downtown bars, could encourage more biking. Currently, there are almost 25 miles in bike trails with another mile planned for future trails.

Potential Impact – Research Questions

- How will developing a complete streets policy, eliminating street gaps or street-trail gaps, or implementing traffic calming measures affect active living and healthy eating?
Refer to sidewalk maps and maps with sidewalk gaps that have been identified at community meetings and Neighborhood Assessment Surveys in Marshall. (Tables 16A – 16E; Tables #17 - #29) Residents have expressed concern in several areas in the city that can be addressed in this best practice. In some areas, such as the Hwy 59 N. gap, residents are walking and biking but not safely. Other areas, such as the Central

⁷³ Walk Score. Methodology. Accessed: 7/14/15. Available: <https://www.walkscore.com/methodology.shtml>

Connection – Middle School gap, need to be addressed for students to have a safe route to school. Living streets, limited street gaps and traffic calming measures allow children and adults to safely commute to school, work, retail stores, and other destinations by walking or biking as part of their daily routine. They are able to engage in a significant portion of their daily requirement of physical exercise just by going to school or work.

Mobility Options – BP #12

Best Practice - Promote active transportation and alternatives to single-occupancy car travel.

Background

According to ADA requirements, one of every six accessible parking spaces, or fraction thereof, must be “van-accessible”; for example: a parking lot with 400 total spaces needs eight accessible spaces, and two of those eight spaces must be van-accessible.⁷⁴

Public transit also provides an opportunity for handicapped residents and as an alternative to automobile travel. Automobile travel is also reduced when residents walk or bike or use public transit. Western Community Action in Marshall provides public transit and has noted an increase of 4% in 2014, primarily in the pre-school and youth population. In Marshall, access to supermarkets can be accomplished via hourly public transit stops but safe routes to bike or walk can be limited due to traffic volumes near Hy-Vee and Walmart. The community gardens are only accessible by vehicle at the present locations.

The Institute of Medicine has stated that improving the walkability of neighborhoods and increasing access to recreational facilities are essential strategies for preventing childhood obesity.⁷⁵ Walking and biking reduces single occupancy automobile travel as does using public transit. Both options increase physical exercise because most individuals need to walk to public transit bus stops.

Literature Review

Transportation policies and planning can make sure that roadways are safe and comfortable and can accommodate all modes of transportation, including motorists, pedestrians and bikers, children, disabled, elderly, and public transit users. Transportation planning can improve quality of life in the community, increase transportation and housing choices, lower costs and support the economy. If biking is increased in the United States, from 1% to 1.5%, 46.2 million gallons of fuel is saved each year.⁷⁶

The National Longitudinal Study of Adolescent Health is a longitudinal, nationally representative, school-based study of U.S. adolescents in grades 7 to 12. The study population consisted of >20, 000 adolescents, starting in 1994 and continued through 2001, young adulthood. Results showed that 90.4% of enrollees drove or rode in a car to work and 74.7% drove or rode to school; 8.1% used active

⁷⁴ Information, Guidance, and Tools on the Americans with Disabilities Act. ADA National Network. Available at: <https://adata.org/factsheet/parking>

⁷⁵ Shoup, Lilly, and Reid Ewing. "The economic benefits of open space, recreation facilities and walkable community design." Active Living Research, San Diego CA (2010). Available at: http://activelivingresearch.org/sites/default/files/Synthesis_Shoup-Ewing_March2010_0.pdf

⁷⁶ Burden, Dan, and Todd Litman. "America needs complete streets." ITE Journal 81.4 (2011): 36-43. Available at: <http://www.auoy.grpc.com/Data/Sites/1/jeff/ite-complete-streets-article-april-2011-burden-litman.pdf>

transportation to work and 26.7% to school; and finally less than 10% used public transportation. Of those that were not overweight, 9.2% used active transportation to work and 29.7% to school. In addition, seventy-five percent of all trips less than one mile is made by automobile.⁷⁷

Key Informant Interviews

Doug Goodmund, Assistant Director Marshall Community Services: The Marshall Parks and Recreation Department recognizes the need for both active and passive recreation so all residents can participate, which includes open green space and open gym space.

Cathleen Amick, Western Community Action: Designated passenger stops are based on frequent passenger usage. As those stops are identified, locations are reviewed for accessibility. Signs and striping are put in place for residents to recognize the stop locations. Passenger shelters have been located at three of the stops along the routes so far. Three more passenger shelters are in the planning stage at the locations of 4th Street/Lyon Street, South 4th Street at City Side Apartments, and Birch Street and Sunrise Court Apartments. A grant application submitted to MnDOT has been approved to improve or create accessibility, sidewalks, and lighting before the shelters can be put into place. This project will be done by the end of 2019. Currently we have three passenger stops along our designated routes that have no markings. We will need to look at future improvements or changing the locations to make them visible and more accessible to residents. Those locations are along Susan Drive, North 4th Street, and Dogwood Avenue.

Another area of concern is servicing the residents on Pearl Avenue, Marshall Pool, Legion Field, All Aboard and the businesses along the West College Drive and Country Club Drive corridor. We had a location at County Fair but it closed so we had to find another location. Currently the stop is at Ampride but we are not sure if that is the ideal location to service that area. The bus stop is not well marked and accessible.

With our dial-a-ride service, parking lots where the buses have to drive among parked cars or make sharp turns can cause safety problems. Several examples are Hy-Vee, Wal-Mart, ACMC Clinic, Library and businesses along College Drive such as the Marshall Liquor Store and Western Mental Health. If there was accessible and safer street access to picking up passengers it would be less likely that our buses would be involved in accidents with other vehicles.

Existing Research Questions

- How has the City of Marshall continued efforts in achieving accessibility for the handicapped in public areas?

All city parks within the City of Marshall are ADA accessible. Marshall is well known for their support of and accessibility for handicapped students at the University.

⁷⁷ Gordon-Larsen, Penny, Melissa C. Nelson, and Kristen Beam. "Associations among active transportation, physical activity, and weight status in young adults." *Obesity Research* 13.5 (2005): 868-875. Available at: <http://onlinelibrary.wiley.com/doi/10.1038/oby.2005.100/full>

ADA access is part of any new road projects and new sidewalks, intersections, and trails within the city follow ADA compliance.

- How has the City of Marshall supported adequate parking lot circulation patterns which include parking for the handicapped?
When a project is undertaken, Marshall complies with ADA compliance. Parking lot circulation patterns are reviewed periodically and assistance is offered to businesses to improve parking patterns.
- Does public transit annually evaluate bus stops?
Western Community Action annually reviews the passenger counts for each designated route and the locations on a statistical basis.
- How has interconnectedness and access impacted walk and bike-ability?
Marshall has developed plans for the trail system that connects parts of the city and encourages walking and biking. All parks are accessible via the trails except for the downtown area. On-street biking lanes and sidewalks have added to the connectedness throughout the city. There are identified gaps in connectedness with trails or sidewalks to be addressed.

Potential Impact – Research Questions

- How does becoming a walk friendly and bike friendly community impact active living and healthy eating?
Active living is dependent on being able to safely walk or bike through the city for daily activities. Marshall has put infrastructure in place for those who walk or bike and is willing to address any gaps that still exist. Promotion of trails and bike lanes with education can make walking and biking safer and more enjoyable and can be addressed with the Living Streets best practice. When more areas are safely accessible via walking or biking, the city promotes a more active lifestyle. Public transit is offered throughout town and stops at all major building or businesses and also allows for call in rides to specific destinations. Working closely with public transit and ensuring safe bus stops can also increase activity when people walk to bus stops. Public transit also reduces automobile volume that in turn potentially increases safety for walkers and bikers.

Parks & Trails – BP #18

Best Practice - Support active lifestyles and property values by enhancing the city's green infrastructure.

Background

Parks and trails can have an impact on active living. Parks provide safe spaces for children to play and adults to engage in physical activities. People who do not use parks report that the reasons are lack of time, money, personal health, information, transportation and access, safety concerns, maintenance, and lack of leisure companions. When a city has well-maintained and accessible sidewalks and trails, the

community can interact with neighbors, which increases community cohesion and improves safety and security.⁷⁸

Trails are a safe option for walkers and bikers and if well-maintained, provide a means for physical activity. In Minnesota, trails are not as well utilized in the winter months, however, Marshall does snow removal during the winter for anyone who is willing to bike during cold weather.

Literature Review

Parks can be a source of leisure time activity and are available at no or little cost. Park-based leisure time supply psychological, social, economic and environmental benefits. For example, it can improve mood, reduce stress, and enhance self-worth. Neighborhood factors include enjoying scenery, see others exercise, and access to and satisfaction with recreational activities. Studies even show that those who do not use parks value having parks in the neighborhood.⁷⁹

Pocket parks, also called mini parks or vest-pocket parks, can be a nice destination in the community that may encourage people to walk.⁸⁰ The design of the park is often unique to the neighborhoods and will dictate its use. Pocket parks take vacant lots and undesirable parcels of land and often do not have many services, programs, or staff. They are small, usually less than one acre, cost-effective, and are usually ¼ to ½ mile away from housing. Walking to and from pocket parks can serve as part of the required physical activity adults and children need daily. A study conducted in Los Angeles, CA, comparing two pocket parks with two other parks showed that pocket parks attract more people, are a catalyst to physical activity, and serve as a site for social gatherings in the neighborhood. Los Angeles, CA, is very different than Marshall, MN, which means the numbers served may not be similar but the concepts may be generalizable.⁸⁰ Parks require visibility and accessibility to be successful, and to maximize its value.⁸¹ Parks do need to be promoted; just building one does not automatically make people more active. In addition, each city and each neighborhood will be different.

A small park close to residential areas has a larger impact on more houses than a large park miles away. Studies show that the value of homes near well maintained and attractive parks is higher than homes that are not by parks, but parks that are unsafe, unused, and unnecessary reduce home values. In addition, parks and open spaces benefit the city through cost savings and revenue because of low

⁷⁸ Burden, Dan, and Todd Litman. "America needs complete streets." ITE Journal 81.4 (2011): 36-43. Available at: <http://www.auoy.grpc.com/Data/Sites/1/jeff/ite-complete-streets-article-april-2011-burden-litman.pdf>

⁷⁹ Bedimo-Rung, Ariane L., Andrew J. Mowen, and Deborah A. Cohen. "The significance of parks to physical activity and public health: a conceptual model." American journal of preventive medicine 28.2 (2005): 159-168. Available at: <http://www.sciencedirect.com/science/article/pii/S0749379704003046>

⁸⁰ Cohen, Deborah A., et al. "The potential for pocket parks to increase physical activity." American journal of health promotion 28.sp3 (2014): S19-S26. Available at: <http://www.ajhpcontents.org/doi/abs/10.4278/ajhp.130430-QUAN-213>

⁸¹ Shoup, Lilly, and Reid Ewing. "The economic benefits of open space, recreation facilities and walkable community design." Active Living Research, San Diego CA (2010). Available at: http://activelivingresearch.org/sites/default/files/Synthesis_Shoup-Ewing_March2010_0.pdf

infrastructure costs.⁸² Parks facilitate community cohesion, community pride and social capital (the relationship among people that facilitate productive capital). Green spaces help the elderly with social assimilation. An environment with more trees and vegetation seems to inhibit crime, aggression and violence.⁸³

Low income neighborhoods typically have fewer parks, trails, recreational areas, and open areas, lack of which is a risk factor for obesity. They also often have fewer natural resources, more trash and disrepair, and more noise, so it is not enjoyable or sometimes safe to play outside.⁸⁴ Parks need to be maintained and promoted in all neighborhoods.

Parks vary in the amenities and activities provided. If parks are safe, close to home, promoted, and offer activities, people use it more. There are no studies that define how park space should be used, it depends on the users, but studies do show that 80% of users come from the surrounding three blocks.⁸³ Some parks have sports fields, pools, paths, or playgrounds. The aesthetic appeal, size and impressions are important to many, because parks that are poorly maintained encourage disruptive behavior. Trails are also important for physical activity. A study conducted in a rural community in southeastern United States focused on supports or barriers to physical activity. A telephone interview was conducted in over 500 households and data was self-reported. Supports and barriers were listed to be neighborhood focused rather than community focused and included parks, recreational facilities, sidewalks or trails, pools, and others. Also important was listed to be appropriate lighting, a safe neighborhood, and proximal access to facilities. A limitation of this study is a fact that southeastern American communities have more months of the year that are appropriate for outside activities.⁸⁵

Key Informant Interviews

Doug Goodmund, Assistant Director, Marshall Community Services: Maintaining larger community parks has allowed the city to add amenities to community parks and maintain a safe and aesthetically appealing park system. We would not be opposed to pocket parks; it has just not been a priority. Pocket parks may be an option in the future to further expand parks and green space within the city.

The Park and Recreation Department has been proactive in providing park resources for the minority populations moving to Marshall. They have learned that many of those populations do not like organized leagues, like other groups in Marshall. Open green spaces plays a larger role than having an

⁸² Shoup, Lilly, and Reid Ewing. "The economic benefits of open space, recreation facilities and walkable community design." Active Living Research, San Diego CA (2010). Available at: http://activelivingresearch.org/sites/default/files/Synthesis_Shoup-Ewing_March2010_0.pdf

⁸³ Bedimo-Rung, Ariane L., Andrew J. Mowen, and Deborah A. Cohen. "The significance of parks to physical activity and public health: a conceptual model." *American journal of preventive medicine* 28.2 (2005): 159-168. Available at: [http://www.ajpmonline.org/article/S0749-3797\(04\)00304-6/fulltext](http://www.ajpmonline.org/article/S0749-3797(04)00304-6/fulltext)<http://www.sciencedirect.com/science/article/pii/S0749379704003046>

⁸⁴ Lovasi, Gina S., et al. "Built environments and obesity in disadvantaged populations." *Epidemiologic reviews* (2009): mxp005. Available at: <http://epirev.oxfordjournals.org/content/early/2009/07/09/epirev.mxp005.short>

⁸⁵ Addy, Cheryl L., et al. "Associations of perceived social and physical environmental supports with physical activity and walking behavior." *American journal of public health* 94.3 (2004): 440-443. Available at: <http://ajph.aphapublications.org/doi/abs/10.2105/ajph.94.3.440>

organized leagues for those groups. There are bike trails on the outside border of the city and many throughout the city. They are well maintained and used frequently.

Chuck Buysse, Chairman of Lake Marshall Township: Lake Marshall Township has not discussed bike trails with the City of Marshall but there would be few opportunities currently existing. There are bikers that commonly ride on County Road 67 and return to Marshall on County Road 7, but space for a bike trail on that route is limited.

Existing Research Questions

- How has the City of Marshall promoted adequate active and passive open space to meet the needs of the community of Marshall and to establish a positive image for the community by working with the Community Service Board and by developing a parks master plan?
Marshall has worked hard to offer and maintain an impressive park system. Even though more opportunities exist, the current system does serve many residents. Marshall does not have a parks master plan. There is a Pedestrian and Bikeway Plan and a map showing all parks in the city. Harry Weilage is the Director of Community Services and he is very visionary and has been a strong supporter of the parks system.
- How has the City of Marshall provided adequate and appropriate recreational and community park facilities, including bikeways and walking trails?
The City of Marshall Parks and Recreation Department is combined with Community Education and the city partners with Marshall Public Schools to provide both park and recreation and community education programs. This Joint Powers Agreement (JPA) pools funding for parks and recreation programs and community education. The JPA has been successful, so the city can offer more recreational programs and opportunities and green space. Marshall currently has 24.4 miles of paved bike trails and 1.1 miles of future bike trails. The city has received funding from the DNR to build and update many of the trails currently available.
- How has the City of Marshall maintained a high level of recreational facilities throughout the community?
Marshall has a vision of growing amenities within the existing park system. Maintaining larger community parks has allowed the city to add amenities to community parks and maintain a safe and aesthetically appealing park system. The City of Marshall has a joint powers agreement with the school system to work together to provide park and recreation and community education. The city council had the vision to pursue a Regional Sports Facility to draw visitors and revenue into the city which demonstrates its commitment to recreational facilities.
- How has the City of Marshall promoted passive park and recreational facilities to meet the need of elderly community residents, persons with disabilities, and support the incorporation of cultural elements with the total park and recreation program?
Marshall offers many passive park and recreational facilities throughout the city and publishes the information in a quarterly catalogue and on various city web pages.

Staff from the Community Services are active in pursuing information about what activities city residents prefer and promoting the activities. Justice Park has a larger section of green space set aside for passive recreational activities. There are often Sunday afternoon soccer games and community picnics. Having open recreational activities has allowed different groups to initiate sports and recreational activities that they are interested in.

Minority growth is predicted in Marshall. The City of Marshall and Marshall Public Schools see minority growth as an opportunity to offer a wider range of recreational activities for all residents. There is a greeting committee that works with the city to welcome minority families. The committee shares with the family information regarding schools, community resources, and parks.

- How has the City of Marshall worked with the Community Services Board to develop a park and recreation master plan that develops recreational facilities consistent with changing community and neighborhood needs?

The Community Services Board is a department of the City of Marshall and both entities work to identify needs of all residents and meet those needs. The dynamics of the city has changed over the years with minority populations, new employers, and a variety of activities residents prefer. Plans developed by the Community Services changes to meet those needs. The Marshall Trails Plan was developed in 2008. The plan outlines goals and strategies in regards to trails and connecting recreational facilities throughout the city. The Amateur Sports Commission has been a plan in development over the past decade. Funding for the facility was awarded in 2014. Bond funds along with city resources will be used to build the sports complex. Marshall saw the opportunity to be a regional hub for recreation and sports events.

- Are parks and greenspaces distributed fairly throughout the City of Marshall?
Marshall has 177.1 acres of park land in various size parcels, which includes 10 parks and two softball complexes. They are fairly well distributed around the city and the longest distance from a housing development to a park is approximately 1.5 miles.

- How has the City incorporated parks and recreational amenities into new developments?
The development policy of the city has included parks and green space as a mandatory development requirement. Parks have been added in areas where new neighborhoods have been developed, e.g. Patriot Park and Allegiance Park.

Potential Impact – Research Questions

- How does identification and remedying gaps in city's parks, off-road trails and open spaces impact active living?
Identification and remedying gaps in city parks, off-road trails, and open spaces allow residents to navigate the city without the need for automobiles. The trails are well positioned to include residents from various parts of the city. The new trails planned will connect to current trails as well as to Camden State Park, about 5 miles

from Marshall. Sidewalk and trail gaps were discussed at the community meetings and several areas were identified that would improve the trail system in Marshall. (See Tables #17 - #29)

Local Foods – BP #27

Best Practice - Strengthen local food and fiber production and access.

Background

Local food can be defined by geography such as how many miles from home it is produced or it can mean direct, fresh, small volume, small scale or small farm with a producer-consumer connection. People often access local foods through community gardens, farmer's markets, or area food coops but local food can also be found at local supermarkets. Community gardens are also a great source of locally grown foods and many residents enjoy growing their own produce.

Marshall does have one public area that is available for community gardens. It is not accessible by bike or walking but does allow for physical exercise while gardening. Another garden area is operated by Western Community Action. The fresh produce is available at the food shelf and gardeners are often residents who commonly utilize the food shelf.

Community gardens can be a good use of vacant lots because they can be quiet, comfortable, safe, and active areas for neighbors to enjoy socialization, producing healthy foods and getting physical exercise. Community gardens have an impact on both eating nutritious foods and increasing daily exercise, both of which reduce obesity and other related chronic diseases, poor eating habits, and sedentary activities. Gardening is considered a moderate to heavy intensity physical activity, and has been linked to significant beneficial changes in total cholesterol, HDL cholesterol, and systolic blood pressure.⁸⁶

Food in the U.S. travels as much as 1300 miles and is in transit 7 – 14 days before reaching a supermarket. Food grown locally eliminates time in transit; carbon emissions due to greenhouse gas emissions during transport, and wasted produce due to time and transport. Foods grown locally reduce problems from time and transport. Development of community gardens is an option to produce local foods and becomes a great option for supermarkets to offer locally grown foods. Community gardens allow families and individuals without land of their own the opportunity to produce food, and provide a place for gardeners to share knowledge and skills. The city benefits because community gardens increase property values, are less expensive to create and maintain than park space, attract small businesses to build nearby, and allows for employment, education, and entrepreneurship for a variety of people, including students, immigrants, or the homeless. The produce increases access to healthy foods for people who have difficulty with resources to purchase healthy foods from a supermarket.⁸⁶

Farmer's markets have increased in number and popularity over the last 15 – 20 years. Marshall has a farmer's market on Saturday mornings that is well attended by producers and consumers. The SHIP staff work closely with producers to maximize local use of their produce and to increase the number of farmer's markets in the area. An opportunity being pursued by SHIP and Minnesota Extension is to

⁸⁶ Gardening matters. GreenStep City website. Community Gardens help mitigate food insecurity and malnutrition fact sheet. Accessed 5/15/2015. Available at: <http://www.gardeningmatters.org/resources/read>

provide for the use of SNAP coupons and WIC vouchers at farmer's markets which could increase access to healthy foods for low-income residents.

Education on preparing and storing fresh foods is essential for people to use the food they produce for their daily needs. The Minnesota Extension programs educate people about cooking fresh foods as well as preserving them.

Literature Search

Gardens can be areas for recreation and exercise. According to the American Journal of Preventive Medicine, community gardens become places for physical activity combined with informational outreach and produced a 48.4% increase in frequency of physical activity and a 5.1% median increase in aerobic capacity, reduced body fat, weight loss, improved flexibility and an increase in perceived energy. Gardening is a form of exercise that people participate in longer than other forms of physical exercises. Time spent gardening is usually longer than time spent walking or biking.⁸⁷

Children who are involved in gardening and producing fresh vegetables tend to eat more vegetables. Elderly residents often lack access to fresh produce and enjoy participating in community gardens. They also feel more connected to the community by socializing with others at the garden sites. Gardeners usually have more produce than they can use and tend to share willingly with friends, family and neighbors.⁸⁸

About one quarter of local foods produced are marketed directly to consumers through farmer's markets, food stands, and community supported agriculture. From 1994 to 2011, the number of farmer's markets has quadrupled, from 1,755 in 1994 to 7,175 in the U.S. and from 81 in 1994 to 150 in 2011 in Minnesota.⁸⁸ While data on the economic impacts of farmers' markets in Minnesota is not available, studies in other states have shown positive economic benefits to communities and farmers alike. An emerging benefit at Farmer's Market is the ability for low income residents to purchase produce with SNAP coupons or WIC vouchers. As of 2011, 44 farmers markets in Minnesota could accept Electronic Benefit Transfer (EBT) for the Supplemental Nutrition Assistance Program (SNAP) including the following markets in southern Minnesota: Albert Lea, Austin, Mankato, and Rochester.⁸⁸ A goal in Marshall is to complete the necessary steps to accept EBT at the weekly Farmer's Market.

Local foods are also important in restaurants, schools and universities. More attention is dedicated to using local foods in the dining rooms of these facilities and customers and students are demanding the change, as well as assisting with making change happen. In southwest Minnesota, many schools have their own garden and when they can't use all the produce, they donate to the local food shelves.

⁸⁷ Gardening matters. GreenStep City website. Community Gardens help mitigate food insecurity and malnutrition fact sheet. Accessed: 5/15/2015. Available at: <http://www.gardeningmatters.org/resources/read>

⁸⁸ Local Food Systems as Regional Economic Drivers In Southern Minnesota. Prepared for Southern Minnesota Initiative Foundation and The McKnight Foundation by Jan Joannides, Endowed Chair in Agricultural Systems. Minnesota Institute for Sustainable Agriculture University of Minnesota. June 2012. Available at: <http://www.mcknight.orgwww.mcknight.org/system/asset/document/120/pdf-2-4-mb.pdf>

Key Informant Interviews

Doug Goodmund, Assistant Director, Marshall Community Services: Community gardens are available for Marshall residents. There is a fee for reserving garden space and the space fills up rapidly. Marshall would not be opposed to considering more space for gardens and has recently considered space near the fairground.

Ben Martig, City Administrator: The city owns property at the intersection of West College Drive and Fairground Road. The use is limited because buildings interfere with visibility at the airport. This could be a site for additional community gardens.

Darlyce Rangaard, University of Minnesota Extension: The Extension staff conducts classes on purchasing, preparing and preserving fresh produce. Interestingly, the extension staff also faces lack of accessibility to healthy and affordable foods for their cooking classes. Even though the mileage from the Extension office to the grocery store is about 2 miles, it does take valuable time to cross town with traffic.

Existing Research Questions

- How has the City of Marshall encouraged accessibility of healthy local foods?
Marshall has community gardens available for residents but it does not meet the needs of all residents who desire garden space. The garden space currently is not accessible via active transportation.
- Are fresh fruits and vegetables accessible throughout the City of Marshall?
Fresh fruits and vegetables are not accessible throughout Marshall. Fresh fruits and vegetable are available at the supermarkets which are both located on one end of town. Convenience stores do sell fresh fruits and are located throughout Marshall. Most residents are within 1 mile of a convenience store, but not supermarkets.

Potential Impact – Research Questions

- How does establishing community gardens, farmer's markets, CSA/food buying drop point with ½ mile impact active living and healthy eating?
Marshall has a community gardens available for residents but it does not meet the needs of all residents who desire garden space. The garden space is highly desired and there is a waiting list for space. It is also not accessible via active transportation. Gardens allow for more residents to get involved and to have access to healthy foods. The SHIP project has promoted farm to fork and farm to school projects encouraging local growers to be involved in Farmer's Markets and selling produce to schools and local grocery stores.
- How does a tax incentive to use vacant lots for urban agriculture impact active living and healthy eating?
A tax incentive motivates residents to develop garden spots for urban agriculture in privately owned vacant lots, which in turn encourages residents to get more physically active while walking or biking to the garden and working in the garden.

The use of vacant lots allow for proximity to neighborhoods that have limited access to city garden spots or to supermarkets for fresh produce.

CHAPTER IV: RECOMMENDATIONS

Introduction

Recommendations are general guidelines that explain what the City of Marshall could pursue. Recommendations as part of the GreenStep HIA are outlined as objectives and strategies. Strategies narrow the general guidelines and define in more detail how the objective will be achieved. Strategies are the actual steps to be taken to achieve the objective. A strategy may just be the first step, but the general need for the project is outlined.

The identified objectives and strategies were created throughout the planning process with input from community members and city staff. It should be noted that not every existing issue identified within the Assessment Chapter has an objective outlined below. Objectives were only developed for best practices that directly affect active living and healthy eating that have not yet been documented in the GreenStep Cities program. Completing these best practices will help the city come closer to becoming a Step 3 GreenStep City and will help make the city more pedestrian friendly and a healthier place to live and work.

The City of Marshall is a Step Two GreenStep City and is working towards becoming a Step Three GreenStep City by 2016. The City of Marshall must meet 16 of the 28 best practices to become a Step Three GreenStep City. Below are GreenStep best practices that have not been researched as part of the Marshall GreenStep HIA.

These best practices are not in any ranked order. The best practices with objectives were outlined due to their direct correlation to advancing active living and healthy eating in the City of Marshall. The outlined best practices should be pursued based on the GreenStep HIA Assessment and the availability of resources, local champion(s), Marshall GreenStep Team, and city council and staff. Other best practices do not have outlined objectives. These best practices have either already been documented, or no evident objective was identified as part of the planning process.

Table #36 Progress Table – GreenStep HIA Best Practices

GreenStep Best Practice	Progress	Objective & Strategy
BP #6 – Comprehensive Plan and Implementation	Three one star actions	No
BP #7 – Efficient City Growth	No documented actions	Yes
BP #8 – Mixed Use	Two one star actions	No
BP #9 – Efficient Highway and Auto Oriented Development	No documented actions	Yes
BP #10 – Conservation Design	No documented actions	No
BP #11 – Living Streets (Complete Green Streets)	No documented actions	Yes
BP #12 – Mobility Options	Two one star actions	No
BP #17 – Innovative Stormwater Management	No documented actions	Yes
BP #18 – Parks and Trails	No documented actions	Yes
BP #27 – Local Foods	A one star and two star action	Yes

Under every GreenStep best practice there are multiple actions for achieving the best practice. Through the assessment of the Marshall GreenStep program, the HIA Planning Team recommends pursuing the actions outlined in the HIA. These actions are believed to have the largest impact on active living and healthy eating in the City of Marshall. The HIA Planning Team was not able to show the

magnitude of the best practices impact on active living and healthy eating. The HIA Planning Team was able to outline best practices that will have a positive impact on active living and healthy eating.

The strategies were also outlined according to the feasibility of implementing the best practice. The feasibility was based on perceived community support, interviews with city staff, and the ease of implementing the strategy.

The City of Marshall is having ongoing discussions regarding what strategy to implement. There were multiple actions under the outlined best practices that positively impact active living and healthy eating. The HIA Planning Team decided to outline these strategies and background information, so the City of Marshall can make a more informed decision.

For some of the best practices below there are multiple strategies that are outlined, while only one of the strategies has to be implemented to document the best practice. These strategies all advance active living and healthy eating in Marshall, while leaving discretion to the city on implementation.

Table #37 Marshall GreenStep HIA Recommended Strategies

GreenStep Best Practice	Number of Actions to Achieve Best Practice	# of Outlined Strategies
BP #7 – Efficient City Growth	Implement one action	1
BP #9 – Efficient Highway and Auto Oriented Development	Implement one action	1
BP #11 – Living Streets (Complete Green Streets)	Implement one action	5
BP #17 – Innovative Stormwater Management	Implement one action	1
BP #18 – Parks and Trails	Implement 3 actions	3
BP #27 – Local Foods	Documented (Completed)	2

Every strategy starts with bringing the community together around a shared vision regarding active living and healthy eating. Using the five E's, (evaluation, education, encouragement, engineering, and enforcement) the City of Marshall can implement strategies outlined in the Marshall GreenStep HIA to build momentum towards the shared vision of a more pedestrian friendly community. The Marshall GreenStep HIA planning process helped to bring interested groups and individuals together to improve the built environment and increase opportunities for healthy physical activity for everyone.

Objectives & Strategies

[BP #7 – Efficient City Growth](#)

Objective:

Complete the GreenStep Cities best practice: Efficient City Growth

Strategy:

Provide incentives for infill projects, or for life-cycle housing at or near job or retail centers, or for achieving an average net residential density of seven units per acre.

5 E(s): Engineering and Encouragement

Existing Conditions:

To complete the GreenStep City best practice Efficient City Growth, the City of Marshall has to implement only one action under the best practice. Efficient City Growth actions generally promote financial and environmental sustainability by enabling and encouraging walkable housing and commercial land use. Promoting compact development has a number of benefits.

Compact development should be encouraged and promoted as an efficient use of public utilities (water, sewer, roads, etc.), an efficient use of land, and to promote a more active lifestyle. This may be accomplished through enactment or enforcement of zoning regulations and through the annexation of land. Controlling the land use in and around the City will help keep development contained and planned.

Land Use regulation can limit development and can create pockets of similar land use. Pockets of similar land uses can make it difficult to walk and bike to grocery stores, restaurants, hardware stores, and other everyday businesses. Allowing for mixed used can help to create a more walkable and bikeable community.

First time home buyers are looking for neighborhoods and cities that are more walkable. The National Realtors Association points to the changing behavior of home buyers, “people prefer to live in communities that allow them to walk to shops, parks and other destinations and will pay more for a home that allows them to do just that.”⁸⁹ “Millennials, though, are just part of the picture. As baby boomers get older, many are opting to live in places where they don’t have to drive as much to get to services and where they can age in place.”⁹⁰ This is a national trend and Southwest Minnesota needs to recognize livability, walkability, and bikeability as economic development tools.

There are pockets of business development in Marshall that make walking and biking to shops, parks and other destinations less practicable. Shops that were researched in the study included: supermarkets, ethnic food stores, convenience stores, and fast food restaurants. These shops tend to be concentrated along Main Street and College Drive. There are a number of neighborhoods that are not within a convenient walking distance to these shops.

Walkscore.com was used to analyze how walkable a neighborhood is. A map of supermarkets, ethnic food stores, convenience stores, and fast food restaurants also help to show the concentration of shops. Below are a few Walkscore examples that help to illustrate how walkable some neighborhoods are to others.

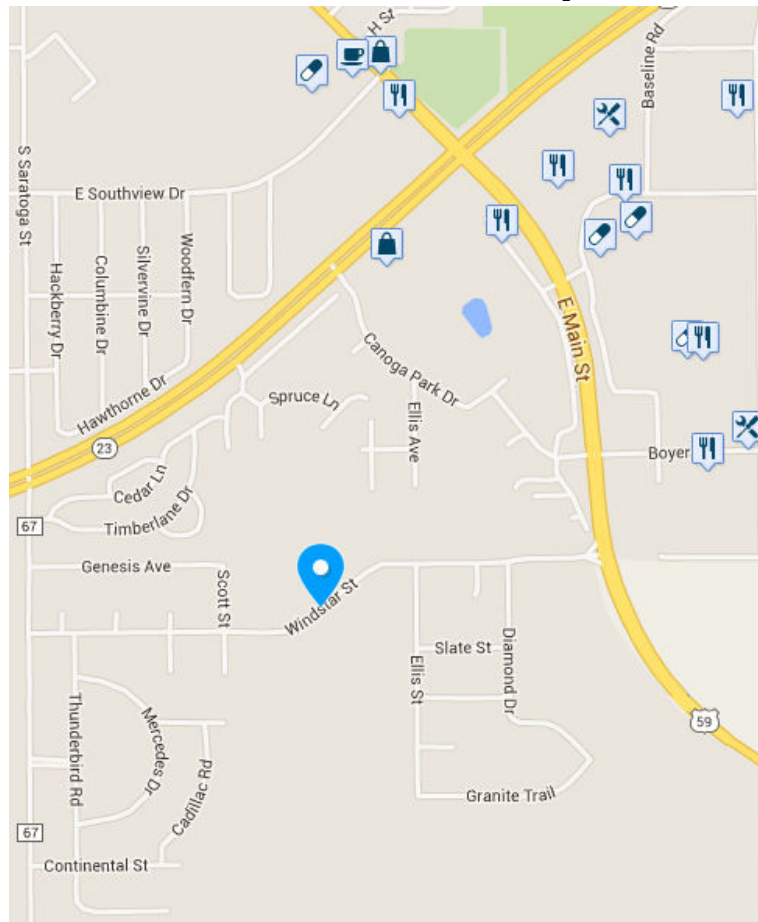
- The Windstar Street neighborhood had a Walkscore of 6 out of 100. The Windstar Street neighborhood is a car dependent neighborhood where almost all errands require a car.

⁸⁹ National Realtors Association. The Value of Walkability. Accessed: 5/13/15. Available: <http://www.realtor.org/newsroom/real-estate-story-ideas/the-value-of-walkability> Source: Brookings Institute: <http://www.brookings.edu/research/papers/2012/05/25-walkable-places-leinberger>

⁹⁰ Builder Magazine. Why Smart Builders Care About Walkability. Accessed: 5/29/15. Available: http://www.builderonline.com/land/development/why-smart-builders-care-about-walkability_o

Table #38

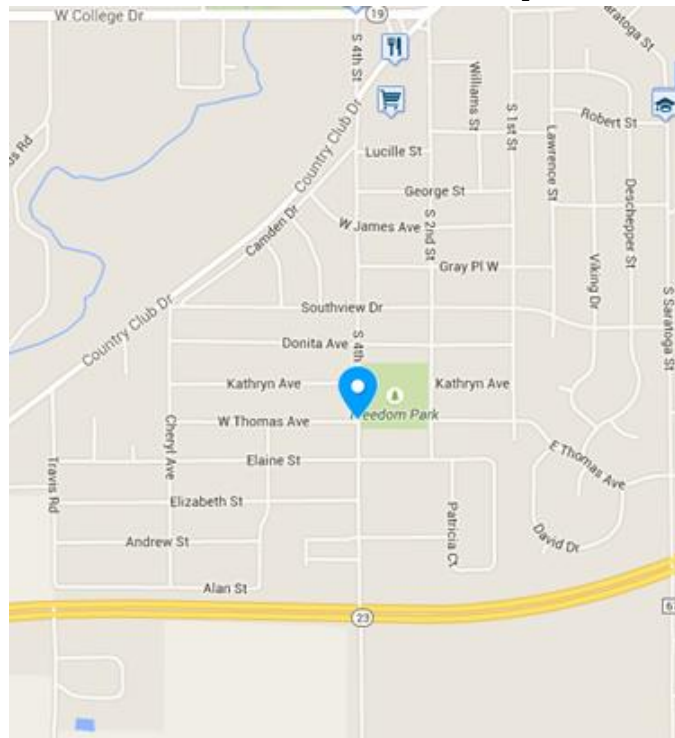
Windstar Street Walkscore Map



The South 4th Street neighborhood had a Walkscore of 17 out of 100. The South 4th Street neighborhood is a car dependent neighborhood where almost all errands require a car.

Table #39

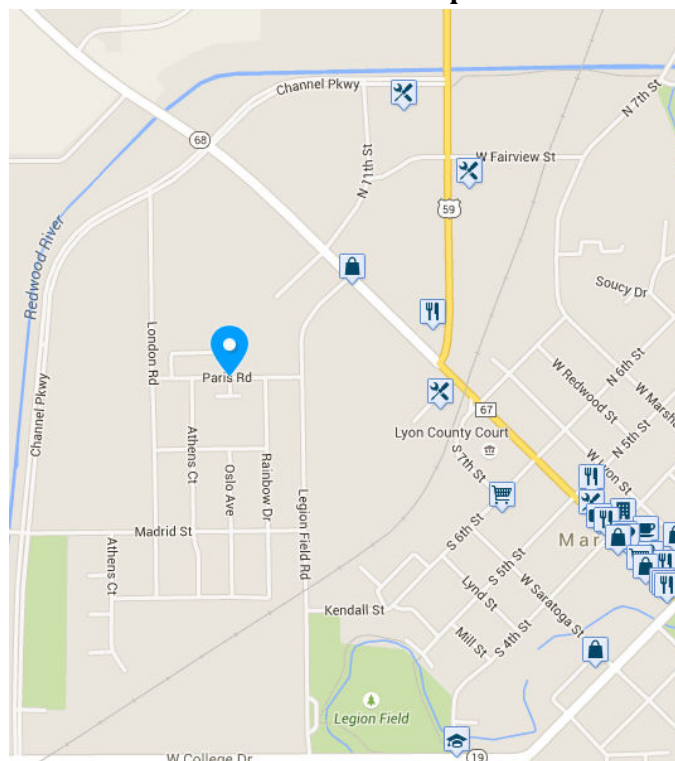
South 4th Street Walkscore Map



The Paris Road neighborhood had a Walkscore of 25 out of 100. The Paris Road neighborhood is a car dependent neighborhood where most errands require a car.

Table #40

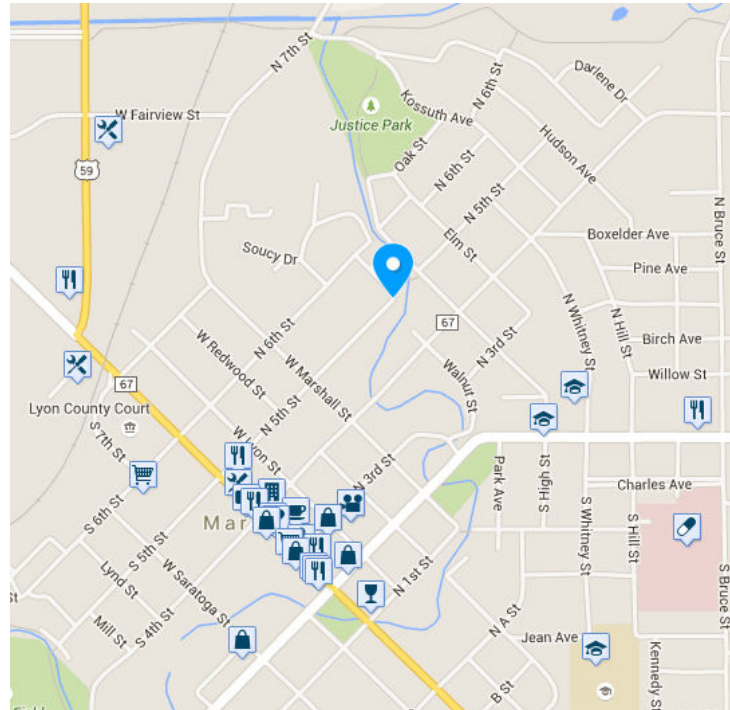
Paris Road Walkscore Map



The North 5th Street neighborhood had a Walkscore of 49 out of 100. The North 5th Street neighborhood is a car dependent neighborhood where most errands require a car.

Table #41

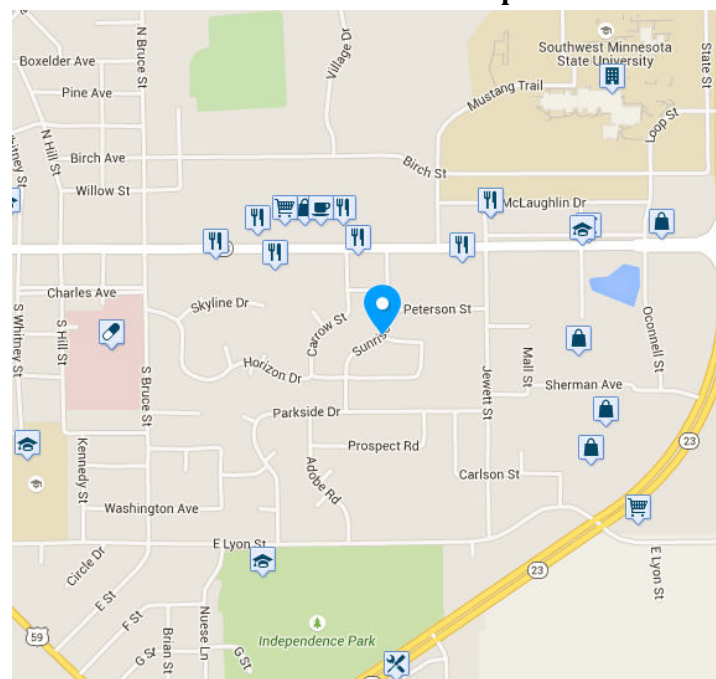
North 5th Street Walkscore Map



The Sunrise Lane neighborhood had a Walkscore of 51 out of 100. The Sunrise Lane neighborhood is a somewhat walkable neighborhood where some errands require a car.

Table #42

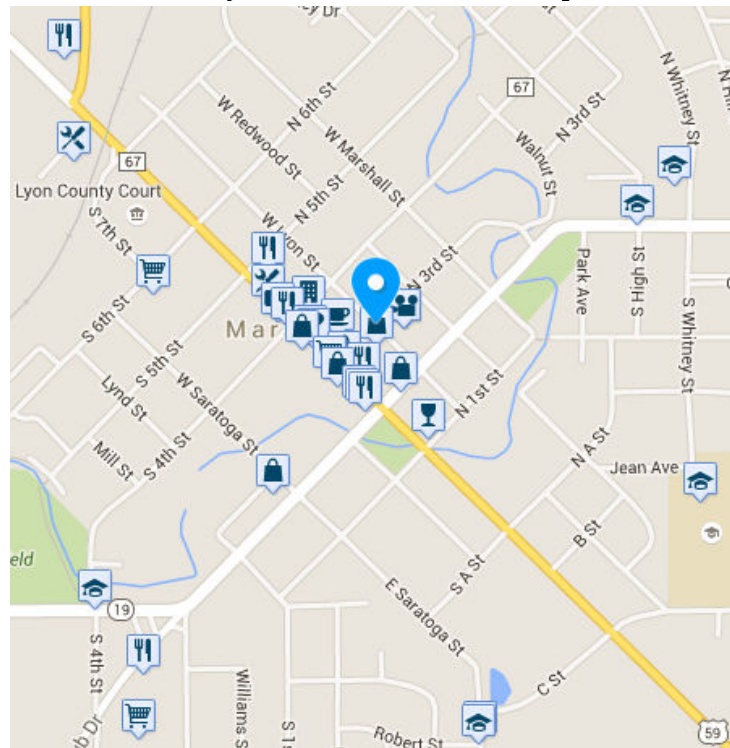
Sunrise Lane Walkscore Map



The West Lyon Street neighborhood had a Walkscore of 74 out of 100. The West Lyon Street neighborhood is very walkable where most errands can be accomplished on foot.

Table #43

West Lyon Street Walkscore Map



Helping to promote clustering of businesses not only makes economic sense in some cases, but helps to promote an active lifestyle. Creating a walkable, bikeable, and livable community is affected by a number of variables ranging from connectivity of the sidewalk and trail network to encouraging compact efficient development. Compact efficient development can help to provide a framework for a pedestrian friendly community. Having compact efficient developments will help to make the community healthier and more sustainable.

It is recommended that the City of Marshall provide an atmosphere through mixed use zoning that encourages neighborhood stores and markets. More people want to know where there food comes from, and they want to be able to walk to the store. Other tax breaks could also be considered to provide incentives for small neighborhood businesses. Infilling with small neighborhood markets and shops will help to create a more walkable, bikeable, and livable community.

BP #9 – Efficient Highway and Auto Oriented Development

Objective:

Complete the GreenStep Cities best practice: Efficient Highway and Auto Oriented Development

Strategy:

Adopt infrastructure design standards that protect the economic and ecologic functions of the corridor through clustering of development and incorporating access management standards.

5 E(s): Engineering and Encouragement

Existing Conditions:

To complete the GreenStep City best practice Efficient Highway and Auto Oriented Development, the City of Marshall has to implement only one action under the best practice. Efficient Highway and Auto Oriented Development actions generally promote adopting commercial development and design standards for auto-oriented development corridors and clusters. There are a number of actions that can be taken to achieve this best practice. The strategy outlined below pertains to the Minnesota Department of Transportation's Vision for Minnesota Highway 23.

- Adopt an access management overlay district or access management standards along Highway 23.

The City of Marshall already has an access management plan for the following highways in Marshall: 59, 19, and 68. These access management plans could be submitted to GreenStep Cities to provide documentation that they have completed the best practice. It is recommended that Marshall adopts an access management overlay district or access management standards along Highway 23 as part of the documentation of completing the GreenStep Cities best practice: Efficient Highway and Auto Oriented Development.

The Minnesota Department of Transportation (MnDOT) classifies Minnesota Highway 23, from Interstate 90 to Interstate 35, as a category 2 – Medium Priority Interregional Corridor. MnDOT classifies Marshall as a Subcategory B – Urban / Urbanizing area. "This subcategory is intended for areas outside the urban core that are either urbanized or planned for urbanization over the next 20 years with a full range of urban services, especially a local supporting street network. These are generally highway segments within municipal boundaries or in transition areas outside municipal boundaries. Because they must serve the needs of both through-trip and local trip drivers, highways in this subcategory are generally expected to operate at a somewhat reduced speed compared to that of the corridor overall.

Urban / Urbanizing areas are of the greatest concern because of their potential impact on the highway system; however, they also provide the best opportunity for the development of a fully connected street network. When assigning this designation, MnDOT will consider the adopted plans, development regulations, and the street extension plans and policies of the community. In transition areas where urban growth is occurring outside the municipal boundaries, MnDOT will expect the local land use

authority – township or county – to manage development and to ensure that direct access to private property is available through the local road network.”⁹¹

Balancing the needs of pedestrians, local-trip drivers, and through-trip drivers can be problematic. These different groups have somewhat competing needs. Pedestrians and local-trip drivers desire to travel to local destinations and want convenient access points. Through-trip drivers desire to travel through a community without undue speed reductions and signal delays.

Highway 23 was constructed to be a bypass around the City of Marshall. Access points to Highway 23 were limited to increase safety by decreasing the number of conflicts between motor vehicles. Managing the number of access points to Highway 23 will allow for higher traffic speeds and safety for the different users. Balancing safety and mobility is still an issue along Highway 23 in Marshall.

“To determine the optimal balance between these competing demands, MnDOT conducted corridor simulations for 1 mile, ½ mile, and ¼ mile intersection spacing to compare the mobility benefits of signal progression on the mainline with overall network travel time and delays. Based on these simulations, the recommended spacing of primary, full-movement intersections is directly related to the spacing of signals and the need to achieve signal progression. This is because every full-movement intersection represents the potential for a traffic signal. When signalized intersections are uniformly and adequately spaced, however, platoons of vehicles can travel in both directions through the corridor at uniform speeds without needing to stop for each signal. This reduces delays for through-movements and increases the carrying capacity of the roadway.

The intersection spacing guidelines also make allowance for additional unsignalized intersections at one-half the spacing of signalized intersections, but restrict turning movements to right-in/right-out-only on higher-volume, divided roadways. This denser network of intersecting streets may disperse traffic among multiple access points and may actually eliminate or delay the need for signalization at an intersection. The additional street access also can reduce the need for individual driveways by providing a denser supporting road network for the corridor.”⁹²

The City of Marshall should work with businesses and MnDOT to create and adopt an access management overlay district or access management standards along Highway 23. Outlining in a plan the vision for Highway 23 will help to service local business needs with the intended purpose of the highway as a bypass. Balancing the expectations of through-trip drivers with local needs can be accomplished through open conversation between the City of Marshall and MnDOT.

BP# 11 – Living Streets (Complete Green Streets)

Objective:

Complete the GreenStep Cities best practice: Living Streets

⁹¹ Minnesota Department of Transportation. Access Management Manual. Accessed: 7/27/15. Available: <http://www.dot.state.mn.us/accessmanagement/docs/pdf/manualchapters/chapter2.pdf>

⁹² Minnesota Department of Transportation. Access Management Manual. Accessed: 7/27/15. Available: <http://www.dot.state.mn.us/accessmanagement/docs/pdf/manualchapters/chapter2.pdf>

Strategy:

Pass a Complete Streets Policy.

Implement the proposed Complete Streets Policy by implementing a Pedestrian Functional Classification System.

When constructing a new street or resurfacing an existing street, consider and discuss the function of that street and the pedestrian amenities needed to make that street safe for pedestrians.

Identify, prioritize, and remedy complete street gaps and lack of connectivity within your road network.

Identify, prioritize, and remedy street-trail gaps between city streets and off-road trails/bike trails to better facilitate walking and biking.

5 E(s): Encouragement and Engineering

Existing Conditions:

To complete the GreenStep City best practice Living Streets, the City of Marshall has to implement only one action under the best practice. Living Streets actions generally promote the creation of a network of green complete streets that improves city quality of life and adds value to surrounding properties. The City of Marshall has implemented a number of strategies to make the city more pedestrian friendly.

One of these strategies is requiring new sidewalks in all new developments in the City of Marshall. This is an informal policy the current City Administrator is enforcing. This is a great first step, but a formal policy will help the City of Marshall implement long term strategies around walkability, bikeability, and livability.

A long term strategy could be passing a Complete Streets Policy. A Complete Streets Policy consists of formally recognizing the need to consider and plan for pedestrians as part of street projects. This declaration shows that the city recognizes the importance of planning for pedestrians and that everyone is a pedestrian at some point of every day.

Some community members may not have access to a motor vehicle, so walking, biking, and transit are their primary transportation modes. Sidewalks and trails have a community benefit and help to increase connectivity within the community. If there are gaps in the sidewalk and trail network, it is not convenient to walk and bike.

Different streets require different pedestrian amenities. A Complete Street does not have a singular definition. A Complete Street is any street you feel safe walking or biking on. A Complete Street does not have to have a sidewalk on both sides of the street, but you have to consider all users when deciding if it is safe for pedestrians.

Younger children may need a sidewalk to separate them from vehicle traffic. Younger children may be learning how to ride a bike, so it is not safe for them to share the road with vehicle traffic. When making a decision whether a street needs sidewalks or not, the function of the street needs to be considered.

The Marshall City Council should classify streets in Marshall, so a discussion will occur around the function of the street. Below are three classifications that can be used to identify the pedestrian amenities a street needs.

► Connector Streets

- Connects primary destinations
- Highest traffic volumes streets
- Require the highest level of pedestrian amenities - Sidewalks on both sides of the street or a trail conveniently located along the corridor that connects key locations.

► Neighborhood Connector Streets

- Connects Residential Streets to Connector Streets
- Medium level traffic volume streets
- Require some pedestrian amenities – A sidewalk on one side of the street or the other is required or a trail conveniently located that connects the neighborhood to key locations. The sidewalk needs to have continuity throughout, so the route is not jumping back and forth from one side of the street to the other.

► Residential Streets

- All other streets
- Lower traffic speeds
- Lower traffic volumes
- Sidewalks are encouraged but there is no sidewalk requirement

Sidewalk Prioritization

The City of Marshall does have a sidewalk policy addressing new developments. A new development must install sidewalks on both sides of the street. Existing streets that do not have sidewalks were addressed as part of a Sidewalk Corridor Plan that was developed in the 1990s. A number of the sidewalk and trail projects identified in the Sidewalk Corridor Plan have been completed.

A number of sidewalk and trail gaps have been identified as part of the Marshall GreenStep HIA. The need for addressing these gaps was based on function of the street and the Pedestrian Functional Classification System outlined above.

Infrastructure Objectives & Strategies

Infrastructure objectives and strategies are related to infrastructure needs and improving the built environment through engineering. Pedestrian infrastructure consists of sidewalk, trails, streets, and the necessary supporting ADA facilities. Streets are included since a Complete Street is any street you feel safe walking or biking on. The street does not necessarily have to have a sidewalk on both sides of the street or a trail conveniently located along the street. The street may simply be wide enough and have lower traffic volumes and traffic speeds for pedestrians to feel safe.

A number of gaps in the sidewalk / trail network were discussed at the community meeting as part of the GreenStep Cities Health Impact Assessment Planning Process. Gaps that correspond to the objectives below were identified due to safety, the function of the street, and destinations the sidewalk or trail could connect. Refer to the Assessment Subsection, Gaps in the Sidewalk / Trail Network, for a list of the gaps and other pedestrian issues that were discussed.

Different Streets require different pedestrian amenities. Younger children may need a sidewalk to separate them from vehicle traffic. Younger children may be learning how to ride a bike, so it is not safe for them to share the road with vehicle traffic. When making a decision whether a street needs sidewalks or not, the function of the street needs to be considered.

All streets may not need sidewalks, so different pedestrian amenities are needed. The function of the street determines the level of pedestrian infrastructure that is needed to create a safe environment for pedestrians. The gaps below were determined to be more essential to create a safe environment for pedestrians. Other gaps do exist, but these gaps were identified and were discussed as part of the Marshall GreenStep HIA Planning Process.

Identifying these gaps is the first step in completing the following two strategies: identify, prioritize, and remedy complete street gaps and lack of connectivity within your road network and identify, prioritize, and remedy street-trail gaps between city streets and off-road trails/bike trails to better facilitate walking and biking.

Highway 59 North Gap

Objective: Increasing connectivity between neighborhoods around Erie Road and the trail, North Industrial Park, and the city core.

Strategy:

Add pedestrian infrastructure between neighborhoods around Erie Road and existing trails.

Add pedestrian infrastructure between neighborhoods around Erie Road and the North Industrial Park and the existing sidewalks along West Main Street.

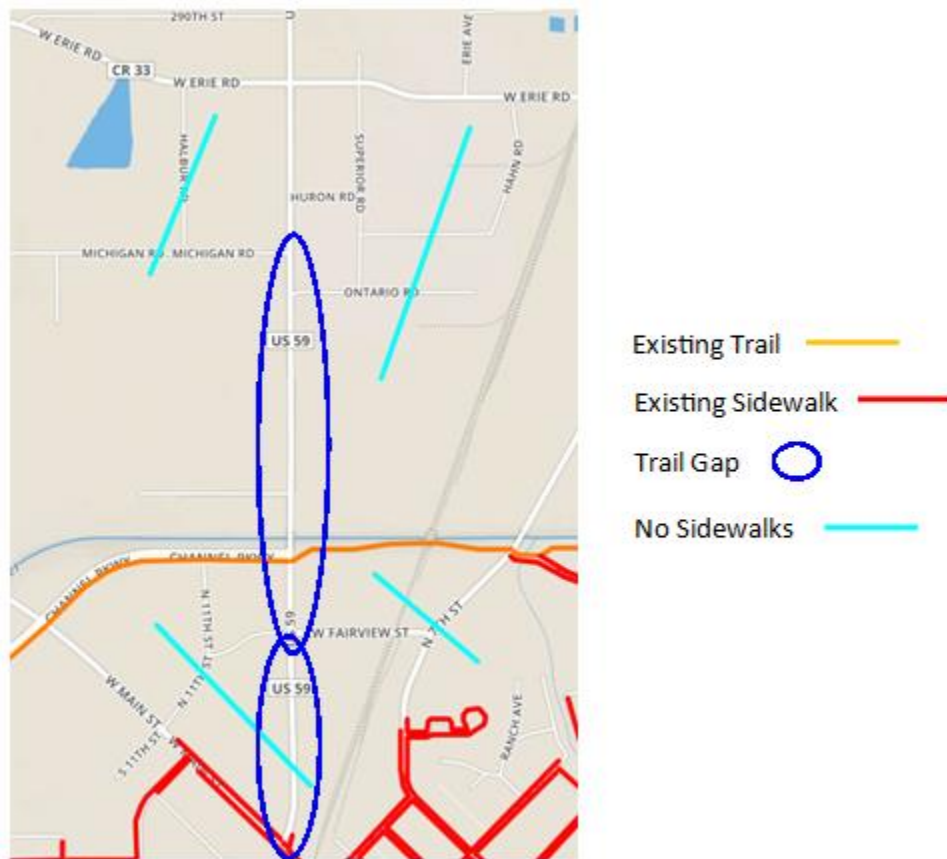
5 E(s): Encouragement, and Engineering

Existing Conditions:

Refer to page 69, Highway 59 North Gap, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

“There needs to be more places where you can get off the bike path to circle back without taking the entire path.” Neighborhood Assessment Survey

Table #17 Highway 59 North Gap



North 7th Street Gap

Objective: Increasing connectivity along North 7th Street and the existing trail.

Strategy:

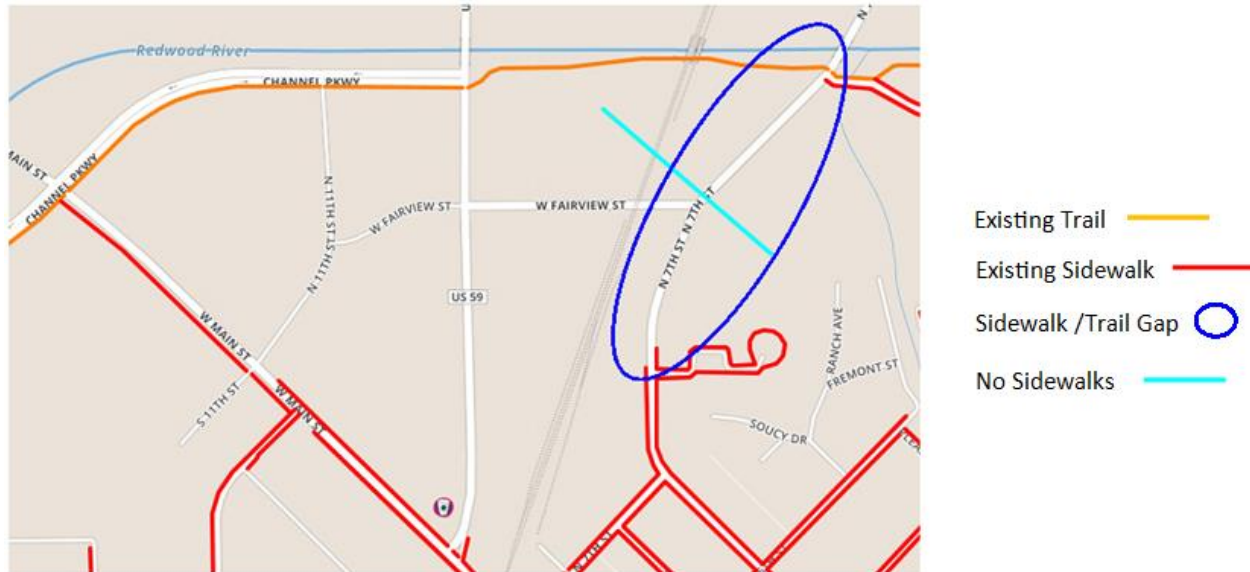
Fill in sidewalks along north 7th Street leading to the trail by Kossuth Avenue.

5 E(s): Encouragement, and Engineering

Existing Conditions:

Refer to page 70, North 7th Street Gap, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

Table #18 **North 7th Street Gap**



East Southview Drive Trail – Middle School

Objective: Improve safety and connectivity between East Southview Drive and the Middle School.

Strategy:

Engineer a trail connection between East Southview Drive and the Middle School.

Construct a trail connection between East Southview Drive and the Middle School.

5 E(s): Engineering and Encouragement

Existing Conditions:

Refer to page 71, Central Connection Gap, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

Table #20

Central Connection Gap – Middle School



Lawrence Street Connection – Middle School

Objective: Improve safety and connectivity between Lawrence Street, East Maple Street, and the Middle School.

Strategy:

Fill in sidewalks along Lawrence Street and East Maple Street.

5 E(s): Engineering and Encouragement

Existing Conditions:

Refer to page 74, Western Connection Gap – Middle School, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

Table #21

Western Connection Gap – Middle School



Horizon Drive Sidewalk Gap

Objective: Improve walkability along Horizon Drive.

Strategy:

Fill in sidewalks along Horizon Drive.

5 E(s): Engineering and Encouragement

Existing Conditions:

Refer to page 75, Horizon Drive Sidewalk Gap, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

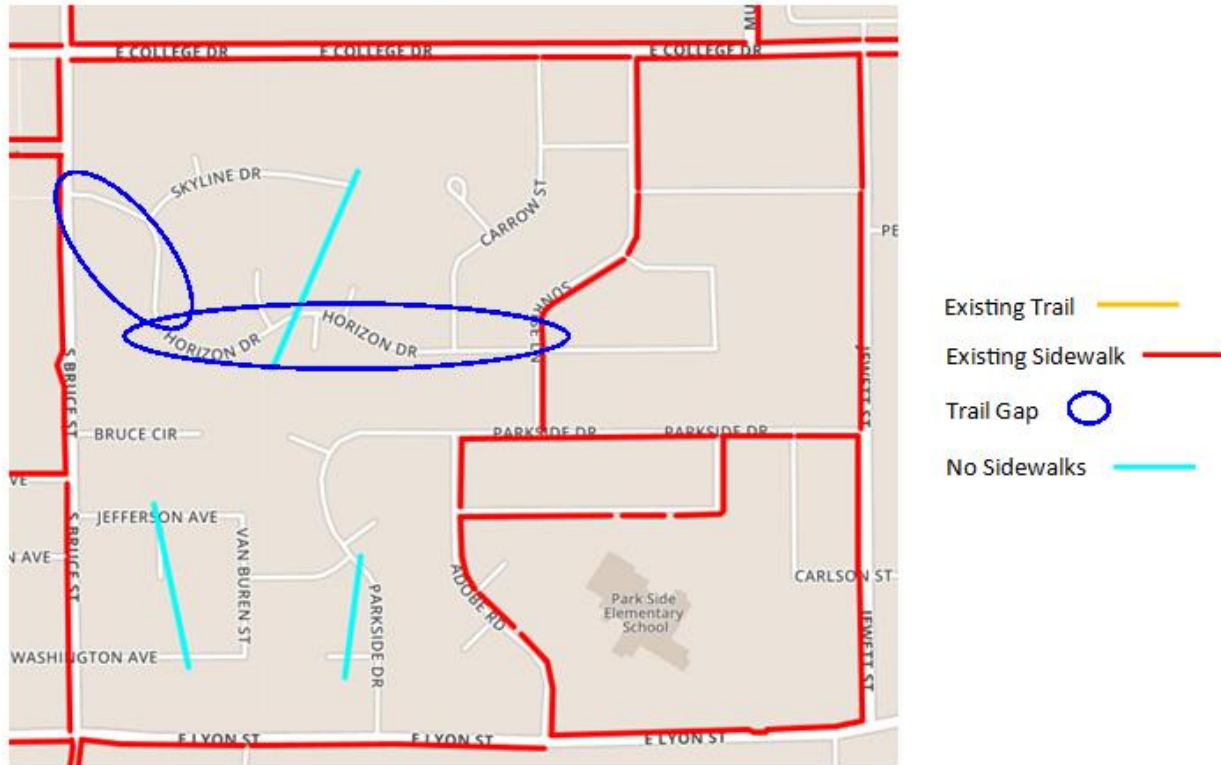
The City of Marshall recognizes Horizon Drive as a Neighborhood Connector. Visibility on Horizon Drive is an issue due to the multiple curves. There is through traffic on Horizon Drive, so traffic speeds are also an issue. Since Horizon Drive is recognized as a Neighborhood Connector, a sidewalk should be established on one side of the street or the other.

► **Neighborhood Connector Streets**

- Connects Residential Streets to Connector Streets
- Medium level traffic volume streets

- Typically require some pedestrian amenities – A sidewalk on one side of the street or the other is required or a trail conveniently located that connects the neighborhood to key locations. The sidewalk needs to have continuity throughout, so the route is not jumping back and forth from one side of the street to the other.

Table #22 **Horizon Drive Sidewalk Gap**



West College Drive Gap

Objective: Improve connectivity along West College Drive

Strategy:

Establish off street pedestrian infrastructure on West College Drive between Legion Field Road and South 4th Street.

5 E(s): Engineering and Encouragement

Existing Conditions:

Refer to page 76, Western College Drive Gap, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

Table #24

West College Drive Gap



Cheryl Avenue Sidewalk Gap

Objective: Improve walkability along Cheryl Avenue.

Strategy:

Fill in sidewalk gaps along Cheryl Avenue.

5 E(s): Engineering and Encouragement

Existing Conditions:

Refer to page 77, Cheryl Avenue Sidewalk Gap, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

Table #25

Cheryl Avenue Sidewalk Gap



South 2nd Street Sidewalk Gap – Freedom Park

Objective: Improve safety and connectivity in the Freedom Park neighborhoods.

Strategy:

Fill in the sidewalk gap along 2nd Street by Freedom Park.

Establish a trail in the Freedom Park neighborhood that connects to the proposed sidewalk on 2nd Street to the existing sidewalk on South 4th Street.

5 E(s): Engineering and Encouragement

Existing Conditions:

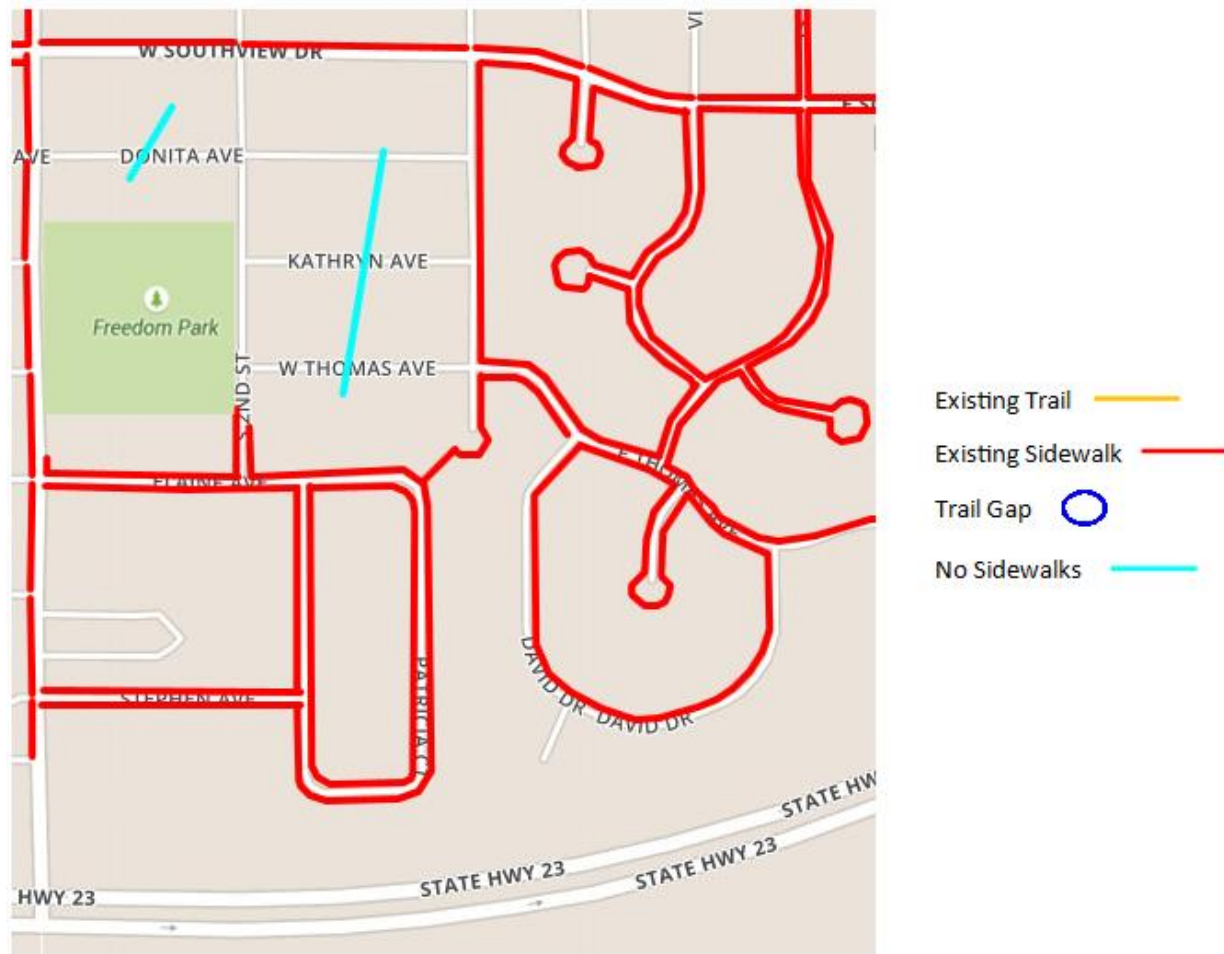
Refer to page 78, South 2nd Street Sidewalk Gap and Freedom Park, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

“A bike or walking path would be nice through Freedom Park connecting 4th and 2nd Streets.”

Neighborhood

Table #26

South 2nd Street Sidewalk Gap & Freedom Park



Canoga Park Drive Sidewalk Gap

Objective: Improve safety and connectivity along Canoga Park Drive.

Strategy:

Fill in the sidewalk gaps along Canoga Park Drive.

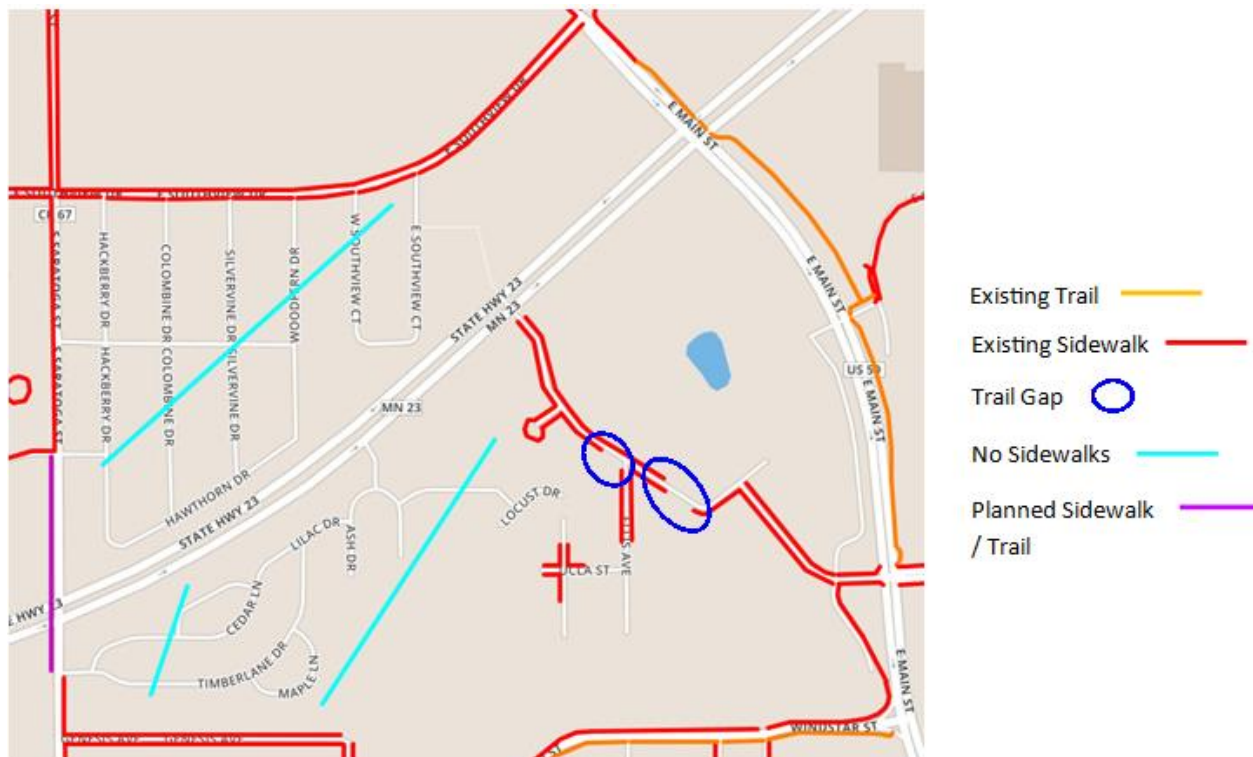
5 E(s): Engineering and Encouragement

Existing Conditions:

Refer to page 79, Canoga Park Drive Sidewalk Gap, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

Table #27

Canoga Park Drive Sidewalk Gap



Bruce Street Sidewalk Gap

Objective: Improve safety and connectivity along Bruce Street.

Strategy:

Fill in the sidewalk gap along Bruce Street.

5 E(s): Engineering and Encouragement

Existing Conditions:

Refer to page 80, Bruce Street Sidewalk Gap, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

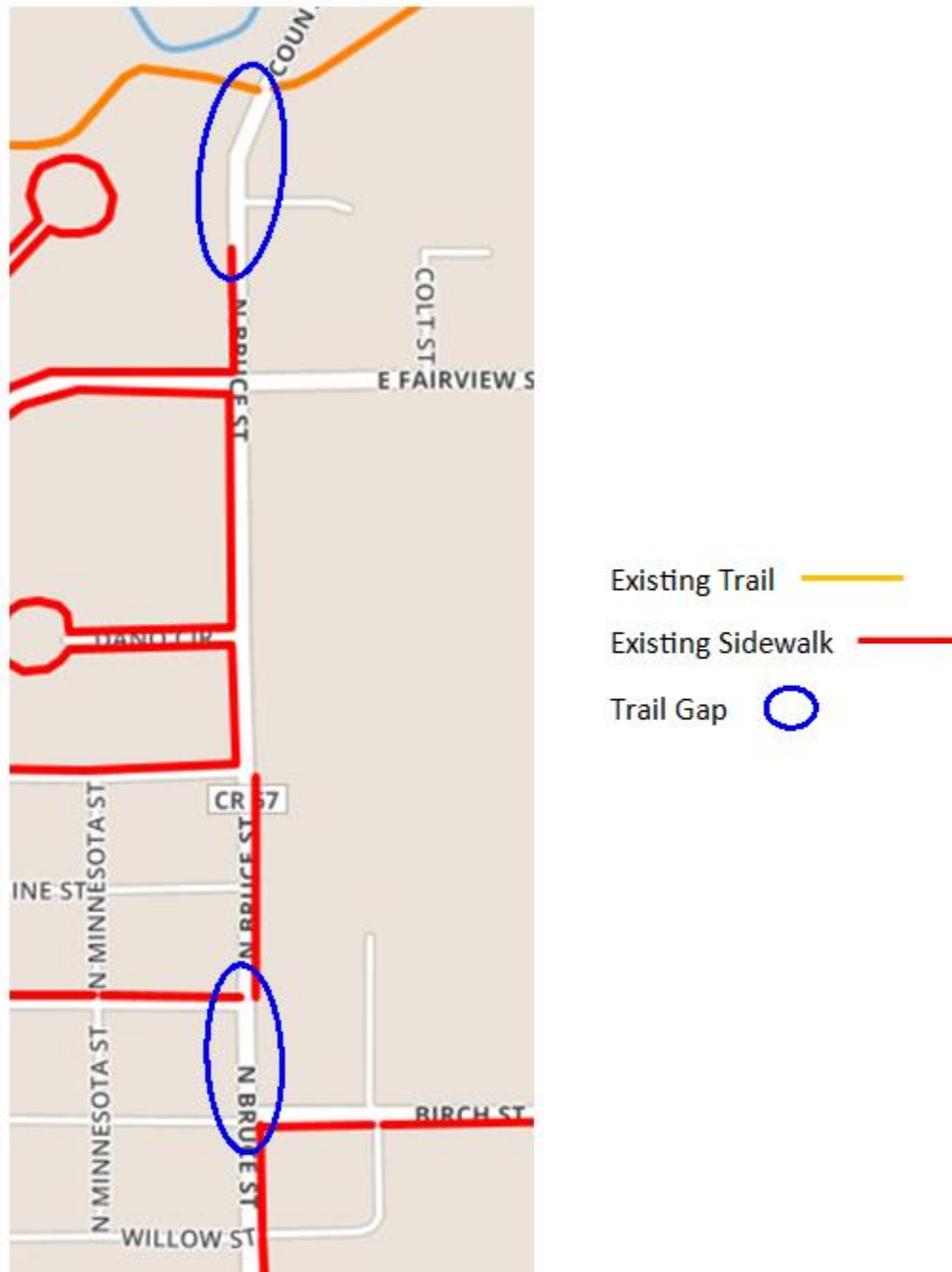
“The sidewalk on Bruce Street should connect with bike trail.” Neighborhood Assessment Survey

“Need side walk to continue from north Bruce Street to the bike path. It randomly ends.” Neighborhood Assessment Survey

“We enjoy the bike trail but it is a little dangerous for us to get to. We have to go out past Great Plains Gas, the curve in the street and the very large evergreens make it hard for drivers to see pedestrians.” Neighborhood Assessment Survey

Table #28

Bruce Street Sidewalk Gap



Midblock Crossing – College Drive

Objective: Improve safety and connectivity along College Drive.

Strategy:

Add midblock crossings on College Drive.

5 E(s): Engineering and Encouragement

Existing Conditions:

There are sidewalks along the majority of College Drive. There are also controlled crossings at the following intersections with College Drive:

- County Club Drive / South 2nd Street – stop light
- West Saratoga Street – stop light
- West Main Street (Highway 59) – stop light
- Bruce Street – stop light
- Mustang Trail – stop light
- Highway 23

There are several blocks between these controlled crossings, so it may not be convenient to walk to one of these crossings. People may decide to cross midblock, which can be a safety risk. Additional midblock crossings should be considered along College Drive to make crossing safer and in turn walking more convenient.

What are Mid-Block Pedestrian Crossings?

“Mid-block pedestrian crossings are marked crosswalks placed between intersections. They look similar to intersection crosswalks, but often incorporate several design features to increase safety. Mid-block crossings frequently include pedestrian islands, which provide a safe refuge for pedestrians crossing two-way traffic. Users can check traffic one way, cross to the island, and check traffic in the other direction before continuing to cross. Yield lines can be set back to require vehicles to stop farther away from the intersection. Bulb-outs (curb extension / bumpout) that narrow the roadway can be used to calm traffic by slowing speeds, and can make pedestrians more visible to drivers. Where traffic volumes are heavy, mid-block crossings can be signalized to further increase safety and comfort.”⁹³

Why Use Mid-Block Pedestrian Crossings?

“Many people do not go out of their way to cross at established intersections. Instead, they choose to cross the street using the most direct route, even if that means crossing several lanes of busy traffic. Mid-block pedestrian crossings decrease random and unpredictable crossings associated with a high risk of collisions, especially in areas that are heavily travelled by pedestrians or where block lengths are long.”⁹³

When to Use Mid-Block Pedestrian Crossings:

“An engineering study should be completed to determine the need for a mid-block crossing, which incorporates roadway width, traffic volume, traffic speed and type, desired lines for pedestrian movement and adjacent land use. Heavily traveled areas that have high incidences of random crossings

⁹³ Michigan Complete Street Coalition. Mid-Block Pedestrian Crossings Explained. Accessed: 6/24/15. Available: <https://michigancompletestreets.wordpress.com/2014/01/21/mid-block-pedestrian-crossings-explained/>

are good candidates for mid-block crossings, including schools, shopping centers, transit centers, and college campuses.”⁹⁴

“As long as you never have to cross College drive in a place without a traffic signal. I tried to cross there and even if I rolled my front tire out into the crosswalk a little bit to see if people would slow down, they never would. As an adult, I can make it work by knowing my boundaries. I would be worried about kids crossing in these spots.” Neighborhood

“There is little to no yielding to pedestrians on College Drive. I do love where we have lights and feel those areas are very nice to cross. I also understand that it would be inefficient to put stop lights on every corner. I’m not saying to do that, but I am pointing out that they could care less about pedestrians in these areas.” Neighborhood

“Like to cross at a stop lights.” Neighborhood

Table #44 **East College Drive – very difficult to cross**



Safety Benefits:

“Mid-block locations account for more than 70% of pedestrian fatalities. Mid-block pedestrian crossings increase safety by decreasing random and unexpected pedestrian crossings. As stated before, people tend to cross where it is most convenient for them to cross, creating a high risk of collisions. Mid-block pedestrian crossings consolidate pedestrian traffic and allow drivers to predict and expect pedestrian traffic. Around 83% of pedestrians surveyed in an East Lansing, MI study changed their crossing

⁹⁴ Michigan Complete Street Coalition. Mid-Block Pedestrian Crossings Explained. Accessed: 6/24/15. Available: <https://michigancompletestreets.wordpress.com/2014/01/21/mid-block-pedestrian-crossings-explained/>

behaviors where mid-block crossings were present. Where pedestrian islands have been included in the crosswalk design, pedestrian crashes were reduced by 46% and vehicle crashes were reduced by 39%. Because mid-block crosswalks can be difficult to use for individuals with visual impairments, adding a crosswalk signal to the crossing will help make the treatment safer for all users.”⁹⁵

Table #45 A **Mid-Block Crossing – Example**



Rapid flashing beacons (RRFB) should be part of the mid-block crosswalks. Installing a push button activated RRFB would help to alert drivers that a child is crossing the road. The visibility of the crossing is increased with the RRFB. Drivers will be able to see the flashing beacon easier than a small child. The RRFB is also more effective than a static sign, since it will only be flashing when pedestrians are crossing the road.

⁹⁵ Michigan Complete Street Coalition. Mid-Block Pedestrian Crossings Explained. Accessed: 6/24/15. Available: <https://michigancompletestreets.wordpress.com/2014/01/21/mid-block-pedestrian-crossings-explained/>

Table #46 B

Rectangle Rapid Flashing Beacon



The RRFB is a rectangular shaped, high intensity signal head, which flashes in a wig-wag, rapid flickering pattern. The alternating signals provide direct, ultra-bright concentration as well as wide-angle intensity. The beacons are pedestrian activated: push button or passive detection

Trail Head Parking

Objective: Increase access and convenience to the trail network in Marshall.

Strategy:

Evaluate parking at existing trailheads.

Add parking to existing trail heads where deficiencies exist.

5 E(s): Engineering and Encouragement

Existing Conditions:

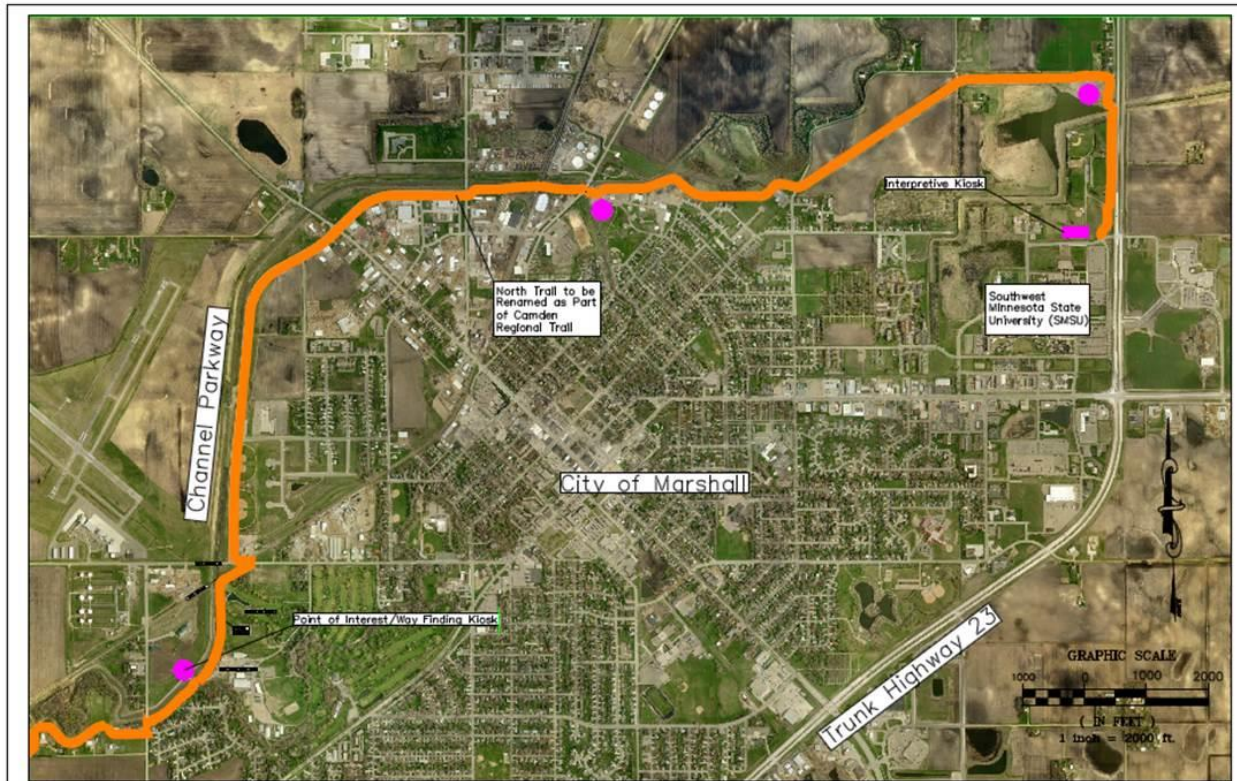
It is essential that accessing a trail network is convenient and safe. Trail users and potential trail users need information regarding access, information regarding trail distances, destinations, and other activities that are available along the trail that may enhance their experience. Trail information can be disseminated in a wide variety of formats, including kiosks, brochures, websites, guidebooks, and on-trail signs and blazes. Trail and trailhead signage is an indispensable part.

The trail and bike lane network in Marshall has been marketed in a number of ways. Connectivity to the trail and bike lane network is increasing, but there are still gaps that can be filled in to increase the connectivity. The lack of connectivity in some areas does result in community members driving to the trail to use the trail network. Rural residents and visitors may also drive to trailheads to access the trail network.

An assessment of the existing trailheads is needed to evaluate parking. An evaluation will help to show where additional parking is needed. Once an evaluation is completed, parking can be added where deficiencies exist. Parking should be convenient and safe to encourage trail use.

“The access points to the bike paths should have space for cars to park.” Neighborhood

Table #47 **Trail Heads Map**



Non-infrastructure Objectives & Strategies

Non-infrastructure objectives and strategies are related to education, encouragement, enforcement, and evaluation. Example projects include painting crosswalks, adding street trees and other pedestrian amenities, public awareness and outreach campaigns, directing police patrol to pedestrian related offences, and evaluating walking and biking routes.

A number of non-infrastructure related actions are already effectively conducted by the city or organizations within the city. During the GreenStep HIA Planning Process a number of additional non-infrastructure related projects were identified. Implementing the identified non-infrastructure projects will not help the city complete and document best practice #11 Living Streets (Complete Green Streets), but this information is valuable to the city. Completing the non-infrastructure strategies will help to make the City of Marshall more pedestrian friendly, which is one of the goals outlined in the scoping section of the HIA.

On Street Bike Lanes

Objective: Increasing biking within the City of Marshall

Strategy:

Add on street bike lanes to Turkey Valley Farms.

Add on street bike lanes to the businesses in the industrial park along North 7th Street, West Fairview Street, and Highway 59.

Connect existing bike lanes in the City of Marshall.

5 E(s): Education, Encouragement, and Engineering

Existing Conditions:

Refer to page 81, On Street Bike Lanes, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

“I live out of town I ride bike every section in Marshall. I personally think the poorest bike trail for me would be Jewett and over by Donita (not enough room). I actually feel safer on Highway 23 with the semis going by.” Neighborhood

“I just wish the bike trails in Marshall were all connected.” Neighborhood

“Bike trails could be better connected.” Neighborhood

Table #30 B

On Street Bike Lanes & Needed Bike Lanes



Existing Trail ————
Existing Bike Route - - - - -
Bike Route—Needed - - - - -

Protected Bike Lanes

Objective: Increase safety in on street bike lanes.

Strategy:

Research protected bike lanes.

Reconfigure parking and existing on street bike lanes to establish protected bike lanes.

5 E(s): Encouragement and Engineering

Existing Conditions:

“A variation of the bike lane is the cycle track (protected bike lane), a striped and signed lane for bicycle traffic with on-street parking to the left of the bike lane with a buffered area between the bike lane and parking.”⁹⁶ Protected bike lanes are the next step in improving safety for on street bike lanes. Creating a physical barrier between the bicyclists and vehicle traffic helps to increase safety and encourage biking.

The physical barrier could be parked cars, planters, posts, curbs, or other unique ideas. The physical barrier makes riding more pleasant and encourages more of the general public to ride, not just the bold and athletic. Protected bike lanes make the street safer for all users.

“Bike path is so close to cars and it is dangerous for two cars to pass with a bike in the bike lane. Parking is also an issue with these bike lanes. If I had children I would have them bike on the sidewalk to be safe.” Neighborhood

“I personally think the poorest bike trail for me would be Jewett and over by Donita. (not enough room) actually feel safer on highway 23 with the semis going by.” Neighborhood

“Biking on Saratoga is not safe.” Neighborhood

⁹⁶ Minnesota’s Best Practices for Pedestrian / Bicycle Safety. Accessed: 8/5/15. Available: <http://www.dot.state.mn.us/research/TS/2013/201322.pdf>

Table #48

Protected Bike Lane – Examples



Top: Armadillos Bottom: Bollards



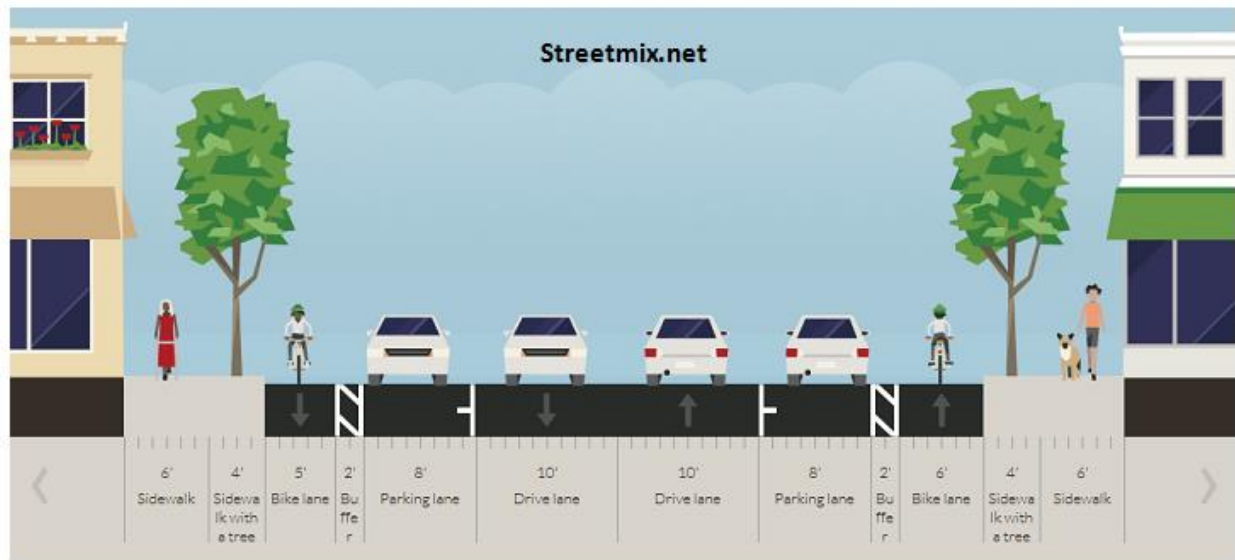
Two-way Protected Bike Lane



Armadillos are recycled plastic dividers that create a protected space for cycling. They are named after the animals that are often seen as road kill in the southwestern states. Armadillos are a small, gentle bump that reminds motorists to stay out of a protected bike lane. “They’re not very high, so if a driver strays in the road they’ll just feel a bump and move away from the edge.”⁹⁷

“Compared to a concrete curb or other more ambitious dividers for protected bike lanes, the armadillo is easy and cheap to install. And, if transportation agencies have second thoughts, they can be easily uninstalled as well. That means they’re a good solution for agencies interested in experimenting with protected bike lanes. If necessary in an emergency, ambulance, fire and police vehicles can drive over the armadillo. It’s not like driving over concrete, which would just destroy your wheel.”⁹⁶

⁹⁷ Bike Delaware. Instant Protected Bike Lane? Just Add Armadillos. Access: 8/5/15. Available: <http://www.bikede.org/2014/04/04/just-add-armadillos/>

Table #49**Street Configuration – Example*****Bike Lane Driver Education***

Objective: Increasing biker safety while in on street bike lanes.

Strategy:

Implement a biannual education campaign to educate motor vehicle drivers on bike lanes.

5 E(s): Education and Encouragement

Existing Conditions:

As bike lanes are added in the City of Marshall, a driver education campaign is needed. There were a number of comments during the GreenStep HIA Planning Process regarding bike lanes and motor vehicle drivers improper driving or parking in them. It is important to educate motorists on bike lanes and that bicyclists are road users too. It is also important to educate bicyclists on their responsibility to obey traffic laws.

Bike Parking

Objective: Increase biking within the City of Marshall.

Strategy:

Make biking more convenient within the City of Marshall by installing bike racks at key locations.

5 E(s): Encouragement and Engineering

Existing Conditions:

During the Marshall Health Impact Assessment Planning Process a number of locations were identified that need bike parking. These locations are major destinations in the community. Below are the

identified locations. Refer to page 85, Bike Parking, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection for more information bike rack examples, community art, and encouraging use.

- Middle School – bike racks are overflowing during school – additional bike parking needed.
- Brau Brothers – beer & bikes is common in other communities.
- Walmart and the stores out there need bike parking.
- Main Street – along main business district.

Stop for Pedestrian Signs

Objective: Increase awareness of driver's responsibility to stop for pedestrians.

Strategy:

Purchase 'Stop for PED' signs that the city can rotate around the city at high pedestrian traffic intersections.

5 E(s): Encouragement and Engineering

Existing Conditions:

Drivers in Minnesota are supposed to stop for pedestrians in a crosswalk, but the majority of drivers do not stop for pedestrians. 'Stop for Pedestrian' signs will help to educate drivers on their responsibility to stop for pedestrians. Seeing more of these signs will help to make all crosswalks safer for pedestrians.

The HIA Planning Team identified a need for 'Stop for PED' signs. These signs help to make drivers aware of their responsibility to stop for pedestrians. The City of Marshall can rotate these signs between high pedestrian traffic intersections. These signs can also be used during community events.

Input from the Active Living Neighborhood

- "Drivers often do not yield to pedestrians."
- "Never know if cars are going to let me cross."
- "Very impatient drivers who do not yield to pedestrians or who do not even stop at stop sign."
- "Crosswalks/traffic signals needed to get to bike path."
- "Leave the yield to pedestrians sign outside of Parkside Elementary up instead of taking it down at the end of the school year."

The Minnesota Crosswalk Law

- Drivers **MUST** stop for crossing pedestrians at marked crosswalks and at all intersections without crosswalks or stop lights.
- Pedestrians **MUST** obey traffic signs and signals at all intersections that have them.
- Vehicles stopped for pedestrians can proceed once the pedestrian has completely crossed the lane in front of the stopped vehicle.
- Pedestrians **MUST NOT** enter a crosswalk if a vehicle is approaching and it is impossible for the driver to stop. There is no defined distance that a pedestrian must abide by before entering the crosswalk; use common sense.
- When a vehicle is stopped at an intersection to allow pedestrians to cross the roadway, drivers of other vehicles approaching from the rear **MUST NOT** pass the stopped vehicle. Failure to obey the law is a misdemeanor. A second violation within one year is a gross misdemeanor.⁹⁸



Pedestrian Amenities along Trails

Objective: Make the environment along the trails in the City of Marshall more inviting and convenient for pedestrians.

Strategy:

Install trash receptacles and doggie bag stations along the trails in the City of Marshall.

5 E(s): Encouragement and Engineering

Existing Conditions:

Currently, there are a limited number of benches and trash receptacles along the trail network. Pedestrian amenities help to encourage use. Installing benches and trash receptacles along the trail network will make it more convenient to use the trail network. Benches provide a place for older adults to rest in the middle of their walk. Trash receptacles make it convenient to bring snacks and soft drinks along on a walk. It also makes it convenient to dispose of pet waste, so dog owners do not have to carry around pet waste throughout the walk.

“Could use garbage cans and doggie bags on the walking path.” Neighborhood

⁹⁸ Minnesota Safety Council. Accessed: 4/17/15. Available:
<http://www.minnesotasafetycouncil.org/facts/factsheet.cfm?qs=BD3BE1A6DFA3335E>

“There is a ton of litter around the park and river. We bring bags and always fill them up with trash. City garbage bins periodically would be nice because they fill up our garbage. Or the city could just clean up the litter.” Neighborhood

“Trail needs doggie bags/garbage cans as people just let their dogs poop on the path. Nowhere to throw the waste. My suggestion is to have businesses pay for advertisements on the garbage/waste can so help pay for them.” Neighborhood

Sidewalk Maintenance

Objective: Keep sidewalk clear of debris and snow

Strategy:

Work with land owners to keep sidewalks clear of debris and obstructions.

Enforce the snow removal policy.

5 E(s): Encouragement and Engineering

Existing Conditions:

A vehicle or branch blocking a sidewalk can be a major obstacle for an elderly person or someone with a disability. It is important to keep sidewalks cleared of debris and snow. A sidewalk is public right-of-way and so is the space along a street where a sidewalk could be.

It is illegal to block a sidewalk with a vehicle parked in a driveway. The Marshall Police Department should work with land owners to not block sidewalks with parked cars. A written warning should be issued when a sidewalk is blocked and a ticket should be written for repeat offenders.

It is the responsibility of the land owner to remove branches and other debris that can block a sidewalk. A written warning could be issued when a sidewalk is blocked and a ticket should be written for repeat offenders. It is important to work with property owners, since the majority of residents will comply if asked.

The City of Marshall has a snow removal policy for sidewalks. This policy needs to be enforced. A written warning could be issued when a sidewalk is not cleared of snow and a ticket should be written for repeat offenders.

Keeping sidewalks cleared helps to encourage walking in Marshall. If sidewalks are not maintained, pedestrians will have to walk on the street. Some streets in Marshall may not be safe to walk on due to higher traffic volumes and traffic speeds. Not maintaining sidewalks creates a potential safety issue.

During the Active Living community meetings, a specific section of sidewalk by the library was identified. The sidewalk by the library is partially blocked by bushes. These bushes need to be trimmed back to provide adequate clearance. It may be difficult for a person in a wheelchair to navigate this section of sidewalk.

“The Sidewalk is cover in trees at the corner of Marshall and North 7th.” Neighborhood”

“Visibility is a big issue on Bruce to cross at the corner of Horizon shrubs block the view difficult to cross.” Neighborhood

Pedestrian Safety – Legion Field

Objective: Increase pedestrian safety around Legion Field

Strategy:

Identify and paint busy pedestrian intersections that lead to Legion Field.

Evaluate traffic calming and parking around Legion Field to increase safety and visibility of pedestrians.

5 E(s): Evaluation and Enforcement

Existing Conditions:

There are higher levels of pedestrian traffic around Legion Field during sporting events and other community events. Legion Field is a primary destination for walkers and bikers. Primary connections to Legion Field need to be maintained at the highest level. This entails having clearly identified crosswalks, adding ‘Stop for PED’ signs, and increasing police patrols in the area.

There are a number of painted crosswalks around Legion Field, but there are some connections that need to be filled in. City staff can evaluate the need for traffic calming and additional sidewalks. Other areas in Marshall with higher pedestrian traffic should also be evaluated regarding the need for traffic calming and painted crosswalks.

“Good except for traffic at T-ball games on Legion Field.” Neighborhood

“View of traffic is blocked on Legion Field Rd when there are youth games and cars are parked on both sides of the street.”

Sidewalk Assessment Program

Objective: Increase the overall condition of the sidewalk network in Marshall.

Strategy:

Creating a grading scale for sidewalks to evaluate the condition of sidewalks and when they need to be replaced.

Annually evaluate the sidewalk network in Marshall and identify sidewalks that are deficient.

Work with property owners to rebuild sidewalks that have been identified as deficient.

5 E(s): Evaluation

Existing Conditions:

There is a well-developed sidewalk network within the City of Marshall. This network connects to a number of primary destinations and provides a safe place for pedestrians. There are some places within the city that have sidewalk sections that have settled or have lifted because of tree roots. This can create a tripping hazard.

Uneven sidewalks may not be ADA compliant. Older curb ramps and areas without curb-cuts also pose ADA compliance issues. It is important to annually evaluate the sidewalk network and or key connections along the sidewalk network.

Different streets require different pedestrian amenities. A Complete Street does not have a singular definition. A Complete Street is any street you feel safe walking or biking on. A Complete Street does not have to have a sidewalk on both sides of the street, but you have to consider all users when deciding if is safe for pedestrians.

It is important to consider the need when addressing sidewalks. Cities have a limited budget to spend on sidewalks, so key connections should be establish and maintained before other connections are addressed. Prioritizing the sidewalk network can be done through a Pedestrian Functional Classification System. Refer to page 128 for the strategy to implement a Pedestrian Functional Classification System under the objective to complete the GreenStep best practice: Living Streets.

“Some of the roads, curbs, and sidewalks are bad many holes and bumps. Walkers have tripped, kids have fallen from bikes/rollerblades. They need to redo some of the sidewalks, streets and curbs.” Neighborhood

“Many cracked areas, it would be easier to walk in the streets.” Neighborhood

Pedestrian Lighting Issues

Objective: Improve pedestrian lighting in the City of Marshall.

Strategy:

Install pedestrian scale lighting on trails within the City of Marshall.

Improve lighting at the locations identified via Wikimapping.

5 E(s): Encouragement, and Engineering

Existing Conditions:

A number of locations were identified during the GreenStep HIA Planning Process regarding the need for improved lighting or establishing lighting. Below are the locations that were identified. Refer to page 83, Pedestrian Scale Lighting Issues, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection for more information regarding pedestrian scale lighting and examples.

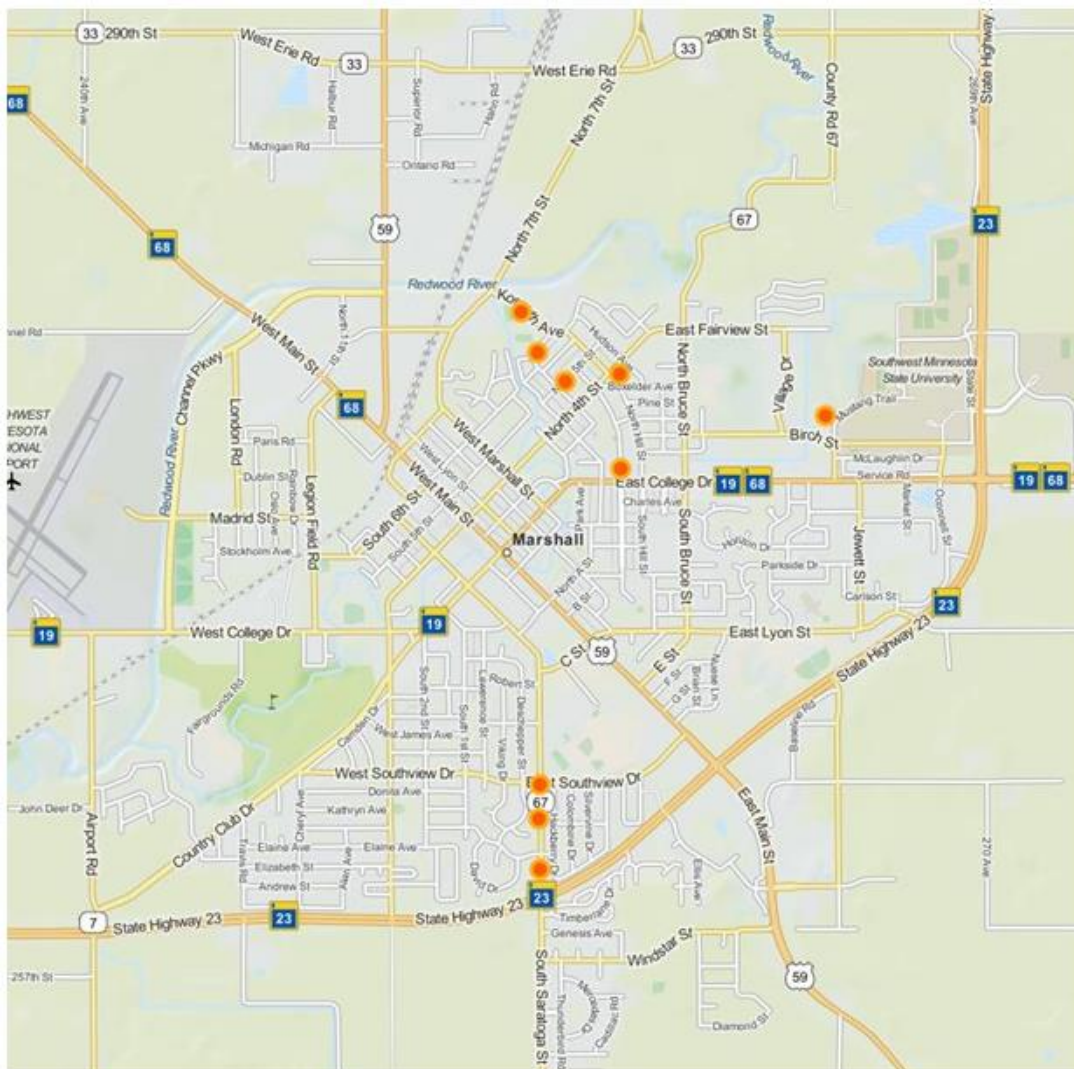
Identified Lighting Issues

- Area around Justice Park is not well lit.

- Elm Street is not well lit
- Limited lighting in my neighborhood (Minnesota, Boxelder, Hill, etc.)
- No light at Whitney and College Drive
- Streetlights either out or flickering. Also minimal light in public lot for sporting events (Mustang Trail).
- Saratoga from Southview to 23 - dark area

The three lighting issues along South Saratoga Street are currently being addressed by the City of Marshall. These lighting issues were identified and added to the city's 2015 construction projects schedule.

Table #30 **Lighting is an Issue**



Pedestrian Lighting Issue 

BP #17 Innovative Stormwater Management

Objective:

Complete the GreenStep Cities best practice: Innovative Stormwater Management

Strategy:

Adopt and implement guidelines or design standards / incentives for stormwater infiltration / reuse practices.

5 E(s): Engineering and Encouragement

Existing Conditions:

To complete the GreenStep City best practice Conservation Design and or Innovative Stormwater Management, the City of Marshall has to implement only one action under the best practice. Conservation Design and or Innovative Stormwater Management actions generally promote the adoption of development ordinances or processes that protect natural systems. There are several approaches that can be used to achieve this best practice, since the GreenStep program is flexible.

- Reduce the volume of storm water runoff, erosion, and improve the aesthetic appeal of the City of Marshall.
- Install curbside water retention gardens to reduce storm water runoff.
- Install a curb extension to increase safety at higher traffic volume intersections and to increase plant cover to help reduce erosion.
- Add landscape to curb extensions to increase neighborhood feel and the aesthetic characteristics of the City of Marshall.

It is recommended that water retention gardens be used to reduce the volume of storm water runoff, erosion, and improve the aesthetic appeal of the City of Marshall. These water retention gardens can be in the form of curbside gardens, curb extension, or other innovative planting strategies. There are a number of retention garden examples from other cities.

Table #50 A

Curbside Landscaping – Examples



Table #50 B

Curbside Landscaping – Examples



The objective of increasing curbside landscaping around the City of Marshall is twofold. First, it is to soften the ‘impervious urban landscape’ of asphalt and concrete and absorb rainfall that might otherwise funnel into the combined sewer system. During extreme rain events, storm water can exceed the capacity of the water treatment plant, and a bypass may occur. When a bypass to the water treatment plant occurs, the overflow is discharged into local waterways. Bypassing the water treatment plant can result in sewer water and storm water harming water quality in local waterways.

Rain gardens are one way to reduce the amount of runoff and water that has to be treated. New York City installed 250 rain gardens. “The New York City’s gardens are expected to capture more than 200 million gallons of storm water each year that might otherwise run into waterways like the Gowanus Canal, Flushing Bay or Newtown Creek.”⁹⁹

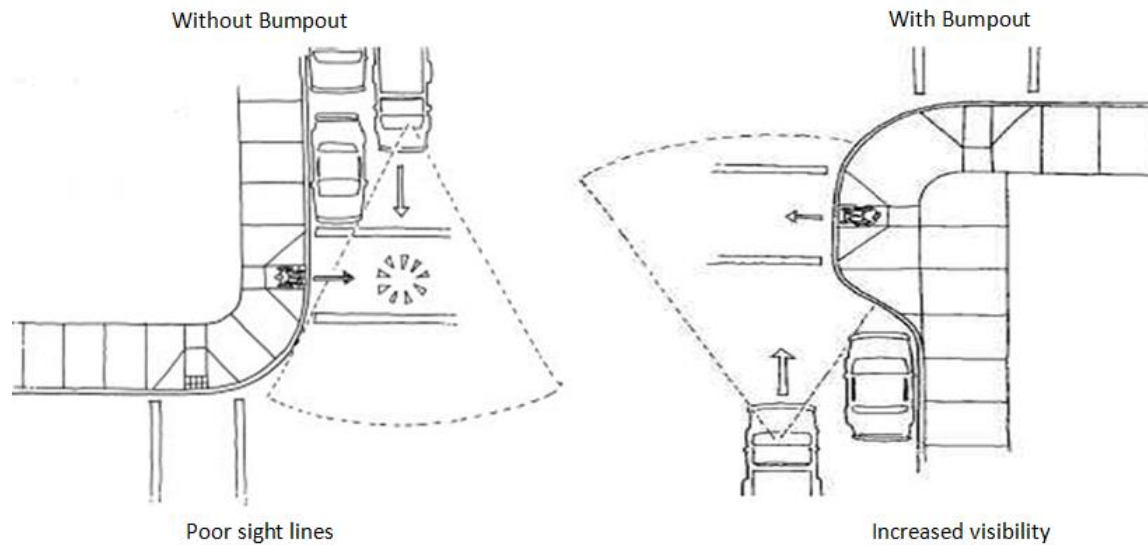
Second, curbside landscaping is to enhance the aesthetic character of the city. Increasing the aesthetic character of the city will help to encourage more walking and biking. The street will feel more inviting and the landscaping provides a barrier between vehicles and pedestrian on the sidewalk.

Curb extensions are also a traffic calming device that helps to slow traffic speeds, increase visibility, and reduce crossing times. Curb extensions narrow the street crossing distance for pedestrians. This helps to increase safety at the crossing, since pedestrians are in a better position to look past parked vehicles to see oncoming traffic.

“Views blocked by parked cars.” Neighborhood – Was it easy to cross the street?

“Parked cars can make it difficult to see oncoming traffic.” Neighborhood – Was it easy to cross the street?

⁹⁹ Hazen and Sawyer, Environmental Engineers & Scientists. Accessed: 7/9/15. Available: <http://www.hazenandsawyer.com/news/new-york-plants-curbside-gardens-to-soak-up-storm-water-runoff/>

Table #19**Bumpout (Curb Extension) Visibility Comparison**

Curb extensions can be permanent or removable. Removable curb extensions can be put in to test their effectiveness at slowing traffic and making the environment safer for pedestrians. Removable curb extensions give the city time to evaluate this action before installing permanent curb extensions. If the removable curb extension is effective, a more permanent curb extension can be installed.

Curbs and storm water drainage do not have to be altered with removable curb extensions. Rebuilding curbs and modifying storm water drainage can be very expensive. A removable curb extension is an add-on to the existing street.

Curb extensions not only make it safer for pedestrians, but they can also help make the street more aesthetically pleasing. During the summer months landscaping can be done within the curb extension to make the area stand out and to provide natural drainage. During winter months a removable Curb Extension can be removed to allow for easier snow removal.

Table #51**Removable Curb Extension**

Table #52

Curb Extensions – Landscaping Examples



Table #53

Removable Curb Extensions – Planters



South Saratoga Street and East James Avenue

The intersection of South Saratoga Street and East James Avenue is a higher pedestrian traffic area, since it is a primary crossing to get to the Marshall Middle School. South Saratoga Street has been identified as a higher risk area due to the higher traffic volumes. A curb extension on the west side of

South Saratoga Street will help to make the crossing safer for pedestrians. An example of a curb extension on only one side of the street is below.¹⁰⁰

Table #54

Curb Extension –One Side Only – Example



Table #55

South Saratoga and East James Avenue – possible one sided curb extension



BP #18 – Parks and Trails

Objective:

Complete the GreenStep Cities best practice: Parks and Trails

¹⁰⁰ City of Shoreview, MN. Accessed: 6/18/15. Available:

<http://www.shorelinewa.gov/government/departments/public-works/transportation-services/traffic-calming-and-pedestrian-bicycle-safety-in-shoreline>

Strategy:

Identify and remedy gaps within your city's system of parks, off-road trails, and open spaces.

Achieve minimum levels of city greenspace.

Develop a program to involve community members in hands-on land restoration and stewardship projects.

5 E(s): Engineering and Encouragement

Existing Conditions:

To complete the GreenStep City best practice Parks and Trails, the City of Marshall has to implement three actions under the best practice. Parks and Trails actions generally supports active lifestyles and property values by enhancing the city's green infrastructure. There are a variety of actions to choose from to implement this best practice. It is recommended that the City of Marshall pursue the three actions below to achieve the Parks and Trails best practice.

- Utilizing the open greenspace along the ditch as a nature trail and or mountain bike route.
- Utilize city owned open lots as pocket parks.
- Implement a trail adoption program for picking up trash.

Identify and Remedy Gaps

To achieve the one star action under Parks and Trails: identify and remedy gaps within your city's system of parks, off-road trails, and open spaces, the city of Marshall needs to remedy at least one connectivity break. An example is completing a missing trail section. The natural trail connection and diversion channel could be one way of documenting this best practice.

Nature Trail Connection & Diversion Channel

Objective:

Improve connectivity to the Southwest Minnesota State University Natural Trail.

Improve connectivity to the existing paved trail.

Strategy:

Build a pedestrian bridge over Diversion Channel that connects neighborhoods around East Fairview Street and the Southwest Minnesota State University Natural Trail.

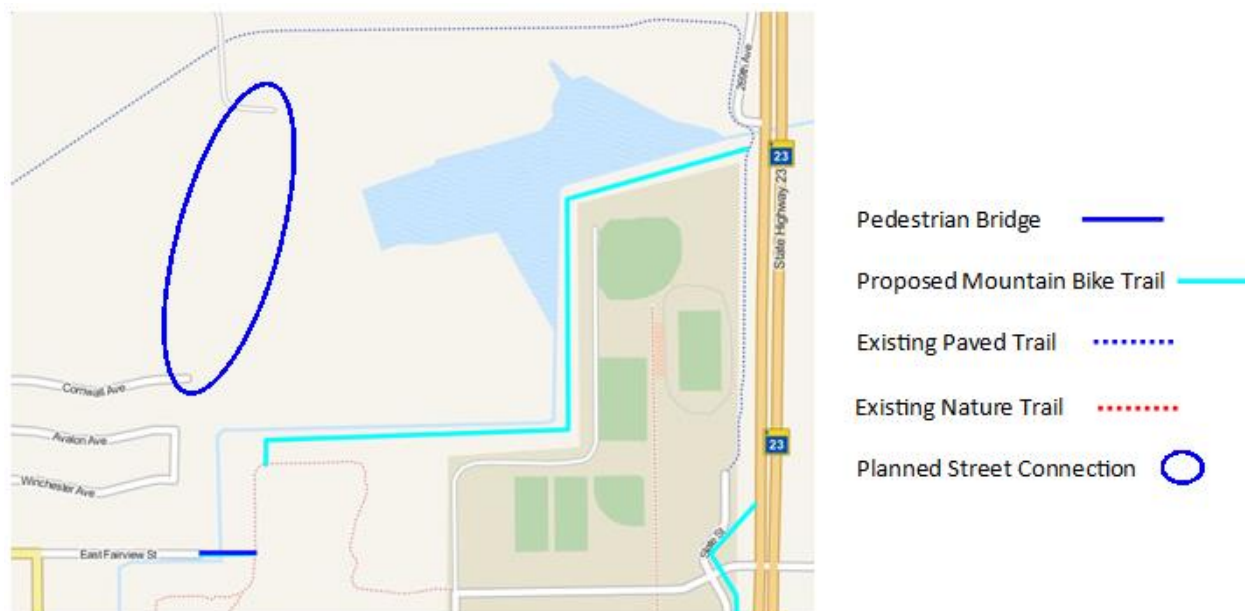
Establish a nature trail between the proposed pedestrian bridge and the existing paved trail

5 E(s): Engineering and Encouragement

Existing Conditions:

Refer to page 76, Nature Trail Connection / Mountain Bike Route, in the Assessment Chapter under the Gaps in the sidewalk / Trail Network subsection.

Table #23 Nature Trail Connection & Diversion Channel Nature Trail



Minimum Levels of City Greenspace

To achieve the one star action under Parks and Trails: support active lifestyles and property values by enhancing the city's green infrastructure, the City of Marshall has to have at least 7 acres of municipal park land per 1000 residents. The City of Marshall is confident that they have already achieved this. The City of Marshall is working on documenting this best practice.

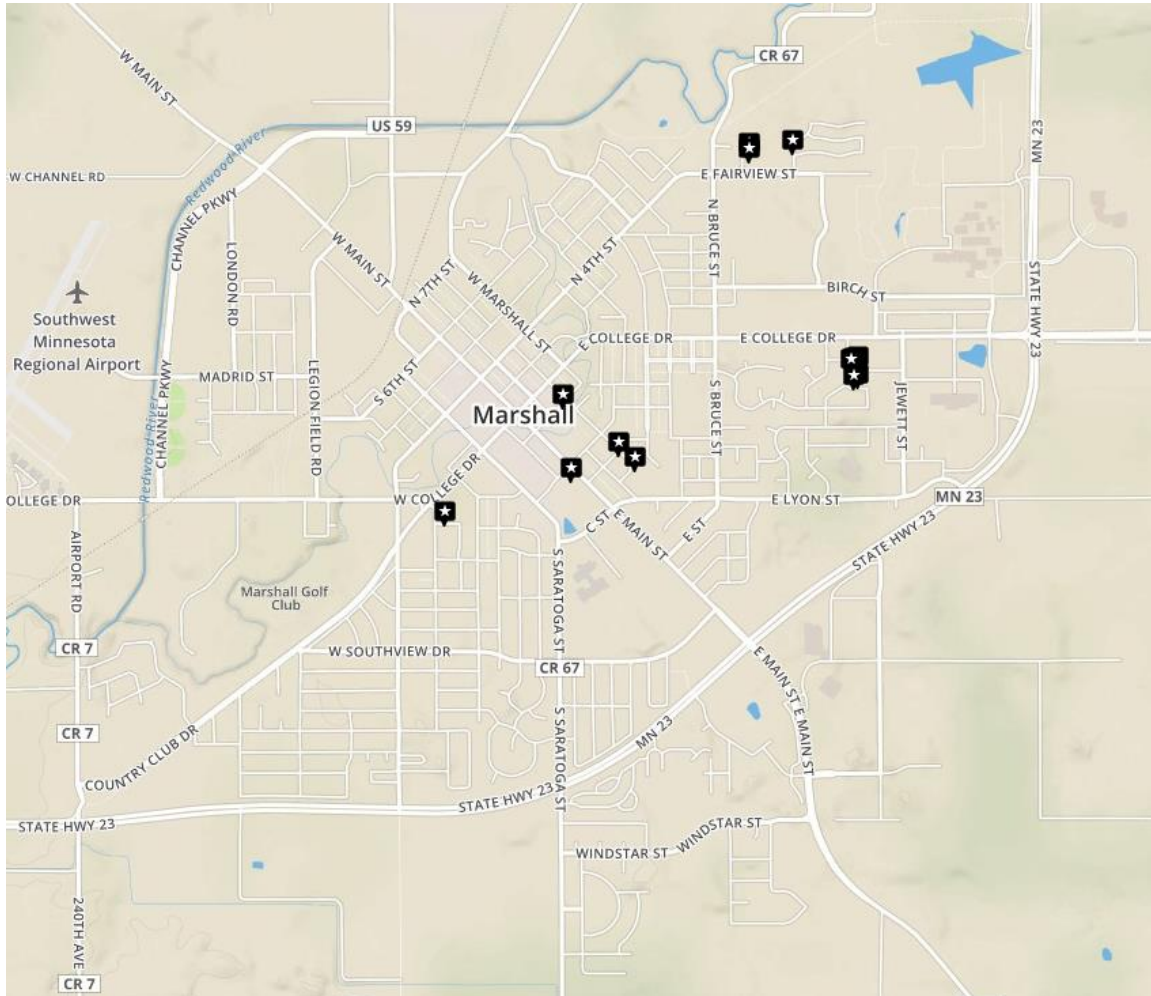
To ensure this minimum level of greenspace, the City of Marshall could pursue an infill strategy around pocket parks. There are a few empty lots that the city owns or are acquiring through tax forfeiture. These lots can become pocket parks. A pocket park does not have to have playground equipment but can just be open greenspace. The city has to mow and maintain these lots, so these lots should be marketed as public greenspace.

The City of Marshall could also market city owned property along the ditch and other properties as open greenspace. Open greenspace can be a valuable addition to the outlined municipal parks. All productive city owned properties should be evaluated on whether the parcel could be utilized as open greenspace. Marketing and documenting city owned properties as open greenspace will allow the city to count this property as municipal park land.

The City of Marshall has pursued a strategy of having larger city parks, so having smaller pocket parks and open greenspace will be a change for the city. Open greenspace can be used for more nontraditional activities and non-club sports. Utilizing these city owned properties will increase access to public greenspace. Below is a map of city owned lots. Some of these lots have structures on them, so

additional research is needed to identify lots that can be used for pocket parks and to identify other city owned lands.

Table #34 **City Owned Properties Map**



Trail Adoption Program

To help ensure a clean and attractive looking trail network in and around the City of Marshall, you can adopt a section of the trail. Adopting a section of the trail provides an opportunity for you to be actively involved in helping to maintain and enhance existing trails for all to enjoy. The trail adoption program will help achieve the strategy: develop a program to involve community members in hands-on land restoration and stewardship projects.

When you adopt a trail, you are making sure trail users will always have a well-maintained trail to walk or bike. Managing the trail entails: keeping the trail surface clear of sticks, rocks, and other debris; picking up litter; reporting vandalism, large debris, and safety issues to the City. You are asked to visit the adopted trail section at least twice a month. You can visit the section of trail at your convenience, choosing the days and times you would like to visit the trail.

Who can adopt a trail?

1. Schools
2. Youth Groups
3. Church, Community and Service Organizations
4. Businesses
5. Families, Individuals or Groups of Individuals

Table #56

Adopt a Trail Signage



BP #27 – Local Foods

Objective:

Complete additional actions under the GreenStep Cities best practice: Local Foods

Strategy:

Facilitate creation of home/community gardens, chicken & bee keeping, and incorporation of food growing areas/access in multifamily residential developments.

Create, assist with and promote local food production/distribution within the city, such as a farmer's market, an urban agriculture business, or a community or school garden, orchard, or forest.

5 E(s): Engineering and Encouragement

Existing Conditions:

To complete the GreenStep City best practice Local Foods, the City of Marshall has to implement only one action under the best practice. The Local Foods actions generally work towards strengthening local

food and fiber production and access. The City of Marshall has already implemented two actions under this best practice and has a community garden available to city residents and a garden operated by Western Community Action for donation to the food shelf. It is recommended that the City of Marshall pursue additional actions to achieve two star and three star recognition.

A community garden is available in Marshall, but there are more residents requesting space that can be accommodated. City officials have reported that city owned space on West College Drive could be used for community garden space and would be a benefit for local food production and opportunity for more residents to benefit from the local fresh produce, the pride of growing their own food and the physical exercise experienced while gardening.

Allowing access to locally grown foods can also be accomplished and would increase access to healthy foods. Additional sites for farmer's markets could be started, for e.g. the industrial park when workers are due to get off work or as infill projects on vacant lots in neighborhoods. These farmer's markets could be a smaller scale to reduce the time and work of local producers.

During the assessment phase of the GreenStep HIA, issues regarding local foods were identified that Marshall is a food desert. The two main grocery stores are located at the south end of town and are relatively close to one another. Marshall does have several ethnic grocery stores, including Mexican, East African, and Asian.

These ethnic grocery stores support their respective ethnic groups. Since these grocery stores only serve a small percentage of the population, access to healthy food is still an issue. Additional neighborhood grocery stores would help to fill the needs of the entire community and increase access to healthy foods. Convenience stores could also expand their food selection to include healthier food options.

CHAPTER V: REPORTING

Introduction

This chapter documents the process disseminating the findings to decision makers, affected communities, and other stakeholders.

Reporting

Partners involved in the development and implementation of the Marshall GreenStep HIA include: the City of Marshall; the Marshall GreenStep Committee; the Southwest Statewide Health Improvement Program (SHIP); and Healthy 56258. These community groups are working towards common goals of a healthier more livable community, increasing economic opportunity, and social inclusion. These community groups have similar goals and can ensure that the City of Marshall HIA will address the issues facing all groups.

The Marshall GreenStep HIA was presented to the Marshall City Council on August 25th, 2015. The city council is the main decision maker regarding the outlined objectives and strategies. The city council will implement the objectives and strategies with assistance from the Marshall GreenStep Committee, Southwest SHIP, and Healthy 56258.

Objectives and strategies outlined in the HIA are recommendations, so additional planning, community input, and engineering work may be needed before a specific strategy can be implemented. The city will rely on the expertise of city staff and recommendation from the Marshall GreenStep HIA, Marshall GreenStep Committee, Healthy 56258, and community members when implementing a strategy. Public participation is critical in implementing strategies outlined in the plan.

Continued Public Involvement

The Marshall GreenStep Committee, Healthy 56258, and Southwest SHIP hold regular meetings to discuss strategies to make the City of Marshall more livable, active, and healthy. Community members can participate by attending these regularly scheduled meetings or by contacting these groups. Community members can also show support or disapproval for strategies outlined in the Marshall GreenStep HIA by contacting the City of Marshall and attending Marshall City Council Meetings.

CHAPTER VI: MONITORING & EVALUATION

Introduction

This chapter documents the procedures for monitoring the results of the HIA and evaluating it in respect to process, impact, and outcome.

Plan Monitoring

The Marshall GreenStep HIA is not a static document. It is the intent of the plan to serve as a guide for improving walkability and bikeability in the City of Marshall. The Marshall GreenStep Committee maintains regular contact with the city staff and elected officials. This will allow the Marshall GreenStep Committee to work with the city on monitoring and implementing strategies outlined in the HIA. The Southwest Statewide Health Improvement Program (SHIP) Group, and Healthy 56258 will also help with implementing strategies outlined in the plan.

The GreenStep Committee will document the objectives that have been implemented by the City of Marshall to the GreenStep City Program.

Evaluation

The Goal of the Marshall GreenStep Committee is to become a Step 3 GreenStep City by 2016. The progress of the Marshall GreenStep HIA can be evaluated on reaching their goal of becoming a Step 3 GreenStep City by 2016. This is a more broad way of evaluating the implementation of the HIA.

An impact evaluation can be done by conducting a comparison study. Multiple surveys can provide a baseline for evaluating health outcomes in the City of Marshall. These surveys are outlined below. Similar surveys can be administered once strategies outlined in the Marshall GreenStep HIA are implemented and objectives achieved.

- The 2010 Southwest/South Central Adult Health Survey was conducted between April and July, 2010 as part of the Statewide Health Improvement Program (SHIP) to learn about the health and health habits of residents living in 19 counties in southwest and south central Minnesota.
- Healthy 56258 conducted multiple surveys in Marshall in the spring of 2014. Adults listed the top three barriers to healthy living.
- The USDA tracks obesity rates in Lyon County annually.
- Community Health Assessment completed by SWHHS collects data on public health factors in six counties every five years.
- BRFSS – MN reports on health-related risk behaviors on chronic health conditions annually.
- USDA reports data on food deserts annually.

SW SHIP conducted pedestrian counts in Marshall during SHIP 3. These counts can be done as part of SHIP 4. A comparison study can be conducted once the strategies outlined in the Marshall GreenStep HIA are implemented and objectives achieved.

Conclusion

When making a land use decision and investing in the future, it is critical to consider all the costs, not just the construction costs. There are costs associated with sprawl, inactivity and negative health outcomes, and the loss of community. Decision makers need to consider the function of every street, and plot of land. Is the function of this place to create wealth or is the function of this particular street to move cars quickly? If it is to create wealth, decision makers need to think about walkability, bikeability, and connectivity to the development.

When a street is rebuilt, discuss if this street can be improved in regards to walkability, bikeability, and connectivity to the community. The cost savings of narrowing a street could be used to install sidewalks and create a more livable neighborhood. On existing streets consider other higher return improvements, like painting crosswalks or striping travel lanes. These are just two general pedestrian improvements. Refer to the Recommendations Chapter for specific pedestrian improvements.

“When you narrow up the street lanes, cars drive slower, people feel more comfortable there. They walk across the streets, to a store across the street. And in a real subtle and cheap way you get a lot more pedestrian traffic, a lot more retail, a lot more people. And people spend money, and that's what makes a place wealthier. When people are there, people invest more.”

– Charles Marohn, President of Strong Towns

“When you narrow up the street lanes, cars drive slower, people feel more comfortable there. They walk across the streets, to a store across the street. And in a real subtle and cheap way you get a lot more pedestrian traffic, a lot more retail, a lot more people. And people spend money, and that's what makes a place wealthier. When people are there, people invest more.”¹⁰¹

Decision Makers Checklist: Built Environment

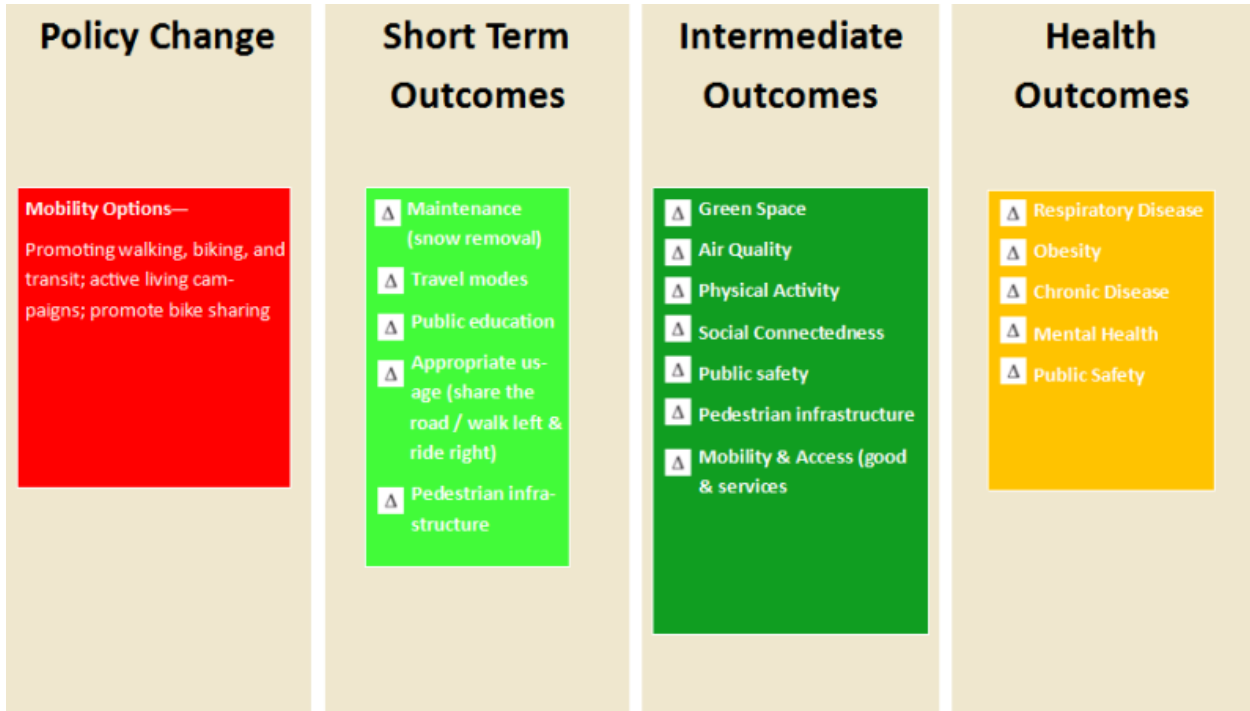
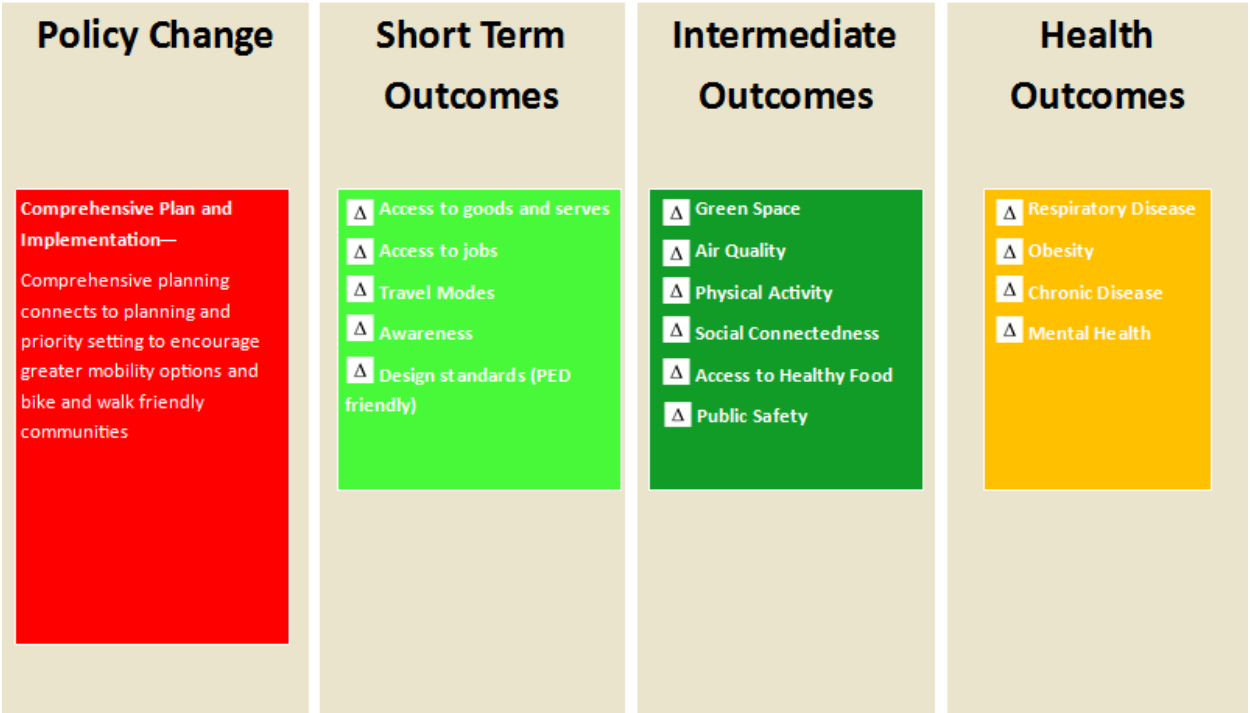
Discuss...

- How will my decision impact health?
- How will my decision impact connectivity?
 - Compact efficient development vs. sprawl (which decreases connectivity)
- Will my decision make the community more inviting (more walkable and bikeable)?
- Were all users considered when making the decision?

¹⁰¹ Econ Talk. Charles Marohn on Strong Towns, Urban Development, and the Future of American Cities. Accessed: 5/13/15. Available: http://www.econtalk.org/archives/2014/05/charles_marohn.html

Appendix

Pathway Diagrams



Policy Change

Efficient City Growth—

Promote financial and environmental sustainability by enabling and encouraging walkable housing and commercial land use

Short Term Outcomes

Δ Growth patterns

Δ Travel Modes

Δ Housing

Intermediate Outcomes

Δ Social Connectedness

Δ Air Quality

Δ Physical Activity

Δ Improved Tax Base

Δ Walking, biking, and transit use

Δ Housing Costs (more \$ for other needs)

Health Outcomes

Δ Respiratory Disease

Δ Obesity

Δ Chronic Disease

Δ Mental Health

Δ Public Safety

Policy Change

Mixes Uses—

Mixed use development to encourage more walking and biking

Short Term Outcomes

Δ Access to goods and services

Δ Access to jobs

Δ Travel Modes

Δ Housing Type

Δ Property values

Δ Crime

Intermediate Outcomes

Δ Access to healthy foods

Δ Income

Δ Walking, biking, and transit use

Δ Emissions

Δ Improved tax base

Δ Housing density

Δ Smoke free housing

Δ Affordable housing

Health Outcomes

Δ Respiratory Disease

Δ Obesity

Δ Chronic Disease

Δ Mental Health

Δ Public Safety

Policy Change

Efficient Highway- and Auto-Oriented Development—

Adopt commercial development and design standards for highway corridors.

Short Term Outcomes

- Δ Development policy (PED friendly)
- Δ Sidewalk policy
- Δ Traffic speeds
- Δ Traffic calming
- Δ Traffic volumes

Intermediate Outcomes

- Δ Green Space
- Δ Air Quality
- Δ Physical Activity
- Δ Social Connectedness
- Δ Walk and Bike ability
- Δ Travel mode (air pollution / noise)
- Δ Crash data
- Δ Traffic Volumes

Health Outcomes

- Δ Respiratory Disease
- Δ Obesity
- Δ Chronic Disease
- Δ Mental Health
- Δ Public Safety

Policy Change

Conservation Design—

Adopt development ordinances or processes that protect natural systems

Short Term Outcomes

- Δ Green space
- Δ Natural habitat (waterways)
- Δ Water management
- Δ Development Policies
- Δ Chemical treatments (lawn care, spraying)

Intermediate Outcomes

- Δ Livability
- Δ Air Quality
- Δ Water Quality
- Δ Physical Activity
- Δ Social Connectedness
- Δ Public education
- Δ Compact efficient development

Health Outcomes

- Respiratory Disease Δ
- Obesity Δ
- Chronic Disease Δ
- Mental Health Δ
- Birth outcomes and child development

Policy Change

**Living Street
(Complete Living Streets)—**
Walkable streets to encourage exercise; Remedy complete street gaps to encourage walking and biking

Short Term Outcomes

- Δ Streetscape (trees and benches)
- Δ Design standards Drainage
- Δ Maintenance (Snow removal)
- Δ Traffic calming
- Δ Water Drainage

Intermediate Outcomes

- Δ Green Space
- Δ Air Quality
- Δ Physical Activity
- Δ Social Connectedness
- Δ Walk and bikeability
- Δ Water quality
- Δ Public safety

Health Outcomes

- Δ Respiratory Disease
- Δ Obesity
- Δ Chronic Disease
- Δ Mental Health
- Δ Public Safety

Policy Change

Efficient City Fleets—
Encourage walking by strategically placing bus stops in neighborhoods. Includes: public transit, city maintenance and staff cars

Short Term Outcomes

- Δ Emissions
- Δ Idling policies
- Δ Transit use (promotion)
- Δ Bus stop locations
- Δ Commuting / car-pooling

Intermediate Outcomes

- Δ Pedestrian Infrastructure (bus stop shelter)
- Δ Air Quality
- Δ Social Connectedness
- Δ Walk and bikeability
- Δ Less impact on public infrastructure
- Δ Congestion
- Δ Crash data—(more people walking)

Health Outcomes

- Δ Respiratory Disease
- Δ Obesity
- Δ Chronic Disease
- Δ Mental Health
- Δ Public Safety
- Δ Stress

Policy Change

Urban Forests—

Add city tree and plant cover that increases community health, wealth and quality of life

Short Term Outcomes

- Δ Tree & Plant management
- Δ Landscaping design— (public right-of-way)
- Δ Water Drainage

Intermediate Outcomes

- Δ Green Space
- Δ Air Quality
- Δ Physical Activity
- Δ Social Connectedness
- Δ Livability
- Δ Property values
- Δ Traffic calming
- Δ Wind blocks / snow fences
- Δ Water quality

Health Outcomes

- Δ Respiratory Disease
- Δ Obesity
- Δ Chronic Disease
- Δ Mental Health
- Δ Public Safety
- Δ Birth outcome and child development

Policy Change

Parks and Trails—

Remedy gaps in city's system of parks, trails and open spaces to encourage more biking and walking; Plan and design for new green spaces in development to encourage outdoor activities; Achieve minimum levels of green space to encourage outdoor activities.

Short Term Outcomes

- Δ Land Use
- Δ Travel Modes
- Δ Programming
- Δ Chemical treatments (lawn care, spraying)
- Δ Pedestrian planning
- Δ Passive and active recreation
- Δ Community gardens

Intermediate Outcomes

- Δ Green space
- Δ Air quality
- Δ Physical activity
- Δ Social connectedness
- Δ Walkability and bikability
- Δ Fresh foods

Health Outcomes

- Δ Respiratory disease
- Δ Obesity
- Δ Chronic disease
- Δ Mental health

Policy Change

Local Foods—
Strengthen local food and fiber production and access

Short Term Outcomes

- Δ # of local farmers
- Δ Availability of fresh foods
- Δ Local jobs
- Δ Community gardens
- Δ Chemical treatments (lawn care, spraying)

Intermediate Outcomes

- Δ Local economy
- Δ Eating habits
- Δ Less commuting
- Δ Social connectedness
- Δ Property values

Health Outcomes

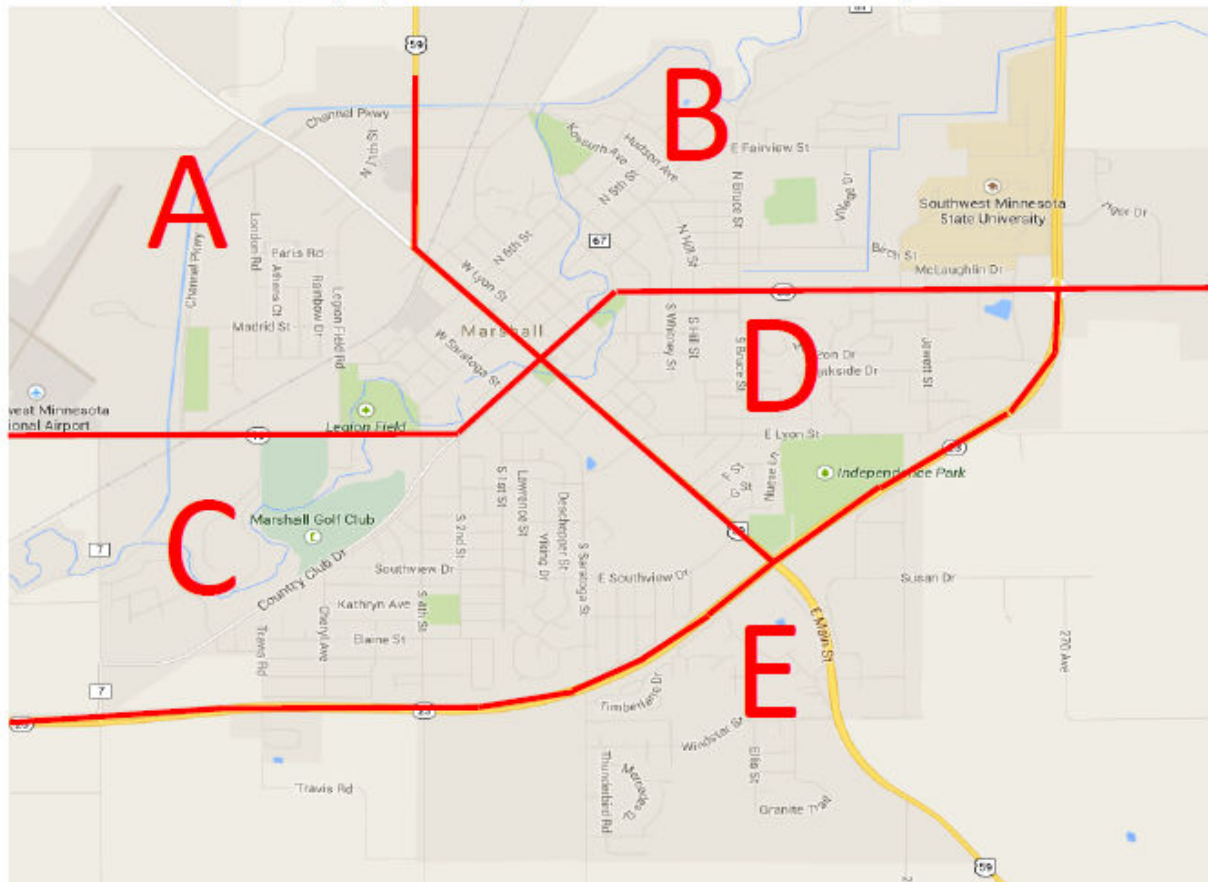
- Δ Chronic disease
- Δ Obesity
- Δ Respiratory disease
- Δ Mental health
- Δ Stress levels

Neighborhood Assessment Survey

Neighborhood Assessment Survey:

Please help the City of Marshall identify factors that help or hinder safe walking and biking in Marshall.

Please circle the letter that corresponds to the area of Marshall you primarily walk or bike in. You can fill out multiple surveys if you want to grade other areas of the community.



Instructions:

1. On your average walk in the area identified above, score each category on a scale of 1 to 10 on the criteria outlined within each category.
2. Add comments regarding specific issues you would like to address.
3. Please complete the survey ASAP. You can return the survey to city hall or complete the survey online at <http://www.surveymool.com/s/SE3F0AE6D8>
4. Comments can also be added at <http://wikimapping.com/wikimap/Marshall-Health-Impact-Assessment.html> regarding citywide pedestrian issues

General atmosphere (in regards to walking and biking) (10 being the best...1 being the worst)



Comments....

1. Did you have room to walk?

Sidewalks or paths started and stopped
Sidewalks broken or cracked
Sidewalks blocked
No sidewalks, paths or shoulders
Too much traffic

1 2 3 4 5 6 7 8 9 10

Comments....

2. Was it easy to cross streets?

Road too wide
Traffic signals made us wait too long or did not give us enough time to cross
Crosswalks/traffic signals needed
View of traffic blocked by parked cars, trees, or plants
Needed curb ramps or ramps needed repair

1 2 3 4 5 6 7 8 9 10

Comments....

3. Did drivers behave well?

Backed without looking
Did not yield
Turned into walkers (at intersections)
Drove too fast
Sped up to make traffic lights or drove through red lights

1 2 3 4 5 6 7 8 9 10

Comments....

4. Could you follow safety rules?

Cross at crosswalks or where you could see and be seen
Stop and look left, right, left before crossing
Walk on sidewalks or shoulders facing traffic
Cross with the light

1 2 3 4 5 6 7 8 9 10

Comments....

5. Was your walk pleasant?

Needs grass, flowers, trees
Scary dogs
Scary people
Not well lit
Dirty, litter
Lots of traffic

1 2 3 4 5 6 7 8 9 10

Comments....

6. Are there any routes you would like to walk and currently can not due to safety issues, existing gaps in the sidewalk network, or other pedestrian infrastructure that discourages you from walking or biking?

Comments....

7. Would you be interested in participating in a focus group regarding walking and biking in Marshall?

If yes, please provide your name and email. Name _____ Email _____

Food Store Survey

Food Store Survey

Food Store	
Date/Time	
Number of People in Store	
Healthy foods accessible	Fruits_____ Vegetables _____ Low-Fat _____ Whole Grain _____
Cost of healthy foods	Fruits_____ Vegetables _____ Low-Fat _____ Whole Grain _____
Talk with clerk	
Do people purchase healthy foods?	
Do people do most of shopping here/regulars?	
Do you see those people walk or bike versus drive?	
Discussion with clerks	

Walking and Biking in Marshall...

Help make it safe and more convenient!



Go to the link below to provide input

<http://wikimapping.com/wikimap/Marshall-Health-Impact-Assessment.html>

Anonymously provide feedback regarding:

- Barriers to Walking and Biking
- Walking & Biking Routes
 - Key Destinations
- Problem Intersections
- Traffic / Congestion / Speeding
 - Pedestrian Concerns
 - Lack of Bike Parking
 - Access Issues

Questions contact: Drew Hage; SW Regional Development Commission; 507-836-1633 (Office) drewh@swrdc.org

<http://wikimapping.com/wikimap/Marshall-Health-Impact-Assessment.html>

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Walking and Biking in Marshall...

















Help make it safe and more convenient!

Anonymously provide feedback regarding:

- Barriers to Walking and Biking
- Walking & Biking Routes
- Destinations
- Problem Intersections
- Traffic / Congestion / Speeding
- Teenage Driving Issues
- Need Bike Parking
- Access Issues

Go to the link below to provide input

<http://wikimapping.com/wikimap/Marshall-Health-Impact-Assessment.html>

Points	Routes
Select point type and then place on map.	Click once to start. Click to add points along the route. Double Click at the endpoint. Then press Submit to save.
 <input type="radio"/> Barrier to walking and biking	 <input type="radio"/> High Stress, Speed, Traffic
 <input type="radio"/> Bus Stop	 <input type="radio"/> No Sidewalk
 <input type="radio"/> Lighting is poor	 <input type="radio"/> Recreational Route
 <input type="radio"/> Need bike parking	 <input type="radio"/> Route I'd like to use
 <input type="radio"/> Place I Go	 <input type="radio"/> Route to After School Activity
 <input type="radio"/> Problem Intersection	 <input type="radio"/> Route to/from School
 <input type="radio"/> Teenage Driving Issues	 <input type="radio"/> Shortcut I Use, not trail/road
 <input type="radio"/> Traffic/ Congestion/ Speeding	 <input type="radio"/> Sidewalk in poor condition

Active Living is a way of life that integrates physical activity into your daily routine. This can start with making small trips. An example is walking between stores instead of driving from one end of Main Street to the other.

Goal: To enable the City of Marshall to become a more walkable community through strategic pedestrian improvements outlined in the Marshall Health Impact Assessment.

Objective: Identify destinations, gaps, areas of concern, and prioritize projects for addressing pedestrian infrastructure in the City of Marshall.

Questions contact: Drew Hage; SW Regional Development Commission; 507-836-1633 (Office) drewh@swrdc.org

Walking and Biking in Marshall...

Help make it safe and more convenient!



The City of Marshall is currently in the process of developing an Active Living Plan as part of a Health Impact Assessment (HIA). Our first public meeting is at the **Marshall—Lyon County Library on April 29th, 2015, at 5:00pm to 6:15pm** (201 C Street, Marshall).

During this meeting we will discuss local issues and concerns regarding walking and biking. This information will be summarized and will help to create potential goals that will be discussed at the second public meeting. Public participation is a critical component of the plan. If you are unable to attend the meeting on April 29th, please provide feedback by going to the link below.

↓

<http://wikimapping.com/wikimap/Marshall-Health-Impact-Assessment.html>

Anonymously provide feedback regarding:

- Barriers to Walking and Biking
- Walking & Biking Routes
 - Key Destinations
- Problem Intersections
- Traffic / Congestion / Speeding
 - Pedestrian Concerns
 - Lack of Bike Parking
 - Access Issues

Goal: To enable the City of Marshall to become a more walkable community through strategic pedestrian improvements outlined in the Marshall Health Impact Assessment.

Objective: Identify destinations, gaps, areas of concern, and prioritize projects for addressing pedestrian infrastructure in the City of Marshall.

Questions contact: Drew Hage; SW Regional Development Commission; 507-836-1633 (Office) drewh@swrdc.org

Community Meeting #1 Agenda



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Slayton, MN 56172-1142
(507) 836-8547
Fax: (507) 836-8866
E-Mail: srdc@swrdc.org / Website: www.swrdc.org

David Benson, Chairman
Miron Carney, Vice-Chairman
Marv Tinklenberg, Treasurer
Sharon Hollatz, Secretary

Serving the Counties of:

Cottonwood • Jackson • Lincoln • Lyon • Murray • Nobles • Pipestone • Redwood • Rock

Marshall Health Impact Assessment Community Meeting #1

Location: Marshall - Lyon County Library – 201 C Street
Date: Wednesday April 29th, 2015
Time: 5:00pm to 6:15pm

Goal: To enable the City of Marshall to become a more walkable community through strategic pedestrian improvements outlined in the Marshall Health Impact Assessment.

Objective: Identify destinations, gaps, areas of concern, and prioritize projects for addressing pedestrian infrastructure in the City of Marshall.

Agenda

- 5 minutes Welcome and introductions / Outline of meeting
- 30 minutes Existing conditions presentation
- 15 minutes Discussion of local issues and concerns (destinations, existing routes, barriers, safety issues)
- 10 minutes Discussion about Goals and Action Steps (potential projects)

Adjourn

Thank you for coming,

Drew Hage, MPP | Development Planner | SW Regional Development Commission

2401 Broadway | Slayton, MN | 56172

507-836-1633 (Office)

drewh@swrdc.org | www.swrdc.org | www.CleanEnergyResourceTeams.org

Walking and Biking in Marshall...

Help make it safe and more convenient!



The City of Marshall is currently in the process of developing an Active Living Plan as part of a Health Impact Assessment (HIA). Our second public meeting is at the Marshall YMCA on May 27th, 2015, at 5:00pm to 6:15pm (200 A Street, Marshall).

The agenda for the second community meeting is to discuss potential goals and strategies regarding walking and biking. We identified and discussed a number of issues at the first community meeting on April 29th. We can still discuss existing conditions that were not identified at the first meeting. Public participation is a critical component of the plan. If you are unable to attend the meeting on April 29th, please provide feedback by taking the survey below.



<http://www.surveymonkey.com/s/SE3F0AE6D8>

Goal: To enable the City of Marshall to become a more walkable community through strategic pedestrian improvements outlined in the Marshall Health Impact Assessment.

Objective: Identify destinations, gaps, areas of concern, and prioritize projects for addressing pedestrian infrastructure in the City of Marshall.

Questions contact: Drew Hage, SW Regional Development Commission; 507-836-1633 (Office) drewh@swrdc.org

Community Meeting #2 Agenda



2401 Broadway Avenue, Suite 1
Slayton, MN 56172-1142
(507) 836-8547

Fax: (507) 836-8866

E-Mail: srdc@swrdc.org / Website: www.swrdc.org

David Benson, Chairman
Miron Carney, Vice-Chairman
Marv Tinklenberg, Treasurer
Sharon Hollatz, Secretary

Serving the Counties of:

Cottonwood • Jackson • Lincoln • Lyon • Murray • Nobles • Pipestone • Redwood • Rock

Marshall Active Living Plan Community Meeting #2

Location: Marshall YMCA – 200 S A Street
Date: May 27th, 2015
Time: 5:00pm to 6:15pm

Agenda

5 minutes	Welcome and introductions / Outline of meeting
30 minutes	Goals and Strategies presentation
15 minutes	Discussion about Goals and Strategies
10 minutes	Ranking of Goals and Strategies – via email

Adjourn

Goal: To enable the City of Marshall to become a more walkable community through strategic pedestrian improvements outlined in the Marshall Health Impact Assessment.

Objective: Identify destinations, gaps, areas of concern, and prioritize projects for addressing pedestrian infrastructure in the City of Marshall.

Thank you for coming,

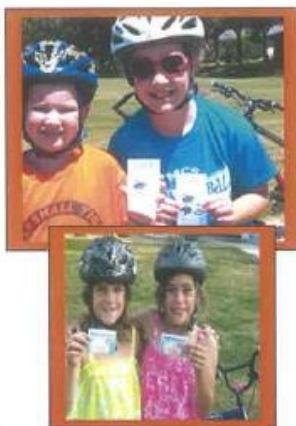
Drew Hage, MPP | Development Planner | SW Regional Development Commission

2401 Broadway | Slayton, MN | 56172

507-836-1633 (Office)

drewh@swrdc.org | www.swrdc.org | www.CleanEnergyResourceTeams.org

Bike Safety Day Flyer



Bicycle Safety Day

Monday, May 18th
4:00-7:00 p.m.

Ride your bike to the
YMCA for...

FREE Hotdogs and Water

- Compliments of
Gregory G. Lecy, D.D.S., M.S., P.A.
and Hy-Vee



FREE Bike Registration

- Compliments of
Marshall Area Crime Fund
- Must ride your bike to the event!

FREE Bike Skills Course

- Provided by Southwest MN Cycling Club

FREE Bicycle/Pedestrian Trail Maps

- Including Camden Regional Trail

Register for FREE Prizes:

- Summer 2015 Family Marshall Aquatic Center Pool Pass (Courtesy of MCS)
- A 3 Month Summer Family Membership to the YMCA (Courtesy of the YMCA)
- \$50.00 Gift Certificate to The Bike Shop (Courtesy of Southwest MN Cycling Club)
- Bike lights (Courtesy of SWHHS/SHIP)
- Bike up to \$75.00 – 2 prizes (Courtesy of Walmart)

Great Priced Items for Sale:

NOTE: Actual item may vary slightly from photo shown.

- Bike Locks (\$10)
- Bike Helmets (\$25)
- Bike Lights (\$10)



DID YOU KNOW?

90% of bikes found by the Marshall Police Department are not returned.

Remember to register your bike! If your bike is stolen **call 507-537-7000.**



Example Complete Street Policy

A RESOLUTION ESTABLISHING A COMPLETE STREETS POLICY.

WHEREAS, it is the purpose of complete streets to create transportation corridors that are safe, functional and aesthetically attractive for all users;

AND WHEREAS, the mobility of freight and passengers and the safety, convenience, and comfort of motorists, cyclists, pedestrians -including people requiring mobility aids, transit riders, and neighborhood residents of all ages and abilities should all be considered when planning and designing Marshall's streets;

AND WHEREAS, integrating sidewalks, bike facilities, and safe crossings into the initial design of street projects avoids the expense of retrofits later;

AND WHEREAS, streets are a critical component of public space and play a major role in establishing the image and identity of a city, providing a key framework for current and future development;

AND WHEREAS, active living integrates physical activity into daily routines and active living communities encourage individuals of all ages and abilities to be more physically active;

AND WHEREAS, communities that support active living strive to create amenities that will enhance the quality of life of its residents, improve the physical and social environment in ways that attract businesses and workers, and contribute to economic development;

AND WHEREAS, the goal of complete streets is to improve the access and mobility for all users of streets in the community by improving safety through reducing conflict and encouraging non-motorized transportation;

AND WHEREAS, it is recognized that there are some streets or corridors in the City which would not fully satisfy a complete streets environment;

NOW THEREFORE, Be It Resolved that the City Council of the City of Marshall, Minnesota establish a Complete Streets Policy that provides as follows:

1. The City of Marshall will, whenever it is economically feasible, seek to enhance the safety, access, convenience and comfort of all users of all ages and abilities, including bicyclists, pedestrians (including people requiring mobility aids), motorists and freight drivers, through the design, operation and maintenance of the transportation network so as to create a connected network of facilities accommodating each mode of travel that is consistent with and supportive of the local community, recognizing that all streets are different and that the needs of various users will need to be balanced in a flexible manner.

2. Unless one or more of the conditions set forth in Section 4 exist, transportation improvements will include appropriate facilities and amenities that are recognized as contributing to complete streets, which may include street and sidewalk lighting; sidewalks and pedestrian safety improvements such as median refuges or crosswalk improvements; improvements that provide ADA (Americans with Disabilities Act) compliant accessibility; bicycle accommodations including bicycle parking, bicycle routes, shared-use lanes, wide travel lanes or bike lanes as appropriate; and street trees, boulevard landscaping, street furniture and adequate drainage facilities.
3. Early consideration of all modes for all users will be important to the success of this Policy. Those planning and designing street projects will give due consideration to bicycle, pedestrian, from the very start of planning and design work. This will apply to all roadway projects, including those involving new construction, full reconstruction, or changes in the allocation of pavement space on an existing roadway such as the reduction in the number of travel lanes or removal of on-street parking.
4. Bicycle, pedestrian and transit facilities will be considered when developing street construction, reconstruction, re-paving, and re-habilitation projects, except under one or more of the following conditions:
 - A. Reconstruction or re-paving of a street, excluding collector and arterial streets, which does not involve substantial curb removal.
 - B. A project involves only ordinary maintenance activities designed to keep assets in serviceable condition, such as mowing, cleaning, sweeping, spot repair, concrete joint repair, or pothole filling, or when interim measures are implemented on temporary detour or haul routes.
 - C. The County Engineer, with Council consultation, determines there are relatively high safety risks.
 - D. The City Council exempts a project due to excessive and disproportionate cost of establishing a bikeway or walkway as part of a project.
 - E. It is determined that the construction is not practically feasible or cost effective for reasons including, but not limited to: significant or adverse environmental impacts to streams, flood plains, remnants of native vegetation, wetlands, steep slopes or other critical areas; or due to impacts on neighboring land uses, including impact from right-of-way acquisition.

5. It will be important to the success of the Complete Streets policy to ensure that the project development process includes early consideration of the land use and transportation context of the project, the identification of gaps or deficiencies in the network for various user groups that could be addressed by the project, and an assessment of the tradeoffs to balance the needs of all users. The context factors that should be given high priority include the following:
 - A. Whether the corridor provides a primary access to a significant destination such as a community or regional park or recreational area, a school, a shopping/commercial area, or an employment center;
 - B. Whether the corridor provides access to across a natural or man-made barrier such as a river or freeway;
 - C. Whether the corridor is in an area where a relatively high number of users of non-motorized transportation modes can be anticipated;
 - D. Whether a road corridor provides important continuity or connectivity links for an existing trail or path network; or
 - E. Whether nearby routes that provide a similar level of convenience and connectivity already exists
6. The design of new or reconstructed facilities should anticipate likely future demand for bicycling, walking and transit facilities and should not preclude the provision of future improvements. (For example, under most circumstances, bridges, which last for 75 years or more, should be built with sufficient width for safe bicycle and pedestrian use in anticipation of a future need for such facilities.)
7. The City will maintain a comprehensive inventory of the pedestrian and bicycling facility infrastructure integrated with City streets and utility maps and will carry out projects to reduce gaps in the sidewalk and trail networks.
8. Complete streets may be achieved through single projects or incrementally through a series of smaller improvements or maintenance activities over time.
9. The City will generally follow accepted or adopted design standards when implementing improvements intended to fulfill this Complete Streets Policy but will consider innovative or non-traditional design options where a comparable level of safety for users is present.

10. The City will develop implementation strategies that may include evaluating and revising manuals and practices, developing and adopting network plans, identifying goals and targets, and developing methods to evaluate success.
11. This policy will provide notification to Parks Board for review of impacts to street trees and incorporate recommendations into design consideration.
12. The Public Works Department shall be responsible for developing and implementing the Complete Streets Policy through the recommendations of project to the City Council.

BE IT FURTHER RESOLVED, that the feasibility report prepared for a street project shall address this policy.

Adopted by the City Council of the City of Marshall, Minnesota.

Mayor

City Administrator

Date

Date
