

Southwest Boulevard Merriam Lane Corridor Master Plan



Redeveloping
a Healthier,
Greener Corridor



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TCC
Turner Community Connections

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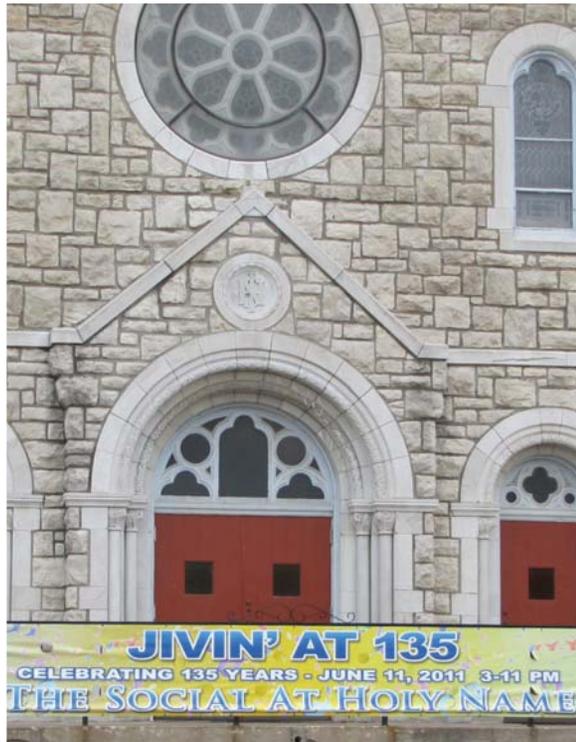
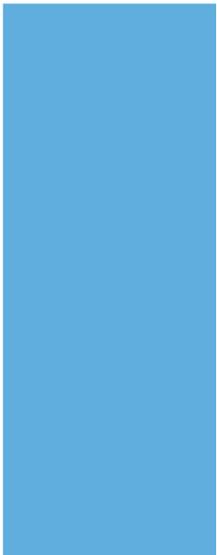
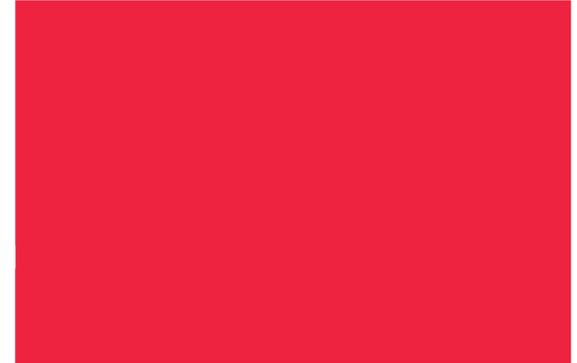
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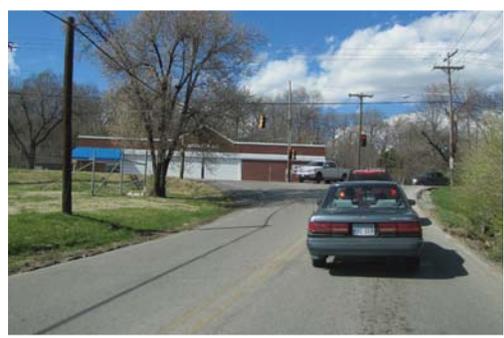
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Executive Summary



Executive Summary



Throughout the study process the Consultant Team has been most impressed with the vitality of those residents and business owners who make the Southwest Boulevard and Merriam Lane Corridor their home and work place. Even during these difficult economic times many we have interviewed have expressed positive hope for improvement, growth and an overwhelming drive for the area. They are proud to be part of the Corridor's demographic and are committed to its success. The Corridor has a diversity of land uses, both urban and suburban development, established neighborhoods, a proud heritage, long standing business stakeholders and an increasing share of new business entrepreneurs. At the same time the Corridor faces challenges in terms of its aging housing stock and infrastructure, changes in demographics, large numbers of persons in poverty, limited neighborhood shopping and transportation choices. Creating a vision for the future helped guide the goal-setting portion of the study and identified opportunities to develop strategies for implementation of the future land use plan.

The Southwest Boulevard and Merriam Lane Master Plan is a companion to the City-Wide Master Plan and Rosedale area Master Plan documents. As further provided in the 2008 City-Wide Master Plan, more detailed and tailored area plans should be completed for all identified districts within the City, and this study implements that recommendation.

The Plan Components

Chapters within this document have been divided into four categories; Health and Environment, Land Use, Corridor Image and Identity, and Mobility and Transportation. They will follow the same major topic areas developed during the visioning process. The information and objectives detailed within the specific chapters of the plan therefore parallel the broader perspective and overall concepts developed within the Visions and Goals chapter.

Health and Environment

- Educate residents on healthy homes, and businesses on healthy workplaces.
- Promote urban gardens and explore railroad quiet zone possibilities.
- Provide ongoing community health assessment to monitor progress and identify specific needs.
- Establish health impact review of new development proposals to provide additional direction for decision makers.
- Provide outreach activities with area partnerships to strengthen community health.
- Encourage energy efficiency, recycling programs, waste reduction, and noise abatement to embrace a sustainable Corridor.
- Incorporate low-impact development stormwater (BMP) management.

- Restore the area's riparian corridor which reflects good environmental stewardship.
- Enhance the Corridor's character and quality of life.

Land Use

- Utilize mixed-use, main street and narrow lot residential zoning. Promote adaptive reuse.
- Follow future land use recommendations that provide the framework for Corridor improvement.
- Provide flexibility with use of alternate land use stars to assist in decision making.
- Encourage a mixture of uses that supports a successful neighborhood and Corridor. Create density to support public transit.
- Provide a variety of housing options to strengthen many identified goals.
- Improve upon access to healthy foods. Build upon current health-related activities and promote initiatives that support small businesses.
- Implement current and create additional design guidelines to address land use compatibility and promote a positive streetscape appearance. Mitigate undesirable impacts.
- Explore historic designations and down zone specific areas to ensure land use compatibility.

Corridor Image

- Celebrate the Corridor's prominence and fully market its proximity to the KUMC campus and downtown.
- Enhance key entry points and gateways creating Corridor identity for commuters and visitors alike.
- Incorporate special places through public and private collaboration to provide momentum.
- Provide directional signage, lighting, landscaping and intersection bulb-outs that not only help pedestrians at cross walks but highlight the streetscape amenity zone.
- Appropriately place seat walls, benches, pedestrian lighting and bicycle racks that convey an area intended for activity.
- Include new community gathering spaces.
- As new capital improvement projects and private redevelopment occurs, relocate major service lines to alleys and backs of buildings.
- Support public art and cultural events.



Mobility and Transportation

- Implement dedicated bike lanes throughout the Corridor.
- Incorporate the Complete Streets policy with redevelopment and improve pedestrian and bicycle connections.
- Embrace new ideas and remove obstacles to encourage a variety of transportation forms.
- Consider traffic enhancements and investigate access alternatives. Explore shared parking opportunities.
- Encourage expanded bus service through the Corridor.
- Incorporate safe streetscape amenities.

Goals and Vision Summary

The plan establishes long-range goals with directed objectives for future development and stabilization of the Corridor. In discussions with stakeholders these goals fall under the four categories of Health and Environment, Land Use, Corridor Image and Identity, and Mobility and Transportation. For most goals to be realized they will need to be encouraged by improvements made from both public and private sectors in the Corridor. The following objectives provide a broad perspective and overall concepts that will guide the Corridor's future development.

Health and Environment

- Become a healthier community through active lifestyles
- Promote healthy eating and gardening
- Promote healthy homes and workforce
- Encourage sustainable LEED green building and Best Management Practices
- Take advantage of existing public community assets
- Provide a diversity of housing choices
- Create opportunities for new compact, connected, and walkable neighborhoods
- Involve youth activities within the community
- Promote recycling and reusable manufacturing waste by-product exchange

Land Use

- Maximize the Rainbow and Southwest Boulevard gateway

- Maintain protection of adjacent neighborhoods, open space and reinforce housing
- Focus redevelopment at key intersections along the Corridor
- Provide more mixed-use development
- Perform Health Impact Assessments of new development to weigh impacts
- Encourage professional businesses that desire close proximity to KUMC

Corridor Image and Identity

- Build upon realistic corridor marketability
- Build upon the historic quality and uniqueness of the corridor
- Provide for 'Corridor Gateway' branding and signage
- Create and adopt business park and industrial design guidelines
- Provide incentives for business retention and green expansion
- Continue community-wide dialogue

Mobility and Transportation

- Promote a variety of transportation choices and implement Compete Streets policy
- Help identify and prioritize future capital improvements
- Amend parking requirements and include shared and on-street parking
- Phase infrastructure improvements

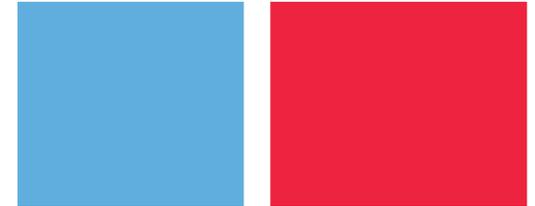
- Promote ease of access throughout the Community

Implementation and Next Steps

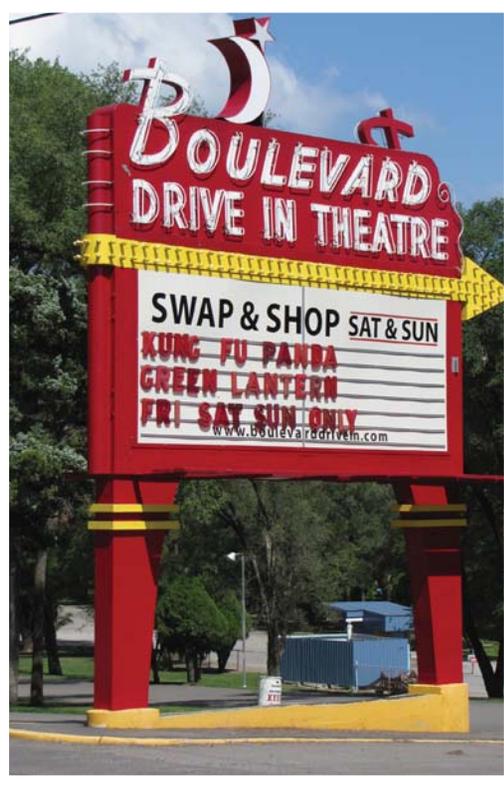
Specific recommendations are contained in the matrix tables within the Implementation Section of the study. They are organized by Regulatory, Infrastructure and Partnership Elements. Each element includes a general time frame and key participants. Time frames are organized by short term (zero to two years), medium term (two to five years), long term (more than five years) and other variables. For example, the most immediate steps listed in the Regulatory Element are the establishment of a zoning overlay, recommended down zoning, development of additional design guidelines, urban farming guidance and implementing a health impact analysis of new development projects.

The City is currently undertaking roadway improvements for approximately one-third of the Corridor's length. The U.S. Army Corps of Engineers are also progressing with the Turkey Creek improvements. It is hoped that the timing of these improvements along with this study will be the catalyst for additional private investment and community involvement to promote the Corridor and set the stage for a marketable, active, and healthy environment for years to come.

Introduction



Introduction



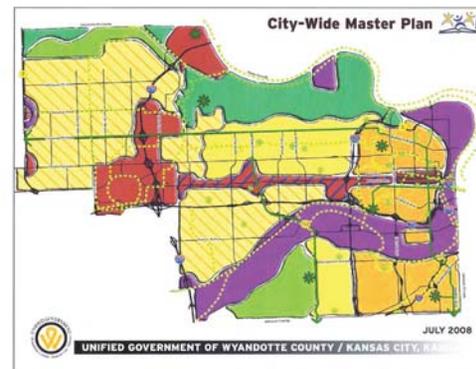
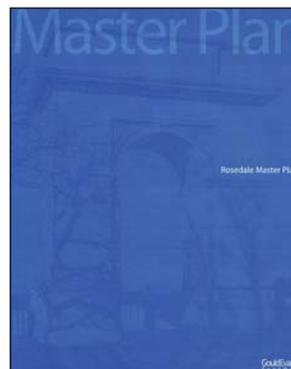
Throughout Kansas City's history, the Southwest Boulevard and Merriam Lane Corridor has seen its share of economic boom and decline. The original area, which began as a rail stop, continues to grow as a diverse hub and mixed-use neighborhood of mostly small, single-family homes and commercial entities. Residents and businesses alike line this long-established commuter corridor. For the purposes of this plan, we are primarily focused on a half-mile wide area, over four miles long. We are looking at long-established land uses, their compatibility with one another and the physical improvements needed to encourage healthy lifestyles and green redevelopment.

The Corridor study extends through the Turner and Rosedale neighborhoods in Kansas City, Kansas, to the state line gateway located at West 31st Street. Once a major transportation corridor, development along this roadway was shaped by the limitations imposed by the railway, natural terrain and Turkey Creek. The entire Corridor study area comprises approximately 1,406 acres or about 2.2 square miles. The Kansas

City, Kansas, portion is 1,249 acres. This area will be referred to as the Southwest Boulevard/Merriam Lane Corridor, the Green Corridor or simply and most often as the Corridor throughout this study. The use of the term 'study' primarily refers to the documented work contained within the adopted Master Plan.

Plan Purpose

The Plan establishes long-range goals and objectives for development and stabilization of the neighborhoods and businesses along the Corridor. The Plan's intent is that it follows the framework developed within the current City-Wide Master Plan inclusive of its implementation strategies that direct community vision where people live, work, and play and benefit from the area's heritage and unique place-making quality. The Plan is an advisory document and may be amended over time as conditions change and new strategies are identified. While directly relating to the Corridor, the Plan should also be used as a companion document to the adopted Rosedale Master Plan.



Plan Sponsors and Partners

Funding for this study was provided through a grant from the **Health Care Foundation of Greater Kansas City** and completed in cooperation with the Unified Government's Urban and Land

Plan Components

Health and Environment

Corridor health and safety are impacted by the built environment which requires urban planning solutions to provide a sustainable and livable environment.

Land Use

Specific land use recommendations and alternatives provide the framework for improvement and flexibility to achieve community improvement.

Corridor Image

Visual elements are reviewed to emphasize the Corridor's prominence and fully market its locational attributes.

Mobility and Transportation

Embracing new ideas and removing obstacles for a variety of transportation modes encourages a diverse and healthy community.

Vision and Goals

Identify major priorities to provide the guidance for suggested actions and direction to realize an end result with accomplished goals.

Implementation

Implementation of recommended actions to be undertaken and the achievement of desired results. The plan by itself does not bring about change.

Supporting Documentation

Additional study documentation and resources to support recommended future actions.

Use Planning Department and the Rosedale Development Association (RDA). Partners involved include the Kansas University Medical Center Department of Internal Medicine; the KU School of Architecture, Design and Planning; the Rosedale Healthy Kids Initiative (RHKI); KC Healthy Kids (KCHK); and the Mid-America Regional Council (MARC).

Among the many activities undertaken by these partners, the KUMC's Department of Internal Medicine provided baseline surveys and evaluations of the health status of those living in the Corridor. The KU School of Architecture Design and Planning program submitted conceptual strategies for the Green Corridor, while RHKI and KCHK provided statistical research, community outreach and educational opportunities for the study area and larger community as a whole. MARC staff served as resource and technical advisors and all partners provided in-kind services to the project. These partnerships have been nurtured for many years and ultimately provided the Project Team with a solid foundation of expertise to build from.

Plan Process and Stakeholder Involvement

Working with Unified Government staff, the Project Team outlined their intent to seek a wide range of public participation throughout the project's



undertaking so that the community had a good understanding and sense of ownership of the plan. Starting with the introduction of the Plan to the Unified Government Planning Commission and Board of Commissioners in September 2010, public meetings, youth focus groups and individual interviews were then held so that Corridor stakeholders could express their concerns, opportunities for improvement and future vision for the area. Business stakeholder meetings were also held and a broad-based Steering Committee was formed to provide guidance and direction based on identified priorities. Additionally, the Plan's direction was to embrace the City-Wide Master Plan's goals and visions and how they could be further implemented or refined along this four-mile roadway. A separate Advisory Committee was also asked to provide commentary and professional input.

Corridor History

Settlement History and Growth Along the Corridor

Picture a lush, green valley with rock bluffs and hills at either side; a stream meanders its way through. As you explore this area, you see wild roses and other native plants and animals. There are deer tracks and signs of wild turkey and other fowl. What a pristine vision and perfect resting place. Having just traversed an adjacent bluff to the north that overlooked the Kaw River, this is a beautiful possibility for a permanent settlement. The first non-native settlement occurred within the Turkey Creek Valley after the Civil War. Soon after, early settlers such as Dr. Simeon B. Bell, who cleared and farmed his quarter section of land, would open up one of the first roads that followed the creek around the bluffs. Anthony Sauer built his “castle” in 1871 overlooking the valley. The railroad soon followed, making traveling much easier.

Rosedale was originally platted in 1872 with Kansas City Avenue (Southwest Boulevard) as its main street. Rosedale Avenue (Mill Street) was its western limit and Hill Street its northeastern limit. On the Missouri side, a roadway called Kansas City Boulevard, running in a southwesterly direction and later appropriately named Southwest Boulevard, ran from Baltimore and 19th streets to the state line. For many years, there was no direct connection between these two streets. Enter property owners Dr. Bell and Albert Marty, who were responsible for providing the land necessary to connect the two roadways at the state line and permitting the

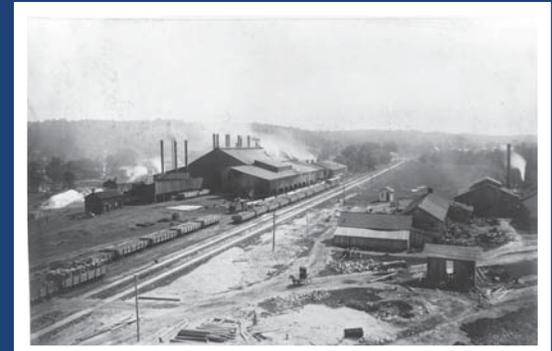
expansion of the Rosedale City limit in 1887.

The railroads needed iron workers and metals for fabrication. Early industrial use of this area involved railroad-related work and soon the Kansas Rolling Mill was established within the Corridor. This industry provided a boon to the area until rails went from iron to steel and the ironworks foundry declined.

However, the rails also brought with them the need for flour mills and grain elevators. Several bakeries were established, including one owned by Frank Rushton. Other services and schools were also needed. In 1894, land owner Dr. Bell once again offered his land for construction. This time it was for a medical hospital and school, which he presented to the State and Kansas University. This facility became known as E.T. Bells Memorial Hospital, named after his wife, and was located to the east of Westport Road on what is now known as Rainbow Boulevard. Eventually, the state legislature would build a new hospital and move it to its present day location at 39th and Rainbow Boulevard.

With the support of Dr. Bell and other area businessmen, roadway improvements were completed and Southwest Boulevard was considered the finest five-mile drive in the state. Soon, drug stores, dairies, florists, banks, lodge halls, dry goods, grocery stores and auto sales lined the Corridor.

Southwest Boulevard’s intersection at Westport/Hudson (current day Rainbow Boulevard) waited many years for its northern viaduct connection over the rail yards and ultimate link with a seventh street



Courtesy Missouri Valley Special Collections





bridge crossing the Kaw, directly linking it to Armourdale and downtown Kansas City, Kansas.

Schools were also established to serve the developing community. The Brick School, later named the Columbian, resided just east of Westport Road and south of the Boulevard. As with many buildings along the Corridor, the school closed due to the 1966 Urban Renewal program. Rosedale Public School, later named Whitmore, was also lost in 1973 and is now home to Whitmore Park. The structure that was Attucks School still exists, as does present day Rosedale High (now a middle school) and Holy Name School. Albert Marty once again donated land for the high school and Rosedale

Park.

Due to the rugged terrain and rock shelves, most construction along the bluffs required retaining walls, passageways or steps. Some of these are still evident today. Many churches moved in along the Corridor to serve the growing community.

Turkey Creek flooding, in conjunction with flooding of the Kaw and Missouri rivers, routinely inundated the area. The 1903 flood made it clear that a solution to these flooding events would have to involve a multi-jurisdiction effort. Discussion of a diversion tunnel to the Kaw was initiated and eventually became a reality in 1919.

The Corridor has also seen diversity in transportation modes. From livery stables, horse and mule railways and electric street cars, Rosedale had a variety of choices for local commuting. Eventually, bus service became more prominent, especially after World

War II.

Rosedale State Bank (Bank Midwest) was established along the Boulevard in 1908 and eventually moved to its current Rainbow Boulevard location in 1971. New merchants continued to locate along the Corridor including Sam Zeff's shoe repair and Adolph Strasser's hardware store. The old Rolling Mill property became a stone-works yard.

1919 saw the renaming of Westport and Hudson Roads to Rainbow Boulevard in honor of the Rainbow Division World War I soldiers. In 1922 the Kansas Medical School moved up the hill to 39th and Rainbow. The Katy elevators (formerly Bunge) located on the Boulevard in 1922. The City of Rosedale, autonomous for 45 years, finally merged with Kansas City, Kansas, in April of 1922. The Rosedale Memorial Arch was dedicated in 1924.

The 1951 flood once again significantly impacted the Turkey Creek area. Flooding along the Boulevard had become commonplace.

The single most horrific event along the Corridor in recent history came in 1959 when several above-ground oil tanks exploded, unleashing a devastating inferno at the state line. As a result, codes for tank containment were improved along with firefighter safety measures. A memorial to the Kansas City, Kansas, and Kansas City, Missouri, firefighters lost in the blaze is currently located at the site.

As development occurred along the western portion of the Corridor west of 18th street, Merriam Lane also saw its share of longtime local families spearheading development. The Glen Rose family of Glenrose Lane, the Espenlaubs of Espenlaub Lane, the Holsingers of Holsinger Heights and Nursery, Vans shoes, Nigro's Food Market and later Western Wear, all anchored the western portion of the Corridor.





Fred 'Slick' Meisner's butcher shop catered to area customers and small gas stations like Norbert Zarda's abounded to serve commuters. A busy roadway designated as K-10 Highway, Merriam Lane and Southwest Boulevard was a main route into town from Olathe and beyond. It is said that this Corridor at one time was in the Guinness Book of World Records for having the longest continuous sidewalk.

While the rail and Turkey Creek had previously divided the community, in the 1960s, construction of Interstate 35 further bisected the community and

destroyed many old commercial properties. The automobile provided easy transportation to the Boulevard Drive-in Theatre, but it also was a means for some to abandon Rosedale's urban center. As a result many residents of the region migrated to the new suburbs resulting in the decline of many older neighborhoods, including some along the Corridor. Gone were the local food markets like Milgram's at 14th Street and the neighborhood A & P at 24th Street. Even the long-established Mugs Up Drive-in and TG&Y closed. The family pear orchards and fresh

produce stands gave way to industrial development. Reinvestment along the roadway, both public and private, waned.

In 1978, the Rosedale Development Association (RDA) was formed to build a stronger community and improve the quality of life by working with local residents, businesses and institutions. Specific safeguards are currently being put into place to mitigate the flooding along Turkey Creek. New funding dollars are being earmarked for capital improvements along certain segments of the Corridor and residents are becoming better informed as to how the built environment affects community health. As an outgrowth of this master plan initiative, a new Business Stakeholders group has formed to offer positive approaches for retaining Southwest Boulevard and Merriam Lane as a vibrant business Corridor into the future.

Demographics

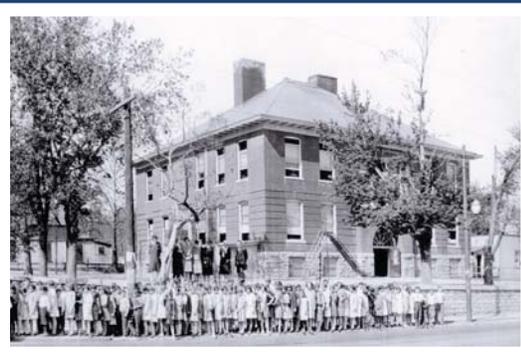
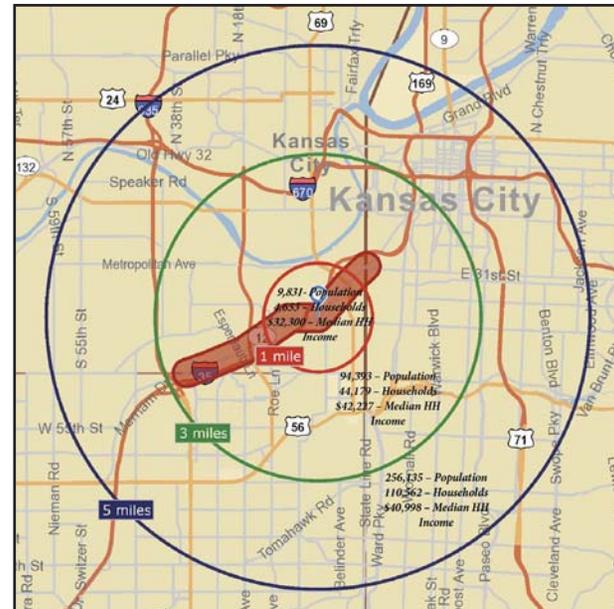


Figure 1

Trade Area Profile 1, 3 & 5 mile radius
Mission Road & SW Boulevard

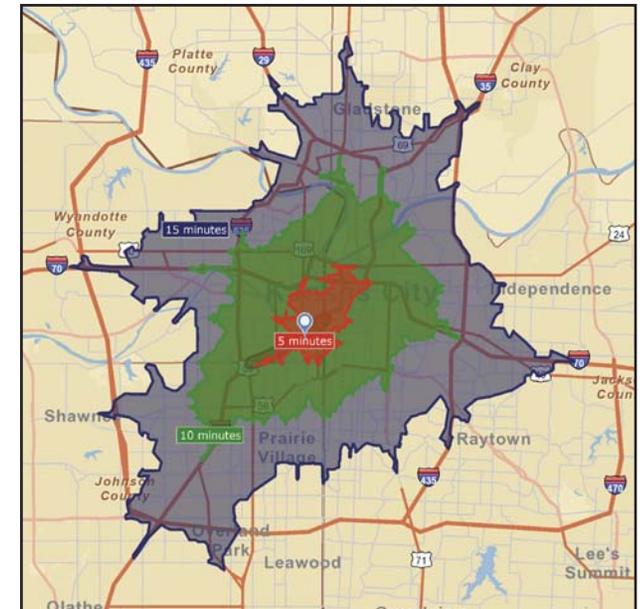


Source: ESRI Community Analyst 2005-09 Census ACS Population Summary

Given its location near heavily urbanized areas, it's no surprise the three-mile trade area profile is reflecting a 2005-09 estimated population of almost 95,000 living in 44,179 households with a 2009 estimated median household income of over \$42,000 a year.

Figure 2

Drive Time Map — 5, 10 & 15 minutes
Mission Road & SW Boulevard



Source: ESRI Community Analyst

Table 1
Census Quick Facts

Location	Total Population	Total Housing Units	Median Age	Average Household Size	Median Household Income	% Vacant Housing Units	% Hispanic Population	% Rental Occupied Units	Speak Other Language At Home Ages 5+
Corridor Study	2,856	1,293	32.2	2.34	\$33,732	13.4%	29.7%	49.1	21.3
Wyandotte County	157,505	66,747	32.8	2.67	\$37,998	12.5%	26.4%	39.7	21.1
State of Kansas	2,853,118	1,233,215	36.0	2.49	\$48,394	9.8%	10.5%	32.2	9.9

Source: 2010 U.S. Census & Census 2005-09 ACS Estimates

Unlike many urban areas within the KC region, the population in the Corridor has remained stable with Census counts of 2,857 in 1990, a slight drop to 2,754 in 2000 and back up to 2,856 in 2010. In 2010, there were slightly more males than females.

The population density map at right reflects where those residents live within the Corridor.

Figure 3
Corridor's Population Density

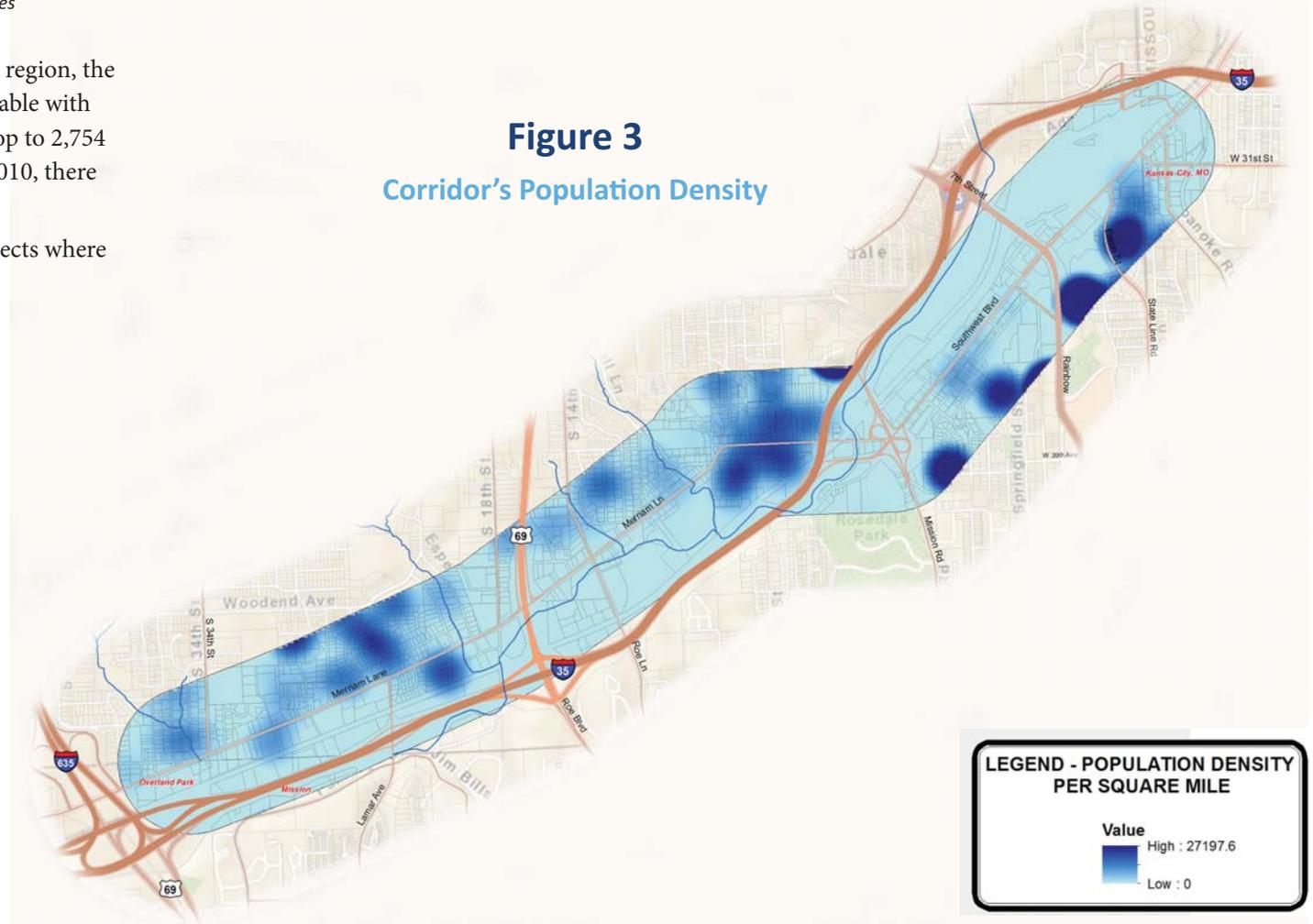
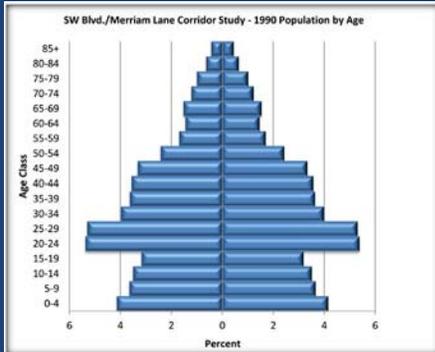
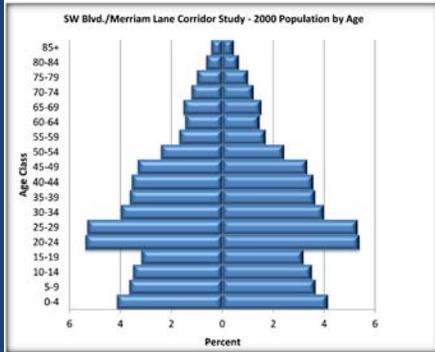


Figure 5



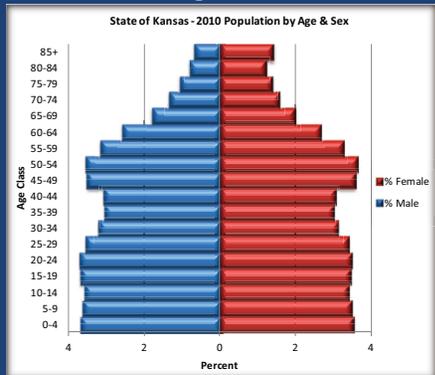
Source: 1990 U.S. Census/ESRI 1990-2000 Community Analyst Comparison Profile For Corridor

Figure 6



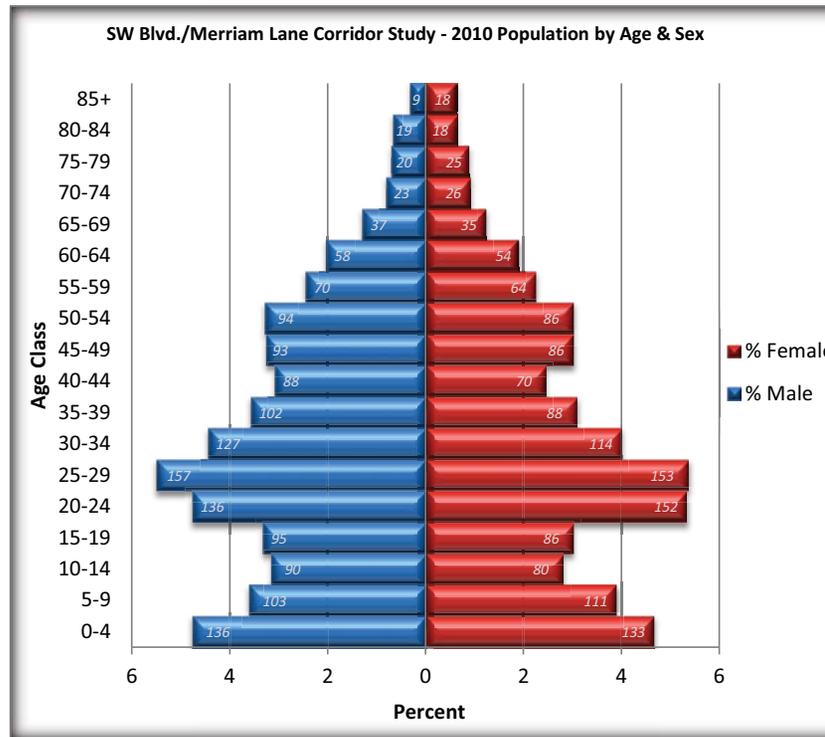
Source: 2000 U.S. Census/ESRI 1990-2000 Community Analyst Comparison Profile For Corridor

Figure 7



Source: 2010 U.S. Census, Profile of General Population and Housing Characteristics: 2010 (DP-1)

Figure 4



Source: 2010 U.S. Census STF1, P12 for corridor. Note: bars include actual population counts

Age/Sex pyramids illustrate the population of an area by five-year age increments and by sex. These graphics say a lot about the demographics of an area, or State for that matter, as noted in Figure 7. The 2010 Corridor pyramid above illustrates a number of things, most clearly that 20-somethings are the most prominent age group, making up over 1 in 5 residents (note the pyramid's bulge). Most interesting is that these age cohorts haven't changed in their prominence for 20 years, as noted by Figures 5 and 6. If the 20-somethings were staying in the neighborhood to put down roots, the bulge in the pyramid would move up with each decade. That hasn't happened. They are leaving as they

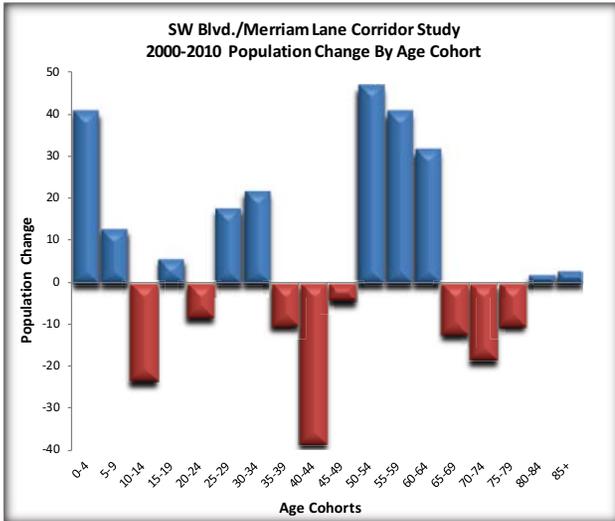
age, yet they are being replaced by new 20-somethings. Why do the 20-somethings choose to leave? Perhaps it's not jobs, as those opportunities have been increasing in the Corridor, at least since 2002. Is it housing opportunities, quality of schools, appearance of neighborhoods, lack of recreation, crime?

While small in absolute numbers, do the trends in the pyramid changes tell us anything? The 2000 to 2010 changes (Figure 8) indicate increases in very young children and those in their late 20s and early 30s. The population in their 50s and early 60s also increased, most likely a reflection of the aging Baby Boomers.

Decreases were also found in early teens and those in their late 30s and in their 40s. A modest loss in senior citizens was also noted.

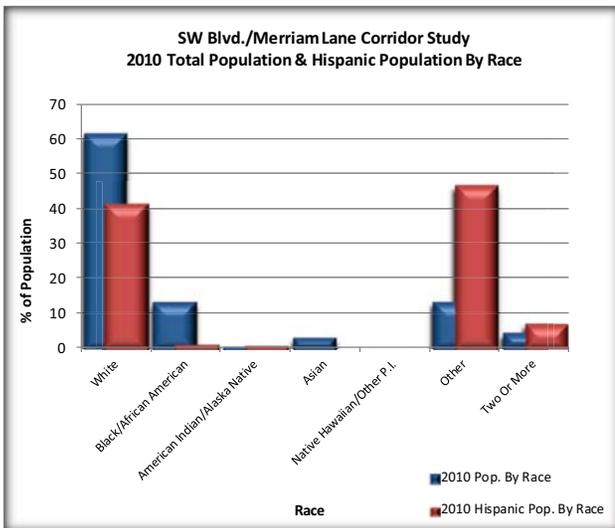
With regard to changes in the racial makeup of the Corridor, from 1990 to 2010 the white population declined from 76 percent to 62 percent, largely replaced with residents claiming either "two or more races" or "other". By 2010 the black population increased slightly to 14 percent, while Asians remained under 4 percent. Perhaps the most dramatic change along the Corridor during the last 20 years has been the number of people identifying themselves as Hispanic.

Figure 8



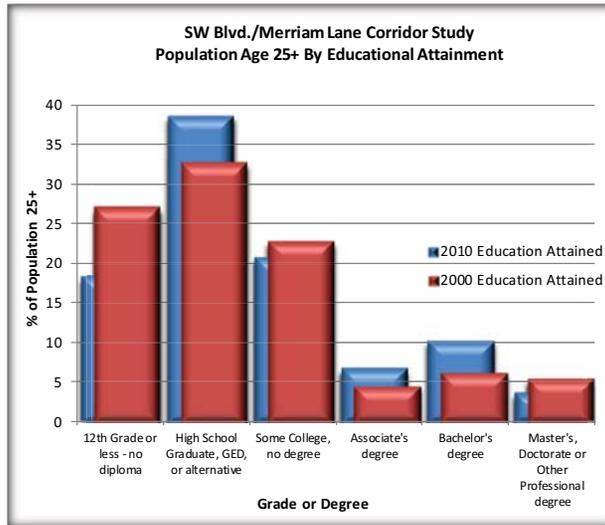
Source: 2010 U.S. Census STF1, P12 & 2000 Census/ESRI Community Analyst 1990-2000 Comparison Profile.

Figure 9



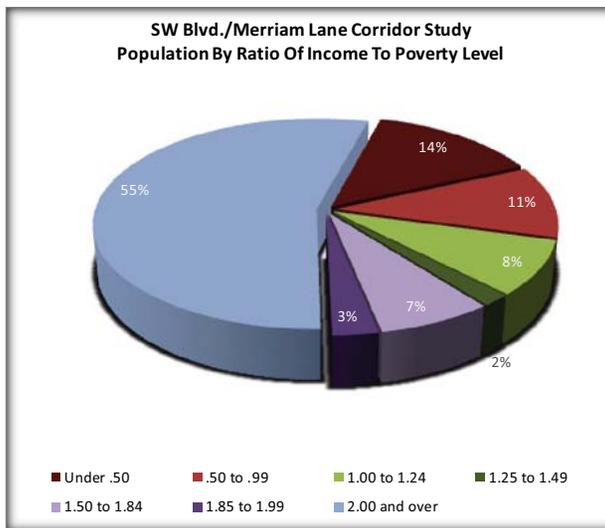
Source: U.S. Census 2010 Redistricting Data (PL 94-171)/ ESRI Community Analyst 2010 Census Profile

Figure 10



Source: U.S. Census 2000 & 2005-09 ACS Estimate/ESRI Community Analyst Summaries For Corridor. Lower percentages are subject to greater margins of error.

Figure 11



Source: 2005-09 U.S. Census ACS Estimate/ESRI Community Analyst Pop. Summary For Corridor. Note: Lower percentages are subject to greater margins of error.

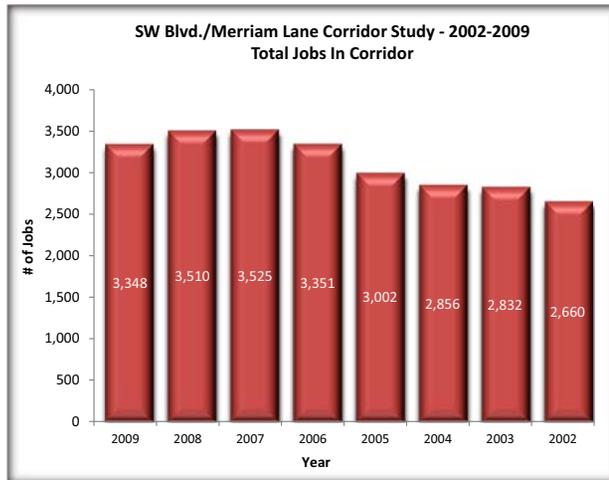
The 849 Hispanics in 2010 now represent almost 30 percent of the Corridor population compared to 18.3 percent in 2000 and just 11.4 percent in 1990 (Figure 9).

Figure 10 illustrates that education levels along the Corridor continued to improve between 2000 and 2010 with fewer residents having less than a high school education, and more residents having a high school diploma or a college degree of some type. However, this still lags behind the State of Kansas averages where 89 percent of those age 25 and older are high school graduates or higher and almost 29 percent have a bachelor's degree or higher. In addition, the 2005-09 Census ACS data estimates 522 Corridor kids ages three and older were enrolled in school of some type, including college.

While additional income data relating to households can be found in the housing section of this report, Figure 11 shows the total population by ratio of income to poverty level. Generally, various government assistance programs are often only available to populations with a ratio of under 2.00 — about 45 percent of the Corridor's population.

As noted previously and seen in Figure 12, the Corridor job situation has been strong with the number of jobs increasing 25 percent since 2002. Table 2 indicates that during that time the job mix by Industry Sector has changed with the number of construction and wholesale trade jobs declining significantly while numerous increases were seen particularly in manufacturing, transportation/warehousing, health care and social assistance, finance and insurance. Even the arts, entertainment and recreation sector became active during this time period.

Figure 12



Source: U.S. Census Bureau 2009 - On The Map

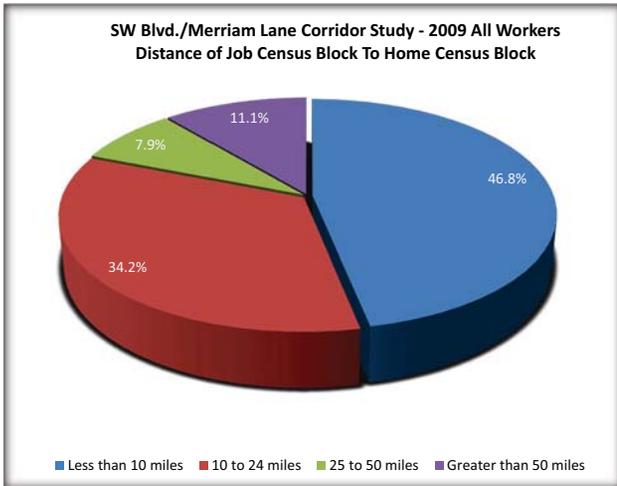
Of those workers in 2009, 88 percent were white, 9.3 percent were black and 16 percent were Hispanic. Almost 40 percent of those workers made \$40,000 or more each year, compared to almost 27 percent that made \$15,000 or less a year. Figures 13-16 reflect various commuting data and habits of the Corridor’s labor force. Interestingly, of the Corridor labor force’s 4,759 workers either living or working in the Corridor, only 35 actually live in the Corridor and work in the Corridor. Why aren’t workers living closer to where they work? It’s a green option that can reduce pollution and save households income now spent on transportation.

Table 2

Southwest Boulevard/Merriam Lane Corridor Study — 2002-09 Jobs Data

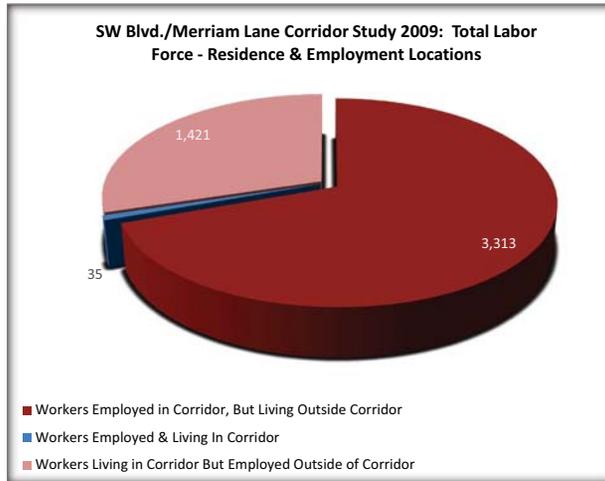
	2009		2002	
	Count	Share	Count	Share
Total All Jobs - Quarter Mile Buffer - State Line West To KC, KS Corp. Limits	3,348	100.0%	2,660	100.0%
Jobs by Worker Age				
Age 29 or younger	733	21.9%	638	24.0%
Age 30 to 54	2,052	61.3%	1,671	62.8%
Age 55 or older	563	16.8%	351	13.2%
Jobs by Earnings				
\$1,250 per month or less	889	26.6%	561	21.1%
\$1,251 to \$3,333 per month	1,145	34.2%	1,242	46.7%
More than \$3,333 per month	1,314	39.2%	857	32.2%
Jobs by NAICS Industry Sector				
Agriculture, Forestry, Fishing and Hunting	14	0.4%	7	0.3%
Mining, Quarrying, and Oil and Gas Extraction	5	0.1%	11	0.4%
Utilities	14	0.4%	0	0.0%
Construction	471	14.1%	925	34.8%
Manufacturing	873	26.1%	447	16.8%
Wholesale Trade	166	5.0%	325	12.2%
Retail Trade	241	7.2%	260	9.8%
Transportation and Warehousing	202	6.0%	43	1.6%
Information	34	1.0%	14	0.5%
Finance and Insurance	87	2.6%	6	0.2%
Real Estate and Rental and Leasing	34	1.0%	61	2.3%
Professional, Scientific, and Technical Services	121	3.6%	56	2.1%
Management of Companies and Enterprises	40	1.2%	0	0.0%
Administration & Support, Waste Management and Remediation	239	7.1%	144	5.4%
Educational Services	48	1.4%	3	0.1%
Health Care and Social Assistance	352	10.5%	148	5.6%
Arts, Entertainment, and Recreation	26	0.8%	0	0.0%
Accommodation and Food Services	262	7.8%	156	5.9%
Other Services (excluding Public Administration)	117	3.5%	54	2.0%
Public Administration	2	0.1%	0	0.0%
Jobs by Worker Race				
White Alone	2,884	86.1%	N/A	N/A
Black or African American Alone	312	9.3%	N/A	N/A
American Indian or Alaska Native Alone	39	1.2%	N/A	N/A
Asian Alone	65	1.9%	N/A	N/A
Native Hawaiian or Other Pacific Islander Alone	6	0.2%	N/A	N/A
Two or More Race Groups	42	1.3%	N/A	N/A
Jobs by Worker Ethnicity				
Not Hispanic or Latino	2,811	84.0%	N/A	N/A
Hispanic or Latino	537	16.0%	N/A	N/A
Jobs by Worker Educational Attainment				
Less than high school	397	11.9%	N/A	N/A
High school or equivalent, no college	784	23.4%	N/A	N/A
Some college or Associate degree	829	24.8%	N/A	N/A
Bachelor's degree or advanced degree	605	18.1%	N/A	N/A
Educational attainment not available (workers aged 29 or younger)	733	21.9%	N/A	N/A

Figure 13



Source: U.S. Census Bureau 2009 - On The Map

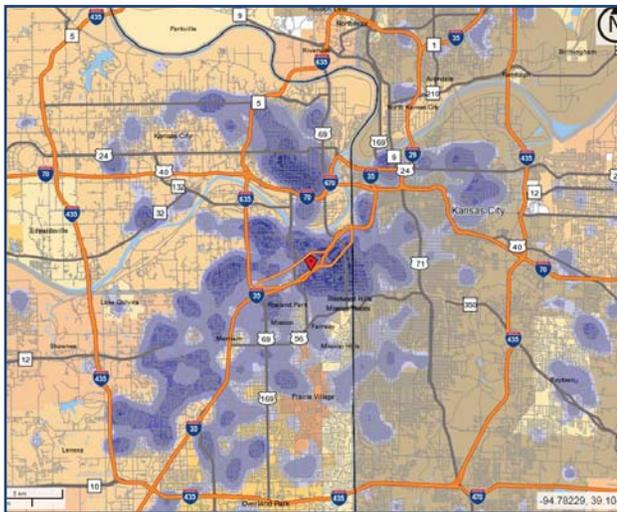
Figure 15



Source: U.S. Census Bureau 2009 - On The Map

Figure 14

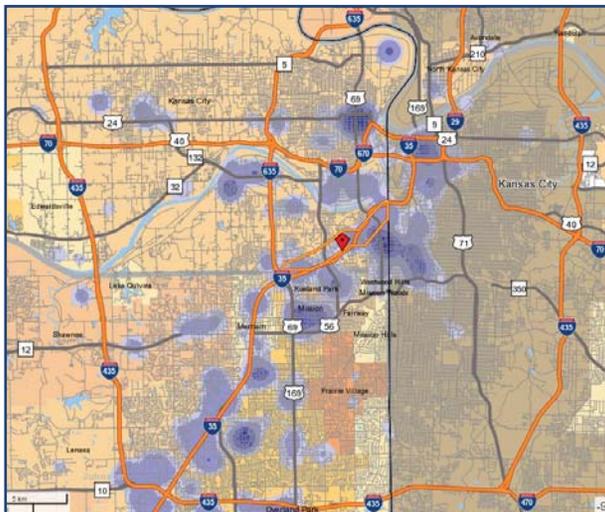
Corridor Labor Force Not Living In the Corridor — Where Do They Live?



Source: U.S. Census Bureau 2009 - On The Map

Figure 16

Corridor Labor Force Living In the Corridor — Where Do They Work?



Source: U.S. Census Bureau 2009 - On The Map

About the Data

Data for this study's demographic and housing graphics relate to the Kansas City, Kansas, portion of the Corridor only and were extracted from Census block and block group geographies using the GIS mapping block point method. As those Census boundaries can often extend well outside the half mile limit of this study, these figures should be looked upon as reasonable estimates of the Corridor's population and housing. 1990-2010 US Census data & 2005-09 ACS Census Estimates were used as the base data. The employment data in this report was derived from the U.S. Census "On the Map" web site and are actual points of data contained within the corridor boundaries. Unemployment Insurance Wage Records and other Census data sources were used to derive this data.

Health and Environment



Gauging Corridor Health



Introduction

The effect of land use on health has been apparent for almost a century. Zoning codes have based many provisions with ‘promoting public health, safety and welfare’ language. However, what started out as language protecting factory workers from industrial risks has evolved into how we design and build our communities to help reduce chronic disease due to physical inactivity and poor diets. Encouraging healthy behaviors and lifestyles are now the focus. The type of neighborhoods we live and work in can make it easier to attain recommended levels of physical activity. Similarly, good nutrition and easy access to healthy foods makes for a better built environment. This section will discuss where we are as a larger community, examine the Corridor’s health elements and propose next steps to reduce the billions in direct medical costs related to the physical inactivity we experience as a nation today.

Community Health

A national report released by the Robert Wood Johnson Foundation (RWJF) this year ranking the health of nearly every county in the country once again placed Wyandotte County near the bottom of the list in Kansas, at 96 out of the 98 counties studied. The 2011 rankings mark the third consecutive year that Wyandotte County has ranked among the least healthy counties in Kansas. The foundation’s 2010 report ranked it 94 out of the 99 Kansas counties studied. A

2009 report from the Kansas Health Institute ranked it last among the state’s 105 counties.

The county’s low rankings aren’t because its residents lack access to health care. It ranked 53 for clinical care in the 2011 RWJF report, but last for social and economic factors – poverty, education, employment, community safety and family support. The Unified Government has taken these summary findings very seriously and has enlisted a health task force and steering committee with members from a broad cross section of the community, including school district superintendents, ministers, business people and the heads of social-service agencies to develop specific recommended community-wide strategies. These are excellent city-wide steps in the right direction.

Environmental Health

One of the more recent policy undertakings by the Unified Government is the adoption of the Complete Streets Resolution. This program requires a fundamental change to the way infrastructure improvements are designed and built. Both private and public construction are now required to have improvements address not only vehicular traffic but also people who walk and bike throughout the Corridor. The Unified Government Commissioners and staff should be applauded for this specific big step.

This Complete Streets Resolution is just one example of having a more comprehensive approach to improving corridor health. The Corridor study

primarily addresses the physical and environmental aspects for addressing community health policies with suggestions for improvements to the built environment along the Corridor. However, these aspects have a direct link to other factors that affect healthy behaviors such as promoting exercise and recreation, increasing access to healthy food or other opportunities for physical activity. Further improvement of social and economic factors will also have a strong effect on health within the Corridor and community.

Neighborhoods that are designed for active living and healthy eating provide greater opportunities for residents and workers to get fit, eat right and stay healthy.

Community Assessments

The first steps to determine what actions should be recommended was obtaining base line information of those who live and work within the Corridor in order to evaluate physical activity levels and nutrition-related behaviors, eating habits and access to healthy foods. In partnership with the RDA, Dr. Cheryl Gibson and her students at the KUMC documented several key area factors to establish these base lines.

Dr. Gibson and her students surveyed Corridor residents at health fairs and other venues to establish specific health attributes that will be used to focus efforts in the future to improve community wellness. A summary of these health surveys and assessments are appended to this report. What the Corridor demographic characteristics show is that it has a growing population of Hispanic or Latino families. Nationally, this demographic group is at a higher risk for physical inactivity or injury while being physically active. People at higher risk also include seniors who

rely on walking, small children who don't understand traffic rules and are harder for drivers to see, people of low income, and people with disabilities. Local data collected for the purpose of establishing the Corridor's baseline is another excellent first step. These partnerships must continue to champion and implement strategies for improvement, as was the case with the recently adopted Complete Streets policy mentioned above. This report will list suggested implementation action items related to this topic. One will include development of Health Impact review criteria incorporating health considerations to guide decision makers as new development projects are initiated.

Outreach and Activity Areas

Many factors influence the Corridor's physical activity levels and the diet of Corridor residents. The built environment is only one factor; however, it is an important one. Programs to educate those who live and work in the Corridor about health and encourage them to adopt healthy habits should be considered. Cooking classes at local churches, "Bagels on the Boulevard" for bicyclists, walking clubs, easy recipes at the farmers market and "Bike-Night at the Boulevard Drive-In" all are opportunities that should be built upon. All of these pro-active events and community outreach venues are useful. Partnerships should consider additional programs that motivate area residents, workers and Corridor visitors.

There are some exciting projects currently in development. Capitalizing on the attributes of the future Turkey Creek Environmental Enhancement Area will provide excellent recreational opportunities for Corridor and metro-area residents as will



completion of the MetroGreen railway plan for Turkey Creek. Realistically, those larger community projects will take many dollars and many years to implement. However, there are potentially smaller and short-term improvements that should be considered like vacant lots for use as soccer fields and pocket park locations. Even a private wakeboard park was envisioned during the visioning sessions. One of the Corridor's biggest attributes on the drawing board will be dedicated bicycle lanes for everyone to enjoy.

Environment

Energy Efficiency and Renewable Energy Sources

The Green Corridor, if it wishes to be true to its name, can lead by example in transforming itself with energy efficiency and use of renewable energy sources. The Unified Government and Board of Public Utilities have implemented a number of energy efficiency programs since the City decided to be a “Green Community” in 2007 when it updated its master plan.

The goal to be a Green Community is consistent with the increased recognition of energy costs and carbon footprints. People are looking at the cost of housing and transportation in total when deciding where to live. When people look at “full costs”, the Corridor with its central location becomes a more logical choice in which to locate.

As the cost of transportation rises, the value of real estate in neighborhoods and work places within close proximity of public transportation will increase. An admittedly extreme example is in large urban areas where a new light rail or subway stop can double the value of property.

In addition to City-led initiatives, there are a number of similar programs that the Corridor can take advantage of from the Metropolitan Energy Center, Mid-America Regional Council and Kansas Energy Office. Because of the many available information resources and funding programs, the Corridor planners do not need to reinvent the wheel. The Corridor can, however, fill an important gap

in promoting and implementing green practices because of its highly organized internal community. The Corridor houses the Rosedale Development Association (RDA), Turner Community Connections (TCC) and the Rosedale Business Stakeholders (RBS) who can lead the community and get the word out to residents, businesses and churches about energy-efficiency programs and the long-term pay backs in energy savings. Some of the available energy-efficiency programs are:

- Homeowner Energy Efficiency Appliance Rebate Program
- New Housing Energy Conservation Grant Program
- BPU Energy Smart Electric Heating Rebate Program
- Low Income Weatherization Assistance Program
- MARC First Suburbs Home Equity Loan Program
- Federal Tax Credit Home Energy Program
- Kansas Energy Efficiency 0 percent Loan Program (KEEP)

An indicator of sustainable, energy-efficient construction is LEED certification. While some may not obtain LEED designation due to the application costs, frequently homes and commercial buildings are constructed to LEED standards because it makes sense



long term to decrease operating costs and increase the property's resale value.

In some instances LEED standards conflict with local building codes. Planning and building officials should be flexible, without sacrificing safety, so it is easy to design and construct a structure that has many of the LEED attributes and which are energy efficient and sustainable.

Streetlighting – The Corridor Plan calls for new streetscape as capital budgets and grant opportunities permit. The largest energy cost in a city budget is typically streetlighting. Many cities in the Kansas City metropolitan area are currently testing different technologies of energy efficient streetlighting that use LED and induction technology. The new technologies are nearly twice the cost of existing high pressure sodium streetlights most often used today. However, the newer technologies last twice as long, cost less to maintain, and use 20 to 40 percent less energy which reduces the carbon footprint of a community. It is recommended that new energy-efficient streetlights be used in the Corridor, particularly as segments of Merriam Lane and Southwest Boulevard are reconstructed.

ICC Energy Conservation Code (IECC) – The UG is in the process of adopting the 2009 International Energy Conservation Code for the entire city. This is a national code that is a companion to the residential and commercial building codes that regulate new construction and remodeling.

A study commissioned for the State of Missouri by the Building Code Assistance Project (BCAP) showed the cost increase of building a 2400 sq. ft. home, valued at \$267,000, to the 2009 IECC was \$1,519 (.6 percent). This corresponds to an increase in the down payment of \$304 and \$6.56 in the monthly mortgage payment.

However, building to the 2009 IEC also reduces energy cost for electricity and gas by 26 percent. The average expected break-even point was shown to be 14 months.

The Board of Public Utilities is offering incentives to property owners to retrofit their properties to be more efficient. It is recommended that the RDA, TCC and RBS support the BPU in promoting the program. Not only do energy retrofits pay for themselves in reduced utility costs, they also enhance the value of properties.

Solid Waste Reduction, Recycling and Composting

There are three landfills in the nine-county metropolitan area that accept trash from homes and businesses. One has less than six years left until it closes and the other two each have an expected lifespan of approximately 20 years. It can take up to 10 years or longer for a new landfill to move through the approval process. As landfills close, the cost of trash disposal rises as a result of increased transportation costs and increased disposal rates.

Household and commercial trash makes up more than 50 percent of what we put in landfills. According to a MARC study, more than 90 percent of people in our metropolitan area say that it is important to recycle. But, as of 2005, only about 20 percent of our waste is recycled. The Green Corridor is part of the MARC Solid Waste Management District that encourages waste reduction, reuse and recycling. Targets for recycling and diverting waste from the landfills have been set for the region – 40 percent by 2013, 60 percent by 2018 and 80 percent by 2023. While this may seem unachievable, there are cities in the United States that divert nearly 60 percent of their

waste and most European cities divert an even greater percent of waste.

A 2008 study of landfills produced by MARC showed that urban dwellers are much more prone to recycle than suburban dwellers. The Unified Government operates a curbside recycling program, as well as a recycling center and household hazardous waste center. In 2010, the city stepped up its education and outreach programs in support of curbside recycling and composting.

It is recommended that the Corridor, through RDA, TCC and RBS, also support the efforts of the Unified Government and MARC Solid Waste Management District to divert household and business solid waste away from landfills so as to extend their years of operation.

In addition to recycling, businesses along the Corridor have indicated that there should be an information exchange about reusable manufactured waste by-products within the Corridor and throughout the metropolitan area. One example on the Missouri side of Southwest Boulevard is Boulevard Brewery, who is recycling glass to a local manufacturer of insulation. Their product is now being put into many homes and businesses in the region.

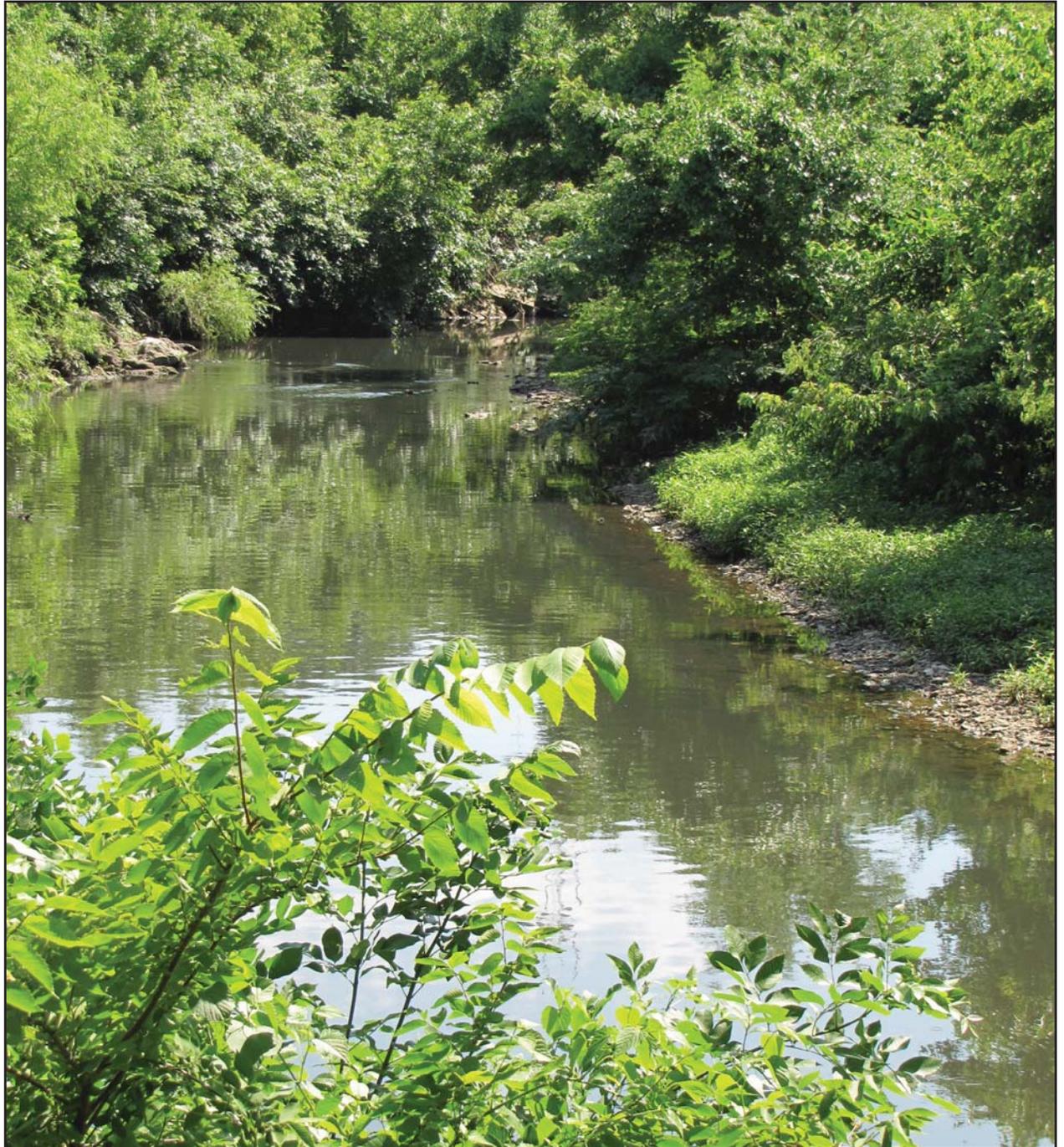
Noise

The community along Merriam Lane and Southwest Boulevard is very tolerant of noise from vehicles whether it comes from the main thoroughfare or from adjacent I-35. However, one of the most frequently heard complaints concerns noise from the railroad. When trains pass by, conversations are paused in businesses, churches and homes along the Corridor.

The Consultant Team met with Burlington Northern to discuss the possibility of constructing overpasses or quiet zones such as those in Olathe and Lenexa. Neither option eliminates the noise of passing trains. However, they do eliminate the loud noise from their horns sounded at every train crossing. Overpasses also eliminate vehicle backups at train crossings and the danger of cars being hit by trains.

Quiet zones and overpasses are very expensive. The cost of overpasses is in the millions. The cost of construction is also borne by the city. Both quiet zones and overpasses have to be carefully engineered as each location is different. Costs can vary greatly depending on the situation. However, to give an example of the cost of a quiet zone, one installed in a nearby Kansas City suburb on a typical two-lane residential street cost \$200,000. It was paid for by a residential developer who was selling lots near the road crossing.

In discussions with Burlington Northern, it was discovered that quiet zones are possible at all at-grade railroad crossings within the Corridor. It is recommended that the City study these projects. In terms of overpasses, one taking 24th Street (Lamar) over the railroad tracks and connecting with I-35 may be possible. However, an overpass taking Southwest Boulevard over the tracks is not possible due to both I-35 and Mission Road being elevated at that location.



Low Impact Development and Green Infrastructure

Low Impact Development (LID), sometimes known as Green Infrastructure, is an ecologically friendly approach to site development and storm water management that aims to mitigate development impacts to land, water and air. The approach emphasizes the integration of site design and planning techniques that conserve natural systems and hydrologic functions. The practice has been successfully integrated into municipal development codes throughout the United States and in the Kansas City region. Specifically, LID aims to:

- Preserve open space and minimize land disturbance
- Protect natural drainage ways, vegetation, and soils
- Customize site design to each site
- Incorporate natural site elements such as wetlands and stream corridors
- Manage stormwater at its source

The most prevalent use of LID in the region has been the use of bioswales, natural vegetation and open streams to improve water quality instead of transporting it through pipes all the way to the river. Municipalities have increased setbacks to protect streams so they can properly function if left in their natural state.

Another term synonymous with LID is Green Infrastructure. In the 1980s, in the Kansas City region, planners began creating a trail system through the metropolitan area and today this is called the MetroGreen Plan. There are many examples of bio-

retentions basins and bioswales to improve water quality of runoff from streets and parking lots. Development codes are also attempting to reduce runoff caused by development by minimizing impervious surfaces. Examples are minimizing the size of parking lots, requiring pervious pavement for excess parking, narrowing traffic lanes and parking spots, and incorporating more natural vegetation.

The Corridor has drainage-ways that have eroded over time that will need to be re-engineered and reconstructed. Plans are already underway to improve sections of Merriam Lane and Southwest Boulevard. It is recommended that the principles of LID and Green Infrastructure be followed as these areas are improved.

LID is just one of many elements of sustainable communities. Other elements include taking advantage of community assets such as local parks, institutions such as schools, and public investments that identify a community. Examples in Rosedale are the Rosedale Arch, which overlooks the Corridor, and Whitmore Park, across from the RDA offices, which is consistently used by young people in the neighborhood.



Sustainable communities have low carbon footprints because of their compact design, diversity of housing choices and nearby retail stores, churches and schools. Residents of a sustainable community should not have to move away from friends and activities when looking for a larger place to live as the family increases and decreases in size. Sustainable communities also have good sidewalks and a safe, walkable environment. Residents should be able to visit friends and run errands without relying on a car.

Topography and Hydrology

Over the last 600,000 to 800,000 years, land form in the Kansas City area has been shaped by a number of geologic processes. Ice sheets during the Independence

glaciation period and drainage-area cuts by the erosive action of rivers and their tributaries are two of the more important factors for the study area. Both topography and hydrology have defined the Corridor due in part to its location near the confluence of the Kansas and Missouri rivers. These rivers and their tributaries, such as Turkey Creek which bisects the Corridor, have left large valleys with significant steep bluffs. These slopes and breaks formed by differential erosion of limestone, shale and sandstone can be found along both of these rivers and their many tributaries. As noted in Table 3, elevations vary dramatically in the area, falling some 264 feet from the well-known KUMC north along Rainbow and 7th Streets to the Kansas river.

These steep slopes have influenced past development patterns in the area including street and traffic patterns as well as land uses. Significant acreages along the Corridor remain vacant to this day, in part, because they are too steep to be economically developed. These steep slopes often contain large mature trees providing the Corridor with a unique natural green edge. Yet the Green Corridor is located just a short distance from the urban cores of downtown Kansas City, Kansas, and Kansas City, Missouri.

The major hydrologic feature in the Corridor is Turkey Creek (a perennial stream) and its associated 100-year flood plain located along the creek. A number of smaller intermittent creeks and streams lace the Corridor which is wholly contained within the 23 square-mile Turkey Creek watershed basin. I-35 is located adjacent to the creek for much of its length and both it and the creek pass through most of the Corridor's four-plus mile length.

Over the years, development occurred along significant portions of the creek's floodplain. As



U.S. Army Corps of Engineers Turkey Creek Flood Control Diversion Tunnel

noted in the history section, Turkey Creek has been prone to flooding, with extreme floods occurring in 1993 and 1998. Since 2004, the U.S. Army Corps of Engineers has been working on an estimated \$120 million in drainage and flood control projects expected to be completed in 2016. These projects, as detailed in Figure 17, are expected to improve drainage and reduce flooding in the central and eastern portions of the study area. Also, the former railroad yard, located between I-35 & Southwest Boulevard near 7th Street is being rehabilitated into a high quality natural open space. The environmental enhancement plan for that area, still under construction, will restore the area to a healthy, riparian tract using a mix of native grasses, wildflowers, trees and shrubs. The proposed plan also includes a future bicycle/pedestrian trail that will wind its way through the area and provide important links to other similar local and bi-state bicycle and pedestrian facilities.

Table 3
Southwest Boulevard/Merriam Lane
Corridor Area Selected Elevations

Location	Elevation Above Sea Level (in Feet)
47th & Mission Road	992'
KU Hospital - Southeast corner	986'
39th & Rainbow	953'
Rosedale Arch	920'
Turkey Creek at 7th Street Bridge	754'
Kansas River East of 7th Street (Near lowest spot in Wyandotte County)	722'
Turkey Creek at Lamar Ave.	830'
Near JC Harmon High School (Northwest of Corridor)	1030'+



1951 Flooding in the Corridor. Courtesy Missouri Valley Special Collection.

Figure 17 U.S. Army Corps of Engineers Corridor Flood Reduction Projects



U.S. Army Corps of Engineers. Construction on 41-acre Turkey Creek Environmental Enhancement Area Along Turkey Creek with treed bluffs in background. Looking south toward Southwest Boulevard.

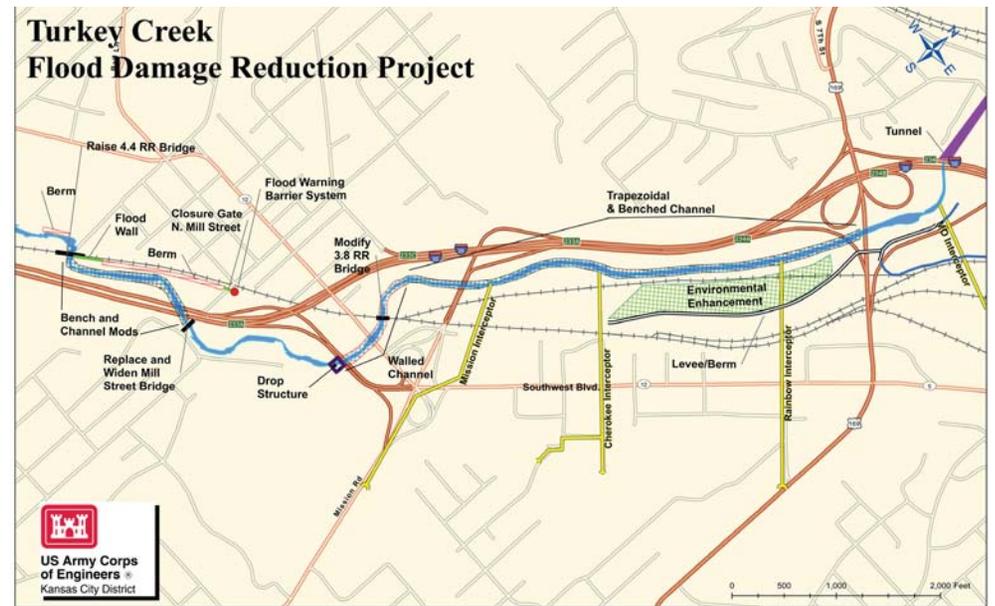
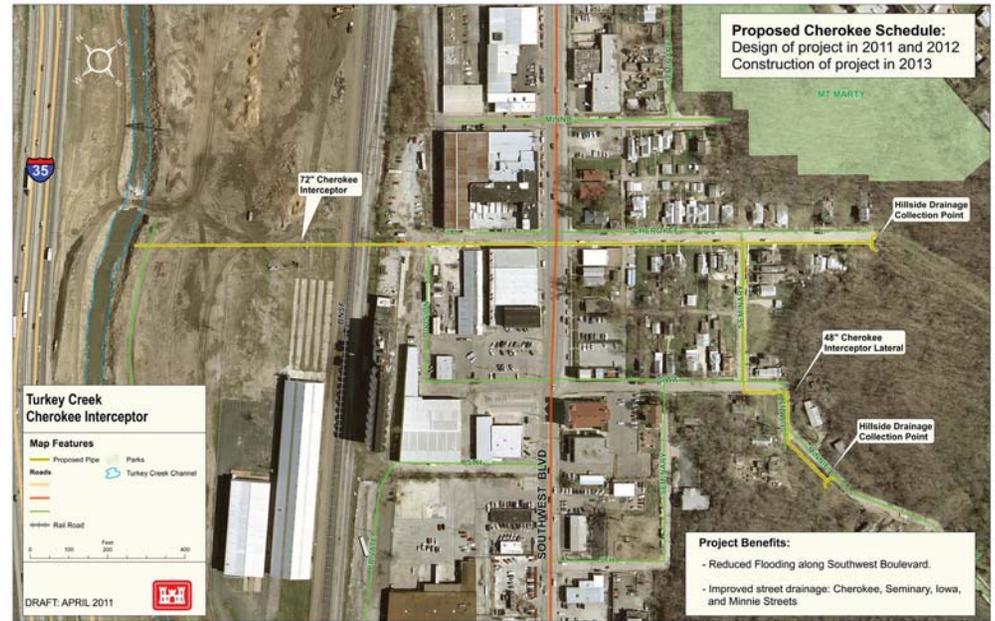
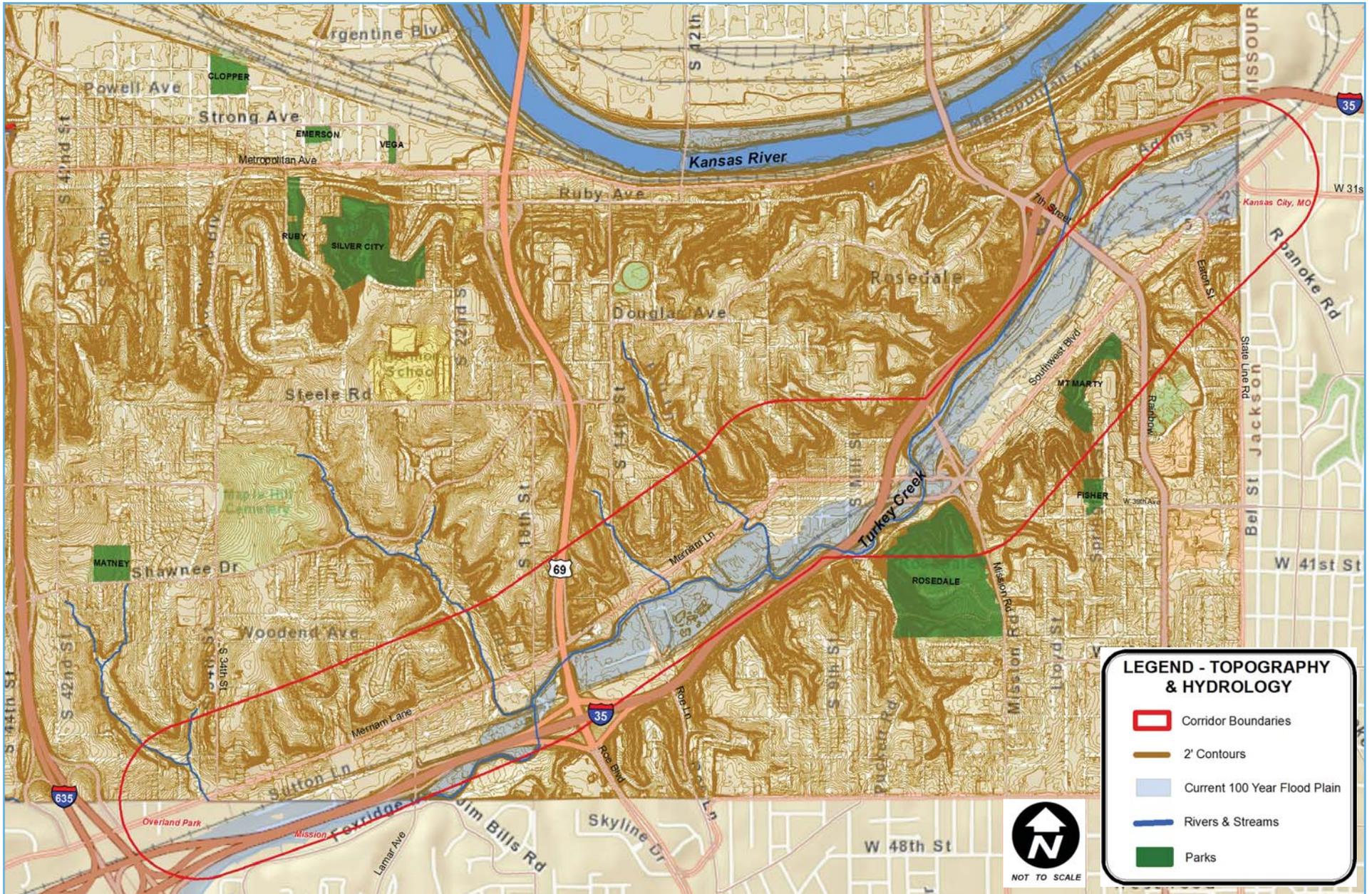


Figure 18
Corridor Topography & Hydrology



Note: Flood control projects underway or completed will reduce the size of the 100-year flood plain in the eastern portions of the Corridor.

Land Use



Existing Land Use/Zoning

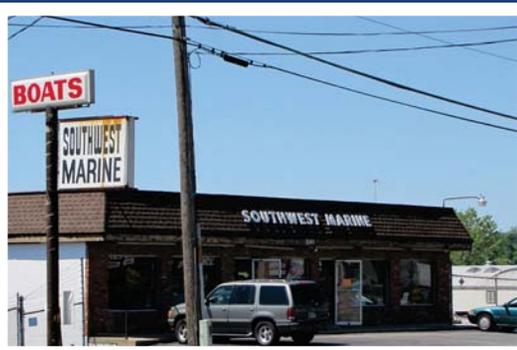
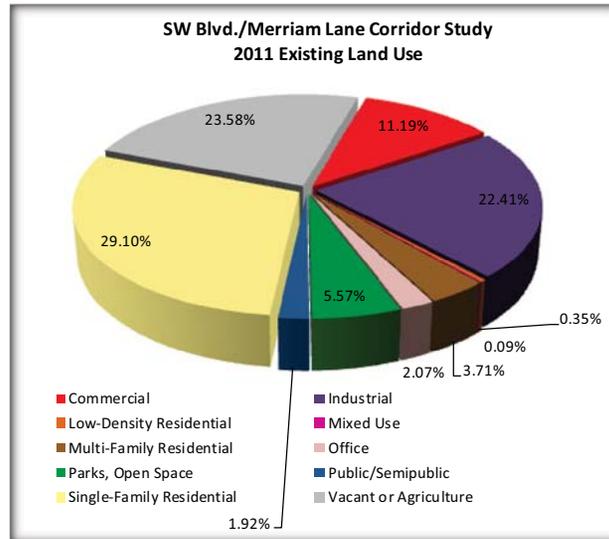


Figure 19



Source: Wyandotte County Appraisers Office with modifications from GAP consulting. Percentages calculated without ROW.

History has shaped the land uses of the Corridor as much as the Kansas River and Turkey Creek. The Rosedale portion of the Corridor was originally platted in 1872, and many structures and their associated land uses have been built, changed or removed since that time. Today, the total Corridor includes 1,406 acres, or about 2.2 square miles, though the following maps relate to the Kansas City, Kansas, portion of the study area which contains 1,249 acres or about 1.95 square miles.

Figure 20
Existing Land Use Map



Figure 21
Undeveloped Parcels

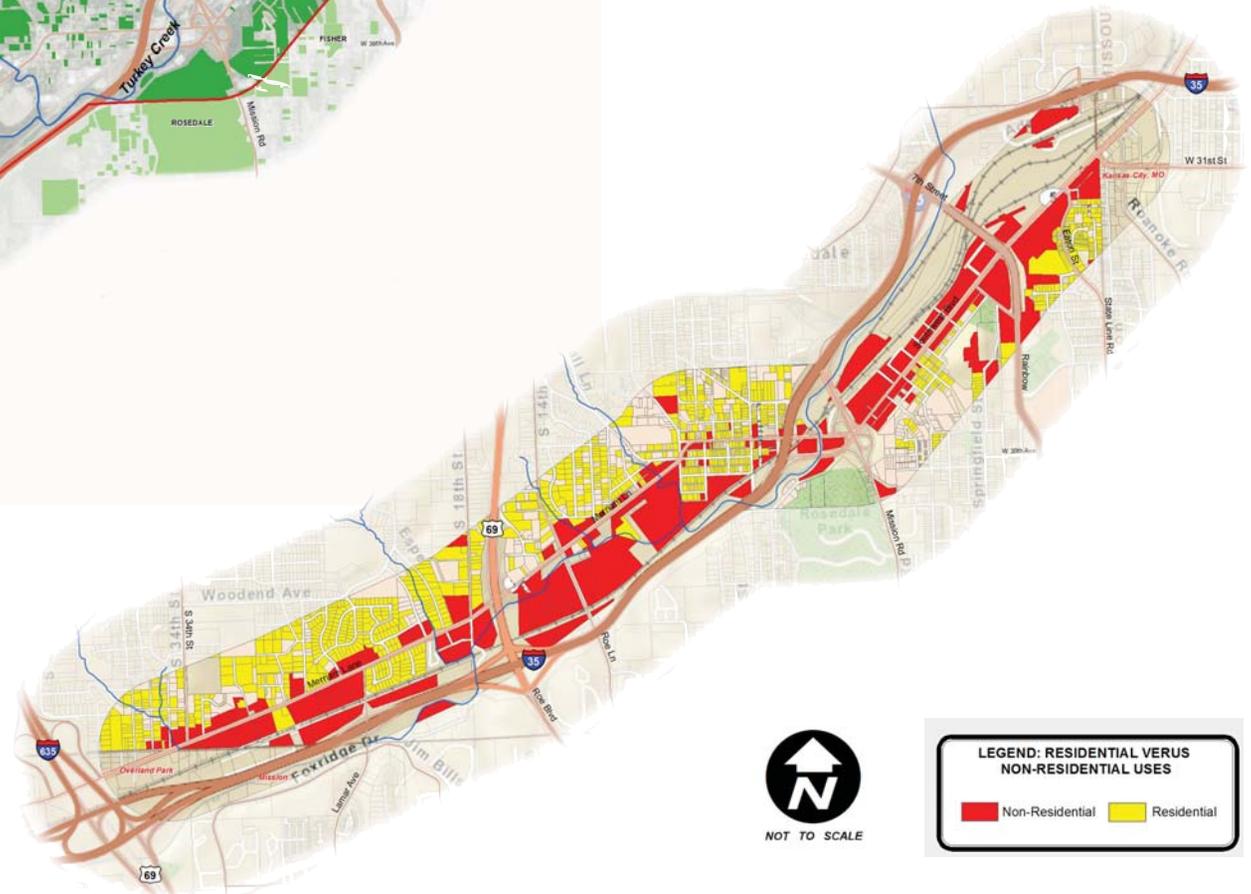


Source: Wyandotte County Appraisers Office with modifications from GAP consulting

A Balanced Tax Base — Comparing residential to non-residential uses is one way to assess a corridor’s tax base. Of all the developed land, the Green Corridor currently has an acreage ratio of 53 percent non-residential to 47 percent residential uses, an excellent ratio and one which many cities would like to emulate.

Vacant Tracts — The area’s steep slopes have prevented some development and protected significant stands of mature trees. Currently almost 30 percent of the Corridor remains vacant, 23 percent in vacant tracts and another 6 percent in parks and open space.

Figure 22
Residential Versus Non-Residential Uses As A Percentage Of Developed Tracts



Source: Wyandotte County Appraisers Office with modifications from GAP consulting.

Figure 23
Current Zoning

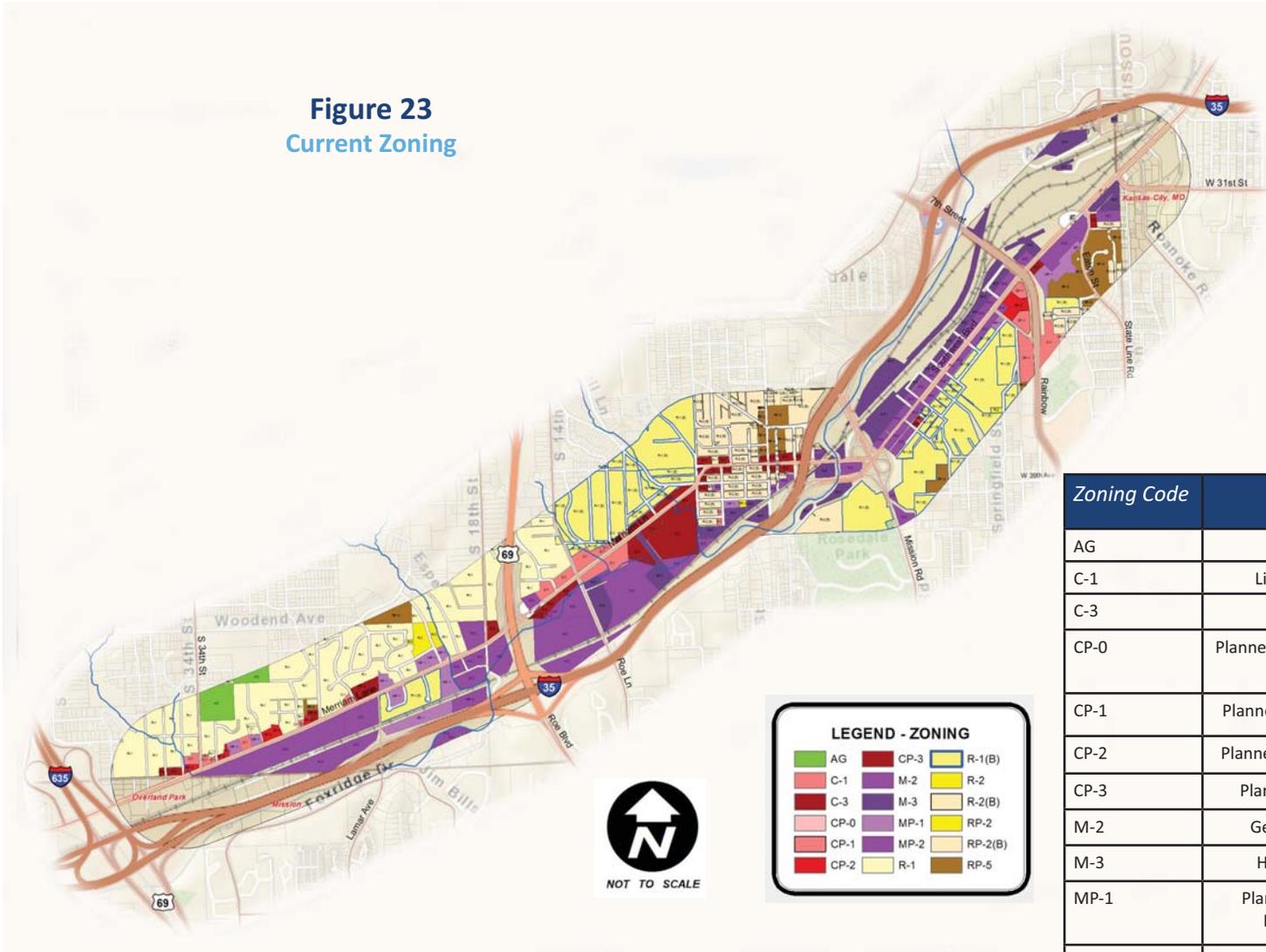


Table 4
Zoning Summary

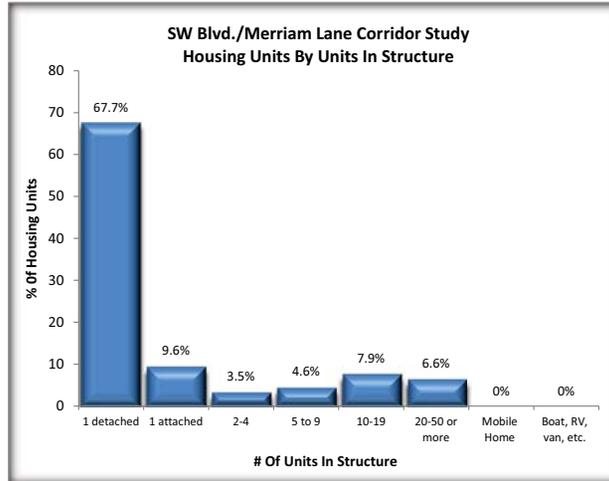
Zoning Code	Description	Total Acres	% of Total Area
AG	Agriculture District	11.81	0.95%
C-1	Limited Business District	21.46	1.72%
C-3	Commercial District	41.27	3.31%
CP-0	Planned Nonretail Business District	0.26	0.02%
CP-1	Planned Limited Business District	8.44	0.68%
CP-2	Planned General Business District	7.30	0.59%
CP-3	Planned Commercial District	3.81	0.31%
M-2	General Industrial District	149.04	11.96%
M-3	Heavy Industrial District	73.80	5.92%
MP-1	Planned Light Industrial and Industrial Park District	25.02	2.01%
MP-2	Planned General Industrial District	3.61	0.29%
R-1	Single Family District	162.75	13.06%
R-1(B)	Single Family District	164.74	13.22%
R-2	Two Family District	5.72	0.46%
R-2(B)	Two Family District	64.88	5.21%
RP-2	Planned Two Family District	0.39	0.03%
RP-2(B)	Planned Two Family District	1.18	0.09%
RP-5	Planned Apartment District	37.88	3.04%
	TOTAL	783.38	62.87%

NOTE: Does not include right of way.

Housing

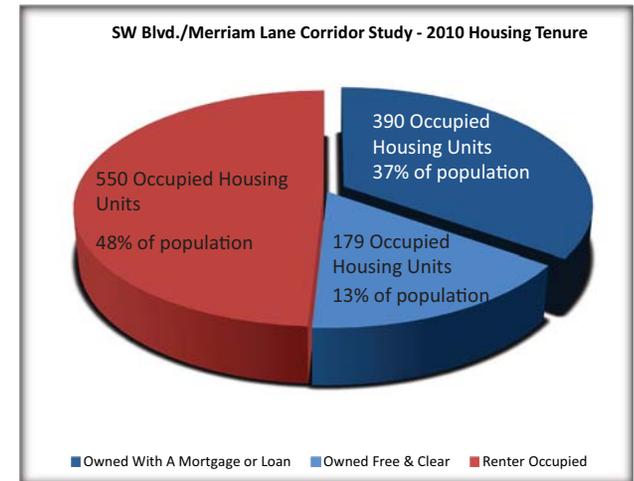


Figure 24



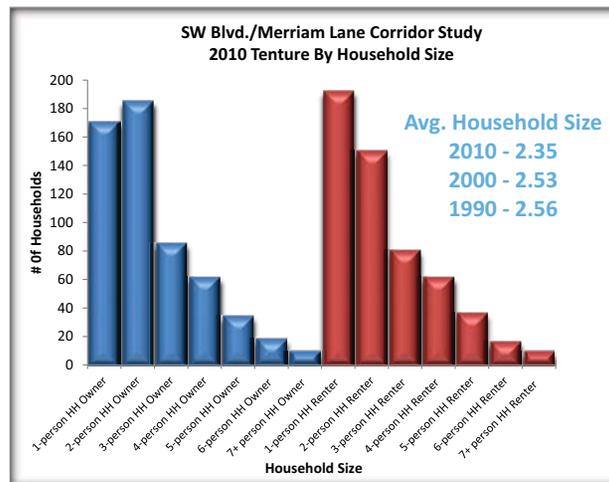
Source: 2005-09 U.S. Census ACS Estimate/ESRI Community Analyst Housing Summary For Corridor. Note: Lower percentages are subject to greater margins of error.

Figure 25



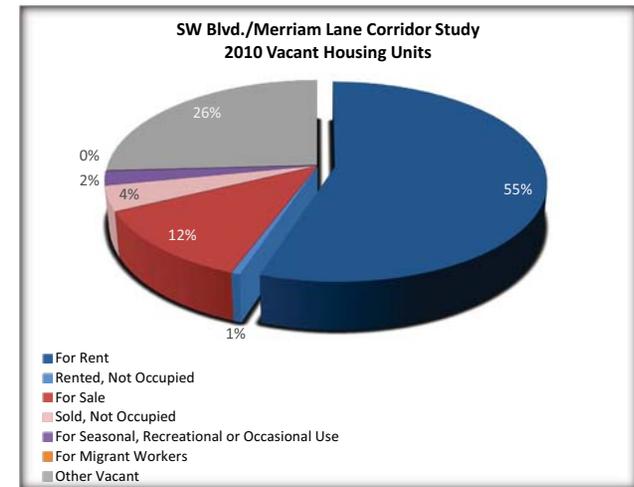
Source: 2010 U.S. Census STF1, H11, H4, & H12 for corridor

Figure 26



Source: 2010 U.S. Census STF1, H16 for corridor

Figure 27

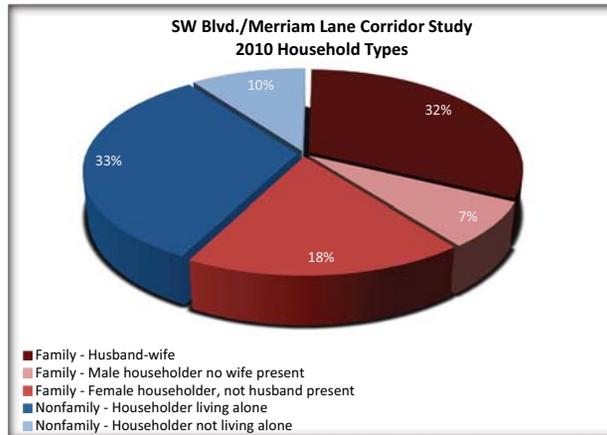


Source: 2010 U.S. Census STF1, H5 for corridor



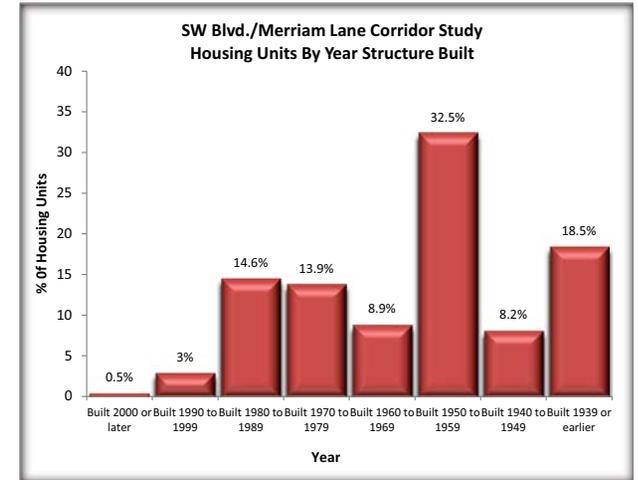
According to the 2010 US Census, there were an estimated 1,293 housing units in the Corridor, with over 13 percent of those vacant. As seen in Figure 24, those units are predominately single-family in nature. Figure 25 indicates that almost half of those units are renter-occupied and of the remaining owner-occupied units, almost 16 percent are owned free and clear, with no mortgage. The 2005-09 U.S. Census ACS estimate indicated that almost 12 percent of owner-occupied units in the Corridor had a second mortgage, home equity loan or both. Figure 26 illustrates household size by tenure. Interestingly, unlike many suburban communities, owner-occupied and renter-occupied units were similar in size at 2.4 and 2.3 persons per household, respectively. The Corridor has also continued to follow national trends with respect to average household size, dropping from 2.56 persons per household in 1990 to 2.35 persons per household in 2010. Figure 27 reflects that of the 174 vacant housing units, 56 percent are intended as rentals, with less than 16 percent noted for sale or recently sold. With regard to other units, the Census Bureau does not count a vacant unit if it is exposed to the elements, that is, if the roof, walls, windows or doors no longer

Figure 28



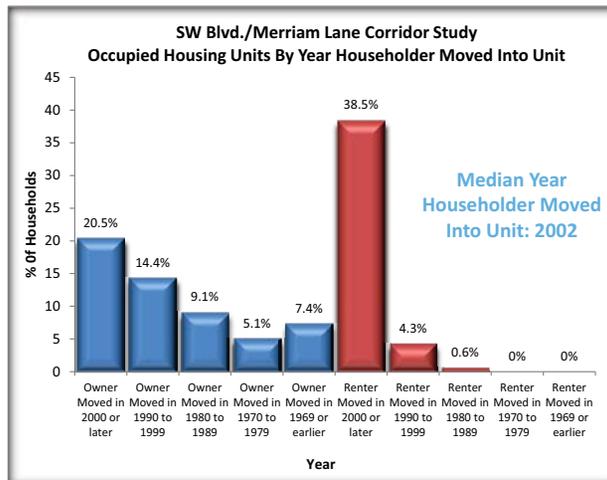
Source: 2010 U.S. Census STF1, P18 for corridor

Figure 29



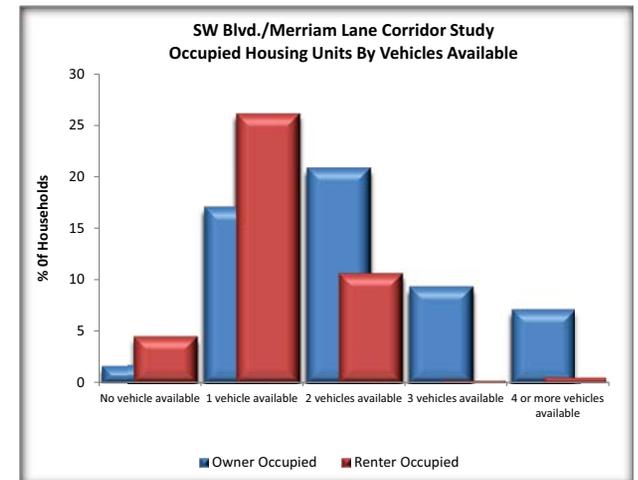
Source: 2005-09 U.S. Census ACS Estimate/ESRI Community Analyst Housing Summary For Corridor. Note: Lower percentages are subject to greater margins of error

Figure 30



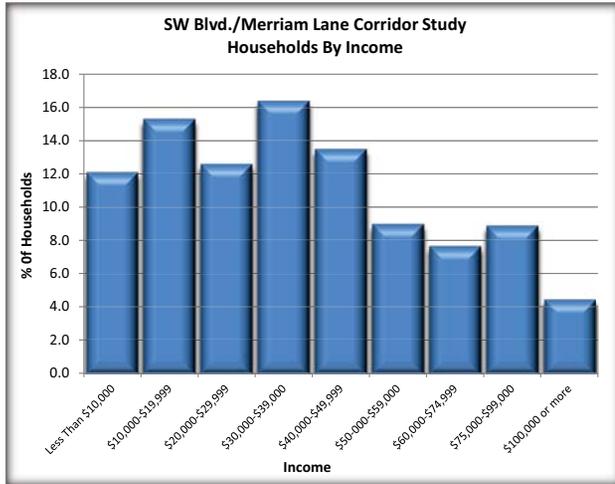
Source: 2005-09 U.S. Census ACS Estimate/ESRI Community Analyst Housing Summary For Corridor. Note: Lower percentages are subject to greater margins of error

Figure 31



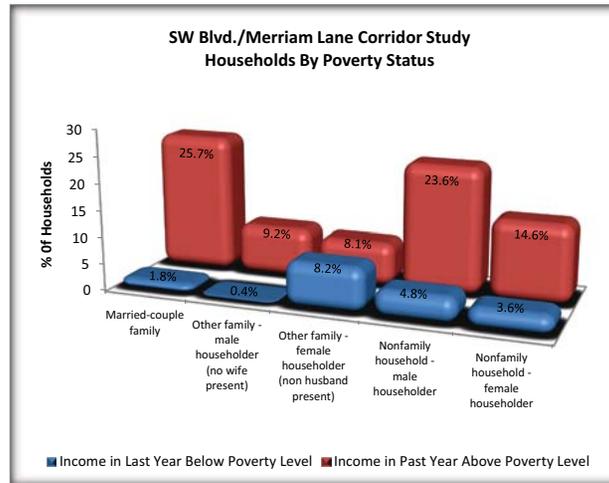
Source: 2005-09 U.S. Census ACS Estimate/ESRI Community Analyst Housing Summary For Corridor. Note: Lower percentages are subject to greater margins of error

Figure 32



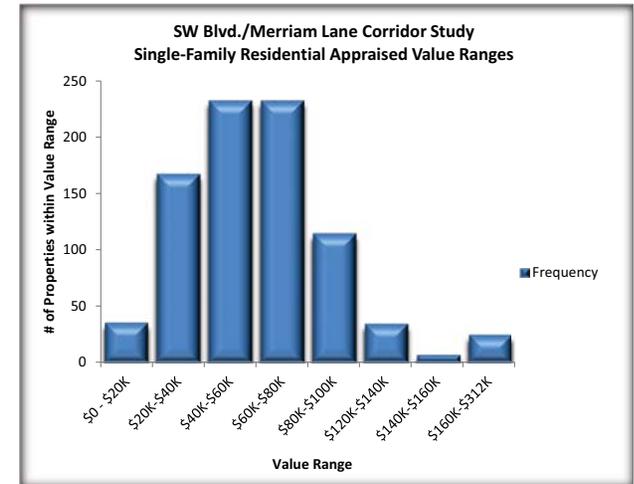
Source: 2005-09 U.S. Census ACS Estimate/ESRI Community Analyst Population Summary For Corridor. Note: Lower percentages are subject to greater margins of error.

Figure 33



Source: 2005-09 U.S. Census ACS Estimate/ESRI Community Analyst Population Summary For Corridor. Note: Lower percentages are subject to greater margins of error.

Figure 34



Source: Unified Government of Wyandotte County Geospacial Services July 2011

protect the interior from the elements, or if there is positive evidence that the unit is to be demolished or is condemned. Figure 28 illustrates that only 32 percent of households have both the husband and wife in the home. A like amount are single people living alone while 25 percent of households are families with either no husband or no wife present.



Figure 29 reflects the age of Corridor structures. Almost 60 percent of the housing units were built before 1960. The median year of housing structures built is also noted for being the peak year of the baby boom, 1957. Very few additional housing units have been built since the 1980's. Figure 30 highlights the transient nature of our society, noting that the median year for the householder moving into their unit was 2002. Renters are almost twice as likely as owners to have moved into their unit after

the year 2000.

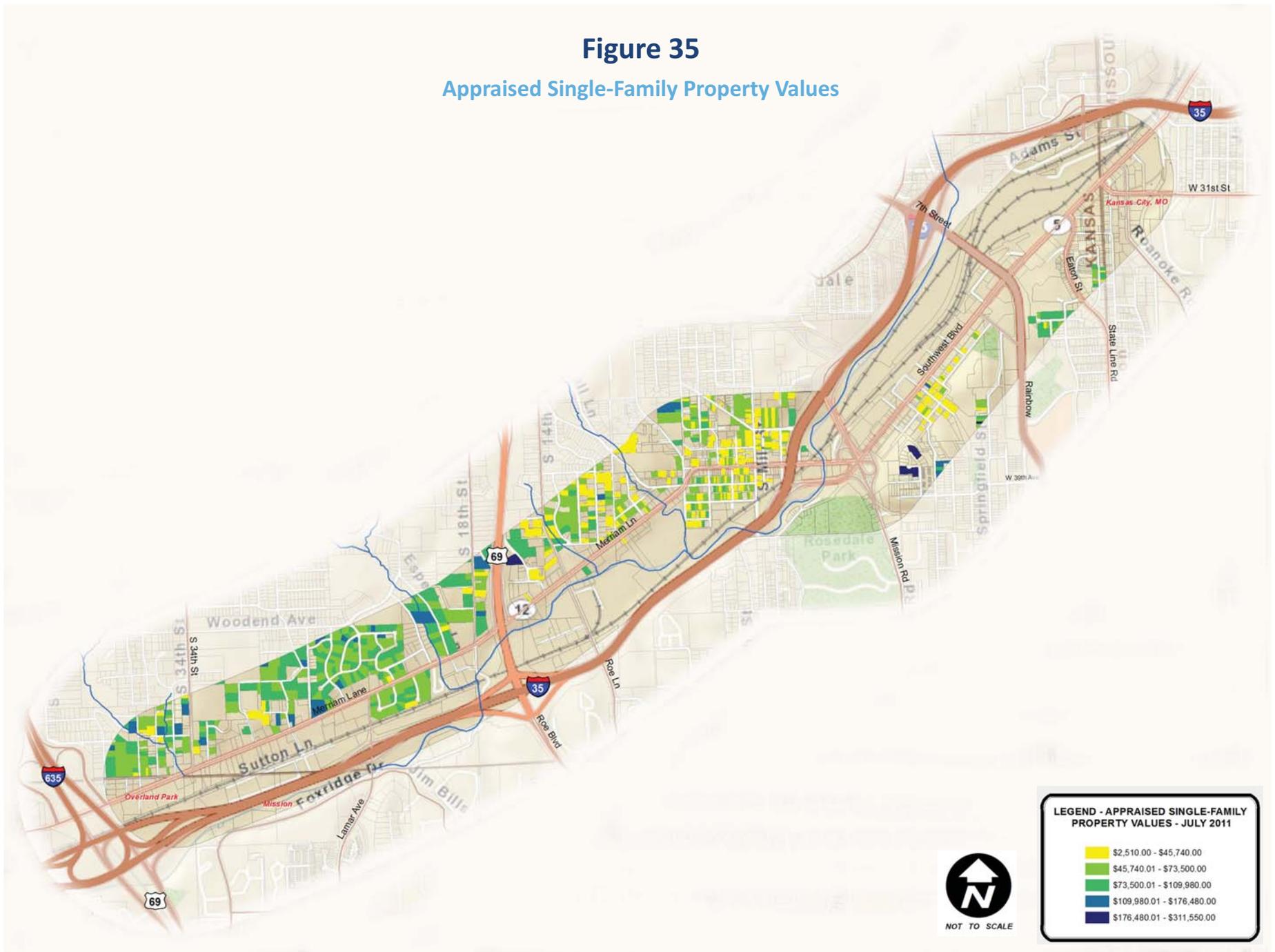
Figure 31 notes the number of vehicles available by household. As reflected in the previous demographics section, cars are still the principal means of transportation in the Corridor. Unfortunately, the Census ACS sample size was too small for the Corridor to accurately quantify the number of housing units without a vehicle.



The U.S. Census ACS 2009 Corridor Estimate for median household income was \$33,732 compared to \$37,998 for Wyandotte County and \$48,394 for the State of Kansas. Figure 32 contains additional income

Figure 35

Appraised Single-Family Property Values



data for the Corridor. Note that over 12 percent of the households make less than \$10,000 a year. Over 27 percent of households make less than \$20,000 a year. On the other end of that spectrum, 13 percent of households make \$75,000 or more a year. Median household income in the Corridor also varies by age of householder going from just \$10,000 a year for those less than 25 years old to \$34,505 for those aged 25-44, \$51,708 for those aged 45-64, and back down to just \$27,417 for those householders 65 years old or older.

Much like the overall population, households below the poverty level have remained relatively unchanged since 1990 at approximately 19 percent. Figure 33 provides poverty level statistics by type of household. As noted previously in the demographics section almost 45 percent of the population is either in poverty or have income levels low enough to qualify for various governmental assistance programs. Housing variety as well as affordability are two key concerns for the Corridor. Corridor rental data from the 2005-09 Census ACS was limited due to the small sample sizes, however a median contract rent of \$534 was reported. Figures 34 and 35 reflect 2011 single-family appraised value ranges for the Corridor. With over 850 parcels, the mean (average) value was \$62,604, with the maximum value recorded of \$311,550. When mapped, the lower valued and most likely older homes tend to be located in the central and eastern portions of the Corridor, east of 69 Highway (18th Street Expressway). These homes are often located on a traditional grid pattern of streets with lot sizes as small as 25'-30' with depths of 105'-160' - densities up to 9-12 units to the acre. As homes were constructed further up the hillsides or further west, more traditional suburban or suburban large lot development patterns can be seen. The lack of housing variety and the need for affordable housing are clearly highlighted from the preceding statistics.



Housing options should include a range of energy efficient housing types for a variety of incomes. Along with infrastructure enhancements, these existing and future projects should support the principles of CPTED (Crime Prevention Through Environmental Design) including such items as increasing activity along the street (auto, bike, pedestrian), appropriate lighting, as well as building and window orientation toward the street. Building maintenance is another key component of CPTED. Building maintenance is an expression of property ownership and a strong

code enforcement program is needed to protect those owners and residents who are trying to enhance their neighborhood property values by performing regularly needed maintenance.

Renovation and enhancement of existing housing stock is strongly encouraged, though removal and construction of new, appropriately designed units is appropriate. Partnerships with groups such as Habitat for Humanity should be encouraged. The Unified Government's existing TND (Traditional

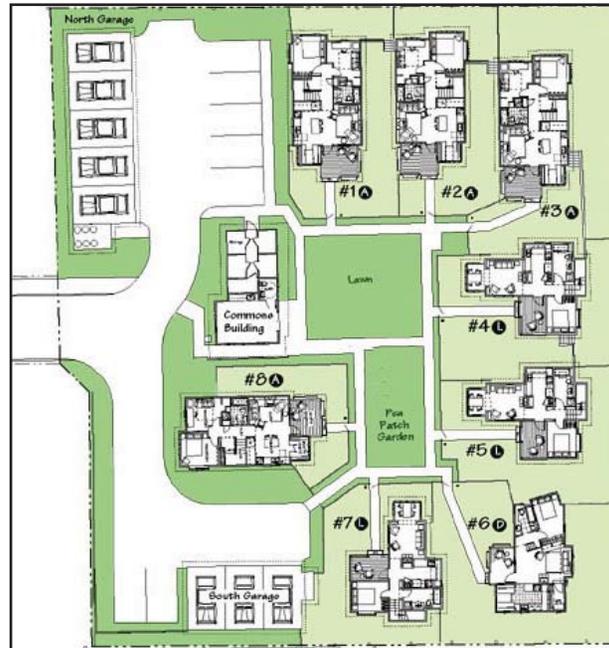
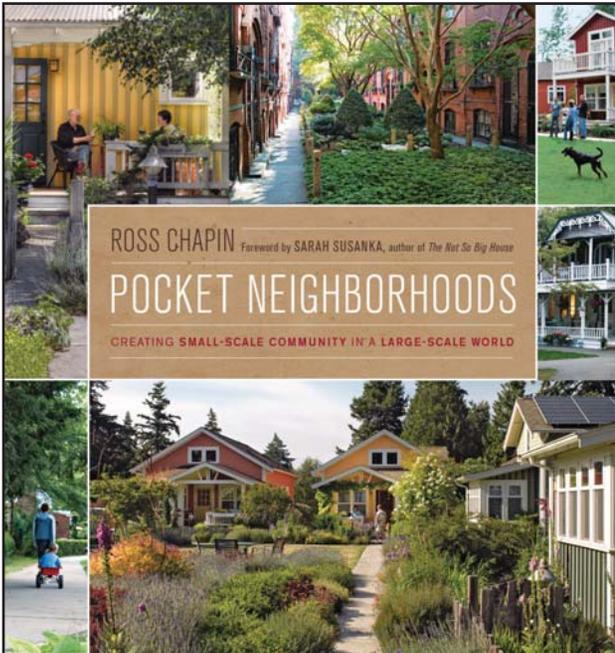


Neighborhood Design) residential narrow-lot requirements will ensure well designed redevelopment of the corridor's older, narrow lot traditional neighborhoods.

Another similar scaled single-family concept that may be appropriate in some areas of the Corridor is one borrowed from the old West Coast bungalow court (1910-1930). Pocket Neighborhoods are showing promise with the growing empty nesters market. These are small 700-1000+ square foot cottages, oftentimes designed around a small common open space.

Likewise, the Future Land Use Plan notes a number of higher-

density residential redevelopment opportunities along the corridor. The highly successful "Madison at Woodview" apartments are located directly adjacent to the corridor on a hilltop at the southeast corner of I-35 & 18th Street Expressway. This type of housing might be well received for the 20-somethings along the corridor and the growing employment base, including KUMC. This type of complex can be designed around the area's steep slopes or even configured into urban form for the numerous mixed-use areas reflected in the Plan. The Westend Apartments at Lenexa City Center is an excellent example of a more urban form for these types of apartments. Infill townhome development is another more affordable housing type that is best incorporated into the Plan's numerous mixed-use locations. Both of these higher-density uses work well in Transit Oriented Developments (TOD's) which are walkable and support future transit and sustainable urban growth.



Healthy Foods Access

Introduction

Many neighborhood communities are finding it difficult these days to find stores with fresh produce and other healthy foods within close proximity to their neighborhoods. There are many reasons small grocery stores have been closing their doors over recent years. Increased competition with the growth of big box stores and expanded product line in traditional non-food stores such as drug stores are forcing them to close their doors for good. For those who rely on public transportation, juggling groceries home can be problematic. Ultimately many turn to non-traditional sources for food, such as the nearest convenience store, which generally sells unhealthy processed foods at a high price. Take public transportation out of the equation, as is currently the case along the Corridor, and some residents have an even more difficult time making the healthy choice. This trend ultimately coincides with increased obesity and diabetes rates among Corridor residents. Are there steps that can be taken to address this critical Corridor issue?

Promoting Healthy Foods Access Within The Corridor

Through the Green Corridor planning process, the Planning Team identified short-term and long-term steps to increase healthy food access within the Corridor. Some activities to increase healthy food access have already begun, while others require more

resources or changes in policies. The Planning Team reviewed the literature on healthy food access in low-income urban neighborhoods and researched existing as well as new incentives for healthy food retailers in Wyandotte County. The Team also conducted a preliminary review of food access in the Corridor, including supports and barriers to healthy food access, and participated in a workshop/grocery store tour hosted by James-Johnson Piett of Urbane Development, a national consultant on healthy food retailers, on developing healthy food financing. This part of the report will summarize the findings of our planning process around healthy foods, as well as explore possible next steps.

Assets And Limitations To Healthy Food Access In The Corridor

The Green Corridor has the advantage of having the Rosedale Healthy Kids Initiative (RHKI) housed at the Rosedale Development Association (RDA) on Southwest Boulevard. The Rosedale Farmers Market, located at the Southwest Boulevard Healthcare Clinic, was an outgrowth of the RHKI and is in its third season of operation. The Rosedale Farmers Market is open from May to September on Sundays from 12:00 to 3 p.m. Last season, the market had over \$500 of SNAP transactions, and over \$2,300 of Senior Farmers Market Nutrition coupons. This year, the market aims



to double SNAP participation. To make produce more affordable to low-income individuals the Farmers Market participates in the Bean and Greens Program, which allows recipients of SNAP benefits and the Senior Farmers Market Nutrition Program vouchers to double their purchasing dollar when they buy local produce.

Likewise, largely through the efforts of RHKI, there are four community gardens directly within the Corridor and another seven gardens that provide produce within a 1.25 mile radius of the Corridor. Both the gardens and the Farmers Market are already contributing to healthy food access in the Corridor, but the vision will be to take these activities already underway and build off of them. If our plans are successful and additional funding is secured, the Corridor will attract new residents, new businesses, shoppers, and employees all spending additional time and money in the Corridor. As part of the vision for the vibrant future of the Corridor, the businesses within the Corridor will promote the Farmers Market to bring in new customers and attract additional volunteers for the gardens. Likewise, the Farmers Market and gardens will return the favor and promote businesses that are in line with the mission of healthy eating and active living. Stronger support for growers located directly in the area will hopefully increase production that will find its way into the community at reasonable prices. This will be described more thoroughly in upcoming sections.

Besides the Farmers Market and community gardens, there are three existing small food retailers identified in the Corridor. They are:

- La Estrella, a mini-market at 1501 Southwest Boulevard;
- Xtension Food Mart at 3440 Rainbow

Extension; and

- Phillips 66 at 1233 Merriam Lane.

In the spring of 2009, Dr. Cheryl Gibson and her students at the KUMC used adaptations of the Fresno County Community Food Assessment and the Los Angeles Community Health Council Neighborhood Food Watch Checklist to assess healthy food choices at the three neighborhood stores. She found that while there were some limited healthy food choices available at all three stores, there was minimal fresh produce. Other staple items, such as nonfat milk and whole grain breads, were unavailable or priced very high. None of the stores were qualified to accept WIC benefits. The Planning Team revisited the stores in May of 2011 to identify any major variations from the original survey results. The findings were basically the same, but in the process of re-evaluating the stores, the Rosedale Healthy Kids Initiative also had the opportunity to talk to the owners and managers to gauge their interest in carrying healthier foods. La Estrella was visited on a third occasion with James-Johnson Piett on a grocery store tour.

There are three major grocery stores that are approximately one mile or more from the Corridor: Apple Market, Price Chopper and Walmart. Unfortunately, the lack of public transportation within the Corridor and dearth of safe, walkable routes to these stores prohibits many residents from accessing them.

Due to the demographics of the Corridor catchment area, the population base combined with the buying power of the residents would make it difficult to sustain a full-scale grocery store. At best, given the current population base and spatial limitation, the Corridor might support a smaller grocery store in the 10,000 square-foot range. But taking into consideration

that the three other grocery stores would continue to siphon business from that store, a store of this size would struggle. The long-term solution here would be to follow the land use recommendations of this report and encourage additional higher density housing within certain nodes along the Corridor. However, given the current financial constraints, there are significant actions that could quickly increase access to healthy food.

Incentives And Funding To Increase Access To Healthy Foods

The most practical way to increase healthy food access is to work with the existing stores to build capacity and incentives for them to increase healthy food items and to provide incentives for additional corner stores or other types of healthy food outlets to locate in the Green Corridor. This could include adding healthy foods to a store that does not primarily focus on food sales or encouraging partnerships with businesses such as street vendors who sell healthy foods.

Samara Klein, Advocacy Director of KC Healthy Kids, and a member of the Green Corridor Steering Committee, met with Brent Miles, president of the Wyandotte County Economic Development Council, to identify funding and incentives for healthy food retailers in the Corridor. The Wyandotte Economic Development Council (WYEDC) is a non-profit economic development corporation whose mission is to promote and strengthen Wyandotte County's economy through innovative approaches to programs, partnerships, and leadership in industrial, residential,

office, and retail markets.

Mr. Miles said that the Unified Government is very interested in using incentives to increase healthy food access in Wyandotte County and has provided incentives to at least three full-scale grocery stores in Wyandotte County. Mr. Miles said that he believed that these same types of incentive packages could be made available to smaller healthy corner stores or any business that would agree to sell healthier food to consumers. Mr. Miles pointed out that a Dollar General store in Edwardsville successfully used such incentives to remodel and buy equipment for fresh food items in a food desert.

The incentive packages could include the following:

- A tax abatement under the Neighborhood Revitalization Act (NRA) on property value increases due to modifications made so that a store could carry healthier produce. This would include remodeling and increasing the square footage of a store.
- A low-interest “gap” loan to businesses offering healthier food options for starting a business or expanding or modifying existing businesses. The interest rate would be 4 percent and could be paid back over a 15 year period. The loan would need to be not more than one-third of the total cost of the project. The remaining cost could come from another loan, the owner’s own resources, or from another financial aid source.
- Up to an additional 2% sales tax can be approved for goods sold in a “community improvement district” in Wyandotte County. One store could apply to be the “community improvement district” and the additional tax would then go back directly to the store. One



concern the team had with this approach was that additional taxes on food are often seen as regressive and discourage healthy food choices. WYEDC said that it was open to exploring ways to make only non-healthy foods have the additional tax while healthy foods would be exempt.

- Promote healthy food stores with marketing assistance through the Unified Government working with all of their community partners.

The Unified Government has established the Healthy Communities Wyandotte Steering Committee, which includes a Healthy Food Access action team committee. Staff of RHKI presently serve on that Committee. It is suggested that the Committee find ways that the Unified Government could promote healthy food stores, perhaps using the Green Corridor area as a pilot project.

In addition to these existing incentives, the

following funding and other policy initiatives may also encourage the development of healthy food retailers in the Green Corridor:

- HUD is making grants through their Healthy Food Financing Initiative (HFFI) available to community development associations. Partners in Wyandotte County will explore future funding opportunities from the HFFI to seek a Federal HFFI grant so they can then make grants and loans to healthy corner stores and other healthy retailers.
- Streamlining applications for occupancy and other permits for health food retailers, with staff from the Unified Government assigned to help the retailers through the process could provide a significant incentive to business owners. Currently, the Unified Government tries to follow a first-come, first-served basis for permits and has no exceptions for healthy food retailers. Given the need for healthy food in urban areas and the costs to the city related to obesity and other health conditions due to poor nutritional habits, it is justifiable to make permits for healthy food retailers a priority. A new policy would need to be developed that provides clear and fair guidelines.
- Providing discounted rates for trash, recycling, energy and water and sewer charges for healthy food retailers. These incentives may also require additional advocacy for policy changes.

Finally, through the following activities, RDA and other partners in the Corridor area could also support the development of additional healthy food available from retailers, although some of these activities may require additional staff and resources:

- Create partnerships among the community gardens in Rosedale and the existing corner stores and potential new retailers, including potential healthy food vendors. Through our visits with the existing corner stores, the Planning Team found that all the stores had some willingness in trying to sell fresh fruits and vegetables but were concerned about profitability. The community gardens in Rosedale could donate or sell at a discounted price some of the produce and deliver directly to the stores. Currently, when stores in the area do offer produce, they buy the goods at other grocery stores. The markups are based on resale price and time spent in getting the goods to the store, thus making the produce too expensive for their customers. All of the owners and managers of the stores were open to trying to work with the gardens.
- Promote businesses that sell healthy produce in the Corridor. Through the many events sponsored by RHKI, and through their materials and website, RHKI could ensure consumers know where to find healthy produce and encourage consumers to patronize those stores.
- Create special events and materials around healthy food retailers. This is an extension of promoting these businesses, as discussed above, but would be more intensive and may require additional staff and funding. One example would be to create a cookbook just around healthy food items available in the Corridor and include a guide as part of the book for finding the items in local stores. A possible event could be to host a local food fair,

- showcasing produce available (and hopefully grown in) the Corridor.
- Provide support for potential and current business owners by mentoring them in starting a healthy food retail business or expanding on an existing business. This would include assistance with accessing incentives through the Unified Government, identifying and applying for other funding, helping with store design layout, purchasing equipment, and marketing assistance. This type of support would probably require additional funding so that RHKI or another non-profit entity could hire a part-time or full-time employee or consultant to specialize in helping businesses succeed in selling healthier foods. This individual might be shared by several communities in Metropolitan Kansas City.

Next Steps

Continue to build from the current Farmers Market and Community Gardens

As discussed above, the Corridor already has the advantage of four community gardens and a Farmers Market. As part of this plan, the Team would like to see the Farmers Market reach more people and the surplus food from the gardens made available at food retailers. As other activities for the Corridor are carried out, we expect that there will be additional support for the Farmers Market and for residents to buy fresh produce from healthy food retailers.

Disseminate information about incentives that are currently available and help businesses apply for these incentives

While there are existing incentives that are available through the Unified Government for healthy food retailing, they are not widely known or easily understood by business owners and potential business owners. In part, this is because these incentives have not been used in the past for supporting smaller healthy food retailers. However, there is a need for new laws to be written to make these policies available for this type of financing. Through current resources, RDA may be able to provide basic information about these incentive packages. To make this information more accessible and to provide more intensive support to potential entrepreneurs in this field, more staff support may be needed. If funds are available from the Healthy Food Financing Initiative, discussed above, the retailers may also need assistance in applying for these funds.

Advocate for additional policy changes

As discussed above, it would be helpful to have a program at the Unified Government to make applying for occupancy and other types of permits quicker and easier for healthy food retailers. Advocating for discounted rates on trash, energy, and related charges could also serve as an incentive for healthy food retailers. Perhaps a modified or excluded sales tax on health food options could also be investigated.



Historic Preservation



Construction within the Corridor expanded in the boom years of the late 1880s, resulting in substantial business development. Over the turn of the 20th century, residential areas adjacent to and along the hills flowed seamlessly from Missouri to Kansas. The transportation and automotive-related fabric of Southwest Boulevard and Merriam Lane throughout the years has also given it a very ‘Old Route 66’ characteristic that can still be seen as you travel south past the Boulevard Drive-In. Unfortunately, over the years many historic buildings of significance have been lost throughout the Corridor for various reasons.

In the early 1920s, the School of Medicine moved south to its present location at 39th and Rainbow and in 1937 the original Eleanor Taylor Bell Memorial Hospital was razed.

The 1965 Urban Renewal program expanded its efforts into the Rosedale area south of Southwest Boulevard and along both sides of Rainbow Boulevard. Columbian School, constructed in the 1890’s and located just west of Rainbow on Seminary, was sold and closed in 1965. Additional buildings originally affiliated with the medical school were razed in 1972.

The Whitmore Elementary School was closed and razed in 1973. Soon after the Rosedale United Methodist and Rainbow Boulevard Mennonite churches purchased the site for a playground and park. Additionally, several buildings of significance were demolished with the construction of I-35 including the Eagle’s Building, which once housed the Rosedale City Offices.

At this time three structures within the Corridor have official listings. They are:

- The Rosedale World War I Memorial Arch, constructed in 1923-24, was listed on the Historic Kansas Places and Nation Register of Historic Places in 1977. It was placed on the Kansas City, Kansas Historic Landmark listing in 1982.
- The Old Rosedale City Hall and Fire Station Number One building was placed on the Kansas City, Kansas, Historic Landmark listing in 1982.
- The George Rushton Baking Company building, constructed in 1919-20, was listed on the Register of Historic Kansas Places in 1997.

The benefits of having a strong historic preservation presence in a community are many. The primary value of preserving the city’s past directly relates to providing “a sense of place” and development of community and civic pride. Sometimes a historic area or building can provide a focus for cultural activities. This summer’s 135th year Celebration, held at the Holy Name Church, is a prime example of creating this sense of place and community pride.

Designations where possible can provide stabilization and improvement of property values in historic neighborhoods and older commercial corridors. They can also stimulate economic revitalization and business opportunities, and encourage adaptive use and new construction.

Potential candidates exist that would warrant consideration for local, and possibly State and National listing along the Corridor. The following is not a conclusive list:

- Attucks School, built in 1939 (Bernie Electric)
- Holy Name and Methodist Church (Mennonite Church)
- Homes tied to the architect who designed the Rushton Bakery on the east side of Southwest Boulevard
- The Rosedale Masonic Lodge, built in 1913 (Strasser Hardware)
- The Slater-Breitag-Yeamans Motor Company building (Brainstorm, Inc.)
- The Rosedale Theatre, built in 1922 (VOX Theatre)
- Numerous buildings located within the original village of Rosedale to create a 'historic district'.



Recommended Future Land Use Plan



The following Land Use Plan was developed from the Consultant Team review of previous reports, existing conditions, recent Census data, current trends, and concerns of local residents, businesses and government officials. While significant vacant tracts remain, much of the Corridor was built out decades ago. Redevelopment has been occurring, but often times in a sporadic fashion. Recommended changes to the existing Land Use map are relatively minor, with just over 40 acres recommended for changes.

However, those changes are strategic in their location, with higher-density, pedestrian-orientated uses recommend for a number of areas. The use of ten Alternative Land Use Stars provides needed flexibility to the list of uses that may be permitted at any one location. The Future Land Use Plan is a framework to encourage further transformation of this historic Corridor into the thriving, vibrant neighborhood that it once was.

Changes Reflected On the Proposed Future Land Use Map

A. Eight acres located along the northern Merriam Lane frontage from 34th Street to just east of 28th Street, from low-density residential to business park uses. The character of this immediate area is nonresidential in nature and the proposed change will better reflect the uses in place.

B. One acre located just north of Merriam Lane, between 18th Street and 69 Highway (18th Street Expressway) from low-density residential to business park uses. The frontage of this property is already used and zoned for business park purposes.

C. 5.7 acres at the northeast corner of Merriam & Roe Lanes, from low-density residential and business park to mixed-use. One of several areas recommended for a higher intensity, pedestrian orientated mixed-use environment, this old shopping center and adjacent parcels should be rezoned to spur redevelopment efforts.

D. Approximately 19 acres located along 10th Street, starting from just south of Dodson Street then north and then east along both sides of Southwest Boulevard to near its intersection with Mission Road from low-density residential & business park to mixed-use. The Old Town area is an ideal location for a residentially focused, mixed-use pedestrian environment. This area should also be rezoned for mixed-uses to encourage creative redevelopment of this historic area.

E. Approximately nine acres from community commercial to mixed-use located at the Southwest Corner of 7th St./Rainbow and Southwest Boulevard. This highly visible, major gateway to the KUMC holds much promise as a part of the Corridor's expanding economic engine.

F. Use of ten alternative land use stars to provide additional flexibility in the selection of land uses. See star verbiage adjacent to the maps.

Table 4
Future Land Use Summary

Future Land Use	Total Acres	% of Total Acres
Business Park	211	28.3%
Community Commercial	25	3.4%
Low-Density Residential	317	42.6%
Medium-Density Residential	61	8.2%
Mixed-Use	42	5.6%
Parks/Open Space	79	10.6%
Public/Semi-Public	10	1.3%
TOTAL	746	100%

Note: This table reflects the 1,249 future land use acres within the Kansas City, Kansas, portion of the study area. ROW and floodway, which total 503 acres, have been excluded from this future land use summary.

Alternative Uses Star #2

This intersection functions as the Corridor’s western gateway for Kansas City, Kansas. Alternative uses for redevelopment should only be considered if those uses strengthen the intersection’s gateway prominence. As future street improvements are undertaken, consideration for a roundabout or other Corridor-welcoming feature should be incorporated by the City.

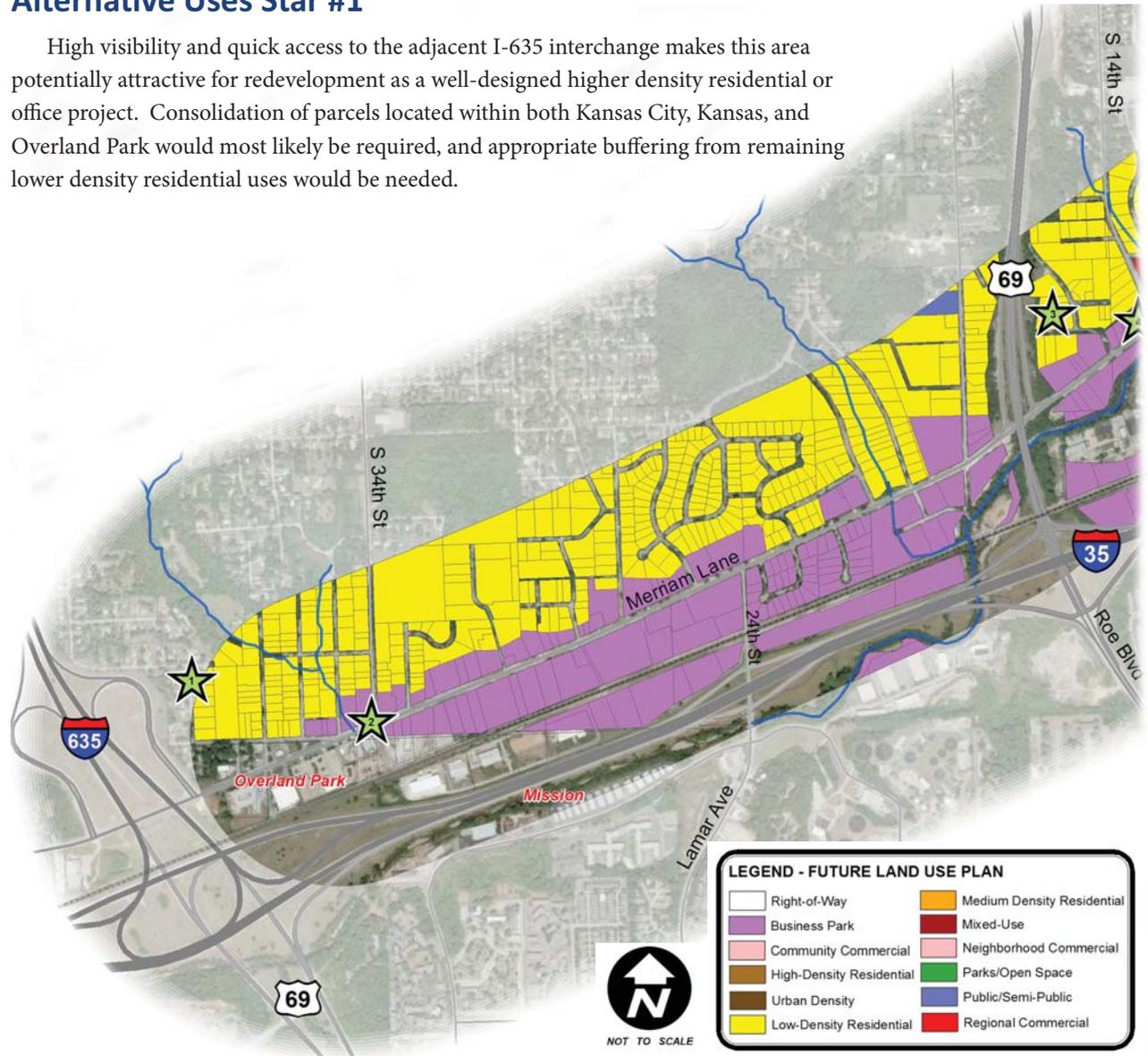
Alternative Uses Star #3

Topographic considerations make redevelopment of this predominately large lot residential area very challenging. However its proximity to the 18th street interchange offers potentially good site visibility and expressway access for a well-designed, higher-density residential or office project. Provided that sufficient parcels can be consolidated, appropriate buffering for the remaining single-family uses would be required.

WEST CORRIDOR - FUTURE LAND USE

Alternative Uses Star #1

High visibility and quick access to the adjacent I-635 interchange makes this area potentially attractive for redevelopment as a well-designed higher density residential or office project. Consolidation of parcels located within both Kansas City, Kansas, and Overland Park would most likely be required, and appropriate buffering from remaining lower density residential uses would be needed.



Alternative Uses Star #4

Currently zoned for retail, the existing under-utilized retail strip center, vacant corner and limited number of adjacent parcels provide the attributes for uses that could support the future higher-density mixed-use redevelopment as reflected on the east side of 14th Street and Merriam Lane. Alternative uses should only be considered if those uses strengthen the higher-density redevelopment focus reflected on the plan for the northeast corner.

Alternative Uses Star #5

The Boulevard Drive-in has been an institution and identified with this area for quite some time. However should the current land use cease, this 16-18 acre tract could provide for much needed recreation fields and active community open space, nestled against the heavily wooded Turkey Creek. Alternatively, retail service uses that would cater to a future recreational focus would be appropriate for infill along the street frontage.

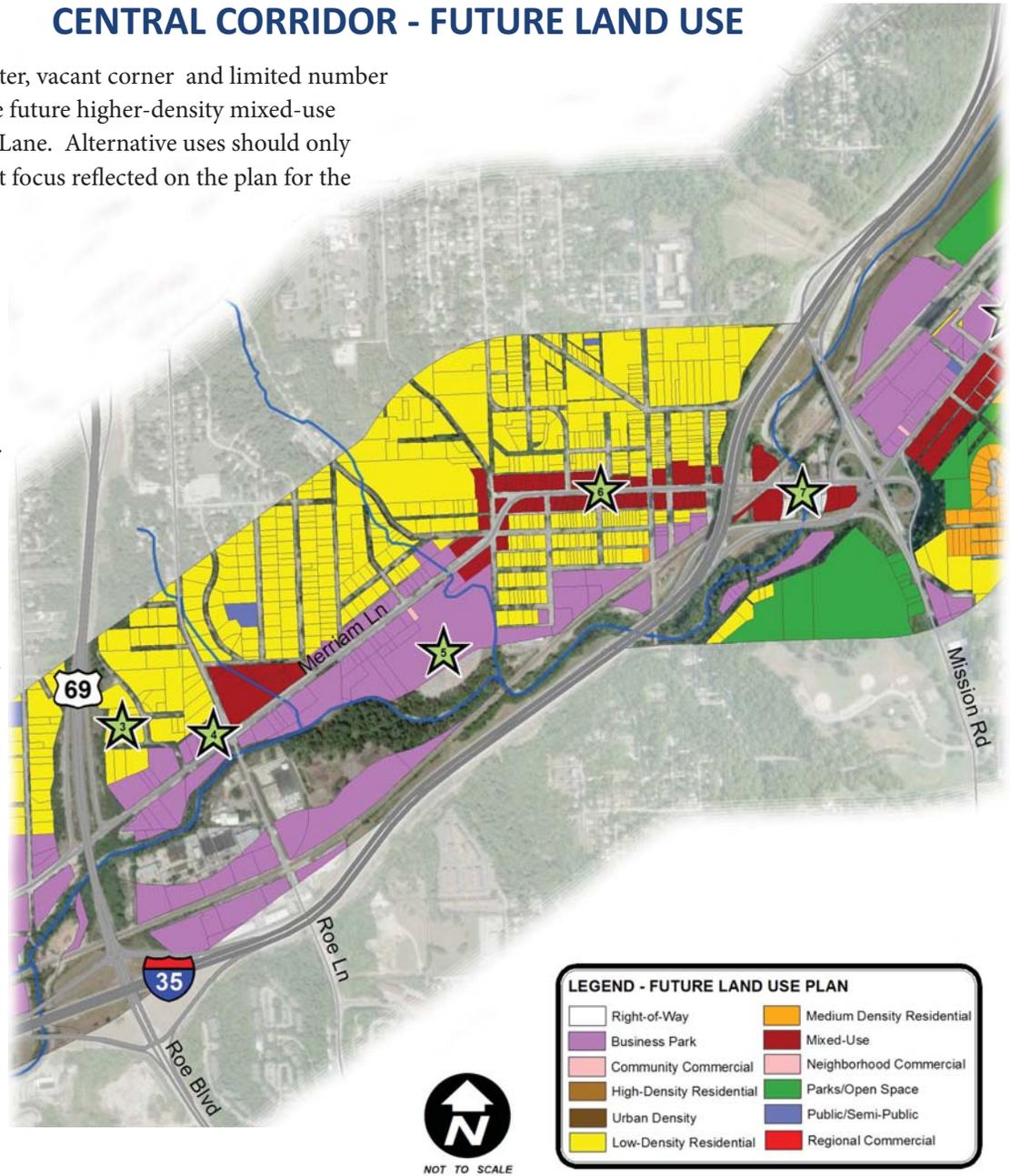
Alternative Uses Star #6

Located within the original, historic downtown Rosedale, this pedestrian-friendly future mixed-use core area should contain a healthy mix of residential, office and retail uses. Generally, uses should follow the existing pattern of residential and non-residential uses with both conversion of existing structures and redevelopment of new buildings designed with the historic flavor of the area. Any conversion or redevelopment should be sensitive to remaining residential uses and appropriately scaled.

Alternative Uses Star #7

With excellent visibility and proximity to the new walled Turkey Creek channel, these parcels could present a focal point for several alternative uses. It is zoned for industrial uses and designated for future mixed-use. However, office research uses would be a viable alternative. Benefiting from the U.S. Army Corps of Engineers improvements of flooding along the creek, future gateway improvements to the intersection toward Mission Road and the interstate ramps would reinforce the prominence of these under-utilized parcels.

CENTRAL CORRIDOR - FUTURE LAND USE



Alternative Uses Star #8

With Strasser Hardware anchoring this portion of the Corridor, a community market and neighborhood retail uses could encourage higher-density residential redevelopment. Several more substantial homes fronting Southwest Boulevard could be converted for appropriately scaled office or retail uses. Alternatively, a higher intensity mixed-use redevelopment could be facilitated by a consolidation of appropriate-sized parcels and construction of a future minor collector roadway following the current utility easement (Cherokee Street) toward the Fisher Park substation. It would then tie into the Rainbow Corridor mixed-use area at 39th street. Construction of this collector would be dependent, in part, on continued future expansion of the mixed use core reflected at 39th Street and Rainbow. This might also require revisiting land uses currently reflected north of 39th street along Springfield and Booth streets.

Alternative Uses Star #9

Alternative uses at this crossroads section of Rainbow/7th Street and Southwest Boulevard should embrace the gateway prominence of this area. As a major transportation corridor toward the KUMC campus, these parcels could provide alternative higher density redevelopment locations for larger scaled medical support users as well as other appropriate community retail and professional office-research uses. Sufficient area for a transportation center/hub should be earmarked with any major redevelopment proposal.

Alternative Uses Star #10

This state line gateway has historic significance tied to the August 18, 1959, fire and explosion that claimed the lives of both Kansas City, Kansas, and Missouri firefighters. Currently the site has remained a gravel lot controlled by the Union Pacific Railway. Redevelopment of the site for retail, office or public uses should be encouraged, provided the project's design acknowledges the historic nature of the site and reinforces the city/state gateway nature of the site.

EAST CORRIDOR - FUTURE LAND USE

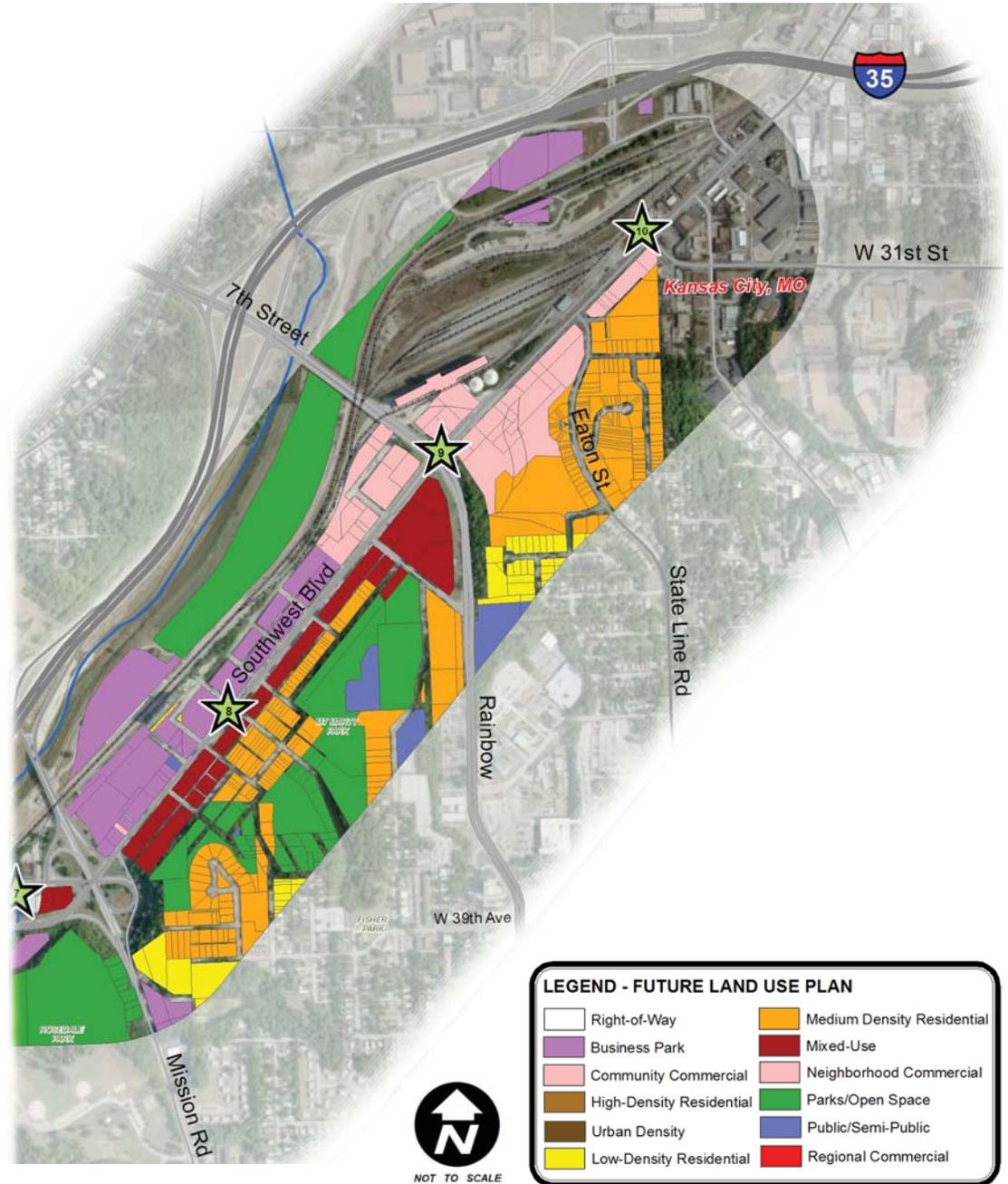


Figure 36

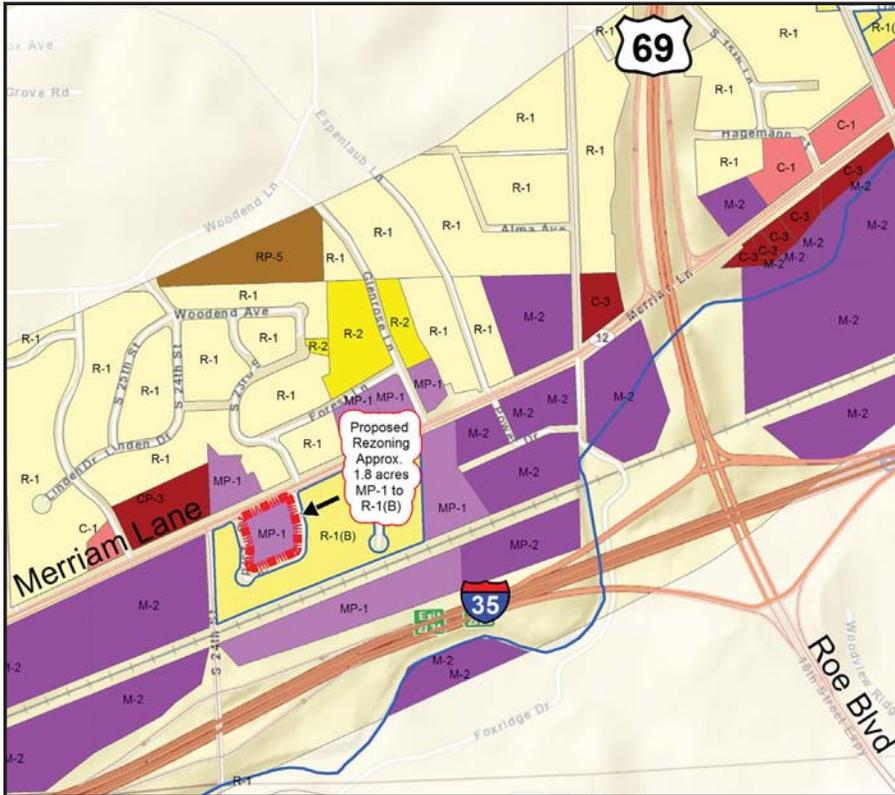


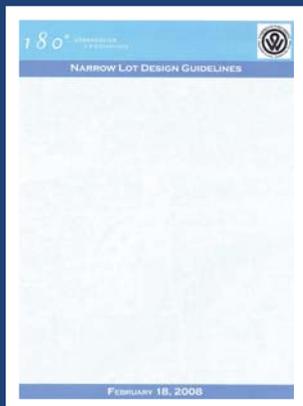
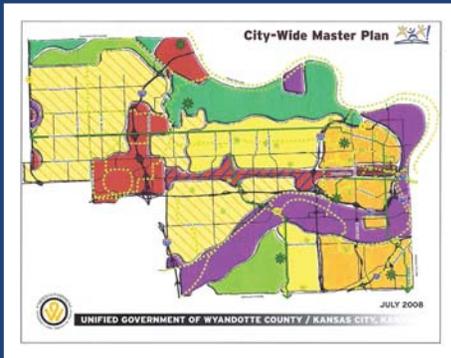
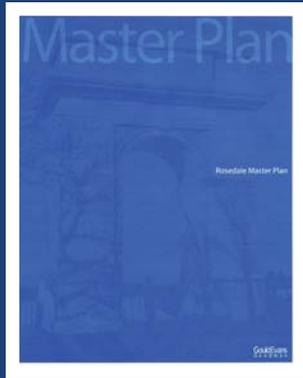
Figure 37



Recommended City Initiated Rezonings

As a part of the review and update of the Future Land Use Plan, the Consulting Team came across two instances where future rezonings by the City are recommended. The first instance, see Figure 36, is a minor cleanup of a small island of MP-1 zoning currently located in the middle of a residential subdivision near the southeast corner of 24th Street and Merriam Lane. The second rezoning recommendation, Figure 37, is for the Old Town area of Rosedale. On either side of Southwest Boulevard, it is recommended that current R-2B and RP-5 districts be rezoned to R-1 single-family to protect the many existing single-family uses in the area. Future mixed-use development would then be encouraged as outlined in the proposed Future Land Use Map.

Design Guidelines



As this study is considered a companion document to both the 2005 Rosedale Master Plan and the 2008 City-Wide Master Plan, design guideline provisions for the Green Corridor will follow the requirements set within those documents. A listing of these regulatory guidelines is contained in the reference section of this report. Also applicable are the City-Wide Green Community Guiding Principals; Policy Plan Framework; Parks, Open Space and Trail Framework; Transportation Systems; and Multi-Use Pedestrian-Bicycle Trails and Edges sections. The City-Wide Urban Design provisions consider the Corridor road network as a Secondary Image Street and, therefore, those recommendations are also applicable.

Additionally, the City-Wide Land Use Plan Category guide outlines Allowed/Discouraged Uses; Infrastructure; Open Space; Densities; Green

and Cultural Principals, and Amenity and Design Guidelines inclusive. In review of these requirements, additional design guidelines will be necessary for business park and industrial land use categories within the Corridor. It is recommended that these additional design guidelines be developed in conjunction with the Zoning Overlay District proposed within the Implementation section of this report. The western portion of the Corridor (approximately west of 14th Street) that currently has more suburban development attributes (i.e., building setbacks from right-of-way) should be subject to these future business park and industrial design guidelines. Properties that include future mixed-use or which currently have zero build-to setback lines should utilize the current urban guidelines reflected in the Rosedale and City-Wide Plans.



Corridor Image and Identity



Visual Elements - Character and Aesthetics - Creating Great Places

Gateways - Corridor Signage and Branding

During the visioning process the Planning Team took note of stakeholder desires to improve upon the image of the Corridor. They noted that key entry points were not providing a welcoming image to the public and visitors entering the area. Uniform 'branding' does not exist. But branding future streetscape improvements is sorely needed. Creating great places should involve the community first and foremost, for it is the community who should provide insight and perspective on what is considered important. It also encourages residents to stay involved and become stewards of their area. Partnerships must be nurtured. Collaboration is essential to provide needed land, improvements, maintenance and financial resources. A recent example in Rosedale is the collaborative efforts of the City staff, CVS, RDA, and the four neighborhoods that surround the 43rd and Rainbow area. During the review process for the CVS store approval, there was a unified effort to address safe access to CVS from 43rd Avenue. To do this would require closure of Adams Street. With a concept plan in hand, the community worked with City officials and CVS to facilitate a workable design that dead-ended Adams Street and included a pocket park adjacent to the CVS streetfront along 43rd Avenue. This future



open space and park will be built and maintained by CVS. A true collaboration and win-win for all parties.

History of an area can also play a major part in establishing image. Creating great places should recognize the Corridor's history and other attributes and play on them. The mom and pop food joints, Strasser's, the Boulevard Drive-In, Nigro's Western Wear, Reike Brothers Construction, Southwest Marine and the many established churches have long been part of the streetscape. If we could only bring back the "50 cents for 5 gallons" gas stops that once lined the Corridor. These established 'old highway-related' stakeholders could play into establishing themes for the Corridor's overall image. Again, as an example, the Rainbow CVS building was designed to complement the former fire station across the street using brick,



architectural stylizations and white accents providing a harmonious unified street view. Likewise, pushing the building up to the 43rd Avenue streetfront framed the intersection with the fire station. It is clear that one project can be a catalyst to set an example for other projects within the Rainbow Corridor. The same effect



can happen when even a small redevelopment project occurs along the Corridor. Many great and elaborate visioning plans can get bogged down because they are too grand, too costly and take too long to implement. Small incremental ‘special place’ improvements can set the stage for larger ones. It is important to be prepared when these opportunities come along.

It’s clear that many people within the Corridor’s influence care about moving forward with image improvements. Creating special places complement the roadway’s varying characteristics. Developing the vision(s) and embracing collaboration is key to success and future Implementation.

Important Corridor gateways to address are:

Southwest Boulevard’s intersections with

- 31st Street
- 7th Street / Rainbow Boulevard
- Mission Road

Merriam Lane’s intersections with

- 14th Street
- 24th Street
- 34th Street

Branding of these roadways could have either a unified or individual theme. For Southwest Boulevard, a decorative street light fixture with the ‘Rosedale Rose’ ornamentation could be considered. Merriam Lane could include street signage designed to identify with the ‘Historic K-10 Highway’ or the fruit orchards that once were prominent.

Mobility and Transportation



Transportation Plan Introduction

The 2008 City-Wide Master Plan reflects Merriam Lane as a 'Secondary Image Street'. While Southwest Boulevard has been omitted from the Urban Design Framework Map, it too has the same characteristic attributes as Merriam Lane and with this study will also be included as a Secondary Image Street. The Urban Design section of the City-Wide Master Plan calls for the improvement of key "image" streets through design enhancements that balances the needs of pedestrians, bicyclists, motorists and transit users. Recommendations for these key image streets include sidewalks on both sides with minimum landscaping requirements, the incorporation of gateways at major intersections, addition of district and neighborhood identity, bike racks, street furnishings and lighting of activity areas along streets.

Recommendations

The Southwest Boulevard and Merriam Lane Corridor functions as a major access way intended to provide primary access to the adjacent neighborhoods and area businesses, ensuring their economic viability. Current 24-hour traffic counts indicate approximately 7,000 trips a day along the western and central portions of the corridor on Merriam Lane and 15,000 – 21,000 trips a day along the eastern portion of the Corridor on Southwest Boulevard. With this study specific enhancements to the street network are recommended for further study as future capital improvement projects are discussed and contemplated.



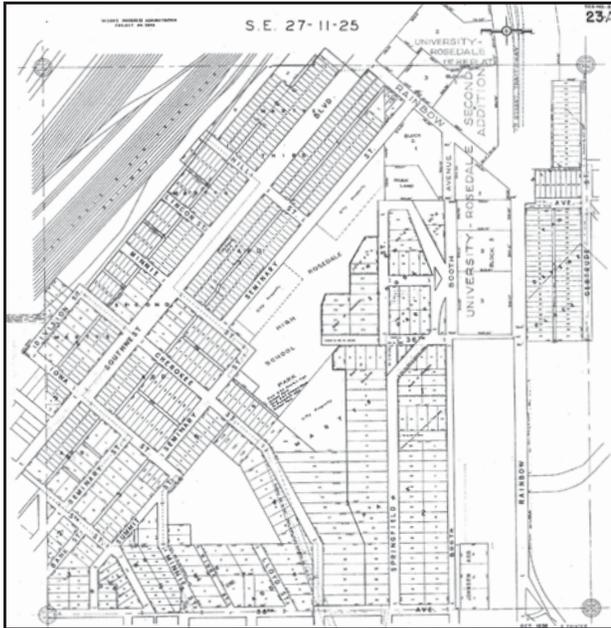
Merriam Lane

- **34th Street Intersection**
To recognize the primary through movement at 34th Street, consider a roundabout design to replace the signalized intersection. At this Corridor gateway, provide an entry/welcome feature.
- **24th Street Intersection**
With future reconstruction of the Lamar overpass at I-35, consider an overpass to avoid the at grade rail crossing.
- **Dodson Avenue-West 39th Avenue -South 10th Street Junctions**
Future street reconstruction of this crossroads area should capitalize on the uniqueness of the Corridor alignment and open spaces adjacent

to the streetscape. Local roadway realignments in this area should also reflect the Corridor's prominence while maximizing the potential for redevelopment of the adjacent parcels.

Southwest Boulevard

- **Private Road East of South Henning Street**
The Turkey Creek bridge crossing for this local roadway was rebuilt as part of the U.S. Army Corps of Engineers improvements. Conflict points have been due to its canted alignment further complicated by the at grade rail crossing immediately to the east of its intersection with Southwest Boulevard. Hairpin turning movements are difficult at best. Redesign solutions of this local street access should also take into account a quiet rail road crossing improvement at this location.



- **Mission Road Intersection**

At some point the current overpass and intersection will require a complete reconstruction. Instead of rebuilding the overpass, alternative designs should be explored, that would enhance traffic flow and provide for a more dramatic gateway for this segment of Southwest Boulevard.

- **South Iowa Street Intersection**

From its platting inception this intersection marked the transition from a 100 ft. to a 60 ft. street right-of-way for Southwest Boulevard. Sight lines from Iowa are compromised. Intersection improvements could involve several designs ranging from Iowa's terminus at Southwest Boulevard with a cul-de-sac to directional one-way traffic movement at the intersection.

- **South Cherokee Street Intersection**

Original plats of this area provided for the continuation of Cherokee Street southward toward West 39th Street. Grades for this roadway extension may be addressed with a more curvilinear trajectory. With reduced travel times, providing an additional local access way to the 39th and Rainbow redevelopment area and KUMC could provide for an economic incentive to move this improvement forward. Pedestrian and bike access would also be enhanced as nearly one half mile now separates existing north/south streets in the area street grid. Should this occur, land use densities adjacent to Cherokee Street would require further study as well.

- **Rainbow Boulevard-Seventh Street Intersection**

This gateway should reflect the roadway's prominence to the major activity center at West 39th Street. Intersection and streetscape improvements meant to announce the significance of this area should incorporate a distinctive traffic signal design, welcoming directional signage and other improvements to forward the vision of serving as the Corridor's major transit hub.

- **West 31st Street Intersection**

This gateway at the state line should also announce entry into the Corridor with streetscape improvements meant to maximize the land use potential for this under utilized intersection at the Kansas City, Kansas and Kansas City, Missouri crossroads.

At Grade Rail Crossings

All rail crossings within the study area should be comprehensively reviewed with future quiet-crossing improvements in mind. These improvements will improve the overall livability and ultimate stability in the Corridor.

Bicycle Lane Prominence

As reflected in the recommended street sections, separately marked bicycle lanes are reflected throughout the Corridor. This firm commitment to encourage both commuter and recreational trail bicycle use would forward the transportation goals of the Corridor and fulfill the MetroGreen Plan. Final design determinations of the bike lane configurations will be made by the UG Public Works staff based on more detailed engineering review.

Proposed Street Cross Sections

While many design alternatives have been reviewed to provide flexibility along the Corridor's length, the following general cross sections through page 62 are recommended for implementation. Final dimensions and design may vary after more detailed engineering analysis with respect to utility locations, intersection design and other safety and level of service concerns. Additional alternative cross sections are included with the Appendices of this study.

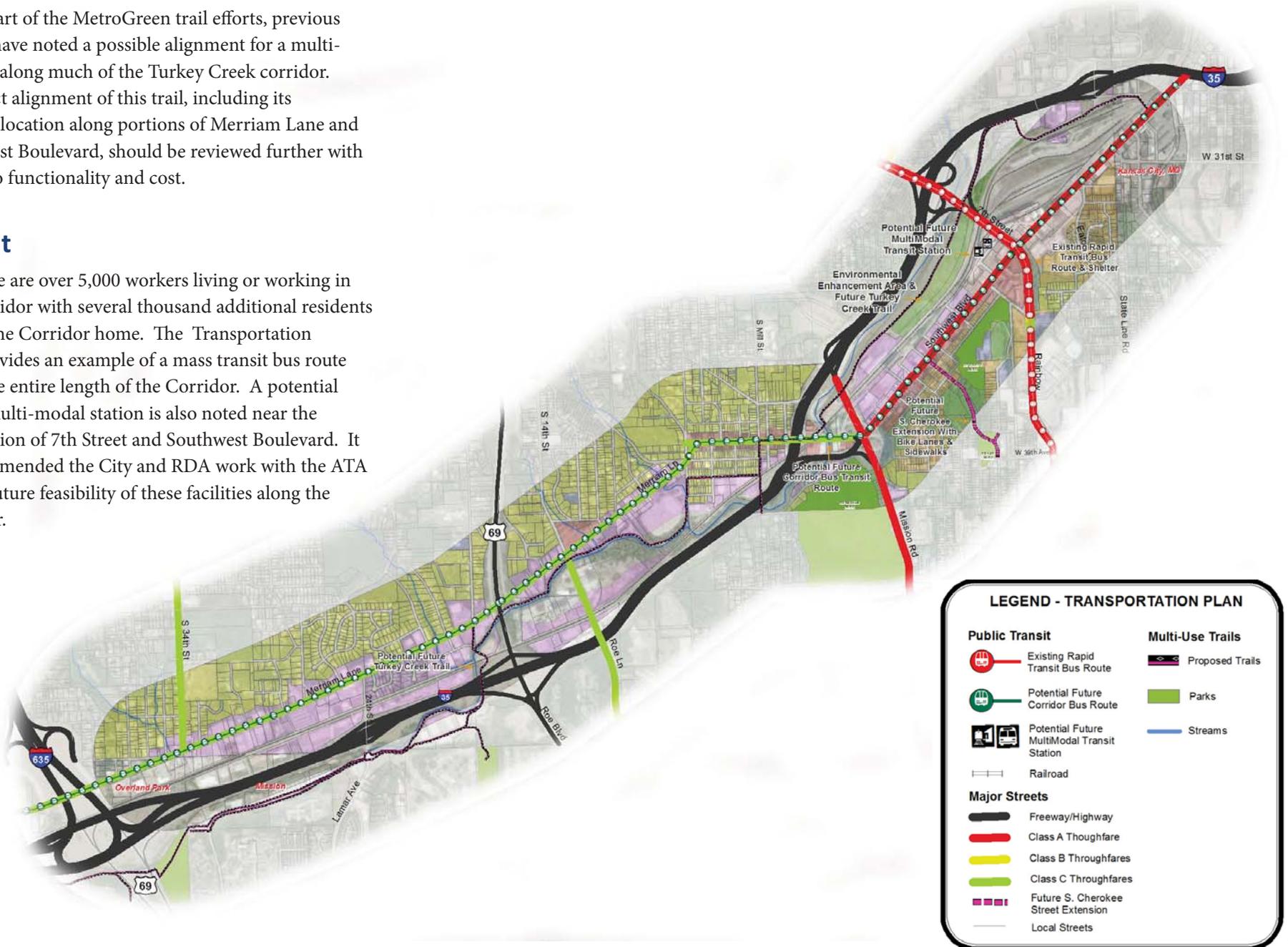
Turkey Creek Trail

As part of the MetroGreen trail efforts, previous studies have noted a possible alignment for a multi-use trail along much of the Turkey Creek corridor. The exact alignment of this trail, including its possible location along portions of Merriam Lane and Southwest Boulevard, should be reviewed further with regard to functionality and cost.

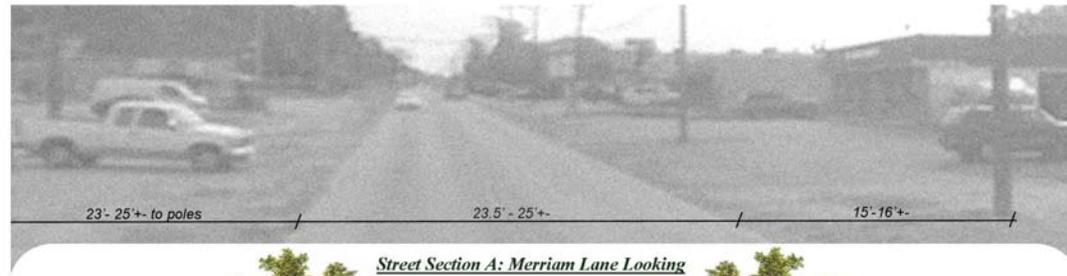
Transit

There are over 5,000 workers living or working in the Corridor with several thousand additional residents calling the Corridor home. The Transportation Plan provides an example of a mass transit bus route along the entire length of the Corridor. A potential future multi-modal station is also noted near the intersection of 7th Street and Southwest Boulevard. It is recommended the City and RDA work with the ATA on the future feasibility of these facilities along the Corridor.

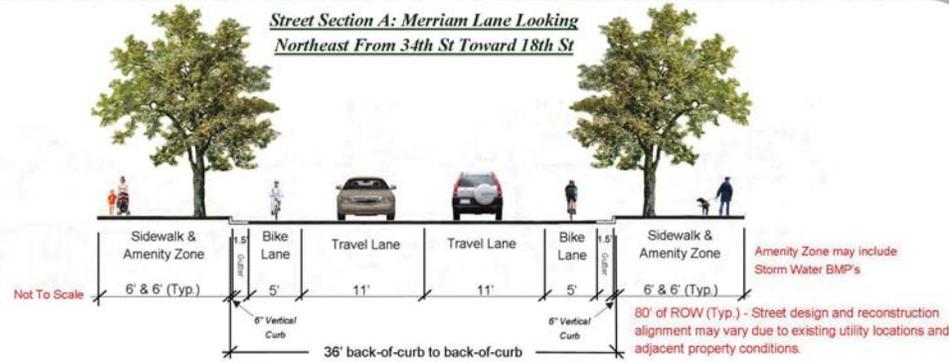
Transportation Plan



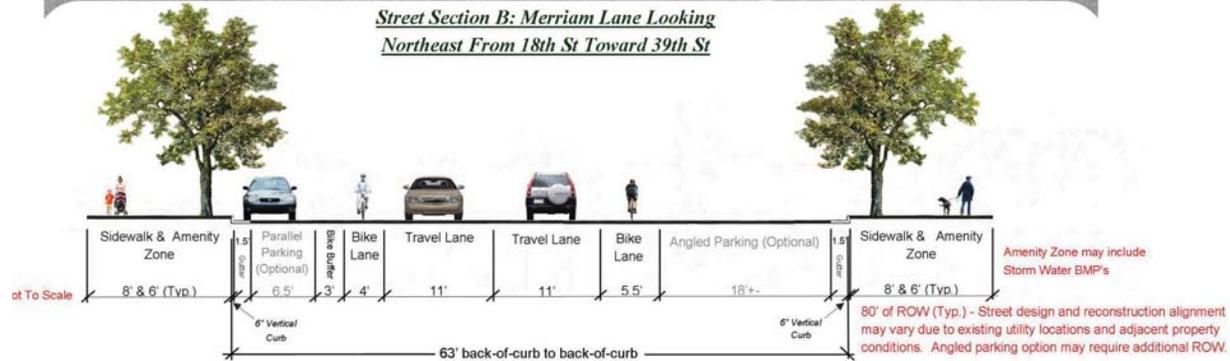
Recommended Street Sections



Street Section A: Merriam Lane Looking Northeast From 34th St Toward 18th St

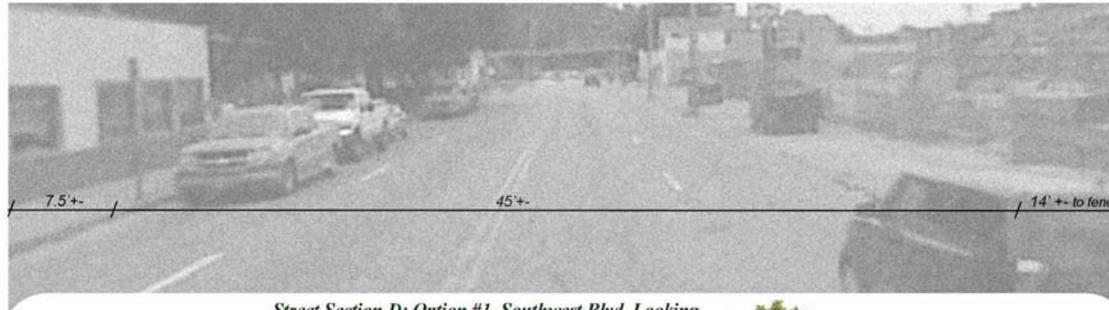
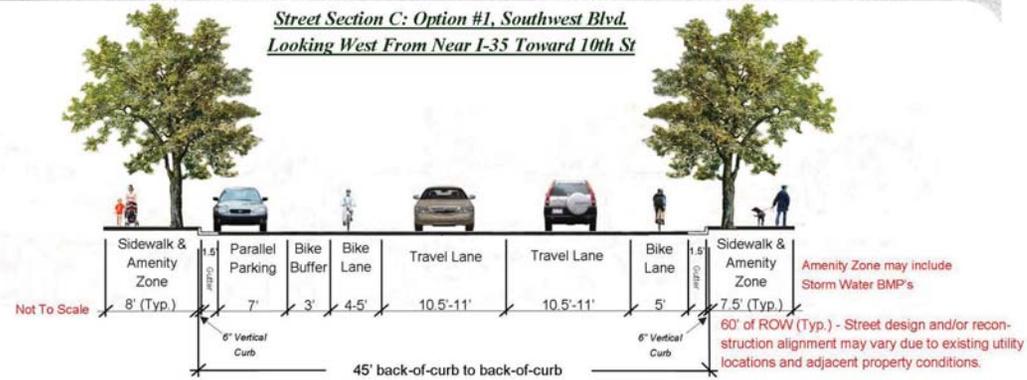


Street Section B: Merriam Lane Looking Northeast From 18th St Toward 39th St

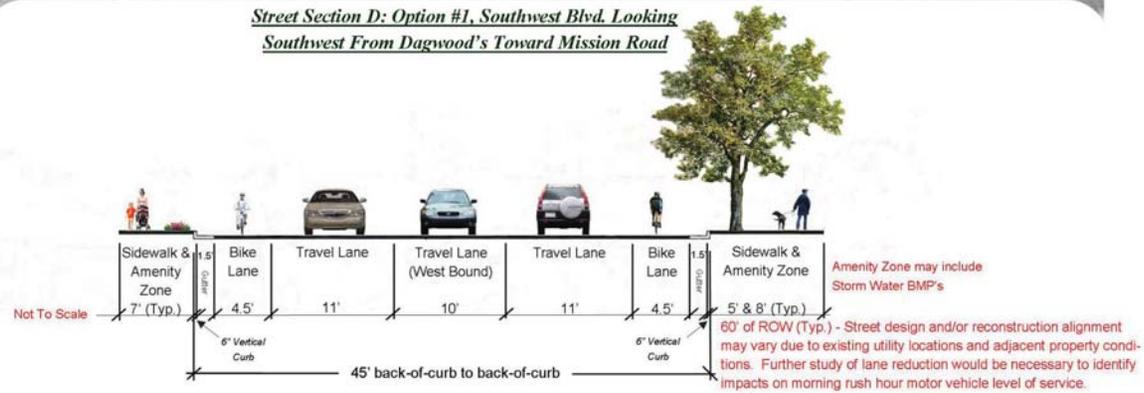


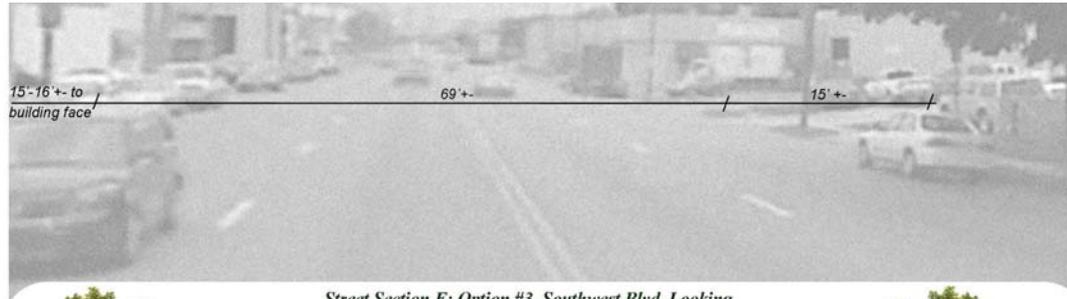


***Street Section C: Option #1, Southwest Blvd.
Looking West From Near I-35 Toward 10th St***

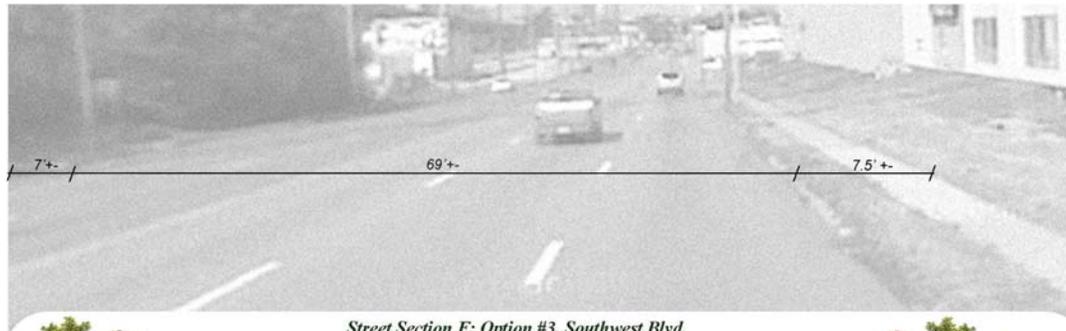
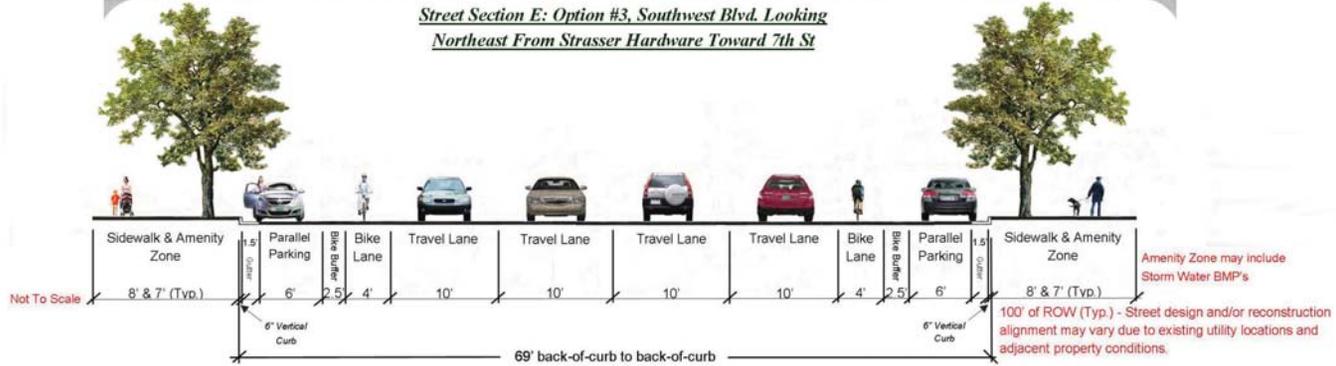


***Street Section D: Option #1, Southwest Blvd. Looking
Southwest From Dagwood's Toward Mission Road***

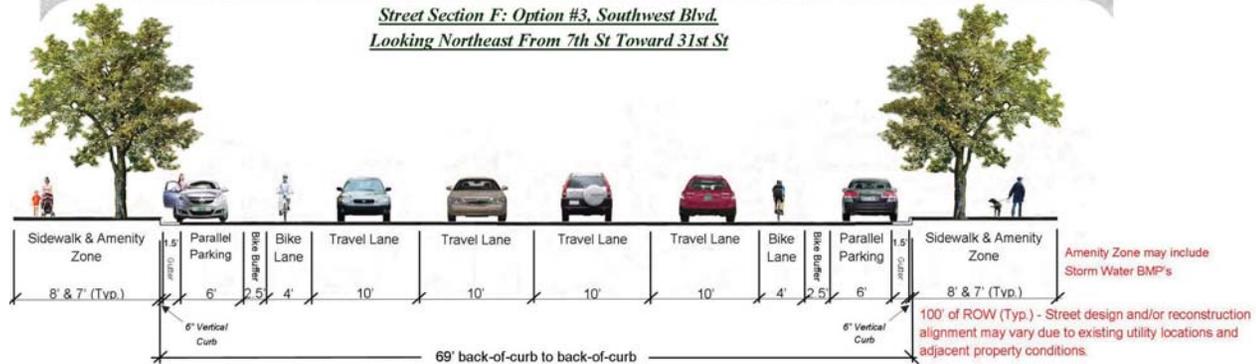




Street Section E: Option #3, Southwest Blvd. Looking Northeast From Strasser Hardware Toward 7th St



Street Section F: Option #3, Southwest Blvd. Looking Northeast From 7th St Toward 31st St



Transit-Oriented Development

Transit-oriented development (TOD) is typically a mixed-use residential and commercial area designed to maximize access to public transportation and often incorporates uses that encourage transit ridership. A TOD typically has a center with a transit station or stop, surrounded by relatively high-density development with progressively lower-density development spreading outward from the center. TODs generally are located within a radius of one-quarter to one-half mile from a transit stop, as this is considered to be an appropriate scale for pedestrians.

Transit-oriented development is designed to encourage public transportation and higher-density development. It is the opposite of urban sprawl. Examples include mixed-use development with public transportation, excellent pedestrian facilities such as high-quality pedestrian crossings, narrow streets, and a reduction in the size of buildings as they become more distant from the public transport node.



The Green Corridor study contains an example of a transit-oriented development at 7th Street and Southwest Boulevard. The Future Land Use Plan shows provisions for a transit station and mixed-use development designed seamlessly. The TOD contains higher-density residential areas that provide a variety of housing choices as well as higher-density commercial development.

Another key element of TOD is a choice of transportation modes. In addition to an adjacent park-and-ride site, the transit stop is connected by the Turkey Creek Streamway trail system for pedestrians and bicyclists. This TOD is an example of how good planning and design can enhance both the Corridor and adjacent KUMC.

Complete Streets

Following World War II, streets were designed primarily to move cars as expediently as possible from one destination to another. In the 1980s, cities began to realize that putting the primary focus on cars was at the expense of neighborhoods and communities. However, in early 2011 Kansas City, Kansas officially adopted the concept of “Complete Streets” and will incorporate its design principles into planning and infrastructure improvements in the future. The concept of Complete Streets is a means to promote great neighborhoods, healthy and active people and a thriving community. It is a way of life that integrates physical activity into daily routines and promotes walking and bicycling for transportation, recreation and physical activity. It recognizes that sidewalks are an important part of the community; they serve transportation needs of people and they are also a part of the public realm where people live, shop, interact

and travel.

Dependence on cars will continue until it is safe and convenient to use bicycles, walk and use public transit. Following the principles of Complete Streets should bring people and activity back to the neighborhoods that thrived before World War II.

In the Green Corridor Plan, there are a number of schematics that show how streets can be scaled and designed at different locations along the Corridor to create livable neighborhoods. Street widths are kept to a pedestrian scale and integrated with existing and future buildings. On-street parallel parking replaces parking lots. Extensive trees, landscaping, benches and artwork make it pleasurable to walk. The sidewalks incorporate bioswales and natural vegetation to treat runoff near the source.

Currently, the City has funding to improve Merriam Lane from 24th Street to where it joins Southwest Boulevard. The project is currently under design and the Green Corridor Consulting Team has worked closely with City engineers and planners to incorporate as many elements of Complete Streets as existing conditions and available funding will allow.

Pedestrian and Bicycle Systems

One of the major topics discussed at every public meeting and every session with business owners was the need for better pedestrian and bicycling systems. Many bicyclists use Merriam Lane and Southwest Boulevard to get to work and for recreational riding. The Turkey Creek Streamway Trail currently ends in downtown Merriam. However, Overland Park is working on a plan to extend the system eastward on

the south side of I-35. Northeast of Mission Road and Southwest Boulevard, the U.S. Army Corps of Engineers is designing a future link that will lead to Kansas City, Missouri. For the recreational user this leaves a missing link from just east of Lamar (23rd Street) to Mission Road. However, due to topography and I-35, it is likely that portions of the off-road trail system will need to be connected by an on-road design that accommodates both pedestrian and bicyclists along Merriam Lane and Southwest Boulevard.

Public Transportation

An important need along the Corridor is a good public transit system. Some residents do not have cars. Lack of access to affordable transportation for low-income workers and elderly to work, grocery stores and medical care presents serious consequences. It negatively impacts the health of the individual and the overall health of the community.

At present, there is only bus service on Rainbow Boulevard and 7th Street. However, there is no bus service on Southwest Boulevard or Merriam Lane. There is demand for more public transportation along the Corridor, as well as additional public transportation at the KUMC. With the Corridor and the medical center in such close proximity to one another, it is recommended that the RDA, TCC and KUMC work together with the city and the ATA to improve public transportation.

Parking

Sustainable communities handle parking much differently than it has been handled in the last fifty years. In the suburbs, one finds seas of surface parking in commercial areas and wide residential driveways in front of homes. In sustainable urban areas, such as along the Green Corridor, businesses first utilize on-street parking and then supplement with limited off-street parking. In neighborhoods, the front porch is the focal point of the house with vehicle access off alleys.

In recent years, cities have also been keeping off-street parking to a minimum to reduce impervious pavement and run-off. Cities enforce this by adopting maximum parking requirements instead of minimum parking requirements as in the past. If a business must have more than the allowed number of parking spots, cities are requiring that the additional parking surface be of pervious pavement.

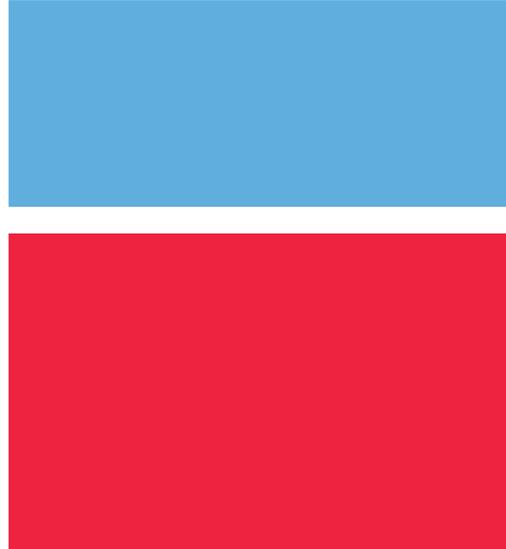
Another concept frequently seen in mixed-use areas is shared parking. The peak time for parking for office and retail users is during the work day. The peak time for multi-family residential is at night. These uses can easily share parking which reduces parking costs for developers and the amount of impervious surface. It is strongly recommended that the city adopt shared-parking requirements in mixed-use areas.



Summary

The Corridor is fortunate that a segment of Merriam Lane is scheduled to be improved in 2013-2014 utilizing many of the Complete Street principles. Future infrastructure improvements will occur in phases with the timing depending on funding. Each year the City updates its capital improvements plan that allocates funding for infrastructure. It is critical that residents and businesses in the Corridor participate in the capital improvement budgeting process to ensure that the Corridor continues to evolve into a complete street.

Vision and Goals



Visioning Process

At the start of the planning process, the Project Team conducted a SWOT analysis to formulate Corridor strengths, weaknesses, needs and an ideal vision for the future. Not surprisingly, under strengths, stakeholders cited that the Corridor had all the attributes of what a good transportation Corridor should always have; safe and reliable traffic access to the entire metro area. This transportation Corridor was once a vibrant access-way to the south and development around it flourished because of its major K-10 roadway designation. It is easy to see how that role changed as a result of the nearby interstate construction. The Corridor was relegated to second class, and now considered by most suburban commuters as only an alternate route when the interstate turns into a parking lot on seemingly rare occasions. But Corridor stakeholders know its strength is its prime location within the urban core. They also believe that the Corridor's decline has ended and that a rebirth of sorts could be on the horizon, citing the Crossroads area resurgence in Kansas City, Missouri. There had to be a tipping point for the roadway's decline and most felt that signs of improvement are starting to become more evident with new and sometimes 'higher-tech' business users coming to the Corridor because of its location and more reasonable real estate prices.

Benefits of living in older neighborhoods with mature trees and where friendly residents watch out for each other were also cited. Having a 'good mix of uses' also describes its heritage of being an older commuter route that once had virtually 'anything and everything you wanted'. Certainly, there are a few fast-food chain

restaurants. But there are plenty of locally owned "good old BBQ joints." "Homespun old-highway nostalgia" was one descriptor for the roadway that occasionally includes an impromptu roadside vendor and of course the landmark Boulevard Drive-In Theater. The benefits of the Corridor's urban lifestyle were also discussed. The saying 'If you lived here, you'd be home already' could easily be applied to the Corridor and its good locational attributes.

But changes occur with time, and the Corridor's weaknesses were also expressed; aging and neglected street infrastructure, lack of sidewalks, poor stormwater management and an unappealing streetscape. Others thought having vacant buildings, weeds in the public right-of-way and other negative visual cues were signs that typically signal an area in transition. The lack of local grocery stores that at one time flourished on the Corridor made the list of weaknesses. The need for an area community center and other cultural activities were also desired. The ideal vision would be to have a stable and vibrant Corridor with its unique mix of residential sites and businesses in a green and pleasing environment.

Throughout the planning process the Project Team worked to capitalize on the area's attributes and identify opportunities for improvement and develop strategies. The first element to expand upon was to play on its good access and urban attributes. Capitalizing on incremental visual improvements was paramount. Fittingly, the desires to continue the streetscape improvements that are evident in Merriam was expressed by stakeholders. Encouraging additional modes of transportation and use of the Corridor's natural environmental beauty was also highlighted and discussed by stakeholders.

Goals

Through the planning process, general categories were established to formulate goals with directed objectives to be embraced in the Corridor Plan. These goals fall under the four categories of Health and Environment, Land Use, Corridor Image and Identity and Mobility and Transportation. For most goals to be realized, they need to be encouraged by improvements made from both public and private sectors in the Corridor.

Health and Environment

- Become a healthier community. Promote active lifestyles to make it easy and safe to walk and bike. Encourage trails and recreation, bike lanes, urban farming, permanent farmers market, corner markets and access to healthy foods.
- Promote healthy eating by allowing residents to grow and distribute garden produce anywhere as individuals on their own property or as a community on a shared piece of ground.
- Promote healthy homes and document community health with development of baseline indicators. Provide residents and businesses with informational resources on healthy homes, healthy workforces and green initiatives.
- Encourage sustainable designs by providing code flexibility for LEED green building and for energy efficiency, utilizing best management practices.
- Take advantage of existing area community

assets such as local parks, schools and other public investments as central focus points of neighborhood development and make them accessible to everyone.

- Allow a range of housing opportunities and choices. A diversity of housing choices will encourage a sustainable population mix within all neighborhoods, allowing aging in place. It also begins to achieve adequate densities to support transit.
- Create compact, connected walkable neighborhoods that provide safe, convenient and comfortable sidewalks, but also have interesting places to walk to – such as parks, schools, stores and civic institutions.
- Embrace efforts to involve students within the community. Create opportunities for a middle-school urban environmental lab, safe routes, and after-school and youth activities. Pursue additional park land opportunities including new soccer fields and a private wakeboard park.
- Beyond general recycling, promote informational exchange of reusable manufacturing waste by-product materials within the Corridor and throughout the metro region.

Land Use

- Maximize the Rainbow and Southwest Boulevard gateway and encourage professional office and research uses, providing a needed visual entry point to the KUMC campus from the north.



- Maintain protection of adjacent neighborhoods, open space and reinforce housing. Propose down zoning of specific areas, and encourage buffer and transition zones. Focus redevelopment at key intersections along the Corridor. Promote increased densities to maximize potential. Provide for a variety of housing choices and types throughout the Corridor.
- Provide more mixed-use development to reduce the need for automobile use and increase pedestrian and bicycle activity. Require connectivity between developments.
- Perform Health Impact Assessments of new development to weigh impacts within the Corridor.
- Promote private redevelopment for businesses that need to have close access to KUMC.

7th Street/Rainbow & Southwest Boulevard Redevelopment Concept



Corridor Image and Identity

- Build upon realistic corridor marketability to achieve stability. Develop market strategies such as, “If you lived here, you’d be home already.”
- Build upon the historic quality and uniqueness of the Corridor. Identify and retain unique characteristics spanning the length of the Corridor.
- Provide for ‘Corridor Gateway’ improvements, inclusive of branding and signage.
- Create and adopt business park and industrial guidelines to elevate Corridor streetscape and architectural design. Address street views of storage yards and nonconformities that can be improved upon over time. Require pedestrian and full cut-off lighting.
- Outline incentives for business retention, green expansion and attracting redevelopment and improvement. Provide for information exchange through the business stakeholders group.



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- Identify and help prioritize future capital improvements inclusive of silent rail crossings, transit stops and hubs, bio-retention design of street runoff, and access to public recreation.
- Lower and amend 'minimum' parking ratio requirements and provide credits for shared and on-street parking.
- Phase infrastructure improvements throughout the four-plus mile Corridor.
- Promote ease of access through the community. Look for alternative access opportunities such as a Cherokee Street extension.

- Continued Community-wide dialogue for focused implementation efforts. Rosedale Business Stakeholders to regularly discuss broad range issues and build consensus. Continue partnerships with KUMC, KU, and Kansas City Art Institute (KCAI) on Corridor projects.

Mobility and Transportation

- Promote a variety of transportation choices. Dependence on cars will continue until it is safe, convenient and comfortable to walk, bicycle and use transit as an alternative.
- Implement the Complete Streets policy.

Implementation



Implementation

Introduction

In order for this Plan to be successful, a true partnership between all entities within the Corridor, both public and private, must occur. The implementation partners include the Unified Government and City Staff (UG), Rosedale Development Association (RDA), Turner Community Connections (TCC), Rosedale Healthy Kids Initiative (RHKI), Wyandotte Economic Development Council (WYEDC), Kansas University Medical Center (KUMC), Rosedale Business Stakeholders (RBS), Burlington Northern Santa Fe (BNSF), Union Pacific Railroad (UPRR), citizen and community organizations and the private sector.

Numerous recommendations are contained within the 2008 City-Wide Master Plan. Many of those broad based tools are applicable within the Corridor. A small sampling of those include: providing training and education to building professionals, home buyers, renters, owners and the general public about best practices for green and energy-efficient construction; addressing basic infrastructure needs to under-served areas; attracting green industries; constructing trail linkages to complete the MetroGreen Trail system, encouraging transit-oriented development through support of higher densities and mixing of uses near planned transit stops, increased public access to stream corridors and adoption of BMP and low-impact development standards.

The City-Wide Master Plan also thoroughly outlines financing programs and incentives for project implementation and public infrastructure improvements. All future new or redevelopment projects should be in direct contact with the Wyandotte Economic Development Council for the most recent and applicable information.

Additionally, more specific implementation recommendations, which can be referred to in the Rosedale Master Plan are also applicable for the Corridor. What follows are more specifically identified goals for implementation within this Corridor. Some may indeed have applications to all of Rosedale and Turner areas or even have City-wide benefits.

Implementation Matrix

The following matrix is organized by Regulatory, Infrastructure and Partnership Elements. Each strategy includes a general time frame and key participants. Time frames are suggested and organized by short term 0-2 years, medium term 2-5 years, long term 5+ years, etc. While this listing can be overwhelming it should be understood that City staff will guide the prioritization of key elements that can be reasonably undertaken over the next two years. The goal would be to accomplish the tasks that provide maximum benefit in the near term. Stakeholders may be able to champion other elements with UG guidance and role of over-seer.



South 8th Street & Southwest Boulevard Redevelopment Concept



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Implementation Matrix

Regulatory, Infrastructure and Partnership Elements

<i>Elements</i>	<i>Time Frame</i>	<i>Responsibility</i>
Regulatory Elements		
Zoning Overlay — A corridor zoning overlay would require certain new identified land uses to submit for Special Use approvals and compliance with current design standards and guidelines. Uses could include fast food restaurants, automotive sales, vehicle repair, tire sales, equipment and vehicle rental. Provisions would address outdoor use of land and nonconforming site conditions not afforded the right to continue.	Short	UG, RDA, TCC and RBS
Down Zone — Initiate rezoning of areas recommended within the Corridor study.	Short	UG, RDA, TCC and RBS
Health Impact Analysis — As with the newly adopted Complete Streets policy, incorporate health review criteria for all new public and private development projects.	Short	UG, RDA, TCC and RBS
Design Guidelines — Create and adopt minimum design standards for Business Park and Industrial uses encouraging a uniform streetscape appearance. Discourage fencing and outdoor storage/display within any front and corner side-yard setback along street fronts. Outline specific exemptions. Address outdoor spillover lighting and encourage the use of BMP and low-impact development strategies.	Short	UG, RDA, TCC and RBS
Support Narrow Lot Design Guidelines — Apply appropriate small lot residential regulations to maintain the character of the neighborhood while allowing moderate infill and density.	Ongoing	UG, RDA, and TCT
Mixed-Use Zoning — Apply mixed-use zoning to the core areas reflected in the Corridor Plan.	Achieve with Corridor zoning overlay	UG, RDA, TCC and RBS
Industrial Zoning — Focus heavier industrial uses adjacent to rail lines. Favor Business Park zoning to allow for a greater mix of businesses and limit heavy industrial uses.	Achieve with Corridor zoning overlay	UG, RDA, TCC and RBS

<i>Elements</i>	<i>Time Frame</i>	<i>Responsibility</i>
Neighborhood Transitions — Properties that back up to Business uses fronting the Corridor should be protected with careful transition between the neighborhood and new mixed-use or business park projects. Encourage landscape buffers, buffered parking areas in the rear and a gradual transition of building heights where possible.	Achieve with Corridor zoning overlay	UG, RDA, TCC and RBS
Urban Farming — Adopt an urban farming code specifically allowing property owners to grow and sell produce in interior side and rear yards with the ability to sale to others within the community.	Short	UG, RDA, TCC, RBS and RHKI
Public Open Space — Creation of public plazas and green open space to link and strengthen the future trail systems and environmental enhancement areas is critical. A regulatory approach could include development flexibility for the creation of these place-making and linkage spaces. Provisions for public artwork in these spaces would be encouraged.	Achieve with Corridor zoning overlay	UG, RDA, TCC and RBS
Required Parking — Eliminate minimum parking ratio standards and require additional stormwater improvements for parking above the required standard. Reduce parking requirements in mixed-use projects and when development is adjacent to uses with approved shared parking facilities.	Achieve with Corridor zoning overlay	UG, RDA, TCC and RBS
Bicycle Parking — Adopt specific requirements for all new multifamily and business park developments within the Corridor.	Achieve with Corridor zoning overlay	UG, RDA, TCC and RBS
Eliminate Regulatory Barriers — Comprehensively review requirements to encourage sustainability and a healthy community.	Ongoing	UG, RDA, TCC and RBS
Street Design — Develop and enforce new standards in keeping with Complete Streets policy with street cross section standards that are context-sensitive for the Corridor and accommodates vehicle, bicycle, pedestrian and bus mobility.	Short and Medium	UG, RDA, TCC and RBS

<i>Elements</i>	<i>Time Frame</i>	<i>Responsibility</i>
Infrastructure Elements		
Corridor Gateways — Improve key Corridor entry points to welcome all visitors and set a branding standard for all segments of the four-plus mile roadway.	Medium	UG, RDA, TCC and RBS
Street Design Improvements — Conduct feasibility studies to consider street-movement enhancements inclusive of future roundabouts, rail overpass, local street closures and new connections, and directional local street designations. Candidates for recommended study would include 34th and Merriam, 24th and Merriam, the intersection of Mission Road/I-35 ramps/bridge with Southwest Boulevard, Iowa Street and Cherokee Street extension.	Short-Long	UG, RDA, TCC and RBS
Bike Lanes — The entire Corridor should be considered a commuter route with separate, striped bicycle lanes installed. Ensure future improvements are designed and so reflected.	Ongoing	UG, RDA, TCC and RBS
Improve Streetscape — Replace or install curb, gutter, sidewalk and lane improvements throughout the Corridor. Develop a coordinated plan for street lighting, street tree planting, roadway signage and amenity zone improvements that include beautification and pedestrian-scaled design.	Short-Long	UG, RDA, TCC and RBS
Update Stormwater Infrastructure — Improve the capabilities of stormwater drainage systems. Where appropriate consider BMP design, ribbon curb and drainage swales along the Corridor.	Short-Long	UG, RDA, TCC and RBS
Recreation Trail Access — Phase in Turkey Creek Streamway Trail System improvements as development and public improvement projects occur. Inventory open space assets to support additional youth-related recreational activities within and adjacent to the Corridor.	Short-Long	UG, RDA, and TCC
Improve Bus Stop — Improve access to the Rainbow bus shelter and provide amenity zone improvements for this staging point.	Short-Medium	UG and RDA
Identify Walking Routes — Understand and develop walking routes for greater safety and ease of access through the Corridor.	Short-Medium	UG, RDA, TCC and RHKI
Funding — Seek resources to assist with infrastructure improvements to attract redevelopment within the Corridor.	Ongoing	UG, RDA, and TCC

<i>Elements</i>	<i>Time Frame</i>	<i>Responsibility</i>
Partnership Elements		
Office Research Redevelopment — Work with the Wyandotte Economic Development Council to promote medical and office research related uses to the Southwest Boulevard and Rainbow gateway area for those businesses who desire close proximity to KUMC. Focus other redevelopment efforts in key areas to promote stability and build upon realistic marketability of these identified higher-profile nodes.	Ongoing	UG, RDA and WYEDC
Mixed-Use Development — Promote higher-density mixed-use projects as reflected in the Study throughout the Corridor. Work with the Wyandotte County Economic Development Corporation to promote the Cherokee Street node as a potential additional accessway to the 39th and Rainbow core.	Ongoing	UG, RDA, TCC, RBS, WYEDC and KUMC
Healthy Food Access — Champion a permanent Farmers Market location within the Corridor and provide incentives to facilitate additional healthy food sales locations. Advocate for bus routes that go from the Corridor to larger surrounding area grocery stores.	Short-Long	UG, RDA, TCC, RBS and RHKI
Quiet Zones — Work with Burlington Northern Railroad representatives to implement a no-horn quiet zone at all at grade rail crossings. Analyze design, costs to implement and fund sources.	Ongoing	UG, RDA, TCC, RBS and BNSF
Multi-Modal Commuter Facilities — Continue to champion commuter bus transit, park and ride and rail transit through the Corridor. Work with MARC to identify Corridor transit options both short- and long-term for the area.	Ongoing	UG, RDA, TCC, MARC, and WYEDC
State Line Gateway — Dialogue with Union Pacific Railroad representatives regarding redevelopment of this high-profile City entryway, respective of the historical significance of this acreage.	Medium	UG, RDA, WYEDC and UPRR
Historic Preservation — Work with City staff to develop informational systems to promote and advise potential landmark candidates of designation processes and benefits.	Short-Medium	UG, RDA, TCC and RBS

<i>Elements</i>	<i>Time Frame</i>	<i>Responsibility</i>
Safe Routes to School — Collaborate with City to pursue additional safe-route programming.	Short-Medium	UG, RDA, TCC, RHKI
Public and Private Schools — Partner with area schools to identify and implement outdoor urban labs and other hands-on environmental education utilizing Turkey Creek and Corridor open-space area as part of the curriculum.	Ongoing	UG, RDA, TCC, RHKI and local schools
Paint Grain Silos/Elevators — Facilitate an open dialogue to address this Southwest Boulevard and 7th Street gateway structure.	Short	UG, RDA and Cargill Owner
Promote Healthy Homes and Businesses – RDA and Turner NBR’s should act as informational clearinghouses for Corridor residents and other stakeholders. They should provide residents with a healthy homes resource guide to further inform residents of best practices. Businesses should also be provided a separate resource guide informing them of green initiatives and encouraging a healthy workforce.	Ongoing	Ongoing
Dialogue and Coordination — As these and other recommendations move forward, coordinate with appropriate agencies to maximize potential for success.	Ongoing	All Partnerships
Active Community Engagement — Continued plan success must rely on open communications and community engagement.	Ongoing	All Partnerships

Next Steps

The above recommendations are not all inclusive but strive to direct change over a period of many years. Improvements made by the City toward upgrading the Corridor’s infrastructure will likely encourage private investment in the area. The City has recently received funds to improve over one-third of the Corridor from just east of 24th street to Merriam Lane’s northern terminus with Southwest Boulevard. Bicycle lane marking improvements will be continued from this point to Iowa Street and Southwest Boulevard.

Additional improvements will occur over time and when funding becomes available. Private reinvestment in the Corridor will also incrementally improve the study area over a number of years.

It is hoped that vacant and under-utilized properties along the Corridor will find new uses that support the visions and goals outlined in this plan. Existing businesses will remain until market conditions warrant a further change. The above recommendations are meant to serve as a guiding framework and implementation should balance the needs of all Corridor stakeholders.

Appendices



Appendices

Transit-Supportive Development Guidebook-MARC, 2000

- Prototype site review - Rosedale
- Policy framework needed to realize transit-supportive development patterns

Turkey Creek Environmental Enhancement Plan prepared by PBA, March 2009

- Plan Development and Recommendations

Feasibility Report and Environmental Assessment – Turkey Creek Basin prepared by HNTB, August 1998

- Existing Conditions
- Problem Identification
- Plan Formulation
- Plan Selection and Recommendations

Rosedale Community Assessment, Spring 2009, prepared by KUMC

- Walk ability and Bike ability to area Schools
- Area Grocery Store and Park Facility assessment

Turkey Creek Streamway Concept Plan Report, 2010, MARC MetroGreen

- http://www.marc.org/metrogreen/Current_Projects/turkeycreek.aspx

Rosedale Green Corridor – Trail Network and Revitalization Study, prepared by KU School of Architecture, Summer 2010

- Public Process
- Neighborhood and Trail Network Analysis
- Design Guidelines
- Natural Ecology Public Health
- Revitalization and Redevelopment
- Implementation

Mapping the Green Corridor - John Gary, Summer 2010

Environmental Lab - Stephanie Drake, Summer 2010

Town Center - Stephanie Drake, Summer 2010

Park Assessments in the Rosedale Community, Fall 2010, prepared by KUMC

- Park Facility assessment
- Condition comparison summary

Green Corridor Public Meeting SWOT Summary

Green Corridor Business Owner SWOT Summary

Green Corridor Health Fair Assessment and Health and Environment Survey, October 2010, prepared by KUMC

Incentives - Wyandotte Economic Development Council 2011

Green Corridor Baseline Health Survey information - 2010/2011 data, prepared by KUMC

Green Corridor Planning Projects - KU School of Architecture, Design and Planning Spring 2011

Mapping the Path to Healthy Food Access for Rosedale Entrepreneurs - Travis Love, Summer 2011

Barriers and Enhancers to Farmers Market Attendance Among Low-Income Families - Kelsey Bartolich, Summer 2011

Healthy Development Checklist - Walkable & Livable Communities Institute

Resources

MARC Idea Book 2005

- History of Home Designs
- Likes and Dislikes
- Design Consideration
- Livability
- Remodeling Primer and Energy Efficiency
- <http://www.marc.org/assets/green-idea-book.pdf>

MARC Green Remodeling Idea Book 2010

- Why Green and Sustainable Design
- Rethinking Replacing, Redoing
- Finding a Green Contractor
- <http://www.marc.org/firstsuburbs/assets/full-idea-book.pdf>

Complete Streets - Best Policy and Implementation Practices – APA PAS Report 559

- Case Studies, Design, Cost, Lessons learned
- Making the Transition to Complete Streets
- Policy Adoption
- <http://www.planning.org/pas/brochure/pdf/report.pdf>

The Value of Green Infrastructure – Guide to Recognizing Its Economic, Environmental and Social Benefits - CNT

- Green Infrastructure Benefits and Practices
- Measurement Values, Water, Energy, Air Quality, Climate Change, Urban Heat Island, Community Livability and Improvement
- Case Studies
- <http://www.cnt.org/repository/gi-values-guide.pdf>

How to Turn a Place Around, Project for Public Spaces

- <http://www.pps.org/store/featured-items/how-to-turn-a-place-around>

The Winding Valley and The Craggy Hillside
A History of the City of Rosedale, Kansas, by
Margaret Landis, 1976

Design Guidelines — Regulatory History

With adoption of the Rosedale Master Plan in 2005, Chapter Seven provides guidelines for the Rainbow Corridor and surrounding study area. These guidelines were meant to provide guidance for more urbanized versus suburban design for the study area.

In 2006 the Unified Government established Design Guidelines with Ordinance 0-50-06 for a specified area in western Kansas City, Kansas (for commercial and office uses west of 94th street).

With adoption of the City Wide Master Plan in 2008 the Land Use Plan section provided for the 2006 guidelines to be met throughout the City for the following land uses categories:

- Neighborhood Commercial (page 34)
- Community Commercial (page 36)
- Regional Commercial (page 37)

In addition, amenity and design guidelines are now required for the following uses:

- Low-Density (page 29), must meet the minimum Amenity guidelines (on page 42)
- Medium-Density (page 30)
- High-Density (page 32)
- Urban Residential (page 31) uses must comply with the Amenity guidelines if 50 units or more (on page 42) and the Multi-Family Design

Guidelines (pages 45-46)

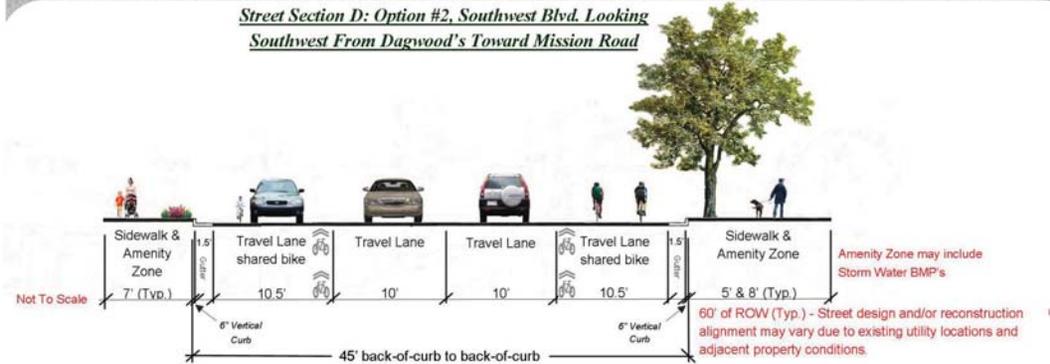
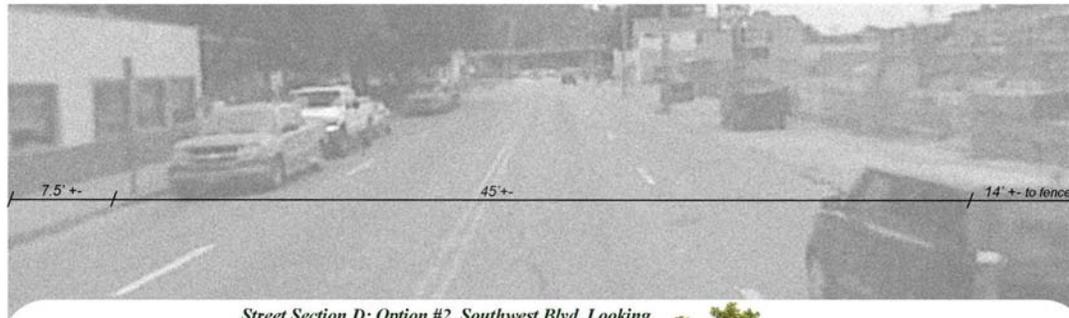
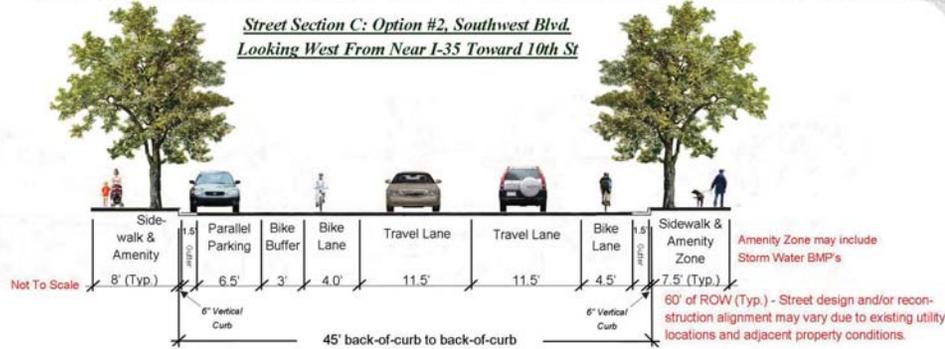
- Mixed Use (page 35) must comply with the Mixed-Use Guidelines (page 43-44).

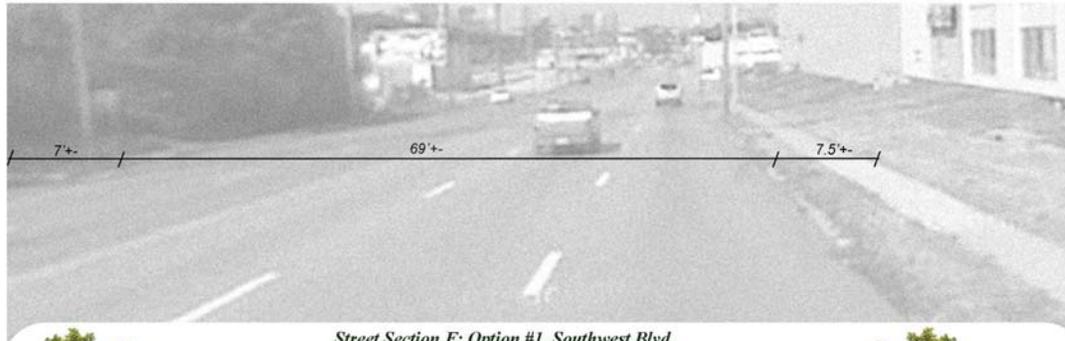
These guidelines discuss public art, outdoor seating, etc.

There are no design guidelines for Business Parks (page 38) or for Industrial (page 39) uses however they do have recommended green design principals.

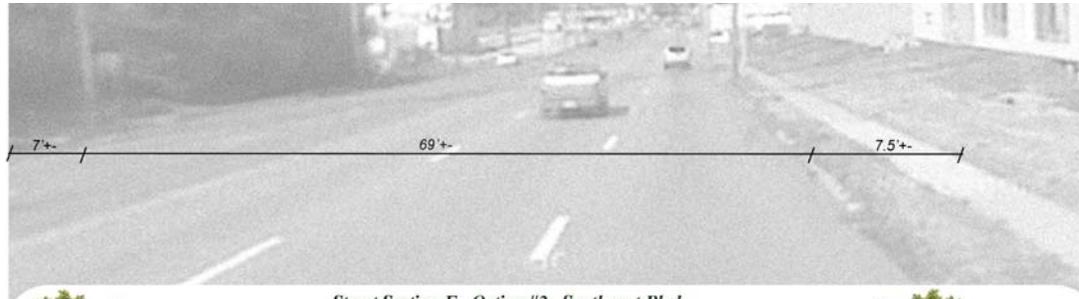
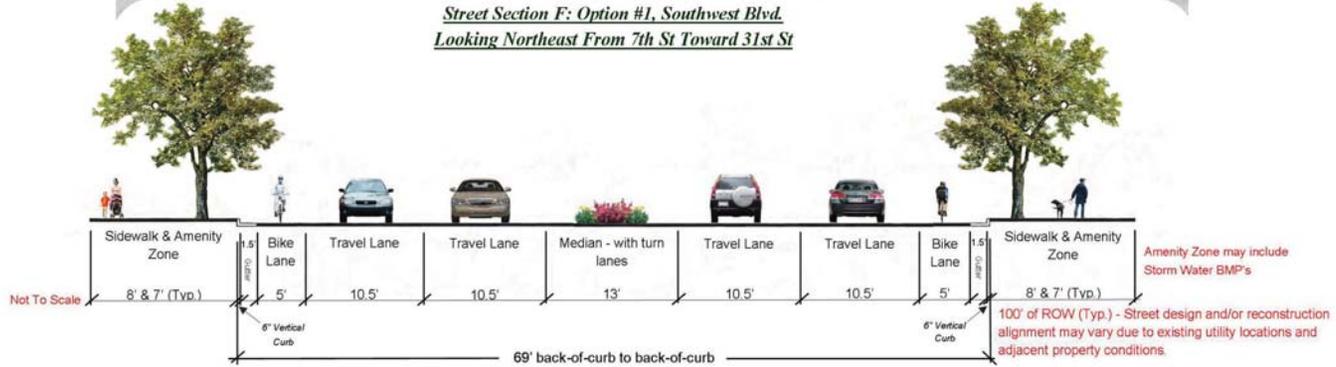
Finally, in 2008 the City adopted the Narrow Lot Design Guidelines for new construction within the city's existing urban residential lots.

Additional Street Sections

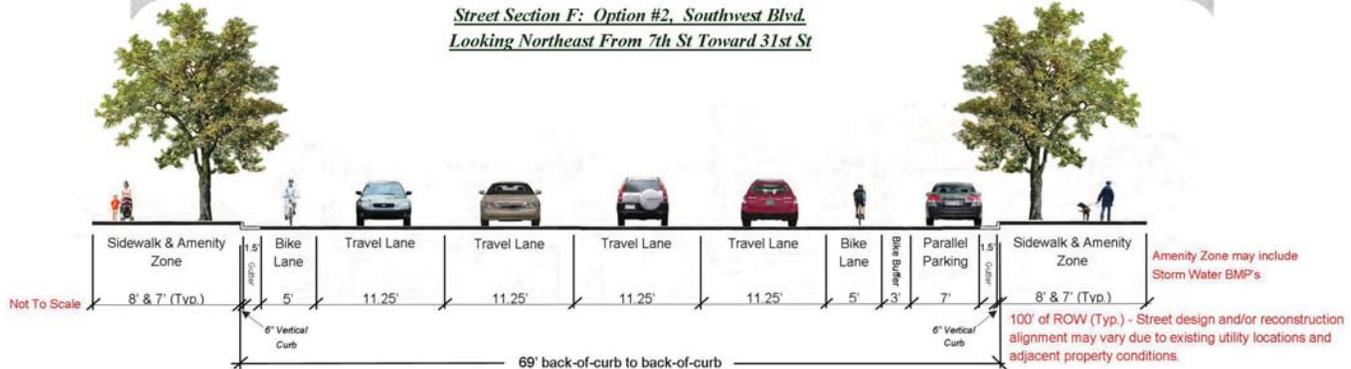


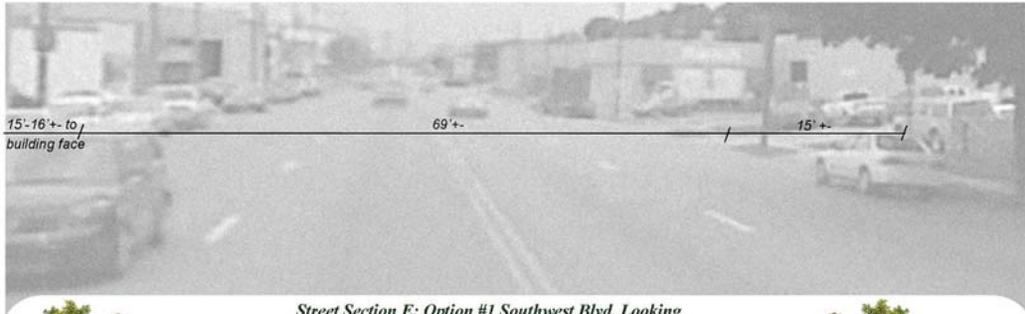


***Street Section F: Option #1, Southwest Blvd.
Looking Northeast From 7th St Toward 31st St***

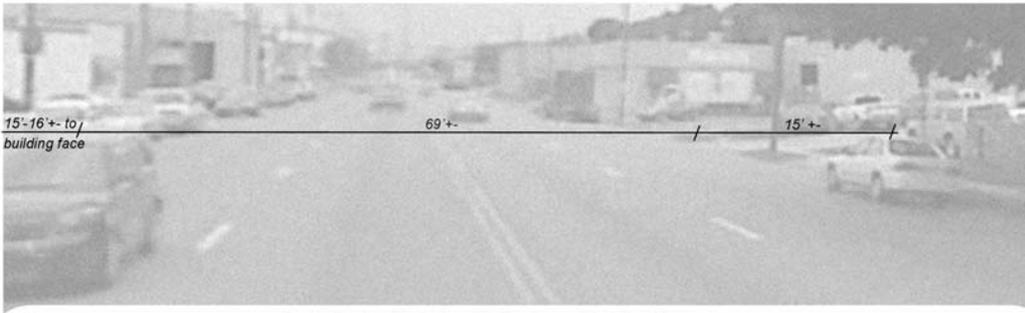
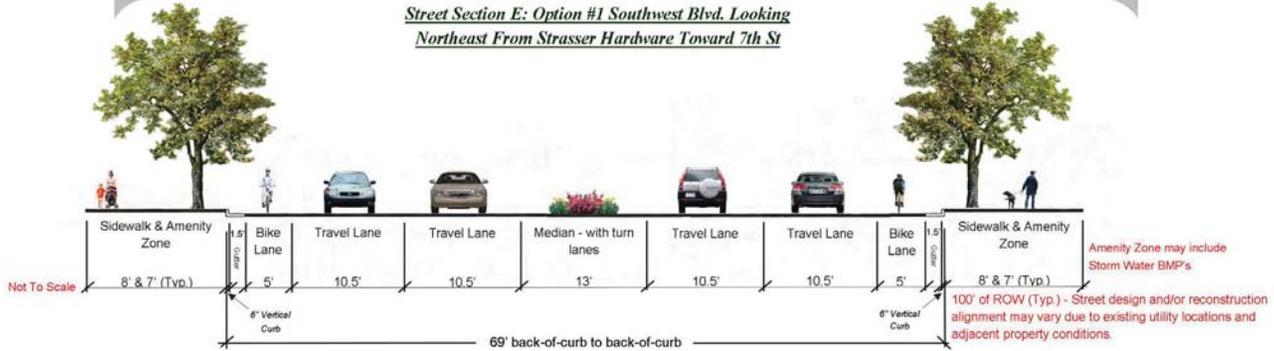


***Street Section F: Option #2, Southwest Blvd.
Looking Northeast From 7th St Toward 31st St***

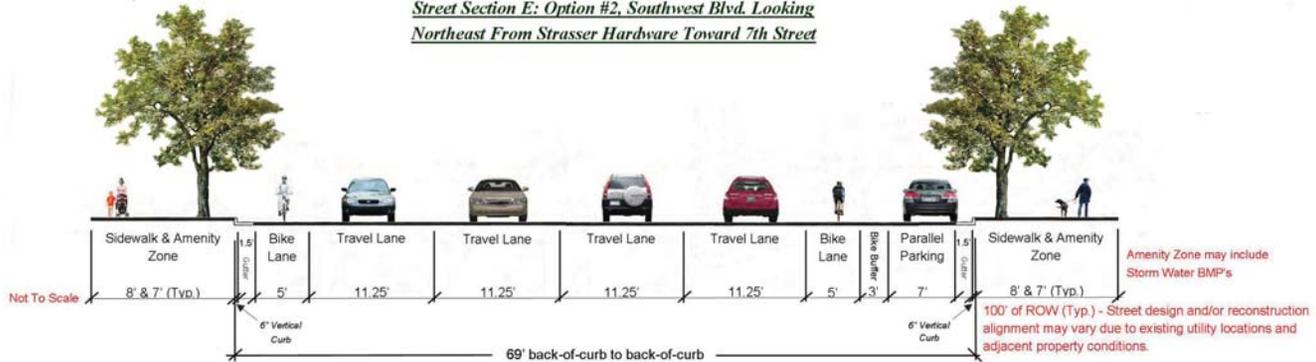




Street Section E: Option #1 Southwest Blvd. Looking Northeast From Strasser Hardware Toward 7th St



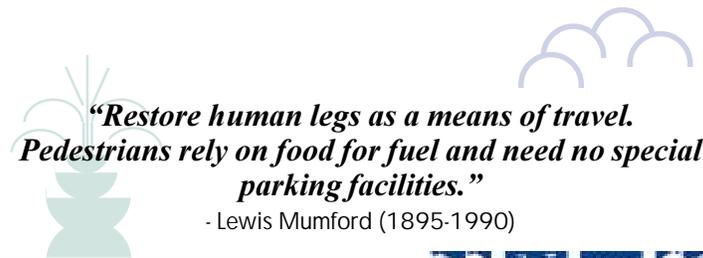
Street Section E: Option #2, Southwest Blvd. Looking Northeast From Strasser Hardware Toward 7th Street





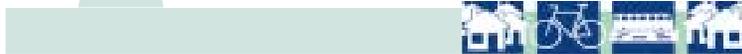
Transit-Supportive Development

introduction



***“Restore human legs as a means of travel.
Pedestrians rely on food for fuel and need no special
parking facilities.”***

- Lewis Mumford (1895-1990)



Across the country, and in our neighborhoods, citizens are tiring of the increase in traffic congestion, deteriorating air quality, and isolation from their neighbors. This challenge is not limited to large urban cities. Managing the future growth of the Kansas City metropolitan area is very real to many community leaders, developers, and transportation and land use professionals. The Mid-America Regional Council (MARC) is assuming the active role of educating those involved in land planning and development, by preparing this guidebook, which recognizes the need to balance land use and transportation.

The SMART CHOICES: Transit-Supportive Development Guidebook will support efforts to enhance regional mobility and quality of life by reinforcing the region's transit system and supporting ridership growth. It recommends, simply, that land use planning be used to create urban and suburban environments where walking and transit are viable transportation options. By making it easier to go from one transportation mode to another, the connection between community and development is enhanced — ensuring that a community is accessible to all.

This guidebook has been specifically designed to assist elected and appointed planning officials, technical planning staff members, community representatives, and individual citizens interested in improving the relationship between transit and land use planning. The transit-supportive development (TSD) principles are explained thoroughly and applied to familiar sites located within the Kansas City region to help build understanding about their application in our metropolitan area. Furthermore, this guidebook provides guidance to communities in determining whether or not their local codes and standards encourage, support or impede transit-supportive development.

If implemented, the transit-supportive development principles presented herein have the potential to reshape the manner in which development occurs within the Kansas City region.

How to Use This Guidebook

This guidebook is divided into four sections: an introduction of transit-supportive development principles, the application of TSD principles to various development scenarios, how to identify barriers to success, and the action necessary to enable change. The intent of the first two sections is to educate interested parties regarding the interaction between land use and transportation, while the final two sections empower them to implement changes in the built environment with policy tools that encourage transit-supportive development.

The six prototypes include a range of suburban and urban, as well as new development and infill. The process outlined in this guidebook is also applied to each prototype, from identifying regulatory and institutional barriers, to recommending policy and design actions. Wherever possible, recommendations are taken directly from jurisdictions where TSD strategies are successfully in place.

The strategies suggested in this guidebook may be appropriate in certain situations or in some communities. Nevertheless, consideration of transit-supportive development principles at appropriate times, such as during periodic review and development of master or specific plans, can help achieve the broader goals of the community and the region.

Relationship to Other MARC Initiatives

The Mid-America Regional Council (MARC) promotes transit-supportive development through its Creating Quality Places program. Creating Quality Places was initiated in 1999 to encourage local government officials as well as those involved in private development to consider design elements that result in broader mobility choices.

As the transportation planning organization for the metropolitan area, MARC is involved with the region's three transit providers and with local governments to design and implement improvements to the region's transit system. The long-term success of the region's efforts to achieve an improved transportation system will depend, in part, on supportive land use and development decisions.

Organization of the Guidebook

Section One - contains a descriptive overview of transit-supportive development principles as well as a discussion of the physical requirements that must exist in order for the region to regain a more balanced transportation system.

Section Two - incorporates the principles of transit-supportive development into local prototype locations, plans, and standards to aid users in deciding which of these are applicable for their community.

Section Three - begins with evaluating plans, codes, and standards often in use by local communities to determine if policies and implementation tools could support transit-supportive development or remove particular obstacles.

Section Four - addresses the barriers identified in the previous section and presents alternative policies and strategies. Initiating transit-supportive development strategies in some communities may not require any change in codes and standards; in others, it may require changes for certain principles to be applied. In some cases, it may require more thorough, systemic change.

The Appendix includes design guidelines and regulations taken from other jurisdictions that, once implemented, will direct future development that supports transit service.



Transit-Supportive Development

section 1: principles



Historically, the relationship between land use and transportation was quite clear and efficient. Communities were organized so that the goods they produced could easily be shipped to others, by road, river, lake, or ocean, as the particular geographic circumstances dictated. Personal travel generally occurred by the same route. The relationship was based on the functional requirements of directly and efficiently moving goods and people, as well as on the limited availability of alternative modes of travel.

As the road network began to expand throughout our country to accommodate increased automobile and truck use, this relationship between land use and transportation changed. The proliferation of the private automobile, as well as the increased number of cars per household, led to the creation of new patterns and densities of development. In the past 40 to 50 years, land use development patterns have generally taken the form of large-lot, decentralized, single-use districts, connected by a hierarchy of ever-expanding roadways. Zoning and other government regulations reinforce this trend.

As undeveloped land becomes scarce and roadways become more congested, people are beginning to reexamine the historically prescribed land use patterns within traditional “urban core communities.” In Kansas City, Missouri, this effect has been strongly supported by the FOCUS Plan. Many area communities, from Liberty to Lenexa to Lee’s Summit, are considering changes to their plans, policies and regulations. The opportunity now exists to promote new patterns of development that encourage vibrant, safe, human-scale communities that offer, and are supported by, transit.

What is Transit-Supportive Development?

Transit-supportive planning and development rethink land use and development patterns so that they will be effectively served by a balanced transportation system where walking, bicycling, and riding transit work in harmony with the private automobile. Transit-supportive development enables citizens to choose an alternative to the automobile for at least one or more of their daily trips between home, work, shopping, school or services. This is primarily accomplished by designing communities so that the physical facilities necessary to walk, cycle, ride transit, and drive a car are convenient and attractive to us.

This section introduces principles that allow growth and redevelopment to take place in a fashion that does not necessitate the need for a single-purpose transportation system. Many communities have successfully adopted development standards that incorporate the principles described herein and have had very positive responses from both citizens and private developers.

This guide focuses on five categories of planning principles that must be addressed when considering a development's ability to accommodate all modes of travel:



- **Travel connections**



- **Building scale and orientation**



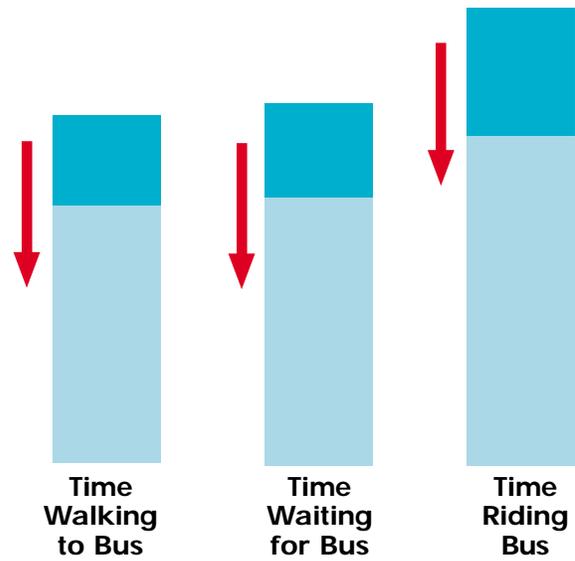
- **Public spaces**



- **Parking**



- **Land use**



Creating development patterns which are transit supportive will reduce time required to walk to transit and be more conducive to direct routing. Direct routing could increase headway frequency and reduce time required waiting for transit.

The principles do not infringe upon land use entitlements (e.g., existing zoning classifications) in any way and are intended to inform “how” development should take place rather than “what” and “where.” More often than not, the incorporation of transit-supportive development standards allow for greater entitlements and more flexibility than existing land development standards.

Opportunities for Communities

The transit-supportive development principles outlined in this section are applicable to the Kansas City region. However, in order to transform these design principles into physical land use patterns, continued action is necessary. Identification is the first step. Policy obstacles still exist. This is why it is important that the public, community organizations, and local governments gain a clear understanding of these principles, identify with the prototype applications, and visualize the potential future of transit-supportive development in their communities.



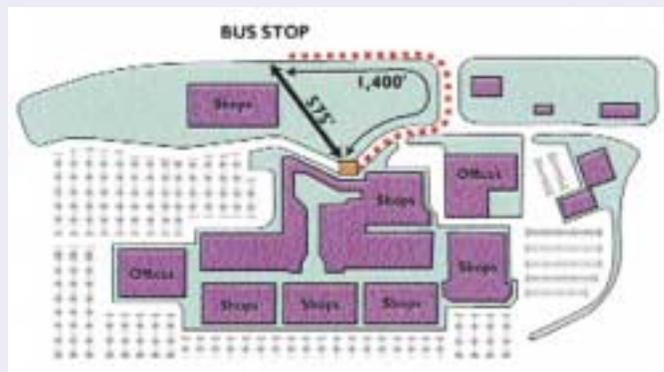
TRAVEL CONNECTIONS



Convenient and Direct Pedestrian Connections

Multiple connections empower travelers with the ability to choose how to access development. Short, convenient connections and pathways located between and within developments make alternative modes of travel more attractive. By integrating uses within a multiple-use activity center, trip distances are reduced.

Direct pedestrian paths make it easier for people to walk throughout the community as well as to and from transit stops. Sidewalks should be incorporated into the design of all streets, parking facilities and public spaces, and should be designed to connect building entrances. To make walking more attractive, it is important to provide as many pedestrian connections as possible, whether they are linking adjoining buildings, adjoining sites or adjoining neighborhoods.



Walk time for a transit user is reduced with a direct connection to the bus stop

Pedestrian-Scale Blocks

When incorporated into an interconnected street network, short blocks improve the mobility of pedestrians. Block lengths of 300 to 500 feet are desirable as opposed to longer blocks, which discourage walking and result in longer routes.



A system of pedestrian-scale blocks allows buildings to fill in an area over time



TRAVEL CONNECTIONS



Interconnected Street Network

An interconnected network of streets distributes traffic among all roadways, rather than concentrating it on arterial roads. Such a system improves the mobility of pedestrians and bicyclists by providing multiple travel routes, in addition to allowing more efficient transit routing. In order to be most effective, this connectivity needs to also extend into neighboring developments.

Conventional suburban development with limited connection



Conventional developments use the street network to separate uses, while transit-supportive development brings different uses together through an interconnected street network.

Interconnected street network

Bicycle lanes may be incorporated in roadways with an urban section

Bicycle Circulation and Parking

To ensure a safe and convenient bicycle network that is comparable to the existing automobile network, bicycle accommodations should be provided along every street. For roads with low traffic volumes, the normal travel lane may also serve as a bikeway. Higher volume roads should incorporate bicycle lanes. However, if bike lanes are inappropriate, parallel off-street paths should be provided. Routes should be clearly marked and designed using standards from the American Association of State Highway Transportation Officials (AASHTO) Bicycle Facilities Guidebook. In addition, secure facilities for bicycle parking should be available at common local destinations and should be as close to the building entrance as possible.



BUILDING SCALE AND ORIENTATION



Human-scale architecture and articulated facades help create an interesting pedestrian environment and can improve how people perceive walking.



Streetfront display windows are characteristic of commercial areas that are inviting to pedestrian activity.

Human-Scale Architecture

Sensitivity to the physical design and location of buildings is important in order for travel connections to be attractive. The quality of “out of auto” experiences is influenced by the placement of buildings in relation to the street and other buildings, as well as their height and scale.

The Country Club Plaza provides a local example of how architecture and streetscape design can be used to create a pleasant pedestrian environment. Originally designed in the 1920s, the Plaza’s buildings contain pedestrian-friendly features such as awnings, articulated facades and streetfront display windows. At the same time, motorists are accommodated through appropriately scaled streets and parking facilities that are placed on-street and behind buildings.

Buildings and Entrances Oriented Along the Street

Transit-supportive design assumes people are willing to walk a maximum of ½ mile for premium transit and rail service and ¼ mile for other bus services. If large parking lots separate buildings from the street, walking is made less convenient. By placing buildings and their entrances along pedestrian walkways, walking distances are shortened. Building placement is a powerful tool in reinforcing streets as public amenities.

The physical location of buildings can not only encourage pedestrian activity, but is also the most powerful tool for framing public spaces for informal gatherings. Such public spaces also make very attractive transit facilities where the transit customer can wait in a safe, comfortable and dignified setting.



Before



After



PUBLIC SPACES



Pedestrian-Friendly Streets

Streets are by far the most prevalent public spaces; as such, they should be designed to accommodate pedestrians comfortably. Fast-moving cars are a safety risk to pedestrians. The speed of traffic can be managed through various traffic-calming measures and by using two-way streets instead of one-way pairs.

Pedestrians must also be protected from moving traffic through features such as street trees, landscaped strips, bicycle lanes or a row of parked cars. The sidewalk itself should also be wide enough to provide a buffer area, with a minimum width of five feet in less traveled areas and 10 to 15 feet in heavily traveled residential, commercial and office areas.

Parks and Plazas as Community Gathering Spaces

In addition to streets, spaces such as parks and plazas can encourage social interaction and create an environment designed around people. In addition, these places often serve as community landmarks and focal points, making them ideal locations for transit stops.

Quality Facilities for Transit Users

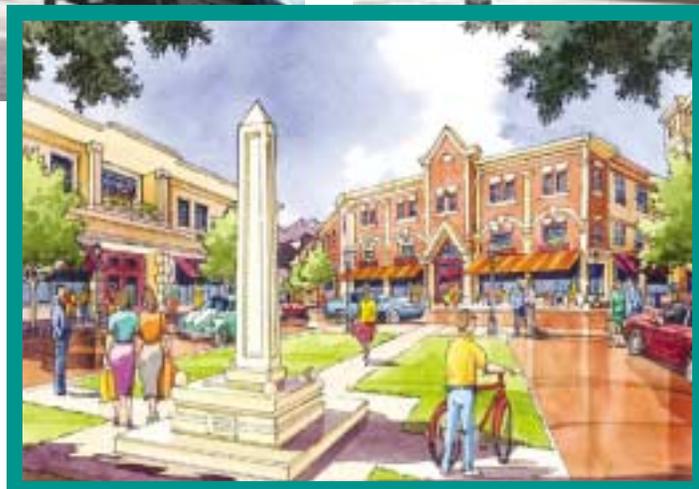
Features such as benches, shelters, landscaping and adequate lighting make people feel comfortable while waiting for transit service. Additionally, services such as child care facilities, dry cleaners, postal facilities and health care offices can be included as part of bus transfer centers or rail stations. The quantity and quality of these features is an important part of establishing transit as a respectable and convenient travel option and creating a dignified experience for the transit customer.



This residential street in downtown Kansas City contains features such as parked cars, street trees and a wide sidewalk, all of which protect pedestrians from moving traffic.



This fountain is one feature that makes the space comfortable for pedestrians and transit customers.



Public gathering spaces framed by buildings work to create a comfortable pedestrian environment.



PARKING



Pedestrian-Friendly Parking Facilities

Parking is a critical principle of transit-supportive development. The proper location and size of parking facilities are essential if pathways, buildings and public spaces are to succeed in creating transit-supportive settings.

The size and location of parking facilities should be sensitive to pedestrian and bicycle circulation. On-street parking is a pedestrian-friendly way to provide convenient access to streetfront businesses, as the parked cars provide a buffer between pedestrians and moving traffic. Surface parking lots can be made more pedestrian-friendly by including walkways for through pedestrian traffic. They should also be placed behind buildings to shorten walking distances for those on foot.



Placing parking beside buildings is one way to accommodate both automobile and pedestrian traffic.

If large surface parking lots are necessary, walkways for through pedestrian traffic should be provided.



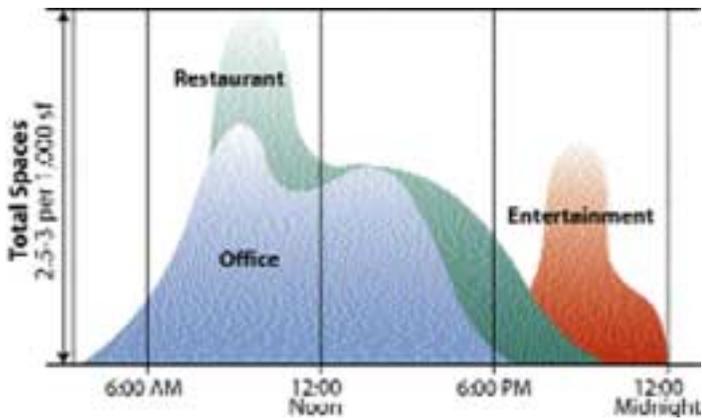
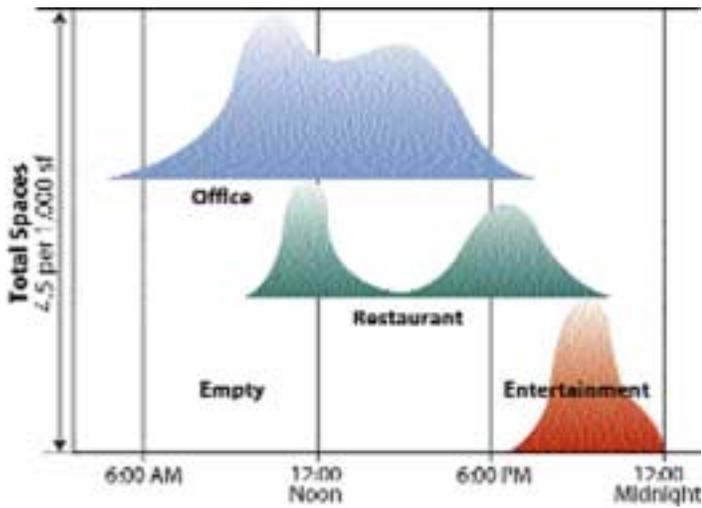


PARKING



Structured and Shared Parking

Parking structures and shared parking lots are two ways to reduce the amount of space occupied by parking facilities. Uses that operate during different times of the day can share parking facilities. Structured parking is useful in dense residential and commercial areas because it allows more direct travel for pedestrians and bicyclists.



Shared parking facilities allow new development to be accommodated with fewer total spaces



Structured parking garages occupy less space than surface parking lots. When designed appropriately, they can blend into the streetscape.



LAND USE



The mix and density of land uses is a powerful tool in the creation of places where travel is best experienced without the aid of the automobile. Appropriate mixes of land uses must be complementary to one another to encourage trip interactions. A connected and integrated land use mix also encourages different activities throughout different times of day, enabling parking facilities to be sized in a manner that is not out of scale to the pedestrian or transit customer.



These mixed-use buildings contain office and residential uses over streetfront retail shops. They are designed to be easily adaptable to different uses.



In transit-supportive areas, it is important to have a concentration of small-scale everyday uses.

Mixed-Use Buildings and Neighborhoods

Mixed-use districts allow people to live within walking distance of or a short transit ride from work, shopping and other services; they also establish “park once” environments where people are able to walk between uses. Additionally, a mix of uses creates a vibrant 24-hour neighborhood with a variety of activities throughout the day and week. Different uses can be incorporated into a single building, or smaller single use zones can be used to create a mixed-use neighborhood. In mixed-use districts, it is important to promote the development of multi-purpose buildings whose uses can be adapted over time. This same flexibility should also be reflected in the network of streets and blocks.



LAND USE



Increased Density in Neighborhood Centers

Land uses such as office, commercial and medium/high density residential are well suited for neighborhood centers and locations next to existing or proposed transit routes. By clustering these uses around community focal points and public spaces, more people benefit from access to transit service and other public amenities. Additionally, increased density makes transit service more cost effective, since each route is able to serve more people.



Before



After

Increased density in neighborhood centers can be accomplished through new infill development.

Eastgate Center, Chattanooga, TN

Transformation from regional mall to mixed use center



Transit-Supportive Development

section 2: prototypes for metropolitan kansas city

Transit-supportive design can increase the trip quality of all users (vehicular, transit, pedestrians). Yet, the principles outlined in Section One are rarely applied to new development plans. In order to facilitate the transition from concept to implementation, prototype sites within the Kansas City region are presented here and evaluated in terms of their local feasibility, benefits and applicability to the Kansas City metropolitan area.

The Mid-America Regional Council, as part of its mission to examine emerging issues and propose creative solutions for improving the quality of land use and development decisions, sponsored a series of planning workshops to explore the implementation of transit-supportive design in six different locations.

Workshops engaged local stakeholders to plan a possible future for each (re)development scenario. The stakeholders, together with planning and design professionals, toured and analyzed six different sites that represent a variety of development opportunities. The chosen sites are prototypical, allowing others to learn from these examples and apply the lessons learned to development in their own community.

The prototype sites selected by the project steering committee are based on the following general criteria:

- The detailed plan will encourage action or direct more appropriate action to occur.
- The property/business owner(s) are interested in transit-supportive design and support the process of preparing the plan.
- The (re)development opportunities exist in the near future (1 to 3 years).
- The concepts of the transit-supportive master plan may be extended to similar sites within the region.
- There is an opportunity to accommodate higher densities of residential activity and promote connections to existing or planned transit stations and centers.

The prototype sites include:

- Beacon Hill, Kansas City, MO – Urban neighborhood redevelopment
- Independence Square, Independence, MO – Historic town center
- Antioch Mall, Kansas City, MO – Suburban mall redevelopment
- Liberty Triangle, Liberty, MO – Suburban commercial infill development
- Rosedale, Kansas City, KS – Urban corridor
- Shawnee Mission Parkway / I-435, Shawnee, KS – Emerging suburban commercial center

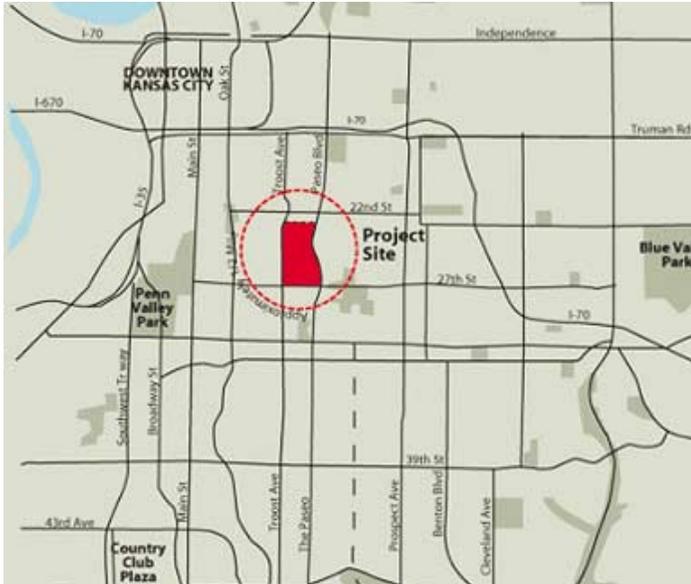


BEACON HILL

Kansas City, Missouri



Urban Neighborhood Redevelopment



Prototype:

Beacon Hill is located on the east side of downtown Kansas City between Bruce Watkins Parkway and Troost Avenue, from 21st to 27th Streets. Vacant lots, single-family residences, multi-family residences, and commercial uses characterize the area. The site is typical of other locations in the urban core, showing evidence of blighted conditions while retaining much of the character of a typical urban neighborhood. The FOCUS Plan identifies the Troost corridor as a “Great Street” and potential redevelopment area. Accordingly, current redevelopment plans submitted to the Kansas City Economic Development Commission incorporate mixed-use development, single-family residential rehabilitation and new construction.





Site Issues:

The arrangement of lots and blocks in the study area is well organized, typical of an older urban environment. Beacon Hill is well served by transit, with the city’s highest used transit route along Troost Avenue. The intersection of Troost Avenue and 27th Street is identified by the city as a mixed-use transit hub.

Proposed redevelopment projects by the University of Missouri-KansasCity (UMKC) and private entities along Troost Avenue further strengthen the likelihood of a successful transit-supportive development plan. The selected developer is finalizing

the land use plan and architectural design for the neighborhood, with construction expected to begin by 2002.

Transit-Supportive Design Issues:

The Beacon Hill site presents an excellent opportunity to showcase streetfront development. Appropriate site planning, with the historic character of Troost Avenue influencing the building/street relationship, and clearly identified travel connections will promote transit ridership and support redevelopment.



Prototype Application:

Transit-supportive designs seeks to balance the density of the urban fabric with a generous amount of public space. “Beacon Hill Commons” is the centerpiece of the development and serves as a focal point for adjacent neighborhoods. The placement of the commons on a block of 25th Street also serves to calm traffic, discouraging cut-through traffic in the residential neighborhood. Within the residential area of Beacon Hill, new townhouses and single-family homes front the Commons with alleys providing vehicular access. Future UMKC development, facing the west side of Troost Avenue, will also be able to take advantage of the Beacon Hill Commons “address.”

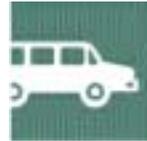
The plan takes advantage of the existing dense street network by orienting buildings toward the street wherever possible. Alleys provide direct access to buildings and additional off-street parking. On-street parking is recommended along Troost Avenue and 25th Street with possible "bulb-outs" for street trees. Bulb-outs visually enclose the street, slow down traffic, and enhance the pedestrian experience.

BEACON HILL

Kansas City, Missouri



Transit-Supportive Elements



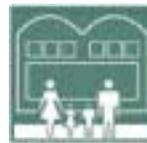
- On-Street Parking
- Use of Alleys



- Convenient and Direct Pedestrian Connections
- Pedestrian-Scale Blocks
- Interconnected Street Network



- Increased Density in Neighborhood Centers
- Mixed-Use Buildings and Neighborhoods



- Human -Scale Architecture



- Pedestrian-Friendly Streets
- Parks and Plazas as Community Gathering Spaces



Existing Troost Avenue



Proposed University Development on Troost Avenue



Proposed Beacon Hill Commons

INDEPENDENCE SQUARE

Independence, Missouri



Historic Town Center



Prototype:

Independence Square, with a well-defined town square surrounded by retail and residential uses, is typical of many downtowns in the region. The town square serves as the center of government activity and provides a strong sense of community identity. Improving the pedestrian environment will help ensure that transit use will increase. Traditional town squares that exist throughout the Kansas City region are proven examples of transit-supportive design.



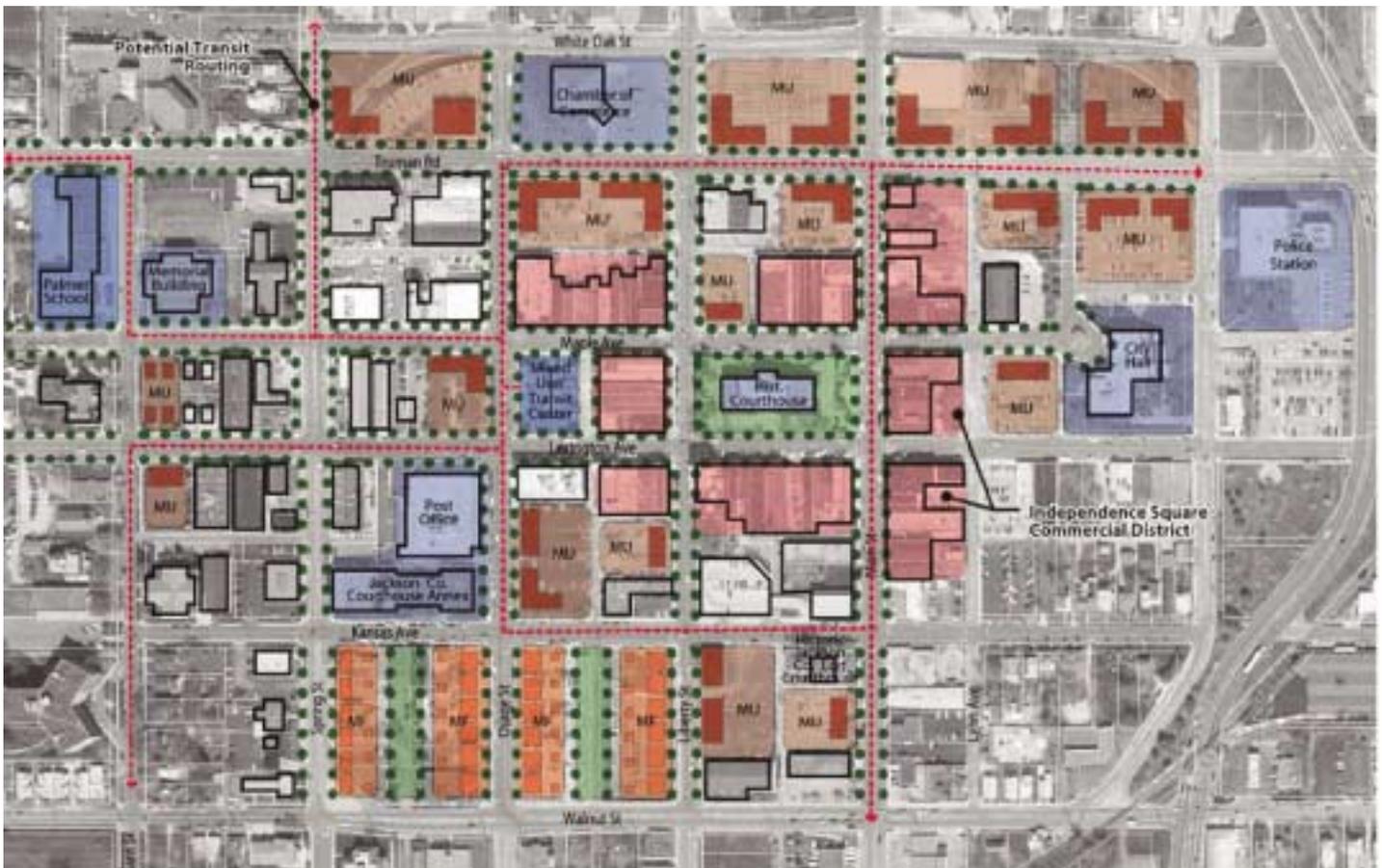


Site Issues:

The government complex anchors the square and is surrounded by a redeveloping commercial district. The Truman Historic District, which includes the Truman Home and Visitor Center, is another popular destination within the study area. Uses within the square are well served by transit, with seven routes and a future transit center planned. However, over time buildings were cleared to provide additional parking while street blocks were rounded to ease the flow of traffic into and out of downtown.

Transit-Supportive Design Issues:

Independence Square provides the opportunity to build on the architectural character of the neighborhood and historic urban fabric through residential infills. This site also provides the opportunity to improve the pedestrian environment, examine new locations for commercial development, and maximize the design and placement of the new transit center.



Prototype Application:

The recommended plan respects the relationship of the downtown square to the courthouse and core retail district. Retail infill, close to the core, completes the street wall and serves the increasing number of downtown residents. New residential development, south of the square, insures 24-hour activity.

Conversion of one-way streets to two-way improves retail exposure and calms through traffic. The provision for on-street parking throughout the study area meets the need of additional parking capacity while protecting pedestrians from moving vehicles. Streetscape improvements further enhance the pedestrian environment and connect the square to the Historic District and other historic attractions.

With proper design and incentives, the proposed transit center will complement existing uses and attract additional activities and uses (retail, community services and special events).

The potential transit center is located on a public parking lot site with joint use structured parking and street level retail. The transit center extends the “main street” character of the square. New mixed-use development on Osage Street helps to complete the urban pattern while locating infill development near transit service.

INDEPENDENCE SQUARE

Independence, Missouri



Transit-Supportive Elements



- Pedestrian-Friendly Parking Structure
- Structured and Shared Parking
- On-Street Parking



- Convenient and Direct Pedestrian Connections
- Pedestrian-Scale Blocks
- Interconnected Street Network
- Landscaping
- Conversion to Two-Way Traffic



- Increased Density in Neighborhood Centers
- Mixed-Use Buildings and Neighborhoods



- Human-Scale Architecture



- Pedestrian-Friendly Streets
- Wide Sidewalks



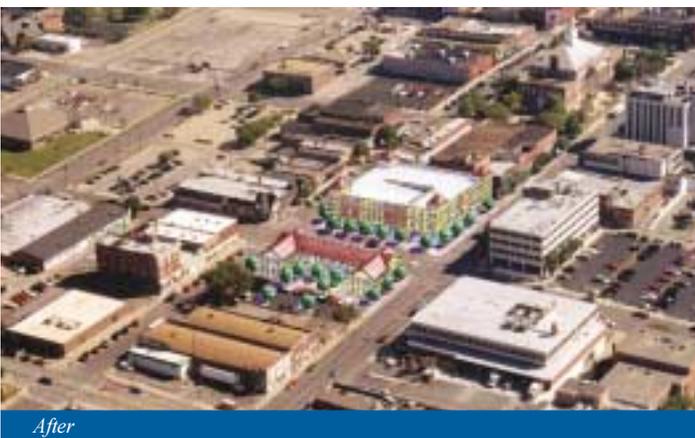
Before



After



Before



After

ANTIOCH MALL

Kansas City, Missouri



Suburban Mall Development



Prototype:

Antioch Mall is an existing first ring suburban mall located on the northern side of the region. Originally designed as an open air shopping center in the 1950s, the mall underwent extensive renovation to enclose the mall in the 1970s. Today, the mall is struggling to compete with larger regional malls and big box centers. The site, with good access to major roadways and the potential for higher density redevelopment on mall property and/or adjacent parcels, is representative of at least five locations in the Kansas City region.





Site Issues:

The study area is characterized by large underutilized parking lots, strip commercial that is disconnected from surrounding neighborhoods, and wide roadways that are hostile to pedestrians. Retail activity at the mall remains strong in the face of increased competition from newer regional malls. The mall is poised for another major renovation with the owner expressing interest in creating a transit-supportive development. The existing regional park-and-ride facility, also located on the site, is identified in Kansas City's FOCUS land use plan as a mixed-use community center.

Mixed-use community centers are concentrations of commercial and other community-based activities, including

residential uses. This designation opens the opportunity for strategically targeted public investment to further enhance the location as a future transit and mixed-use center.

Transit-Supportive Design Issues:

This site presents an opportunity to illustrate the manner in which a transit center can support a redeveloped town center. Existing underutilized sites also provide the opportunity for future infill to increase the density and mix of uses within the development. Large seas of parking also provide the opportunity to improve the pedestrian environment and connect existing commercial activity to surrounding neighborhoods.



Prototype Application:

The recommended plan re-introduces the classic grid pattern of streets. A long-term recommendation to extend 52nd Street west to Antioch Road enhances the local road network and provides vehicles an alternative to Antioch and Vivion Roads. Chouteau Trafficway redesigned as a boulevard supports new residential uses.

The recommended plan also introduces residential, office and structured parking onto the site creating a denser, mixed-use environment. New residential development is planned on underutilized parcels located at the northwest and northeast periphery of the site. Office space is promoted within the mall and in the adjacent mixed-use development located south of Vivion Road. All of the new mixed-use development occurs on streets and blocks that connect to surrounding residential neighborhoods.

Finally, the transit center becomes a major component of the former mall now redeveloped as a town center. Acting as a stimulus for commercial redevelopment and neighborhood buildings, the transit center will contribute toward the identity of the entire area. The enhanced transit center incorporates a public square, structured parking, and the opportunity for additional streetfront commercial uses.

The recommended plan develops over time with the first phase calling for the development of the transit center around a new public square and additional street-oriented commercial uses south of the mall between Vivion Road and the south mall entrance. The second phase incorporates new residential development along the periphery and on underutilized parcels as well as new street-oriented commercial uses east of the existing mall. Long-term recommendations include the 52nd Street extension and pedestrian-friendly, commercial redevelopment on property south of Vivion Road.

ANTIOCH MALL

Kansas City, Missouri



Transit-Supportive Elements



- Pedestrian-Friendly Parking Structures
- Structured and Shared Parking



- Pedestrian-Scale Blocks
- Interconnected Street Network
- Quality Facilities for Transit Users



- Increased Density in Neighborhood Centers
- Mixed-Use Buildings and Neighborhoods



- Human-Scale Architecture



- Pedestrian-Friendly Streets
- Parks and Plazas as Community Gathering Spaces



Initial Phase (2-5 years)



Short Term (5-10 years)



Long Term (10+ years)



Before



After — Proposed Antioch Mall Town Center

LIBERTY TRIANGLE

Liberty, Missouri



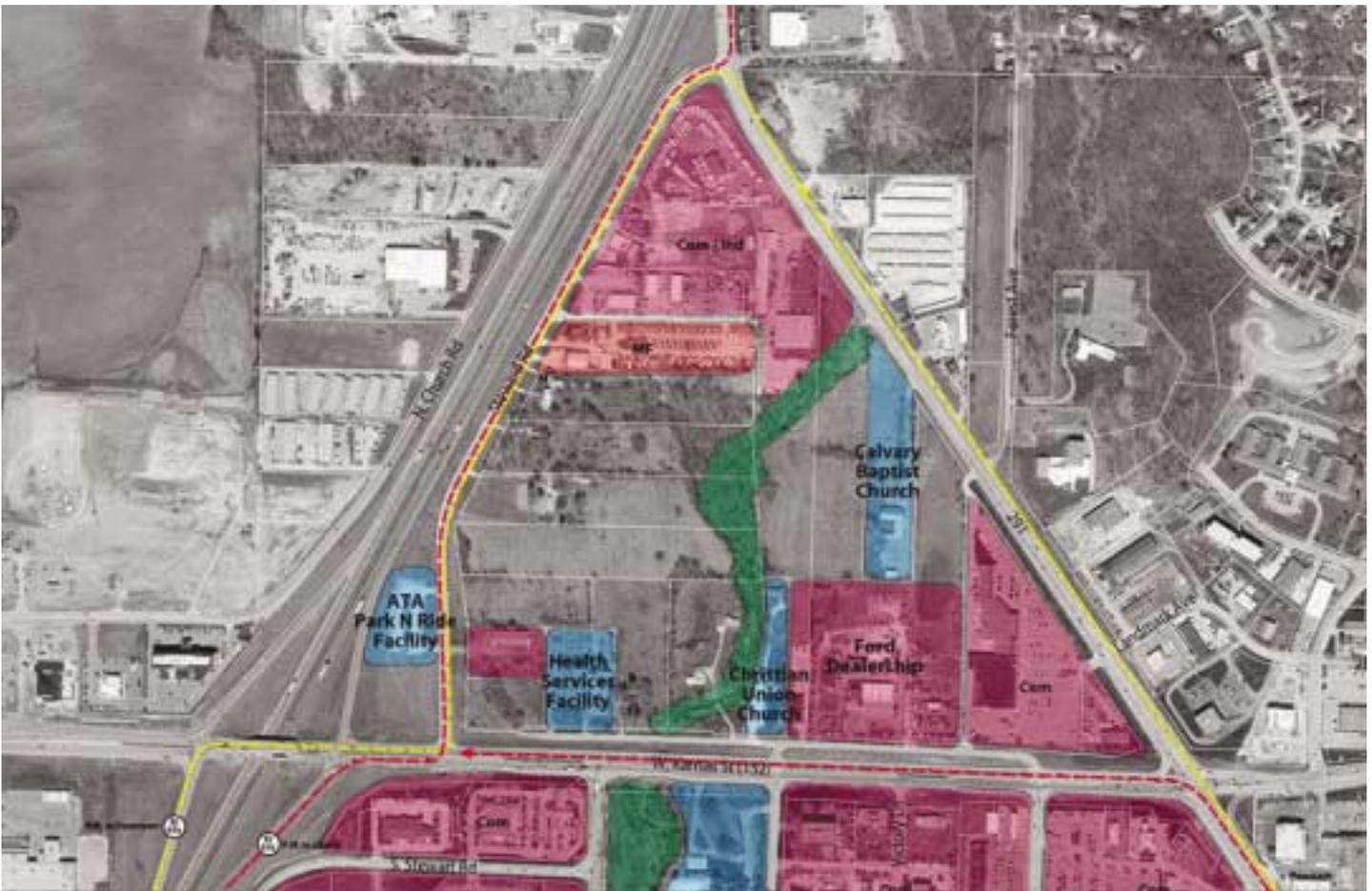
Suburban Commercial Infill Development



Prototype:

The intersection of Interstate 35, Highway 291 and Highway 152 in Liberty, Missouri, forms an area known as Liberty Triangle. With major roadways leading into and out of the city crossing at the triangle, the site is the unofficial gateway of the city of Liberty. For this reason, the redevelopment of Liberty Triangle is a priority for the city. There is potential for infill development in the center of the study area and redevelopment of existing uses.





Site Issues:

The irregular configuration of the site created deep lots with minimal frontage. Access provided by major roadways led to auto-oriented commercial development along the front of parcels. Consequently, the center of the triangle is largely undeveloped. Future plans developed by the city of Liberty envision a campus-like development pattern. Yet, lured by the excellent roadways that serve the site, development pressure from big box retailers is increasing.

An existing park-and-ride facility is located at the southwestern corner of Liberty Triangle. The facility is used

primarily for carpooling. However, as transit develops, there is great potential for the lot to move to another location within the triangle, expand its current use and serve as a transit center.

Transit-Supportive Design Issues:

The primary design challenge of Liberty Triangle is reconfiguring the “big box” site plan such that it accommodates both automobiles and pedestrians. From an architectural standpoint, the triangle offers the opportunity to showcase an alternative design for suburban commercial uses that is accessible to all users.



Prototype Application:

The recommended plan for Liberty Triangle is based on a foundation of interconnected streets and the existing drainage system. Extending existing streets such as Conistor, Blue Jay, and Forest creates a street grid. Newly created roadways and intersections minimize the need for single-use driveways that empty directly onto the major roadways. Driveway standards and streetscape enhancement on Highways 152 and 291, in partnership with the Missouri Department of Transportation, will manage congestion and safety while still providing much needed access. The existing Stewart Road continues to provide access to development fronting Interstate 35 while a new roadway parallel to Stewart Road allows for additional development to occur on previously inaccessible property.

The existing drainage system is retained as an amenity and master stormwater management system for the project area. A comprehensive stormwater system minimizes the need for

parcel specific retention ponds, leaving additional property available for commercial development. It also serves as the primary open space for the project, connecting the northern and southern end of the site.

Land use in the triangle is diversified to include residential uses as well as the commercial uses and professional offices historically proposed. Big box retail is accommodated within a larger system of streets and blocks and retains visibility from Interstate 35. Office and residential development is oriented toward the new and extended roadways. Wherever possible, residential buildings face the public greenway.

The proposed transit center, currently a park-n-ride lot, is relocated closer to Highway 152 and is incorporated into new mixed-use development. Commercial development is also oriented around a new MODOT-funded traffic circle.

LIBERTY TRIANGLE

Liberty, Missouri



Transit-Supportive Elements



Before



After — Multi-family residential



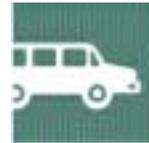
After — Main Street Office and Retail



Before



After — Liberty Triangle



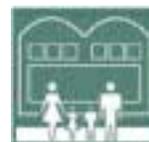
- Pedestrian-Friendly Parking Structures



- Convenient and Direct Pedestrian Connections
- Interconnected Street Network
- Quality Facilities for Transit Users



- Increased Density in Neighborhood Centers
- Mixed-Use Buildings and Neighborhoods
- Inclusionary Housing



- Human-Scale Architecture
- Buildings and Entrances Oriented to Street



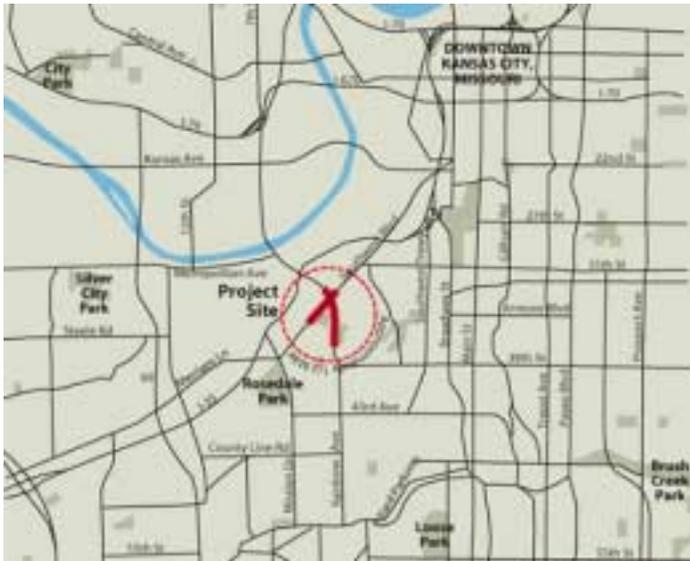
- Parks and Plazas as Community Gathering Spaces

ROSEDALE

Kansas City, Kansas



Urban Corridor Redevelopment

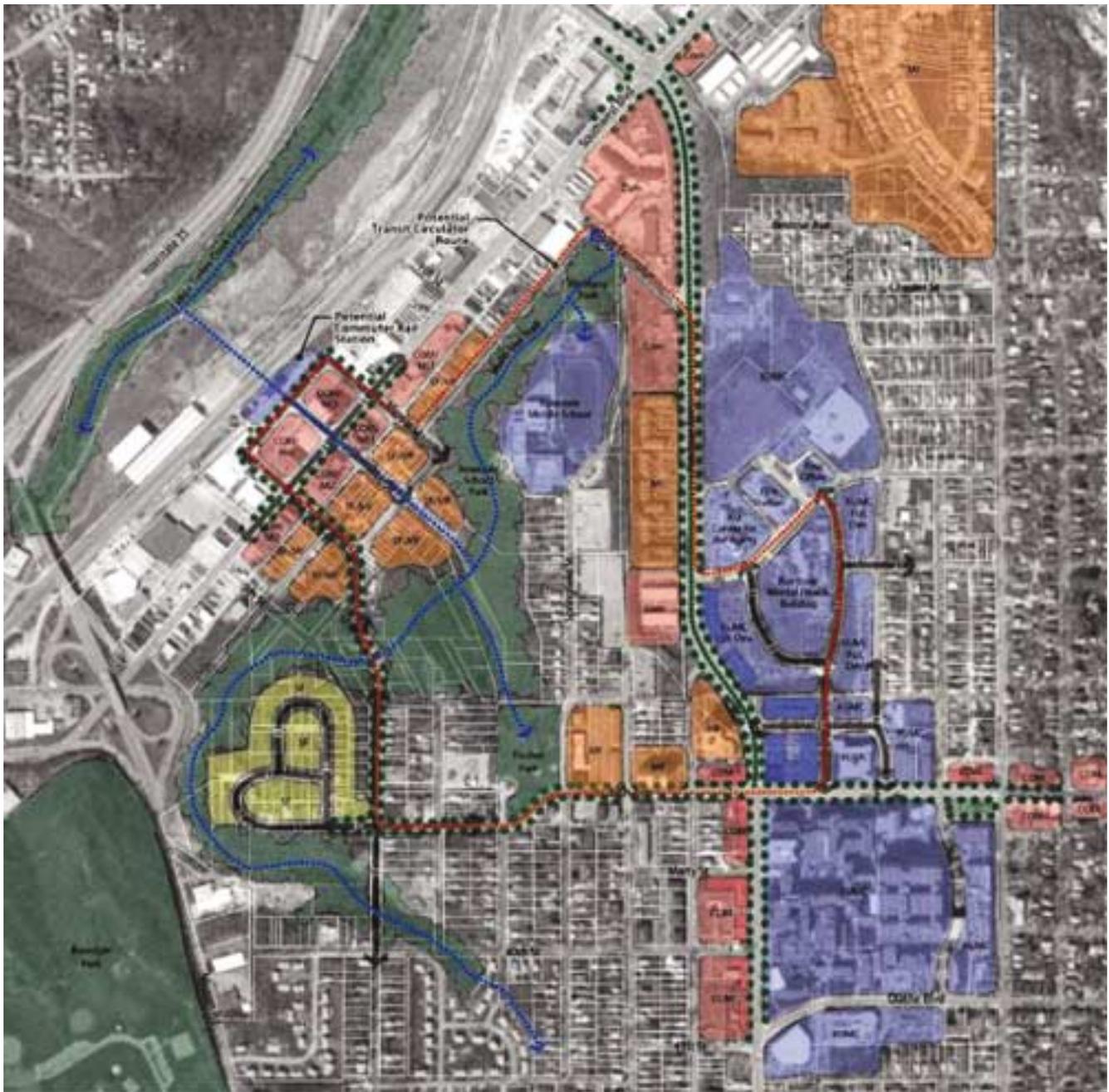


Prototype:

Rosedale is a developed urban neighborhood located in Kansas City, Kansas. The University of Kansas Medical Center, south of 39th Street, is a major employer and destination. Strip retail activity is located west of the medical center while traditional neighborhood commercial buildings are found east of 39th Street.

Currently, seven bus routes serviced by three transportation providers converge in and around the medical center. A commuter rail station is proposed along Southwest Boulevard at the northern end of Rainbow Avenue. This prototype presents the opportunity to promote redevelopment and integrate a commuter rail facility into the existing urban fabric.





Prototype Application:

The recommended plan directs the expansion of the University of Kansas Medical Center, north of 39th Street, to develop in an urban street and block configuration where grades allow. Streetscape and pedestrian improvements on 39th Street extend the character of the roadway into the medical center. 39th Street pedestrian improvements include well-marked pedestrian crossings, a median to give refuge to pedestrians crossing the street, and a reconfigured bus bay. A landscaped median and sidewalk improvements transform Rainbow Avenue into a boulevard.

A commuter rail station is planned just north of Southwest Boulevard, between Rainbow Avenue and Roe. The proximity of the station to Southwest Boulevard will support existing and additional commercial uses in the area. A multi-use trail system connects the station to the existing neighborhood while providing access to parks, schools and a proposed high-density residential development. The Iowa Street extension reinforces the street grid and provides access to Mission Road.

ROSEDALE

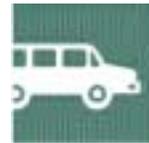
Kansas City, Kansas



Transit-Supportive Elements



Existing 39th Street



- Pedestrian-Friendly Parking Structures



- Convenient and Direct Pedestrian Connections
- Interconnected Street Network
- Bicycle Circulation and Parking



- Increased Density in Neighborhood Centers
- Mixed-Use Buildings and Neighborhoods
- Inclusionary Housing



- Human-Scale Architecture
- Buildings and Entrances Oriented to Street



- Pedestrian Friendly Streets
- Parks and Plazas as Community Gathering Spaces



Proposed Phase I



Proposed Phase II

SHAWNEE

Shawnee, Kansas



Emerging Suburban Commercial Development

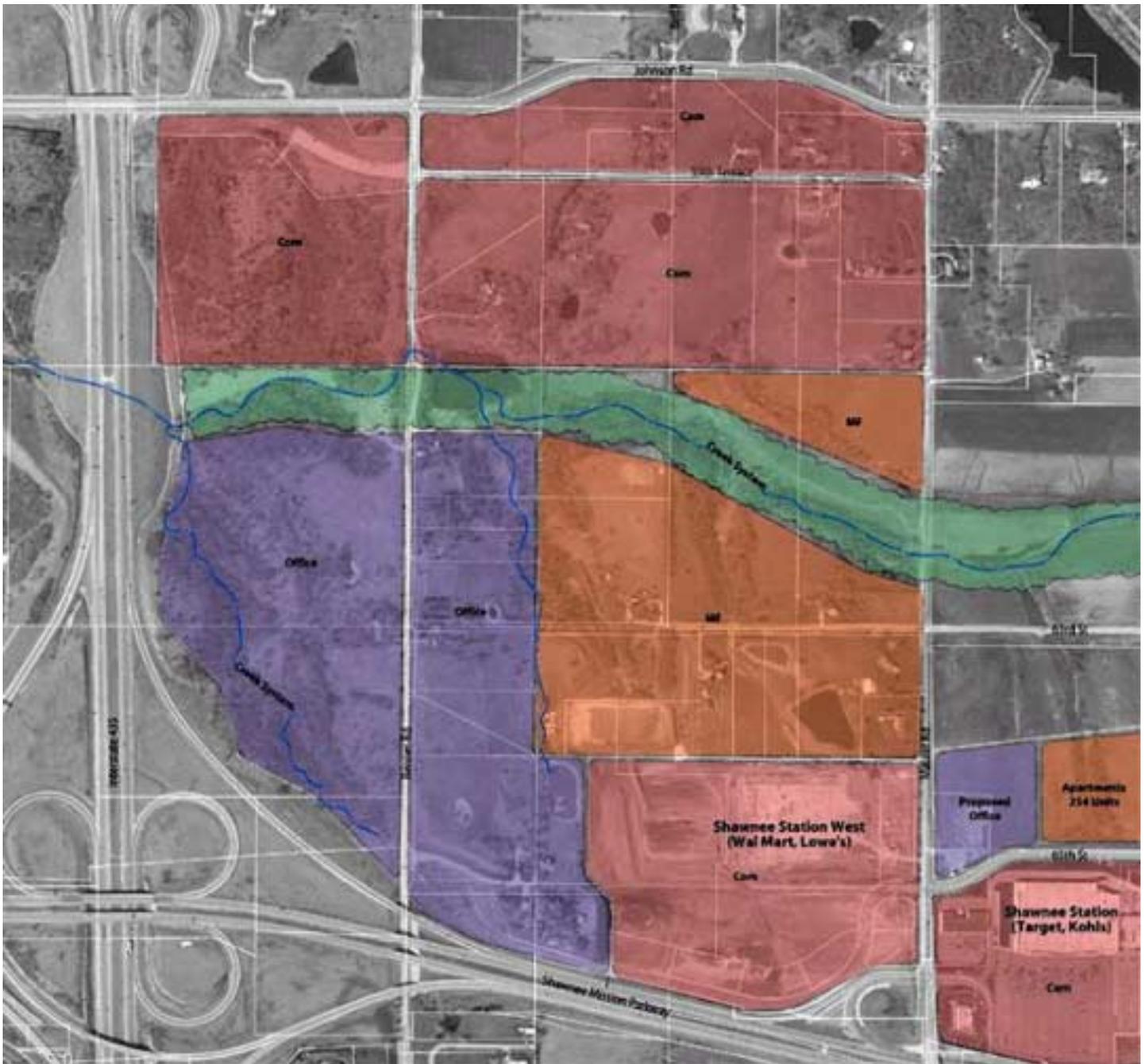


Prototype:

Located at the crossroads of Interstate 435 and Shawnee Mission Parkway, the site is an emerging suburban commercial center. The city of Shawnee’s adopted land use plan specifies separate commercial, office, and multi-family land uses. This land use classification, in conjunction with large parcels of undeveloped property, led to the development of big box retailers such as Wal-Mart and Lowe’s. The site is typical of previously rural areas that, after the introduction of a major interchange, experience substantial growth pressure.

Large scale retail and new planned development have specific requirements for drainage and stormwater. Addressing the need for drainageways early on allows the entire site to draw on and improve existing natural features. A comprehensive drainage system combined with the creek’s system provides important open space for surrounding development.





Site Issues:

Excellent regional roadway access is provided to the site by the Shawnee Mission Parkway and Johnson Drive interchanges with Interstate 435. Much of the land is undeveloped and assembled in large parcels. An existing conventional big box retail center is located on the site. A major drainage way runs east-west through the site.

Transit-Supportive Design Issues:

This site was originally planned by the city for a regional mall. The city is interested in encouraging a mixed-use development that could incorporate transit-supportive design. A mix of uses, developed on pedestrian and transit-supportive streets and blocks creates a built environment that serves both neighborhood and large-scale retail activity.



Prototype Application:

The recommended plan overlays a strong street grid throughout the project area. Renner Road and Maurer Road continue to serve as arterials. The comprehensive street network allows different uses to be developed in a compatible manner, with a mix of office, multi-family and retail uses. The grid street pattern also serves as an organizing element as uses change and properties redevelop. New development is kept at a pedestrian scale by virtue of the block size and street network. The natural drainageway is retained as an amenity, with the beginning of greenway connections running north, south, east and west, and a master stormwater management system.

The proposed town center incorporates a transit stop surrounded by a neighborhood commercial center that creates a gateway to the city off Johnson Drive and

I-435. Commercial and retail activity is concentrated near the interchanges, allowing the highest and best use of the land. The concentrated mixed-use neighborhood commercial centers are also easily served by transit in the future. Office development east of Interstate 435 maintains high visibility while serving as a buffer to residential development.

By using a network of streets and blocks as the foundation, mixing land uses, providing clear and efficient pedestrian connections to and from the various developments, and respecting the waterway’s natural drainage system, a development is created that meets the needs of today while remaining well poised for transit service in the future.

SHAWNEE

Shawnee, Kansas



Transit-Supportive Elements



- Structured and Shared Parking



- Convenient and Direct Pedestrian Connections
- Pedestrian-Scale Blocks
- Interconnected Street Network



- Increased Density in Neighborhood Centers
- Mixed-Use Buildings and Neighborhoods
- Inclusionary Housing



- Human-Scale Architecture
- Buildings and Entrances Oriented to Street



- Pedestrian-Friendly Streets
- Parks and Plazas as Community Gathering Spaces



Future Shawnee neighborhood



Future Shawnee town center



Before



After — Future Shawnee town center



Transit-Supportive Development

section 3: obstacles to success



Transit-supportive development has the potential to provide a wide range of mobility options, use land efficiently, conserve environmental resources and create affordable housing opportunities. Despite these benefits, there are regulatory, institutional, financial and market-based obstacles to achieving transit-supportive development patterns in metropolitan Kansas City.

REGULATORY OBSTACLES



Most Kansas City area communities have adopted comprehensive or land use plans, many of which are supplemented by area or sector plans. These plans are implemented primarily through adopted zoning and subdivision ordinances or unified development codes. Generally, these codes contain highly-detailed procedures that applicants must follow to obtain approval of proposed developments, including application submission requirements; process and time frames for staff; commission and governing body consideration; and evaluation and ultimate determination for each different type of development application (such as rezonings, special or conditional use permits, site or development plan, subdivision plats, building permits and the like.)

Generally, all the components (connections, building scale and orientation, public spaces, parking and land use mix and density) of a transit-supportive development pattern are addressed in most local government land development regulations. However, it is both the specific standards and their cumulation that all too often preclude a development pattern that allows transit and pedestrian travel to compete fairly with the automobile.

Regulations related to the subdivision of land set out the required improvements, the standards to which improvements must be built and provide for performance and maintenance guarantees.

By far, the largest and the most important component of these codes is the set of regulations that apply in each zoning district, including permitted uses, height, setbacks, lot size, floor area ratios, landscaping and parking requirements.

Some codes include performance standards that apply to specified districts or to designated uses.

Most developers, home buyers and business owners are comforted by regulations because they offer some degree of investment protection and market predictability. However, most existing development regulations are cumbersome documents that are composed of a number of prohibitions on what may be developed — they set forth **proscriptive** requirements for development. Minimum building setback and a minimum number of parking spaces for a given increment of development are two examples of **proscriptive** development regulations.

As a result, rather than providing an applicant with a clear picture of the type of development that the community desires and therefore what is most likely to be approved, the proscriptive regulations can become significant obstacles to achieving a transit-supportive environment.

It is becoming more and more obvious that the preferred approach may be to adopt **prescriptive** development regulations, which *prescribe* what is expected of development in different locations so the market can respond to the community's plan. "Build-to" lines and maximum parking standards are common examples of prescriptive development regulations.

When a code tries to list everything that is prohibited, the list grows and grows. The knowledgeable developers and builders often try to find a weakness in the ordinance. Once the weakness is uncovered, it is followed by staff and citizen attempts to tighten the regulations by adding additional prohibitions. This piecemeal approach to code drafting also creates problems because invariably the result is internal inconsistency due to the difficulty of identifying each and every interface between a new prohibition and the existing prohibitions. These inconsistencies create a whole new set of unintended but real prohibitions.

Over-sized public infrastructure requirements are a significant impediment to transit-supportive development. Often, these requirements are the result of our society's ever increasing dependence on the automobile as the sole source of

transportation and the notion that the only purpose for streets, regardless of their functional classification, is to move as many cars as quickly as possible from one destination to the next.

The demise, during the 1960s and 1970s, of our region’s comprehensive public transportation system, rapid suburban development, increased concern over traffic safety, and the resulting need to move people longer distances from home to work, shopping, child care and the like, has resulted in the view that our local and regional street networks should be designed and built to serve only one function, the movement of automobiles. The important and historic purposes of streets as public space for community identity, for recreation

and for commerce have been lost as we build 45-mile-per-hour facilities.

One of the goals of transit-supportive development is to recapture the notion that new development, as well as in-fill development, can be designed to provide a mix of uses within close proximity to each other, thereby facilitating an individual's ability to choose to walk or ride a bike, rather than jump in the car, to reach daily destinations of necessity. A mixed use environment reduces dependence on the automobile as the sole means of travel and consequently, the need to build street networks designed only to serve one function.

CHECKLIST OF OBSTACLES



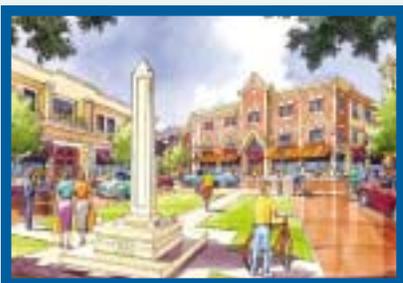
The following checklist highlights potential regulatory obstacles to a transit-supportive pattern of development.

Parking

- Limitations for on-street parking
- Lack of provision for shared parking
- On-site parking requirements
- Requirements to locate parking in front of buildings
- Minimum number of parking spaces per thousand square feet of non-residential development
- Minimum landscaping/screening requirements

Streets

- Street layout encouraging cul-de-sacs rather than a grid system
- Profile and design requirements focused on motor vehicles (e.g., no provision for bike lanes)
- Prohibitions on trees/landscaping in rights-of-way
- Long block lengths
- Wide pavement widths
- Wide rights-of-way requirements
- Traffic-calming limitations
- Private streets
- Prohibitions on alleys



Access

- Ingress and egress restrictions
- Median design that restricts pedestrians

Setback and Yard Restrictions

- Lack of requirements for build-to lines
- Minimum setback requirements
- Limitation on yard encroachments
- Large front and rear yard proportions
- Minimum lot size
- Open space requirements
- Deep yard depths

Uses

- Non-cumulative zoning
- Prohibitions/limitations on mixed-use and mixed-density development
- Separate location of community/civic and public facilities and common open space from commercial and residential development
- Orientation of building facades to parking areas
- Height and intensity limitations and floor area ratios

Pathways

- Minimum width
- Placement with respect to rights-of-way lines
- Prohibitions on substitution of trails and pathways for sidewalks where appropriate
- No requirements for sidewalks from street to commercial building entrance

Public Spaces

- Failure to encourage or require public spaces
- No performance standard or locational requirements for public spaces

A companion goal is to design development so that it provides a functional interface with existing public transportation. This could result in increasing the willingness of individuals to use public transit and providing a built environment that encourages expansion of the existing transit system and the addition of new types of transit, such as light rail and commuter rail.

In some respects, the metropolitan area has gotten away from the principles of urban design that once made it the envy of many other regions of the country. In doing so, the result has been development patterns that reflect a reliance on the automobile as the sole source of transportation and a pattern of seclusion instead of neighborhood or community. Not surprisingly, development, is frequently not responsive to the spirit of a community's comprehensive plan or the principles expressed in this guidebook.

INSTITUTIONAL, FINANCIAL & MARKET RELATED OBSTACLES



The creation of an institutional environment in which those who want to develop transit-supportive projects or reside in a transit-supportive community are allowed to do so is not easy. Like nearly all change, it neither occurs overnight nor comes easily. The key to successful change is increased understanding by the persons and entities affected of the impact that change will have on them and their interests. At least in the initial stages, this can only be achieved through education about transit-supportive development and what it means to the different interests within the community. It is necessary to create a sufficient level of comfort with the precepts and benefits of transit-supportive development among affected institutions.

Though our metropolitan area has numerous nationally recognized examples of successful transit-supportive development, virtually all of them are products of an earlier era. Successful transit-supportive developments across the nation can and do serve as powerful examples of how they benefit a community and its residents, and how, if properly done, they can be profitable to various institutional participants. However, without recent examples of projects that have a track record here in the Kansas City region, there is always the concern that what works on the coasts or in other metropolitan areas, for a litany of reasons, may not



work in our area. To get beyond this initial hurdle and facilitate the development of some successful local examples to which we can point and from which we can learn, we must focus on education and planning.

Institutional obstacles often emerge whenever change is proposed. Fortunately, many institutional obstacles can be surmounted through education. Developers, citizens, public sector staff, transit users, and elected officials must all be part of the education process, both as teachers and as students.

Financial obstacles are often the result of the absence or limited availability of market feasibility data, and take the form of concerns over the financial risks of a particular project. Project designs with the most proven track records are the ones that typically receive the least rigorous scrutiny from lenders and the most favorable financing terms. In the Kansas City metropolitan area, these projects are generally single-use projects (particularly at greenfield locations, but also in-fill projects). New residential development, with very few exceptions, tends to be large lot subdivisions with a curvilinear/cul-de-sac street network and private amenities, such as pools, clubhouses and open space. In many respects, these conventional development patterns — the ones with the proven track record — are the antithesis of transit-supportive development, which is characterized by mixed-use projects with pedestrian-friendly street networks and public amenities.

Transit-supportive development is frequently multi-phased and longer-term projects. Because of their proven track record, and thus greater predictability, conventional projects are generally more quickly and easily financed. For private sector participants in the development process, “time is money.” Furthermore, the increased complexity of multi-use projects is likely to increase the cost of project financing.

CHECKLIST OF OBSTACLES



The following is a checklist of institutional, financial and market-related obstacles that have to be addressed to achieve transit-supportive development in our region.

Lack of familiarity with and understanding of transit-supportive principles and their benefits by:

- Public sector staff
- Elected officials and planning commissioners
- Developers
- Commercial tenants
- Lenders
- Citizens

Lack of clear transit-supportive goals by local communities

Lack of understanding or presence of regional and local multi-modal transportation plans, that include transit, bicycle and pedestrian travel accommodations and facilities

Lack of understanding of the market for transit-supportive development

- Lack of public recognition that the ability to walk to destinations is not limited to certain times of year or weather conditions
- Perceived security that comes with conventional, particularly residential, subdivision development
- Lack of awareness that transit-supportive developments are quality living, working and entertainment environments
- Perception by commercial tenants that they require low density auto-oriented locations for their customers and employees
- Difficulty of getting adjacent landowners/ developers to work together or to assemble land for development of a comprehensive transit-supportive development project
- Lack of any recent projects in the area that demonstrate transit-supportive development principles for all the different stakeholders to study
- Difficulty of getting comprehensive/master plans in place to guide development before critical tracts get developed in a manner that is not consistent with transit-supportive development

Limited financing options for transit-supportive development

- Reluctance of lenders to finance other than tried and true approaches to development and concern by developers in being able to secure financing at reasonable cost and in a reasonable timeframe
- No clear identification of public sector incentives and financing mechanisms to assist in transit-supportive projects
- Need for coordination between multiple financing sources for mixed-use development

Development approval processes

- Lack of understanding of what the term “Transit-Supportive Development” means
- Time is money — the concern that unconventional projects will take too long in staff (planning, public works, traffic engineers and public safety) reviews, in consideration by decision makers and will create unnecessary public controversy
- Perception that a transit-supportive project will never get approved because of regulatory obstacles or will require so many variances or exceptions that are time-consuming and expensive to obtain and may be denied
- Perception that entire new code provisions (district or overlay district regulations) may be needed to accommodate transit-supportive development.
- Lack of awareness that conventional development patterns can become more transit-supportive with minor changes
- Perception that transit-supportive development is always very dense/intense development
- Perception of the effect of transit-supportive development on adjoining and nearby property owners in terms of property values
- Perception that transit-supportive development means unacceptable financial, race, age, ethnic and other integration
- Perception that transit-supportive development automatically means unqualified support for public transit
- Desire by some members of the development community to get the project built, get their return on investment and sell. For many, this translates into only doing the tried and true.



This is not to say that transit-supportive development projects are not able to be financed, but it is more a recognition of this significant hurdle that must be overcome during this period of change.

Recent research suggests that infill transit-supportive projects in urban locations are more easily financed than mixed-use, transit-supportive projects in new growth/greenfield locations. Lenders often cite the following concerns with suburban infill projects:

- Limited number of comparables to the unique nature of transit-supportive projects.
- Neighborhood opposition to higher densities and mixed uses.
- Potential buyers and tenants may not respond favorably to higher densities or pedestrian orientation.

One thing that is readily apparent is that institutional lenders and development partners are much more likely to respond quickly and favorably to a transit-supportive development plan when there is a strong developer with similar experience and where the plan was developed in a highly participatory public setting with full buy-in from neighborhood groups, property owners and elected officials.

Another key market obstacle to transit-supportive development is consumers' lack of understanding of new development. Persons looking to locate a business or to choose a place to live generally are not familiar with real examples of quality transit-supportive development. Those vaguely familiar with the term and its principles often have mistaken impressions of what it is and particularly of its benefits.

In a market dominated by conventional development approaches, with wide open personal spaces and relative seclusion from neighbors, some perceive the more dense, multi-use transit-supportive development as unsafe, congested and lacking privacy. These perceptions also

include reduced property values because of the mixing of residential with commercial uses as well as persons of varied economic income levels.

Statistics on operating transit-supportive projects show these perceptions to be inaccurate, but they are, nevertheless, difficult to overcome. More and more people are beginning to appreciate the benefits of transit-supportive development and a change in perception is becoming evident. The change in market understanding is slow and the obstacles are large and real though, not insurmountable. Again, the keys to overcoming these market obstacles are education and track records of local success.



Transit-Supportive Development

section 4: enabling smart choices

Conquering Regulatory Obstacles

Each of the potential obstacles to transit-supportive development (TSD) implementation identified in Section 3 have been overcome by hundreds of successful local governments and developers in diverse regions around the nation. The following table summarizes regulatory barriers that the principles of transit-supportive development are likely to encounter and offers a suggested solution to surmount them.

Where appropriate, example codes are suggested. A collection of suggested codes from other jurisdictions are included in the Appendix of this guidebook. Design review strategies addressing regulatory obstacles related to the specific site-planning elements of transit-supportive development are also reviewed in this section.



DIRECT PEDESTRIAN CONNECTIONS



Example Codes:

An on-street pedestrian circulation system that links the street and the primary structure(s) on the site shall be provided. Sidewalks or pedestrianways must connect the required pedestrian system on adjacent developments if adequate safety and security can be maintained. Convenient pedestrian access to transit stops shall be provided. (Clark County, Washington)

Pedestrian walkways shall form an on-site circulation system that minimizes conflicts between pedestrian and traffic interface at all points of pedestrian access to on-site parking and to building entrances. Pedestrian walkways shall connect building entrances to one another, to on-site parking and from building entrances to public street entrances and existing or planned transit stops.

Pedestrian walkways shall be provided when the pedestrian access point or any parking space is more than 75 feet from the building entrance or principal on-site destination as follows:

- 1. All developments that contain more than one building shall provide walkways between the principal entrances of the buildings.*
- 2. All nonresidential buildings set back more than 100 feet from the public right-of-way shall provide for direct pedestrian access from the building to buildings on adjacent lots. (Metro-proposed language for King County, Washington)*



PEDESTRIAN SCALE BLOCKS



Identified Obstacle

Land development codes often do not reflect an overall vision for urban design. Most communities experience development one parcel at a time. Without a pedestrian plan or clear standards for pedestrian accommodation, initial increments of development do not set a precedent for walkable blocks.

Suggested Solution

Short, walkable blocks increase the pedestrian attractiveness of an area, increase opportunities for retailers and set a precedent for subsequent development. Most people will walk about 1500 feet to shopping areas or to transit.

Example Code: The street shall be designed to create blocks that are generally rectilinear in shape...or another strict geometric shape. Amorphously shaped blocks are generally discouraged, except where topographic or other conditions

necessitate such a configuration. To the greatest extent possible, blocks shall be designed to have a maximum length of 480 feet. Alleys shall be permitted to bisect blocks. (Nelessen Model Ordinance)



BUILDING SCALE AND ORIENTATION & PUBLIC SPACES



Identified Obstacle

Without a highly detailed, illustrative master plan, it becomes impossible to ensure that prominent sites are reserved for either public open space or important civic uses or that buildings are constructed in a fashion to lend dignity to these spaces.

Development standards often do not take into account a project's relationship to future or existing development. Consequently, each increment of new development has its own unique context, which often results in the project's inability to coexist with the surrounding built environment in a manner that does not necessitate automobile use. New development rarely happens in a single phase constructed by a single applicant. Therefore, even though subsequent increments of development may be responding to the same code, the overall pattern appears uncoordinated.

Suggested Solution

Where a community has identified a particular area for the encouragement of a transit-supportive development pattern, an illustrative plan should be prepared to show the desired location of buildings, streets and pathways. The preparation and local acceptance of such a plan will set the standard by which development proposals are reviewed.

Establishing an overall specific or “master” plan in advance can ensure that an area is built in a coordinated fashion. A specific plan for a moderately sized geographic area should be adopted to prescribe the location of buildings, parks, streets and neighborhoods. This plan is most effective when prepared with a high degree of public involvement and includes input from neighborhood groups, property owners and city staff.

This planning effort should result in an amended land development code to include both regulatory language and the physical plan itself. Some jurisdictions might choose not to limit transit-supportive development to a particular district, but instead choose to either enable or require such development for the community at-large. This is more difficult to accomplish without a physical plan, but has been accomplished through the development of precise land development regulations, performance standards and policy incentives, such as those identified in this guidebook.



PARKING



Identified Obstacle

It is the automobile’s need to be stored that presents one of the largest barriers to transit-supportive development. Parking standards are often oversized when developers are required to build parking facilities to a minimum size as dictated by a regulatory standard that is gauged for peak season. Institutional lenders often dictate minimum parking standards without an understanding of the true costs or an understanding of the ability to share parking facilities among complementary uses.

Suggested Solution

Parking provisions are one of the most important tools for ensuring a transit-supportive pattern of development. TSD parking standards simply balance the needs of the automobile with those of the pedestrian and transit customer. Balance is the key term here. Revised code standards can remedy ill-advised size and location requirements on parking. Parking code revisions should address the following requirements:

- Dividing parking area into smaller segments to the side or rear of the buildings
- Landscaping between parking area and sidewalk to protect the pedestrian
- Restrictions on parking between buildings and the street
- Developing maximum parking standards for TSD sites
- Preferential park-and-ride and rideshare parking
- Sizing parking facilities to reflect a mix of uses
- Shared and combined parking arrangements.



LAND USE



Identified Obstacle

The largest barriers to the development of mixed-use buildings, neighborhoods and commercial centers are zoning ordinances that dictate separated single uses. Under many of these codes, a corner store in a residential neighborhood or an apartment building near an employment center is treated as noxious uses — not unlike an oil refinery or hog rendering works. Planned Unit Developments (PUDs) were intended as a mechanism to encourage mixed uses. Unfortunately, this policy mechanism lacks the necessary precision to foster the mix of uses needed to enable transit-supportive patterns.

Suggested Solution

Begin by updating zoning ordinances to allow the following land use mix: limited commercial in residential zones, multi-family residential in commercial zones, and limited retail in industrial zones.

For commercial centers, modify zoning ordinances to encourage a mix of uses that allow for apartments and offices as well as stores.

Provide and encourage density bonuses and/or an expedited review for mixed-use development proposals. Allow certain home occupations in residential neighborhoods.

RELATED OBSTACLES



Institutional Obstacles

Many people who are thoughtful about our built environment feel the public and private institutional arrangements associated with the land development process conspire against the establishment of any development form besides the “same old thing.” If “location, location, location” is the first rule of real estate, it seems as if, “do not attempt anything new” might be the second rule. Developers, lenders, even elected officials and planning commissions do not like to risk their resources or reputations on a new product if they believe it to be “untested.” This challenging obstacle can be overcome through education, planning and community empowerment.

Education

The five transit-supportive development principles are by no means new or innovative in and of themselves. Effective use of each principle can be found in many of the metropolitan region’s most valued places. In many respects, education is the core purpose of MARC’s Smart Choices initiative. The initiative has attempted to achieve this purpose by holding public meetings to inform the community about the principles that underlie transit-supportive development and how they can work in concert with one another to produce a more desirable environment.

Smart Choices has shared the experiences of national entrepreneurs and local elected and appointed officials and demonstrated that transit-supportive development is profitable for the developer and local government. The MARC program has demonstrated that the principles of transit-supportive development can be applied to Kansas City area sites. This guidebook should motivate local government officials to evaluate their own development codes and identify changes that can be made to facilitate or encourage use of the principles to guide development in their communities.

Planning and Community Empowerment

In addition to change through education, institutional barriers to transit-supportive development are often directly addressed during the planning process itself. Each of the prototype (re)development scenarios contained in Section 2 were developed with participation of actual property owners, elected officials, planning staffs, developers and neighborhood leaders. The prototypes are the result of a two-way learning process between these stakeholders and the planning and urban design team.

These prototypes demonstrate that, when presented with a clear set of design principles, and the opportunity to make their voices heard, community stakeholders almost always develop planning and urban design solutions that are workable and innovative. Because of the plan’s high degree of public ownership, institutional barriers to change become much less daunting.

MOLDING A NEW REALITY: IMPLEMENTATION



Implementation really takes place on two levels: planning and development review. Implementation at the planning level requires the ability to reach a consensus between diverse stakeholders and to graphically illustrate the plan. Implementation at the development review level requires that local governments have in place land development regulations, guidelines and incentives that are precise enough to express community goals and objectives without sacrificing flexibility for innovative approaches.

The Planning Process

When a local government has targeted a specific site or district as a candidate for transit-supportive development, a prescriptive master plan should be developed in order to ensure there is no confusion regarding community expectations.

An intensive and formal public planning process is encouraged for large-scale (re)development at the neighborhood or commercial activity center levels. The checklist below provides an evaluation methodology for this planning process:

Extensiveness of Public Involvement

A public involvement program does not have to incorporate all of the study methodologies provided below. A citizen survey may be effective in measuring local priorities and issues in one setting, while a charrette in another setting may be more successful.

- Was a workshop or charrette held that actively involved stakeholders in the planning and design process?
- Were focus groups created?
- Was a citizen task force formed?
- Were citizen surveys conducted?
- Did the process have an adequate and active representation of community stakeholders?

Responsiveness of Public Involvement Program

The public involvement process should be a two-way discussion. The purpose of developing a project in a highly public forum is to encourage and facilitate feedback. Simply providing information to the community without any room for flexibility is self-defeating.

- Were the goals and objectives of the project refined to reflect the public input received?
- Were a distinct set of guiding principles introduced?
- Did the process include a diversity of ideas?
- Were these ideas integrated through public discussion?
- Was a wide range of solutions considered?

Physical Characteristics

The physical aspects of the project should work towards creating an environment where all modes of transportation are convenient, safe and comfortable. At the same time, the design of the project should be sensitive to surrounding uses. Engineering documents and architectural plans are produced in great detail and with care, yet the successful incorporation of each element with the existing surroundings and complementary design elements does not always occur. While the elements of the design are not impacts themselves, they do affect the transportation, economic and social impacts created by the project.

The following checklist provides guidelines for evaluating specific elements of the plan developed and their transit-supportive potential.

- Are building entrances oriented along the street and sidewalk?
- Is the building architecture sensitive to the surrounding context?
- Are buildings designed with overhangs, awnings, and highly articulated facades?

Streets and Parking

- How well connected is the street network?
 - Are there cul-de-sacs and/or dead end streets?
 - Are there multiple access routes to destinations within the site?
- What pedestrian amenities are provided?
 - Are there street trees to provide shade?
 - Are benches and other seating areas present?
- Does the placement of parking facilities interfere with pedestrian movement?
- Are surface lots placed behind buildings?
- Are pedestrian pathways provided through parking lots?
- Is joint/shared parking used?
- Is on-street parking (parallel or angled) used?

Transit

- Are transit stops located close to building entrances?
- Are transit stops located near major employment and commercial centers?
- Do waiting areas at transit stops include seating and weather protection devices?

Pedestrians

- Are public gathering spaces such as parks and plazas present?
- Is there a convenient, well-connected network of sidewalks throughout the development?
- Are sidewalks provided along all streets? Are they wide enough to accommodate pedestrian movement? (Commonly used standards for sidewalk width are 5' in low-traffic areas and 10-15' in high-traffic residential and commercial areas.).
- Are there sidewalk connections between adjacent buildings?
- Are there pedestrian connections from the development to surrounding areas?

Bicyclists

- Are streets designed to be bicycle-safe?
 - Are "Share the Road" signs posted along low-volume streets?
 - Are high volume streets (ADT of 10,000+ cars per day) designed with bike lanes?
 - If high-volume streets cannot be designed with bike lanes, is the street traffic calmed with posted speed limits of 25 to 30 miles per hour?
- Are secure bicycle parking facilities provided at transit stops, commercial districts, office buildings and at automobile parking areas?

Site Plan

The overall site plan should establish an appropriate relationship with surrounding neighborhoods. The design along the edges of the site should be compatible in scale and appearance with adjacent uses. Just as important, however, is that the site be well integrated into surrounding areas and not be designed with barriers to isolate it from nearby developments. This makes it easier for the pedestrian-friendly environment created on the site to spread into adjacent areas.

- Are the buildings along the edge of the site oriented outward along existing streets?
- Does the site contain multiple connections to surrounding neighborhoods?
- Does the development contain a high mix of land uses (proximity of residential, commercial, and employment centers)? More is better.

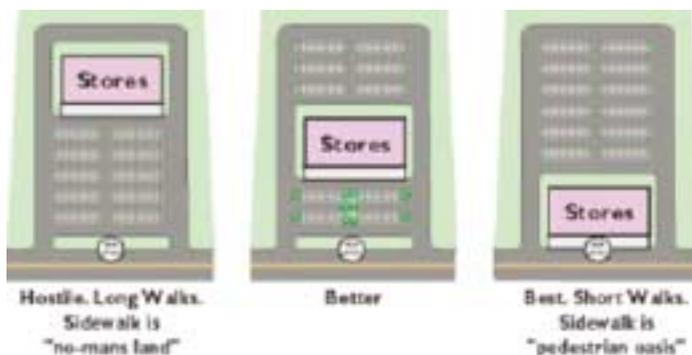
SITE LEVEL DESIGN ELEMENTS THAT PROMOTE TRANSIT-SUPPORTIVE DEVELOPMENT



Through precise development review standards, a local government can encourage transit-supportive development without the adoption of a detailed master plan. The following section identifies physical design elements typically addressed during the review process and recommends transit-supportive design guidelines. The codes located in the appendix should assist local governments in refining the recommendations into standards suitable to their individual community needs.

Building Placement

Much of the current development pattern is oriented toward the automobile. A building can reduce walking distances for customers and make streets more useful for pedestrians, transit customers and cyclists.



Orienting building entrances along the street reduces walking distances and also helps create a continuous street wall over time

Site Design Review Recommendation: Encourage the placement of buildings up to the building line with parking behind the structures. The type of placement will facilitate walking by minimizing travel distances, providing direct access to buildings, and thereby creating a pedestrian- and transit-friendly streetscape.

Moving parking facilities from between the front of the building and the street

A vast sea of parking adjacent to sidewalks and surrounding buildings gives the automobile an unfair advantage over transit or non-motorized modes of travel. Shifting parking to the sides of buildings reduces the walking distance from the sidewalk and helps to create an interesting street wall. Parking in unchanged quantity, but in a new layout is as accessible as before.

Site Design Review Recommendation: Discourage parking between buildings and the primary street. Commercial establishments may require parking directly accessible from the street. This can be accomplished by rotating the building 90 degrees to allow for sidewalk frontage and visible parking.



With parking rearranged, the sidewalk is transformed into a viable pedestrian facility.

Create spatial enclosure/definition

Enclosure/definition means the degree that the edge of the street is defined. Commercial streets typically lack enclosure when parking lots dominate the streetscape. Residential streets lack enclosure when trees fail to make up for large setbacks and empty spaces between residences.



Enclosure creates a human-scaled pedestrian environment by clearly defining the edge of the street.

Site Design Review Recommendation: Establish maximum setbacks (build-to) in commercial areas and visually fill in spaces between sidewalks and buildings. Ideally, maximum setbacks should be established so that the building height to street width ratio is no less than 3:1, thereby creating a feeling of spatial enclosure which dignifies the street as a public space, calms traffic and creates a pedestrian amenity. Residential subdivision requirements should specify street trees.



Features such as street trees and buildings are placed near the street in order to minimize vast transit unfriendly “voids” beside the paved roadway.

Promote highly-articulated buildings

Highly articulated storefronts and homes add interest and variety to the pedestrian experience. Detailed building facades generally provide unique visual sequences that focus pedestrian attention on the setting rather than the walk itself. Many studies conducted throughout the country have documented how redundant environmental forms and sequences have the ability to extend the pedestrian's perception of time and space.

Site Design Review Recommendation: Encourage the use of interest-creating features on ground floor facades. A minimum of 75 percent of new or reconstructed first-floor wall shall contain interest-creating features.



Highly articulated buildings such as these visually shorten perceived distances and encourage pedestrian activity.

Encourage Overhangs, Awnings, and Balconies

Drivers and passengers in automobiles have the advantage of heating and air conditioning to protect them from weather. This advantage is not available to the pedestrian. Overhangs, awnings, and balconies provide shade and cover.

Site Design Review Recommendation: Where possible, building designs should attempt to incorporate awnings, arcades and shelters into their architecture.



Awnings and overhangs protect pedestrians from rain, snow, and sun.

Incorporate Transit Stops into Building Architecture, Provide Shelters, Waiting Areas and Seating

It is unfair to place the responsibility for encouraging transit ridership solely upon the transit agency. Private employers and developers should use underutilized land to provide facilities that encourage transit use.

Site Design Review Recommendation: Encourage inclusion of transit waiting areas into either site plans or building architecture. Include transit operators in the site plan review process.



Developers and employers can support transit by providing convenient and comfortable waiting areas.

Connections within Developments and to Adjacent Properties

Improved internal pedestrian circulation is a fundamental element of the both the transit-supportive and “park-once” environment, where citizens can comfortably walk between buildings and are not required to use the car (or transit coach) for any trip other than arrival and departure from an activity center.

Site Design Review Recommendation: Require new developments to feature walkways among all buildings, public open spaces and parking areas. Additionally, there should be direct linkages to neighboring land uses without requiring use of the primary street.



By providing walkways between buildings and properties, the needs of pedestrians are better balanced with those of the driver.

Allow for future street extensions

New development should provide street connections for vehicles in all major directions to and from a site. They should also connect the development to existing neighborhoods, as well as anticipated neighboring development with street dedications or interim “stub-outs.” The future developer of the adjacent property must then connect to the stub-out and maintain a permeable street network. As development intensifies, street connections will evolve into a complete street system, providing a high level of mobility and adding to the value of the served properties.

Site Design Review Recommendation: Encourage the use of stub-outs at locations that are consistent with proper block length.

Parking

Over one-half of the built environment in urbanizing areas is devoted to automobile storage. This makes transit-supportive development patterns very difficult to achieve. Minimum parking standards often do not allow for sharing between adjacent complementary uses.



Because lenders and zoning codes often gauge the number of required spaces to the highest possible demand, these parking lots are often empty for the largest percentage of business hours.

Site Design Review Recommendations: Require large parking lots to be divided and separated by landscaping or a building. Site design standards should ensure that the entrances of a multi-building site are clustered. Also, eliminate or reduce parking requirements for transit-supportive development proposals, downtowns and pedestrian zones that are well served by transit. Allow developers to negotiate for reduced parking minimums for mixed-use projects.

Provide and encourage use of on-street parking

On-street parking is a powerful tool for pedestrian safety, parking capacity, and street-front retail viability. Parked cars act as a buffer between moving traffic and the sidewalk, and the visible parking spaces counterbalance the need to locate parking between buildings and the primary street.

Site Design Review Recommendation: Promote walking by providing a buffer between the pedestrian and moving traffic with on-street parking. Allow on-street parking spaces to be included in the count of available spaces.



This valuable Kansas City area addresses are on streets designed with on-street parking, street trees and wide sidewalks, all of which buffer pedestrians from moving traffic.

CREATING INCENTIVES



Incentives available to local governments for the implementation of transit-supportive development fall into three categories: public investment, public policy, and fiscal.

Public Investment Incentives

Public investment is the one of the most powerful tools local governments have available to them for shaping the form and function of development. In fact, much of today's conventional, auto-oriented environment is a market reaction to public investment in a new or improved highway or interchange. Public investment can serve as a powerful inducement for transit-supportive development.

Such types of investments might include well-designed and placed transit facilities such as "super stops," park-and-ride stops or the construction of starter buildings around transit stations. These transit facility investments may support economic development goals as well as set a precedent (form and scale) for future development. Other public investment opportunities that have proven potential to foster a transit-supportive development pattern include: brownfields redevelopment, farmers' markets, schools or libraries, local housing authority projects, parks and other public spaces or facilities.

Public Policy Incentives

Local governments can also build powerful incentives into the development approval process through the development of high quality plans and by streamlining the often burdensome approval process.

The Plan as Incentive

Quality planning, as demonstrated in the prototypes, in and of itself can be a powerful incentive for developers. The creation of a highly detailed master plan (and regulating code) for a district or large site targeted for transit-supportive development has proven to be a powerful way for a community to attract smart developers. If prepared with the full "buy-in" of the local development community, business and political leaders and neighborhood groups, development under the new plan will ease a lot of headaches for developers, because they already know exactly what is "pre-approved" in the minds of local planners and neighborhood groups. More often than not, the pre-approved development program is of a higher value than what would have been allowed under the previous entitlement.

The Approval Process as Incentive

Local governments can leverage the development approval process in a manner that encourages locally desirable projects. Many local governments have successfully used the approval process to both educate applicants about smart growth concepts and encourage implementation at the project level. Developers are always on the lookout for ways to reduce the "soft costs" associated with a process that is seen as cumbersome and time- (*read: money-*) consuming.

A prescriptive land development code is one that is easily interpreted. Many jurisdictions have condensed their codes into checklists or evaluation matrices for quick approvals, fee reductions, density bonuses, and parking reductions. The city of Austin, Texas, is currently experiencing success with its "Smart Growth Criteria Matrix." This easy to use matrix measures a proposed development's ability to satisfy adopted community goals. Projects earning high scores receive waived or reduced fees and protection from property tax increases for up to 10 years.

Because transit-supportive development has the unique ability to not only generate less traffic, but reduce traffic, local governments could allow applicants to submit special traffic studies in return for an excise tax reduction. These credits can not only be applied to proportionate-share transportation taxes, but to parks or other impact-type fees.

Fiscal Incentives

Local governments also have the ability to provide fiscal incentives to developers willing to depart from conventional projects. One such incentive might include tying the formation of tax increment financing or municipal services taxing districts to a transit-supportive design. Fiscal incentives may also be used to encourage public-private partnerships through the sharing of infrastructure costs, the structuring of bond issues, and the formation of community improvement districts.

FINANCIAL OBSTACLES



There are two forms of financing for development projects: equity and debt. Equity is simple ownership — money invested in hope of a return that justifies its risk. Debt is a contract for the use of funds in return for repayment of such funds with interest. Equity financing typically comes from individual investors, real estate investment trusts, non-profits and insurance companies. Historically, transit-supportive developments have relied upon equity financing, but more and more lenders are starting to realize the value of non-conventional development patterns, especially, local banks with a good handle on their markets and local preferences.

Non-conventional development proposals often fare poorly when tested using conventional market feasibility analysis techniques, but almost always succeed nonetheless. For instance, there has been a recent housing boom in downtown Kansas City, which could not have been predicted by conventional techniques. This may be because traditional market analysis relies upon comparables and retail demand analysis rather than identifying and targeting historically proven demographic groups that have an unsatisfied demand for walkable and compact neighborhoods and commercial centers. The identification of these groups and sharing information with them are important steps in developing market studies that are predictive of actual outcomes.

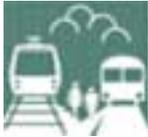


Transit-Supportive Development

appendix: sample transit-support ordinance provisions



Travel Connections



Convenient and Direct Pedestrian Connections

An on-site pedestrian circulation system that links the streets, parking and the primary entrances of the structure(s) on the site shall be provided. The pedestrian system may include sidewalks or pedestrian trails. These sidewalks or pedestrian ways must connect the pedestrian system to existing and/or proposed pedestrian systems on adjacent developments unless it is determined that adequate safety and security can not be maintained. Convenient pedestrian access to transit stops shall be provided.

[Clark County, Washington]



Convenient and Direct Pedestrian Connections

Pedestrian circulation systems must be provided to facilitate movement within the Urban Planned Unit Development (PUD) and to ensure pedestrian access to adjacent walkways and residential streets and to public uses, including school, parks and transit facilities. The City Engineer may require the walkways to be within public right-of-way or easements dedicated to allow rights of passage.

[Tri-Met: Portland, Oregon]



Convenient and Direct Pedestrian Connections

Pedestrian walkways shall form an on-site circulation system that minimizes conflicts between pedestrian and traffic interface, at all points of pedestrian access to on-site parking and to building entrances. Pedestrian walkways shall connect building entrances to one another, to on-site parking and from building entrances to public street entrances and existing or planned transit stops. Pedestrian walkways shall be provided when the pedestrian access point or any parking space is more than 75 feet from the building entrance or principal on-site destination as follows:

1. All developments that contain more than one building shall provide walkways between the principal entrances of the buildings.
2. All nonresidential buildings set back more than 100 feet from the public right-of-way shall provide for direct pedestrian access from the building to buildings on adjacent lots.

[Metro-proposed language for King County, Washington]



Convenient and Direct Pedestrian Connections

Pedestrian-way easements (10) feet wide, through the center of blocks more than 600 feet long, may be required by the approving agency in order to provide convenient pedestrian access to transit stops, a station, to shopping, or other community facilities.

[State of New Jersey Model Site Plan Approval Ordinance]



Pedestrian Scale Blocks



Pedestrian Scale Blocks

The street shall be designed to create blocks that are generally rectilinear in shape, a modified rectilinear shape, or another distinct geometric shape. Amorphously shaped blocks are generally discouraged, except where topographic or other conditions necessitate such a configuration. To the greatest extent possible, blocks shall be designed to have a maximum length of 480 feet. Lanes (alleys) shall be permitted to bisect blocks.

[Anton Nelessen]



Pedestrian Scale Blocks

Street block lengths shall not exceed six hundred sixty (660) feet (1/8 mile) between intersecting through streets, on each side of the street.

[Proposed Lee’s Summit, Missouri]



Convenient and Direct Pedestrian Connections

The proposed subdivision is laid out to provide safe, convenient, and direct bicycle and pedestrian access to nearby and adjacent residential areas; transit stops; neighborhood activity centers such as schools and parks; commercial areas; and industrial areas; and to provide safe, convenient and direct circulation. At a minimum, “nearby” is interpreted to mean uses within ¼ mile that can reasonably be expected to be used by pedestrians and uses within 1 to 2 miles that can reasonably be expected to be used by bicyclists.

[Decision Criterion for Subdivisions: Eugene, Oregon]



Bicycle Circulation and Parking



Interconnected Street Network

Cul-de-sacs, dead end streets and flag lots* shall only be permitted when the following condition is met:

One or more of the following conditions prevent a required street connection: excess slope (20 percent or more); presence of a wetland or other body of water that cannot be bridged or crossed; existing development on adjacent property that prevents a street connection; presence of a freeway or railroad.

Cul-de-sacs, when permitted shall be as short as possible and shall in no event exceed 400 feet in length.

(*Note: Flag lots are lots that do not front on or about a public street and that are accessed via a narrow, private right-of-way. They can result in an increased number of curb cuts.)

Cul-de-sacs shall be permitted only where there is no feasible connection with an adjacent street. If cul-de-sac streets represent more than 10 percent of the total lane miles in a development, the subdivider shall be required to demonstrate that alternative internal circulation systems that would minimize use of cul-de-sacs are infeasible.

[Tri-Met: Portland, Oregon]



Interconnected Street Network

Street networks shall be designed and laid out to provide direct connections between light rail transit stations and transit stops, commercial and residential areas, schools, parks and other public facilities. New local streets, including extensions of existing local streets, shall connect with existing local streets and arterials. Cul-de-sac streets shall be permitted only where it is determined there is no feasible connection with an adjacent local street. If cul-de-sac streets represent more than 10 percent

(or alternative threshold) of the total lane miles in a development, the subdivider shall be required to demonstrate to the satisfaction of the _____ (City Engineer or other reviewing authority), that alternative internal circulation systems which would minimize use of cul-de-sac streets are infeasible.

[Tri-Met: Portland, Oregon]



Convenient and Direct Pedestrian Connections

Where the subdivision or lot division is adjacent to land likely to be divided in the future, streets, bicycle paths, and accessways shall continue through to the boundary lines of the area under the same ownership as the subdivision or lot division, where the planning or public works director determines that the continuation is necessary to provide for the orderly division of the adjacent land or the transportation and access needs of the community.



Interconnected Street Network

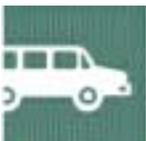
Where the subdivision or partition will result in a lot or parcel one-half acre or larger in size, which, in the judgment of the planning director is likely to be further divided in the future, the planning director may require that the location of lot and parcel lines and other details of layout be such that future division may readily be made without violating the requirements of this code and without interfering with orderly extension of adjacent streets, bicycle paths and accessways.



Bicycle Circulation and Parking

Where the subdivision or partition includes only part of the area owned by the applicant, the planning director or public works director may require a sketch of a tentative layout of streets, bicycle paths, and accessways in the remainder of the ownership.

[Eugene, Oregon]



Bicycle Circulation and Parking

Bicycle parking spaces shall be provided as required by this section. Bicycle parking shall be in addition to automobile parking spaces.

Residential Use Classifications

- Multi-family: 1 space per unit
- Dwelling: (0.25 per unit if occupancy restricted to 55 years or older)

Public and Semi-public Use Classifications

- Colleges: 0.25 spaces per full-time equivalent student
- Elementary Schools: 4 spaces per 4th, 5th and 6th grade classroom
- Jr. High Schools: 4 spaces per classroom
- High Schools: 8 spaces per classroom
- Other Uses: As specified by conditional use permit. A requirement for annual or periodic review of bicycle usage may be imposed, and additional spaces may be required if demand warrants.

Commercial and Industrial Use Classifications: 5 percent of the requirement for automobile parking spaces, except for the following classifications, which are exempt:

- A. Animal Sales and Service
- B. Auto-related Uses
- C. Warehousing: Wholesale and Distribution

Bicycle Parking Space and Aisle Dimensions

1. Uncovered spaces shall be at least 6 feet long and 2 feet wide.
2. Covered spaces shall be at least 7 feet long and 2 feet wide.
3. A 5-foot wide aisle is required adjacent to each row of bicycle parking.

Design Requirements. For each bicycle parking space required, a stationary rack shall be provided which can accommodate bicyclists' locks securing the frame and wheels, or a lockable enclosure in which the bicycle is stored.

1. All of the required bicycle parking for colleges, schools, multi-family residences, and industrial uses and at least 50 percent of the required bicycle parking for commercial uses shall be covered to provide rain protection.
2. If the required vehicle parking spaces are covered, then the bicycle parking spaces shall be covered.
3. Required bicycle parking shall be provided within a building or in well-lighted, secure locations within 50 feet of an entrance to a building occupied by the use served, but no further from the building entrance than the closest automobile parking space.
4. Bicycle parking may be provided within the public right-of-way in zoning districts where no front setback is required, subject to approval of (appropriate local official).

[Tri-Met: Portland, Oregon]



Bicycle Circulation and Parking

A system of interconnected bikeways, consistent with the Comprehensive Plan and any applicable Specific Plan or corridor plan, shall be provided. Designated bike lanes (*Class II or alternate designation*) shall be provided on collector and arterial streets that converge on light rail transit stations or transit centers. Bikeways shall be provided at ends of cul-de-sacs between subdivisions where the routes would otherwise require deviations of over 100-400 feet. Sidewalk bike paths shall be avoided because they put cyclists in conflict with pedestrians. Bikeways shall be constructed at the same time that new streets are improved, unless a deferred completion agreement is approved by (*cite appropriate reviewing authority*).

[Tri-Met: Portland, Oregon]



Quality Facilities for Transit users

If a development is located within 250 feet of an existing or proposed transit stop, the applicant shall work with the transit agency in locating a transit stop and shelter directly adjacent or as close as possible to the main building.

[Clark County, Washington]

Public Spaces



Pedestrian Friendly Streets

Freestanding walls, fences and hedges along public streets may be used under the following conditions:

- a) Solid walls, fences and hedges four feet in height or less shall be allowed.
- b) Decorative walls, fences and hedges that allow visibility such as wrought iron and split rail fences, shall be allowed throughout the Transit Overlay District and shall not exceed six feet in height.
- c) Barbed wire, razor wire, electric fences, and other dangerous fences are prohibited in the Transit Overlay District.
- d) All allowable walls, hedges and fences between a building and public street must provide for access at least every 100 feet.
- e) Solid walls greater than four feet in height shall be allowed only if required by the director to mitigate significant noise impacts.

[Vancouver, Washington, Transit Overlay District]



Pedestrian Friendly Streets

Pedestrian access and walkways shall meet the following minimum design standards:

- Access and walkways shall be well lit and physically separated from driveways and parking spaces by landscaping, berms, barriers, grade separations, or other means to protect pedestrians from vehicular traffic;
- A crosswalk shall be required when a walkway crosses a public driveway or a paved area accessible to vehicles;
- Whenever walkways are provided, raised crosswalks (or other traffic-calming measures designed to slow traffic) shall be located at all points where a walkway crosses the lane of vehicle travel.

[Metro-proposed language to King County, Washington]



Pedestrian Friendly Streets

Provide amenities to protect pedestrians from wind, snow and excessive heat or sunlight.

- Where appropriate, canopies or arcades should be provided along the street frontage of buildings. However, they should be carefully designed not to obstruct views and access between building entrances, the sidewalk, and the street.
- Shade trees may be planted to provide additional climate protection and contribute to an attractive pedestrian environment.
- Landscape and building should be designed to improve wind patterns.

[Ontario Ministry of Transportation Guideline 3.5.2]



Parks & Plazas as Community Gathering Spaces

Pedestrian plazas shall be designed to allow some direct sunlight to enter the plazas. Pedestrian plaza landscaping shall be designed in a manner that does not block the entrance of direct sunlight.

[Olympia, Washington]



Parks & Plazas as Community Gathering Spaces

A Residential Open Space Plan that includes the following elements shall be provided with every residential preliminary development plan submittal.

A minimum of ten (10) acres for every three hundred fifty (350) dwelling units (approximately one thousand (1,000) persons) shall be designated as common open space. The proportion of public to private open space and the designated uses of the open space shall be determined by the City, based upon particular recreational, environmental, cultural, and scenic objectives in the area where the development is to be located.

Common open spaces shall be designed with usable sizes and proportions.

Common open spaces shall be distributed throughout the neighborhood. No residence shall be located farther than a ¼ mile walking distance from a common open space.

Existing natural features on a development site shall be preserved by incorporating them into common open space.

[Proposed Lee’s Summit, Missouri]

Building Scale & Orientation

At least one major building entry shall be oriented to the adjacent transit street and/or to the pedestrian route linking the site to the nearest transit street.



Building & Entrances Oriented to Street

The land between a building or exterior improvement and a street must be landscaped and/or hard-surfaced for use by pedestrians. If hard-surfaced, the area must contain two or more pedestrian amenities such as benches, drinking fountains, and/or other design elements (such as public art, planters and kiosks), and be physically separated from parking areas by a 3-foot deep landscaped area. Single-family dwellings, duplexes, and attached houses are exempt from this requirement.
[Tri-Met: Portland, Oregon]



Human Scale Architecture

No structure shall exceed 65,000 square feet in gross floor area. For the purpose of this section, the term “gross floor area” shall include outside retail areas.
[Easton, Maryland]



Human Scale Architecture

In the RPC and C-2 zones, no retail establishment shall exceed 65,000 square feet of total gross floor area. Retail establishments containing greater than 25,000 square feet of gross floor area and shopping centers of any size shall be subject to the design and site development guidelines below.

Aesthetic and Visual Characteristics

- a. Facades and Exterior Walls including Sides and Backs. The building shall be designed in a way that will reduce the massive scale and uniform and impersonal appearance and will provide visual interest consistent with the community’s identity, character and scale. Long building walls of at least 100 feet shall be broken up with projections or recessions of sufficient depth along all sides, and in sufficient number, to reduce the unbroken massing into lengths of approximately 50 feet or less along all sides of the building. . . Along any public street frontage the building design should include windows, arcades, awnings or acceptable features along at least 60 percent of the building length. Arcades and other weather protection features shall be of sufficient depth and height to provide a light-filled and open space along the building frontage. Architectural treatment, similar to that provided to the front façade shall be provided to the sides and rear of the building to mitigate any negative view from any location off-site and any public area (e.g., parking lots, walkways, etc.) on site.

[Rockville, MD Zoning Code]

Maximum Building Size.

No building except grocery stores in this district shall exceed 10,000 square feet in area for any single floor. “Building” for this purpose is defined as a separate structure or a building or tenant space sharing a common wall through which no access is allowed. Grocery stores shall not exceed 25,000 square feet in area for any single floor.

Architectural Standards

1. Structures other than single-family residential dwelling structures. All structures, except for single-family residential dwelling structures, shall be built to the street right-of-way line. Such structures on lots with frontage on more than one street line need only be built to one street line. At least three square feet of window

or door openings per lineal foot of street wall frontage shall be provided on the first floor elevation. For new construction or exterior renovation of existing structures, exterior materials, except doors and windows, shall be of stone, brick, stucco or wood.

2. Screening. Parking for nonresidential or mixed-use structures must be screened from the street by a wall, fence, landscaping or berm between 18 inches and 42 inches in height. Roof-mounted mechanical equipment must be screened from the view of the street and adjacent property. Dumpsters and other waste receptacles must be enclosed by a solid wall or fence at least as high as the receptacles.
3. Fences. New fences for nonresidential or mixed-use structures, other than those erected in satisfaction of the screening requirements of Section 52-34 (Parking Stations) of the Code of Ordinances or those enclosing dumpsters and other waste receptacles per this subsection, must be of wrought iron or decorative steel construction. Chain link fences, with or without opaque slat inserts, are prohibited in this district.
4. Lighting. Floodlights or lights which illuminate open areas in connection with any of the uses listed in this section shall be so arranged as to reflect the light away from any adjoining residential property, and the intensity shall not exceed two lux measured at any property line.

[Kansas City, Missouri: Brookside Business District]



Human Scale Architecture

Commercial and Industrial Size Limitations.

Notwithstanding the lot coverage requirements of each zone of Article IV, individual buildings in a non-residential development shall comply with the gross floor area (GFA) size limitations established in the table below. This table specifies the maximum gross floor area allowed above ground in an individual building.

GROSS FLOOR AREA (GFA), in square feet:

<u>Zone</u>	<u>Maximum square footage</u>	<u>Provisional square footage</u>
C-1	10,000	Not applicable
C-2	30,000	80,000
HCPD	30,000	80,000
CBD	30,000	Not applicable
M-1	30,000	80,000

Any business of the same type which occurs individually or jointly in a single structure or combination of structures situated upon a single tract of and under the same ownership, shall be considered one business and together restricted to the maximum GFA provided in this section.

Provisional Permit.

The GFA may be increased to the size shown for a provisional permit in the above table, following the application procedure outlined in this Code. The GFA allowed by a provisional permit shall not be increased by variance. The Commission and Town Council shall use the criteria outlined below for evaluation of a provisional permit.

- A. The size of the development is consistent with the uses in the general vicinity;
- B. The infrastructure will support the size of the building and development;
- C. The health, safety, and welfare of the Town of Taos are maintained;
- D. Compliance with all other requirements of this Code.

[Taos, New Mexico]



Human Scale Architecture

Downtown Commercial District Site Development Standards

- A. Each lot must abut a public street.
- B. Maximum residential density: 48 bedrooms per acre.
- C. Maximum structure height: 60 feet.
- D. Building facades shall maintain a consistent street edge, with the exception of passages for pedestrian access and drives to parking areas. The street elevation of principal structures shall have at least one street-oriented entrance and contain the principal windows of the structure.
- E. All rooftop equipment shall be enclosed in building materials that match the structure or which are visually compatible with the structure.
- F. Parking facilities shall be located behind the front building line. The administrator or town council may grant exceptions if necessary due to the shallow depth of a parcel, the location of existing mature trees, or other similar circumstances.
- G. Automobile entrances to the site shall be minimized and placed to maximize safety, maximize efficient traffic circulation, and minimize the impact on the surrounding area. A maximum of two curb cuts shall be allowed per street frontage. Factors including the number of existing curb cuts in the area, the potential for increased traffic hazards and congestion, and the number of travel lanes of the streets that serve the site shall be used to determine whenever more than one curb cut is required for reasonable access.
- H. All utility lines, electric, telephone, cable television lines, etc., shall be placed underground.
- I. Parking facilities shall be located behind the front building line.

[Blacksburg, Virginia]



Building & Entrances Oriented to Street

Primary ground floor building entrances shall have an entrance oriented to pedestrian-oriented streets, plazas, or parks. The building may also have other entrances so long as direct pedestrian access is provided from all entrances.

[Vancouver, Washington]



Building & Entrances Oriented to Street

Buildings...shall abut the street front sidewalk and orient the primary entrance, or entrances, toward the street.

[Redmond, Washington: pedestrian-oriented district]



Building & Entrances Oriented to Street

The maximum street wall setback (formed by buildings) is 10 feet. Setback areas (the area between the front property line and street wall) may be used for landscaping and small commercial uses designed primarily to cater to pedestrians, including, but not limited to, vendors, newsstands, flowers and cafes. Fences, large

trees and landscaping, or other features that form visual barriers or block views to street wall windows are prohibited. The street wall may be set back to retain scenic views and to provide transition to residential neighborhoods, to allow privacy in residential development, to meet centerline setback requirements, for building entrances, for pedestrian plazas, and to allow existing setback buildings as conforming uses. Large entryways that are integral to a building design may be set back more than 10 feet.

[Olympia, Washington]



Building & Entrances Oriented to Street

Primary ground floor commercial building entrances must orient to plazas, parks, or pedestrian-oriented streets, not to interior blocks of parking lots. Secondary entries from the interior of a block will be allowed. Anchor retail buildings may have their entries from off-street parking lots, however, on-street entries are strongly encouraged.

[Sacramento County, California]



Pedestrian Friendly Parking

Building setbacks from public streets should be minimized. “Build-to” lines should be established which reflect the desired character of the area and bring buildings close to the sidewalk.

[Sacramento County, California]

Buildings clustered near internal streets (should be encouraged in order) to minimize walking distances and to promote an attractive, active, and safe pedestrian-oriented streetscape within a project, (and) to accommodate bus service, carpooling, and vanpooling within a project.

[Montgomery County, Maryland]

No off-street parking shall be allowed between a public street or pedestrianway and the required frontage for a building, other than in a driveway accessory to residential development. Except as otherwise provided in this section, off-street parking shall be allowed only in surface lots on the side or rear of a lot, in an underground lot or in a parking structure, provided, however for commercial development (excluding the identified Downtown Center), parking shall be allowed between a public street or pedestrian way if it does not obstruct pedestrian access as defined in (Section ____) and there are unusual site characteristics making it impossible to meet the minimum parking requirement on the side or rear of a building or, no more than two rows of parking are provided.

[Vancouver, Washington]



Pedestrian Friendly Parking

Parking Orientation

- A. Parking lots and structures shall be located as much as possible to the rear of buildings
- B. Locating parking lots between the front property line and the primary building storefront/entry is specifically prohibited.
- C. Vehicular entry points to parking lots shall receive special paving accents where the drive crosses the public sidewalk.
- D. Off-street parking facilities shall be designed so that a car within a facility will not have to enter a street to move from one location to any other location within the same parking facility.

[San Bernardino, California]

Requirements for Design of Parking Lots.

The provisions of this Section apply to all vehicle parking spaces and parking areas, whether the parking meets or exceeds the number of spaces established in this Article to serve a particular use or the parking lot is operated as a principal use on a property and not dedicated to serving a particular use.

A. Orientation to street.

Except for parcels of land devoted to single-family, two-family or town house residential uses, all areas devoted to vehicle parking shall be so designed and be of such size that no vehicle is required to back into a public street to obtain access.

B. Vehicle parking spaces.

1. No parking spaces shall be accessible from an access driveway within the first twenty (20) feet of the driveway back from the street right-of-way line.
2. Every parking space shall provide a useable rectangular area at least nine (9) feet wide by nineteen (19) feet long. Access aisles shall not encroach into this minimum rectangular area. Every parking space shall be clearly demarcated by lines painted on or otherwise applied to the parking lot surface.

C. Lighting of parking areas.

Any lights used to illuminate the parking area shall be arranged, located or screened so that light is directed away from and no light source is visible from a public street, a residentially-zoned area, or a residential use.

[Proposed Lee's Summit, Missouri]



**Pedestrian
Friendly
Parking**

Maximum parking allowed: Retail Sales and Service Uses. The maximum parking for retail sales and services uses shall not exceed four (4) parking stalls for each 1,000 square feet of gross floor area.

Maximum Parking Allowed: Residential Uses. The maximum parking for residential uses shall not exceed two (2) parking stalls for each residential unit.

[Salt Lake City, Utah]

(At)-grade, open parking facilities, which contain five or more parking spaces, shall be landscaped in accordance with the following requirements.

- a) At least 5 percent of the interior area of the parking facility shall be landscaped. This does not include the perimeter planting provided for beautification or to satisfy screening requirements.
- b) Each planting area shall be at least 25 square feet in area and have no dimension less than five feet.
- c) Each planting area shall contain at least one tree and the facilities as a whole shall contain at least one tree for every 10 parking spaces.
- d) Trees used to satisfy parking lot landscaping requirements shall be a minimum of three-inch caliper at planting and shall be suitable for location in parking lots...
- e) Existing trees shall be preserved wherever possible.

- f) Existing and new trees shall be protected by bollards, high curbs, or other barriers sufficient to minimize damage.
- g) Extensive unbroken pavement areas in large, at-grade, open parking facilities shall not be permitted. In parking lots containing 25 or more spaces, a row shall contain no more than 15 contiguous parking spaces without a densely planted landscaped buffer of at least the dimensions of one space.

[Cambridge, Massachusetts]

- 1) Parking areas abutting a public right-of-way, except alleys and accessways, shall provide a planting strip between the right-of-way and the parking areas as follows:
 - a) Within a Transit-Oriented Development district a strip not less than five feet in width shall be provided.
 - b) In all other areas, a strip not less than seven feet in width shall be provided. The planting strip may be pierced by pedestrian and vehicular access ways. Planting strips along a public right-of-way shall be planted with large-scale, high canopy, horizontally branching tree species, and a sight-obscuring evergreen hedge.
- 2) Visual breaks, no more than five feet in length, shall be provided every 20 feet within landscape planting strips abutting public rights-of-way. (Note: The breaks allow visual access for security of parking lot users.) Shrubs, when used as parking perimeter screens, shall be planted in minimum three-gallon container sizes, or larger, as necessary, to achieve the desired screening height of 30 inches within two years after planting.
- 3) Parking area screening requirements may be achieved through a combination of change of grade and use of plant materials. Use of berms... (is) acceptable... Slopes of landscaped berms shall not exceed 1:4 for lawn areas, or 1:2 for berms planted with ground covers and shrubs.

[Eugene, Oregon]

A reduced parking permit is intended to permit the reduction of required automobile parking spaces for senior housing, or when shared parking, tandem parking, or in-lieu parking fees are proposed as part of any development, and under certain circumstances for landmarks and historic districts.

The Zoning Administrator may grant a reduced parking permit for the following:

- A. *Shared Parking.* Facilities may be shared if multiple uses cooperatively establish and operate parking facilities and if these uses generate parking demands primarily during hours when the remaining uses are not in operation. (For example, if one use operates during evenings or weekdays only.) Shared parking shall be approved only if:
 - 1. A sufficient number of spaces are provided to meet the greater parking demand of the participating uses.
 - 2. Satisfactory evidence has been submitted by the parties operating the shared parking facility, describing the nature of the uses and times when the uses operate so as to demonstrate the lack of conflict between them.



**Pedestrian
Friendly
Parking**

3. Additional documents, covenants, deed restrictions, or other agreements as may be deemed necessary by the Zoning Administrator are executed to assure that the required parking spaces provided are maintained and uses with similar hours and parking requirements as those uses sharing the parking remain for the life of the building.

- B. *Senior Housing*. The Zoning Administrator may approve a reduced parking permit for the reduction in the number of parking spaces required for senior citizens and senior group housing based upon findings that the proposed development is located in direct proximity to commercial activities and services, and is adequately served by public transportation systems.
- C. *Tandem parking*. The Zoning Administrator may approve a reduced parking permit for tandem parking for commercial and industrial uses provided the development requires 250 or more parking spaces, no more than a maximum of 20 percent of the total number of spaces are in tandem and an attendant is on duty during the hours the building is open for business.
- D. *Low-income housing*. The Zoning Administrator may approve a reduced parking permit for the reduction in the number of parking spaces required for low-to-moderate-income housing developments provided additional documents, covenants, deed restrictions, or other agreements as may be deemed necessary by the Zoning Administrator are executed.

[Santa Monica, California]



Structured & Shared Parking

Parking and Loading Regulations

Loading regulations for all uses and parking for buildings erected exclusively for dwelling purposes shall be as provided in section 80-444 and 80-445. There are no minimum non-residential parking requirements in this district and there are no minimum residential parking requirements for residential units in mixed-use structures in this district. An individual non-residential use may not provide more than one and one-half times the minimum parking requirements of Section 80-444 on the same lot or on a combination of the same and contiguous lots in any zoning district, provided however, any individual use that would require four or fewer spaces under Section 80-444 may provide up to six parking spaces. Multiple tenants in a common structure or structures sharing a common wall shall be considered an individual use for purposes of this calculation. Mixed-use structures may provide a maximum of one parking space per dwelling unit for purposes of this calculation.

[Kansas City, Missouri]



Structured & Shared Parking

Off-street parking required by this Code for any use shall not be considered as providing parking spaces for any other use except where the provisions of subsection _____ (e); Collective Provision of Parking apply or a joint facility exists. Such a facility shall contain not less than the total number of spaces as determined individually, except that fewer spaces may be permitted where adjoining uses on the same site have different hours of operation and the same parking spaces or loading berths can serve both without conflict. A determination of the extent, if any, to which joint use will achieve the purposes of this chapter shall be made by the Planning Director, who may require submission of a site development plan and a survey or other data necessary to reach a decision.

[Tri-Met: Portland, Oregon]



Structured & Shared Parking

Guidelines; Shared Parking.

The parking spaces provided for separate uses may be combined in one lot but the required spaces assigned to each use may not be assigned to another use, except as follows:

- A. One-half of the parking spaces assigned to a church, theater or assembly hall whose peak attendance will be at night or on Sundays may be assigned to a use that will be closed at night or on Sundays.
- B. Parking spaces may be shared by more than one use if the Director finds that the total number of spaces will be adequate at the peak hours of the uses they serve. The following ratios may be utilized in determining the time of day and the day of the week at which the maximum number of spaces will be needed by the uses served by the shared parking facility.

Percentage of Required Parking Spaces by Time Period

	Weekdays		Weekends		Nighttime
	6 am to 5 pm	5pm to 1am	6am to 5pm	5pm to 1am	1am to 6am
Office	100%	10%	10%	5%	5%
Retail	100%	90%	100%	70%	5%
Hotel	75%	100%	75%	100%	75%
Restaurant	50%	100%	100%	100%	10%
Entertainment & Recreational	40%	100%	80%	100%	10%
Church	10%	25%	100%	100%	10%

- C. Parking spaces that are proposed to be shared among two or more uses must be clearly available to each use and not appear in any way to be serving a particular use, either through signage dedicating the spaces or through design techniques that would tend to orient use of the spaces to a particular business or building.
- D. Shared parking arrangements must be evidenced by a written agreement acceptable to the Director, and approved by the owners of each of the affected properties or uses. The approved agreement shall be recorded and a copy supplied to the Director.

Guidelines: Downtown Area Parking.

A. Downtown area defined.

For purposes of this Section, “downtown area” means the area bounded on the north by 2nd Street, on the east by Green Street, on the south by 4th Street, and on the west by Market Street.

B. Residential uses.

No vehicle parking shall be required for three (3) or fewer dwelling units on a property in the downtown area. For more than three (3) dwelling units, vehicle parking shall be provided for the property at the rate of one and one-quarter 1.25 spaces per dwelling unit (rounded up to the nearest whole number of spaces).

C. Nonresidential uses.

1. Vehicle parking.

- a. In the downtown area, the vehicle parking requirements of this Article for nonresidential uses shall apply only to the net increase in floor area or use intensity created by new construction or building expansion.
- b. The parking requirement calculation for each nonresidential use in the downtown area shall be based on the requirements of this Article, or 5 spaces per 1,000 square feet of gross floor area, whichever requires the fewer number of spaces.
- c. Any existing vehicle parking spaces that are eliminated by new construction or expansion must be replaced by that business or use, unless such spaces are in excess of the requirements for that business or use being served, and are in the same ownership.

2. Loading.

In the downtown area, uses that prefer to provide loading from the street may have the option of applying for a permit for a curb loading zone as provided in Section ____ of the code.

[Proposed Lee’s Summit, Missouri]

Land Use



Mixed-Use Buildings and Neighborhood

District Brookside Business District (BBD)

Purpose. District BBD is intended to permit development and continuance of small-scale retail, service and office uses, designed to serve adjacent residential neighborhoods; or larger trade areas with small-size specialty shops and services such as antique shops, travel agencies and other related activities. Combined commercial-residential (mixed-use) structures are appropriate in this district. General retail uses intended to draw from a larger area, and having a substantial reliance on automobile-based customer trips, are better located in more intensive commercial districts. Parking requirements in this district recognize the pedestrian and transit orientation of customer trips, and the shared use of both on-street and off-street parking.

[Kansas City, Missouri]



Mixed-Use Buildings and Neighborhood

Within 150 feet of transit station platforms, buildings shall be designed to accommodate ground-floor retail and service uses; business and professional offices shall be secondary uses on the ground-floor, occupying no more than 50 percent of the floor area.

[Tri-Met: Portland, Oregon]



Mixed-Use Buildings and Neighborhood

Different uses, either within a single building or on a development site, must be provided. Residential uses must be provided, but are not permitted on the ground floor of mixed-use structures. In the Downtown activity center, commercial uses must be provided on the ground floor.

[Vancouver, Washington (applied in a mixed-use zone)]



Mixed-Use Buildings and Neighborhood

The MU (mixed-use) district is established to achieve the following purposes:

- 1) To enable development within the city with imaginative site and building design in a compatible mixture of land uses that will encourage pedestrian rather than automotive access to employment opportunities and goods and services.
- 2) To ensure sensitivity in land use and design to adjacent land uses in the MU district, and avoid the creation of incompatible land uses.
- 3) To ensure that all development gives adequate consideration to and provides mitigation for the impacts it creates with respect to transportation, public utilities, open space, recreation, and public facilities, and that circulation, solid waste disposal and recycling, water, sewer and stormwater systems are designed to the extent feasible to be adequate to serve future adjacent development that can reasonably be expected.
- 4) To ensure that development protects and preserves the natural environment to the maximum extent possible, including, but not limited to, protection of the water quality of the Snoqualmie River, contribution to the long-term solution of flooding problems, protection of wetlands and sensitive areas, and protection of view sheds.

[Snoqualmie, Washington]



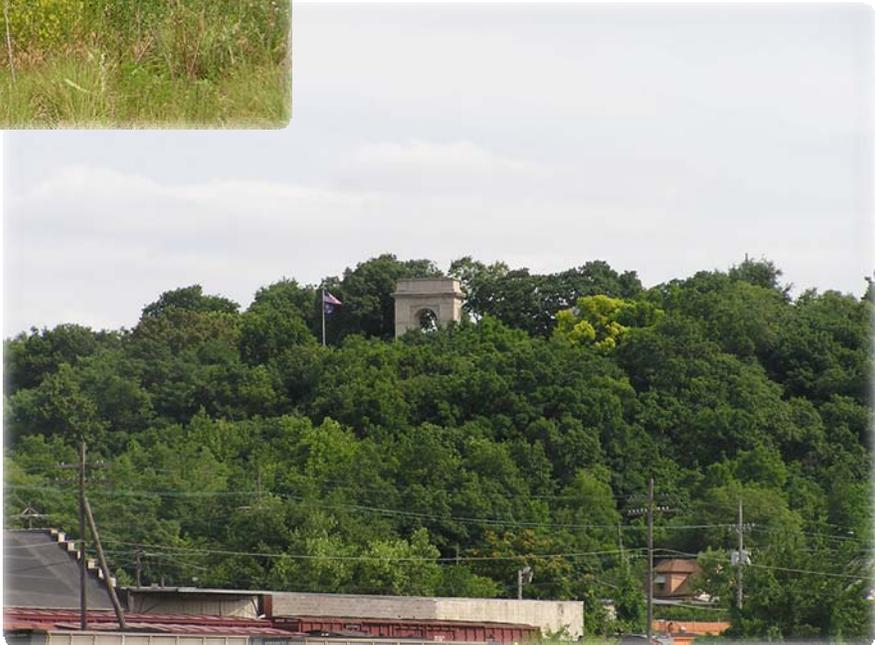
Mixed-Use Buildings and Neighborhood

The purpose and intent of the mixed-use district is:

- a) To preserve existing downtown housing and to ensure that high-density housing and mixed-use development are included in appropriate areas; the permitted commercial uses are intended to help preserve the residential use of the area through provision of personal services within walking distance of the residences;
- b) To increase development intensity in this zone while providing an alternative to the creation of an exclusive residential zone; commercial development flexibility would be increased while meeting the housing objectives of the comprehensive plan;
- c) To encourage the development of downtown housing in a wide range of types and prices and rent levels;
- d) To integrate the RMU (residential mixed-use) zone with surrounding business and commercial zones by allowing small-scale commercial establishments that would serve both residents and walk-in trade from nearby offices;
- e) To create a continuity of pedestrian-oriented streetscapes and activities throughout the zone; and
- f) To permit development of a scale, height, and bulk that reinforces downtown's historic character, buildings, places, and street layout.

[Olympia, Washington]

Turkey Creek Environmental Enhancement Plan



March 2009

Prepared for:

U.S. Army Corps of Engineers
Kansas City District



**US Army Corps
of Engineers** ®
Kansas City District

Prepared by:

Patti Banks Associates



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APPENDICES

Appendix A Open House Presentation Materials

US Army Corps of Engineers - Flood Reduction and Turkey Creek Tunnel

Mid-America Regional Council - Turkey Creek Trail Maps

Unified Government of Wyandotte County - Mill Street Bridge Study

Patti Banks Associates - Environmental Enhancement Concept Plans

Appendix B KDOT Stabilization Seed Mixes

Stabilization Mix 2 Upland

Stabilization Mix 3 Forested Floodplain

Introduction

This Environmental Enhancement Plan was prepared as part of the Turkey Creek Basin Flood Damage Reduction project. The primary goal of the Environmental Enhancement Plan is to further restore the area to a healthy riparian corridor using a mix of native grasses, wildflowers, trees, and shrubs. The proposed plan also includes a bicycle/pedestrian trail that will provide a critical link to bi-state trails.

This report represents the culmination of steps taken throughout the planning process to reach the final Environmental Enhancement Plan. Included with the final concept are an Implementation Plan and Opinion of Probable Cost. The plan focuses on the Environmental Enhancement Area which is the responsibility of the U.S. Army Corps of Engineers (USACE). Funding for the Public Education Features presented within the plan will be the responsibility of the Unified Government of Wyandotte County and others interested in participating in the continued implementation of the Environmental Enhancement Plan. The Unified Government of Wyandotte County is the legal owner of the enhancement area and will be responsible for the long-term operations and maintenance of the area.

Project Location

The Turkey Creek watershed basin is 23 square miles located adjacent to Interstate I-35 for much of its length. Turkey Creek flows west to east from Johnson County, Kansas through Wyandotte County and into the Kansas River. The Turkey Creek Environmental Enhancement Area is a 41-acre site located due south of the confluence with the Kansas River, and between 7th Street Trafficway and Mission Road. ABC Roofing adjoins the west end of the area.



Project History

The Turkey Creek basin has a long history of significant floods and human manipulation. Turkey Creek has been continually channelized, moved and filled beginning with the flood of 1844 and eventually even placed in a tunnel. Much of the Creek's original floodplain has been developed for industrial, commercial, and residential urban uses. Several major flood events have occurred over the last 50 years, with extreme events in 1993 and 1998. The USACE has been implementing flood damage reduction measures for several years throughout the stream corridor to address flooding issues.

Work began in 2004 on the section of stream between 7th Street Trafficway and Southwest Boulevard by the Kansas Department of Transportation (KDOT) and was completed in 2005. Included within this project was the environmental enhancement of approximately 12 acres of riparian (stream) corridor vegetation. According to recommendations made by the U.S. Fish and Wildlife Service in the USACE General Reevaluation Report (2003), the area could become the nucleus for a small urban natural area or park and could be linked to existing or proposed urban trail systems within the area.

Plan Development

The planning process for the Turkey Creek Environmental Enhancement Plan included stakeholder meetings and interviews, development of two preliminary concept plans, one public open house, and development of a final Environmental Enhancement Plan. Stakeholder meetings and interviews were used to inform development of the preliminary concepts and input received during the public open house was used to inform development of the final Environmental Enhancement Plan.

Stakeholder Involvement

Stakeholders involved in this project included a variety of individuals, businesses, and agencies, many of whom are members of one of two groups currently working on projects in Turkey Creek. The first group of stakeholders involved in this project was the Turkey Creek Basin Bi-State Stakeholders. They are a group of businesses, and local, state, and federal agency representatives who have been actively involved in the USACE Turkey Creek Flood Reduction Project.

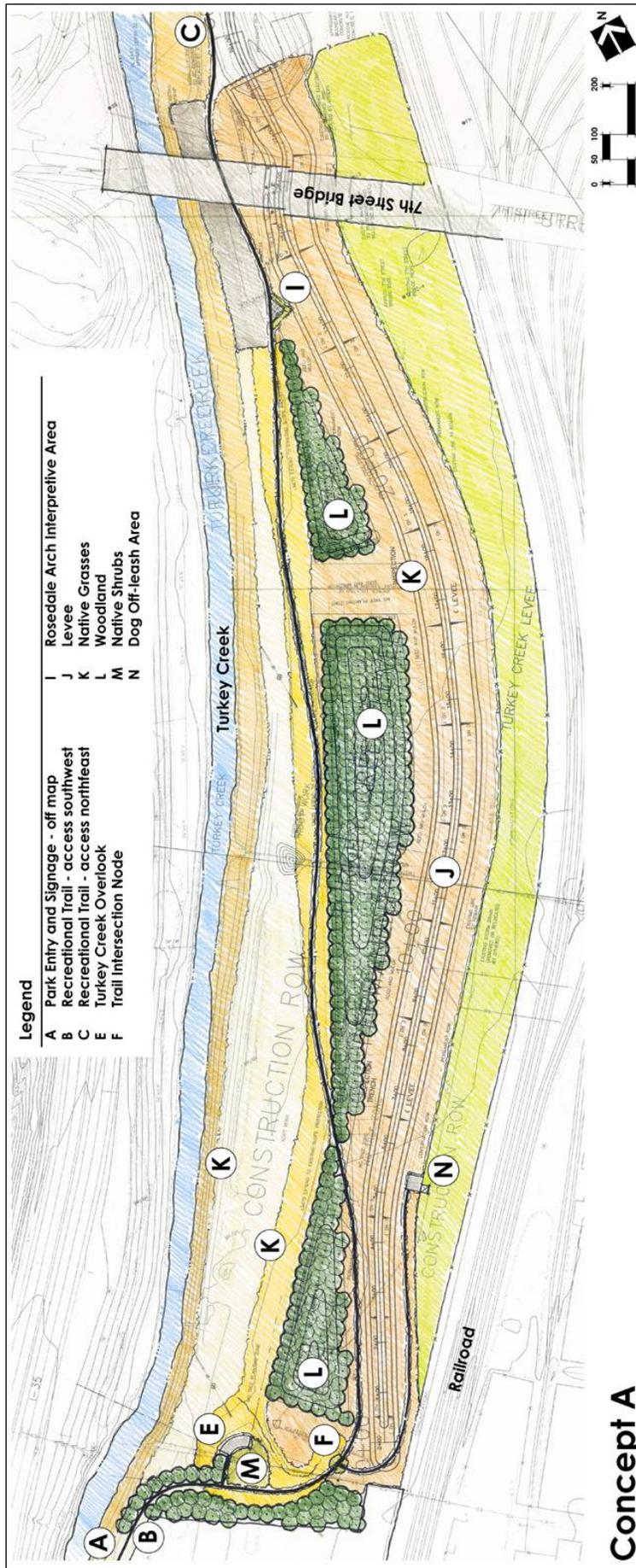
The second group was the Turkey Creek Coalition which is an informal association of public and private organizations and individuals dedicated to trail development in the Turkey Creek Watershed. The coalition is currently composed of representatives from all levels of government, local, state and federal elected officials, local businesses and organizations. Several citizens also participate in the Coalition of their own accord. The Coalition is currently working on development of a trail alignment and Corridor Concept Plan for the entire Turkey Creek Watershed.

Additional input was obtained by interviewing key stakeholders representative of interests and issues in the project area. Stakeholder Interviews were conducted in person, by phone, and by email to obtain input on important elements of this project. A total of 11 interviews were conducted with stakeholders. Additionally, comments were received from two out of nine agency/city/business contacts that were sent project information and asked to provide comments.

Generally, feedback from stakeholders was very favorable towards an ecosystem approach to the enhancement with a public use component. Additional elements desired by the stakeholders included a primary trail with connections on both ends of the project area; reasonably simple maintenance; interpretive signs; long-term monitoring; and potential outdoor classroom amenities.

Preliminary Concept Plans

Two preliminary concepts for the 41-acre enhancement area were developed based on input received during the stakeholder process described above. The two concepts represent a minimalistic (Concept A) and a more programmatic (Concept B) approach to the ecological enhancement of the stream corridor.

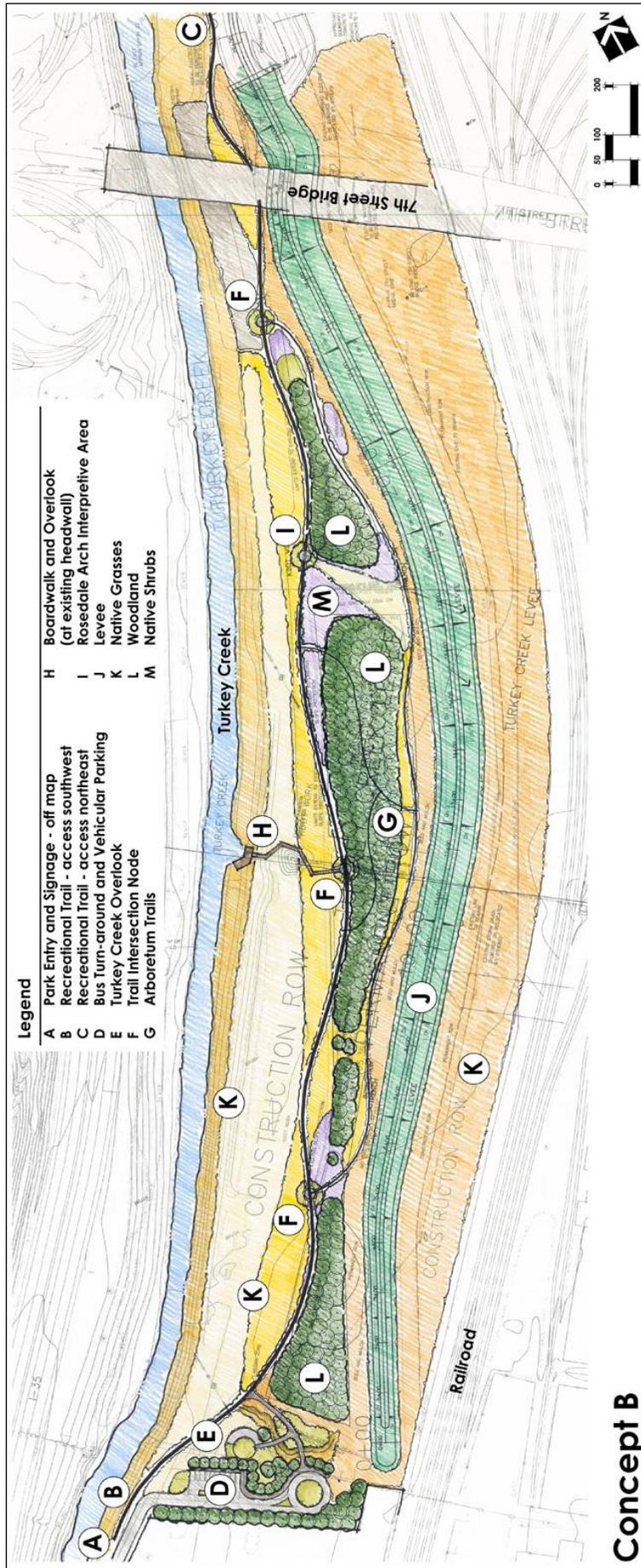


Concept Plan A

Concept A presented a minimalistic approach that focused exclusively on the environmental enhancement portion of the project with a very minor public component.

Elements in Concept Plan A included:

- Access Control – gate for control of vehicular access
- Maintain existing native plantings on the flood terraces closest to the stream
- Plantings are more structured
 - Trees – loose/open planting of 200-300 trees within central portion of area
 - Shrubs – planted up near the overlook on the west side
 - Prairie grasses and wildflowers of comparable mix to flood benches, planted around the trees and behind the levee. Native grasses could potentially be used on top of the levee
- Screen planting along eastern fence line of ABC Roofing at west end of enhancement area (adjacent to letter M)
- Primary trail through property on south side of creek (paved)
- Secondary trail at west end of berm provides access to the dog off-leash area located between the levee and the railroad. Fencing would be used around this area for safety.
- Overlook on high point on west side provides excellent view of Turkey Creek
- Interpretive area on east end for Rosedale Arch
- Interpretive signs, limited educational programming



Concept Plan B

Concept B presented a more programmatic approach in which the focus is still the environmental enhancement; however, the enhancement is achieved using an arboretum style approach to the arrangement of the plantings. The primary trail is located on the north side of the project area adjacent to the stream benches. Additional wood chipped trails are located within the enhancement area providing the opportunity for greater interaction with nature. Elements in Concept Plan B included:

- Access Control – gate for control of vehicular access
- Maintain existing native plantings on the flood terraces closest to the stream
- Vehicular access, primarily a bus turn around area and a few parking stalls on the west end
- There is at least one point along the northern perimeter of ABC Roofing that does not provide enough room for both vehicular access and a pedestrian trail. This would need to be addressed to accomplish this portion of the plan.
- Plantings are less structured, more groupings like an arboretum
 - Trees would be a loose/open planting of 200-300 trees within central portion of area
 - Shrubs would be used to accent tree plantings and near the overlook
 - Prairie grasses and wildflowers of comparable mix to flood benches, planted around the trees and behind the levee. Fescue or native grasses would be used on top of the levee.
- Screen planting along eastern fence line of ABC Roofing at west end of enhancement area (adjacent to letter D)
- Boardwalk and overlook for wetland
- Rosedale Arch interpretive area
- Overlook of Turkey Creek on southwest end

Public Open House

A public open house was hosted by the USACE in conjunction with the Unified Government of Wyandotte County and the City of Kansas City, Missouri to obtain input from area citizens and others interested in the project. Members of the Rosedale Development Association assisted with conducting the public meeting. Information presented at the open house included (all materials presented are included in Appendix A):



- Turkey Creek Flood Reduction Project History presented by the USACE
- Turkey Creek Regional Trail System presented by the Mid-America Regional Council (MARC)
- Mill Street Bridge Study presented by the Unified Government of Wyandotte County
- Environmental Enhancement Plan Concepts presented by Patti Banks Associates (PBA)

The open house was well attended by the community with close to 40 people in attendance. Attendees provided insightful comments and recommendations based upon the information presented and seemed genuinely excited to have a project like this being planned for their community.



Primary feedback from the public was to use Concept B ensuring that the parking is ADA accessible and that the concept includes an off-leash dog area. Additional comments included 1/10 mile trail markers, recycling bins, biodegradable/compostable doggy poop plastic bags, permeable pavements, and edible plant species for wildlife. Public input also emphasized making safety a priority for the area including the discouragement of homeless camps.

In an effort to assist the public in visualizing what the Environmental Enhancement Area can look like once it has become established, PBA provided perspective drawings of viewpoints at each end of the project area.



South end looking northeast along Turkey Creek.



North end looking southeast to the Rosedale Arch.

After the open house, the Unified Government of Wyandotte County placed the primary materials on the Turkey Creek Improvements page of their website www.wycokck.org making the information available to residents and others unable to attend the open house. Materials from the open house were also sent to agency representatives from the Environmental Protection Agency, Kansas Department of Health and Environment, Kansas Department of Wildlife and Parks, and the U.S. Fish and Wildlife Service for their review and comment due to their past involvement in the project.

Environmental Enhancement Plan

The Final Environmental Enhancement Plan evolved from input received throughout the planning process for this project. The final plan is an integration of elements from both of the original concepts with a more programmatic approach to the public use component. The final Concept Plan includes:

- Park entry with signage, bus turn around and vehicular parking
- Recreational trail access on the northeast and southwest ends of the project area
- Turkey Creek overlooks and a boardwalk trail to a small wetland
- Rosedale Arch interpretive area
- Access Road – 10 foot wide concrete – future Turkey Creek Trail
- Arboretum trails – wood chipped trails through native plantings
- Levee and levee trail
- Native grassland and woodland plantings including native grasses, wildflowers, trees, and shrubs
- Dog off-leash area
- Vegetated swale
- Access control to enhancement area, trail and dog off-leash area

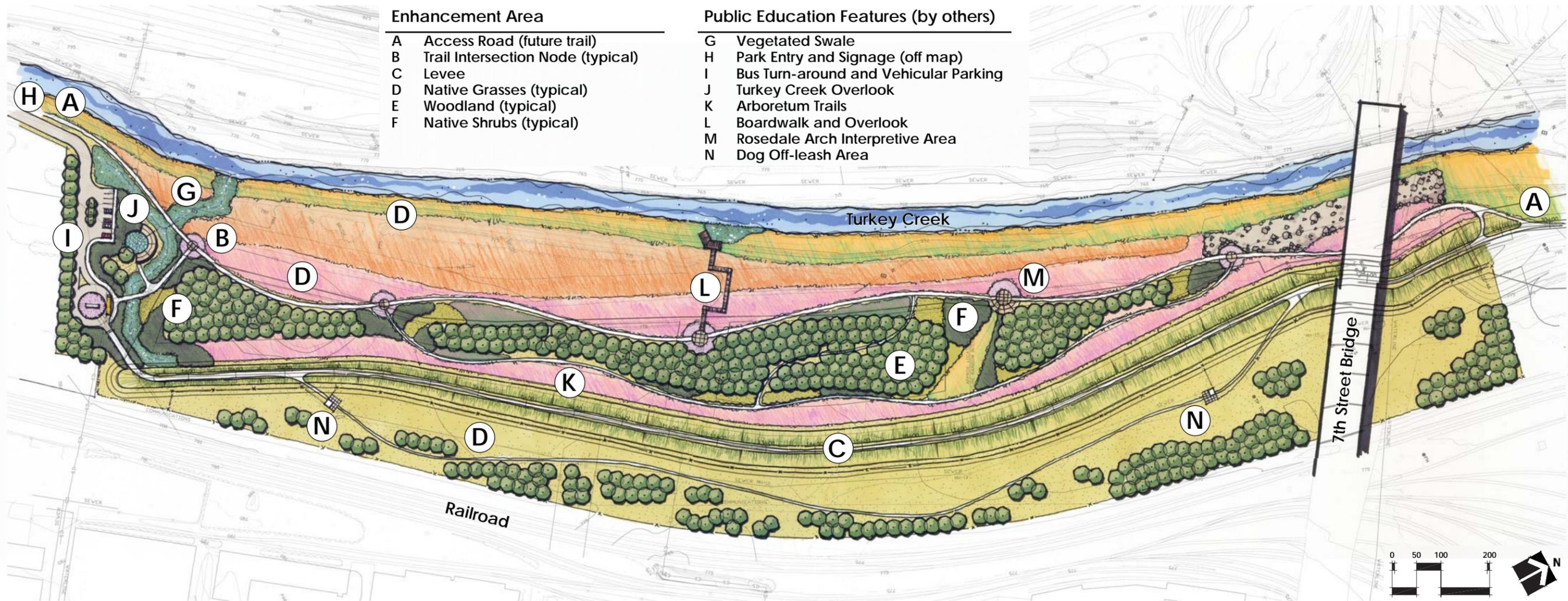
Discussions with the USACE regarding plantings on the levee resulted in consensus to recommend the use of Buffalo Grass and Blue Grama instead of Fescue. These are native warm season grasses that have been cultivated into more turf forming grasses (specifically Buffalo Grass) with the additional benefits

of heat resistance, drought tolerance, winter hardiness, and disease and pest resistance. After establishment, Buffalo Grass provides a lower maintenance planting.

There are some outstanding issues that will need to be addressed by the USACE and the Unified Government of Wyandotte County in future phases of the Environmental Enhancement Plan.

- Public access currently does not exist off of Southwest Boulevard as the roadway entrance into ABC Roofing exists on railroad right-of-way. The new Turkey Creek road bridge for ABC Roofing will be placed outside of the railroad right-of-way but the remainder of the road will remain in the right-of-way. The Unified Government of Wyandotte County will only need to look at potential acquisition of the old Aidi Oil property to the west to gain public access to the enhancement area.
- Additional parking will likely be needed in the future to accommodate the enhancement area and trail users as the parking area on the east side of ABC Roofing is very limited. Additional parking could be created on the property owned by the Unified Government of Wyandotte County near the west end of ABC Roofing (see photo below).
- Another issue is the width of the existing access road on the north side of ABC Roofing. In the locations where there are utility poles, the road is not wide enough to safely accommodate both vehicular and pedestrian traffic. One way to accomplish this may be to move the utility poles adjacent to ABC Roofing's fence line.





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Plant Recommendations

The focus of the plantings within the Environmental Enhancement Plan is to restore riparian vegetation to the Turkey Creek corridor. Plantings will include areas of native trees, shrubs, grasses, and wildflowers endemic to riparian habitats. The plantings recommended for the enhancement area are indigenous to stream corridors within the Kansas City metropolitan area. The following plant lists are just recommendations of some of the plants that could be used in the enhancement area. A final plant palette will be developed with the construction documents. Some riparian tree and shrub species to consider using for the woodland plantings include:

Tree Species:

Sugar Maple	<i>Acer saccharum</i>
Cottonwood	<i>Populus deltoides</i>
Green Ash	<i>Fraxinus pennsylvanica</i>
Sycamore	<i>Platanus occidentalis</i>
Bur Oak	<i>Quercus macrocarpa</i>
White Oak	<i>Quercus alba</i>
Swamp White Oak	<i>Quercus bicolor</i>
Black Walnut	<i>Juglans nigra</i>
Bitternut Hickory	<i>Carya cordiformis</i>
Shellbark Hickory	<i>Carya laciniosa</i>
River Birch	<i>Betula nigra</i>
Kentucky Coffee Tree	<i>Gymnocladus dioica</i>

Understory Trees and Shrubs:

Serviceberry	<i>Amelanchier arborea</i>
Pawpaw	<i>Asimina triloba</i>
Ohio Buckeye	<i>Aesculus glabra</i>
Buttonbush	<i>Cephalanthus occidentalis</i>
Gray Dogwood	<i>Cornus foemina</i>
Swamp Dogwood	<i>Cornus amonum</i>
Deciduous Holly	<i>Ilex deciduas</i>
Ninebark	<i>Physocarpus opulifolia</i>
Blackhaw Viburnum	<i>Viburnum prunifolium</i>

The native grasses and wildflower mix used should correlate with the species used by KDOT on the stream channel benches and floodplain. While the list of plants within the KDOT mix is fairly extensive (complete lists are in Appendix B), the native grass and wildflower seed mix for the enhancement area should be a much smaller mix of species, such as:

Grass Species:

Sideoats Grama	<i>Bouteloua curtipendula</i>
Buffalo Grass	<i>Bouteloua dactyloides</i>
Blue Grama	<i>Bouteloua gracilis</i>
Canada Wild Rye	<i>Elymus canadensis</i>
Little Bluestem	<i>Schizachyrium scoparium</i>
Prairie Dropseed	<i>Sporobolus heterolepis</i>

Wildflower Species:

Butterfly Milkweed	<i>Asclepias tuberosa</i>
Leadplant	<i>Amorpha canescens</i>
Prairie Coreopsis	<i>Coreopsis palmata</i>
Purple Prairie Clover	<i>Dalea purpurea</i>
Rough Blazing Star	<i>Liatris aspera</i>
Pale Purple Coneflower	<i>Echinacea purpurea</i>
Grey Headed Coneflower	<i>Ratibida pinnata</i>
Missouri Black-eyed Susan	<i>Rudbeckia missouriensis</i>

A mix of Buffalo Grass and Blue Grama is recommended for planting on the levee. Buffalo Grass has been cultivated to be turf forming like Fescue with additional advantages over Fescue. It is drought tolerant, disease and pest resistant, winter hardy and heat resistant, and requires lower maintenance.

Existing site soil conditions appear to be fairly sterile lacking the proper organic matter necessary for the successful growth of plants. It is likely that the site soils will need to be amended with compost and organic fertilizers or topsoil brought in and tilled into the existing soils in order to ensure healthy plant growth and the success of the enhancement plan. Further investigation of existing site soils during the design process will be required to determine the extent of soil amendment necessary.

Implementation Plan

Implementation of this Environmental Enhancement Plan is dependent upon the USACE' overall schedule for construction of the levee and relocation of the storm sewer interceptor lines. It is likely that most of the plantings and primary trail alignment could be implemented as part of the levee construction.

Maintenance activities for the first three years of the project will focus on activities to promote riparian habitat establishment. Typically these years are the most critical for developing a successful stand of native plants. The following management practices will be utilized.

First Year

The enhancement area will be maintained monthly during the first year after construction. These activities include inspection of plant material, identification and treatment of introduced and nuisance species, erosion control, and herbivore inspection and protection. This initial 3-year maintenance and monitoring period will begin following substantial completion of the enhancement area planting.

If planting is completed in the fall of the year, measures must be taken to ensure that bare soil is covered with a cover crop, straw mulch, or other erosion control methods.

Maintenance (June to September):

- When the plantings within the enhancement area reach 12" during the first growing season, mow to 6 to 8 inches to reduce competition from annual weeds should they appear. Perennial plant species will be establishing strong root systems during the first year, and will not be dramatically impacted by mowing activities.
- Mow to 6" at the end of the first growing season (mid-September). Remove thatch in late February/March to remove mature top growth.
- One year after seeding, overseed all native grass areas with the same mix and seeding rate as first seeding. If first seeding occurs in late fall or early winter, overseed in the spring.
- Watering: provide and maintain temporary piping, hoses, and lawn

watering equipment to convey water from sources and to keep plantings uniformly moist to a depth of 4 inches during the initial 90 days after installation. Watering of native plantings will be dependent upon frequency and quantity of rainfall during first growing season.

- Daily for the first week, 1-1 ½ inch minimum depth.
- Every 3 days for the second week at the minimum rate of 1 inch per week.
- One day per week for the next 75 days at the minimum rate of 1 inch per week.

Monitoring (Monthly):

- Monitor for invasive weeds such as: velvet leaf, brome grass, Johnson grass, crown vetch, musk thistle, prickly lettuce, etc. Monitoring should occur monthly.
- Monitor erosion and erosion control measures.

Evaluation and Remediation (Monthly):

- If planted, cover crop should be growing within two (2) weeks of planting.
- Native grass seedlings may only be 4-6" tall.
- If there is a flush growth of invasive weeds, mow more frequently but do not mow shorter than 6" .
- Fill in and reseed rills caused by erosion.
- Add new straw mulch in areas where mulch has been disturbed by wind or maintenance operations sufficiently to nullify its purpose. Anchor as required to prevent displacement.

Second Year

The enhancement area will continue to be monitored as in year one. The native grasses and wildflowers will continue to be mowed to 12 inches if there are still introduced herbaceous species present.

Areas where trees and shrubs have been planted and seed mix has been sown will continue to be maintained. However, no additional maintenance activities are anticipated for these areas with the successful enhancement of native riparian vegetation.

Maintenance (June to September):

- Mow to 6-8" when plants reach 12" during the growing season.
- Weed control – periodic mowing should keep annual weeds down. Spot spray or manually remove invasive weeds.
- Some sites may not require as much maintenance, dependent upon growth of natives during the first year.
- Mow to 6" at the end of the growing season (mid-September). Remove thatch in late February/March to remove mature top growth.

Monitoring (Monthly and Quarterly):

- Monitor for invasive weeds such as: velvet leaf, brome grass, Johnson grass, crown vetch, musk thistle, prickly lettuce, etc. Monitoring should occur monthly in summer and quarterly throughout the rest of the year.

Evaluation and Remediation (Monthly):

- Cover crop, if planted, will not be present.
- Grasses should be forming clumps, but still remain short.
- If there is a flush growth of invasive weeds, mow more frequently but, do not mow shorter than 6" .
- Fill in and reseed rills caused by erosion.
- Reseed bare areas.

Third Year

The enhancement area will continue to be monitored as in year one. The revegetation zone adjacent to the stream channel will be assessed for introduced species and mowed to 12 inches if introduced species are found to be present.

At the end of each year of monitoring, the current maintenance strategy will be reviewed for effectiveness and suitability. If additional maintenance activities are required, they will be addressed and implemented at this time. Conversely, if an activity is no longer required or effective, this period provides sufficient review for termination.

At the end of the initial three-year maintenance period, all maintenance activities will be reassessed for their necessity and effectiveness. Additional performance criteria can be developed to assist with monitoring of the enhancement area if requested by the USACE.

Opinion of Probable Cost

An Opinion of Probable Cost has been prepared for implementation of the Environmental Enhancement Plan. Refinement of this cost estimate will occur throughout the design process. The following assumptions were made in developing this cost estimate.

- The opinion of probable cost is based upon the final Environmental Enhancement Plan. It is for budgeting purposes only and is in no way intended as a guarantee of construction costs. The opinion of probable cost is considered a Class 5 (Screening) estimate with an accuracy range of +100/-50 according to the American Society for Testing and Materials (ASTM) Standard Classification for Cost Estimate Classification System (Designation E 2516-06).
- Costs include materials, labor, and installation.
- The following assumptions were made for the Environmental Enhancement Area cost estimate:
 - Costs are limited to the Environmental Enhancement Area located between 7th Street Trafficway and ABC Roofing.
 - Costs include construction of a construction staging area, temporary access road, rest area pods, and plantings. The construction staging area and temporary access road will later serve as parking and a portion of the trail system.
 - The cost estimate for the Environmental Enhancement Area does not include the following:

- Costs for levee construction and planting. This work will be completed under a separate contract by the USACE.
 - Right-of-way or property acquisition and potential structural improvements necessary to provide public access to the area.
 - Parking at or near Southwest Boulevard.
 - Future demolition of existing storm sewer interceptors.
 - Soil amendments (Note: It is recommended that the project site soils be amended to create an optimum growing medium for trees and other native plant materials. Further subsurface investigation of the existing site soils will be required to determine the extent of soil amendment necessary. Costs will be based upon the type and amount of amendments determined to be necessary during the design process.
 - Three (3) year maintenance and monitoring of all plantings as described in the Implementation Plan section of this document.
- The following assumptions were made for the Public Education Feature cost estimate:
 - Cost includes the parking lot, nature trails, boardwalk, overlooks, dog off-leash area fencing and amenities, and interpretive and park monument signs. However, costs for site access are not included.
 - Public Education Features will be funded by others and will not be constructed in conjunction with the primary features of the Environmental Enhancement Area that will be funded by the USACE.

Summary and Conclusions

The Turkey Creek Environmental Enhancement Plan was developed using an integrated community approach. By integrating input from the various stakeholders throughout the planning process, the resulting plan was able to focus on the necessary ecological functions of the stream corridor and include public use components. This project provides the perfect opportunity for the USACE to demonstrate riparian corridor enhancements with native plants and the integration of interpretive elements through trails and signage.

As the USACE proceeds with the next phase of this project, they will need to input the results of the Levee Value Engineering Report and any other additional information obtained after development of this report to refine elements within the plan. Details for the Implementation Plan and project costs should be further refined during the construction documentation phase of this project.

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APPENDICES

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APPENDIX A

Open House Presentation Materials

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Corps of Engineers
Flood Reduction Project
and the
Turkey Creek Tunnel

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Recommended Channel Plan

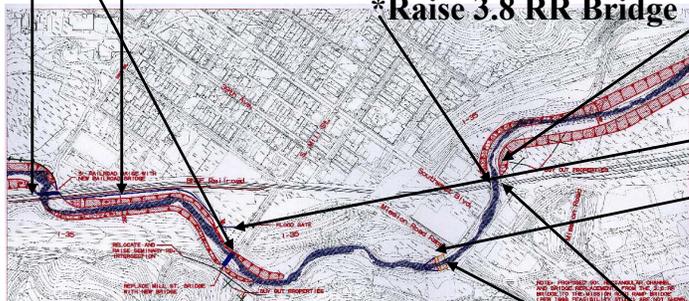
*Raise 4.4 RR Bridge 5 ft.

*50' Trapezoidal Section 4.4 RR to I-35 Overpass.

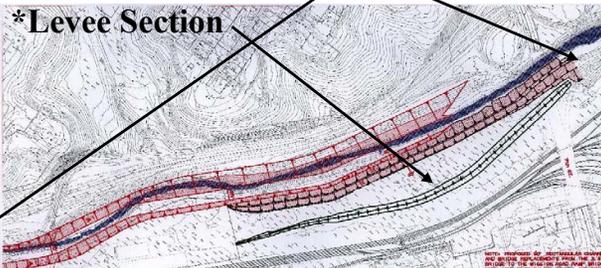
*Replace Mill St. Bridge w/25' Wider Bridge

*Widen Channel Under Mill Street

*Raise 3.8 RR Bridge



* 85' Trapezoidal and Benched Section 3.8 RR to South of 7th Street



*Install Bladder Gate N. Mill Street

*Drop Structure U/S Mission Ramp

*Flood Warning Barrier System

*Bioengineering and Riffle-Pools

*Inclusion of Existing Tunnel

*600' Walled Channel Reach

*Interceptors Remain Unchanged From Authorized Project

of the runoff in excess of the existing storm sewers.

K-DOT completed about half of the lower channel modifications in 2005 and the tunnel restoration, started in 2005, will be completed in 2009. Work on the remaining upstream channel is ongoing, including the railroad and roadway bridges, and is scheduled to be completed by 2012. The interceptors are scheduled to be complete by 2016.

While some risk remains for flooding in the future, the risk of property damages or the threat to potential loss of life will be greatly reduced.



US Army Corps of Engineers
Kansas City District

For More Information

Civil Works Branch
816-389-3972

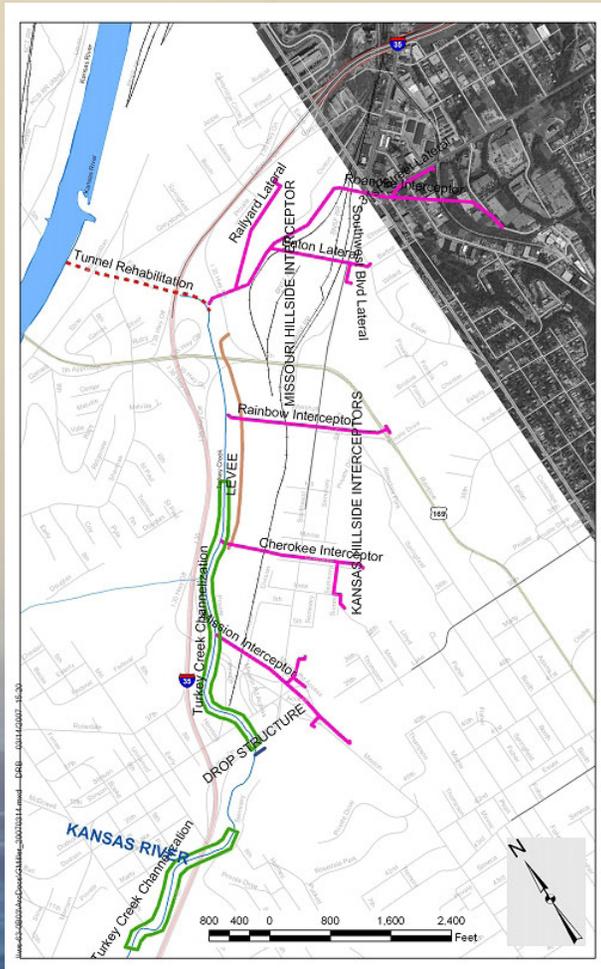
U. S. Army Corps of Engineers

Turkey Creek Basin

Flood Damage Reduction Project



Turkey Creek Flood Damage Reduction Project



The Turkey Creek Basin project is a local flood damage reduction project located in the northern most area of the 23 square mile watershed. The watershed covers parts of Johnson and Wyandotte Counties in Kansas and Jackson County in Missouri, paralleling I-35 for much of its path.



The area around Southwest Boulevard has experienced numerous floods with severe ones most recently in 1977, 1993 and 1998. Flood damages in 1993 and 1998 were both in excess of \$20 million. Historically, businesses and homes experienced flooding from runoff on the hillside to the east and even greater flooding from the channel.

The \$92 million dollar project was authorized by congress in 2003 for construction with the City of Kansas City, Missouri (KCMO) and the Unified Government of Kansas City, Kansas/ Wyandotte County (UG/KCK) as the local sponsors. The federal government is responsible for 65% of the project costs



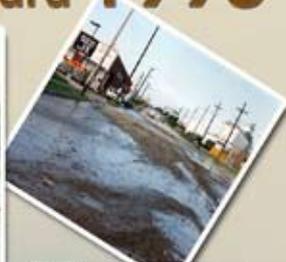
and the local sponsors for the remaining 35% and future project maintenance.

The project has several features including restoration of an existing 1,300 long 28-foot diameter horseshoe shaped tunnel (constructed in 1919), 2 miles of varying channel modifications, two new railroad bridges, 4 new roadway bridges, a levee and 4 large interceptors (to capture hillside drainage). The channel was designed to convey flows of about 25,000 cubic feet/second from a 1% frequency storm. The interceptors are designed to capture some



Turkey Creek - A Century of Flooding

Southwest Boulevard 1993



Turkey Creek Basin Flood Damage Reduction Project



Recommended Channel Plan

- *Raise 4.4 RR Bridge 5 ft.
- *50' Trapezoidal Section 4.4 RR to I-35 Overpass.
- *Replace Mill St. Bridge w/25' Wider Bridge
- *Widen Channel Under Mill Street
- *Raise 3.8 RR Bridge
- *85' Trapezoidal and Benched Section 3.8 RR to South of 7th Street
- *Levee Section
- *Install Bladder Gate N. Mill Street
- *Drop Structure U/S Mission Ramp
- *Flood Warning Barrier System
- *Bioengineering and Riffle-Pools
- *Inclusion of Existing Tunnel
- *600' Walled Channel Reach
- *Interceptors Remain Unchanged From Authorized Project



Turkey Creek General Tunnel Restoration



Original Tunnel



General tunnel conditions before repairs in 2005.



Downstream tunnel work with water control pipe.



Final floor repair, structural steel.



Shotcrete applied with robotic arm. *Inset - Ceiling work.



Upstream tunnel completed.

Turkey Creek Upstream Tunnel Cavities



Prior tunnel conditions



Upstream wall cavity partially filled



Cavity on right wall of tunnel.



Back filling floor cavity



Back filling wall cavity with shotcrete



Structural wall repair

Mid-America Regional Council

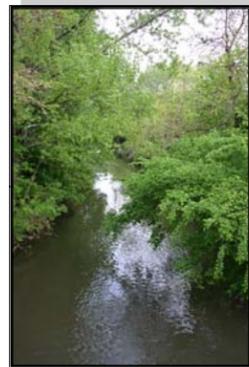
Turkey Creek Trail Maps

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Turkey Creek Trail

— existing
— planned
— proposed
— special design
+ point of interest
 bridge
 park

Highlighted area on map represents
 a 1/4 mile buffer of Turkey Creek
 1 inch = 800 feet
 10/10/2008



Turkey Creek by Roe / 18th St Expy



Turkey Creek Trail by Merriam



Turkey Creek under I-35 ramp by SW Blvd

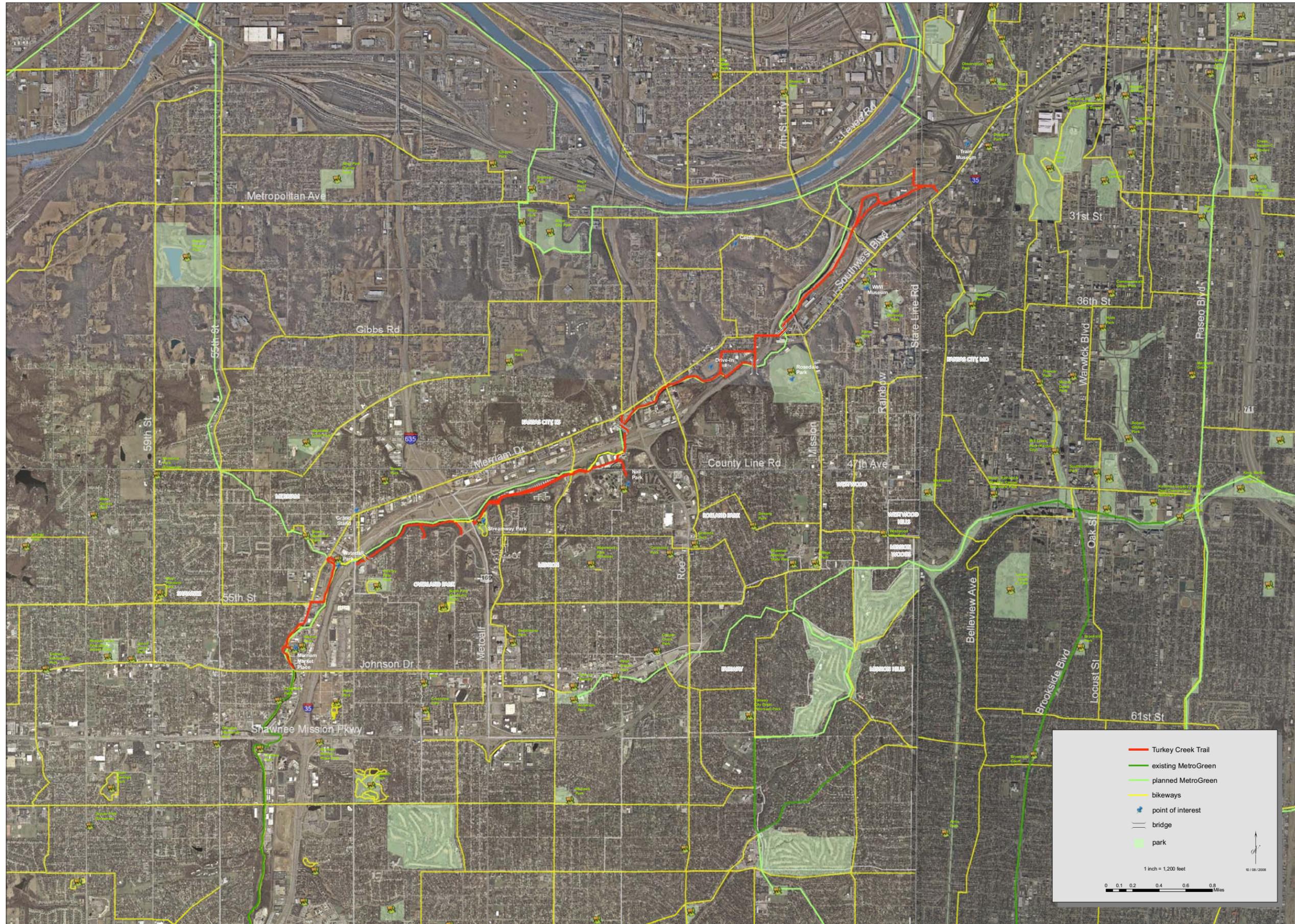


Turkey Creek I-35 / Mission



Turkey Creek by Merriam Ln

Turkey Creek Trail



Unified Government of Wyandotte County
Mill Street Bridge Study

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Mill Street Bridge Original Study January 2003

- **Public Safety Concerns:** In order to get under the existing I-35 Bridge, a replacement for the Mill Street Bridge would have to be constructed at the 10 year flood elevation. In conjunction with a replacement bridge, a rolling flood gate system would be constructed. This introduces the possibility of vehicles becoming trapped on the Mill Street Bridge during a flood event after the rolling gates are closed.
- **Flood Risk Concerns:** Rolling flood gates have several moving parts and require people to operate them during a rain event. This introduces the possibility of mechanical failure and human error during a flood event.
- **Project Costs:** Rolling flood gate systems and concrete flood walls are expensive. Constructing an earthen berm instead can reduce the project cost by an estimated \$4,700,000.
- **Commercial Traffic through Neighborhood:** Commercial traffic can still cross the Mill Street Bridge and drive through the neighborhood south of Turkey Creek.
- **Train Traffic Increase at Nearby Crossing:** The nearby BNSF railroad crossing at Mill Street already impedes traffic at this location. Currently, 51 trains per day cross at this location. The BNSF railroad projects the train traffic to increase an additional 18% by the year 2016.

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Mill Street Bridge Value Engineering Study

April 2008

- **Improved Public Safety:** Elimination of the Mill Street Bridge and proposed rolling flood gate system removes the possibility of vehicles becoming trapped during a flood event.
- **Reduced Flood Risk:** Rolling flood gates have several moving parts and require people to operate them during a rain event. This introduces the possibility of mechanical failure and human error during a flood event. An earthen berm does not have these added failure risks.
- **Project Cost Savings:** Rolling flood gate systems and concrete flood walls are expensive. Constructing an earthen berm instead can reduce the project cost by an estimated \$4,700,000.00.
- **Reduce Commercial Traffic through Neighborhood:** Eliminating the Mill Street Bridge would also eliminate commercial cut through traffic in the neighborhood south of Turkey Creek. Additional commercial traffic could be eliminated by relocating the Smoot Company to a new location.
- **Train Traffic Increase at Nearby Crossing:** The nearby BNSF railroad crossing at Mill Street already impedes traffic at this location. Currently, 51 trains per day cross at this location. The BNSF railroad projects the train traffic to increase an additional 18% by the year 2016.



Railroad Crossing

Smoot Company

Construct Earthen Berm

Remove Mill Street Bridge And Do Not Replace.

Patti Banks Associates
Environmental Enhancement Concept Plans



Turkey Creek Environmental Enhancement
 Kansas City, Kansas
 October 14, 2008





Turkey Creek Environmental Enhancement Project

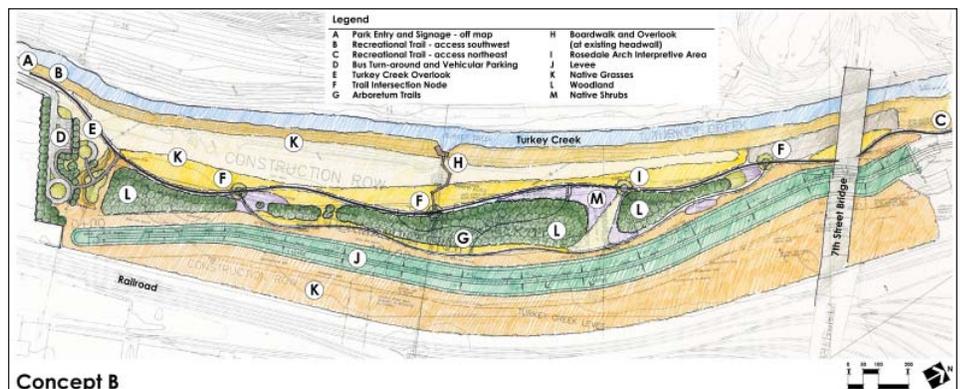
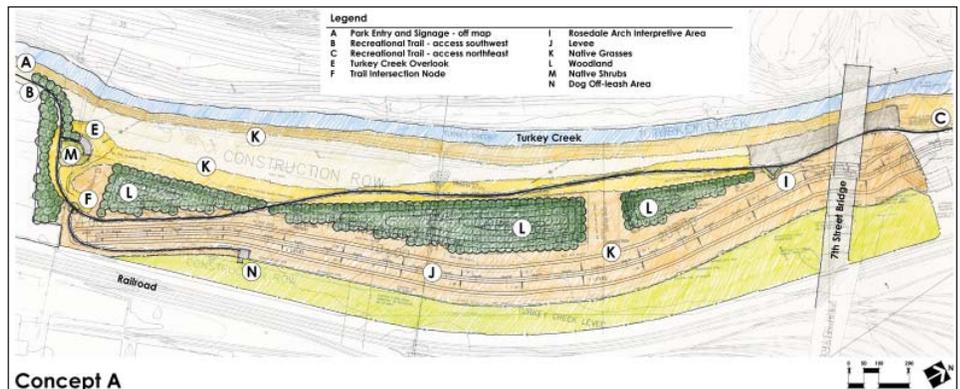
Project History

The Turkey Creek watershed basin is 23 square miles located adjacent to Interstate I-35 for much of its length. Turkey Creek flows west to east from Johnson County, Kansas through Wyandotte County and into the Kansas River. The Turkey Creek basin has a long history of significant floods and human manipulation. Turkey Creek has been continually channelized, moved and filled beginning with the flood of 1844 and eventually even placed in a tunnel. Much of the creek's original floodplain has been developed for industrial, commercial, and residential urban uses. Several major flood events have occurred over the last 50 years, with extreme events in 1993 and 1998. The U.S. Army Corps of Engineers has been implementing flood damage reduction measures throughout the stream corridor to address flooding issues for several years now.

Work began in 2004 on the section of stream between 7th Street Trafficway and Southwest Boulevard by K-DOT and was completed in 2005. Included within this stream project was restoration of the riparian (stream) corridor vegetation. The primary goal of the Turkey Creek Environmental Enhancement Concept Plan is to further restore the area to a healthy riparian corridor using a mix of native grasses, wildflowers, trees, and shrubs. The proposed plan will also include a bicycle/pedestrian trail that will provide a critical link to bi-state trails.

Concept Plans

Two preliminary concepts have been developed integrating input received during the stakeholder interviews. The primary difference between the plans is that Concept A is more basic with no vehicular access and Concept B is more programmed including vehicular access on the west side.





The following are some primary features of each plan.

Concept Plan A

- Access Control
- Maintain existing native plantings on the flood terraces closest to the stream
- Plantings are more structured
 - o Trees – loose/open planting of 200-300 trees within central portion of area
 - o Shrubs – planted up near the overlook on the west side
 - o Prairie grasses and wildflowers of comparable mix to flood terraces to be planted around the trees and behind the levee. Native grasses could potentially be used on top of the levee
- Screen planting along eastern fence line of ABC Roofing
- Primary trail through property on south side of creek (paved)
- Secondary trail at west end of berm provides access to the dog off-leash area
- Overlook on high point on west side provides excellent view of Turkey Creek
- Interpretive area on east end for Rosedale Arch
- Dog off-leash area located between the levee and the railroad. Fencing would be used between area and railroad for safety
- Interpretive signs, limited programming

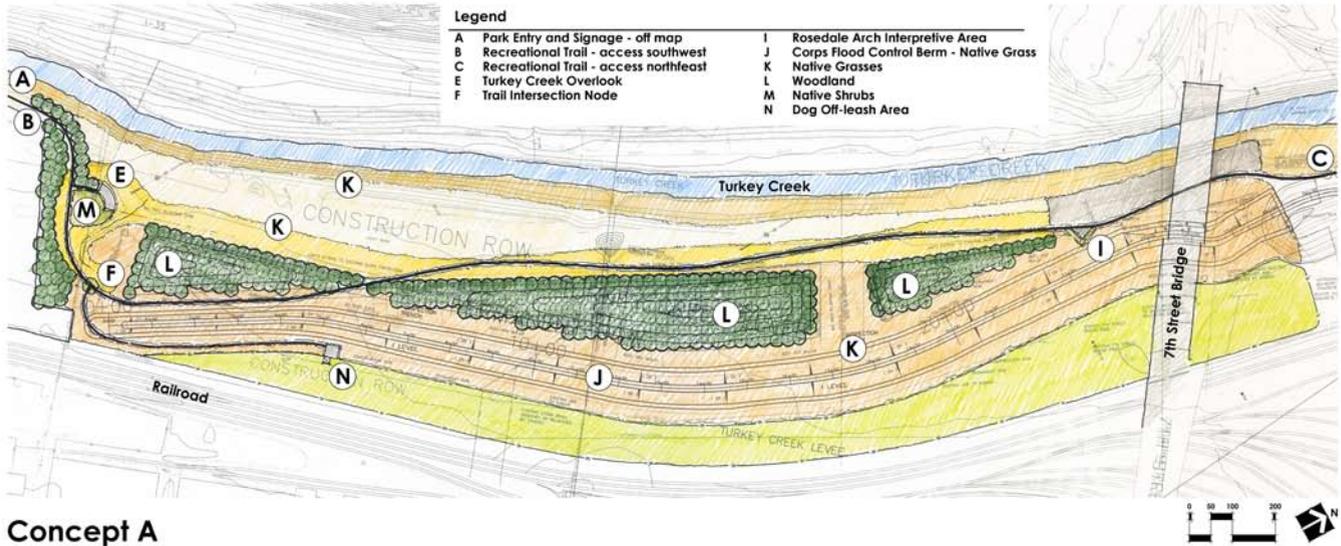
Concept Plan B

- Access Control
- Maintain existing native plantings on the flood terraces closest to the stream
- Vehicular access, primarily a bus turn around area and a few parking stalls on the west end
 - o There is at least one point along the northern perimeter of ABC Roofing that does not provide enough room for both vehicular access and a pedestrian trail. This would need to be addressed to accomplish this portion of the plan
- Plantings are less structured, more groupings like an arboretum
 - o Trees would be a loose/open planting of 200-300 trees within central portion of area
 - o Shrubs would be used to accent tree plantings and near the overlook
 - o Prairie grasses and wildflowers of comparable mix to flood terraces to be planted around the trees and behind the levee. Fescue or native grasses would be used on top of the levee.
- Screen planting along eastern fence line of ABC Roofing



Legend

- | | | | |
|---|---------------------------------------|---|---|
| A | Park Entry and Signage - off map | I | Rosedale Arch Interpretive Area |
| B | Recreational Trail - access southwest | J | Corps Flood Control Berm - Native Grass |
| C | Recreational Trail - access northeast | K | Native Grasses |
| E | Turkey Creek Overlook | L | Woodland |
| F | Trail Intersection Node | M | Native Shrubs |
| | | N | Dog Off-leash Area |

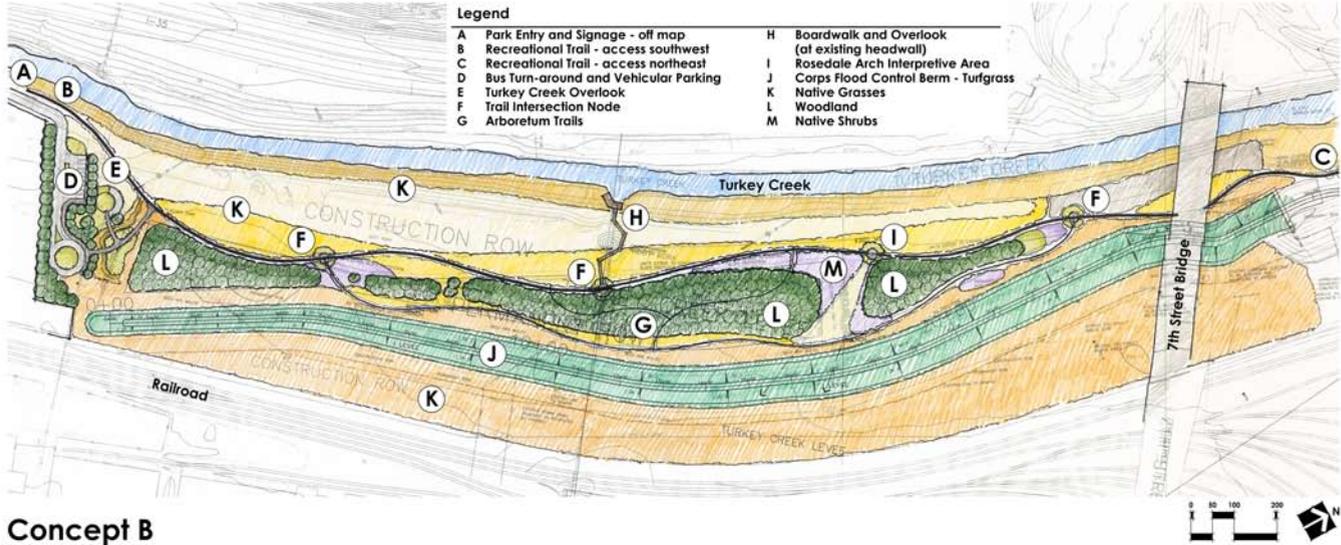


Concept A



Legend

- | | | | |
|---|---------------------------------------|---|--|
| A | Park Entry and Signage - off map | H | Boardwalk and Overlook
(at existing headwall) |
| B | Recreational Trail - access southwest | I | Rosedale Arch Interpretive Area |
| C | Recreational Trail - access northeast | J | Corps Flood Control Berm - Turfgrass |
| D | Bus Turn-around and Vehicular Parking | K | Native Grasses |
| E | Turkey Creek Overlook | L | Woodland |
| F | Trail Intersection Node | M | Native Shrubs |
| G | Arboretum Trails | | |



Concept B





View to Northeast - Turkey Creek and Downtown Skyline



View to Southwest - Rosedale Arch

APPENDIX B

KDOT Stabilization Mixes

Mix 2 Upland

Mix 3 Forested Floodplain

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Stabilization Mix 2 Upland

Scientific Name	Common Name	kg PLS/ hect	Min. % Germ.	Origin
<i>Elymus canadensis</i>	Canada Wild Rye	1.76	90	Midwest
<i>Andropogon virginicus</i>	Broomsedge (Upland Ecotype)	2.64	80	MO/KS
<i>Schizachyrium scoparium</i>	Little Bluestem var Aldous	5.28	80	MO/KS
<i>Panicum virgatum</i>	Switchgrass var Blackwell	1.76	80	MO/KS
<i>Sporobolus heterolepis</i>	Prairie Dropseed	0.88	80	MO/KS
<i>Bouteloua curtipendula</i>	Sideoats Grama	3.52	80	Midwest
<i>Koeleria macrantha</i>	Prairie Junegrass	0.88	80	Midwest
<i>Sorghum nutans</i>	Indiangrass var Rumsey	1.76	80	MO/KS
<i>Andropogon gerardii</i>	Big Bluestem	1.76	80	MO/KS
<i>Asclepias tuberosa</i>	Butterfly Milkweed	0.22	80	MO/KS
<i>Amorpha canescens</i>	Leadplant	0.22	50	MO/KS
<i>Desmanthus illinoensis</i>	Bundleflower	0.22	80	MO/KS
<i>Dalea purpureum</i>	Purple Prairie Clover	0.22	80	MO/KS
<i>Liatis aspera</i>	Rough Blazing Star	0.22	80	MO/KS
<i>Liatis punctata</i>	Dotted Blazing Star	0.22	80	MO/KS
<i>Coreopsis palmate</i>	Prairie Coreopsis	0.22	80	Midwest
<i>Echinacea pallida</i>	Pale Purple Coneflower	0.22	80	MO/KS
<i>Echinacea paradoxa</i>	Yellow Coneflower	0.22	80	MO/KS
<i>Ratibida pinnata</i>	Gray Headed Coneflower	0.22	80	MO/KS
<i>Rudbeckia missouriensis</i>	Missouri Black Eyed Susan	0.22	80	Midwest
<i>Lespedeza capitata</i>	Roundhead Lespedeza	0.22	80	MO/KS
<i>Salvia azurea</i>	Pitchers Sage	0.22	80	Midwest
<i>Phlox maculata</i>	Meadow Phlox	0.22	80	Midwest
<i>Aster oblongifolius</i>	Aromatic Aster	0.22	80	Midwest
<i>Silphium laciniatum</i>	Compass Plant	0.22	80	MO/KS
<i>Silphium integrifolium</i>	Rosinweed	0.22	80	MO/KS
<i>Baptisia leucantha</i>	White Wild Indigo	0.22	50	Midwest
<i>Helianthus maximiliani</i>	Maximilian Sunflower	0.22	80	MO/KS
<i>Mirabilis nyctaginea</i>	Four O'Clock	0.22	80	Midwest
<i>Pycnanthemum flexuosum</i>	Slender Mountain Mint	0.22	80	Midwest
<i>Solidago speciosa</i>	Showy Goldenrod	0.11	50	Midwest
<i>Filipendula rubra</i>	Queen of the Prairie	0.11	50	Midwest
<i>Eryngium yuccifolium</i>	Rattlesnake Master	0.11	50	MO/KS
<i>Monarda fistulosa</i>	Horsemint	0.11	50	Midwest
<i>Dodecatheon meadii</i>	Shooting Star	0.11	50	Midwest
<i>Aster oolentangiensis</i>	Sky Blue Aster	0.11	50	Midwest
<i>Hypericum prolificum</i>	Saint John's Wort	0.11	50	Midwest
<i>Tridens x Agropyron</i>	Regreen Sterile Wheat	44.03	95	Northwest
Varies	Desert Bloom Mix	8.80	---	---

Stabilization Mix 3 Forested Floodplain

Scientific Name	Common Name	kg PLS/ hect	Min. % Germ.	Origin
<i>Elymus virginicus</i>	Virginia Wild Rye	8.80	80	MO/KS
<i>Chasmanthium latifolia</i>	Sea Oats	8.80	90	MO/KS
<i>Tripsachum dactyloides</i>	Eastern Gamma Grass	4.40	80	MO/KS
<i>Calamagrostis arundinacea</i>	Blue Joint	0.88	80	Midwest
<i>Hysterix</i> spp.	Bottlebrush Grass	0.88	80	Midwest
<i>Bidens aristosa</i>	Bur Marigold	0.25	50	MO/KS
<i>Echinacea purpurea</i>	Purple Coneflower	0.22	80	MO/KS
<i>Campanula americana</i>	Tall Bellflower	0.22	80	Midwest
<i>Coreopsis lanceolata</i>	Lanceleaf Coreopsis	0.22	50	MO/KS
<i>Baptisia australis</i>	Blue False Indigo	0.22		MO/KS
<i>Aster novae-angliae</i>	New England Aster	0.22	80	Midwest
<i>Liatrix pycnostachya</i>	Prairie Blazing Star	0.22	80	MO/KS
<i>Asclepias incarnate</i>	Swamp Milkweed	0.22	90	Midwest
<i>Cassia fasciculata</i>	Partridge Pea	0.22	90	MO/KS
<i>Eupatorium perfoliatum</i>	Boneset	0.22	50	Midwest
<i>Eupatorium maculatum</i>	Joe Pye Weed	0.22	50	MO/KS
<i>Tradescantia ohiensis</i>	Ohio Spiderwort	0.22	90	MO/KS
<i>Penstemon digitalis</i>	Smooth Beardtongue	0.22	90	MO/KS
<i>Rudbeckia fulgida</i>	Orange Black Eyed Susan	0.22	90	MO/KS
<i>Penstemon cobaea</i>	Purple Beardtongue	0.22	90	Midwest
<i>Silphium perfoliatum</i>	Cup Plant	0.22	50	MO/KS
<i>Lobelia cardinalis</i>	Cardinal Flower	0.11	80	Midwest
<i>Lobelia silphitica</i>	Great Blue Lobelia	0.11	80	Midwest
<i>Amsonia illustris</i>	Blue Star	0.11	---	Midwest
<i>Physotegia virginiana</i>	Obedient Plant	0.11	---	Midwest
<i>Veronicastrum virginicum</i>	Culver's Root	0.11	---	Midwest
<i>Tridens x Agropyron</i>	Regreen Sterile Wheat	44.03	95	Northwest

DRAFT

**FEASIBILITY REPORT
AND
ENVIRONMENTAL ASSESSMENT
WITH APPENDIX B (COORDINATION)**



TURKEY CREEK BASIN

**KANSAS CITY,
KANSAS AND MISSOURI**



**US Army Corps
of Engineers**

Kansas City District

AUGUST 1998



Rosedale Community Assessment Spring 2009



Rosedale Community Baseline Assessment

Spring 2009

Prepared by:

University of Kansas

Cheryl Gibson, PhD.
Susan Harvey, PhD.
Rachel Stockdale, BSc.

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Walkability Assessments

Prior to conducting the walkability assessments in the Rosedale community, a graduate research assistant plotted common routes traveling through and around neighborhoods, apartment complexes, local stores, and parks surrounding each of the schools. Each route was assessed, making any necessary route changes along the way.

Items that were critiqued for each of the walkability assessments included the following:

- Walking surface, including sidewalks, paths, roadways, or other surfaces
- Crosswalks and area surrounding crosswalks
- Driving behaviors and motor vehicle activity
- Safety rules
- Aesthetics (landscaping, animals, people, lighting, pollution, litter, etc.)

Each of the components assessed above were rated on a scale of 1 to 6:

- 1 = Awful
- 2 = Many problems
- 3 = Some problems
- 4 = Good
- 5 = Very good
- 6 = Excellent

The overall score was then added up for a total score. The following is the breakdown of total score from the instrument used in this assessment:

- 26 – 30 = Good neighborhood for walking
- 21 – 25 = Neighborhood and surrounding areas is pretty good for walking
- 16 – 20 = Okay for walking, but needs some work
- 11 – 15 = Needs lots of work
- 5 – 10 = Very poor conditions for walking

Along with the assessment instrument itself, field notes and pictures documenting walking conditions were taken along the way. At the end of each walk, both the graduate research assistant and researcher on this project conferred together about things encountered during the walk, and came up with an overall consensus on the ratings for each assessment.

For a copy of the walkability assessment used for this evaluation, see Appendix A.

T.A. Edison Walkability Assessment Results

The following summarizes the results for the assessment conducted for areas and neighborhoods surrounding T.A. Edison Elementary School on 04/15/2009.

Walking Surfaces

One of the first things noticed was that the area surrounding T.A. Edison Elementary School contained no sidewalks at all, and that the road appeared pretty narrow with no curbs present. This could present hazards, particularly during high traffic times (as children are being dropped off and picked up from school).

The neighborhoods surrounding the school for the most part were missing sidewalks and the roadways were pretty narrow. This could cause problems in the case of walkers/cyclists if two cars were approaching each other from opposite directions in that one car would have to slow down and/or stop to let the other car pass for safety reasons. Also, because of the narrow roadways, the pedestrian may feel the need to walk on the grass and dirt. Most of the neighborhoods did not have any curbs at all. Furthermore, there would be concern during inclement weather the safety of the narrow roadways. Because a snow plow may find it difficult to maneuver down narrow streets that often also had cars parked along the way, certain neighborhoods may not get the salt for ice or plowed for snow. This could cause safety problems for children having to walk to school.

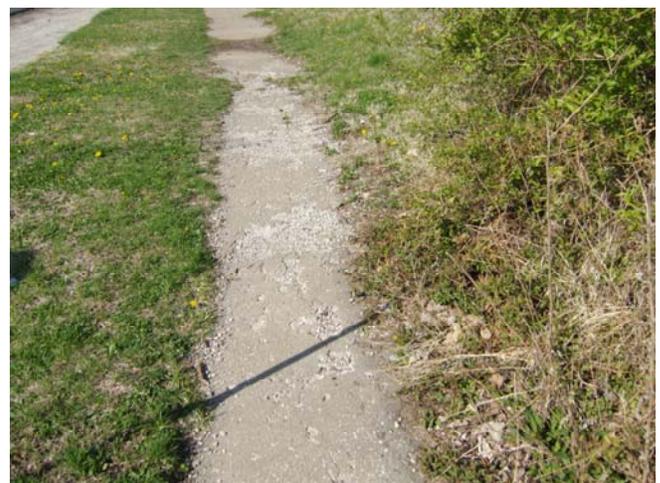
There were also several areas in which vegetation blocked the walking paths on the roadways and sidewalks, requiring that the pedestrian walk around the vegetation, further out into the roadway. Although sidewalks for the most part were not present during most of the walk, with the exception of



T.A. Edison Elementary School



Many of the roads surrounding T.A. Edison were narrow with drop-offs on either side of the road. A majority of these roads lacked sidewalks or shoulders for pedestrians.



Many of the sidewalks were narrow and in poor condition with large cracks and uneven surfaces.

on main roads, the sidewalks that were found were in very poor condition. The sidewalks were often narrow, cracked, rough, littered with debris and glass, or had grass and dirt growing through the cracks. With the exception of a four block stretch on Mission Road, sidewalks were either not present at all, or there was only one side of the street with a sidewalk.

Because of the lack of sidewalks and paths, the rating given to this component of the assessment was a 2 (many problems).

Crosswalks and Area Surrounding Crosswalks

Several problems were also encountered with this component. There were two crosswalks located in front of the school with signs indicating that it was a school crosswalk. However, the paint on the roadway indicating that it was a crosswalk was very faded, particularly on one of the crosswalks.



Faded crosswalk in front of T.A. Edison Elementary in need of repainting.

On the main roads, including Southwest Boulevard and Mission Road, very few, if any, crosswalks were present. We encountered two crosswalks at Mission Road and 47th Avenue

and the two crosswalks previously mentioned in front of the school. Furthermore, because of the hills decreasing the visibility of both drivers and pedestrians, and the wide roads, there were several areas that may be difficult for small children or disabled people to effectively cross. Because of these high traffic areas, more crosswalks and/or traffic signals should be implemented for the safety of pedestrians and bikers.



Another faded crosswalk located near T. A. Edison. This crosswalk was located at the corner of S. 8th and Locust Streets.

Also, although there were several stop signs around the school area, very few crosswalks were available for student use. Because this is such an enclosed neighborhood where traffic could potentially get heavy during drop off and pick up times, considerations should be made to including more crosswalks for children within these neighborhoods.

There were also instances along the way in which trees, bushes, and cars blocked our view for crossing the street. Also, on the main sidewalks when crossing roads, there was no ramp leading into the street. The

curbs were often steep for dismounting or mounting the sidewalks for bicyclists or pedestrians. Again, the lack of sidewalk ramps leading onto main crosswalks could cause problems for small children, cyclists, or disabled people using wheelchairs, canes, or walkers.

Because of the lack of crosswalks, particularly around the school and parks, we rated this component as a 2 (many problems).

Driving Behaviors and Motor Vehicle Activity

Overall, the drivers we encountered appeared cautious and followed posted speed limits. However, the time of day this assessment was conducted could be a factor. This assessment was conducted between 9:00 am and 12:00 pm, while most people are at work or school. However, the drivers we observed yielded to other traffic and to us at crosswalks. There were only a couple of instances in which we observed unsafe driving behaviors. One car was speeding through Rosedale Park, and there were a couple of times in which we felt uncomfortable walking because of honking cars or whistling drivers.

Speed limits signs appeared on the main roadways, and drivers appeared to follow these postings. There were a few of the roads near the school in which speed limit signs were posted in clear view, but they should be posted more often for drivers who may unaware that there is a school nearby. For the most part, drivers appeared to have safe driving behaviors. We rated this component as a 4 (good).

Safety Rules

From our observations, it appears that pedestrians should have no problems adhering to safety rules, however caution should be applied in heavy traffic areas where crosswalks may be missing. Because some of the high traffic crossing areas occurred on hills where visibility was a bit of an issue, more care should be taken by pedestrians by looking both ways several times before crossing until crosswalks are made more available. Also, because Mission Road was the only road we came across that had lights with crosswalks, extra caution should be taken around all areas to ensure pedestrian safety.



Very few crosswalks with lights were available for pedestrian use in the area. This crosswalk with pedestrian light was located along Mission Road.

Because of the lack of crosswalks and sidewalks, making it more difficult for pedestrians to walk or cross streets in many areas, we rated this section as a 3 (some problems).

Aesthetics

Overall, our walk was pleasant for the most part. In the neighborhoods, there were several trees and most of the yards appeared cared for. On some of the more main roads, such as Southwest Boulevard, there were older, run-down buildings that were not so pleasant but which can be expected. Also, most of the neighborhoods and main roads appeared to be well-lighted, although we cannot assume that these lights work once it is dark.

There were a few instances that were cause for concern. In one situation, not far from a school, an unleashed dog came running up to us. However, the owner was not far and yelled over to us, "Don't worry, he's friendly." Just as quickly as the dog ran up to us, he ran back to his own yard. While we were mostly startled by the dog, we could see he was friendly. However, a small child could have easily been frightened, causing some concern. Although there were several other barking dogs along the way, the rest of them were fenced in a yard or chained to a leash.

We also had to walk under several bridge overpasses, which even during the day were dark and a bit threatening. Light from the streetlamps would not reach under these areas during the nighttime or during days of inclement weather. These areas could be unsafe for children, or they may feel threatened or unsure of using these paths walking to and from school.

Along the walk, there were a couple of people we passed which made us feel extra cautious. Because there were no sidewalks to walk on and the roads were so narrow, it was difficult to avoid walking by these people unless you turned around and went another way.

There was also one large railroad crossing not far from the school. While the area is clearly marked with signs and cross gates for oncoming trains, this is an area that may be unsafe for small children who do not know how to properly cross a railroad crossing.

On the main roads, there was much traffic noise, but for most of our walk, it was fairly quiet with the occasional passing car or barking dog. Keep in mind, however, that this assessment was performed while most people were already at work or at school.



Railroad crossing near school could pose hazards for young children who do not know how to safely cross.

For the most part, the walk was pleasant with just a few hesitant areas. We rated this component as a 4 (good).

Overall Score

Based on our rating of the walkability in and around the area of T.A. Edison Elementary School, we arrived to the following total score:

- Walking surface = 2
- Crosswalks and area surrounding crosswalks = 2
- Driving behaviors and motor vehicle activity = 4
- Safety rules = 3
- Aesthetics = 4

Total Score = 15

This score classifies this area as needing improvement. We are in agreement that more crosswalks and sidewalks should be made available for children, especially around the school area where they are particularly lacking and where traffic can be especially heavy during drop off and pick up times during the school day. In order to encourage more children to walk to school, an effort should be made to improving this area.

To view a copy of the route traveled for the assessment of T.A. Edison Elementary School and field notes that were taken, see Appendix C.

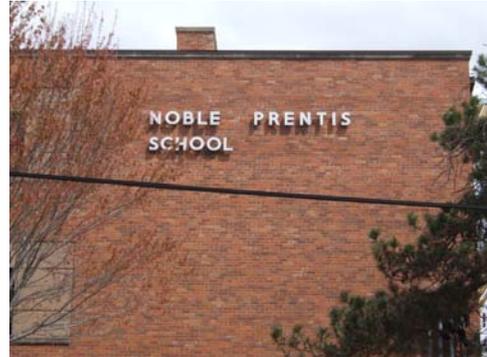
Noble Prentis Walkability Assessment Results

The following summarizes the results for the assessment conducted for areas and neighborhoods surrounding Noble Prentis Elementary School on 04/16/2009.

Walking Surfaces

There were several problems with the walking surfaces for the Noble Prentis assessment. First of all, sidewalks and paths were severely lacking on many of the roads, including on the street where Noble Prentis is located. There were only a few roads which had sidewalks including Rosedale Drive, Mill Street, SW Boulevard, and Merriam Lane, however the sidewalks were in very poor

condition in many areas with large cracks, uneven surfaces, and trashcans, shrubbery, and other items obstructing the sidewalks. Furthermore, many of the sidewalks were narrow and lacked curb ramps. Although the sidewalks on Rosedale Drive appeared to be in good condition, poor drainage problems would prevent walkers or bikers from utilizing these sidewalks. The sidewalk surface was covered in water and mud in several areas and numerous sticks and tree branches obstructed the sidewalk.



Noble Prentis Elementary School.

The roads that were travelled were also very narrow. While we were walking west on Springhorn Lane, a bus had to stop for an approaching car in order to accommodate us walking up the hill. This was also a large hill with a sharp curve which could cause visibility problems for drivers, walkers, and bikers. There was also broken glass on the roadway and overgrown shrubbery obstructed the view around the curve. The roadways were also overall in poor condition as many of them had large cracks, potholes, and uneven surfaces. There were also areas where the roads had steep drop-offs creating hazards for pedestrians or bikers needing to walk or ride in the grass to avoid oncoming traffic. One of the roads had severe drainage problems with lots of water, mud, sticks and tree branches in the roadway, creating obstacles for pedestrians, bikers, and drivers.



Many of the roads surrounding Noble Prentis were narrow, curvy, and lacked sidewalks. This is S. 14th Street, located just north of the school.

The road leading up to and away from Noble Prentis did not have any sidewalks, although it did have a gravel and dirt shoulder which contained several potholes and was uneven in several areas. There were also several trashcans that obstructed the shoulder. This road was also very narrow. Because the school is on this road, it is also a high traffic area before and after school. Due to the lack of sidewalks and the narrow roads, walking and biking on this road could be dangerous for pedestrians walking to and from school, especially during high traffic times.



Pedestrians would need to exit the sidewalk here in order to avoid the drainage problems that blocked some of the sidewalks and roadways in the area.

Because of the lack of sidewalks and paths, the narrow roadways, and the poor condition of the sidewalks and roads, we rated this component of the assessment as a 2 (many problems).

Crosswalks and Area Surrounding Crosswalks

We encountered three crosswalks by Noble Prentis—one was located at Springhorn Lane and 14th street and a second crosswalk was located behind the school fields on Lawton Lane. The crosswalk on Lawton Lane was in very good condition, however the crosswalk on Springhorn Lane was faded and in need of repainting. There was also a third crosswalk located in front of the school on S. 14th Street along with speed limit signs and flashing lights to alert people that they are in a school zone. However, the crosswalk located in front of the school was also in need of repainting.

Because this school is located in a residential neighborhood where traffic could be potentially heavy before and after school, more crosswalks should be made available in front of and behind school where trash and bushes may block the view of students walking to and from school, either more children may be crossing the street. Considering that many of the roads are narrow and that the crosswalks or signs indicating that a school is within close distance should be placed in areas surrounding the school.

Because of the lack of crosswalks surrounding the school and nearby parks, we rated this component of the assessment as a 3 (some problems).



Crosswalk on S. 14th Street in need of repainting.



Crosswalk behind school is in good condition and easily viewable to drivers.

Driving Behaviors and Motor Vehicle Activity

This assessment was conducted as school was letting out for the day. For the most part, drivers appeared to be very aware of their surroundings while obeying the speed limit and other rules of the road. There were only a few instances in which drivers appeared to be speeding. Of particular concern was a driver on Springhorn Lane who was speeding rapidly east on Springhorn Lane. Because this road is such a narrow, windy road where pedestrians, bikers, and other drivers could be obstructed from the view of oncoming traffic, more caution needs to be taken on this road by perhaps posting more speed limit or other cautionary signage.

There were also speeding drivers on SW Boulevard and Merriam Lane in which it appeared the posted speed limit was not being observed. These areas were also of concern. Although there are sidewalks on most of these roads, they are also in poor condition which could cause pedestrians to walk in the streets.

Because the drivers were, for the most part, aware of their surroundings and practiced safe driving behaviors, we rated this component of the assessment as a 4 (good).

Safety Rules

From our observations, pedestrians should have no problem adhering to safety rules, but should keep in mind problem areas in the neighborhood where steep hills and sharp curves may limit the visibility of drivers. Although the crosswalks were in need of repainting, they were located in areas that could be easily seen by drivers.

The lack of sidewalks along with narrow roadways was a concern in many of the residential areas. Furthermore, the lack of stoplights in high traffic areas allowing pedestrians to safely cross busy streets was also of concern.

Due to the lack of sidewalks and stoplights, along with the faded crosswalks we rated this component of the assessment as a 3 (some problems).

Aesthetics

Overall, our walk was pleasant. Several homes had lawns that were well cared for, and much of our route was lined with tall trees in full spring bloom. There were a few areas where trash littered the roadways and several trashcans and boxes were left out along the shoulder which we had to walk around. Douglas Street and Rosedale Drive had several drainage problems where the sidewalks and roadways were particularly muddy and needed to be cleaned up a bit



Trash cans and boxes blocked access to the shoulders and sidewalks that were available for pedestrians on many streets.

because of all of the tree branches and sticks that littered the area. And although all of the dogs we encountered were either tethered to a leash or enclosed in a fenced yard, several of them ran up to the fence and barked loudly as we passed by. While we are used to and comfortable with dogs, small children walking to and from school may be more timid or anxious in approaching some of these areas. Finally, although we cannot conclude that the street lights are in full working order, there were several street lights located in the neighborhoods and surrounding areas of the school.

Because the aesthetics of this route was for the most part pleasant, we rated this component of the assessment a 4 (good).

Overall Score

Based on our rating of the walkability in and around the area of Noble Prentis Elementary School, we arrived at the following total score:

- Walking surface = 2
- Crosswalks and area surrounding crosswalks = 3
- Driving behaviors and motor vehicle activity = 4
- Safety rules = 3
- Aesthetics = 4

Total Score = 16

This score classifies this area as okay for walking, but in need of some improvement. We are in agreement that more crosswalks, sidewalks, pedestrian signs, and stoplights should be made available for children, especially in the areas surrounding the school where traffic can be particularly heavy during drop off and pick up times during the school day. In order to encourage more children to walk to school, efforts should be made toward improving the overall area. Furthermore, pedestrian safety classes and even monthly newsletters explaining pedestrian safety should be made available to children and their families.

To view a copy of the route traveled for the assessment of Noble Prentis Elementary School and field notes that were taken, see Appendix D.

Frank Rushton Elementary School Walkability Assessment Results

The following summarizes the results for the assessment conducted for areas surrounding Frank Rushton Elementary School completed on 04/28/2009.

Walking Surfaces

There were some problems encountered for this assessment which should be considered for improvement. We did encounter several areas where sidewalks started and then stopped, either from crossing the road onto a different street or because of overgrown grass covering what was once a sidewalk. This was particularly true on South Minnie Street where the sidewalk is in very poor condition and also has a patchy presence along the way with overgrown grass covering many areas of the sidewalk. Much of the sidewalks were also in need of repair with many areas having large cracks, broken areas, uneven surfaces, and lacking curb ramps which would have an affect on cyclists or disabled people. A few areas of sidewalk were also littered with trash, broken glass, tree branches and sticks. There were also areas of sidewalk with drainage problems resulting in muddy sidewalk surfaces. Furthermore, several sidewalks were blocked due to overgrowth of shrubbery and in some areas there were low-hanging tree branches, causing pedestrians to duck in order to not hit them.



Frank Rushton Elementary School.



Several sidewalks were in poor condition and in need of repair. Some sidewalks were blocked with overgrown vegetation or had drainage problems, forcing pedestrians on to the roadway.

There were also a few areas that did not have any sidewalks or shoulders present at all, including the backside of Frank Rushton. Many of the streets that did not have sidewalks were also in need of repair with cracks and large potholes in many areas.

Some of the roadways are also very narrow which could cause hazard for pedestrians and two-way traffic all trying to share the road. West 45th Street was of particular concern because it was a narrow road with cars parked along the side of the road, forcing pedestrians to walk out in the street. Many of the roads were also very busy streets, including 43rd Avenue, which is located in front of the school, Mission Road, Rainbow Blvd., and SW Blvd. Although most of these streets contain sidewalks, many of them are in need of repair. It is also important to consider that KUMC students and faculty park near the school on Booth Street. This area can become extremely busy because of the high traffic volume and much of the sidewalks are in poor condition and in need of repair in this area.

Because of the lack of sidewalks and shoulders in some areas and the poor condition of sidewalks in several areas, we rated this component of the assessment a 3 (some problems).

Crosswalks and Area Surrounding Crosswalks

Crosswalks were located both on the backside and front of the school. The crosswalk located behind the school was faded and in need of repainting. The crosswalk located at the front of the school was clearly seen and also had a crosswalk light along with school zone and speed limit signs to alert drivers.

There were also three crosswalks along with signs located at the 4-way stop sign at 44th Avenue and Springfield Lane. Each of the crosswalks were in need of repainting.

Although there were crosswalks located at and near the school and because 43rd Street is such a busy street, more crosswalks should be considered to aid students crossing this busy road. Furthermore, Rosedale Park is very close to the school and may be accessed by the students after school. There were no crosswalks by this park and this should be considered for the safety of children and families accessing this park.



A clearly visible crosswalk with signs and lights is located in front of Frank Rushton on 43rd Avenue. However, more time on the pedestrian light should be given to allow students plenty of time to safely cross the busy street.

The stoplight that allowed us to cross 43rd street was also of concern. Although we did have plenty of time to cross the street, the warning “Do Not Cross” light began flashing very early while we were not even halfway across the street. This could be of concern for young children who may become nervous when seeing the flashing lights so quickly while trying to cross the street.

Finally, several of the sidewalks needed curb ramps for pedestrians and bikers to safely descend from sidewalks onto crosswalks or the roadways. This is of particular concern for the sidewalks with steep drop offs and for young children, the elderly, bikers, and disabled people.

We rated this component of the assessment a 3.5 (some problems to good) because of the faded crosswalk behind the school, the need for additional crosswalks, and the lack of curb ramps in several areas.

Driving Behavior and Motor Vehicle Activity

For the most part, drivers appeared to be very aware of their surroundings and were especially cautious in the area surrounding the school. There were a few drivers on 43rd street who appeared to be speeding. Drivers were also cautious of us on narrow roadways not containing any sidewalks and were careful to slow down and not pass us too closely. Most everyone we observed obeyed traffic signals and speed limit and school zone signs. Even on Booth and Adams Streets where traffic can become especially congested due to the volume of KUMC traffic, drivers appeared to be very aware of their surroundings and pedestrians walking in the vicinity.

Because of the cautious attitude of most of the drivers and the attention to safety we rated this part of the assessment a 5 (very good).

Safety Rules

Overall, it appears that the safety rules of the road for pedestrians and drivers can be easily adhered to. Crosswalks and crosswalk signs, although in need of repainting, could still be viewed by drivers to allow pedestrians and bikers to safely cross the road. There were no large areas of obstruction, such as cars or landscaping problems, on the busy roads to make it difficult to look both ways multiple times before crossing the roadway. However, several of the roads did not contain bilateral sidewalk access for pedestrians. Finally, in the areas where stoplights were used, we were able to safely cross the roadway in adequate time.

We rated this component of the assessment 3.5 (some problems to good). Overall, it was easy to adhere to the safety rules for both pedestrians and drivers.

Aesthetics

Much of the area we covered was well taken care of with some trash and litter. The most concerning areas were in neighborhoods where it appeared the house had been abandoned or was rental property that was currently sitting empty. Many of these homes were in need of repair, and the lawns had not been kept up for quite awhile with overgrown grass, trees, and shrubbery. Due to drainage problems, some areas also contained standing water and mud. Most of the litter and trash we observed were located near Rosedale Middle School, which was also on our route.



Many yards were well taken care of with manicured lawns, trimmed trees, and flowering bushes in several neighborhoods.

Because much of the scenery and aesthetics of the route were for the most part pleasant, we rated this portion of the assessment a 4.5 (good to very good).

Overall Score

Based on our rating of the walkability in and around the area of Frank Rushton Elementary School, we arrived at the following total score:

- Walking surface = 3
- Crosswalks and area surrounding crosswalks = 3.5
- Driving behaviors and motor vehicle activity = 5
- Safety rules = 3.5
- Aesthetics = 4.5

Total Score = 19.5

This score classifies this area as okay for walking conditions but in need of some improvement. Sidewalks in several areas are in need of repair and several roadways should add sidewalks or walking/biking lanes to accommodate pedestrians and bikers. Crosswalks should also be placed in the area by Rosedale Park to aid children and families utilizing the park. Finally, because Frank Rushton is located on such a busy roadway, children should be taught the importance of looking both ways before crossing any road, and perhaps more signs should be located on either side of the road to alert drivers that a school is in the vicinity.

To view a copy of the route traveled for the assessment of Frank Rushton Elementary School and field notes that were taken, see Appendix E.

Holy Name Elementary School Walkability Assessment Results

The following summarizes the results for the assessment conducted for areas surrounding Holy Name Elementary School on 05/06/2009.

Walking Surfaces

Several problems were encountered with the sidewalks and roadways travelled for this evaluation. Several streets did not have any sidewalks or had sidewalks that were in extremely poor condition. Many sidewalks also started and stopped abruptly or were covered with overgrown grass and shrubbery, making it hard to determine if a sidewalk was really present or not. Areas of particular concern included 42nd Avenue and Booth Street. Both of these streets had sidewalks that were covered with severe overgrowth in addition to drainage problems causing wet and muddy sidewalks in which pedestrians would most likely need to exit the sidewalk to continue on the roadway.



Holy Name Elementary School.

Much of the sidewalks were in extremely poor condition which included large cracks, uneven surfaces, drainage problems resulting in muddy and wet surfaces, and lack of curb ramps for bikers and disabled people to easily dismount. The sidewalk located in front of the school was in fair condition. However, it was very close to the street with no “buffer zone” separating the sidewalk from the street. As it continues it becomes very cracked, uneven, and even slants at an angle which could pose hazardous conditions for pedestrians. Several sidewalks were also blocked with overgrown shrubbery, weeds, grass, fallen tree limbs, storm drains, and ongoing construction.



Sidewalk with uneven surfaces and grass and weeds in need of mowing.

Another area of concern was on S. Mill Street where the hill was extremely steep and the sidewalk turned into a set of stairs. Many of the stairs were in need of severe repair as most of them were broken and cracked which could cause tripping hazards for those utilizing the stairs. The stairs were also in need of cleaning as broken glass and trash littered many of the steps.



The sidewalk turns into a set of 68 steps on S. Mill Street.



Many of the steps are blocked by overgrowing vegetation.



Some steps were severely broken posing tripping hazards for pedestrians.



Glass and other debris littered several steps.

Several neighborhoods and areas did not have any kind of sidewalk access or walking paths. Furthermore the streets that did not have sidewalk access were narrow and in poor condition with cracks, potholes, and drainage issues. This poses particular concern for high traffic areas, particularly on SW Boulevard where Holy Name is located. Although SW Boulevard does have sidewalks along much of the road, many of the sidewalks are in poor condition and the gravel shoulders are also in poor condition. Moreover, there is a large set of train tracks, causing bumpy and rough condition for pedestrians and bikers.

Because of the extremely poor conditions of many of the sidewalks, the lack of sidewalks, and the volume of traffic, particularly in front of Holy Name, we rated this component of the evaluation a 2.5 (many problems to some problems).

Crosswalks and Area Surrounding Crosswalks

Some problems were also encountered due to the lack of crosswalks in areas around Holy Name Elementary School. While the front of the school had a crosswalk, flashing lights, and crosswalk signs that were in good condition, this was the only crosswalk in the area. Because SW Boulevard is such a wide and busy street with several residential roads emptying into this street, more crosswalks should be made available for children and pedestrians crossing the road. Furthermore, because Whitmore Playground is in such close vicinity of this school, crosswalks should be placed in the areas surrounding this park as well because of heavy traffic.



Crosswalk in front of the school on SW Blvd is in good condition.

Another issue of concern is the lack of curb ramps and the poor condition of many of the curb ramps which are present. For small children, elderly people, bikers, and disabled people, the lack of curb ramps and poor condition of those that are present is an area of concern for those trying to mount and dismount sidewalks.

Finally, steep hills and cars parked along the sides of many roads blocked our visibility for crossing the road safely. Extra caution in some of these areas, including along SW Boulevard and the steep hill on S. Mill Street, should be taken. Although a speed limit sign is posted at the top of the hill at Federal Avenue, individuals attempting to cross the street are not able to see down the hill for oncoming traffic due to the sheer steepness of the hill. This is especially of concern as an apartment complex is located at the corner of S. Mill Street and Federal Avenue. Pedestrians need to exercise special caution in this area for speeding drivers coming up the hill.

Due to the lack of crosswalks, crosswalk signs, and stoplights along some of the more high traffic areas of this route we rated this component of the assessment a 3 (some problems).

Driving Behaviors and Motor Vehicle Activity

For the most part, drivers appeared to obey the speed limit signs posted and stoplights as we crossed the road at Holy Name. There were a couple of problem areas including speeding traffic along SW Boulevard and 7th Street Trafficway. However, while there

were no sidewalks on the south side of 7th Street Trafficway at the I-35 intersection, drivers appeared to be aware of us and were cautious not to speed past us or pass by too closely.

The main area of concern was on Chester Avenue where a driver sped past us too closely. This is also a residential area that does not contain any sidewalks or posted speed limit signs.

Overall, because drivers were aware of us and appeared to obey basic traffic safety guidelines, we rated this component of the assessment a 4.5 (good to very good).

Safety Rules

Overall, pedestrians should have no problems adhering to safety rules. However, caution should be applied in areas where traffic is especially heavy and no crosswalks or stop lights are available to aid pedestrians across the street. An area of particular concern is along SW Boulevard. However, even with the lack of crosswalks on most roads, it is fairly easy for pedestrians to look both ways several times to safely cross the streets. And while bilateral sidewalks were available on many of the streets that had access to sidewalks, several of them were in poor condition on one side of the street which may cause pedestrians to exit the sidewalk and walk on the roadway or cross over to the other sidewalk. This is something we experienced a few times, particularly on Booth Street. Finally, with the exception of the crosswalk and stoplight in front of Holy Name, there were no other stoplights to aid pedestrians in crossing the street. Therefore extra caution needs to be taken in areas where traffic may be especially heavy.

Because of the lack of crosswalks, stoplights, and poor condition of some of the sidewalks, we rated this section as a 4.5 (good to very good).

Aesthetics

Because Holy Name Elementary School is located on SW Boulevard which houses many older businesses and industrial businesses, as well as some vacant buildings in need of repair or total restoration, areas along this section are in need of improvement and/or updating. One other area of concern is S. Mill Street because of the steepness of the hill and stairway in need of repair. The stairs leading north on S. Mill Street were also an area for concern due to the amount of trash, broken glass, and tree branches that littered most of the steps. With the exception of these two streets and an occasional abandoned



Several large, beautiful homes can be seen around the Rosedale community. This castle undergoing reconstruction easily attracts people.

home in need of repair and yard work, the overall environment was pleasant with most yards well cared for. It is also important to note, that on many of our assessments, many people were out taking care of their lawns and cleaning up around the outside of their homes.

Because of the two problem areas and some of the abandoned properties in need of attention we rated this section of the assessment a 4 (good).

Overall Score

Based on our rating of the walkability in and around the area of Holy Name Elementary School, we arrived to the following total score:

- Walking surface = 2.5
- Crosswalks and area surrounding crosswalks = 3
- Driving behaviors and motor vehicle activity = 4.5
- Safety rules = 4.5
- Aesthetics = 4

Total Score = 18.5

This score classifies this area as okay for walking conditions but in need of improvement. Overall, more sidewalks need to be made available and many of the sidewalks that are present are in severe need of repair. Furthermore, more crosswalks should be made available, particularly along SW Boulevard and in around Whitmore Playground where several people access the park. In an effort to encourage more children to walk to school, pedestrian safety classes which pay special attention to crossing roads with no crosswalks and walking in areas with no sidewalks available for use should be made available to children and their families.

To view a copy of the route traveled for the assessment of Holy Name Elementary School and field notes that were taken, see Appendix F.

Rosedale Middle School Walkability Assessment Results

Because much of the area and neighborhoods surrounding Rosedale Middle School were already covered from previous walking assessments for the elementary schools, we combined our evaluations from those schools to score the different components for this evaluation. However, because specific residential areas had not been covered from the previous assessments, we made sure to return and assess these areas on 05/21/2009. Based on our results from the previous assessments combined with the new areas covered, the following summarizes the results for the areas surrounding Rosedale Middle School.



Rosedale Middle School.

Walking Surfaces

As with the previous assessments, several areas surrounding the 1.5 mile radius of Rosedale Middle School had problems including lack of sidewalks, sidewalks in poor condition, and areas of high traffic. Although sidewalks were located around the school, they were in poor condition with several cracks and overgrown grass covering the surface. Grass that had not been mowed in several weeks encroached the sidewalk on Springfield Street and trash also littered the narrow sidewalk. Many sidewalks were also blocked with trashcans and overgrown shrubbery. Sidewalks were cracked and uneven in several areas. Poor drainage was also an issue on several sidewalks resulting in standing water and mud, therefore discouraging pedestrian use. Trash, broken glass, tree limbs, and sticks also littered many sidewalks.



Although sidewalks on Springfield Street by Rosedale Middle are in good condition, construction on a new home and several parked cars on the street pose many safety hazards for pedestrians.

Streets that did not have sidewalks also had several problems. Many streets had large potholes and cracks and many roadways were narrow. Drainage problems also plagued a few of the streets.

Due to the lack of sidewalks and the poor conditions of many of the existing sidewalks, we rated this component of the assessment a 2 (many problems).



Uneven surfaces of many of the sidewalks pose many hazards for pedestrians, including tripping and injury to the knees and ankles.

Crosswalks and Area Surrounding Crosswalks

Again, a lack of crosswalks around the school and surrounding parks is of concern. Although a crosswalk is located in front of the school, it is in need of repainting. Because the school spans such a large area, more crosswalks should be available for pedestrians, especially since the school is located on a curvy road.



Steep, narrow hills cause problems for pedestrians and drivers on Springfield Street just north of the school. Although the sidewalk is in good condition here, it lacks curb ramps for pedestrians and disabled people entering and exiting the sidewalk.

Also on Springfield Street is Rosedale Memorial Park (also known as Mt. Marty Park). This park is located at the top of a hill where the road also begins to curve just before the middle school. There is no sidewalk access to the entrance of the park and no crosswalks are available for pedestrians. It was noted while evaluating this park that middle school students do access this area as several homework papers were found. A crosswalk along with signs should be posted to alert drivers of pedestrians accessing the park. We also noted at Fisher Park that a car honked loudly as middle school students ran into the road while the car was in the

middle of the intersection. Crosswalk signs and lights should also be placed at this location.

A crosswalk was also located at the corner of Lloyd Street and East 41st Avenue, but again it is in need of repainting. Crosswalks with lights were also available for use at busier intersections including Mission Road and Rainbow Boulevard. These crosswalks were in good condition and allowed us adequate time to cross the streets.

However, due to the overall lack of crosswalks located around the middle school and the nearby parks, this component of the assessment was rated a 2 (many problems).



Although a security officer acts as a crossing guard at Rosedale Middle School, the crosswalk is in need of new paint for drivers to see.



Many middle school students access Fisher Park. However, a lack of crosswalks by the park is a concern. And although the speed limit is posted at 20 mph, several vehicles were observed to be speeding during a couple assessments.

Driving Behaviors and Motor Vehicle Activity

For the most part, drivers appeared cautious and followed posted speed limit signs. The drivers we observed yielded to oncoming traffic and us at traffic signals. There were only a few instances where drivers appeared to be speeding, particularly on Mission Road and SW Boulevard.

Speed limit signs were on the main roadways, and drivers appeared to follow these postings. Because the school is located on a curvy road where there is also park access, more speed limit signs should be considered in this area to alert drivers of a school zone and park access. For the most part, drivers did appear to have safe driving behaviors. We rated this component of the assessment a 4.5 (good to very good).

Safety Rules

Areas of concern due to the lack of crosswalks were located around the school and the area parks. On Mission Road and Springfield Street where Rosedale Park and Rosedale Memorial Arch are located, crosswalks are especially in need due to the hill and winding curves of the road. Several streets did not have bilateral sidewalks and those that did often had one side or both in poor condition with cracks, uneven surfaces, muddy and wet surfaces, and overgrowth. Several of the busy intersections were also in need of crosswalk lights to assist pedestrians in crossing the street.

Because of the lack of crosswalks and sidewalks, making it more difficult for pedestrians to walk or cross streets in many areas, we rated this section as a 3 (some problems).

Aesthetics

Areas around Rosedale Middle School were in need of both mowing and cleaning as trash littered the sidewalks and grass and weeds were overgrown and blocked the paths of the sidewalks. Many neighborhoods with abandoned or unrented houses were also in need of lawn care and home repair. Several large, barking dogs could also make young children nervous when approaching these houses. Although most of the roads appeared to be well lighted with street lamps, of concern was Rosedale Park Drive by Rosedale Park. This is a curvy and narrow road that does not have streetlights. Because the road is lined with trees, driving, walking, and biking this road at dusk or at night could be hazardous due to the lack of lighting.



Overgrowing vegetation, trash, and debris littered several areas by Rosedale Middle School.

Due to the large amount of trash that littered many of the sidewalks around the school and the unkempt conditions of many houses in surrounding neighborhoods, we rated the aesthetics a 3.5 (some problems to good).

Overall Score

Based on our rating of the walkability in and around the area of Rosedale Middle School, we arrived at the following total score:

- Walking surface = 2
- Crosswalks and area surrounding crosswalks = 2
- Driving behaviors and motor vehicle activity = 4.5
- Safety rules = 3
- Aesthetics = 3.5

Total Score = 15

This score classifies the area as needing lots of improvement. The condition of many of the sidewalks is in need of improvement, and the lack of sidewalks and crosswalks is of concern in many areas. In order to encourage more students to walk to school, an effort should be made to improving the area.

To view a copy of the route traveled for the assessment of Rosedale Middle School and field notes that were taken, see Appendix G.

Summary of Walkability Assessments

The average walkability score for all of the assessments combined was a 16.8, indicating that walking conditions are okay, but in need of improvement. Of most concern for the walkability assessments were the lack of sidewalks on many of the roads, the poor condition of many sidewalks, and the lack of pedestrian crosswalks.

In April of 2009 a survey was given to Rosedale community members. Their concerns echoed many of the findings that were observed during the evaluations. When asked what the major barriers or challenges were to residents when participating in physical activity within the community, 67% of the respondents indicated the lack of sidewalks and 33% of the respondents indicated the lack of crosswalks to get safely across the street as major barriers and challenges. In a follow-up, an open-ended question asking what the most important thing in need of improvement to support physical activity within the community, seven people reported that condition of sidewalks and lack of sidewalks needed improvement while three people indicated that more crosswalks and pedestrian lights needed to be added in the area.

The Partnership for a Walkable America, the U.S. Department of Transportation, and the U.S. Environmental Protection Agency all offer helpful suggestions to help communities support more active communities for pedestrians.

- For improving walking surfaces:
 - Consider writing or petitioning the city for sidewalks or pedestrian paths in high traffic areas and collect neighborhood signatures.
 - Contact the public works department regarding sidewalks with large cracks, uneven surfaces, and gaps or sidewalks that are covered with vegetation or overgrowing grass and weeds. Ask if a hazard report card or online link can be established to warn the agency of potential hazards and problem areas.
 - Work with a local transportation engineer to develop a plan for safe walking routes for areas students to and from schools, parks, and other popular locations.
- For improving crosswalks and areas surrounding crosswalks:
 - Advocate for crosswalks/signals/parking changes/curb ramps at city meetings, particularly for streets surrounding area schools and parks.
 - Request that the public works department trim trees or plants that may obstruct a pedestrian's view for safely crossing streets.
 - Ask that the crosswalks located in front of the schools be regularly maintained and painted as needed for drivers and other people to easily view them.
 - Contact the local media and make them aware of the problems that exist.
- To improve motor vehicle activity:
 - Petition for more enforcement of posted speed limit signs, particularly around schools as children are being dropped off or picked up during high traffic times.

- If schools do not already have a crossing guard on duty, encourage them to do so before and after school when traffic is especially heavy.
- Organize a neighborhood speed watch program.
- Devise routes for students that will help them avoid high traffic areas.
- To improve adherence to pedestrian safety rules:
 - Encourage area schools to educate students in pedestrian safety.
 - Help schools to start safe walking programs.
 - Encourage corporate support for flexible schedules so parents can walk young children to school.
- To improve the aesthetics:
 - Request increased police enforcement in problem areas of the community.
 - Start crime watch programs in area neighborhoods.
 - Organize a community clean-up day.
 - Sponsor a neighborhood beautification or tree-planting day.
 - Begin an adopt-a-street program within the community.
 - Initiate support to provide routes with less traffic to and from area schools and parks for students.

To promote a healthier community, plans should be made to improve walking conditions within the area, especially regarding the sidewalks and crosswalks. To encourage children to walk to and from school, a pedestrian safety workshop should be made available to students in their family that not only covers pedestrian safety rules, but that also educates students about sun safety and the Air Quality Index (AQI). Small changes within the community could help promote more active living within the Rosedale community.

Bikeability Assessments

Routes that were traveled for the walkability assessment were the same routes evaluated for the bikeability assessment. Items that were critiqued for the bikeability assessments included the following:

- Availability of safe places to bike, including sharing the road with motor vehicles and the availability of off-road paths where motor vehicles are not allowed
- Bicycling surfaces, including sidewalks, paths, bike lanes, roadways, and other surfaces
- Intersections
- Driving behaviors and motor vehicle activity
- Ease of biking, including the availability of bicycle racks, availability of maps, signs, or road markings, and hilly routes

Each of the components assessed above were rated on a scale of 1 to 6:

- 1 = Awful
- 2 = Many problems
- 3 = Some problems
- 4 = Good
- 5 = Very good
- 6 = Excellent

The overall score was then added up for a total score. The following describes the breakdown of total score from the instrument used for this assessment:

- 26 – 30 = Good community for cycling
- 21 – 25 = Community and surrounding areas are pretty good for cycling but could use some improvement
- 16 – 20 = Conditions are okay for cycling, but there is plenty of opportunity for improvements
- 11-15 = Poor conditions, needs lots of work
- 5-10 = Very poor conditions for cycling

Along with this assessment instrument itself, field notes and pictures documenting the cycling conditions were taken while the route was biked. At the end of each assessment, both the graduate research assistant and researcher helping on this project conferred together about things encountered during the bicycle ride, and came up with an overall consensus on the ratings for the assessment.

For a copy of the assessment tool used for the bikeability assessments, see Appendix B.

T.A. Edison Elementary School Bikeability Assessment Results

The following summarizes the results for the assessment conducted for areas surrounding T.A. Edison Elementary School on 04/16/2009.

Availability of Safe Places to Ride

Routes that were assessed surrounding the 0.8 mile radius of T.A. Edison elementary school contained very few sidewalks, shoulders, or bike paths. Furthermore, many of the roads that were assessed were very narrow and in poor condition. Because of the narrow streets, cars attempting to pass bikers may pass too closely, or have to yield to oncoming traffic to allow enough room for the biker to continue safely on. It is also important to note that there were not any "Share the Road" signs observed.

There were also a few steep hills encountered on our route. One of the hills was not only steep, but also had a sharp curve which is a cause for concern because of visibility issues for drivers and bikers. There was also not a speed limit sign or other sign indicating that a sharp curve was ahead and to slow down. Two of the hills were so steep that it was easier to walk our bikes up the hill rather than bike the hill. It is important to also note that because of large potholes and cracks on the steep roadways, bikers may have a difficult time seeing these problems in the roadway. This can also create a safety problem because the rider may be coming too quickly down the hill and hit a large pothole, causing them to fall or be thrown off their bicycle.



Several neighborhoods surrounding T.A. Edison Elementary contained narrow and steep roads with no bike lanes or paths for cyclists to safely ride on. Several streets also had steep ditches or drop-offs which could cause hazardous riding conditions for bikers sharing the road with motorists.



Shoulder surfaces on SW Boulevard were in extremely poor condition with large potholes, cracks, and uneven surfaces. Wet and muddy conditions would also make it difficult for a biker to ride on the shoulder.

Because of the lack of space, sidewalks, bike paths, and “Share the Road” signs, we rated this component of the assessment as a 2 (many problems).

Bicycling Surfaces

Roadways and sidewalks were in poor condition. Several roads had very large potholes and cracks that could be dangerous to cyclists. There were also a few areas that had trash, including broken glass, in the roadways or on the sidewalk. Both road and sidewalk surfaces also contained uneven gaps on many streets. Bikers choosing to ride on sidewalks may also encounter overgrown bushes and grass. Curb ramps were also missing from many of the sidewalks we observed, making it difficult for bikers and disabled people to enter and exit the sidewalks. Although much of Southwest Boulevard had a large shoulder to ride on, the shoulder was in very poor condition with many potholes and uneven surfaces. If a biker chose to ride on the road, it is narrow enough where drivers would be passing very closely.



Rough conditions found on many of the roadways make for an extremely bumpy and uncomfortable bike ride.



Railroad tracks by the school also create rough riding conditions for bikers.

Another cause for concern was a couple of streets near the school which appeared to have drainage problems. This could lead to slick roadways for bikers. There was also a set of railroad tracks, making it uncomfortable for riders to cross because of the bumpy, uneven surface.

Due to the poor roadway and sidewalk surface conditions, a rating of 2 (many problems) was given for this component of the evaluation.

Intersections

The intersections we rode through also had some problems. There were very few crosswalks with lights where we had to proceed cautiously due to traffic volume and limited visibility due to hills or curves. There was one particularly busy intersection at

Rosedale Park Drive and Mission Road where there were no crosswalks or lights to guide us across the road to Rosedale Park. This was an also extremely busy intersection where the visibility was poor because of a sharp curve coming off of a hill. This could cause problems for children attempting to cross the road to get to the park. However, the crosswalks we did encounter along Mission Road did allow enough time for us to safely cross the road.

We rated this component of the assessment a 3 (some problems) due to the lack of crosswalks and lights for cyclists.

Driving Behavior and Motor Vehicle Activity

Because of the narrow roads, lack of bicycle lanes, paths, shoulders, and sidewalks, we encountered a few problems along our route. Along some of the more narrow roads, particularly Southwest Boulevard, a few drivers passed us by very closely. We also observed drivers speeding in some areas, especially along Mission Road. Although most drivers were considerate of us, it appeared as if a couple of drivers were unsure of how to drive around cyclists on the roadway.

We rated this component an average of 3.5 (some problems to good). While a majority of the drivers observed safe behaviors around us, there were a few drivers that needed to observe safer driving behaviors.

Ease of Biking

The lack of a bike rack at this school was one of the first things we assessed before we began our evaluation. Unless the school is set up to allow students to bring their bikes into the school for storage, there was no safe or secure place for students to leave their bicycles.

With the exception of signs located immediately around the school, there were no maps, signs, or road markings to help bikers navigate to school and the surrounding Rosedale parks. There were also a few steep hills that made bicycling very difficult.

For this component of the assessment we rated it a 3 (some problems) due to the lack of a bicycle rack, signs and road markings, and steep hills located close to the school.



Bikers would need to exercise caution riding up and down the steep, narrow, and curvy roads by T.A. Edison. The hill shown here is so steep that many bikers may need to walk their bike up the hill.

Overall Score

Based on our rating of the bikeability in and around the 0.8 mile radius of T.A. Edison Elementary School, we arrived at the following total score:

- Availability of safe places to ride = 2
- Bicycling surfaces = 2
- Intersections = 3
- Driving behavior and motor vehicle activity = 3.5
- Ease of biking = 3

Total Score = 13.5

This score classifies this biking area as poor. We are in agreement that more crosswalks and sidewalks should be made available for children, especially around the school area where they are particularly lacking and where traffic can be especially heavy during drop off and pick up times during the school day. Furthermore, the steering committee should look into what it would take to post "Share the Road" signs in several neighborhoods and busy streets. Finally, to encourage more bikers, bicycle racks and biker safety classes should be made available at the school.

Noble Prentis Elementary School Bikeability Assessment Results

The following summarizes the results for the assessment conducted for areas surrounding Noble Prentis Elementary School on 04/16/2009.

Availability of Safe Places to Ride

Routes that were assessed surrounding Noble Prentis contained very few places for a cyclist to safely ride. Very few sidewalks were available and there were no bicycle lanes for riders. Very few shoulders were present and the shoulders that were available for bikers were in poor condition in many areas with potholes and trash and other debris blocking access. Moreover, many of the streets were narrow, hilly, and/or curvy presenting many safety hazards for bikers.



Most roads surrounding Noble Prentis lacked shoulders, bike paths, and bike lanes. Extreme caution by motorists and bikers need to be taken on the narrow and curvy roads such as the one pictured above.

Heavy traffic along Springhorn Lane and S. 14th Street where the school is located is also cause for concern due to the narrow roadways and the volume of traffic occurring before and after school.

Springhorn Lane is also a very steep hill which also presents problems for cyclists biking up and down that hill. On more than one occasion, vehicles had to stop or slow down in order to share the road with us and accommodate oncoming traffic safely. Although a speed limit sign of 20 miles per hour was posted on Springhorn Lane, it appeared that many drivers did not obey this speed limit. Finally, along with the lack of bike lanes and shoulders, no "Share the Road" signs were observed anywhere along this route.

Due to the lack of bike lanes, shoulders, "Share the Road" signs and narrow roadways, we rated this section of the assessment as a 2 (many problems).

Bicycling Surfaces

Sidewalks, shoulders, and roadways were in poor condition in several areas. Many of the roadways had large potholes that could pose danger to cyclists, along with cracks and broken and uneven pavement present in many areas. Trash, including broken glass, littered some of the sidewalks and roadways as well. On Douglas Street, a raised manhole and road construction created obstacles for bikers and drivers. Drainage problems were present on both 14th Street and Douglas Street with standing water and mud in the roadways which could cause for slick roadways for bikers.

Because of the extremely poor condition of many of the roads and shoulders we rated this component a 2 (many problems).



Rough conditions of the shoulders and roadways can cause many problems for cyclists. Other areas of concern included road construction and areas with drainage problems creating wet and muddy conditions for bikers.

Intersections

With the exception of areas of SW Boulevard and Merriam Lane, a majority of the route traveled was residential areas. Therefore, very few intersections were crossed.

However, in areas surrounding the school along with sections of SW Boulevard and Merriam Lane, it would be helpful for cyclists to have crosswalks with stoplights to aid them in crossing the streets since traffic is heavier in these areas.

Because of the lack of crosswalks with traffic signals in many of the high traffic areas we rated this component of the assessment a 3.5 (some problems to good).

Driving Behavior and Motor Vehicle Activity

A couple of problems were encountered in sharing the road with motorists. Most of these problems occurred on Springhorn Lane where a car sped by us very closely. Other vehicles on this road also appeared to be speeding rapidly down the steep hill. However, while we were assessing this road, we did not notice any posted speed limit signs. This is especially cause for concern with the school being so close to this road along with several homes in the area.

The only other problem area was on SW Boulevard where again, drivers appeared to be speeding and passing by a little too closely. For the most part, drivers were aware of us

and were more cautious. Due to the speeding cars and the vehicles that passed us by too closely we rated this section of the assessment a 3.5 (some problems to good).

Ease of Biking

The lack of a bike rack present at the school was the most obvious thing we noted. Furthermore, we did not see any bikes around the school. There were also no maps, signs, or road markings to help cyclists in finding their way to locations, such as schools or area parks. The addition of signs or road markings could help children find a more direct route to and from school that may also help them in avoiding riding up and down steep hills or roads that are very narrow.



Steep and narrow hills may be difficult and unsafe for young children to navigate without proper safety training.

While several dogs were enclosed in fenced in yards or on leashes, many of them came running up to the fence barking at us. This could make some children nervous passing by these houses. Finally, there were a couple of long and/or steep hills which could make it difficult for young children to safely bike up and down, including on Springhorn Lane and Rosedale Drive.

For this component of the assessment we rated it a 2.5 (many problems to some problems) due to the lack of a bicycle rack, signs and road markings, and steep hills and narrow roadways that were located near the school.

Overall Score

Based on our rating of the bikeability in and around the 0.8 mile radius of Noble Prentis Elementary School, we arrived at the following total score:

- Availability of safe places to ride = 2
- Bicycling surfaces = 2
- Intersections = 3.5
- Driving behavior and motor vehicle activity = 3.5
- Ease of biking = 2.5

Total Score = 13.5

This bikeability score classifies the area as poor. More crosswalks or bike lanes should be made available for children, particularly around the school where traffic can be especially heavy before and after school. Furthermore, the shoulders on 14th Street are

in need of repair so that both bikers and pedestrians can safely utilize the shoulder areas. "Share the Road" signs should also be posted within areas around the schools and parks to alert drivers that bikers may be on the road. Finally, in order to encourage students to bike to school, biker safety classes should be made available to students and their families, and bicycle racks should also be placed at the school.

Frank Rushton Elementary School Bikeability Assessment Results

The following summarizes the results for the assessment conducted for areas surrounding Frank Rushton Elementary School on 04/28/2009.

Availability of Safe Places to Ride

As with both T.A. Edison and Noble Prentis, no bike lanes were available on any of the roads we traveled. Several of the roadways were also very narrow, making it difficult for cyclists to bike safely with and share the road with vehicles. Many of the streets were also in poor condition due to rough road conditions, large potholes, and cracks. Several streets also had low hanging tree branches in which cyclists would need to be especially cautious of. Broken glass was also present on the roadways and on the sidewalks. Bikers choosing to utilize the sidewalks present would have difficulty due to the poor conditions of some of the sidewalks along with the grass overgrowth covering a few sidewalks.



As with the other evaluations, the lack of shoulders, bike lanes, and bike paths was evident with the areas surrounding Frank Rushton Elementary.

Again, because of the lack of bike paths and “Share the Road” signs, along with poor roadway conditions, we rated this section of the assessment as a 2.5 (many to some problems).

Bicycling Surfaces

As mentioned above, several of the streets had large potholes, cracked and broken sections of pavement, debris including broken glass, trash, and tree branches, and overgrown brush blocking the shoulder of roads. Furthermore, poor drainage issues, particularly on S. Minnie, 42nd Avenue, and Booth Street could create slippery conditions for bikers. There were also several areas of bumpy and uneven surfaces which could create uncomfortable riding conditions for bikers.



Rough conditions of the roadways and drainage problems producing wet and muddy streets pose many problems for bikers, including slick roadway conditions.

Intersections

As with the assessments conducted on the other schools, few intersections contained crosswalks or stoplights to aid bikers in safely crossing the street. It is important to note that a crosswalk in good condition with fresh paint and a crosswalk light was located in front of the school. However, we did feel rushed through the light as it began the caution blinking as we were halfway across the road. Although we did have plenty of time to cross the street, the flashing light could make some students nervous and unsure how to proceed through the crosswalk. It should be considered to allow a longer time for the “Walk” light to stay lit before the cautionary blinking “Do Not Walk” sign begins flashing.

This section was rated a 3 (some problems) mainly because of the lack of crosswalks located around the school. Again, because Rosedale Park is located relatively close to the school, the lack of crosswalks in this area is of concern for students and families wishing to use the park after school when traffic may be especially heavy.

Driving Behavior and Motor Vehicle Activity

Overall, drivers appeared to be well aware of their surroundings and used caution around us. The only problem area was at 43rd Avenue, where the school is located, in which traffic was especially heavy and some of the cars appeared to be speeding. However, for the most part, drivers did slow down and proceed cautiously as they reached the crosswalk in front of the school.

Because a majority of the drivers seemed to be aware of their surroundings and of us and used caution when approaching the area close to the school, we rated this component a 5 (very good).

Ease of Biking

Again, as with the previous schools, there were no maps, signs, and road markings to aid cyclists and others in navigating the areas surrounding the schools and finding their way to schools, parks, and stores. Again, no bike rack for students to secure their bike to was observed at the school. There were also narrow roadways and steep hills which could cause problems for young bikers.

We rated this section of the assessment a 3 (some problems) due to the lack of a bike rack at the school, along with the lack of maps, signs, and road markings to help cyclists identify locations of interest. Furthermore, because of the narrow roads, steep hills, and poor condition of many of the streets, bikers may have many problems in safely navigating the streets surrounding the school.



Narrow and steep hills were also found in areas surrounding the school. Also of concern were cars and overgrowing vegetation blocking paths for bikers.

Overall Score

Based on our rating of the bikeability in and around the 0.8 mile radius of Frank Rushton Elementary School, we arrived at the following total score:

- Availability of safe places to ride = 2.5
- Bicycling surfaces = 2
- Intersections = 3
- Driving behavior and motor vehicle activity = 5
- Ease of biking = 3

Total Score = 15.5

Just as with the previous assessments, several problems were encountered that could pose hazards for young bikers. In order to encourage and accommodate people to bike to school, several changes need to be made including the addition of bike lanes and “Share the Road” signs and improvements to make the street surfaces safe for bicyclists. Again, safety education workshops regarding bicycle safety should be made available for young children and their families.

Holy Name Elementary School Bikeability Assessment Results

The following summarizes the results for the assessment conducted for areas surrounding Holy Name Elementary School on 05/06/2009.

Availability of Safe Places to Ride

As with the other assessments, areas surrounding Holy Name Elementary lacked bike paths and shoulders for bikers to ride on. Although SW Boulevard does have shoulders along much of the road, the surface is rough with several potholes. Cars also block the shoulder in areas where bikers would be forced to enter the roadway in order to continue. Several of the streets are also very narrow making it so that approaching traffic would need to yield to oncoming cars in order to share the road with cyclists. Moreover, heavy traffic along SW Boulevard, where the school is located, and 7th Street Trafficway make it difficult for bikers to



Most of the neighborhoods and areas surrounding Holy Name Elementary did not contain shoulders, bike lanes, or bike paths. Although the road pictured above is in good condition, the narrow shoulders are in need of repair.

safely ride, especially when parts of the road are in poor condition due to large potholes or drainage problems. The lack of crosswalks along SW Boulevard at busy intersections also makes it difficult for bikers to cross the road. Finally, cyclists utilizing the sidewalks would have problems mounting and dismounting sidewalks due to the lack of curb ramps.

We rated this component of the assessment a 3 (some problems) due to the lack of bike lanes, shoulders, and poor road conditions. We also did not observe any “Share the Road” signs. More crosswalks also need to be made available along sections of SW Boulevard for both bikers and pedestrians wanting to access the school, area parks and corner markets.

Bicycling Surfaces

Again, we encountered several problems with the condition of the roadways surrounding Holy Cross Elementary. Several large potholes and cracks were observed on the streets along with uneven surfaces. Railroad tracks at SW Boulevard cause for bumpy conditions for cyclists to ride across. Debris, including broken glass and trash, littered some of the streets. Drainage problems were also an issue on some of the streets, producing slick conditions for riders.

Due to the poor conditions of several streets we rated this section of the assessment a 2.5 (many to some problems).

Intersections

A crosswalk in good condition is located directly in front of the school. The crosswalk appears to have been recently painted and there is a crosswalk sign with flashing signs to alert drivers that they are in a school zone. However, few crosswalks are located in the area with the exception of the corners of SW Boulevard, 7th Street Trafficway, and Rainbow Boulevard. Because Whitmore Playground is located on SW Boulevard, which often has heavy traffic, and is near to the school, additional crosswalks should be located in this area to safely guide pedestrians and bikers across the street. Mission Road was also a location with heavy traffic where more crosswalks along with lights should be placed.



Roadway surfaces were in poor condition with many potholes, cracks, and breaks in the surface creating hazardous conditions for cyclists.

Overall, it was fairly easy to cross the intersections in the area. However, with the lack of crosswalks, particularly around busy intersections, we rated this section a 4 (good).

Driving Behavior and Motor Vehicle Activity

Overall, drivers appeared to obey the speed limit and were aware of us. Problem areas on this route include heavy and sometimes speedy traffic along SW Boulevard, Mission Road, and 7th Street Trafficway. An area of concern is especially around SW Boulevard where the school is located. Because traffic is usually heavy in this area, it can become even more problematic during the times before and after school when parents are dropping off and picking up their children. More awareness should be brought to drivers' attention that a school zone is in the area with more signs posted on this street.

Because of the overall cautionary driving and compliance with the speed limit, this component was assessed as a 4.5 (good to very good).

Ease of Biking

Again, no bike rack was available at the school for students to secure their bicycles. With the exception of school zone signs located at the school, no maps, signs, or road markings were available to help bikers navigate to school and the surrounding parks and playgrounds. There were also a couple of steep hills, particularly on S. Mill Street, that would be very difficult and dangerous for cyclists to bike.

For this section of the assessment we rated it a 3.5 (some problems to good) due to the lack of bicycle racks, signs and road markings, and steep hills located close to the school.



This steep hill on S. Mill Street could be difficult for many young bikers to ride up.

Overall Score

Based on our rating of the bikeability in and around Holy Name Elementary School, we arrived at the following total score:

- Availability of safe places to ride = 3
- Bicycling surfaces = 2.5
- Intersections = 4
- Driving behavior and motor vehicle activity = 4.5
- Ease of biking = 3.5

Total Score = 17.5

This score classifies this area as okay for cyclists but in need of improvement. Several improvements need to be made to the streets to make them more suitable and safe for biking. Again, it should be looked into to provide “Share the Road” signs around the community to support bikers. More crosswalks with lights also need to be included for both bikers and pedestrians to easily cross roads, particularly close to the schools and area parks.

Rosedale Middle School Bikeability Assessment Results

Because much of the area and neighborhoods surrounding Rosedale Middle School were already covered from previous assessments for the elementary schools, we combined our evaluations from those schools to score the different components for this evaluation. However, because specific residential areas had not been covered from the previous assessments, we made sure to return and cover these areas on 05/21/2009. Based on our results from the previous assessments and combined with the new areas covered, the following summarizes the results for the areas surrounding Rosedale Middle School.

Availability of Safe Places to Ride

Just as with the other assessments, several problems were encountered including lack of space to safely ride, lack of bicycle lanes, and heavy traffic in many areas, particularly before and after school. Very few roads had shoulders for cyclists to ride on and many streets were narrow, making it difficult for two cars and bikers to safely share the road. Because of the narrow roads and the poor conditions of some of these roads, cars attempting to pass, drivers may pass too closely or have to yield to oncoming traffic to allow enough room for the biker to continue safely. Again, no “Share the Road” signs were visible on this route.



Narrow streets lacking lanes for bikers and cars parked along the side roads are common problems in the Rosedale community.

Most of the roadways did appear to be well lit at night although it is difficult to absolutely determine if the lights are in good working condition as this assessment was conducted during the daylight hours. A few steep hills were also encountered in which cyclists may need to walk their bikes up the hill due to the sharp steepness of the hills.

Because of the lack of space, sidewalks, bicycle lanes, and “Share the Road” signs, we rated this section as a 2 (many problems).

Bicycling Surfaces

Many of the roadways were in poor condition. Several streets had very large potholes and cracks that could be hazardous for bikers. Some streets were also littered with trash including broken glass. A few streets had uneven surfaces and gaps for riders, including railroad tracks, utility covers, and drain grates. Construction on a home was also being done close by the school on Springfield Street where trucks, cars, and construction equipment extended far out onto the roadway, making it difficult for even a car and a biker to share the road. Drainage problems also existed on some streets which could cause slick road conditions for bikers.



For the safety of bikers, large potholes, cracks, and drainage issues need to be addressed in much of the area.

Due to the poor street surface conditions, a rating of 2.5 (many to some problems) was given for this section of the evaluation.

Intersections

Although we encountered a few crosswalks along this route, many of the crosswalks were in need of repainting and adding a light at a busy intersection which did not allow much time for a person to cross. The crosswalk located in front of Rosedale Middle School is in need of repainting. However, because we were walking by Rosedale Middle School as school was letting out for the day, we did observe a security officer acting as a crossing guard to help students cross the road since traffic was so heavy with extra vehicles and buses in the area. Two crosswalks were also located at the corners of Lloyd Street, 41st Avenue, and 43rd Avenue, but were also in need of repainting. Furthermore, a crosswalk with light located at the busy intersection of Rainbow Boulevard and 43rd Avenue does not allow much time for pedestrians or bikers to cross the road.

A lack of crosswalks where they are severely needed was also observed. This is especially true for the area parks which many of the middle school students appear to access. While conducting park assessments, several middle school students came to hang out at Fisher Park. We also observed homework assignments belonging to Rosedale Middle School students at Mt. Marty Park, which is located on a curvy hill. By far the worst intersection in the area is on Mission Road where Rosedale Park is located. This is an extremely busy intersection with cars driving rapidly up the hill which is also set on a curve. It is very difficult to cross this road safely due to the high volume

of traffic, the speed of the traffic, and the lack of visibility due to the hill and curves on this road.

We rated this component of the assessment a 3 (some problems) because of the lack of crosswalks and the need for repair of many of the crosswalks that are available.

Driving Behavior and Motor Vehicle Activity

Again, we encountered a couple of problems with drivers. We did observe speeding drivers, but this was mostly contained to the main roadways including Mission Road, SW Boulevard, 43rd Avenue, and Rainbow Boulevard. However, drivers did appear to pay attention to the speed limits surrounding Rosedale Middle School and were more cautious when approaching the school.

The other problem we observed were drivers passing us too closely which occurred on Springfield Street where the school is located. The road is fairly narrow and does curve sharply around the school. However, the motorists were driving slowly and cautiously as they passed us. There were a couple of other instances where cars sped past us very closely.

Due to the speeding drivers and the vehicles that passed us by very closely, we rated this section a 3.5 (many to some problems).

Ease of Biking

This was the first school in which we observed bicycles that were located behind the school. However, no bicycle rack was available for students to securely store their bicycles. The bikes were leaning up against a brick wall or a fence. We observed only one bicycle to be securely chained to the fence. As with the other assessments, there were no maps, signs, or road markings to aid cyclists in finding local Rosedale attractions. There were also extremely steep hills, especially on Springfield Street, South 8th Place, and Springhorn Lane, which were also narrow and dangerous for cyclists biking up and down the hills.

We rated this section a 3 (some problems) due to the lack of a bicycle rack, signs and road markings, and steep hills located near the school.



Unlike the elementary schools, bicycles outside of Rosedale Middle School were observed. However, the school did not have a bicycle rack for students to safely secure their bicycle to. Most bikes were leaning up against a brick wall. The picture on the right shows a bike chained to the fence.

Overall Score

Based on our rating of the bikeability in and around the 1.5 mile radius of Rosedale Middle School, we arrived at the following total score:

- Availability of safe places to ride = 2
- Bicycling surfaces = 2.5
- Intersections = 3
- Driving behavior and motor vehicle activity = 3.5
- Ease of biking = 3

Total Score = 14

This score classifies this biking area as poor. Because it was observed that students do bike to and from school, more support needs to be provided for these students by providing a bicycle rack and improving some of the conditions around the school by adding more crosswalks and improving road conditions by repairing large potholes and cracks and uneven gaps in the road. In order to encourage more bikers, “Share the Road” signs should be posted in the Rosedale area and biker safety classes should be made available to students.

Summary of Bikeability Assessments

In order to encourage more children and families to bicycle in the Rosedale area, several improvements need to be made to encourage safe biking. The National Highway Traffic Administration (NHTSA) and the U.S. Department of Transportation offer the following suggestions for communities wanting to encourage more active communities through biking and other activities. Because many of the streets surrounding Rosedale area schools and parks are in poor condition and hazardous for bikers, the following suggestions should be discussed in order for improvements to be made:

- To improve the availability of safe places to ride:
 - Work with the Rosedale community to adopt a plan to improve condition, including establishing a network of bicycle lanes on major roads and on roads commonly accessed by students, including near the area schools and parks.
 - Work with the public works department to consider placing “Share the Road” signs at specific locations in the community.
 - Establish a community bicycle advocacy group that includes active area cyclists who can help inform and educate the community about bicycle safety and also advocate for safer riding conditions for bikers.
- To improve biking surfaces of area streets:
 - Work with the public works and parks department to develop a pothole or hazard report card or online link to warn the agency of potential hazards.
 - Contact the local public works department to gradually replace all dangerous drainage grates with more bicycle-friendly designs, and improve railroad crossings so that bikers can cross them at 90 degrees.
- To improve intersections:
 - Ask the local public works department to look at the timing of the specific traffic signals causing problems in the area.
 - To improve the visibility of some intersections, suggest that overgrown vegetation be maintained and routinely trimmed.
 - Advocate for more crosswalks in high traffic areas, including around the local parks and corner grocery stores.
 - Ask that the crosswalks located by the schools be maintained and repainted as needed.
 - Organize a community-wide, on-bike training on how to safely ride through intersections.
- For improvements in motor vehicle activity:
 - Ask the police department to enforce speed limits and safe driving, especially during drop-off and pick-up times at each of the local schools where traffic is especially heavy.
 - Encourage the department of motor vehicles to include “Share the Road” messages in driver tests and correspondence with drivers.
 - Encourage the community to use cameras to catch speeders and red light runners, especially on 43rd Avenue and Mission Road where many speeding drivers were observed during our assessments.

- To improve the overall ease of biking in the Rosedale community:
 - Work with area community members to publish a local bike map.
 - Ask the public works department to install bicycle racks at key destinations, including the area schools and parks.
 - Help local students in planning routes to and from schools and parks that minimize the impact of steep hills.

In a survey administered to local Rosedale community members in April 2009, it was indicated that the lack of crosswalks was of a concern to area residents. Of the 27 respondents to the survey, 33% indicated that the lack of crosswalks to get safely across the street was a major barrier for participating in physical activity within the community. In an open-ended question assessing for the most important thing to be improved within the community to encourage physical activity, three people indicated that safety issues, including the lack of crosswalks and pedestrian lights, needed improvement.

Because safety issues and lack of crosswalks appear to be of concern to community members, it is important to acknowledge their concerns and concentrate and making some of the suggestions for improvement listed above. Furthermore, young children and families need to be educated on biker safety to promote safe biking practices.

Grocery Store Assessments

Store assessments were conducted for six Rosedale corner stores. The assessment tool used for these evaluations was adapted from the Fresno County Community Food Assessment and the Los Angeles Community Healthy Council Neighborhood Food Watch Checklist. This evaluation assessed the following criteria for each store:

- Availability of poultry, beef, and seafood
- Availability of low-fat dairy products
- Accessibility to whole grain foods
- Availability of low-fat, low-sodium, and low-sugar food products
- Accessibility of alcohol and tobacco products
- Acceptance of food stamps, WIC products, and coupons
- Methods of payment available
- Handicap accessibility
- Cleanliness
- Accessibility to public restrooms and phones
- Marketing of healthy foods, “junk” foods, alcohol, and tobacco
- Availability and quality of fresh fruits and vegetables
- Prices of commonly bought food items, including bread, low-fat milk, eggs, and fruits and vegetables

Prior to conducting the assessments within the Rosedale community, a graduate research assistant and postdoctoral research fellow evaluated a corner store outside of the Rosedale area to establish reliability with the assessment tool used and how each section of the evaluation was scored. Upon completion of the reliability site, it was determined that both researchers obtained similar scores for each component and discussed any findings that may have been in conflict with one another. Each of the assessments were conducted in this manner in which all findings were discussed at the conclusion of the store evaluation.

The following report summarizes the findings that were observed for each store located within the Rosedale community. To view a copy of the evaluation tool used for this assessment see Appendix I.

Stop 'n Shop Convenience Store

This evaluation was conducted on 04/30/2009. For question one of the evaluation (Does this store carry...), the following was observed:

- This convenience store did not carry any USDA top grade poultry or fresh seafood. The store did carry frozen 85% lean ground beef.
- Skim milk and low-fat yogurt were available. While cheese was available for purchase, it was not low- or non-fat.
- Eggs were available for purchase.
- A very limited selection of whole grain products was available including whole wheat bread and one type of whole grain cereal.
- It was observed that all of the perishable products had “use by” or “sell by” dates. We also observed some packages of hot dogs that were expired (04/23/2009).
- No soy products were available for purchase.
- We did not observe any low-fat, low-sodium, low-sugar, or diabetic food products within easy view. Sugar-free candy was available for purchase but was mixed in with a display of other candy.
- This store did not carry alcohol. Tobacco was available for purchase and was located behind the customer service counter.



The Stop 'n Shop Convenience Store located at 39th & Rainbow Blvd.

For question two of the assessment (Does/Is this food store...), we observed the following:

- This store does accept food stamps but does not accept WIC vouchers.
- This store does have a credit card machine as a method of payment.
- Although the manager on duty indicated that they used to accept coupons, they do not honor them anymore. This store also does not have a store club card.
- For the most part the store is handicap accessible with a ramp leading into the store and a wide doorway. However, the aisles are narrow which may make it difficult for a person in a wheelchair or with a walker to maneuver their way through the store.
- A microwave is available for customer use along with a public restroom and a public phone located on the corner.
- Overall, the store was clean with just a few problem areas. Most of the floor had been mopped with the exception of a few dirty areas located in more high traffic areas, including in front of the cashier's counter and the soda fountains. The shelves were also dusty in a few places. However, the store employee on duty was cleaning the countertops while we were conducting our evaluation.

- A discount shelf for dented cans and other items was not observed.
- This store did not offer a healthy deli option. While there were deli sandwiches in the coolers, they were not low-fat.
- A bus stop was located near the store.
- No delivery service was available for customers.
- Tobacco products were displayed behind the cashier's counter and four signs advertising tobacco products were located outside the store.
- Although the store did not market any healthy food items, a fruit and vegetable rack was located by the cash register at the front of the store.
- The store did market a few unhealthy food items inside the store but it was not excessive.
- Candy, chips, soda, and other sweetened beverages were prominently displayed at the front of the store adjacent to the check-out counter.

For question three assessing the availability of fresh fruits and vegetables within the store, we observed the following:

- Three fresh fruits were available for purchase (limes, apples, and bananas). The quality and freshness of each item was rated as good.
- Three fresh vegetables were available for purchase (lettuce, onions, and potatoes). The quality and freshness of these items were rated as good to excellent.

In order to compare prices with other corner markets within Rosedale and larger supermarkets that are commonly accessed by community members located outside of Rosedale, we also observed prices of commonly purchased food items. The following prices were recorded:

- For a 20 ounce loaf of bread the cost was \$1.99
- A half gallon of skim milk was priced at \$2.69; for one quart of 2% milk, the cost was \$2.69
- For the fruit items, apples were \$0.59 each, bananas were priced at 3/\$0.99, and limes were priced at 2/\$1.00
- One pound of frozen 85% ground beef was priced at \$3.99
- The cost for one dozen of large eggs was \$2.29
- For the vegetable items, a head of lettuce was priced at \$1.79 and the onions and potatoes were available at 2/\$1.00

Other Observations and Comments

This store also carried a small frozen food selection which included convenience foods such as pizza, burritos, waffles, and breakfast croissant sandwiches. There were also frozen vegetables including corn and broccoli. The cost of these items was \$1.99 for a 16 ounce package. Frozen 100% grape juice was also available for price of \$2.99.

A refrigerated section offered 2-ounce packages of lean turkey for \$0.89. Cheese was available in sliced, shredded, and block varieties and quesadilla cheese was also an

option. Packages of hot dogs, bologna, smoked sausage, and bacon were also available.

While there were prominent displays of chips, candy, and soda at the front of the store, it is important to note that a fruit and vegetable stand was also located directly in front of the cashier's counter. Although there were not very many fruits and vegetables available for purchase, the employee on duty indicated that they only receive shipments of these items once a week on Fridays. We completed this assessment on a Thursday, so the next shipment of fruits and vegetables was not until the following day.

It should also be mentioned that the employee on duty was very friendly and accommodating. He had a sincere interest in what we were doing and was willing to answer any questions that we had for him.

Xtension Food Mart

Xtension Food Mart is gas/convenience store located on Rainbow Extension. This assessment was conducted on 04/30/2009. For question one of the evaluation (Does this store carry...), the following observations were made:

- USDA top grade poultry, fresh seafood, and beef were not available for purchase.
- The only low-fat dairy product available for purchase was part skim mozzarella cheese.
- Eggs were available for purchase.
- A limited variety of whole grain products were available including a few whole grain cereals and oatmeal.
- Perishable items did include “use by” or “sell by” dates on them. We did not observe any expired perishable items.
- A small selection of “Soy Joy” bars was available.
- Low-fat, low-sodium, low-sugar, and diabetic food products were not located on shelves together for easy customer finding.
- Both alcohol and tobacco products are available for purchase. Tobacco products were available for purchase. Chewing tobacco was located on the cashier counter as well as behind the counter. Cigarettes and cigars were located behind the cashier counter.



The Xtension Food Mart located at 3440 Rainbow Extension.

For question two of the assessment (Does/Is this food store...), we observed the following:

- This store does accept food stamps but does not accept WIC vouchers.
- This store does have a credit card machine as a method of payment.
- Coupons are honored at this store.
- This store does not have a store club card.
- This store was handicap accessible.
- A microwave is available for customer use.
- Overall, the store was clean.
- Patrons have access to a public restroom, phone and a bus stop located near the store.
- A discount shelf for dented cans and other items was not observed.
- A healthy deli option was not available.
- A delivery service is not offered.
- Alcohol and beer signs are located outside of the store.

- This store does prominently display candy at the front of the store adjacent to the checkout counters. Soda and sweetened beverages were located off to the side in coolers and were not prominently displayed near the front of the store.

For question three assessing the availability of fresh fruits and vegetables within the store, we observed the following:

- Bananas were available for purchase the day we conducted this assessment. However, after speaking with one of the employees on duty it was discovered that they also carry apples and oranges for variety. Just as with the previous evaluation, this store only receives shipments of fruit once a week on Fridays. This assessment was conducted on Thursday, the day before they were due to receive the next shipment.
- The quality and freshness of the bananas was rated as good.
- This store does not carry fresh vegetables for purchase.

In order to compare prices with other corner markets and stores within Rosedale and larger supermarkets located outside of Rosedale that are commonly accessed by community members, we also observed prices of commonly purchased food items. The following prices were recorded:

- A 20-ounce loaf of bread was priced at \$1.99
- The cost for a gallon of 2% milk was \$3.99
- Depending on size, bananas were priced at \$0.69 to \$0.79 each.
- The cost for one dozen large eggs was \$2.49.

Other Observations and Comments

This store offered a very small selection of frozen foods including chicken nuggets and ice cream. A rack of to-go cereal boxes was prominently displayed. Whole-grain options were included in the variety of to-go cereals. This store also carried refrigerated 100% fruit juice. While low-fat and low-sugar food products were not prominently displayed were customers could easily find them, this store did offer a small variety of Slim-Fast options. Convenience foods such as submarine sandwiches were available for purchase, however they were not low-fat.

This store was also very clean and well-lit with wide aisles for disabled patrons to easily maneuver around. A small section was available with tables and chairs for patrons to sit and eat their food. Again, the store employees were very friendly and accommodating and willing to help answer any questions we had. One of the store employees also indicated to us that the fruit options were one of the most popular and well-sold items in the store. However, with only one shipment per week, they tend to run out of these options quickly. He also reported that there has been discussion about making fresh vegetables available for purchase but that there was concern for how well these items would move off the shelves before going bad. Interestingly enough, the store employee we talked with also indicated that there was a need to provide healthier options to customers.

El Sol Mini Market

El Sol is a small ethnic/specialty food store located on Lloyd Street within the Rosedale community. A member of the Rosedale steering committee fluent in Spanish accompanied the researchers to ensure that it was okay to perform the evaluation and to help translate some of the questions from the assessment tool. The evaluation for El Sol was conducted on 04/30/2009. For question one of the survey (Does this store carry...), we observed the following:

- El Sol did not carry any sort of fresh chicken, turkey, lean beef, or seafood. However, several frozen seafood products were available for purchase, including shrimp, fish, and a seafood “mix.”
- Chorizo was available for purchase.
- This store carried skim milk, part skim mozzarella, and a low-fat drinkable yogurt for low-fat dairy products.
- Eggs were available for purchase.
- Whole grain cereals including oatmeal were available for purchase. There were some pastas containing “100% durum semolina,” but after research we determined that this did not constitute a whole grain product.
- “Use by” or “sell by” dates were found on all perishable and refrigerated items. We observed only one refrigerated item to be expired by a couple of days.
- We did not observe any low-fat, low-sodium, low-sugar, or diabetic food products on shelves where they could be easily located.
- Alcohol was not available for purchase at this store.
- Tobacco products were available for customer purchase.

For question two of the evaluation (Does/Is this food store...), we observed the following:

- El Sol does accept food stamps but does not accept WIC vouchers.
- A credit card machine is available for customer purchases.
- This store accepts coupons ONLY for the purchase of cigarettes.
- A store club card is not needed to purchase items or receive discounts.
- This store is not handicap accessible. Although disabled people can get in through the front door, they cannot navigate through the narrow aisles. The access to the front of the store where the register is located is also difficult to navigate around due to a large display by the counter.
- A microwave is available for customer use.
- This store, although in an older building, was very clean and well taken care of.
- El Sol does not have a public restroom available for customer use.



El Sol is located at the intersection of Lloyd St. and 43rd Ave.

- A public phone is not located near this store.
- A small discount shelf with baskets of various food products on sale was easily located in the store.
- A healthy deli option is not available.
- A bus stop is located just across the street from the store.
- A delivery service is not available.
- Alcohol and tobacco products are not advertised inside or outside of this store.
- One small sign located outside advertised Mexican pastries. The remainder of the signs located on the outside of the store advertised for money wiring services, money orders, international calling cards, and a narcotics anonymous sign.
- There was a small, hand-written sign located on the door advertising papaya for \$0.95 per pound.
- A rack of candy was prominently displayed by the checkout counter.
- El Sol did not prominently display soda or other sweetened beverages.

For question three assessing the availability of fruits and vegetables within the store, the following was observed:

- Five fresh fruit items were available for purchase (bananas, apples, papaya, avocado, and limes). The overall quality and freshness of these items was rated as average to good.
- Five fresh vegetable items were available for purchase (potatoes, onions, garlic, jalapeno peppers, and tomatoes). The overall quality and freshness of these items was also rated as average to good.

We also recorded the prices of commonly purchased food items to compare with other stores within the Rosedale community and with larger supermarkets located just outside Rosedale. The following prices were recorded:

- The price for a 24 ounce loaf of white bread was \$2.29
- One gallon of skim milk was priced at \$4.40
- The clerk on duty was unsure of the prices of some of the fresh fruit and vegetable items but provided us with rough estimates. The price for a single banana was \$0.25 to \$0.50, depending upon the size. Apples were \$0.50 each. The cost of limes was 4/\$1.00.
- El Sol did not carry fresh ground beef.
- A carton of 18 count large eggs was \$3.49
- Potatoes were priced at \$0.15 each and bulbs of garlic were priced at \$0.25 each.

Other Observations and Comments

Along with an interesting assortment of ethnic food items, El Sol also carried a variety of party accessories and also rented chairs, tables, and children's games for social events. There was also a large display of herbs and spices located against the back wall of the store. Next to the candy display by the checkout counter was also a variety of nuts and pumpkin seeds. Among some of the other specialty items was also a freezer containing

the frozen seafood, guava, yucca, pork papusas, tamales, lorocco flowers, and banana leaves. Although the store carried 100% orange juice which was located on a shelf by the front entryway of the store, there was some concern because it was not refrigerated. We did check the label which indicated that the product should "Remain refrigerated."

The store clerk on duty was very friendly and accommodating. She was able to speak mostly English and answer our questions without the use of a translator. Although she was unsure of the prices of some of the produce items, she was very helpful in answering our questions.

La Estrella Mini Market

La Estrella is an ethnic store specializing in Hispanic products. Again, a Spanish translator accompanied us to the store located on SW Boulevard. The following summarizes the results from our assessment conducted on 05/07/2009.

For question one of the survey (Does this store carry...), the following was observed:

- La Estrella did not carry any USDA top grade poultry, lean beef, or fresh seafood. Lean lunchmeat (turkey and ham) was available for purchase.
- Low-fat yogurt and yogurt drinks and 2% milk were among some of the dairy items this store carried. Whole milk, yogurt, and queso cheese were also in stock.
- Eggs were available for customer purchase.
- This store did not carry any whole-grain food products.
- “Use by” and “sell by” dates were observed on all perishable and refrigerated products. We did observe the queso cheese to be about a week outdated.
- Soy products were not found.
- We did not observe any low-fat, low-sodium, low-sugar, or diabetic food products in La Estrella.
- Alcohol was not available for purchase however tobacco products were found on a small display by the register.



La Estrella Minimarket is located at the intersection of S. Mill St. and SW Blvd.

For question two of this evaluation (Does/Is this food store...), the following was reported:

- This store does accept food stamps but does not accept WIC vouchers.
- A credit card machine is available for customer purchases.
- Coupons are not accepted and a store card is not necessary for customer to make purchases or receive sale prices.
- This store is not handicap accessible—there are steps leading into the store and the aisles and overall layout of the store are very narrow and difficult to maneuver around.
- A microwave is available for customer use.
- This store was not very clean inside. The shelves and coolers were dirty and extremely disorganized, making it difficult to find items. The floors were also in need of mopping.
- Both a public restroom and phone are available for customer use.
- There was not a discount shelf for dented cans or other sale items.
- A healthy deli option was not available.

- There was not a bus stop within close proximity to the store.
- A delivery service is not offered.
- There were a couple of signs marketing tobacco products both inside and outside the store.
- One sign advertising for Red Bull products was observed.
- This sign did not have any advertising promoting healthy food products.
- Both candy and soda/sweetened beverages were prominently displayed by the checkout counter.

For question three assessing the availability of fresh fruits and vegetables within the store, the following was observed:

- Three fruit items were observed (limes, bananas, and avocados). The overall quality and freshness of these items were rated as excellent.
- Five vegetable items were observed (tomatoes, potatoes, jalapeno peppers, garlic, and onions). The quality and freshness of these items were rated as excellent.

We also compared prices for commonly purchased food items. The following prices were recorded:

- The cost for a 24 ounce loaf of white bread was \$2.30
- A half gallon of 2% milk was \$2.49. A gallon of whole milk was priced at \$3.99.
- Bananas were priced at \$0.40 each. The cost of limes was 3 to 4 limes for \$1.00, depending on the size of the limes.
- This store did not carry fresh ground beef.
- The cost of a dozen jumbo eggs was \$1.99.
- The price of potatoes was 3/\$1.00. Onions were priced as \$0.50 to \$1.00, depending on the size, and bulbs of garlic were \$0.40 each.

Other Observations and Comments

This was a small store that had 2 sections to it—the main floor where customers entered into contained the cash registers, refrigerated items, and food items. A ramp leading down to another section of the store contained shelves of more food products, bags of potatoes and onions, as well as non-food items including Mexican dresses and other accessories. There was a store sale on the dresses and sale signs were posted by the dresses, which hung from the wall above the shelves of food, and there was also a store flyer posted on the outside of the store that advertised the sale items.

The fruit and vegetables were located near the front of the store as customers walked in, so they were some of the first items within view. One point of interest was the homemade burritos and chile rellenos available for purchase that the store owner's wife made fresh daily. These were hot items as several customers came in and purchased burritos while we were conducting our assessments.

Advertisements on the outside of the store included signs for money wiring and telephone cards. The store sale flyer was also posted outside. A sign also warned patrons of a security camera in use.

The store owner was extremely friendly to us and to all of the customers that came in. He spoke some English and was very accommodating and helpful. Although the store was small and dirty, the homemade burritos and the owner's hospitality were a strong selling point.

Monarch Convenience Store (Oklahoma Joe's Barbeque)

The Monarch Convenience store is a small gas station and grocery store that also houses the famous Oklahoma Joe's BBQ restaurant. The following summarizes the results of the evaluation conducted on 05/21/2009.

For question one of the assessment (Does this store carry...), we observed the following:

- This store did not carry any USDA poultry, lean beef, or fresh seafood.
- Low-fat milk was the only dairy item available for purchase.
- Eggs and whole-grain food products were not available for customer purchase.
- "Use by" and "sell by" dates were found on all perishable and refrigerated items. We did not observe any of these items to be outdated.
- Soy products, low-fat, low-sodium, low-sugar, and diabetic food products were not available at this store.
- Alcohol was not available for purchase on the store side but could be purchased in the restaurant for dine-in only.
- Tobacco products were sold behind the counter of the store.



The Monarch Gas Station is located at the intersection of 43rd Ave. and Mission Rd.



This store also houses the famous Oklahoma Joe's BBQ.

For question two of the survey (Does/Is this food store...), the following was reported:

- Neither food stamps nor WIC vouchers are accepted.
- A credit card machine is available for customer purchases and coupons are accepted.
- This store does not require a store card for customer purchases.
- This store, with the exception of the bathroom, is handicap accessible. The bathroom sink is too high for a person in a wheelchair to reach and the soap dispenser is also mounted too high on the wall.
- A microwave is available for customer use.
- This store is very clean inside and appeared to be very well maintained.
- Public restrooms are available for patrons to use.
- A public phone is located across the street at the Apple Market (which is technically outside of the Rosedale community boundary).
- A discount shelf for dented cans or other sale items was not observed.

- Although the store side itself does not offer a healthy deli option, the restaurant side does offer a small variety of “healthy selections” from their menu.
- A bus stop is located just across the street.
- A delivery service is not offered by the store side, but the restaurant side does offer a delivery service.
- Alcohol is advertised both outside and inside of the restaurant side of the building.
- Tobacco products are advertised both outside and inside the store side of the building.
- This store did not market or advertise healthy food items.
- Both candy and soda/sweetened beverages were located adjacent to the checkout counter at the front of the store.

For question three of the assessment, neither fresh fruits nor fresh vegetables were available for purchase.

We compared prices of the small selection of items located on the store side of the building. The following prices were recorded:

- The price for a 20 ounce loaf of wheat bread was \$2.49
- A quart of 1% milk was priced at \$1.57. The cost for a gallon of 2% milk was \$4.38
- This store did not have any fresh fruit, fresh vegetables, ground beef, or eggs available for purchase.

Other Observations and Comments

The building itself that houses both the small grocery store and the restaurant is very small but is overall clean and very busy with patrons both visiting the restaurant and the store side to purchase gas and other items. The restaurant consumes the largest portion of the building and is very popular and well known for its BBQ and was extremely busy the day we conducted our assessment. Since we were there during the lunch rush (around 1:00 pm) we also took advantage of grabbing some lunch. The restaurant is very efficient and the employees behind the counter, although busy, are friendly and courteous and our food was delicious.

An interesting note about the store side was that although it had a small selection of food products, there was a large display of Frisbee discs located in front of the checkout counter. Because Rosedale Park has a Frisbee golf course and holds tournaments, this is a unique addition to the store inventory that appears to be popular with customers.

The store side was not as busy as the restaurant side although patrons still came by to purchase drinks and gas. The employee on duty was friendly and helpful in answering our survey questions.

Fill N Shop

The Fill N Shop gas and convenience store is located just down the street from Oklahoma Joe's. This assessment was also conducted on 05/21/2009 and the following summarizes our report.

For question one of the assessment (Does this store carry...), we observed the following.

- USDA top grade poultry, lean beef, and fresh seafood are not available for purchase.
- Skim milk, light butter, and part skim mozzarella cheese were among the low-fat dairy products we observed.
- Eggs were available for purchase.
- We did not observe any whole grain breads, cereals, or pastas.
- "Use by" and "sell by" dates were on all perishable and refrigerated items. We did not observe any outdated food items while conducting the assessment.
- Soy products, low-fat, low-sodium, low-sugar, and diabetic food products were not available.
- Both alcohol and tobacco products were sold at this store.



The Fill N Shop convenience store is located on 43rd Ave.

For question two of the assessment (Does/Is this food store...), the following was reported:

- Neither food stamps nor WIC vouchers were accepted at this store.
- A credit card machine was available for customer purchases.
- Coupons were accepted and a store club card was not required for purchases.
- This store was handicap accessible with wide aisles and plenty of room to navigate into and around the store.
- A microwave was available for customer use.
- This store was extremely clean inside with clean floors, shelves, and countertops.
- A public restroom is available outside. Customers need to ask for a key to use the facilities.
- A public phone was located just outside the store.
- There was not a discount shelf for dented cans or other sale items.
- Although the store did not offer a healthy deli option, there were sandwiches available for purchase in the refrigerated section.
- A bus stop was located just down the street from this store.
- A delivery service is not offered.
- Both alcohol and tobacco products were advertised inside and outside of the store.
- This store did have a couple of advertisements for unhealthy food items (drinks, chips).

- No signs were observed to market towards healthy food items.
- Candy was prominently displayed by the checkout counter at the front of the store.
- Soda and sweetened beverages were not displayed by the checkout counter.

This store did not carry any fresh produce items, so question three of the assessment was not conducted.

We compared the prices of the commonly purchased food items that were available for purchase at this store. The following prices were recorded:

- The cost for a loaf of 20 ounce bread was \$2.99
- A quart of 2% milk was \$1.79. The price of a ½ gallon of milk was \$2.49, and a gallon of skim milk was \$3.29
- One dozen large eggs were priced at \$1.99.
- This store did not carry fresh fruit, fresh vegetables, or ground beef.

Other Observations and Comments

This store was small but extremely clean. Even the counters next to where hot dogs, nachos, fountain drinks, and other food items were clean and recently wiped off. The trash next to this counter had also been recently emptied. This was one of the most cleanest and accessible stores we assessed. The store employee on duty was gracious and helpful.

Price Comparisons of Supermarkets Outside of Rosedale

The results of the survey that was conducted to church members within the Rosedale community indicated that many people utilize the supermarkets that are located just outside the Rosedale community. We conducted price comparisons on commonly purchased items at each location we evaluated and two of the most commonly accessed supermarkets. The following reports the findings of the price comparisons conducted at Price Chopper and Apple Market.

Apple Market

The Apple Market located at 47th and Mission Road is a large supermarket where members of the Rosedale community indicated they commonly shopped. We recorded the following prices on 04/15/2009:

- The price of the cheapest loaf of bread was \$0.99 for a 16 ounce loaf.
- A ½ gallon of skim milk was priced at \$1.69
- The cost for bananas was \$0.79 per pound. Limes were priced at 5/\$1.00
- One pound of 80% lean ground beef was \$1.99
- A dozen of large eggs was \$1.39
- The cost for one pound of potatoes and one pound of carrots was approximately \$0.80

Price Chopper

Located on Roe Boulevard, this Price Chopper is a large supermarket that also carries a wide selection of Hispanic food items. Members of the Rosedale community also indicated shopping at this location on a regular basis. Because a “Chopper Shopper” store card can be used at this store, we recorded both the regular price and the store card discount price for the items that were on sale. Price comparisons were conducted on 05/21/2009.

- The price for a 20 ounce loaf of bread was \$1.33
- One quart of skim milk was \$0.92, a ½ gallon of skim milk was priced at \$1.59, and one gallon of skim milk was \$2.89
- Fruit prices for the following items include:
 - Limes were 3/\$0.99 without card or 4/\$1.00 with card
 - Avocados were 2/\$3.00
 - Jonathan Gold Apples were \$0.99 per pound
 - The price of bananas was \$0.79 per pound
- The price of 80% ground beef was about \$2.40 per pound
- The price for a dozen of large eggs was \$0.95
- For the following vegetable items:
 - One pound of Vidalia onions was \$1.29 without card or \$0.79 with card
 - White onions were \$0.99 per pound
 - Tomatoes were \$2.49 per pound
 - Roma tomatoes were \$0.99 per pound

- A 5 pound bag of potatoes was \$3.49 without card or \$1.58 with card. A 10 pound bag was \$4.99 without card or \$2.99 with card. Red potatoes were \$0.99 per pound.
- Bulbs of garlic were \$2.99 per pound
- Jalapeno peppers were \$1.49 per pound without card or \$1.29 per pound with card

Summary of Grocery Store Assessments

Within the Rosedale community, four convenience or gas/grocery stores and two ethnic/specialty stores exist. However, according a survey that was conducted Spring 2009 to members of churches in the Rosedale community, a majority of people access the supermarkets that reside outside of Rosedale. Although no reasons were cited as to why they utilize the supermarkets over community stores, the results from this evaluation indicate that selection, variety, and prices could all be possible factors.

Out of all six stores assessed, four sold fresh produce items. However, two of the stores received these items only once a week and were often running low or out by the time the next shipment arrived. Furthermore, the prices of the items sold at the community stores were much more expensive on average compared to the prices at the supermarkets. The prices of eggs, milk, and bread—all commonly purchased items—were relatively expensive and there was not much variety in the items available.

While the ethnic/specialty stores offer items that cannot be commonly found in other stores, it was observed that the Price Chopper on Roe Boulevard offered many of the same items at lower costs. However, the location of these stores and the bus stops within close proximity offer convenience to customers.

One employee at one of the stores indicated that they would like to offer more fresh produce items, however there was concern that these items would not move off the shelves fast enough, resulting in bad produce and a loss in profit. This employee also acknowledged that by placing the fresh fruit that they did have in stock by the front counter, these items often sold quicker and they were out before the next shipment was due.

The following suggestions are provided based on the results of this evaluation:

- Stores should offer a wider variety of fresh produce and make these items available at the checkout counter and as customers enter the store.
- Stores should market healthy foods both outside and inside the store with colorful signs to attract customers.
- Stores should advertise sale prices on healthy foods, including dairy, produce, and whole-grain food products to encourage customers to purchase these items.
- Stores should include a selection of whole grain breads, cereals, and pastas and display them together on a shelf with signs indicating they are whole grain products.
- A wider selection of low-fat and non-fat dairy products, including milk, yogurt, and cheese, need to be made more available.
- Because microwaves are available at each store, healthier deli and sandwich options should be made available.
- In place of racks of candy, chips, and soda, stores should display water, fruit, and baked or low-fat snacks to encourage customer selection of these products.
- Stores should consider accepting coupons for all food items.

By improving the variety of products sold, reducing the cost of commonly purchased items through sales, and displaying and marketing healthy food items, store patrons may be more encouraged to purchase healthy food items. Furthermore, community members may access these local stores more often and sustain their viability with the purchases they make.

Park Assessments

Rosedale Park

Rosedale Park, located at the intersection of West 41st Street and Mission Road, is a fifty-five acre park in Wyandotte County which most notably boasts an 18 hole disc golf course in addition to a skate park, baseball fields, tennis courts, playground, and a shelter house with picnic tables. The following is an assessment of these facilities performed by a Graduate Research Assistant (GRA) and Post-Doctorate Fellow employed with the University of Kansas Medical Center (KUMC).

Playground Equipment

The playground area at Rosedale Park includes swings, spring animal riders, four-way teeter totter, merry-go-round, and a multi-use play structure featuring a chain ladder, climbing ladder, and two slides. Overall, every piece of this playground equipment is in need of repainting as faded and chipped paint is prevalent. Some equipment needs to be repaired and/or replaced, most notably the four-way teeter totter which has two seats broken nearly in half.



The playground equipment has significantly faded and chipped paint. In the lower right hand corner, a teeter totter seat is broken in half.



A closer view of the broken teeter totter seat and the woodchip playing surface.

In addition, the protective cover enveloping the rungs of the chain ladder on the multi-use play structure was torn on most rungs with two rungs completely missing the covering. Also, the merry-go-round was found to be significantly unstable which may pose a possible safety hazard.



The protective covering on the rung to a chain ladder is torn.

Other safety hazards throughout the playground involved the spring animal riders and multi-use play structure. According to the Consumer Federation of America (CFA) and Public Interest Research Group (PIRG), it is recommended that all playground equipment be surrounded by a six foot "fall zone" surfaced by appropriate protective surfacing materials (wood chips, sand, shredded bark mulch, and pea gravel) and free from obstacles. This fall zone is recommended to provide a safe landing area for children who may fall or be thrown from playground equipment. At Rosedale Park, it was discovered that the only equipment which did not meet this standard was the spring animal riders located in two corners of the playground. Furthermore, the CFA and PIRG recommend no opening possess a space between 3.5 and 9 inches, except where the lower boundary of the space is the ground, because it may pose a risk of children entrapping their heads with possible resultant strangulation. This park contained multiple head entrapment dangers within the multi-use play structure. Areas posing the danger of head entrapment include many railings such as those to the spiral slide, the stairs to the small slide, and the ladder located on the east side of the structure.

Areas in which this park complied with current safety recommendations include adequate fall zones for the swings and play structures, excluding the spring animal riders, a lack of swing seats constructed of wood or metal, no swings attached to other play equipment, no infant or tot swings in the same area as regular swing seats, and no more than two swings in any one section of a swing structure. Swings also were spaced at least 24 inches apart and 30 inches from the support structure with the top support beam below eight feet. There was also no equipment deemed "dangerous" by the CFA and PIRG such as chain or cable walkways, multiple occupancy swings, swinging exercise rings, rope swings, or climbing ropes.

Playground Surfacing

The playground area at Rosedale Park was assessed to determine the type and depth of surfacing material underneath the playground equipment. The CFA and PIRG recommend a surfacing depth of nine to twelve inches composed of loosely filled wood chips, shredded bark mulch, sand, or pea gravel. In addition, unitary synthetic surfacing materials are acceptable, including premolded rubber tiles and pour-in-place systems. However, it is important to note that these depths are only recommended for loose and dry surfacing. When surfacing materials become compacted and/or wet, they lose some of their protective features and children may still be injured even at the recommended depths. At Rosedale Park, the surfacing material was composed of a sand base covered with wood chips. However, it appeared that the sand was filled to an adequate height for playing and the woodchips were added at a later date without regard as to how the increased surfacing height would affect surrounding playground equipment. Therefore, in many areas, especially under the swings and spring animal riders, patrons appeared to have removed or "dug out" the equipment from the woodchips, leaving only sand with a dusting of woodchips.



The swings and spring animal riders were "dug out" from the surrounding woodchips possibly as a result of woodchips being poured on top of an existing sand playing surface.



A spring animal rider had woodchips built up along the spring and foot rests which significantly limits the motion of the ride.

Surface depths were measured at six areas throughout the playground area. The first area was assessed at the bottom of the spiral slide. The wood chips were found to be 1 ½ inches deep with greater than six inches of sand below this point. However, possibly due to recent rain, the sand was very wet and compacted which made assessment of its depth past six inches difficult and, thus, not measured. The second area of surfacing depth was measured at the base of the small slide. It was found there was only a dusting of woodchips at this point, followed by greater than six inches of wet and compacted sand. Next, the area underneath the west swing seat was found to have 1 ½ inches of wood chips followed by greater than six inches of wet and compacted sand. The fourth area was located 5 ½ feet (66 inches) north of the

same swing seat and was found to contain greater than 6 inches of wet and compacted sand covered with a dusting of woodchips. The next area was located near the edge of the merry-go-round and was surfaced with a dusting of woodchips followed by wet and compacted sand. The last area assessed was underneath the east seat of the four-way teeter totter. It contained five inches of woodchips followed by sand.

Recreational Areas

Rosedale Park contains several recreation areas which will be outlined in the following section. These areas include a tennis court, disc golf course, baseball fields, and a skate park. Overall, these recreational areas were given an “Excellent” rating by assessors using indicators established prior to the assessment. These indicators take many areas into account including the condition of surfacing, player safety, condition of equipment, and presence of trash in the recreational areas. Most recreational areas within Rosedale Park were in excellent condition with only some minor cracks or uneven playing surfaces and holes in a baseball field backstop. These will be further described below.

The two tennis courts at Rosedale Park were found to be in excellent condition. These courts appeared to have been recently installed. The surfaces were in excellent shape with no faded paint or cracked and uneven surfaces. In addition, the fencing surrounding the courts and the tennis nets looked new with no holes or damaged areas.



The tennis courts were in excellent condition with well marked lines and new equipment.

The disc golf course features 18 holes which contain multiple targets for each hole to increase the difficulty of the course. Several, but not all, holes were assessed and found to have mild equipment problems. Hole 10 had a broken sign found lying against its post and the cement tee box had one corner piece missing with another corner cracked. This hole also had a bench near the tee box which had been painted with graffiti. Hole 12 also was also found to have cracked and uneven corners on its tee box. However, neither Hole 10 nor Hole 12's cracked or missing corners appeared to pose a safety hazard to players as the missing and cracked corners were either small or near the edge of the tee box. Researchers also found several of the disc golf holes to have missing or damaged equipment. The Hole 11 basket appeared in good shape although it had some mild rusting. In addition, Hole 6 had a tattered flag while several other holes were missing flags altogether. However, it was difficult for researchers to assess which holes specifically were missing flags because many holes boast multiple targets for each fairway and the researchers were unfamiliar with the course. Lastly, a broken sink was found disposed of in a rock and stump pile on the west end of the disc golf course.



A broken sign is seen at Hole 10 of the disc golf course.



The corner of a tee box has broken off.



A disc golf hole is seen with a flag and basket in good condition.



A disc golf hole is in good condition but lacks a flag.

The two baseball fields at Rosedale Park were also assessed. The west baseball field featured one set of bleachers, a backstop, two dugouts, and field lights. The pea gravel infield appeared to have been groomed recently and was well delineated from the outfield. However, there were no available bases for use with the exception of the pitchers mound and home plate which was covered in standing water. In addition, the fence was discontinuous from the dugouts to the outfield fence which leaves a large area for stray and foul balls to traverse. Also, the backstop fence did not possess an overhang to prevent foul balls from being hit into the stands. The dugout benches appeared worn with some cracking in the enveloping protective cover. The bleachers also appeared to have maintenance issues including rust, faded and chipped paint, an area of poor drainage, and a bush obstructing the view of the field when sitting on the lower seats. The east baseball field was less equipped than the west with two benches and a backstop but no formal dugouts, field lights, outfield fence, or bleachers. Similar to the west baseball field, the infield appeared to have been groomed recently and was well delineated from the outfield grass. The backstop, however, was in poor condition with large holes torn in the overhanging portion. This baseball diamond had only a pitcher's mound and water covered the area of the batter's box. The benches were also worn with rust exposed by areas missing the protective covering.



The west baseball diamond's home plate was underneath standing water.



The west baseball field featured field lights and bleachers. There was no backstop to prevent foul balls from reaching the stands and a bush obstructed spectators' view of a portion of the field.



The pitcher's mound and a well delineated outfield were found on the east baseball field. Note the lack of an outfield fence. Careful examination of the foreground shows curved grooves from an in field rake and part of the disc golf course can be seen in the background.



The east baseball field had large holes in the backstop overhang.



A dugout bench on the east baseball field had rust exposed by tears in its protective covering.

The skate park was in good condition overall with the ramps in excellent condition. The only deficit in the ramps was worn paint on the metal railings and corners where skateboards grind against these surfaces. The railings also had worn paint from grinding skateboards. One grind rail was coming loose from the underlying cement and needs to be re-secured. However, it appears this railing had been moved and reattached once before in the past as evident by holes in the cement. There was also some graffiti located on the ramps with some references being inappropriate for young children. The cement surfacing of the skate park was also in good condition with only minor cracking and one small area where a chunk of cement was missing. The skate park was unique from the other recreation areas in having its own sign stating the hours of the skate park (dawn to dusk) and providing a phone number to report hazardous conditions. However, the sign needs some repair as several letters were missing.



Rosedale Skate Park featured ramps in excellent condition. Close examination reveals graffiti in the form of arrows on the far ramp.



One skate rail was coming loose from its attachment. The cement in the foreground shows where the rail had been moved and repaired once before.

Bike Racks

There were no bike racks available for use at Rosedale Park.

Sidewalks

Sidewalks and paths were assessed within and surrounding Rosedale Park. Within the park, one assessor rated the park as having “very little” sidewalks, rated as less than 25% of areas having sidewalk access, while the other assessor rated the park as having “some” sidewalks, rated as between 25-49% of areas having sidewalk access. Those areas with sidewalk access included the tennis courts, bathrooms, and skate park while the playground, shelter house, disc golf course, and baseball fields did not have sidewalk access. The sidewalks which were present were in excellent condition with very few cracks and the sidewalk leading to the tennis courts lacked a curb ramp. Of main concern was the lack of a sidewalk on Rosedale Park Drive which is a curvy, tree-lined road within Rosedale Park with shoulder drop offs into sometimes large ditches. This road would be the main access road into Rosedale Park for those individuals living west of the park and may pose a safety hazard for pedestrians or bike riders.



This sidewalk leading to the tennis courts was in excellent condition but lacked a curb ramp.



Rosedale Park Drive leads to the west side of the park but can be dangerous to pedestrians because it is curvy, has ditches on either shoulder, and lacks sidewalks.

Outside and surrounding Rosedale Park, there were neither sidewalks nor a crosswalk leading into the park. In addition, there were not signs indicating the park entrance or that pedestrians may be crossing the road. On the east side of Mission Road, only a narrow dirt path had been worn into the grass shoulder by pedestrians. Compounding the difficulty in crossing the road was the fact that the main entrance to the park was located at the top of a steep hill on a four lane road which is very busy most times of the day. In addition, the speed limit on this road was 30 miles per hour but cars were frequently seen exceeding the limit. This blind hill on a busy road makes it very difficult for pedestrians, especially children, to cross into the park when traveling from the east side of Mission Road. In fact, the adult assessors felt it necessary to jog across the road while attempting to cross into the park due to the safety concerns of the intersection. As mentioned previously, the west entrance to the park also did not contain sidewalks or crosswalks and this road was narrow and curvy with occasionally large drop offs on either shoulder.

Crosswalks

Rosedale Park did not have delineated crosswalks, pedestrian crossing signs, or pedestrian lights leading into either entrance of the park. As discussed above, the main entrance was on a very busy, four lane road with cars commonly exceeding the speed limit. The entrance was also on the top of a steep hill which made it difficult to see oncoming traffic in either direction.



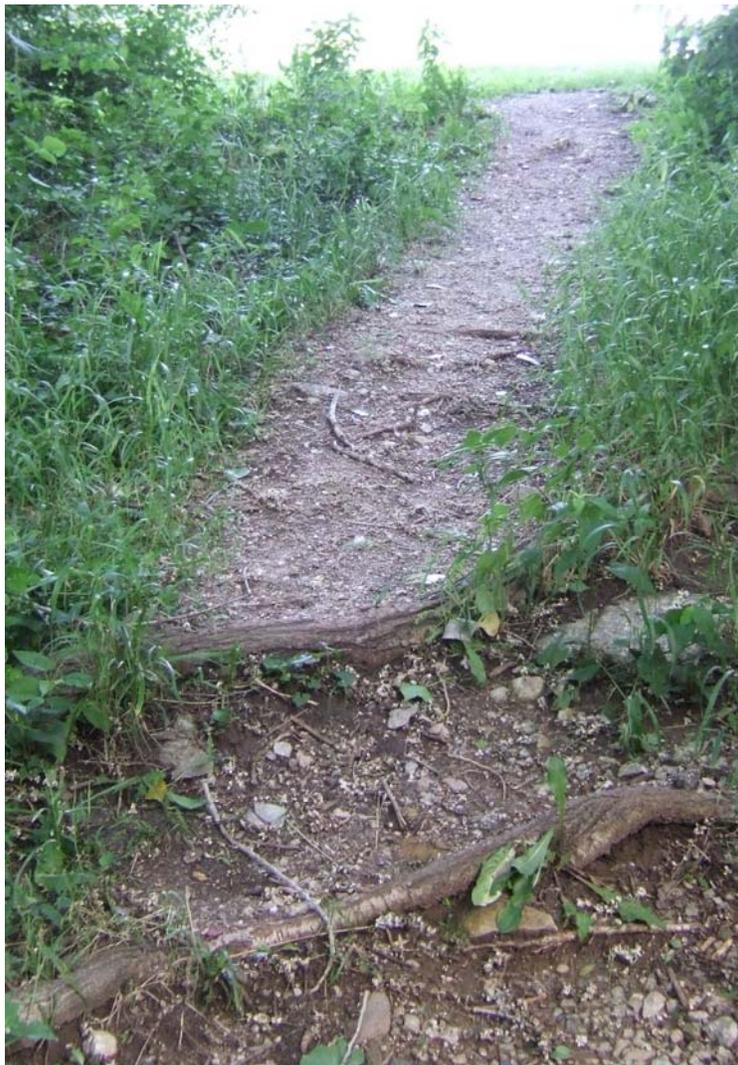
The main entrance to the park sat atop a hill and on a busy road.



A dirt path was worn into the grass across the street from the main entrance to Rosedale Park. Cars are seen cresting the hill where pedestrians cross the street to the park.

Walking Paths

In addition to sidewalks, walking paths were assessed within Rosedale Park. Paths were defined as any walking surface other than cement including asphalt, wood or woodchips, and dirt. Rosedale Park occasionally had dirt paths leading from one disc golf hole to another, as well as paths seen leading into the trees of the park. None of these paths were noted to be significantly muddy or uneven but were rough as they usually contoured to tree roots and the natural layout of the area. Assessors did not travel the paths leading into heavily treed areas as these areas did not appear to be purposeful features of the park. Overall, assessors rated this park as having “Very little” paths within the park with less than 25% of areas having path access.



Walking paths are occasionally found within the park, particularly within the disc golf course.

Water Fountains

Rosedale Park had two water fountains with one located near the tennis courts and first tee box of the disc golf course and the other near the west baseball field. Both fountains had clear, lukewarm water without odor. However, the fountain near the tennis courts had a “metallic” taste while the other fountain had no distinguishable taste. The fountain near the tennis court also did not drain well and alga had begun growing down the side of the fountain where the water runs over the edge of the basin.



The water fountain near the baseball fields was clean and drained properly.



The water fountain near the tennis courts did not drain well and was covered in alga from the water run-off.

Public Restrooms

Rosedale Park possesses both a men's and women's public restroom in addition to several portable restrooms. These portable restrooms were not assessed as they were not permanent structures. The men's restroom was assessed first. The paint on the walls was peeling and chipping significantly. The urinals, toilets, and sinks were functioning properly and appeared to have been cleaned recently but there was neither soap nor paper towels. Stall doors were missing and the floors needed to be cleaned. Wads of wetted toilet paper were stuck to the ceiling as well.



Paint in both restrooms is peeling away from the walls.



The men's restroom is clean and stocked with toilet paper but the floor needs swept.

The women's restroom was assessed next and was found to be in much poorer condition than the men's restroom. Similar to the men's, the paint on the walls was peeling and chipping significantly. However, this restroom did not appear to have been cleaned recently. The closest stall was in desolate condition with mounds of toilet paper and human waste rendering it unusable. The furthest stall was in only slightly better condition with a toilet that needed cleaning and toilet paper draped over the toilet seat. The sink was also dirty and lacked soap and paper towels. This restroom also did not have stall doors and toilet paper patties were stuck to the ceiling. Finally, a foul odor permeated through the restroom.



A stall in the women's restroom is unsanitary.

Shelter House

Rosedale Park has one shelter house for use by the public which includes 6 picnic tables. This shelter house was in good condition, but lacked signs informing patrons of how to reserve the shelter or shelter hours. Within the shelter, trash cans appeared to have been emptied recently but remained very dirty. Light bulbs within the ceiling of the shelter were all in working order. The cement ground surface contained a few cracks and needs to be swept. In addition, there were several areas of poor drainage surrounding the shelter. Because the shelter does not have sidewalk access, patrons must walk to avoid these muddy and water logged areas.



The shelter house contains six picnic tables, a two-sided barbecue grill, and trashcans.

Picnic Tables

Rosedale Park contains nine picnic tables. The first six picnic tables are found within the previously described shelter house. These tables were somewhat dirty with bird droppings and food on the eating surface. In general, the tables have general signs of “wear and tear” with faded paint and nicks in the protective covering. An attempt at repairing the protective coating of some of the tables was evident as the tape used to cover the gaps in the coating has begun coming loose. Several other tables show signs of possible vandalism. One table appears to have had its protective covering cut into by a sharp object. Another table has an eating surface that is very rough and appeared to have been melted or burned. Finally, three of the six tables contained graffiti including gang tags and curse words.

The final three picnic tables in Rosedale Park are located near the tennis courts and first tee box of the disc golf course. These tables showed general signs of wear including faded and chipped paint, but have clean eating surfaces. However, the ground near these tables is littered with cigarette butts.

Benches

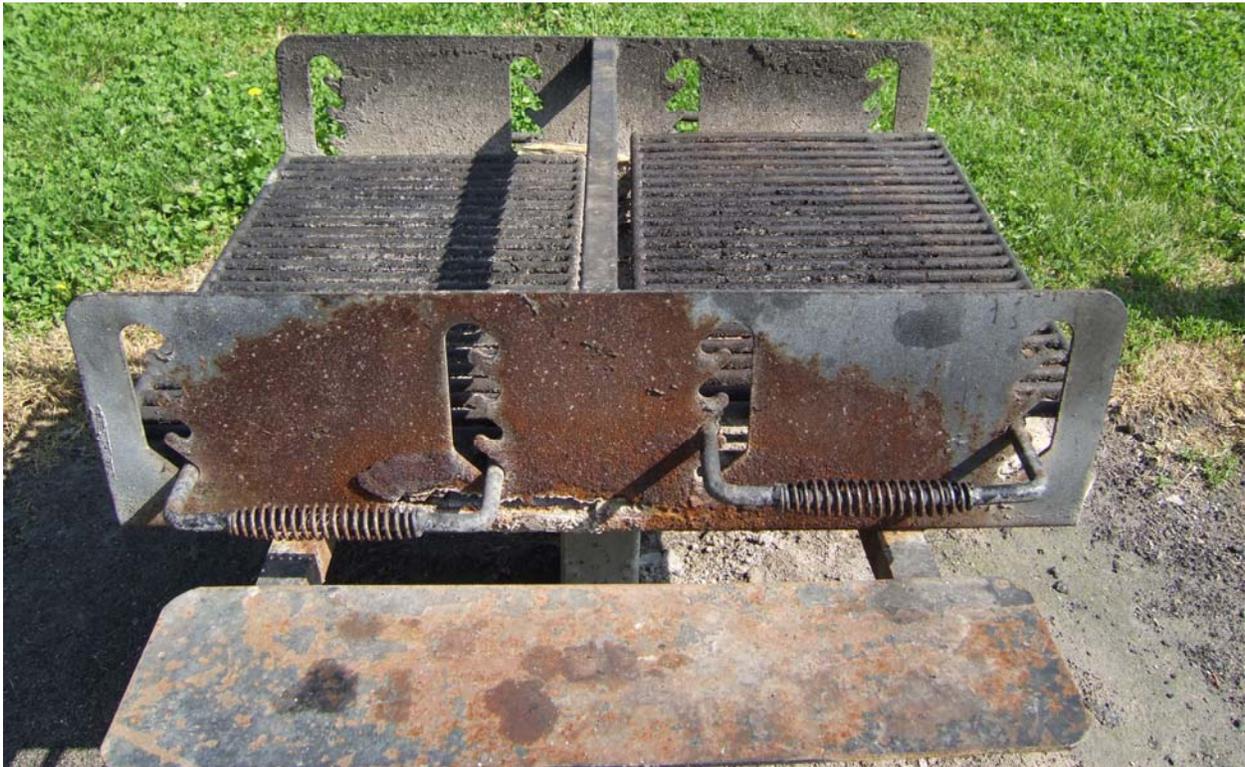
Several benches were available within Rosedale Park. In addition to the benches previously discussed in the baseball field dugouts, these benches were most frequently located at the tee box of the disc golf course holes. These benches all appeared to be in good condition with normal signs of wear and tear including faded paint and minor cracks in the protective covering of the benches. One bench at Hole 10 of the course was vandalized with graffiti.



A bench in good condition was found next to a vandalized trash can.

Barbecue Grills

Rosedale Park has one barbecue grill with two separate grilling surfaces on either side and is located near the shelter house. This grill was found to be rusted in many places with the grilling rack in need of cleaning as it was covered in blackened and burnt substance. The coal reservoir was full of used coals. The ground beneath the grill was wet, muddy, and has a large pile of used coals where either past patrons or park personnel have emptied the coal reservoir onto the ground. This was further compounded by the bottom of the coal reservoir which had a large hole due to rust. When patrons or park personnel remove the tray designed to empty the coals, coals can be lost into the hole and fall on the ground.



The barbecue grill is dirty and rusted. The ground underneath is muddy and covered in used coals.

Signage and Notices

Rosedale Park had no signs indicating the hours of the park. There were also no signs within the park informing patrons of shelter house hours or how to reserve the shelter. The only park sign which discussed hours was the Skate Park which boasted hours of “dawn to dusk”. This sign also relayed the rules of the Skate Park and a number to call for maintenance issues. Another sign noted within the park was a map of the disc golf course. This sign was painted in 1997 and the paint is currently faded. Course users may benefit from a newer, updated version of the map. Another sign within the park encouraged park patrons to pick up their pets’ waste and was stocked with small plastic bags to dispose of this waste. Three final signs were found on the

roadways within the park. Rosedale Park Drive is a road within the park and contained a caution sign denoting the presence of a nearby playground. This sign showed two individuals on a teeter totter, but has been vandalized to make one rider appear obese. The second sign on this road was a 20 mile per hour speed limit sign. The other road within the park is Rosedale Park Road and courses through the main park area with a 10 mile per hour speed limit sign.



A 1997 map of the disc golf course was faded.



A caution sign advising cars of a nearby playground and speed limit sign were present on Rosedale Park Drive.

Security

While at Rosedale Park, assessors did not find any permanent security presence. However, during the assessment, a Kansas City, Kansas (KCK) police vehicle stopped within the park and remained there for a large portion of the assessment. It was not known to the assessors whether this police presence was a common occurrence. In addition, a KCK Parks and Recreation vehicle was seen driving through the park during the assessment although the personnel were not observed to be cleaning or performing maintenance tasks.



A police car is parked within the park but no permanent security presence was discovered.

Trash Cans

Throughout the assessment, trash cans were reviewed and noted as to their fullness and cleanliness. A common theme was discovered throughout Rosedale Park with inconsistent conditions of trash cans between the disc golf course and the remainder of the park. Many trashcans within the disc golf course were mostly full or overflowing and tagged with lots of graffiti. Trashcans within the rest of the park appeared to have been emptied much more recently and exhibited much less graffiti. The only trashcan which needed to be emptied in the main park area was the one in the parking lot near the tennis courts. The trash cans within the shelter house were much dirtier than trashcans found within the rest of the park, but this may be explained by more leftover food being placed in these trash cans as compared to other trashcans further from the shelter house and barbecue grill.



Many trashcans on the disc golf course were full and covered in graffiti.

Cleanliness

Several key areas were used to determine overall cleanliness of the Rosedale Park with trashcans, litter, graffiti, picnic tables, barbecue grills, and restrooms being key indicators. Many of these have already been described in individual sections of this assessment. Overall, assessors granted this park a “Fair” rating. Many areas were individually rated much higher than “Fair” but the prominent graffiti throughout the park, condition of the women’s restroom, full trashcans on the disc golf course, and dirtiness of the public barbecue grills significantly lowered the park’s overall score.



A broken sink was found lying amongst rocks and tree stumps on the disc golf course.

Groundskeeping

Groundskeeping was assessed using factors such as grass height, dead or dying landscaping, overgrown shrubbery, and fallen limbs as key indicators. Similar to the condition of the trash cans, another common theme between the disc golf course and the remainder of the park emerged in reference to groundskeeping as well. While the disc golf course had two large limbs in need of removal and knee high grass, the remainder of the park had only ankle high grass levels. The recurrence of this disparity left questions as to whether the park had two separate maintenance schedules between the disc golf course and remainder of the park. No dead or dying landscaping or overgrown shrubbery was noted during the assessment. Therefore, due to the grass height on the disc golf course and the need of two large tree limbs to be removed, this park was given a “Good” rating by both assessors.



The disc golf course had knee high grass while other areas were cut much shorter. Plentiful shade trees were also found throughout much of the park.

Whitmore Park

Whitmore Park, located between 8th Street and Early Street at their intersection with Southwest Boulevard, is a neighborhood park in Wyandotte County which is owned and maintained by the Sharing Community Churches. The following is an assessment of these facilities performed by a Graduate Research Assistant (GRA) and Post-Doctorate Fellow employed with the University of Kansas Medical Center (KUMC).

Playground Equipment

The playground area at Whitmore Park includes swings, spring animal riders, four-way teeter totter, merry-go-round, two multi-use play structures featuring slides and a fire pole, multiple climbing structures and tunnels, teeter totter, and a sand backhoe. All equipment was in fair to good condition but some problems were revealed. For starters, the merry-go-round was significantly unstable and “wobbled” considerably as it spun. There was also a black tunnel which had a hole in the top and standing water inside the structure. Finally, the very tall slide appeared to be crooked and needs to be re-secured and straightened. In fact, one parent who approached the assessors expressed concern over this very slide as to its height, lack of stability, and its lack of safety equipment such as netting or railing at the top of the platform. He did not allow his children to play on the slide due to his safety concerns. Other playground equipment was found in good condition with only the larger slide, merry-go-round, and curly slide possessing mildly peeled and/or chipped paint and a large tire containing trash, leaves, and mud within its confines.

Other safety hazards throughout the playground involved the close proximity of much of the equipment to the edge of the playground. According the Consumer Federation of America (CFA) and Public Interest Research Group (PIRG), it is recommended that all playground equipment be surrounded by a six foot “fall zone” surfaced by appropriate protective surfacing materials (wood chips, sand, shredded bark mulch, and pea gravel) and free from obstacles. This fall zone is recommended to provide a safe landing area for children who may fall or be thrown from playground equipment. At Whitmore Park, it was discovered that very little of the playground equipment met this standard with most equipment having only an approximately four foot fall zone. This inadequate fall zone was found surrounding the larger multi-use play structure, many of the climbing structures, spring animal riders, and curly slide, among others.



The ladder to the large slide did not possess an adequate fall zone, especially behind the ladder, even though it was very tall and did not have side barriers to prevent falls. In addition, grass can be seen growing through the woodchips which are of an inadequate depth to sufficiently prevent injury from falls.

In addition, the CFA and PIRG recommend no opening possess a space between 3.5 and 9 inches, except where the lower boundary of the space is the ground, because it may pose a risk of children entrapping their heads with possible resultant strangulation. This park contained multiple head entrapment dangers within the playground equipment. Areas posing the danger of head entrapment include a crawling tube which is enclosed by rails (7 ½”), foot rests for the 4-way teeter totter (6 ½”), and the hand rails for the slide and slats to the climbing platform attached to the larger multi-use play structure (6 ½” and 7 ½”, respectively). There were also areas on the slides and tunnel which posed an entanglement hazard for children to catch their clothes which could result in strangulation, especially when combined with head entrapment areas.



An open tunnel has an area which could present the possibility of head entrapment.

Several issues arose when examining the swings as well. First, there were more than two swings in the one swinging section which is not recommended by the CFA and PIRG. Having more than two swings poses a risk because children often do not swing in straight forward and backward motions and may swing crooked, jump off their swings without stopping them, or twist their swings and unwind them. When more than two swings are in one swing section, the middle child is at an increased risk of being contacted by swingers on either side of their swing. Also, the outside swings were too close to the support structure of the swings, 26 inches on one side and 28 inches on the other. The CFA and PIRG recommend 30 inches of clearance. This number is the width of the shoulders of a 95th percentile 12 year old child with additional clearance added to decrease impact with the rigid support structures if a child walking beside the swing is hit by a swinger. A final issue regarding the swings involved the height of the swing support structure. The CFA and PIRG contend that swing heights greater than eight feet do not add to swinger enjoyment and only serve to increase the risk of injury from a fall. The swings at Whitmore Park were above eight feet and too tall for assessors to measure without additional equipment.



Three swings hung in the same section, the support structure was greater than eight feet tall, and the swings were too close to the support structure. Individual swings, spaced adequately apart, seats constructed of pliable plastic, and an adequate fall zone of woodchips, however, is pictured as well.

Areas in which this park complied with current safety recommendations include adequate fall zones for the swings, a lack of swing seats constructed of wood or metal, no swings attached to other play equipment, and no infant or tot swings in the same area as regular swing seats. Swings also were spaced at least 24 inches apart. There was also no equipment deemed “dangerous” by the CFA and PIRG such as chain or cable walkways, multiple occupancy swings, swinging exercise rings, rope swings, or climbing ropes.

Playground Surfacing

The playground area at Whitmore Park was assessed to determine the type and depth of surfacing material underneath the playground equipment. The CFA and PIRG recommend a surfacing depth of nine to twelve inches composed of loosely filled wood chips, shredded bark mulch, sand, or pea gravel. In addition, unitary synthetic surfacing materials are acceptable, including premolded rubber tiles and pour-in-place systems. However, it is important to note that these depths are only recommended for loose and dry surfacing. When surfacing materials become compacted and/or wet, they lose some of their protective features and children may still be injured even at the recommended depths. At Whitmore Park, the surfacing material was mostly woodchips and sand. However, asphalt was found underneath one tunnel and it is important to note that this is an unacceptable surfacing material and should be removed immediately to comply with currently recommended standards. Surface depths were measured at six areas throughout the playground area. The first area was assessed at the bottom of the large, straight slide. The wood chips in this area were found to be only 2 ½ inches deep. The second area of surfacing depth was measured underneath one of the swing seats. This area only contained 3 ½ inches of woodchips. Next, an area 64 inches in front of this swing seat was found to have 3 ½ inches of wood chips. The fourth area was located east of the large red climbing ring at a point midway between this piece and the rail tie boundary. It had greater than 7 inches of sand at this point. The next area was located at the base of the small plastic kids' slide and contained 3 inches of woodchips. The last area assessed was at the end of the spiral slide. It contained two inches of woodchips. Overall, none of the areas assessed, with the exception of the sand near the climbing rings, was of an adequate depth to prevent bodily injury. To comply with widely accepted surfacing standards, it is strongly recommended that more loose fill surfacing material be applied to the playground area and it should extend at least six feet in all directions from each piece of equipment.



The woodchips near the swings were not of an adequate depth.



A tunnel was located over asphalt which could cause injury to a child who may fall climbing in or out.

Recreational Areas

Whitmore Park contains areas for four square and other sidewalk games and two basketball areas. The first basketball area had two standard hoop heights (10 feet) for larger patrons as well as a seven foot tall hoop while a second area contained much shorter hoops (6.25 feet) for smaller park patrons. The assessors examined many key indicators including the condition of the surfacing, player safety, condition of equipment, and presence of trash in the recreational areas. This park's recreational areas were given an overall "Fair" rating. This rating was given for several reasons. First, significantly faded paint was found on the sidewalk games and throughout the two basketball areas' three point markings, out-of-bounds markings, and backboards. The rims appeared in good shape with no apparent defects in the metal nets. In the larger area, there was a line of yellow raised bumps and a section of missing asphalt near the basketball courts which posed a tripping hazard to players who venture out-of-bounds. In addition, large permanent barrels filled with cement were placed between the two standard hoop sized courts and may cause injury to a player who falls against them. Finally, the surfacing material in both areas had numerous cracks and one court sloped downhill. No trash was noted on the court.



Raised yellow mounds were located near the basketball goal and could pose a safety concern for players who run out-of-bounds. Cracks in the asphalt were also visible on the court surface.



An area of missing asphalt puts players who run out-of-bounds at risk of injury. In addition, the faded boundary lines to the basketball courts and their different sized rims are visible.



Large barrels filled with cement were placed between two of the basketball courts.

Bike Racks

There were no bike racks available for use at Whitmore Park.

Sidewalks

Sidewalks were assessed within and surrounding Whitmore Park. There were no sidewalks found by either assessor within the park. Outside and surrounding Whitmore Park, there were both sidewalks and crosswalks. The sidewalks leading to the park were between fair and good condition with few uneven areas but several cracks. They were also wide without encroaching weeds or grass. Curb ramps were present with one needing improved drainage, but the park itself had only one access area for wheelchair-bound patrons which was via the driveway and parking lot. Wheelchair access into the playground areas was also limited with patrons being forced to travel through the basketball court or up a steep and short wheelchair ramp.



Occasional areas of cracked sidewalk were seen surrounding the park.



Most sidewalks surrounding Whitmore Park were in good condition.

Walking Paths

In addition to sidewalks, walking paths were assessed within Whitmore Park. Paths were defined as any walking surface other than cement including asphalt, wood or woodchips, and dirt. Both assessors determined that “nearly all the park has paths” with greater than 75% of areas accessible by paths. This park contained mainly asphalt paths which linked the playground areas. These paths contained moderate cracking and had some places where the cracks led to an uneven surfacing.



This walking path was significantly uneven with several cracks.

Crosswalks

Whitmore Park does not contain painted crosswalks leading into the park, but there are a two nearby signs indicating crosswalks on Southwest Boulevard. The first sign is in front of the park while the second sign is in front of the church and preschool next door. However, the crosswalks were neither painted onto the roadway nor had pedestrian crossing stoplights for safety. A yellow flashing yellow light was in place near the church and preschool's crosswalk. While conducting our assessment there was a group of preschoolers from the E.O.F. Headstart Rosedale Center playing at the park, but they did not have access to a crosswalk from their center to the playground.



One crosswalk sign was located in front of the park while another was across from the church and preschool next door. No lines were painted on the roadway and only a yellow caution light was in place for pedestrians crossing in front of the church.

Water Fountains

Whitmore Park had a single water fountain located near the larger multi-use play structure. The water was slightly colder than lukewarm, clear, and without a significant odor or taste other than that commonly found with tap water.



The water fountain was in good condition and flowed clear water.

Public Restrooms

Whitmore Park did not contain public restrooms.

Shelter House

Whitmore Park has one very small shelter house for use by the public which included a single, built-in picnic table. The shelter house was found to be in good condition, but had several areas of faded and chipped paint. This shelter did not have signs directing patrons how to reserve the structure and did not have lights.



The shelter house contained a built-in picnic table but needs repainted due to faded and chipped paint.

Picnic Tables

Whitmore Park contains one picnic table. This table had issues similar to the shelter house with faded and chipped paint.

Benches

Several benches were noted within Whitmore Park. These benches were in good shape but need to be repainted as their paint is notably faded and chipped. In addition, one swinging bench was found to have been chained to its base support, perhaps due to safety concerns. However, it was only chained on one side of the bench which still allowed it to swing but created an awkward and crooked swinging pattern. When compounded by the sudden stop when the chain reaches its limit, it can easily cause children to be thrown from the bench.



This bench was located beneath a nice shade tree but has significantly chipped paint.



A swinging bench had chipped paint and was chained to a pole on one side to prevent swinging.

Barbecue Grills

Whitmore Park has one barbecue grill which was being used by a patron during our assessment. The grill had burnt substance caked on its surface and old coals and trash in the coal reservoir.



The barbecue grill rack was dirty and trash was inside the coal reservoir.

Signage and Notices

Whitmore Park had multiple signs throughout the park indicating the hours of use between 7 a.m. to 10 p.m. These signs, written in both English and Spanish, were located at the entrance to the park and throughout the playground areas. There were no signs within the park informing patrons of shelter house hours or how to reserve the shelter but were signs forbidding alcoholic beverages within the park. In addition, one pedestrian crossing and one playground cautionary sign was located directly outside the park along with a 30 mile per hour speed limit sign.



Park signs written in both English and Spanish were posted on the fence surrounding the playground.

Security

While at Whitmore Park, assessors did not find any permanent security presence. However, signs indicated the park was patrolled by Kansas City, Kansas Police Department officers after 10 p.m.

Trash Cans

Throughout the assessment, trash cans were reviewed and noted as to their fullness and cleanliness. Most trashcans were less than one quarter full with the exception of the trashcan near the barbecue grill. However, at least two groups had used the grill during our assessment so it was determined this trash was most likely from multiple groups who ate at the park that day.



Trashcans were mostly empty and clean. The only exception was the trashcan near the shelter house.

Cleanliness

Several key areas were used to determine overall cleanliness of the Whitmore Park including the condition of the trash cans, barbecue grill, and picnic tables and the presence of litter and graffiti. Overall, this playground was given a “Good” rating by both assessors. This rating was given because there was no graffiti and trashcans were in good condition, but there was one overflowing trash can, mild littering, a mildly dirty picnic table, and a somewhat dirty public grill.

Groundskeeping

Groundskeeping was assessed using factors such as grass height, dead or dying landscaping, overgrown shrubbery, and fallen limbs as key indicators. The groundskeeping at this park was given an “Excellent” rating by one assessor and a “Good” rating by the other. This park had plentiful shade trees but had some bushes which need to be trimmed as they are overgrown. In addition, the grass had been cut recently and was at or below ankle level.



Landscaping is prominent throughout the park and provides shade to much of the playground.

Mount Marty Park (Rosedale Memorial Arch)

Mount Marty Park, located south of Rainbow Avenue Extension on Seminary Avenue, is a nearly eleven acre park in Wyandotte County which houses the Rosedale Memorial Arch and offers a hilltop view of the Kansas City area. The following is an assessment of these facilities performed by a Graduate Research Assistant (GRA) and Post-Doctorate Fellow employed with the University of Kansas Medical Center (KUMC).

Playground Equipment

Mount Marty Park did not contain any playground equipment.

Playground Surfacing

Mount Marty Park did not contain any playground surfaces.

Recreational Areas

Mount Marty Park did not contain any recreational areas.

Bike Racks

There were no bike racks available for use at Mount Marty Park.

Sidewalks

Sidewalks were assessed within and surrounding Mount Marty Park. Both assessors agreed that nearly all areas within the park, defined as having greater than 75% of areas with sidewalk access, had sidewalk access. The only exception to this was the picnic tables. The sidewalks throughout the park were in good condition with only minor cracking or chipping. They did, however, need to be swept as there were frequent areas where debris and trash was present. In addition, there was one poor area of stairs which had moderately to severely broken and chipped stairs. Some sidewalk areas were found to have grass growing through the cracks between sidewalk sections but this was minimal. No sidewalks were present on Mount Marty Road.



These stairs were in poor condition with many broken and chipped steps.



Piles of debris were found along many of the sidewalks within the park.

Walking Paths

In addition to sidewalks, walking paths were assessed within Mount Marty Park. Paths were defined as any walking surface other than cement including asphalt, wood or woodchips, and dirt. Mount Marty Park did not contain any walking paths within the park.

Crosswalks

Mount Marty Park did not have a delineated crosswalk, pedestrian crossing signs, or pedestrian lights through which to access the park. In addition, the park entrance was on a steep hill where it was difficult to see oncoming traffic and may pose a safety concern for patrons crossing Seminary Avenue.



The entrance to this park was located on a windy and hilly road but did not contain a crosswalk.

Water Fountains

Mount Marty Park did not contain water fountains.

Public Restrooms

Mount Marty Park did not have public restrooms available for use.

Shelter House

Mount Marty Park did not have a shelter house available for use.

Picnic Tables

Mount Marty Park contained three picnic tables which appeared new and in excellent condition. Each picnic table was set atop a concrete base which was found to be in excellent condition as well. Only mild litter and graffiti was found on or near the tables.



The picnic tables and their cement platforms were in excellent condition.

Benches

Three benches were noted within Mount Marty Park. These benches ranged from good to excellent condition. More than half the benches suffered a thin crack across the middle of the bench seat and one bench had a large chipped area. The other benches were in excellent condition.



This bench near the Rosedale Memorial Arch was in excellent condition.



One bench had a large chip on its seat.

Barbecue Grills

Mount Marty Park did not contain barbecue grills.

Signage and Notices

Mount Marty Park did not contain signs promoting the hours of the park. The only signs present were those which prohibited littering, alcohol, and fireworks.



Signs forbid patrons from consuming alcohol or lighting fireworks within the park.

Security

There was no security presence or signs indicating police presence at Mount Marty Park.

Trash Cans

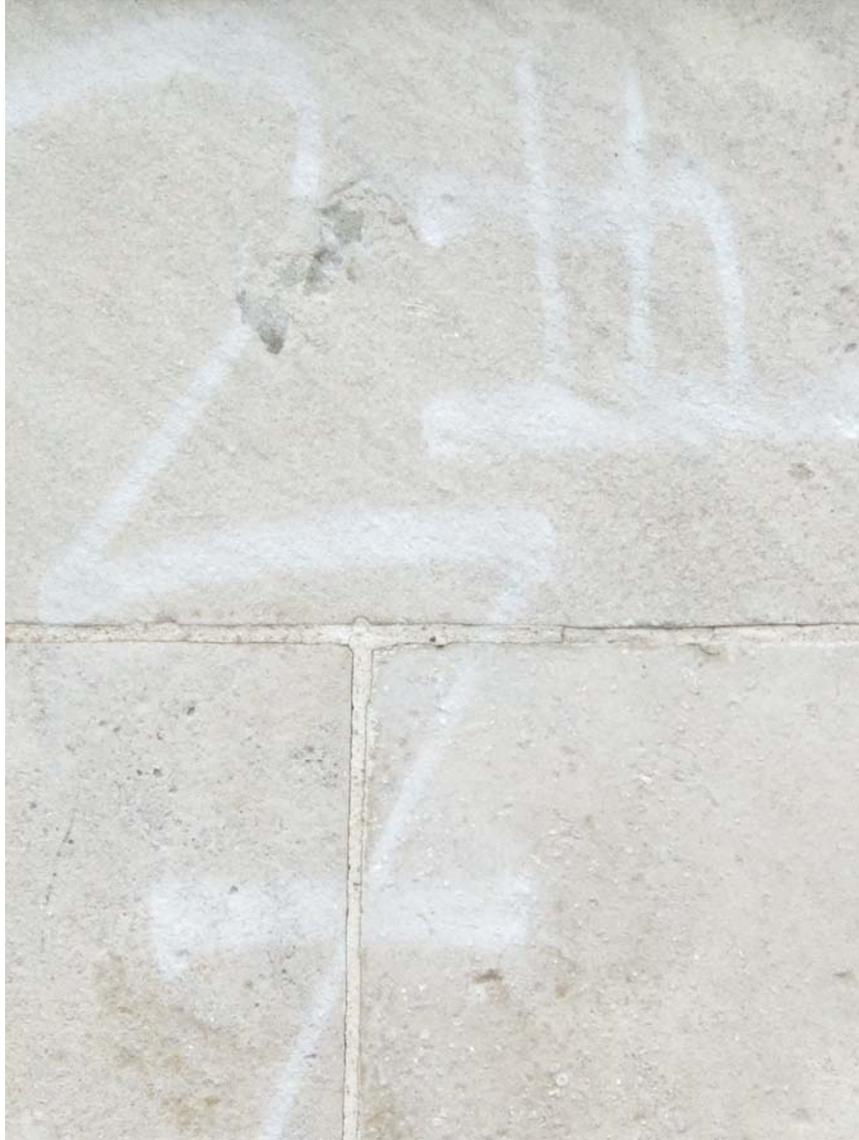
Throughout the assessment, trash cans were reviewed and noted as to their fullness and cleanliness. Most trashcans within the park need to be emptied in the near future as they were mostly full. One trashcan was covered in graffiti.

Cleanliness

Several key areas were used to determine overall cleanliness of Mount Marty Park. Overall, assessors granted this park a “Fair” rating with the large amount of litter, sidewalk debris, and graffiti being key indicators. Litter was found in most areas of the park and parking lot while debris was found along most sidewalks. Graffiti was present on the back wall, Rosedale Memorial Arch, a lamp post, barrier guard, and trashcan.



Litter is present both within the main park area and the parking lot.



Rosedale Memorial Arch had been vandalized with graffiti.

Groundskeeping

Groundskeeping was assessed using factors such as grass height, dead or dying landscaping, overgrown shrubbery, and fallen limbs as key indicators. Mount Marty Park was given a "Good" rating by both assessors. Shrubby was overgrown in many areas but does not block access to any park features. Also, limbs need to be swept up and removed and the grass within the fence of Rosedale Memorial Arch was overgrown. Grass within the rest of the park was ankle high and no dead or dying landscaping was noted. However, possible poison ivy was spotted amongst the walls, trees, and bushes leading into the park.



Plentiful shade trees cover the picnic tables. The grass was ankle high.

Fisher Park

Fisher Park, located at the intersection of Fisher Street and West 39th Avenue, is a 4.16 acre park in Wyandotte County which contains a playground, picnic tables, barbecue grills, and basketball hoops. The following is an assessment of these facilities performed by a Graduate Research Assistant (GRA) and Post-Doctorate Fellow employed with the University of Kansas Medical Center (KUMC).

Playground Equipment

The playground area at Fisher Park includes swings, spring animal riders, and a multi-use play structure featuring three slides and multiple climbing apparatuses. Overall, this playground equipment was in fair condition with mild graffiti inside the tube slide, scratches gouged into the spring animal riders, and chipped paint on the swing support structure, multi-use play structure, and spring animal riders. In addition, the CFA and PIRG recommend no opening possess a space between 3.5 and 9 inches, except where the lower boundary of the space is the ground, because it may pose a risk of children entrapping their heads with possible resultant strangulation. This park contained one such area within the foot rests of the spring animal riders (5 ¼ inches). There were also areas capable of entangling children's clothing. This included areas on the top of the spiral climber and other equipment within the multi-use play structure. The last safety concern was the height of the swings. The CFA and PIRG recommend the supporting beam of the swings be less than eight feet in height, but the swings at this park were higher than that recommendation. Due to a lack of equipment, the exact height was not able to be assessed.



Although the swings comply with most safety recommendations, the support structure had lots of peeling paint.



The multi-use play structure had faded and chipped paint as well as graffiti inside the tube slide.



The spring animal riders had large scratches in their surface. In addition, their foot rests may pose a risk of head entrapment. One can also view the woodchip surfacing material.

Areas in which this park complied with current safety recommendations include adequate fall zones for the swings and play structures, a lack of swing seats constructed of wood or metal, no swings attached to other play equipment, no infant or tot swings in the same area as regular swing seats, and no more than two swings in any one section of a swing structure. Swings also were spaced at least 24 inches apart and 30 inches from the support structure. There was also no equipment deemed “dangerous” by the CFA and PIRG such as chain or cable walkways, multiple occupancy swings, swinging exercise rings, rope swings, or climbing ropes.

Playground Surfacing

The playground area at Fisher Park was assessed to determine the type and depth of surfacing material underneath the playground equipment. The CFA and PIRG recommend a surfacing depth of nine to twelve inches composed of loosely filled wood chips, shredded bark mulch, sand, or pea gravel. In addition, unitary synthetic surfacing materials are acceptable, including premolded rubber tiles and pour-in-place systems. However, it is important to note that these depths are only recommended for loose and dry surfacing. When surfacing materials become compacted and/or wet, they lose some of their protective features and children may still be injured even at the recommended depths. At Fisher Park, the surfacing material was composed of woodchips only.

Surface depths were measured at four areas throughout the playground. The first area was assessed at the bottom of the tube slide. The wood chips were found to be one inch deep. The second area of surfacing depth was measured at the base of the spiral slide. The woodchips were 3 ½ inches deep in this area. Next, the area underneath the spring animal riders was found to have 2 ½ inches of woodchips. The last area assessed was at the base of the arched climbing steps. It contained greater than six inches of woodchips. The surface depth underneath the swings could not be measured due to patron usage.

Recreational Areas

Fisher Park contains one recreation area with two basketball courts and rims of regulation height. Overall, this area was given a “Good” rating as determined by previously established indicators. These indicators take many areas into account including the condition of surfacing, player safety, condition of equipment, and presence of trash in the recreational areas. The basketball courts within Fisher Park were in excellent condition with only some minor cracks but no uneven playing surfaces. The backboard on the east court had an area of poor drainage with standing water at the south edge of the cement court. There was also mild graffiti on this court. The west court had no graffiti or drainage issues and a backboard in good condition. Neither court had equipment problems such as torn or missing nets.



The east basketball court has a drainage problem which leaves standing water on the court's edge, chipped paint on the backboard, and graffiti on the playing surface.



The east basketball court had graffiti on the court surface.



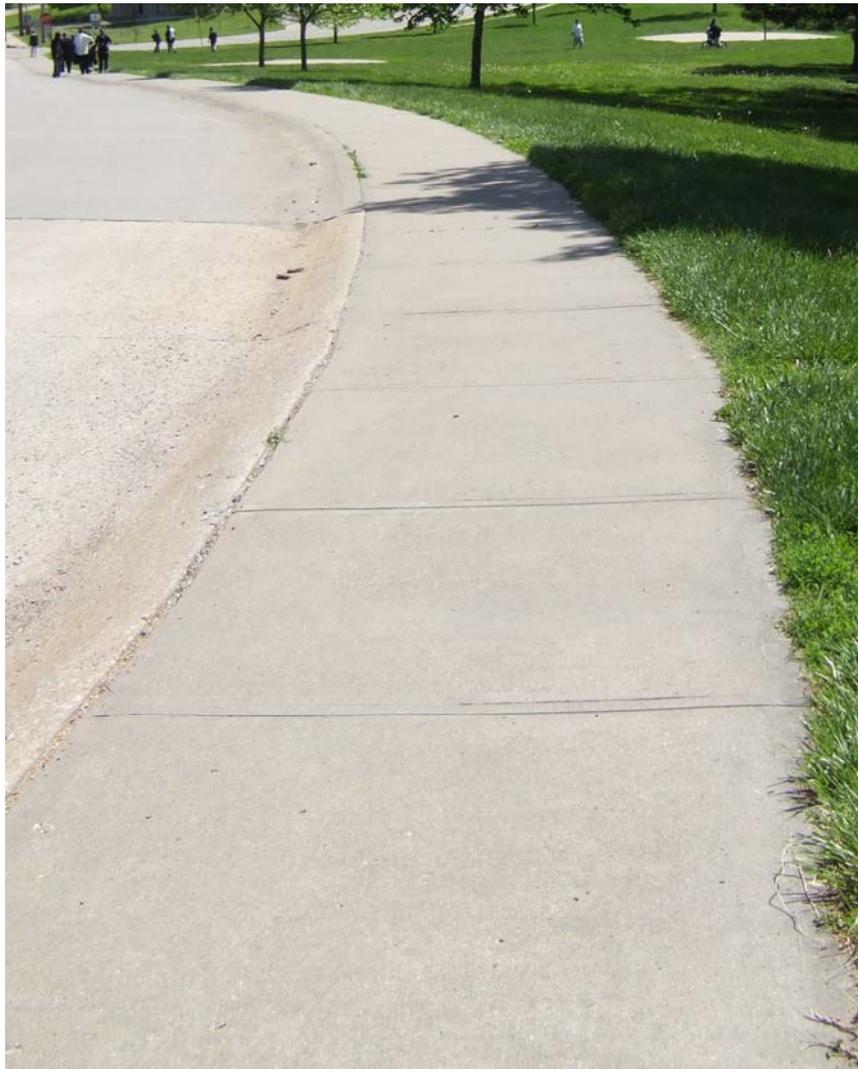
The west basketball court was in excellent shape.

Bike Racks

There were no bike racks available for use at Fisher Park.

Sidewalks

Sidewalks were assessed within and surrounding Fisher Park. Within the park, there were no sidewalks leading to any of the park areas. Sidewalks were present on the east and south perimeters of the park. The east sidewalk was in excellent condition, as was part of the south sidewalk. However, this south sidewalk quickly changed to become severely cracked, uneven, and overgrown with grass.



The sidewalk on the east edge of the park was in excellent condition. This picture also shows a large group of middle school students congregating in and near the park.



The sidewalk bordering the south side of the park began in excellent condition but quickly changed to a very poor condition.

Walking Paths

In addition to sidewalks, walking paths were assessed within Fisher Park. Paths were defined as any walking surface other than cement including asphalt, wood or woodchips, and dirt. Fisher Park did not contain any walking paths within the park.

Crosswalks

Fisher Park did not have a delineated crosswalk, pedestrian crossing signs, or pedestrian lights through which to access the park.

Water Fountains

Fisher Park did not contain water fountains.

Public Restrooms

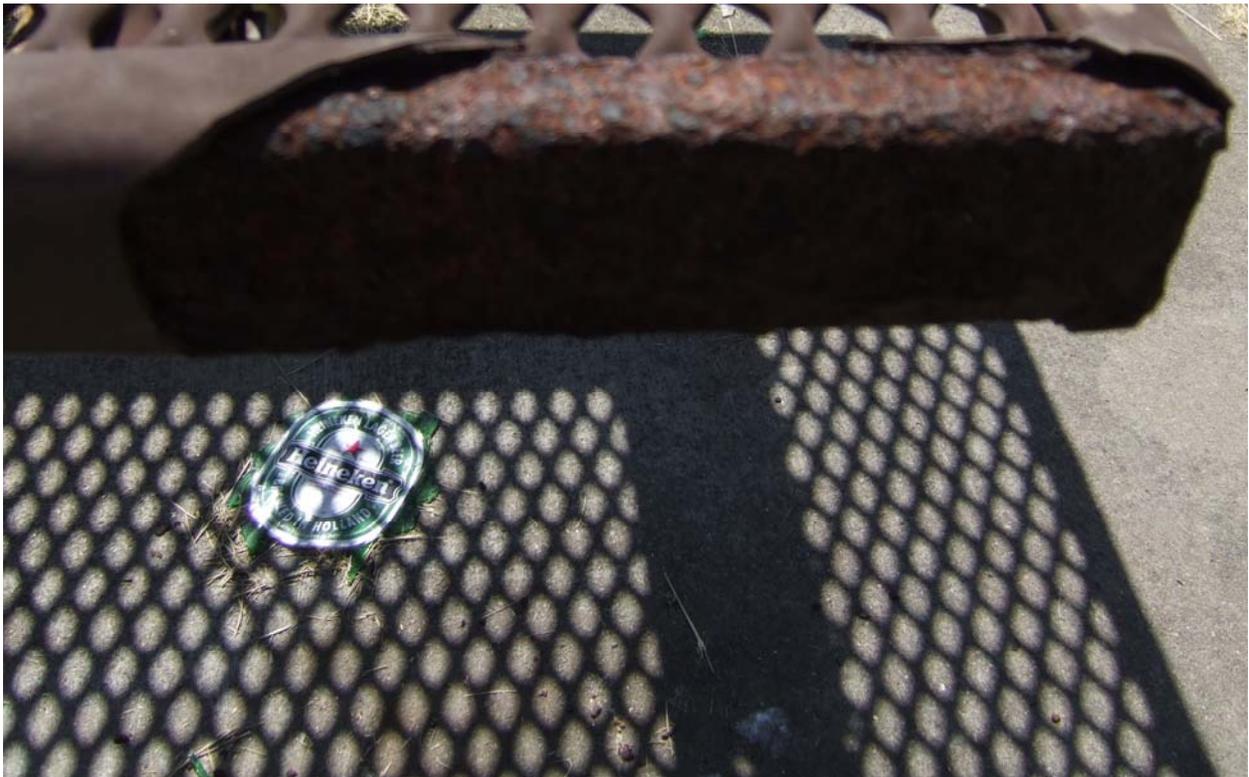
Fisher Park did not have public restrooms available for use.

Shelter House

Fisher Park did not have a shelter house available for use.

Picnic Tables

Fisher Park contains four picnic tables within the grassy areas of the park. Each picnic table was set atop a concrete base which was found to be in excellent condition for all the tables. Picnic tables were assessed in a south to north direction. The first table possessed defects where its protective covering was missing and exposed rust underneath, had graffiti on the table and underlying cement, and broken glass underneath the table as well. The next table was in slightly better condition with only a few areas of superficial scratches in the protective covering and litter around the table. The third table was also in good condition with only one small area where the protective cover was split and small amounts of silver and pink paint on the table top. When later revisiting the park during walkability and bikeability assessments, it was observed that the seat on this bench had been completely broken since our original park assessment and was lying on the ground. The last picnic table had one large, approximately six inch area where the protective covering was missing, superficial scratches in its surface, and sat somewhat “lopsided”.



Rust was visible on a picnic table which has lost a large portion of its protective coating. A broken beer bottle was also found underneath the table.



Most of the picnic tables were in good condition and placed under large shade trees. The cement slab underneath each table was in excellent condition.

Benches

Three benches were noted within Fisher Park. The first bench was located near the west basketball court and was found to have a large drainage problem. Standing water underneath the bench made it nearly impossible to sit on the bench. This wooden bench also had very little paint left on its surface and needs to be repainted. The second bench was inside the playground area and was in good condition with no notable problems other than faded paint from general “wear and tear”. The last bench was located just outside the playground area and was in poor condition. It had severely faded and chipped paint and the seat boards were beginning to warp which caused the seat to sit at a forward angle.



This bench had significantly chipped paint and the seat sat at an angle.



The bench west of the basketball courts had severely chipped paint and a large puddle directly in front of it. The bench also leaned to one side.

Barbecue Grills

Fisher Park had four barbecue grills near each picnic table. Again, the grills were assessed in a south to north direction. The first grill was significantly rusted and virtually unusable. It also had standing water in the coal reservoir which would make it difficult for a patron to use. The next grill was also extremely dirty with wet and used charcoal, sticks, and trash in the coal reservoir. The third grill was cleaner than the others but needed its charcoal reservoir cleaned. The last grill was also cleaner than the first two but still needed to be thoroughly cleaned.



This grill was severely rusted and had standing water within its coal reservoir.



This grill's coal reservoir was filled with old coals, sticks, and trash. In addition, the grill rack had food burnt to its surface.

Signage and Notices

Fisher Park contained only one sign within its confines which stated the hours of the park were between 6 a.m. and 10 p.m. and prohibited alcohol. However, many patrons do not follow this latter rule as many broken beer bottles were found on the ground. One speed limit sign was found on the road directly east side of the park which limits cars to 20 miles per hour.



One sign informed patrons of park hours and an alcohol ban. However, many alcoholic beverages were found throughout the premises.



A speed limit sign was posted on the east edge of the park.

Security

There was no security presence or signs indicating police presence at Fisher Park. When combined with the large number of middle school teenagers who congregate at the park after school, the lack of security may deter younger children from attending the park during this time period.

Trash Cans

Throughout the assessment, trash cans were reviewed and noted as to their fullness and cleanliness. Most trashcans within the park appeared to have been emptied recently, but litter and broken bottles were visible on the ground in many places throughout the park.



Clean and mostly empty trash cans were placed near every picnic table.

Cleanliness

Several key areas were used to determine overall cleanliness of Fisher Park. Many of these have already been described in individual sections of this assessment. Overall, assessors granted this park a “Fair” rating with the presence of litter and graffiti and the condition of the barbecue grills being the main indicators for the lower rating.



Litter and broken bottles were found in multiple areas throughout the park.

Groundskeeping

Groundskeeping was assessed using factors such as grass height, dead or dying landscaping, overgrown shrubbery, and fallen limbs as key indicators. Fisher Park was given an “Excellent” rating by the both assessors. This park had large shade trees throughout the park which were in excellent condition. No dead or dying landscaping or large branches were found in any area of the park. The only landscaping issue within the park was the height of the grass which was just short of mid-shin level. However, many days of recent rain may have contributed to an inability of park personnel to trim the grass.



Trees grew in most areas of the park including the playground and picnic table area.

Appendix A

Walkability Checklist

How walkable is your community?

Take a walk with a child and decide for yourselves.

Everyone benefits from walking. These benefits include: improved fitness, cleaner air, reduced risks of certain health problems, and a greater sense of community. But walking needs to be safe and easy. Take a walk with your child and use this checklist to decide if your neighborhood is a friendly place to walk. Take heart if you find problems, there are ways you can make things better.

Getting started:

First, you'll need to pick a place to walk, like the route to school, a friend's house or just somewhere fun to go.

The second step involves the checklist. Read over the checklist before you go, and as you walk, note the locations of things you would like to change. At the end of your walk, give each question a rating. Then add up the numbers to see how you rated your walk overall.

After you've rated your walk and identified any problem areas, the next step is to figure out what you can do to improve your community's score. You'll find both immediate answers and long-term solutions under "Improving Your Community's Score..." on the third page.



Partnership for a
Walkable America



Pedestrian and Bicycle Information Center



U.S. Department
of Transportation



Take a walk and use this checklist to rate your neighborhood's walkability.

How walkable is your community?

Location of walk _____

Rating Scale: 

1. Did you have room to walk?

- Yes Some problems:
- Sidewalks or paths started and stopped
 - Sidewalks were broken or cracked
 - Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
 - No sidewalks, paths, or shoulders
 - Too much traffic
 - Something else _____
- Locations of problems: _____

Rating: (circle one) _____
1 2 3 4 5 6 _____

2. Was it easy to cross streets?

- Yes Some problems:
- Road was too wide
 - Traffic signals made us wait too long or did not give us enough time to cross
 - Needed striped crosswalks or traffic signals
 - Parked cars blocked our view of traffic
 - Trees or plants blocked our view of traffic
 - Needed curb ramps or ramps needed repair
 - Something else _____
- Locations of problems: _____

Rating: (circle one) _____
1 2 3 4 5 6 _____

3. Did drivers behave well?

- Yes Some problems: Drivers...
- Backed out of driveways without looking
 - Did not yield to people crossing the street
 - Turned into people crossing the street
 - Drove too fast
 - Sped up to make it through traffic lights or drove through traffic lights?
 - Something else _____
- Locations of problems: _____

Rating: (circle one) _____
1 2 3 4 5 6 _____

4. Was it easy to follow safety rules?

Could you and your child...

- Yes No Cross at crosswalks or where you could see and be seen by drivers?
- Yes No Stop and look left, right and then left again before crossing streets?
- Yes No Walk on sidewalks or shoulders facing traffic where there were no sidewalks? Cross with the light?
- Yes No Locations of problems: _____

Rating: (circle one) _____
1 2 3 4 5 6 _____

5. Was your walk pleasant?

- Yes Some unpleasant things:
- Needed more grass, flowers, or trees
 - Scary dogs
 - Scary people
 - Not well lighted
 - Dirty, lots of litter or trash
 - Dirty air due to automobile exhaust
 - Something else _____
- Locations of problems: _____

Rating: (circle one) _____
1 2 3 4 5 6 _____

How does your neighborhood stack up? Add up your ratings and decide.

1. _____ 26-30 Celebrate! You have a great neighborhood for walking.
2. _____ 21-25 Celebrate a little. Your neighborhood is pretty good.
3. _____ 16-20 Okay, but it needs work.
4. _____ 11-15 It needs lots of work. You deserve better than that.
5. _____
- Total _____ 5-10 It's a disaster for walking!

Now that you've identified the problems,
go to the next page to find out how to fix them.

Now that you know the problems,
you can find the answers.

Improving your community's score...



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

What you and your child can do immediately

- pick another route for now
- tell local traffic engineering or public works department about specific problems and provide a copy of the checklist

What you and your community can do with more time

- speak up at board meetings
- write or petition city for walkways and gather neighborhood signatures
- make media aware of problem
- work with a local transportation engineer to develop a plan for a safe walking route

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

- pick another route for now
- share problems and checklist with local traffic engineering or public works department
- trim your trees or bushes that block the street and ask your neighbors to do the same
- leave nice notes on problem cars asking owners not to park there

- push for crosswalks/signals/ parking changes/curb ramps at city meetings
- report to traffic engineer where parked cars are safety hazards
- report illegally parked cars to the police
- request that the public works department trim trees or plants
- make media aware of problem

3. Did drivers behave well?

Backed without looking
Did not yield
Turned into walkers
Drove too fast
Sped up to make traffic lights or drove through red lights

- pick another route for now
- set an example: slow down and be considerate of others
- encourage your neighbors to do the same
- report unsafe driving to the police

- petition for more enforcement
- request protected turns
- ask city planners and traffic engineers for traffic calming ideas
- ask schools about getting crossing guards at key locations
- organize a neighborhood speed watch program

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

- educate yourself and your child about safe walking
- organize parents in your neighborhood to walk children to school

- encourage schools to teach walking safely
- help schools start safe walking programs
- encourage corporate support for flex schedules so parents can walk children to school

5. Was your walk pleasant?

Needs grass, flowers, trees
Scary dogs
Scary people
Not well lit
Dirty, litter
Lots of traffic



- point out areas to avoid to your child; agree on safe routes
- ask neighbors to keep dogs leashed or fenced
- report scary dogs to the animal control department
- report scary people to the police
- report lighting needs to the police or appropriate public works department
- take a walk with a trash bag
- plant trees, flowers in your yard
- select alternative route with less traffic

- request increased police enforcement
- start a crime watch program in your neighborhood
- organize a community clean-up day
- sponsor a neighborhood beautification or tree-planting day
- begin an adopt-a-street program
- initiate support to provide routes with less traffic to schools in your community (reduced traffic during am and pm school commute times)

A Quick Health Check

Could not go as far or as fast as we wanted
Were tired, short of breath or had sore feet or muscles
Was the sun really hot?
Was it hot and hazy?

- start with short walks and work up to 30 minutes of walking most days
- invite a friend or child along
- walk along shaded routes where possible
- use sunscreen of SPF 15 or higher, wear a hat and sunglasses
- try not to walk during the hottest time of day

- get media to do a story about the health benefits of walking
- call parks and recreation department about community walks
- encourage corporate support for employee walking programs
- plant shade trees along routes
- have a sun safety seminar for kids
- have kids learn about unhealthy ozone days and the Air Quality Index (AQI)

Need some guidance?
These resources might help...

Great Resources

WALKING INFORMATION

Pedestrian and Bicycle Information Center (PBIC)
UNC Highway Safety Research Center
730 Airport Road, Suite 300
Campus Box 3430
Chapel Hill, NC
27599-3430
Phone: (919) 962-2202
www.pedbikeinfo.org
www.walkinginfo.org

National Center for
Bicycling and Walking
Campaign to Make
America Walkable
1506 21st Street, NW
Suite 200
Washington, DC 20036
Phone: (800) 760-NBPC
www.bikefed.org



WALK TO SCHOOL DAY WEB SITES

USA event: www.walktoschool-usa.org
International: www.iwalktoschool.org

STREET DESIGN AND TRAFFIC CALMING

Federal Highway Administration
Pedestrian and Bicycle Safety Research Program
HSR - 20
6300 Georgetown Pike
McLean, VA 22101
www.fhwa.dot.gov/environment/bikeped/index.htm

Institute of Transportation Engineers
www.ite.org

Surface Transportation Policy Project
www.transact.org

Transportation for Livable Communities
www.tlcnetwork.org

WALKING COALITIONS

America Walks
P.O. Box 29103
Portland, Oregon 97210
Phone: (503) 222-1077
www.americawalks.org

Partnership for a Walkable America
National Safety Council
1121 Spring Lake Drive
Itasca, IL 60143-3201
Phone: (603) 285-1121
www.nsc.org/walkable.htm



PEDESTRIAN SAFETY

National Highway Traffic Safety Administration
Traffic Safety Programs
400 Seventh Street, SW
Washington, DC 20590
Phone: (202) 662-0600
www.nhtsa.dot.gov/people/injury/pedbimot/ped

National SAFE KIDS Campaign
1301 Pennsylvania Ave. NW
Suite 1000
Washington, DC 20004
Phone: (202) 662-0600
Fax: (202) 393-2072
www.safekids.org

WALKING AND HEALTH

US Environmental Protection Agency
Office of Children's Health Protection (MC 1107A)
Washington, DC 20460
Phone: 202-564-2188
Fax: 202-564-2733
www.epa.gov/children/
www.epa.gov/airnow/
www.epa.gov/air/urbanair/ozone/what.html
www.epa.gov/sunwise/uvindex.html
www.epa.gov/otaq/transp/comchoic/ccweb.htm

President's Task Force on Environmental Health Risks and
Safety Risks to Children
www.childrenshealth.gov

Centers for Disease Control and Prevention
Division of Nutrition and Physical Activity
Phone: (888) 232-4674
www.cdc.gov/nccdphp/dnpa/readysset
www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm

Prevention Magazine
33 East Minor Street
Emmaus, PA 18098
www.itsallaboutprevention.com

Shape Up America!
6707 Democracy Boulevard
Suite 306
Bethesda, MD 20817
www.shapeup.org



ACCESSIBLE SIDEWALKS

US Access Board
1331 F Street, NW
Suite 1000
Washington, DC 20004-1111
Phone: (800) 872-2253;
(800) 993-2822 (TTY)
www.access-board.gov

Appendix B

Bikeability Checklist

How bikeable is your community?

Riding a bike is fun!

Bicycling is a great way to get around and to get your daily dose of physical activity. It's good for the environment, and it can save you money. No wonder many communities are encouraging people to ride their bikes more often!



Can you get to where you want to go by bike?

Some communities are more bikeable than others: how does yours rate? Read over the questions in this checklist and then take a ride in your community, perhaps to the local shops, to visit a friend, or even to work. See if you can get where you want to go by bicycle, even if you are just riding around the neighborhood to get some exercise.

At the end of your ride, answer each question and, based on your opinion, circle an overall rating for each question. You can also note any problems you encountered by checking the appropriate box(es). Be sure to make a careful note of any specific locations that need improvement.

Add up the numbers to see how you rated your ride. Then, turn to the pages that show you how to begin to improve those areas where you gave your community a low score.

Before you ride, make sure your bike is in good working order, put on a helmet, and be sure you can manage the ride or route you've chosen. Enjoy the ride!



Go for a ride and use this checklist
to rate your neighborhood's bikeability.



How bikeable is your community?

Location of bike ride (be specific):

Rating Scale:



1. Did you have a place to bicycle safely?

a) On the road, sharing the road with motor vehicles?

- Yes Some problems (please note locations):
- No space for bicyclists to ride
 - Bicycle lane or paved shoulder disappeared
 - Heavy and/or fast-moving traffic
 - Too many trucks or buses
 - No space for bicyclists on bridges or in tunnels
 - Poorly lighted roadways
- Other problems: _____

b) On an off-road path or trail, where motor vehicles were not allowed?

- Yes Some problems:
- Path ended abruptly
 - Path didn't go where I wanted to go
 - Path intersected with roads that were difficult to cross
 - Path was crowded
 - Path was unsafe because of sharp turns or dangerous downhill
 - Path was uncomfortable because of too many hills
 - Path was poorly lighted
- Other problems: _____

Overall "Safe Place To Ride" Rating: (circle one)

1 2 3 4 5 6

2. How was the surface that you rode on?

- Good Some problems, the road or path had:
- Potholes
 - Cracked or broken pavement
 - Debris (e.g. broken glass, sand, gravel, etc.)
 - Dangerous drain grates, utility covers, or metal plates
 - Uneven surface or gaps
 - Slippery surfaces when wet (e.g. bridge decks, construction plates, road markings)
 - Bumpy or angled railroad tracks
 - Rumble strips
- Other problems: _____

Overall Surface Rating: (circle one)

1 2 3 4 5 6

3. How were the intersections you rode through?

- Good Some problems:
- Had to wait too long to cross intersection
 - Couldn't see crossing traffic
 - Signal didn't give me enough time to cross the road
 - Signal didn't change for a bicycle
 - Unsure where or how to ride through intersection
- Other problems: _____

Overall Intersection Rating: (circle one)

1 2 3 4 5 6

Continue the checklist on the next page...

4. Did drivers behave well?

- Yes Some problems, drivers:
- Drove too fast
 - Passed me too close
 - Did not signal
 - Harassed me
 - Cut me off
 - Ran red lights or stop sign
- Other problems: _____

Overall Driver Rating: (circle one)

1 2 3 4 5 6

5. Was it easy for you to use your bike?

- Yes Some problems:
- No maps, signs, or road markings to help me find my way
 - No safe or secure place to leave my bicycle at my destination
 - No way to take my bicycle with me on the bus or train
 - Scary dogs
 - Hard to find a direct route I liked
 - Route was too hilly
- Other problems: _____

Overall Ease of Use Rating: (circle one)

1 2 3 4 5 6

6. What did you do to make your ride safer?

Your behavior contributes to the bikeability of your community. Check all that apply:

- Wore a bicycle helmet
- Obeyed traffic signal and signs
- Rode in a straight line (didn't weave)
- Signaled my turns
- Rode with (not against) traffic
- Used lights, if riding at night
- Wore reflective and/or retroreflective materials and bright clothing
- Was courteous to other travelers (motorist, skaters, pedestrians, etc.)

7. Tell us a little about yourself.

In good weather months, about how many days a month do you ride your bike?

- Never
- Occasionally (one or two)
- Frequently (5-10)
- Most (more than 15)
- Every day

Which of these phrases best describes you?

- An advanced, confident rider who is comfortable riding in most traffic situations
- An intermediate rider who is not really comfortable riding in most traffic situations
- A beginner rider who prefers to stick to the bike path or trail

How does your community rate? Add up your ratings and decide.

(Questions 6 and 7 do not contribute to your community's score)

1. _____	26-30	Celebrate! You live in a bicycle-friendly community.
2. _____	21-25	Your community is pretty good, but there's always room for improvement.
3. _____	16-20	Conditions for riding are okay, but not ideal. Plenty of opportunity for improvements.
4. _____	11-15	Conditions are poor and you deserve better than this! Call the mayor and the newspaper right away.
5. _____	5-10	Oh dear. Consider wearing body armor and Christmas tree lights before venturing out again.
Total _____		

Did you find something that needs to be changed?

On the next page, you'll find suggestions for improving the bikeability of your community based on the problems you identified. Take a look at both the short- and long-term solutions and commit to seeing at least one of each through to the end. If you don't, then who will?

During your bike ride, how did you feel physically? Could you go as far or as fast as you wanted to? Were you short of breath, tired, or were your muscles sore? The next page also has some suggestions to improve the enjoyment of your ride.

Bicycling, whether for transportation or recreation, is a great way to get 30 minutes of physical activity into your day. Riding, just like any other activity, should be something you enjoy doing. The more you enjoy it, the more likely you'll stick with it. Choose routes that match your skill level and physical activities. If a route is too long or hilly, find a new one. Start slowly and work up to your potential.

Now that you know the problems,
you can find the answers.

Improving your community's score...



1. Did you have a place to bicycle safely?

a) On the road?

No space for bicyclists to ride (e.g. no bike lane or shoulder; narrow lanes)
Bicycle lane or paved shoulder disappeared
Heavy and/or fast-moving traffic
Too many trucks or buses
No space for bicyclists on bridges or in tunnels
Poorly lighted roadways

What you can do immediately

- pick another route for now
- tell local transportation engineers or public works department about specific problems; provide a copy of your checklist
- find a class to boost your confidence about riding in traffic

What you and your community can do with more time

- participate in local planning meetings
- encourage your community to adopt a plan to improve conditions, including a network of bike lanes on major roads
- ask your public works department to consider "Share the Road" signs at specific locations
- ask your state department of transportation to include paved shoulders on all their rural highways
- establish or join a local bicycle advocacy group

b) On an off-road path or trail?

Path ended abruptly
Path didn't go where I wanted to go
Path intersected with roads that were difficult to cross
Path was crowded
Path was unsafe because of sharp turns or dangerous downhill
Path was uncomfortable because of too many hills
Path was poorly lighted

- slow down and take care when using the path
- find an on-street route
- use the path at less crowded times
- tell the trail manager or agency about specific problems

- ask the trail manager or agency to improve directional and warning signs
- petition your local transportation agency to improve path/roadway crossings
- ask for more trails in your community
- establish or join a "Friends of the Trail" advocacy group

2. How was the surface you rode on?

Potholes
Cracked or broken pavement
Debris (e.g. broken glass, sand, gravel, etc.)
Dangerous drain grates, utility covers, or metal plates
Uneven surface or gaps
Slippery surfaces when wet (e.g. bridge decks, construction plates, road markings)
Bumpy or angled railroad tracks
Rumble strips

- report problems immediately to public works department or appropriate agency
- keep your eye on the road/path
- pick another route until the problem is fixed (and check to see that the problems are fixed)
- organize a community effort to clean up the path

- work with your public works and parks department to develop a pothole or hazard report card or online link to warn the agency of potential hazards
- ask your public works department to gradually replace all dangerous drainage grates with more bicycle-friendly designs, and improve railroad crossings so cyclists can cross them at 90 degrees
- petition your state DOT to adopt a bicycle-friendly rumble-strip policy

3. How were the intersections you rode through?

Had to wait too long to cross intersection
Couldn't see crossing traffic
Signal didn't give me enough time to cross the road
The signal didn't change for a bicycle
Unsure where or how to ride through intersection

- pick another route for now
- tell local transportation engineers or public works department about specific problems
- take a class to improve your riding confidence and skills

- ask the public works department to look at the timing of the specific traffic signals
- ask the public works department to install loop-detectors that detect bicyclists
- suggest improvements to sightlines that include cutting back vegetation; building out the path crossing; and moving parked cars that obstruct your view
- organize community-wide, on-bike training on how to safely ride through intersections

Improving your community's score...

(continued)

	What you can do immediately	What you and your community can do with more time
4. Did drivers behave well?		
Drivers: Drove too fast Passed me too close Did not signal Harassed me Cut me off Ran red lights or stop signs	<ul style="list-style-type: none">• report unsafe drivers to the police• set an example by riding responsibly; obey traffic laws; don't antagonize drivers• always expect the unexpected• work with your community to raise awareness to share the road	<ul style="list-style-type: none">• ask the police department to enforce speed limits and safe driving• encourage your department of motor vehicles to include "Share the Road" messages in driver tests and correspondence with drivers• ask city planners and traffic engineers for traffic calming ideas• encourage your community to use cameras to catch speeders and red light runners
5. Was it easy for you to use your bike?		
No maps, signs, or road markings to help me find my way No safe or secure place to leave my bicycle at my destination No way to take my bicycle with me on the bus or train Scary dogs Hard to find a direct route I liked Route was too hilly	<ul style="list-style-type: none">• plan your route ahead of time• find somewhere close by to lock your bike; never leave it unlocked• report scary dogs to the animal control department• learn to use all of your gears!	<ul style="list-style-type: none">• ask your community to publish a local bike map• ask your public works department to install bike parking racks at key destinations; work with them to identify locations• petition your transit agency to install bike racks on all their buses• plan your local route network to minimize the impact of steep hills• establish or join a bicycle user group (BUG) at your workplace
6. What did you do to make your ride safer?		
Wore a bicycle helmet Obeyed traffic signals and signs Rode in a straight line (didn't weave) Signaled my turns Rode with (not against) traffic Used lights, if riding at night Wore reflective materials and bright clothing Was courteous to other travelers (motorists, skaters, pedestrians, etc.)	<ul style="list-style-type: none">• go to your local bike shop and buy a helmet; get lights and reflectors if you are expecting to ride at night• always follow the rules of the road and set a good example• take a class to improve your riding skills and knowledge	<ul style="list-style-type: none">• ask the police to enforce bicycle laws• encourage your school or youth agencies to teach bicycle safety (on-bike)• start or join a local bicycle club• become a bicycle safety instructor



Need some guidance?
These resources might help...

Great Resources

STREET DESIGN AND BICYCLE FACILITIES

American Association of State Highway and Transportation Officials
444 North Capitol Street, NW, Suite 249
Washington, DC 20001
Tel: (202) 624-5800
www.aashto.org

Institute of Transportation Engineers
1099 14th Street, NW, Suite 300 West
Washington, DC 20005-3438
Tel: (202) 289-0222
www.ite.org

Association of Pedestrian and Bicycle Professionals (APBP)
P.O. Box 23576
Washington, DC 20026
Tel: (202) 366-4071
www.apbp.org

Pedestrian and Bicycle Information Center (PBIC)
UNC Highway Safety Research Center
730 Airport Road, Suite 300
Campus Box 3430
Chapel Hill, NC 27599-3430
Tel: (919) 962-2202
www.pedbikeinfo.org
www.bicyclinginfo.org

Federal Highway Administration
400 Seventh Street, SW
Washington, DC 20590
www.fhwa.dot.gov/environment/bikeped/index.htm

EDUCATION AND SAFETY

National Highway Traffic Safety Administration
400 Seventh Street, SW
Washington, D.C. 20590
Tel: (202) 366-1739
www.nhtsa.dot.gov/people/injury/pedbimot/bike/

League of American Bicyclists
1612 K Street NW, Suite 401
Washington, DC 20006
Tel: (202) 822-1333
www.bikeleague.org

National Bicycle Safety Network
www.cdc.gov/ncipc/bike/default.htm

National Safe Kids Campaign
1301 Pennsylvania Ave NW, Suite 1000
Washington, DC 20004
Tel: (202) 662-0600
www.safekids.org

PATHS AND TRAILS

Rails to Trails Conservancy
1100 17th Street SW, 10th Floor
Washington, DC 20036
Tel: (202) 331-9696
www.railtrails.org

National Park Service
Rivers, Trails and Conservation Assistance Program
1849 C. Street, NW, MS-3622
Washington, DC 20240
www.nrcr.nps.gov/rtca/rtca-off.htm

HEALTH

Centers for Disease Control and Prevention
Division of Nutrition and Physical Activity
4770 Buford Highway, NE
Atlanta, GA 30341-3724
www.cdc.gov/nccdphp/dnpa
Tel: (770) 488-5692

National Center for Injury Prevention and Control
Childhood Injury Prevention
4770 Buford Highway, NE
Atlanta, GA 30341
www.cdc.gov/ncipc

ADVOCACY AND USER GROUPS

Thunderhead Alliance
1612 K Street, NW, Suite 401
Washington, DC 20006
Tel: (202) 822-1333
www.thunderheadalliance.org

League of American Bicyclists
1612 K Street, NW, Suite 401
Washington, DC 20006
Tel: (202) 822-1333
www.bikeleague.org

National Center for Bicycling and Walking
1506 21st Street, NW, Suite 200
Washington, DC 20036
Tel: (202) 463-6622
www.bikewalk.org

Surface Transportation Policy Project
1100 17th Street, NW, 10th Floor
Washington, DC 20036
Tel: (202) 466-2636
www.transact.org

OTHER USEFUL RESOURCES

Bikes and transit: www.bikemap.com

Bicycle information: www.bicyclinginfo.org

Bicycle-related research:
www.tfhr.gov/safety/pedbike/pedbike.htm

Bicycling Magazine: www.bicycling.com/

Bicycle touring:
Adventure Cycling Association
P.O. Box 8308
Missoula, MT 59807
(800) 755-2453
(406) 721-8754
www.adv-cycling.org

Appendix C

TA Edison Elementary School

Walkability & Bikeability Field Notes

Start: TA Edison Elementary

E on Locust St: no bike paths/shoulders/sidewalks, crosswalk in front of school but it is faded

N on S 8th St: no bike paths/shoulders/sidewalks

W on Woodend St: bike paths/shoulders/sidewalks

N on S 8th Pl: trash, very steep hill, very narrow road, when later driving down, it was noticed two cars would have a hard time fitting on the road simultaneously and would be especially dangerous if a biker or walker were also in the area, bike paths/shoulders/sidewalks

N on S Mill: no bike paths/shoulder, sidewalks on both sides, railroad tracks provide roughness to bikers

W on SW Blvd: sidewalks are present but overgrown and narrow, cars obstruct view when attempting to cross street at SW Blvd & S Mill St

S on Roe Ln: no bike paths/shoulders/sidewalks, railroad tracks provide rough path

E on Suntree Pl: no bike paths/shoulders/sidewalks

S on S 10th St: no bike paths/shoulders/sidewalks

E on Oliver St: no bike paths/shoulders/sidewalks, very steep hill

S on S 9th Pl: no bike paths/shoulders/sidewalks

E on 47th Ave: no bike paths/shoulders, nice and wide sidewalks on one side of road which includes curb ramps

N on Mission St: sidewalks on both sides of roadway until 43rd Ave, crosswalk with light at 43rd Ave and Mission and 47th Ave and Mission although the latter is a large and busy intersection, car honked at us walking, dirt path worn in grass at one point although it was small and rough

The following roads were walked but the lack of houses indicated few students would utilize these roads:

W on Rosedale Dr: no crosswalk into park from Mission St with a very long and steep hill obstructing traffic views for crossing road

S on Puckett Rd: no bike paths/shoulders/sidewalks

Park to School Walkability & Bikeability Field Notes

Begin: Rosedale Park

W on Rosedale Park Dr: no sidewalks, large pothole on shoulder; large curve with long hill blocking drivers' views; speed limit is 20 mph and the shoulder has a large drop off into the ditch; no sidewalks

S on Puckett Rd: very steep hill on a narrow road and shoulder drop off; no sidewalks

W on Locust St: no sidewalks; potholes and no defined shoulders with a few drop offs of the shoulder

End: TA Edison Elementary School: crosswalk in front of school but it is faded

Appendix D

Noble Prentis Elementary School

Walkability & Bikeability Field Notes

Start: Merriam & Dodson St

W on Dodson St: Trash, good scenery, no bike paths/shoulders/sidewalks, road is narrow

Cont W on Ball Ln: No bike paths/shoulders/sidewalks, good scenery

W on Springhorn Ln: Long and steep hill, no bike paths/shoulders/sidewalks, bus had to stop to accommodate both us and an approaching car, speeding car, broken glass in roadway, shrubs obstructing view around curve, crosswalk at Springhorn & S 14th St faded

S on S 14th St: no sidewalk, shoulder is gravel and dirt resulting in a rough biking surface, school on this street, school has speed limit sign indicating it is a school zone, trash cans obstructing shoulder

E on Oak Grove Rd: No bike paths/shoulder/sidewalk, cracks and potholes in road, steep hill

N on S 12th Terr: No bike paths/shoulder/sidewalk, large hill for biking, trash along roadway, posted 20 mph speed limit, road is slightly wider than previous roads

Cont N on Lawton Ln: No bike path/sidewalk, shoulder has some spots with drop off, trashcans and cars obstructing shoulder, road is cracked, nice crosswalk leading to backside of school playground

N on S 14th St: No bike paths, gravel shoulder has potholes/mud/drop off and ends halfway to Douglas St, cars parked on shoulder, one small patch of sidewalk ~20 feet but is overgrown and has cracks, large puddle obstructing shoulder

E on Douglas St: Dirt path worn in grass but covered with sticks and obstructed at one point by a large and raised manhole, road work and sidewalk work obstructing several areas of shoulder and dirt path, one side of road has shoulder but mud and storm drain and one large puddle with a pothole provides obstacles to walkers or bikers

S on 14th St: no bike paths/shoulder/sidewalk, steep upsloping banks/yards prevent bikers or walkers from using grass to avoid traffic, posted 20 mph speed limit

E on Rosedale Dr: Nice sidewalk on one side of the road but drainage issues cause sidewalk to be covered in mud/water in several places, numerous sticks and branches litter sidewalk, sidewalk has ramp access but areas of poor drainage would discourage use, trashcans obstructing sidewalk, long hill although not terribly steep

S on S Mill St: Sidewalks on both sides which are in fairly good shape: **End**

The following is a subset of roads as traveled while on assessment of Holy Name Elementary School (although outside their walking radius and inside Noble Prentis's):

N on N 10th St beginning at Douglas Ave-no sidewalks and the hill is large and steep

E on Shawnee Rd- sidewalks on both sides of the road begin although it is observed that W of this intersection, there are no sidewalks; the N sidewalk has a drop off at its beginning and one area where it crosses a driveway it has a pothole and is covered in gravel; the rest of the sidewalks on both sides of the road are in excellent condition; speed limit is 25 mph; the S sidewalk has an uneven patch where it crosses a driveway and no curb ramp

The following is a subset of roads traveled while on assessment of the ease of walking and biking from the parks to the schools, but not necessary for the park assessments:

N on S 14th St: no sidewalk, shoulder is rough with a drop off and potholes; the hill is long and steep while the road is narrow

Park to School Walkability & Bikeability Field Notes

Start: Noble Prentis Elementary School: school has speed limit sign indicating it is a school zone, trash cans obstructing shoulder

N on S 14th St: no sidewalk; the shoulder is rough and uneven with lots of rock and gravel; faded crosswalk is present at the Springhorn Lane intersection

E on Springhorn Ln: great scenery but the shoulder drops off and the hill is very long and also steep

Continue on Ball Ln: drivers drove fast; hill continues to be long and steep with a shoulder drop off; scenery great

Continue on Dodson Ave: drivers drove fast; hill continues to be long and steep with a shoulder drop off; scenery great

E on SW Blvd: no sidewalks; N sidewalk begins at McDowell Ln but is rough, cracked, with a raised drain hold causing an obstruction and large patches of dirt and rock which could provide biking hazard; sidewalks are overgrown in most areas by grass and does not contain curb ramps at S 9th St; fire department vehicle did yield to pedestrians:

End: Whitmore Park

Appendix E

Frank Rushton Elementary School

Walkability & Bikeability Field Notes

(Note: if a sidewalk is “observed” it was not traveled
but viewed from a traveled road)

Start: Back side of Frank Rushton Elementary: Crosswalk present but faded; no sidewalk on back side of school

E on Seneca St: no sidewalk; road rough

N on Booth St: one side of road has sidewalk with curb ramps

W on 43rd Ave (in front of Frank Rushton) : nice sidewalks on both sides of road including curb ramps; crosswalk has both nice paint and crosswalk light; school zone indicated with crosswalk signs and school zone speed limits with a flashing light to alert drivers; separate school bus parking zone

S on S Minnie St: one side of road has sidewalk but it has cracks, etc. and ends at W Seneca St.; shoulder is muddy, street has potholes, street has drainage problems; sidewalk resumes but is severely overgrown and contains broken glass; sidewalk continues but has a patchy presence, severe drainage issues, and is in very poor condition at 43rd Terr; sidewalk ends at 44th Ave at which point the road widens; road contains large and deep potholes which cars themselves must avoid and/or slow down to cross; it is observed that W 44th Ave has one sided sidewalk (we did not travel down this road)

W on W 45th St: no sidewalks, road is narrow, one significant pothole, cars are parks on shoulder forcing pedestrians to walk in street

S on Mission: Sidewalks are present on both sides of the road but are broken and uneven but do possess curb ramps; the West side sidewalk ends at 45th Ave but there are large parking lots for pedestrians to avoid traveling in the road

E on 47th Ave: Sidewalks are present on both sides of the road, contain curb ramps, and are in decent shape with only a few areas of broken sidewalk; road does contain a short stretch of missing sidewalk (~10 ft) due to construction of an adjacent building

N on Fisher: no sidewalks except a short stretch of narrow sidewalk towards the end of Fisher St but this sidewalk has a driveway outlined in steel bars resulting in “speed bumps” prior to sidewalk; on the opposite side of the road from this sidewalk, the road has drainage problems both here and again at the intersection with 44th Ave; cars parked on both sides of road resulting in a narrow road for both cars and pedestrians; speed limit is 25 mph; potholes observed

E on 44th Ave: wide road but it contains no sidewalks; three school crosswalks with indicating signs present at the stop sign at Springfield Lane; 25 mph speed limit; one large pothole; from this point it is observed that Booth St has a sidewalk in good shape with curb ramps and one small section which is significantly uneven but sidewalk only present on one side of the road; it is also observed that S on Adams St has sidewalks on both sides of the road but one side is overgrown and uneven while the other side is in much better condition with one area of drainage problems

N on Rainbow Blvd: Sidewalks present on both sides of the road which are in good shape with an occasional place with dirt or unevenness; low hanging tree branches pose an obstacle for bikers as well as the long and large hill bikers must ascend/descend; sidewalk does have curb ramps; the large intersection at 43rd Ave is busy but contains crosswalks with pedestrian lights although these lights are very short; sidewalk is missing a curb ramp and contains of cracks in front of the Jiffy Lube store just north of the 43rd Ave intersection

W on 42nd Ave: sidewalk on one side of road which is overgrown, cracked, and uneven with poor drainage at Adams St; sidewalk then appears on both sides of road but has varying degrees of good, uneven, severely overgrown, and broken glass depending on location; crosswalk with sign indicated at Booth St; it is observed that S on Booth St has poor sidewalks

N on Booth St: sidewalks on both sides of road but they are overgrown, cracked, and uneven with some areas of severe overgrowth; a few low hanging branches pose risk to bikers; sidewalk has poor drainage and poor curb ramps which are broken, muddy, or non-existent (at intersection with 40th Ave); sidewalk then ends on both sides, resumes on one side, ends abruptly, resumes on opposite side of road with some uneven spots, then resumes on both sides of road→this would make it difficult for a biker/walker to safely cross the road several times to remain on a sidewalk

W on Lake Ave: sidewalk on one side of road with new sidewalk in excellent shape and excellent curb ramps

N on Springfield: sidewalk on one side of road becomes bilateral at W Booth St; bushes, however, extend into sidewalk posing pedestrian hazard; construction of a new home blocks the sidewalk; crosswalks with signs are found near Rosedale Middle School but paint is faded; security guard at school acting as crossing guard; past the middle school the road becomes windy with a very steep and long hill with narrow sidewalks on one side of the road and lots of trash next to sidewalks; weeds encroach on the sidewalk and a storm drain obstructs the sidewalk at one point; no curb ramps available at the end of the steep hill [detour through Mount Marty Park behind the school has benches, trash cans, street lights, and picnic tables with Veteran's Memorial]

W on Rainbow Extension: sidewalk on one side of the road which is in good shape but without curb ramps at Springfield

S on SW Blvd: wide sidewalks are interspersed with parking lots and are uneven in many places on one side of the road while the sidewalk on the other side of the road appears to be in fair condition; sidewalk then changes to a more traditional sidewalk (more narrow but still crossing parking lots) with the West sided sidewalk being rough in some places and East sidewalk containing some significantly rough areas without curb ramps and with trucks parked on sidewalk

E on Iowa St: sidewalks present on both sides of the road without ramps at intersection with unnamed alley; hill is large; cars block sidewalk at church; the sidewalk on the South side of the road becomes in very poor condition with cracks/overgrowth/uneven sections; at "jaunt" in road, one sidewalk ends while the other is in very poor condition and ends shortly thereafter; brush obstructing walking on shoulder and road is windy and narrow; sidewalks resume on both sides of road at the end of the "jaunt" but one side is overgrown with water/mud/weeds/ and ends quickly while the other sidewalk is in good shape; hill is steep

E on Lake Ave: nice sidewalks on both sides of the road with only one small area (~30 ft) of broken/poor sidewalk; it is observed in front of Fisher Park that sidewalks are only present on S side of road (opposite from park) and there is no crosswalk but a speed limit of 20 mph

S on Fisher St: sidewalks present on both sides of the road and are slightly overgrown with some areas of unevenness; sidewalk on one side of the road appears to be consistently in better condition than the other side; sidewalk ends abruptly and turns to grass with no curb ramp

E on 40th Ave: sidewalk on one side of road which is severely overgrown while the sidewalk on the other side of the road is in excellent to fair condition (varies) with some areas of overgrowth, mud, or low hanging branches

S on Adams St: good condition sidewalk with two areas of unevenness; bush obstructs sidewalk at one point

Park to School Walkability& Bikeability Field Notes

Begin: Fisher Park

S on Springfield St: excellent condition sidewalk on W side of road which lacks curbramps at the 39th St intersection; there is no crosswalk past the apartment complex on the E side of the road; sidewalks are present on both sides of the road but the E sidewalk is blocked by overgrown bushes at one point and the W and E sidewalks having occasional areas of cracked/uneven surfaces; at one point, new home construction blocks the W sidewalk although it is viewed that the sidewalk in front of this place is new and in excellent condition; sidewalks end at 40th Ave

W on W 41st Ave: no sidewalks but a S sidewalk begins at Fisher St. with some cracking and which ends abruptly shortly thereafter as the road also narrows

S on Lloyd St: no sidewalk, 20 mph speed limit, narrow and short stretch of sidewalk in front of 2 homes which is in fair condition, road narrows and cars are parked on the shoulder; there is a crosswalk at E 41st Ave which does include a sign but the crosswalk paint is faded; the sidewalk resumes shortly before 43rd Ave with moderate cracking and mild unevenness and mild overgrowth

E on W 43rd St: both sides of the road contain sidewalks with the N sidewalk in excellent condition and the S sidewalk in very good condition; nice sidewalks on both sides of road including curb ramps; crosswalk has both nice paint and crosswalk light; school zone indicated with crosswalk signs and school zone speed limits with a flashing light to alert drivers; separate school bus parking zone: **End: Frank Rushton Elementary School**

Begin: Frank Rushton Elementary School: nice sidewalks on both sides of road including curb ramps; crosswalk has both nice paint and crosswalk light; school zone indicated with crosswalk signs and school zone speed limits with a flashing light to alert drivers; separate school bus parking zone

W on 43rd Ave: both sides of the road contain sidewalks with the N sidewalk in excellent condition and the S sidewalk in very good condition

N on Pearl St: one sidewalk on the E side of road for a very short period in front of an apartment (~ 20 ft.) which is in good shape but ends in the grass

W on W 42nd Ave: no sidewalks except a short stretch of ~15 ft. in front of one home; speed limit is 20 mph; road/shoulder has potholes and is rough near Mission Rd

N on Mission Rd: no sidewalks on this very busy street; a dirt path has been worn in the grass on the E side of the road which is narrow and with trash blocking the path; there is no crosswalk to the park and the hill is blind and steep and traffic is heavy; assessors ran across road to reach park safely: **End: Rosedale Park**

Appendix F

Holy Name Elementary School

Walkability & Bikeability Field Notes

Start: Mission & SW Boulevard: Intersection is busy with holes in the street and no curb ramps; there is a small “no drive zone” at the cement triangle at the intersection however it is small and so busy that it is dangerous to walk/bike in it; there is a large pothole full of water just past the intersection

S on Mission: sidewalks are not present on either side of the road but there is a small dirt path worn into the grass although this path is rough and narrow

E on 42nd Ave: sidewalk on one side of road which is overgrown, cracked, and uneven with poor drainage at Adams St; sidewalk then appears on both sides of road but has varying degrees of good, uneven, severely overgrown, and broken glass depending on location; crosswalk with sign indicated at Booth St; it is observed that S on Booth St has poor sidewalks

N on Booth: sidewalks on both sides of road but they are overgrown, cracked, and uneven with some areas of severe overgrowth; a few low hanging branches pose risk to bikers; sidewalk has poor drainage and poor curb ramps which are broken, muddy, or non-existent (at intersection with 40th Ave); sidewalk then ends on both sides, resumes on one side, ends abruptly, resumes on opposite side of road with some uneven spots, then resumes on both sides of road → this would make it difficult for a biker/walker to safely cross the road several times to remain on a sidewalk

N on Springfield: sidewalk on one side of road becomes bilateral at W Booth St; bushes, however, extend into sidewalk posing pedestrian hazard; construction of a new home blocks the sidewalk; crosswalks with signs are found near Rosedale Middle School but paint is faded; security guard at school acting as crossing guard; past the middle school the road becomes windy with a very steep and long hill with narrow sidewalks on one side of the road and lots of trash next to sidewalks; weeds encroach on the sidewalk and a storm drain obstructs the sidewalk at one point; no curb ramps available at the end of the steep hill

W on Rainbow Extension: sidewalk on one side of the road which is in good shape but without curb ramps at Springfield

S then W on SW Blvd: S on SW Blvd-wide sidewalks are interspersed with parking lots and are uneven in many places on one side of the road while the sidewalk on the other side of the road appears to be in fair condition; sidewalk then changes to a more traditional sidewalk (more narrow but still crossing parking lots) with the West sided sidewalk being rough in some places and East sidewalk containing some significantly rough areas without curb ramps and with trucks parked on sidewalk; near Holy Name school, there are crosswalks with lights in front of the school and signs indicating school zone with flashing light; crosswalks are also painted; The sidewalk is okay with some

cracking and it is placed very close to the street with no “buffer zone”; the sidewalk becomes very cracked, uneven, and continues at a slant; the sidewalk does become nicer only to become covered with dirt, uneven, cracked, and with a large grate obstructing pedestrians; the sidewalk ends as pedestrians must walk through a parking lot then resumes in fair condition with one section missing and weeds encroaching prior the I-35 junction; there is some cracking and drainage problems and it is observed that bicycle tracks are seen in the mud; the E sidewalk ends at Body Blade gym; the grass on the E side and surrounding the W sidewalk are in severe need of mowing and drainage improvements; past the SW/Mission intersection (see above), the E sidewalk resumes in good condition; the W sidewalk has a raised storm drain obstructing sidewalk use and the sidewalk condition improves following that point; pedestrians are required to cross two sets of train tracks under and the W sidewalk has lots of rock/gravel; the E sidewalk ends into a gravel parking lot; past the train tracks, the road contains a large pot hole and there is a sharp pipe sticking out of the ground/W sidewalk which also is covered in debris, large fallen tree limbs, overgrowth, and dirt rendering the sidewalk virtually unusable; the E side of the road has a dirt shoulder with a sidewalk beginning under the over pass to I-35; the W sidewalk becomes in excellent condition near and in front of Whitmore Park

N on Early St: sidewalk is in good condition with some cracks and slight unevenness on the N sidewalk; the S sidewalk becomes in excellent condition while the N sidewalk becomes more cracked; the S sidewalk has a large mound from tree root growth with a missing and cracked section, large amounts of unevenness, and grass growth in cracks; another similar spot is noted further along the S sidewalk; the N SW is in excellent condition

W on W 37th Ave: great sidewalk on both sides with the W sidewalk having obstructions from bushes, fallen rocks, sticks, and leaves obstructing sidewalk which is only observed in front of a single house

N on S Mill St: grass is growing in N sidewalk which is the only sidewalk; hill is VERY steep which grass overgrowth which is very uneven; there is a small (~10 ft) stretch of sidewalk which is in good condition; the N SW remains unevent through a driveway and changes to stairs halfway up the hill; the stairs are littered with dirt and sticks; the 12th step has trees growing out out of sidewalk; the 20th step is broken in half and demonstrates a tripping hazard; broken glass is discovered throughout all steps; the sidewalk becomes nicer around the 25th step; total is 68 steps; past the stairs, an apartment complex is noted at Federal Ave with a 20 mph speed limit but individuals attempting to cross the street are not able to see down the hill due to the shear steepness of the hill

W on Esterly Ave: no sidewalk on either side of a narrow road and the shoulder is muddy with the W shoulder dropping off at one point for ~30 feet

N on S Boeke St- homes are well kept

W on Chester Ave: no sidewalk or shoulder forcing pedestrians to walk in roadway or homes' yards, two cars passed us who were obviously exceeding the speed limit

[traveled outside walker radius]

E on Shawnee Rd: sidewalks on both sides of the road begin although it is observed that W of this intersection, there are no sidewalks; the N sidewalk has a drop off at its beginning and one area where it crosses a driveway it has a pothole and is covered in gravel; the rest of the sidewalks on both sides of the road are in excellent condition; speed limit is 25 mph; the S sidewalk has an uneven patch where it crosses a driveway and no curb ramp

NE on Shawnee Dr: both sidewalks are in good condition with sporadic areas of cracks or unevenness; a bush grows into the sidewalk at one point and an open electrical box is observed in arm's length of the sidewalk in someone's yard; the sidewalk is uneven at one person's driveway; one sidewalk ends at St Paul St while the other ends at 6th St at the point of a blind curve where it is difficult to see approaching cars/pedestrians; the shoulder to the road is significantly uneven; at 7th St Tfwy there is no curb ramp but a nice pedestrian bridge with sidewalks in excellent condition on both sides; the road narrows and the sidewalks end with no shoulders

[traveled outside walker radius]

E on 7th St. Tfwy: SW on N side of road only but begins on S side with trees and sticks covering it; the sidewalks appear in good condition with some broken glass; the SW ends on the S at I-35 intersection ; the N SW is nice with a pedestrian walkway over the bridge; the S side of the road does not have a curb ramp for the intermediate cement triangle in the I-35 off-ramp stoplight

S on SW Blvd: sidewalks are in excellent condition on both sides of the road

SW Blvd: **End**

Park to School Walkability & Bikeability Field Notes

Begin: Holy Name Elementary School: crosswalks with lights in front of the school and signs indicating school zone with flashing light; crosswalks are also painted in roadway

E on S Iowa St: had to cross street due to overgrowth on S sidewalk; sidewalk on N has some uneven/cracked areas with no curb ramp E of Seminary St.; N sidewalk then ends and pedestrian must cross street again to a cracked and overgrown S sidewalk; the S sidewalk then ends

Continue on Summit Pl: pedestrian is advised to cross the road again to walk against traffic (bikers would ride with traffic, however) but the W sidewalk is too overgrown for use with the E barely visible due to overgrowth; hill is also large and steep with any sidewalks ending and potholes on the shoulder

S on S Minnie St: sidewalk resumes on E side of road with sticks and gravel littering sidewalk ~20 ft before sidewalk is to be in excellent condition

E on Lake Ave: excellent sidewalk with a small patch of cracks in one section; excellent ramps at Lloyd St.

S on Fisher St: first ~ 20 ft of sidewalk contains grass growing through cracks in sidewalk then becomes excellent as a bush grows into the sidewalk; gravel and grass in road which is then cracked severely with no crosswalk at W 40th Ave

E on W 40th Ave: mildly overgrown but in good shape

S on Springfield St: no sidewalk, narrow roads

W on W 41st Ave: no sidewalks but a S sidewalk begins at Fisher St. with some cracking and which ends abruptly shortly thereafter as the road also narrows

S on Lloyd St: no sidewalk, 20 mph speed limit, narrow and short stretch of sidewalk in front of 2 homes which is in fair condition, road narrows and cars are parked on the shoulder; there is a crosswalk at E 41st Ave which does include a sign but the crosswalk paint is faded

W on W 42nd Ave: no sidewalks except a short stretch of ~15 ft. in front of one home; speed limit is 20 mph; road/shoulder has potholes and is rough near Mission Rd

N on Mission Rd: no sidewalks on this very busy street; a dirt path has been worn in the grass on the E side of the road which is narrow and with trash blocking the path; there is no crosswalk to the park and the hill is blind and steep and traffic is heavy; assessors ran across road to reach park safely: **End: Rosedale Park**

Begin: Whitmore Park: E on SW Blvd: rough shoulders and road with a railroad crossing; busy intersection with Mission with intersection is busy with holes in the street and no curb ramps; there is a small "no drive zone" at the cement triangle at the intersection however it is small and so busy that it is dangerous to walk/bike in it; there is a large pothole full of water just past the intersection; crosswalks with lights in front of the school and signs indicating school zone with flashing light; crosswalks are also painted in roadway: **End: Holy Name Elementary School**

Begin: Holy Name Elementary School: crosswalks with lights in front of the school and signs indicating school zone with flashing light; crosswalks are also painted in roadway

N on SW Blvd: sidewalk is in good condition with occasional areas of cracked and uneven surfaces; there is a large uneven section where a tree has pushed up the sidewalk; in front of Cherry tree Motors is a large puddle without a curb ramp and a truck blocking a cracked and uneven sidewalk; presence of sidewalks alternate with presence of parking lots in front of businesses; there is a large gravel spot at one point

E on Rainbow Ext: excellent sidewalk which then changes to narrow and overgrown without curb ramps on either side; a drain obstructing S sidewalk access and cracks/gravel/sticks covering most areas of the S sidewalk

S on Booth St: no curb ramps; very large and steep hill but sidewalk is in excellent condition until just before Mount Marty park where it is littered with sticks and dead weeds; no crosswalks or sidewalks leading into park and hill is steep and curvy making it difficult to see drivers/pedestrians: **End: Mount Marty Park**

Begin: Holy Name Elementary School: E on S Iowa St: had to cross street due to overgrowth on S sidewalk; sidewalk on N has some uneven/cracked areas with no curb ramp E of Seminary St.; N sidewalk then ends and pedestrian must cross street again to a cracked and overgrown S sidewalk; the S sidewalk then ends

Continue on Summit Pl: pedestrian is advised to cross the road again to walk against traffic (bikers would ride with traffic, however) but the W sidewalk is too overgrown for use with the E barely visible due to overgrowth; hill is also large and steep with any sidewalks ending and potholes on the shoulder

S on S Minnie St: sidewalk resumes on E side of road with sticks and gravel littering sidewalk ~20 ft before sidewalk is to be in excellent condition

E on Lake Ave: excellent sidewalk with a small patch of cracks in one section; excellent ramps at Lloyd St.: **End: Fisher Park**

Appendix G

Rosedale Middle School

Walkability & Bikeability Field Notes

(Note: this assessment was completed by combing previously walked assessments for other schools. “*” indicates areas walked specific to this assessment)

Start: W on Lake Ave: sidewalk on one side of road with new sidewalk in excellent shape and excellent curb ramps from Booth to Springfield Lane; it is observed in front of Fisher Park that sidewalks are only present on N side of road and there is no crosswalk but a speed limit of 20 mph; towards S Minnie St, nice sidewalks on both sides of the road with only one small area (~30 ft) of broken/poor sidewalk;

N on S Minnie St: sidewalk on E side of road and is in good shape; W sidewalk begins just prior to “jaunt” in road but is covered in water/mud/weeds and the E sidewalk ends shortly thereafter; hill is steep

W on S Iowa St: at “jaunt” in road, one sidewalk begins but is in very poor condition while the other sidewalk is also in horrible condition with cracks/overgrowth/uneven sections; brush obstructs walking on the shoulder and road is windy and narrow; sidewalks do not have curb ramps at unnamed alley; hill is large and cars block the sidewalk at the church

N on SW Blvd: E sidewalk begins as a traditional sideway (few feet wide) but crosses through parking lots/driveways; W sidewalk is rough in some places but E sidewalk contains significantly rough areas without curb ramps and is blocked by trucks parked on sidewalk; E sidewalk then becomes wider and alternates with walking on sidewalk and walking in a parking; sidewalks are uneven in many places

E on Rainbow Ext: sidewalk on one side of the road which is in good shape but without curb ramps at Springfield

S on Springfield St: no curb ramps at beginning of road and road is windy with a very steep and long hill with narrow sidewalks on one side of the road and lots of trash next to sidewalks; weeds encroach on the sidewalk and a storm drain obstructs the sidewalk at one point; security guard at Rosedale Middle school acting as crossing guard; crosswalks with signs are posted near Rosedale MS but paint is faded; sidewalks become bilateral at school; construction of new home just past the school blocks the sidewalks with construction materials and workers; bushes extend into sidewalk posing pedestrian/biker hazard; E sidewalk ends at Booth St

S on Springfield St: excellent condition sidewalk on W side of road which lacks curbramps at the 39th St intersection; there is no crosswalk past the apartment complex on the E side of the road; sidewalks are present on both sides of the road but the E sidewalk is blocked by overgrown bushes at one point and the W and E sidewalks having occasional areas of cracked/uneven surfaces; at one point, new home

construction blocks the W sidewalk although it is viewed that the sidewalk in front of this place is new and in excellent condition; sidewalks end at 40th Ave

W on W 41st St: no sidewalk; sidewalk begins on S side of road at Fisher St with some cracking and ends abruptly shortly thereafter as road narrows

S on Lloyd St: no sidewalk, 20 mph speed limit, narrow and short stretch of sidewalk in front of 2 homes which is in fair condition, road narrows and cars are parked on the shoulder; there is a crosswalk at E 41st Ave which does include a sign but the crosswalk paint is faded; the sidewalk resumes shortly before 43rd Ave with moderate cracking and mild unevenness and mild overgrowth

*E on W 47th Ave: excellent sidewalks on both sides of the road with curb ramps

*N on Rainbow Blvd: sidewalks are slightly cracked on the W side of the road; E sidewalk is in excellent to very good condition; W sidewalks is excellent and new in one place with curb ramps throughout

W on W 43rd Ave: sidewalks on both sides of road with curb ramps and are in very good condition; both sides of the road contain sidewalks with the N sidewalk in excellent condition and the S sidewalk in very good condition; in front of Frank Rushton is nice sidewalks on both sides of road including curb ramps/crosswalk has both nice paint and crosswalk light/school zone indicated with crosswalk signs and school zone speed limits with a flashing light to alert drivers/separate school bus parking zone; crosswalk with light at Mission Rd

S on Mission Rd: sidewalks are present on both sides of the road but are broken and uneven but do possess curb ramps; the West side sidewalk ends at 45th Ave but there are large parking lots for pedestrians to avoid traveling in the road

W on W 47th Ave: no bike paths/shoulders, nice and wide sidewalks on one side of road which includes curb ramps

N on S 8th St: no bike paths/shoulders/sidewalks

W on Woodend St: no bike paths/shoulders/sidewalks

N on S 8th Pl: trash, very steep hill, very narrow road, when later driving down, it was noticed two cars would have a hard time fitting on the road simultaneously and would be especially dangerous if a biker or walker were also in the area, bike paths/shoulders/sidewalks

N on S Mill St: no bike paths/shoulder, sidewalks on both sides, railroad tracks provide roughness to bikers

E on SW Blvd: in front of Whitmore Park, the W sidewalk is in excellent condition; the E side of the road has sidewalks in fair condition which ends at the I-35 over pass and becomes a dirt shoulder; the W sidewalk at this point is covered in debris, large fallen tree limbs, overgrowth, and dirt rendering it virtually unusable; prior to the train tracks, there is a large pothole in the road with a large metal pipe sticking out of the ground/sidewalk; pedestrians must cross two sets of train tracks near I-35 with the W sidewalk containing lots of rock/gravel; the W sidewalk has a raised storm drain after the tracks which obstruct sidewalk use and sidewalk conditions deteriorate at this point; the Mission & SW Boulevard intersection is busy with holes in the street and no curb ramps; there is a small "no drive zone" at the cement triangle at the intersection however it is small and so busy that it is dangerous to walk/bike in it; there is a large pothole full of water just past the intersection; the actual intersection and interchange were not traveled due to safety concerns for assessors which only solidifies the point of the dangerousness of this intersection especially during high traffic areas when children are walking to school

S on Mission Rd: Mission road until Rosedale Park was not walked due to safety concerns for assessors involving the busy intersection and road with a lack of sidewalks on either side of the road; at Rosedale Park, sidewalks are not found on either side of the road but a small and narrow dirt path has been worn in the grass which was rough; at 47th Ave there is a crosswalk with a pedestrian light which is a busy intersection and large; sidewalks on both sides of the road begin at 43rd Ave with a crosswalk present at this intersection

E on W 42nd Ave: no sidewalks except a short stretch of ~15 ft. in front of one home; speed limit is 20 mph; road/shoulder has potholes and is rough near Mission Rd; *no ramps as the sidewalk begins on both sides of the road at Booth with the N sidewalk in excellent condition and the S in poor condition with cracks/overgrowth/uneven areas; the N sidewalk then becomes poor with the S in very good condition with only minor cracks; N sidewalk ends at Adams street

W on 42nd Ave: sidewalk on one side of road which is overgrown, cracked, and uneven with poor drainage at Adams St; sidewalk then appears on both sides of road but has varying degrees of good, uneven, severely overgrown, and broken glass depending on location; crosswalk with sign indicated at Booth St; it is observed that S on Booth St has poor sidewalks

N on Rainbow Blvd: sidewalks present on both sides of the road which are in good shape with an occasional place with dirt or unevenness; low hanging tree branches pose an obstacle for bikers as well as the long and large hill bikers must ascend/descend; sidewalk does have curb ramps; the large intersection at 43rd Ave is busy but contains crosswalks with pedestrian lights although these lights are very short; sidewalk is missing a curb ramp and contains of cracks in front of the Jiffy Lube store just north of the 43rd Ave intersection

W/E on Stine Ave: sidewalks through U curve although they double as a drainage ditch so they are slanted in a “V” with rocks, glass, trash, and water with water especially prevalent during one ~10 ft. stretch; no sidewalks or shoulders past the blind U curve with a drainage issue; no speed limit

SW on Shawnee Dr: no sidewalks or shoulders for pedestrians and the road is narrow; at 7th St Tfwy there is a nice pedestrian bridge without curb ramps but sidewalks in excellent condition on both sides; sidewalks end past the bridge and the shoulders are significantly uneven with a blind curve making it difficult to see approaching cars; one sidewalk begins at 6th St while the other begins at St Paul St.; sidewalks are in good condition with occasional areas of unevenness, particularly in individuals’ driveways; an open electrical box in arm’s reach of the sidewalk is observed in one individual’s yard; a bush also grows into the sidewalk at one point

W on Shawnee Rd: the S sidewalk has an uneven path where it crosses a driveway without a curb ramp; speed limit is 25 mph; sidewalks on both sides of the road are typically in excellent condition; the N sidewalk has a drop off where both sidewalks end at N 10th St and one area prior to this where the N sidewalk crosses a driveway and is covered in gravel

W on Douglas Ave: dirt path worn in grass but covered with sticks and obstructed at one point by a large and raised manhole, road work and sidewalk work obstructing several areas of shoulder and dirt path, one side of road has shoulder but mud and storm drain and one large puddle with a pothole provides obstacles to walkers or bikers

S on 14th St: No bike paths, gravel shoulder has potholes/mud/drop off and ends near the Shearer Rd intersection, cars parked on shoulder, one small patch of sidewalk ~20 feet but is overgrown and has cracks, large puddle obstructing shoulder; no sidewalks continue and shoulder is gravel and dirt resulting in a rough biking surface; Noble Prentis school has speed limit sign; trash cans obstruct shoulder

E on Oak Grove Rd: No bike paths/shoulder/sidewalk, cracks and potholes in road, steep hill

S on S 12th Terr: No bike paths/shoulder/sidewalk; large hill dangerous for biking; road is slightly wider than previous roads; observed behind us that there is trash along roadway, posted 20 mph speed limit

E on Merriam Ln: sidewalks are present but overgrown and narrow, sidewalks on one side of road but they do not contain curb ramps and alternate with parking lots; shoulder is full of potholes and rough for bike riding

W on Dodson St: Trash, good scenery, no bike paths/shoulders/sidewalks, road is narrow

Cont W on Ball Ln: No bike paths/shoulders/sidewalks, good scenery

W on Springhorn Ln: Long and steep hill, no bike paths/shoulders/sidewalks, bus had to stop to accommodate both us and an approaching car, speeding car, broken glass in roadway, shrubs obstructing view around curve, crosswalk at Springhorn & S 14th St faded

N on S 14th St: No bike paths, gravel shoulder has potholes/mud/drop off and ends halfway to Douglas St, cars parked on shoulder, one small patch of sidewalk ~20 feet but is overgrown and has cracks, large puddle obstructing shoulder

E on Douglas St: Dirt path worn in grass but covered with sticks and obstructed at one point by a large and raised manhole, road work and sidewalk work obstructing several areas of shoulder and dirt path, one side of road has shoulder but mud and storm drain and one large puddle with a pothole provides obstacles to walkers or bikers

S on S 10th St: no bike paths/shoulder/sidewalk, steep upsloping banks/yards prevent bikers or walkers from using grass to avoid traffic, posted 20 mph speed limit

E on Rosedale Dr: nice sidewalk on one side of the road but drainage issues cause sidewalk to be covered in mud/water in several places, numerous sticks and branches litter sidewalk, sidewalk has ramp access but areas of poor drainage would discourage use, trashcans obstructing sidewalk, long hill although not terribly steep

S on S Mill St: Sidewalks on both sides which are in fairly good shape

W on SW Blvd: sidewalks are present but overgrown and narrow, cars obstruct view when attempting to cross street at SW Blvd & S Mill St

W on Dodson St: Trash, good scenery, no bike paths/shoulders/sidewalks, road is narrow

Cont W on Ball Ln: No bike paths/shoulders/sidewalks, good scenery: **End**

School to Park Walkability& Bikeability Field Notes

Begin: Mount Marty Park: no crosswalks or sidewalks leading into park and hill is steep and curvy making it difficult to see drivers/pedestrians

S on Booth St: very steep hill with a single sidewalk on the E side of the road which is obstructed with a storm drain at one point; weeds and grass grown along sidewalk and are overgrown and obstruct sidewalk ~15 ft; the sidewalk surface, however, is in very good condition without cracking; trash litters grass beside sidewalk; there are no curb ramps in front of Rosedale Middle School; no curb ramps at top of hill; sidewalk ends on E side of road and switches to the W side of road; sidewalk is excellent S of the middle school on both sides of the road with only minor cracking on W sidewalk: **End:**

Rosedale Middle School

Begin: Rosedale Middle School: no curb ramps at top of hill; sidewalk ends on E side of road and switches to the W side of road; sidewalk is excellent S of the middle school on both sides of the road with only minor cracking on W sidewalk

S on Springfield St: S on Springfield St: E sidewalk is cracked and broken while the W is in very good condition but blocked by new home construction; E sidewalk is uneven at several driveways while W sidewalk remains very good; there is a large “step” on the W sidewalk at an individuals driveway while the E sidewalk curves at Booth St. without leading to the street forcing a walker/biker to use the grass although curb is ramped; excellent condition sidewalk on W side of road which lacks curbramps at the 39th St intersection; there is no crosswalk past the apartment complex on the E side of the road; sidewalks are present on both sides of the road but the E sidewalk is blocked by overgrown bushes at one point and the W and E sidewalks having occasional areas of cracked/uneven surfaces; at one point, new home construction blocks the W sidewalk although it is viewed that the sidewalk in front of this place is new and in excellent condition; sidewalks end at 40th Ave and road is narrow

W on W 41st Ave: no sidewalks but a S sidewalk begins at Fisher St. with some cracking and which ends abruptly shortly thereafter as the road also narrows

S on Lloyd St: no sidewalk, 20 mph speed limit, narrow and short stretch of sidewalk in front of 2 homes which is in fair condition, road narrows and cars are parked on the shoulder; there is a crosswalk at E 41st Ave which does include a sign but the crosswalk paint is faded

W on W 42nd Ave: no sidewalks except a short stretch of ~15 ft. in front of one home; speed limit is 20 mph; road/shoulder has potholes and is rough near Mission Rd

N on Mission Rd: no sidewalks on this very busy street; a dirt path has been worn in the grass on the E side of the road which is narrow and with trash blocking the path; there is no crosswalk to the park and the hill is blind and steep and traffic is heavy; assessors ran across road to reach park safely: **End: Rosedale Park**

Begin: Whitmore Park: E on SW Blvd: rough shoulders and road with a railroad crossing; busy intersection with Mission with intersection is busy with holes in the street and no curb ramps; there is a small “no drive zone” at the cement triangle at the intersection however it is small and so busy that it is dangerous to walk/bike in it; there is a large pothole full of water just past the intersection

N on SW Blvd: crosswalks with lights in front of the Holy Name Elementary and signs indicating school zone with flashing light; crosswalks are also painted in roadway; sidewalk is in good condition with occasional areas of cracked and uneven surfaces; there is a large uneven section where a tree has pushed up the sidewalk; in front of Cherry tree Motors is a large puddle without a curb ramp and a truck blocking a cracked and uneven sidewalk; presence of sidewalks alternate with presence of parking lots in front of businesses; there is a large gravel spot at one point

E on Rainbow Ext: excellent sidewalk which then changes to narrow and overgrown without curb ramps on either side; a drain obstructing S sidewalk access and cracks/gravel/sticks covering most areas of the S sidewalk

S on Booth St: no curb ramps; very large and steep hill but sidewalk is in excellent condition until just before Mount Marty Park where it is littered with sticks and dead weeds; very steep hill with a single sidewalk on the E side of the road which is obstructed with a storm drain at one point; weeds and grass grown along sidewalk and are overgrown and obstruct sidewalk ~15 ft; the sidewalk surface, however, is in very good condition without cracking; trash litters grass beside sidewalk; there are no curb ramps in front of Rosedale Middle School; no curb ramps at top of hill; sidewalk ends on E side of road and switches to the W side of road; sidewalk is excellent S of the middle school on both sides of the road with only minor cracking on W sidewalk: **End: Rosedale Middle School**

Begin: Rosedale Middle School: no curb ramps at top of hill; sidewalk ends on E side of road and switches to the W side of road; sidewalk is excellent S of the middle school on both sides of the road with only minor cracking on W sidewalk

S on Springfield St: E sidewalk is cracked and broken while the W is in very good condition but blocked by new home construction; E sidewalk is uneven at several driveways while W sidewalk remains very good; there is a large "step" on the W sidewalk at an individual's driveway while the E sidewalk curves at Booth St. without leading to the street forcing a walker/biker to use the grass although curb is ramped; bench in park is noticed to be broken since last assessment and lying on the ground: **End: Fisher Park**

Appendix H

Rosedale Community Park and Playground Assessment

Park/Playground Name: _____

Location: _____

Date Surveyed: _____

Surveyor's Initials: _____

1. Playground Equipment

Does this park have any playground equipment (i.e., monkey bars, slides, swings, etc.)? If so, what is the general condition and quality of this equipment?

Playground Equipment

	Yes	No	Comments
Fall zones for climbers and slides: Does the fall zone extend a minimum of 6 feet in all directions from the perimeter of the equipment?			
Fall zones for swings: Does the fall zone extend a minimum of 6 feet from the perimeter of the support structure on each side of the swing set structure?			
Are any swings constructed of heavy, rigid material such as wood or metal?			
Are any swing structures attached to other play equipment, such as a slide or climber?			
Are there more than two swings in any one section of the swing structure?			

Are infant/tot swings suspended in the same section as regular swing seats?

Is the horizontal distance between adjacent swings at least 24 inches?

Is the horizontal distance between the swing and any adjacent support structure at least 30 inches?

Is the height of the pivot point/swing beam higher than 8 feet?

Head entrapment*: Does the play equipment have any openings with an interior dimension between 3.5 and 9 inches, which may cause head entrapment?

Clothing Entanglement Hazards**: Does the play equipment have any entanglement hazards on which children may catch clothing or anything else around their neck?

Is there peeling, chipping, or cracking paint on any equipment surface?

Dangerous Equipment: Does the playground contain any of the following equipment?

Track Rides

Chain or Cable Walks

Multiple Occupancy Swings or Gliders (Tire swings are exempt)

Animal Swings

Swinging Exercise Rings or

Trapeze Bars

Rope Swings

Individual Climbing Ropes

*Head Entrapment includes any opening, except those where the ground is the lower boundary, with an interior dimension of between 3.5 and 9 inches and may cause head entrapment, possibly resulting in strangulation.

**Entanglement incidents—look for open “S” hooks, especially on swings. Look for gaps, protrusions, or equipment components which may act as hooks or catch points, especially at the top of slides.

What type of surfacing is under and around the play equipment?

- | | |
|----------------------|---|
| _____ Concrete | _____ Shredded Mulch |
| _____ Asphalt | _____ Sand |
| _____ Grass | _____ Pea Gravel |
| _____ Soil | _____ Shredded Tires |
| _____ Hardwood Chips | _____ Rubber Tiles or Unitary Synthetic Surface |
| _____ Other: _____ | |

If the surfacing material is a loose material, such as hardwood chips, shredded mulch, sand, pea gravel, or shredded tires, use a yardstick or ruler to measure how deep it is, making several measurements in different spots.

Area 1 Depth: _____ inches

Area 4 Depth: _____ inches

Area 2 Depth: _____ inches

Area 5 Depth: _____ inches

Area 3 Depth: _____ inches

Area 6 Depth: _____ inches

2. Recreational Areas

Are there recreational/sport activity areas available in the park (basketball court, tennis court, baseball diamond, etc.)? If yes, please explain what this park has available.

What are the conditions of these recreational areas?

_____ Very Poor (unusable, poses a significant safety hazard to players, severely cracked or uneven surfaces, equipment such as basketball rims or tennis nets are in disrepair or completely missing, trash litters playing surfaces)

_____ Poor (surfaces contain many cracks and a few uneven places, players may risk injury if they use the area, all equipment is present but may be in poor condition, trash is present on playing surfaces)

_____ Fair (surfaces have few cracks and no uneven places, players may participate with only a slight risk of injury, all equipment is present but may have mild maintenance issues, some trash may be visible on playing surfaces)

_____ Good (surfaces have no cracks but paint may be faded, players may participate safely, all equipment is present and without need of repair but may demonstrate mild rust or isolated holes in netting, no trash should be present on playing surfaces)

_____ Excellent (surfaces appear new and clean, players may participate safely, all equipment is present and appears new and clean with no visible signs of wear, trash is not present on playing surfaces)

Other comments about the recreational areas of this park?

3. Safety, Cleanliness, and Other Issues

Is there a bike rack available for use?

_____ Yes _____ No

How many bike racks are available for use in this park?

Are the bike racks located within easy view?

_____ Yes _____ No

Other comments about the availability of bike racks in this park?

What is the relative amount of sidewalks contained within this park?

_____ Nearly all the park has sidewalks (75-100% of areas have sidewalk access)

_____ Much of the park has sidewalks (50-74% of areas have sidewalk access)

_____ Some of the park has sidewalks (25-49% of areas have sidewalk access)

_____ Very little of the park has sidewalks (<25% of areas have sidewalk access)

_____ None of the park has sidewalks (no sidewalks present within park)

If sidewalks are present, what is the condition of these sidewalks? Include hazards such as cracks or overgrown areas and the presence of curb ramps.

Does the area surrounding the park have sidewalks for pedestrians?

_____ Yes

_____ No

If so, what is the condition of these sidewalks? Include hazards such as cracks or overgrown areas and the presence of curb ramps.

Are pedestrian crosswalks available at the entryways to this park?

_____ Yes

_____ No

If so, what is the condition/quality of the crosswalks? Include visibility to motorists, presence of crosswalk lights, road signs alerting motorists to crosswalk, and ease of crossing.

Are there working water fountains in this park?

_____ Yes

_____ No

What is the quality of the water (taste, odor, color, etc.)?

Is there a men's public restroom in this park?

_____ Yes _____ No

How would you describe the quality/cleanliness of the men's restroom? Include light fixtures, accessibility for disabled individuals, number of stalls, and overall cleanliness.

Is there a women's public restroom in this park?

_____ Yes _____ No

How would you describe the quality/cleanliness of the women's restroom? Include light fixtures, accessibility for disabled individuals, number of stalls, and overall cleanliness.

Is there a visible shelter with picnic tables in this park? If yes, please describe the conditions of this shelter and picnic tables.

Are there signs posting information about renting the shelter and/or the park? If yes, where are these signs located?

Are there signs posting the hours of the park? If yes, where are these signs located?

Is there any police/security presence in this park?

Is there graffiti in this park? If yes, please describe the location of the graffiti.

How would you rate the overall cleanliness of the park?

_____ Very poor (trash cans are overflowing, trash litters most areas of the park, equipment is dirty and/or covered in graffiti, picnic tables are covered in animal droppings and/or trash, public grills contain trash or do not appear to have been cleaned recently, public restrooms are unusable with broken equipment and unsanitary conditions, missing soap, toilet paper and paper towels)

_____ Poor (trash cans are full but not overflowing, trash may litter the ground in many areas, graffiti is present in some areas, picnic tables appear to need cleaning but are not unusable, public grills need to be cleaned, public restrooms are unsanitary with one or more sinks and/or toilets in disrepair and missing soap, toilet paper and paper towels)

_____ Fair (most trash cans appear to have been emptied recently, some trash may be present on the ground or equipment areas, little to no graffiti, picnic tables may need to be cleaned, public grills may be dirty, public restrooms may need to be cleaned but are sanitary with no more than one toilet and/or sink in need of repair, soap, toilet paper and paper towels are found in most sinks or stalls)

_____ Good (trash cans appear to have been emptied recently and are in good condition, no trash is noted in areas outside of the trash cans, there is no graffiti, picnic tables are mostly clean, public grills appear to have been cleaned recently, public restrooms appear to have been cleaned recently with no broken sinks or toilets but some areas may be missing soap, toilet paper or paper towels)

_____ Excellent (trash cans are clean and have been emptied, no trash or graffiti is noted in the park, picnic tables are clean, public grills have been cleaned very recently, public restrooms appear clean with no broken

sinks or toilets, and every sink or stall containing soap, paper towels and toilet paper)

Other comments about the cleanliness of this park?

How would you rate the quality of the groundskeeping in this park?

_____ Very poor (shrubbery is overgrown and obstructing most sidewalks, roads or equipment, grass is more than knee high, flowers and other landscaping is dead, fallen trees or large tree limbs need removal)

_____ Poor (shrubbery is overgrown and obstructing many sidewalks, roads or equipment, grass is no more than knee high, most of the flowers or landscaping is dead or dying, some large tree limbs need removal)

_____ Fair (shrubbery is overgrown in several areas and may be obstructing some sidewalks, roads or equipment, grass is no more than mid-shin level, some flowers or landscaping are dead or dying, a few large tree limbs may need removal)

_____ Good (shrubbery may be overgrown in a few places but does not block any sidewalks, roads or equipment, grass is no more than ankle high, few flowers or landscaping is dead or dying, no large tree limbs need removal)

_____ Excellent (shrubbery is not overgrown or blocking sidewalks, roads or equipment, grass has been recently cut and is below ankle level, no flowers or landscaping is dead or dying, no tree limbs need removal)

Other comments about the groundskeeping of this park?

Other comments about this park?

*Addition to Rosedale Community
Park and Playground Assessment*

What is the relative amount of paths (asphalt, woodchips, other materials excluding cement sidewalks) contained within this park?

_____ Nearly all the park has paths (75-100% of areas have path access)

_____ Much of the park has paths (50-74% of the areas have path access)

_____ Some of the park has paths (25-49% of the areas have path access)

_____ Very little of the park has paths (<25% of areas have path access)

_____ None of the park has path access (no paths present within park)

What is the general condition of these paths (uneven, muddy, well groomed, etc.)?

Appendix I

Rosedale Community Grocery Store Assessment

Date: _____ Time: _____

Store Name & Address: _____

Store Type: _____ Supermarket _____ Convenience _____ Other
 _____ Large grocery _____ Gas/grocery
 _____ Small grocery _____ Ethnic/specialty

1. Does this store carry...			
	Yes	No	Comments
USDA top grade poultry (chicken, turkey)?			
Select/Choice grade lean beef?			
Fresh seafood?			
Non-fat and low-fat dairy products (milk, yogurt, cheese)?			
Eggs and/or egg substitutes?			
Whole grain breads, cereals, and pastas?			
Expired "use by" or "sell by" dates on products?			
Soy products?			
Low-fat food products where you can easily find them?			
Low-sodium food products where you can easily find them?			
Low-sugar food products where you can easily find them?			
Food products for diabetics where you can easily find them?			
Alcohol?			
Tobacco products?			

2. Does/Is this food store...			
	Yes	No	Comments
Accept food stamps?			
Accept WIC vouchers?			
Have a credit card machine?			

Accept coupons?			
Have a store club card?			
Handicap accessible?			
Have a microwave available for customer use?			
Clean inside?			
Have restroom access?			
Have a public phone nearby?			
	Yes	No	Comments
Have a discount shelf for dented cans or other items?			
Have a healthy deli option?			
Have a bus stop nearby?			
Have a delivery service?			
Market or advertise alcohol inside and/or outside of the store?			
Market or advertise tobacco products inside and/or outside of the store?			
Market or advertise unhealthy food items (chips, soda, candy, pastries) inside and/or outside of the store?			
Market or advertise healthy food items (fruits, vegetables, low-fat milk) inside and/or outside of the store?			
Prominently display candy at the front of the store or adjacent to checkout counters?			
Prominently display soda and other sweetened beverages (juice drinks/ sport drinks, etc.) at the front of the store or adjacent to the checkout counters?			

4. For the fresh produce items in this store:					
How many fresh fruits does the store currently have in stock?	None	1-2	2-3	3-4	>5
How would you rate the quality and freshness of the fruit in stock?	Poor	Average	Good	Excellent	N/A
How many fresh vegetables does the store currently have in stock?	None	1-2	2-3	3-4	>5
How would you rate the quality and freshness of the vegetables in stock?	Poor	Average	Good	Excellent	N/A

5. Record the lowest prices for the following items:

a) 1 loaf of bread

Size _____ Price _____ Don't
Have _____

b) 1 quart of low-fat milk

% Milk _____ Price _____ Don't
Have _____

c) 1 pound of fresh bananas or other fruit

Fruit _____ Price _____ Don't
Have _____

d) 1 pound of fresh ground beef

% Lean _____ Price _____ Don't
Have _____

e) 1 dozen eggs

Size _____ Price _____ Don't
Have _____

f) 1 pound of fresh vegetables

Vegetable _____ Price _____ Don't
Have _____

Overall impressions or comments of this store?

**This assessment was adapted from the Fresno County Community Food Assessment and the Los Angeles Community Health Council Neighborhood Food Watch Checklist*

References

CFA Parent Checklist. Consumer Federation of America. Accessed Spring 2009 from <http://www.consumerfed.org/pdfs/PlayingItSafeJune2002.pdf>.

Fresno County Community Food Assessment. Community Food Security Coalition. Accessed Spring 2009 from http://www.foodsecurity.org/cfa/survey_fresno_store.pdf.

Neighborhood Food Watch Store Quality Checklist. Community Health Councils, Inc. Accessed Spring 2009 from <http://www.chc-inc.org/userimages/REACH%20Shopping%20List%202007.pdf>.

Turkey Creek Concept Plan Report 2010



1.0 Introduction

1.1 PROJECT OVERVIEW

The Turkey Creek Corridor is a 10-mile segment of the Turkey Creek Streamway Trail and part of MetroGreen, an interconnected system of public and private natural areas, greenways and trails linking communities throughout the Kansas City metropolitan area. This 10-mile trail segment will span Johnson and Wyandotte counties in the state of Kansas and intersect four municipalities including Merriam, Overland Park, Mission and Kansas City, Kansas. A concept plan has been developed for this corridor as part of the initiatives set forth by the Turkey Creek Coalition.

The Turkey Creek Coalition, which began meeting in the fall of 2007, is composed of representatives from all levels of government (local, state and federal, elected officials), and local businesses and organizations. The coalition continues to meet quarterly to discuss progress and development opportunities along the corridor.

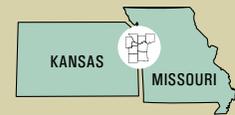
The trail development along this corridor will not only provide a recreational amenity for the community, but will encourage habitat conservation and watershed protection along Turkey Creek, provide alternative transportation to downtown Kansas City and spur economic development.

2.0 Corridor History

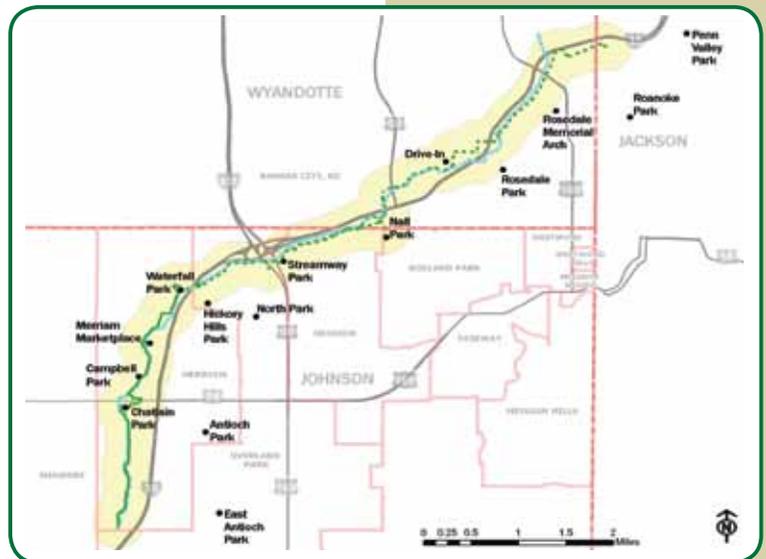
2.1 LAND USE AND DEVELOPMENT

Named for the abundance of wild turkeys in the area, Turkey Creek is “a live, impetuous stream, [that] meanders at will through the place seemingly priding itself on its independence in designating its own path, regardless of the points on the compass, or the predominating requirements of this expeditious age in economizing time and space by taking air line courses.” (As described in the Wyandotte Herald Newspaper, January 26, 1882). The history of this corridor can be traced back nearly 12,000 years when Paleo-

KANSAS CITY REGION



AREA OF DETAIL



Indians inhabited the area adjacent to Turkey Creek. A survey made in 1823 by Joseph C. Brown to establish the state boundaries between Missouri and Indian Territory — later the state of Kansas — shows the creek emptying into the Missouri River about a mile down stream from its confluence with the Kaw River. West of the state line, the creek drained a watershed measuring about 20 miles.

Much of the creek's original floodplain has been developed for industrial, commercial, and residential urban uses. This area of the Kansas City region has been a target of transportation-related development since the 1800s. Railroad development played a major role in the settlement of the area with a route traveling from Kansas City, Mo., through the Turkey Creek basin into Olathe, Kan. The railroad line at this time was known as the "Kansas City, Fort Scott and Gulf." In 1870, the first station was built in Merriam, Kan.

More recently the land adjacent to the stream has been identified for greenway development, which would protect existing natural areas and open space and provide recreation opportunities for neighboring communities. The Turkey Creek Corridor was designated in the 2002 MetroGreen Plan as one of over 75 corridors that would connect natural areas throughout the region with a system of trails.

2.2 ENVIRONMENTAL IMPACTS

Many changes have occurred to the stream system over time, resulting in environmental degradation. The creek was originally about 15 miles long, but channelization and installation of stormwater control structures have since shortened the stream to 10 miles, altering the normal flow of the watershed, negatively impacting water quality and decreasing critical wildlife habitat. As the area became more developed and the stream was channelized, flooding became a recurring issue. Several major flood events have occurred over the last 50 years, with extreme events in 1993 and 1998.

2.3 CORPS OF ENGINEERS STUDIES AND PROJECTS

In response to the flooding, the U.S. Army Corps of Engineers (COE) initiated a study following the 1983 flood. Several more studies would follow, including the 2001 reconnaissance study, which evaluated federal interest in solutions to recurring flood damages, environmental degradation and related water and land resource needs and opportunities. The COE is currently in the process of completing a watershed plan for Turkey Creek that will encompass the entire creek from eastern Johnson County into Wyandotte County ending at the Kansas River. The COE's plan will address both stream conservation objectives and trail connectivity initiatives identified in the MetroGreen plan.

The Turkey Creek Corridor was designated in the 2002 MetroGreen Plan as one of over 75 corridors that would connect natural areas throughout the region with a system of trails.



Flooding on Southwest Boulevard in 1993



Rendering of Turkey Creek environmental enhancement project in Kansas City, Kan., facing downtown Kansas City, Mo.

One element of the watershed plan is an environmental enhancement project located on a section of the Turkey Creek Corridor project between 7th Street Trafficway and Southwest Boulevard. The project's primary goal is to restore the riparian stream corridor by using a mix of native grasses, wildflowers, trees and shrubs. This element of the plan — which also includes a bicycle and pedestrian trail — was completed in 2009.

3.0 MetroGreen

3.1 OVERVIEW

MetroGreen is a network of 1,144 miles of interconnected public and private open spaces, greenways and trails that currently links seven counties in the Kansas City metropolitan area and the neighborhoods within. The plan includes Cass, Clay, Jackson and Platte counties in Missouri and Johnson, Leavenworth and Wyandotte counties in Kansas. The purpose of MetroGreen is to protect natural resources, preserve high-value habitat, provide outdoor recreation opportunities and connect people to surrounding areas.

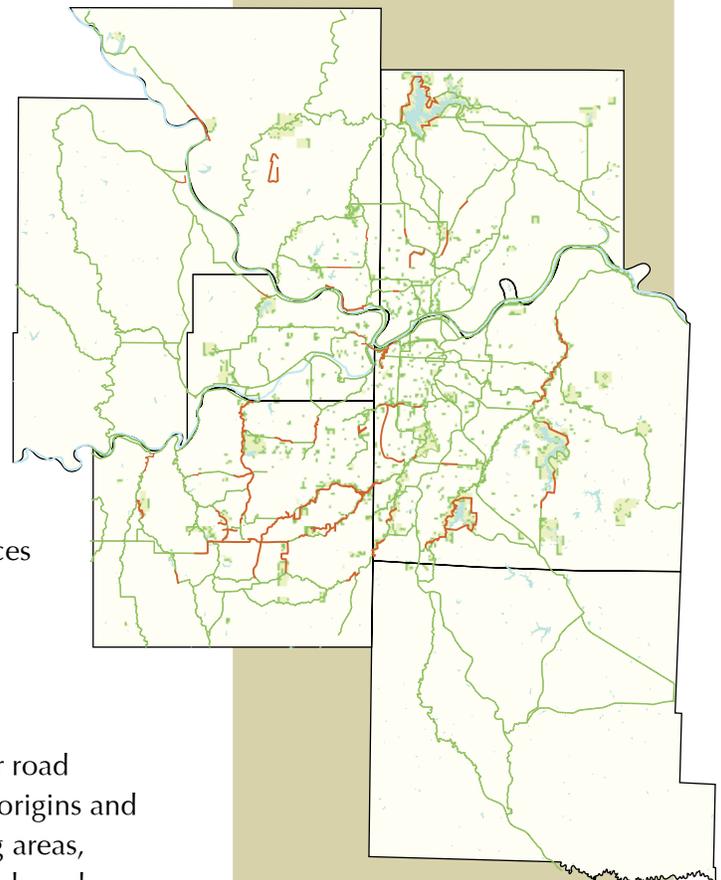
3.2 BENEFITS

The benefits of MetroGreen include cost-effective improvement of water and air quality; stabilization of streams; reduction of flood risks; protection of wildlife habitat; opportunities for biking, hiking and walking; and ultimately, the formation of a framework around which more sustainable urban development patterns can occur. MetroGreen is intended to link communities together and connect people to nature and to cultural and historic resources along its green corridors. These and other benefits of the MetroGreen network are described below:

Transportation Benefits

MetroGreen corridors are designed to serve as extensions for road networks, offering realistic and viable connections between origins and destinations such as work, schools, libraries, parks, shopping areas, historical and cultural sites and tourist attractions. Greenway-based bikeways and walkways are most effective for certain travel distances. National surveys by the Federal Highway Administration have shown that Americans are willing to walk as far as two miles to a destination and bike as far as five miles. Destinations can be linked to multiple origins throughout the Kansas City area with a combination of off-road trails and on-road bicycle and pedestrian facilities.

MetroGreen® is an interconnected system of public and private natural areas, greenways and trails linking communities throughout the Kansas City metropolitan area. The 1,100-mile greenway plan covers Leavenworth, Johnson and Wyandotte counties in Kansas and Cass, Clay, Jackson and Platte counties in Missouri. Nearly 200 miles of the planned system have been constructed.



-  Existing greenway corridors
-  Proposed greenways and trails
-  Priority greenways
-  Park areas
-  Bodies of water



Economic Benefits

MetroGreen offers numerous economic benefits, including higher real estate property values, increased tourism and recreation-related revenues, and cost savings for the public services.

Greenways have been shown to raise the value of adjacent properties by as much as 5 to 20 percent. Many home buyers and corporations are looking for real estate that provides direct access to public and private greenway systems. Greenways are viewed as amenities by residential, commercial and office park developers who realize higher rental values and profits when they locate next to greenways. Additionally, greenways can save local tax dollars by using resource-based strategies for hazard mitigation and managing community stormwater by productively using land that would not normally be considered for conventional development.

Greenways also enhance the role tourism plays in the economy. The state of Missouri, for example, spent \$6 million to create the 200-mile KATY Trail, which, in its first full year of operation generated travel and tourism expenditures of more than \$6 million.

Health and Recreation Benefits

Studies have shown that as little as 30 minutes a day of moderate to intense exercise (such as bicycling, walking or roller blading) can significantly improve mental and physical health and prevent certain diseases. Greenways contribute to public health by encouraging more people to walk or bike to short-distance destinations. Providing opportunities for these outdoor activities close to where people live and work is an important component of promoting healthy lifestyles.

In 1987, the President's Commission on American Outdoors released a report that profiled the modern pursuit of leisure and defined the quality of life for many Americans. Limited access to outdoor resources was cited as a growing problem throughout the nation. The commission recommended that a national system of greenways could provide all Americans with access to linear open-space resources.

The MetroGreen system will complement existing parks and open space throughout the region. MetroGreen will serve as a primary recreation and fitness resource and help meet the passive recreation needs for a growing population of older residents.

Cultural Benefits

Successful greenway projects across the United States serve as new "main streets" where neighbors meet, children play and community groups gather to celebrate. For cities and towns both large and small, greenways have become cultural assets and focal points for community activities. Various walking and running events are held on greenways to support charitable purposes or extend traditional sporting events. Many civic groups adopt segments of greenways for cleanup, litter removal, and environmental awareness programs.

The richness and diversity of historic areas and cultural resources are represented by local and nationally significant historic sites and districts. Highlighting historic and archaeological sites along greenways can increase awareness and appreciation of an area's rich history. Greenways can also serve as vehicles to provide controlled public access to important cultural sites in a manner that promotes preservation and enhances interpretive opportunities.

Security and Safety Benefits

Safe neighborhoods are of great concern and priority to metro area residents. Some of the most successful deterrents to criminal activity involve increasing citizen awareness in neighborhoods and participation in community watch programs. Greenways can be an effective tool to encourage local residents to participate in neighborhood programs. Some greenways have been developed as part of efforts to deter criminal activity in a neighborhood. Crime statistics and reports from law-enforcement officials have shown that parks and greenways are typically areas with the lowest incidence of reported criminal activity.

As recreation resources, alternative transportation corridors or areas where fitness activities take place, most greenways provide safer and more user-friendly experiences than other linear corridors, such as local roads. Greenways typically attract local residents who use the facilities frequently, creating an environment that is virtually self-policing. Additionally, greenways — whether publicly or privately owned — are dedicated for multiple uses and are normally designed to meet federal, state and local standards for public safety and use.

Water Quality and Water Quantity Benefits

Greenways preserve wooded open spaces along creeks and streams which absorb flood waters and filter pollutants from stormwater. Flooding has historically been a significant problem in the Kansas City area. In some cases, buildings and other land uses have been established in flood-prone areas. By designating floodplains as greenways, encroachments can be managed, and sometimes replaced with linear open space, an amenity to residents and businesses occupying adjacent property.

As a flood-control measure, MetroGreen corridors serve as primary storage zones during periods of heavy rainfall. The protected floodplain can also be used during non-flood periods for recreation and alternative transportation. In conjunction with existing stormwater management policies and programs in the region, greenway lands can be set aside as development occurs.

Greenways corridors also improve the surface water quality of local rivers and creeks. The flood plain forests and wetlands contained within greenway corridors filter pollutants from stormwater. These pollutants are not removed if stormwater is collected in pipes and discharged directly into local streams and rivers. Improving surface water quality in streams benefits both local residents and numerous forms of wildlife that depend on streams for their habitat.

Air Quality Benefits

Greenways serve as alternative transportation corridors that reduce traffic congestion and improve air quality. Since the majority of automobile trips are less than two miles in length, offering alternative transportation choices through greenways encourages people to bicycle or walk these short distances more often, thereby reducing traffic congestion and automobile emissions.



Greenways contribute to public health by encouraging more people to walk or bike to short-distance destinations. Providing opportunities for these outdoor activities close to where people live and work is an important component of promoting healthy lifestyles.



As a flood-control measure, MetroGreen corridors serve as primary storage zones during periods of heavy rainfall. In conjunction with existing stormwater management policies and programs in the region, greenway lands can be set aside as development occurs.

Plant and Animal Habitat Benefits

MetroGreen corridors can serve as viable habitat for many species of plants and wildlife. Greenway corridors provide essential food sources and, most importantly, access to water that is required by all wildlife. Greenways in the Kansas City area could become primary migratory routes for terrestrial wildlife, serving to help maintain the integrity of many plant and animal gene pools. Some wildlife biologists have described greenways as future “gene-ways” because these migration routes are essential to maintaining healthy wildlife populations.

Greenways can also serve as “gene-ways” for plant species that migrate with changes in climate and habitat. These “gene-ways” often follow river and stream corridors that have long served as transportation routes for animals and humans.

MetroGreen promotes local programs to protect valuable existing forested and wetland areas and to reclaim and restore streams to support higher-quality habitat.

3.3 TURKEY CREEK CORRIDOR CONNECTION

The Turkey Creek Corridor connects to several other established greenways within the MetroGreen system. To the north, in Wyandotte County, it will connect to the Kaw Levee Trail, which follows the Kansas River and the 55th Street Corridor Greenway. To the west, in Johnson County, it will connect to the Midland Road Greenway and the Gary Haller Trail. The Turkey Creek Corridor will connect to community centers, historic sites and several parks. The corridor parallels Interstate 35, providing an off-road travel option to Merriam Lane for the entire 10-mile segment. Moreover, it provides direct access to residential properties and businesses west and south of the railroads, interstate and creek through Overland Park and Mission.

4.0 Turkey Creek Coalition

4.1 ORGANIZATION

The Turkey Creek Coalition is an informal association of public and private organizations and individuals dedicated to expanding the MetroGreen system and trail

development along the Turkey Creek corridor. Coalition members include: city of Merriam, city of Overland Park, city of Mission, city of Roeland Park, Johnson County, the Unified Government of Wyandotte County/Kansas City, Kan., former Kansas State Rep. Ronne Metsker, the office of Kansas U.S. Rep. Dennis Moore, the U.S. Army Corps of Engineers, the Kansas Department of Transportation, the Mid-America Regional Council, Rosedale Development Association and Patti Banks Associates. Several citizens also participate in the coalition independently.

4.2 COORDINATION

The coalition began meeting in the fall of 2007 to discuss trail development along Turkey Creek. The Mid-America Regional Council (MARC) became involved in the project in 2008, as coalition members expressed a need to combine efforts in order to develop a plan for the entire corridor. MARC convened a corridor walk in April 2008 to determine the alignment of the trail, which was the basis for the concept plan. Several versions of the concept plan map were reviewed and revised by the coalition before its completion in July 2009. The coalition will continue to meet on a quarterly basis to review the concept plan as it evolves and to keep dialogue open between jurisdictions about trail development along the corridor.

5.0 Turkey Creek Corridor

5.1 PROJECT LOCATION

The Turkey Creek Corridor runs west to east from Johnson County through Wyandotte County, Kansas, and terminates at the Kansas River. The corridor intersects several different local jurisdictions, including Merriam, Shawnee, Overland Park, Mission and Kansas City, Kan. Although the corridor does not pass through Roeland Park, there is a proposed connection to Nall Park. This corridor follows the creek through suburbs, commercial areas and industrial zones

finally ending in downtown Kansas City, Mo. It also transects several heavily traveled local roadways and interstate highways including: I-35, I-635, I-70, Antioch, Merriam Lane, Lamar Avenue and Southwest Boulevard.

5.2 TRAIL INVENTORY

The city of Merriam has completed approximately 3.8 miles of trail from 75th Street to Waterfall Park and has approximately .5 miles remaining in its jurisdiction. Merriam currently plans to continue the trail from Waterfall Park to the Overland Park boundary. Efforts would include building a 6-foot sidewalk along the east side of Merriam Drive to connect the existing Turkey Creek Trail with the existing sidewalk along the east side of Antioch Rd in Overland Park.

The city of Overland Park's jurisdiction begins approximately halfway under the I-35/Antioch Rd. bridges; this area will require a pedestrian bridge to transition from the north to the south side of Turkey Creek. Overland Park's remaining mile of the trail will follow the south side of the creek along the bluff until reaching the Metcalf Ave. bridges which may require a retaining wall due to the steep terrain and creek bank.

The city of Mission's jurisdiction begins under the northbound Metcalf Ave. bridge. It continues up the bluff to an abandoned road bed at the top of the cliff where the path then connects to Fox Ridge Road and continues until it intersects with Lamar Avenue.

The Kansas City, Kan., jurisdiction begins about .5 miles east of Lamar Avenue. From Lamar Ave. the trail will continue east along Fox Ridge Road to Merriam Lane and in the future may run adjacent to the creek. From Merriam Lane the path continues through a series of on- and off-road applications for 3.5 miles until intersecting Southwest Boulevard.

5.3 CONCEPT PLAN

The concept plan for the Turkey Creek Corridor was completed in July 2009 after an extensive review process. The plan illustrates the preferred alignment for the proposed trail and identifies the various types of trails that exist or are planned and proposed. This corridor will consist of both off-road and on-road trails and require some special design in areas with steep elevation, waterway, railroad, or interstate crossings. There are five locations where pedestrian bridges are recommended. The plan also indicates points of interest, which includes parks, community centers, historic sites and local venues.



Waterfall Park, Merriam, Kan.



Turkey Creek under the 18th Street Bridge, Mission, Kan.



Turkey Creek near Merriam Lane, Kansas City, Kan.

5.4 EXISTING CONDITIONS

The trail alignment for the entire 10-mile corridor has been defined and each municipality is in different stages of development. Of the 6.5 miles of trail in Johnson County, 3.8 miles have been constructed in the city of Merriam and design drawings have been completed for a 1-mile segment in the city of Overland Park. None of the 3.5 miles in Wyandotte County have been constructed, but design drawings have been completed for a 1-mile segment that is part of the Army Corps of Engineers watershed restoration project.

6.0 Project Development

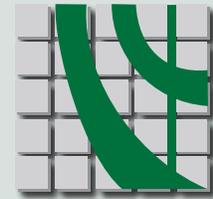
6.1 CURRENT STATUS

The corridor is currently divided into five jurisdictions: Merriam, Overland Park, Mission, Unified Government of Wyandotte County/Kansas City, Kan. and Johnson County. Although the corridor does not transect Roeland Park, officials in that city have been supportive of the trail and have proposed a connection at Nall Park. In terms of development, sections along the trail range from the conceptual design phase to actual completion.

7.0 Funding

7.1 FUNDING SOURCES

Funding continues to be a challenge in developing the Turkey Creek Corridor. The estimated cost to complete the remaining 6.5 miles is approximately \$5.5 million. To this end, the Turkey Creek Coalition has identified potential federal, state and local, and private funding sources for trail design, development and construction.



metrogreen

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marc.org/metrogreen

Rosedale Green Corridor Trail Network and Revitalization Study

May 14, 2010

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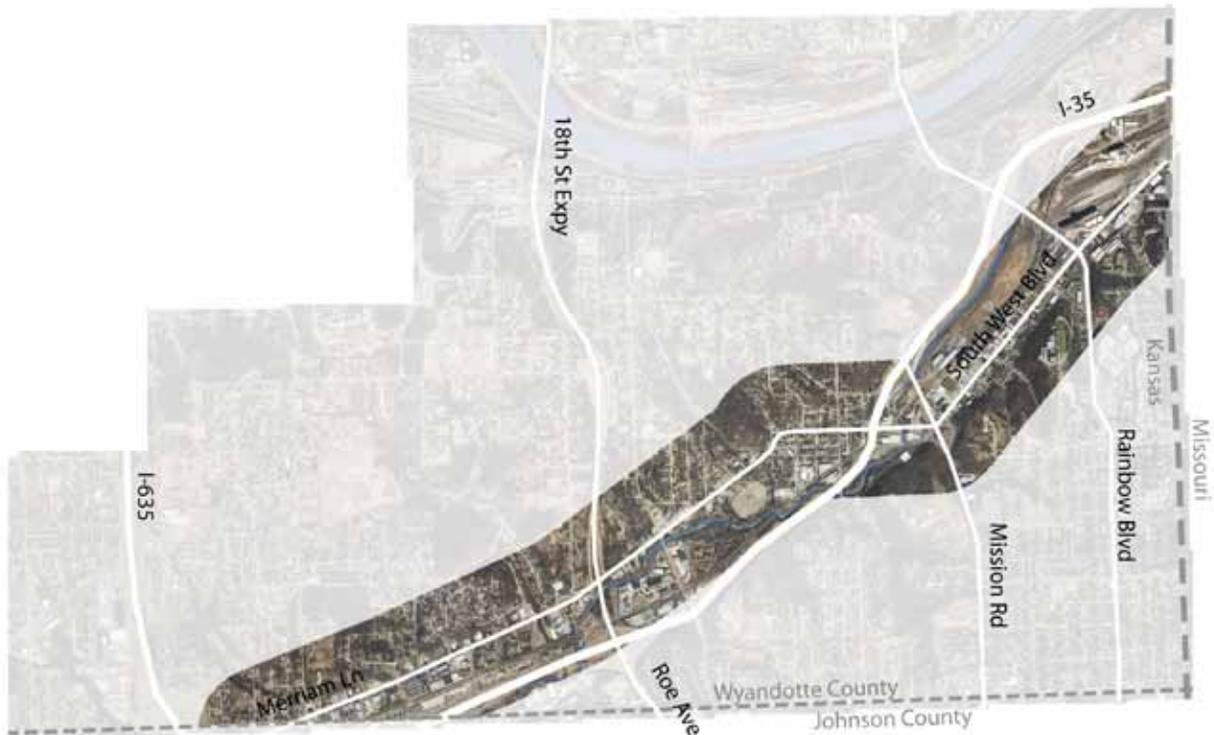
Special thanks to:

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Rosedale Health Kids Initiative
Residents and Business Owners of Rosedale

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1. Introduction



Extent of the Rosedale Green Corridor

Purpose

The purpose of the project is to design a green network that connects:

- the existing parks and green spaces in the neighborhood,
- the existing urban fabric, including residents, commercial areas, and schools, and
- revitalizes the existing “gray network” of streets.

Goals

The goals of the project are:

- to serve as a pedestrian and bicycle transportation network for residents of the neighborhood,
- to provide accessible recreation space for residents of the neighborhood,
- to increase foot traffic to commercial areas in the neighborhood, and
- to conserve natural areas and the important services they provide.

Issues

Public Health

Over the years Americans have move away from an active lifestyle to a more sedentary lifestyle. This move to a sedentary lifestyle has cause problems such as obesity and heart disease to greatly increase in adults and has resulted in a youth population with an obesity problem the likes of which have never been seen before. Changes in the neighborhood environment are on catalyst to a change in lifestyle and a move towards preventing disease and the issue of obesity in children and adults.

Built Environment

Rosedale has pockets of dense urban fabric; there are well-defined commercial corridors and residential districts. However, these urban pockets are not well connected to each other. Barriers include the dramatic topography, the railroad, and the interstate highway. Much of Rosedale is almost rural in appearance. Finding connections between these urban areas while making the rural areas accessible is a challenge the trail system must address.

Southwest Boulevard/Merriam Lane is a major commercial corridor. Many of the buildings on SW BLVD come right up to the street, whereas other are set back form the street. This gives the corridor a “gap-toothed” look. The public realm is not well defined. In addition, many of the buildings are vacant or have undesirable uses, such as used car dealers. Incorporating these commercial corridors into the trail system is a way to improve the public realm and make the area more attractive for private investment. It is likely that the trail system will have to follow the street network in many areas to cross the barriers of the railroad, interstate, and Turkey Creek.

The trail system should function as both a recreation

amenity and a transportation network. The trail system should get people to where they are going as efficiently as possible. However, other branches of the system should aim to provide recreation, both to promote healthy lifestyles and reduce “nature deficit disorder.” Special attention should be given to where these two uses coincide.

Opportunities

The “Green Corridor” concept is an opportunity to bring recreational amenities to Rosedale. It can improve Rosedale’s economy by creating a destination and bringing people to Rosedale and encouraging them to stay and visit retail and restaurants. It can improve the environment by identifying important areas for conservation and increasing awareness of Rosedale’s environmental amenities by increasing access.

The MetroGreen comprehensive trail network plan and the Trail KC plan identify trails as a priority for the Kansas City Metro area. This study coordinates with these plans. The MetroGreen designates Southwest Boulevard part of the regional trail network.

The existing trail on Merriam Boulevard provides both an opportunity for regional connections and a precedent for the Rosedale trail network.

The extensive urban wildlands, interesting topography, and undeveloped public right of way are additional opportunities for the Rosedale trail network.

2. Public Process

Public Meeting

At the beginning of the planning process, the planning team held a public meeting to discuss Rosedale residents' and business owners' vision for the trail network. This meeting was held at the Rosedale Development Corporations office in the center of Rosedale neighborhood.

The residents' key concerns were that Rosedale has inadequate infrastructure, and the lack of sidewalks and bike lanes makes it difficult to walk and ride a bicycle in the neighborhood.

In addition to making the neighborhood more walkable and bicycle friendly, there is an interest in making the Rosedale trail network a destination for both residents and visitors from outside the neighborhood. Southwest Boulevard is a particularly popular corridor for bicyclists; it would be great if the trail system could inspire these bicyclists to meet in Rosedale or stop and enjoy the amenities in Rosedale.

The trail network should function as a transportation network in addition to a recreational amenity. Many residents in Rosedale do not own a car, and the network can help these people get to their destinations. The trail network should be coordinated with the public transit system.

A key outcome of the public meeting was the importance of this trail system serving the youth of Rosedale. Rising obesity rates in children is a concern in Rosedale, much like the rest of the county. The trail system can help kids walk to school and recreational amenities, such as Rosedale Park

Elementary School Visit

The planning team visited two elementary schools in Rosedale to survey children's attitudes about trails and recreation in their neighborhood. The planning team meet with two groups of third graders.

The majority of students are driven to school by car or bus. However, a good number of children do walk to school. When asked "How do you get to school?" the students responded as follows:

Walk	12
Bus	11
Car	16
Bike	2 (Teachers)

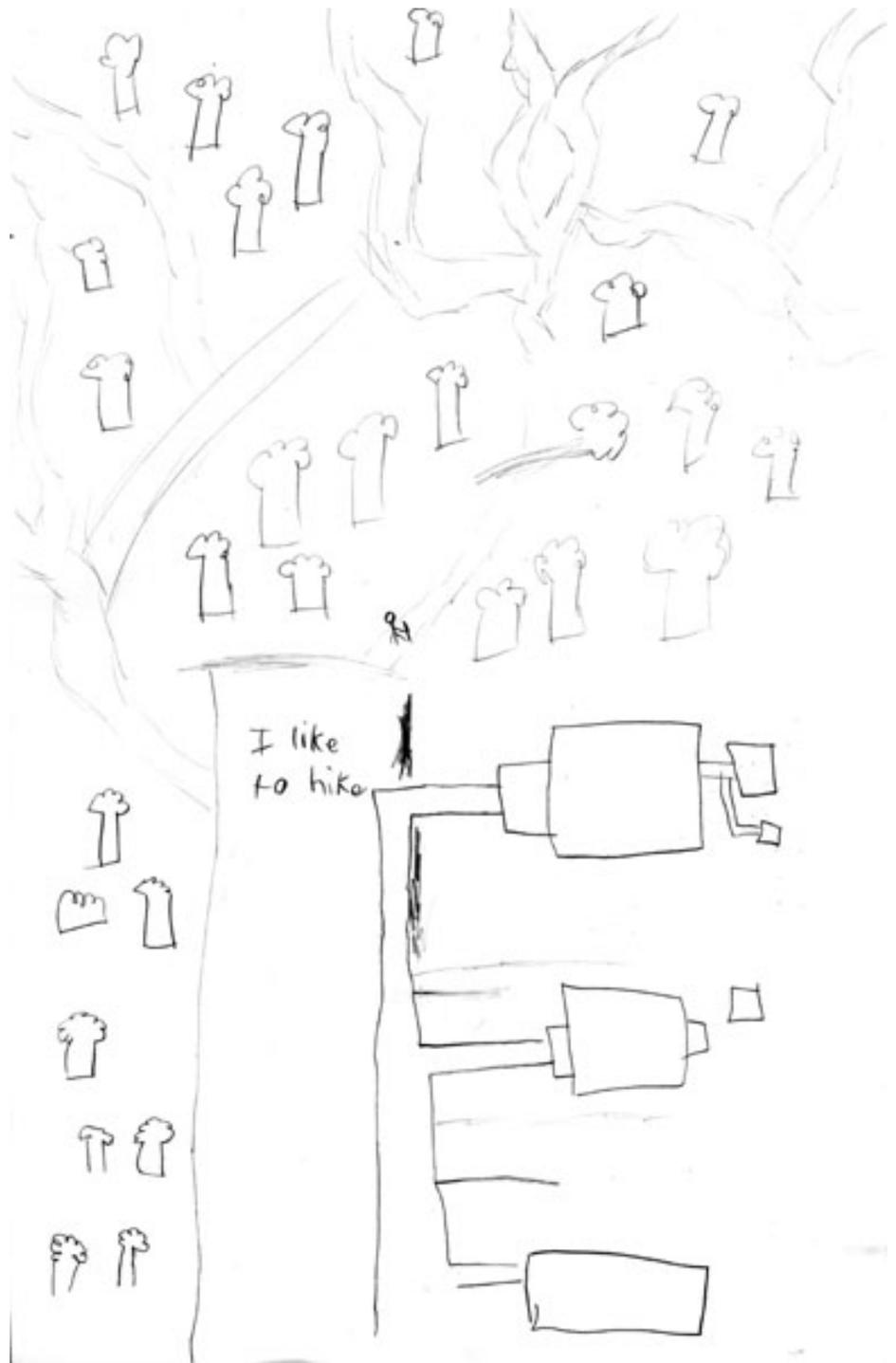
The following are some responses to the question, "Where do you like to ride your bike?"

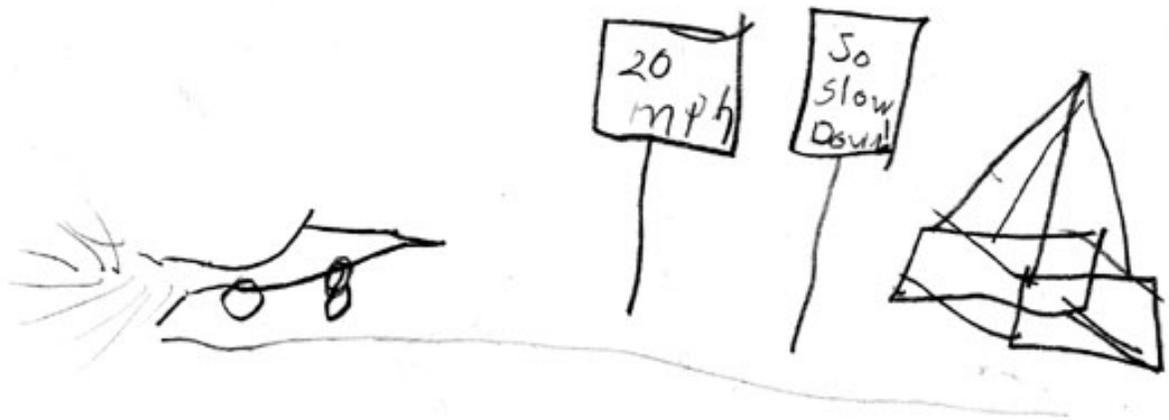
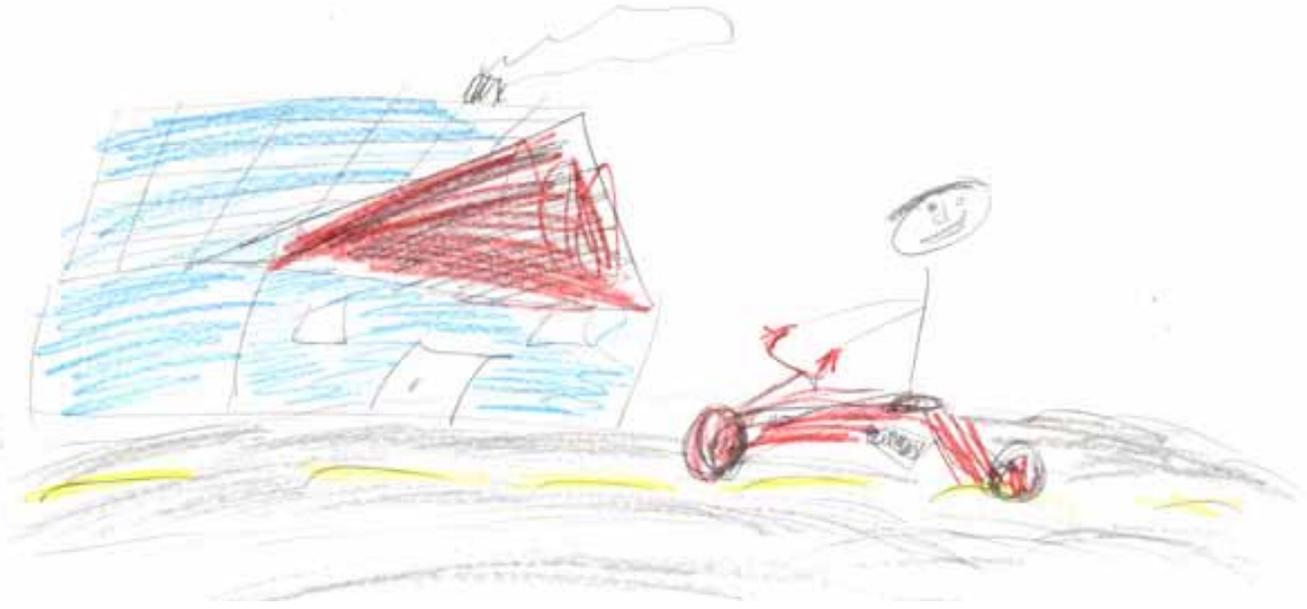
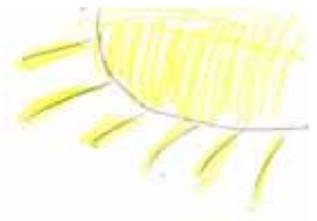
Around block
In front of house
Cousin's house in back
To the park – (11 students)
To the zoo . . .
"I can't ride up the hills"

The children were extremely receptive to the idea of more trails close to where they live. They thought it was important to have places to ride bikes so they can get exercise.

We asked the children to draw the places they play. There was a lot of kick ball fields, some bikes on trails, park settings and ideas for park amenities. One child had an extremely perceptive picture of a speed limit sign and a car going by on the street. He called the car a "rocket car." Another child drew a cul-de-sac and shows green areas around the houses and behind. This is the way he visualized his ideal play area.

The following are examples of drawings by third grade students from Rosedale depicting the places they like to play.







3. Neighborhood Analysis

The neighborhood analysis is comprised of quantitative data documenting the existing and historical conditions of the neighborhood. The unique mix of challenges and opportunities in Rosedale will form the basis for revitalization strategies. These strategies will inform the development options for the Rosedale trail project.

Indicators

Rosedale is gaining population and become more racially and ethnically diverse. The population of the neighborhood increased from 20,092 in 1990 to 20,220 in 2000.¹ The following table reports race and ethnicity data from the 1990 and 2000 census and projects the trends to 2010. The 2010 projected trends are supported by school enrollment data. In 2008 Rosedale Middle School’s enrollment was 59.21% Hispanic and 22.75% African American.

It is important to consider the racial and ethnic change of the neighborhood because it “provides one way to discerning between internal revitalization and gentrification.”² The increasing minority and Hispanic population is an important asset for Rosedale’s future workforce and economy. These groups are younger than the general population and many are new immigrants. According to Ed Blakely’s *Planning Local Economic Development*, “as . . . new immigrants settle, they also become an important asset to communities in a variety of ways, from providing needed labor to purchasing local goods and services.”³ Indeed, Rosedale Neighborhood’s working-age and childhood-aged population are increasing, as shown in table 2.

Table 1. Race and Ethnicity in Rosedale.

Race	1990	1990 Percent	2000	2000 Percent	2010 (Projected)	2010 Percent (Projected)
White	16274	81%	14412	71%	12550	62%
Black	1866	9%	2241	11%	2616	13%
American Indian	172	1%	162	1%	152	1%
Asian & Pacific Islander	561	3%	675	3%	789	4%
Other	1219	6%	2730	14%	4241	21%
Ethnicity						
Hispanic and Latino	2316	12%	4292	21%	6268	31%
Total Population	20092		20220		20348	

1 Census 1990 and Census 2000. The boundaries of block groups and blocks changed slightly in census tract 436, which may result in slightly skewed data. The area was approximated as closely as possible by selecting block group 4 and blocks 5015, 5016, and 5018 within tract 436 in 2000 and block group 1 in 1990.

2 Sean Zielenback, "A Quantitative Look at Revitalization," in *The Art of Revitalization: Improving Conditions in Distressed Inner-City Neighborhoods* (New York: Garland Publishing, 2000). 93.

3 Edward J. Blakely and Nancey Green Leigh, *Planning Local Economic Development: Theory and Practice* (Los Angeles: Sage, 2010). 18.

Table 2. Age in Rosedale

Age Group	1990	1990 Percent	2000	2000 Percent	2010 (Projected)	2010 Percent (Projected)
Children (0-15)	4,441	22%	4,548	22%	4,657	23%
Working Age (16-64)	13,658	68%	13,935	69%	14,213	70%
Retirement Age (65 and up)	1,993	10%	1,737	9%	1,481	7%

The retirement-aged population is decreasing in absolute numbers and as a proportion of the general population. This represents a loss to the community because the elderly are a source of neighborhood history, culture, and knowledge, and they bring outside resources to the neighborhood such as social security and Medicare. Providing recreational amenities that are accessible to the elderly will retain more of this group and increase their health and longevity.

The maps on the next page illustrate the location of the general population, the childhood-aged population and location of schools, and the retirement-aged population. The location of these groups within the neighborhood will be an important consideration for the final trail configuration.

Two important indicators of social and economic opportunity in Rosedale are the educational attainment and income of the workforce. Rosedale's educational attainment is below average. In 2000, 75% of the workforce had a high school diploma or higher and only 17% had a bachelor's degree or higher. This compares with 80% and 24% nationally. The per capita income in Rosedale is \$16,204. This is far below the Kansas City metropolitan area's per capita income of \$23,326.

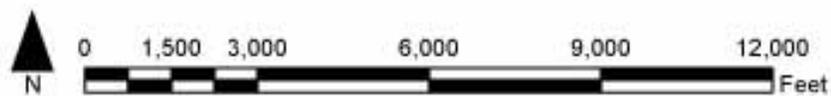
Rosedale's education system is another indicator of neighborhood performance. Both Rosedale Middle and J C Harmon High were far below the state average in reading, math, science, and writing scores, according to the Kansas State Department of Education.⁴ J C Harmon High had a graduation rate of 67.2% in 2008. This is significantly below the state average of 89.5%. The below average performance of these schools is a serious challenge. A trail system that allows students to walk to school is one strategy for improving academic performance. A 2004 study by the California Department of Education found that, "There was a strong positive relationship between physical fitness and academic achievement."⁵

4 <http://online.ksde.org/rcard/summary/D05008321.pdf> (Rosedale Middle)

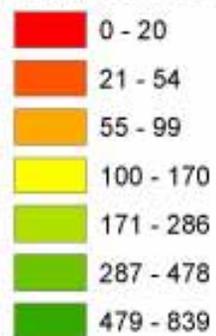
<http://online.ksde.org/rcard/summary/D05008327.pdf> (J C Harmon High)

5 California Department of Education. A study of the relationship between physical fitness and academic achievement in California using 2004 test results. Retrieved March 9, 2010 at <http://www.cde.ca.gov/ta/tg/pf/documents/2004pftresults.doc>.

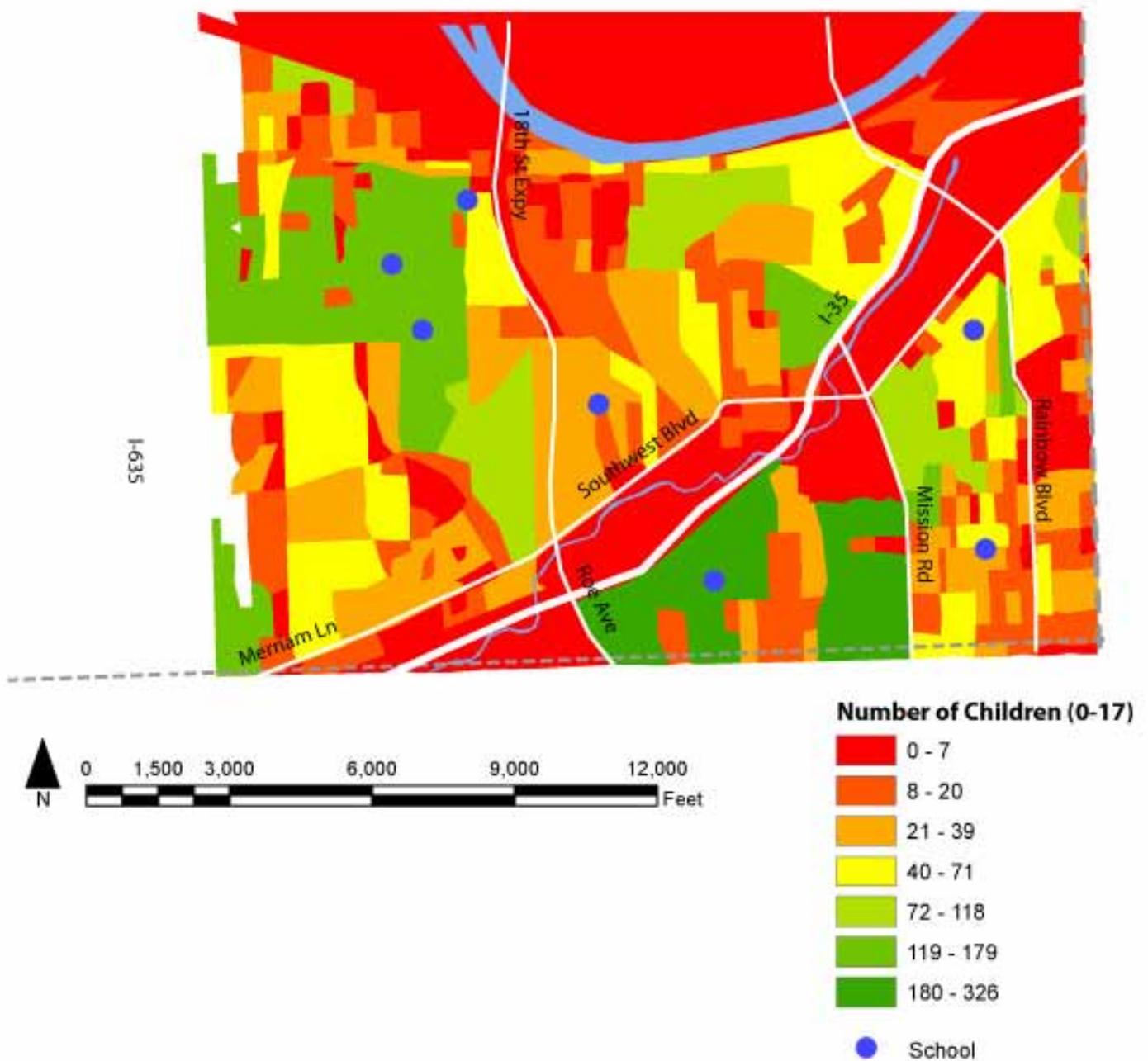
Number of People by Census Blocks



Number of People



Number of Children (0-17) by Census Blocks



4. Trail Network Analysis

Context

The location of Rosedale is both a boon and a blessing. The proximity of Rosedale to major transportation networks within the Kansas City, KS/ MO metro area is convenient for both residents and business. Daily traffic within Rosedale is generated by commuter trips to workplace destinations. Rosedale experiences heavy traffic in line with everyday working shifts. Heavy automobile traffic poses some obvious problems for residents.

- Increased traffic decreases the air quality within the community¹.
- Studies show the instance of magnitude of injury associated with an accident is far worse at higher speeds²
- Major street networks create isolated neighborhoods. This decreases walkability and isolates neighborhood within communities.

These consequences, as a result of planning decisions in the past, reflect some of the challenges that Rosedale faces. Rosedale is in transition. The Rosedale Development Association and programs such as the Healthy Kids Initiative and Safe Routes aim to make this transition a reality. These participatory approaches ensure the transformation reflects the shared values of its citizenry.

It is a process with goals to:

- Raise the level of satisfaction all Rosedalian derive from their community.
- Combat negative perceptions of the community as a place to live and do business.
- Increase investment in new “green”³ sector business.
- Create a safe pedestrian and bicycle environment and increase the range of outdoor amenities to encourage outdoor activity
- Offer healthy eating choices



Accomplishing these goals takes leadership, a plan, and effective implementation. Throughout this process of revitalization, there is one key question that is at the forefront:

- How will the community of Rosedale balance its functionality as an automobile oriented neighborhood versus its desire to become a more community-centric place?

It should not be necessary to critically sacrifice Rosedale's strength as a hub of transportation in lieu of safer pedestrian networks. The development of safe street crossings and a trail system can serve to reinvent Rosedale as a cooperative synthesis of family and business.

Rosedale, as we see it today, was shaped by factors related to its location. As the citizens of Rosedale dynamically pursue their goals, the geographic and historical nature of Rosedale is fixed. The Burlington Northern Santa Fe Railroad and Interstate 35 are permanent fixtures. This, along with the topography of Rosedale, poses particular challenges to increased connectivity and engagement throughout the community. These factors are also strengths - the rugged terrain has effectively preserved open green space. The open, undeveloped areas are an untapped resource. They afford the opportunity to create a symbiotic relationship between nature and the built environment. To preserve, protect and utilize the natural areas of Rosedale, a combination pedestrian and bike trail is proposed.

Trail networks have been famously successful in Portland, Oregon and Boston, Massachusetts⁴. Closer success stories can be found in Merriam, Kansas and Kansas City, Missouri. There are plans, labeled Metrogreen® and headed by the Mid-American Regional Council, to create a

comprehensive regional trail network that spans across seven counties in Kansas and Missouri.⁵ A portion of the Metrogreen® trail travels through Wyandotte County and winds along Turkey Creek before connecting to the Merriam Streamway Trail.



Merriam, KS Streamway Trail



Defining the Issue

There is a general perception in Rosedale that it is simply not safe to walk or bike within the community. Most residents must travel by car or utilize the public transit system even for short distances. Not everyone owns a vehicle and the public transit system is not comprehensive. A trail that connects the core neighborhoods of Rosedale to a central location can address these issues. The proposed trail may provide the following the benefits:

- Extend the opportunity for healthy outdoor recreation within the community.
- Increase connectivity through the heart of Rosedale through safe and efficient routes.
- Reconnect children and adults to the wonders of the natural environment.

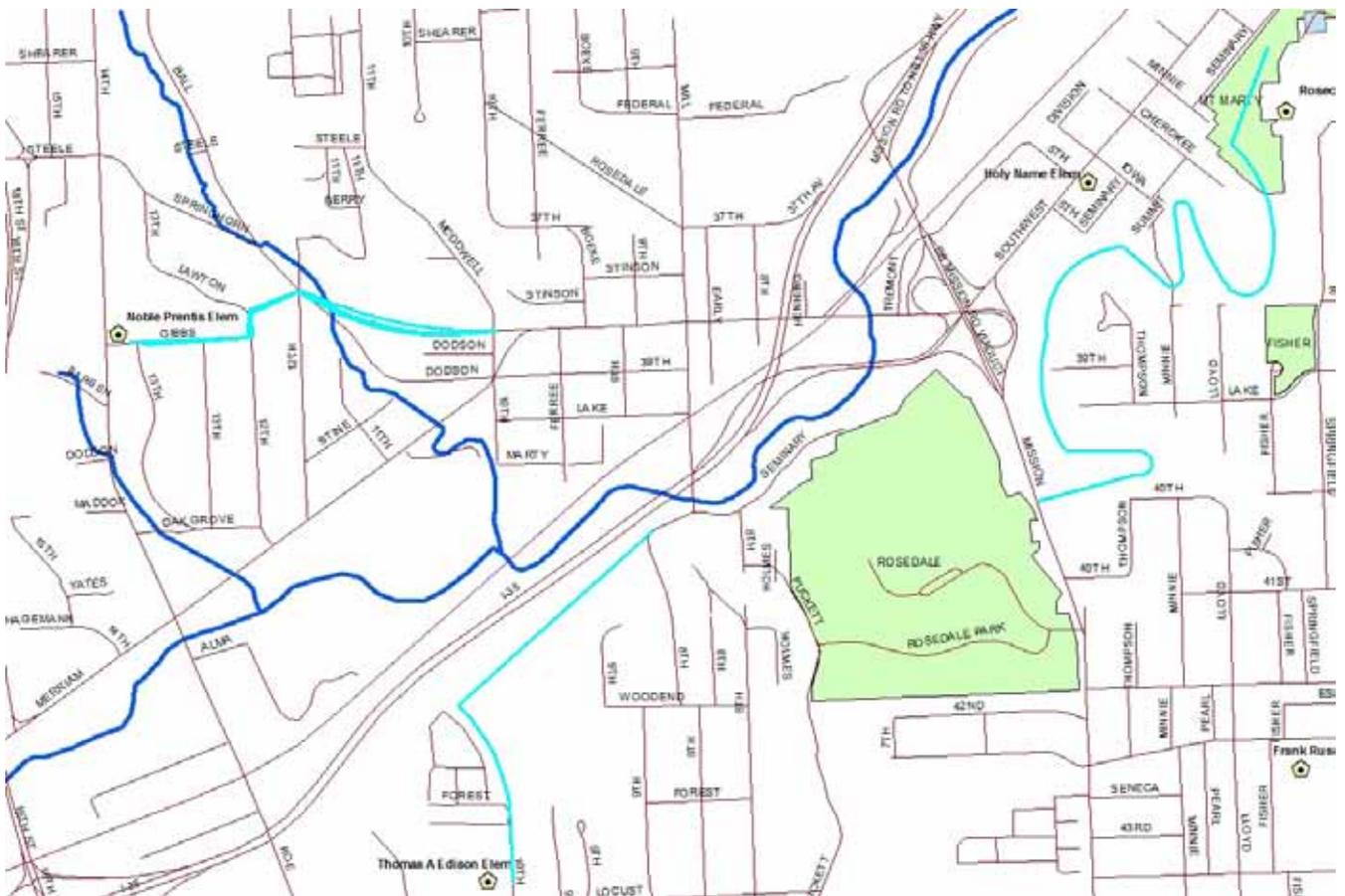
Neighborhood Connector Trail

The system of trails that connects the core neighborhoods of Rosedale to the center of the community is called a neighborhood connector trail. According to the KCMO citywide trails plan, “neighborhood connector trails are used to provide a shared-use facility that links neighborhoods and commercial districts.”⁶ The trail system proposed for Rosedale can be seen as a network of collectors that extend the reach of the larger regional trail system into the neighborhoods of Rosedale. As a collector network, these trails will terminate at a central junction point that then connects to the regional trail system proposed along the Turkey Creek Streamway Corridor.

The proposed trail network has starts points at Noble Prentis, Thomas A. Edison, Frank Rushton elementary schools and the Rosedale Middle School. Locating trailheads at these locations has advantages such as:

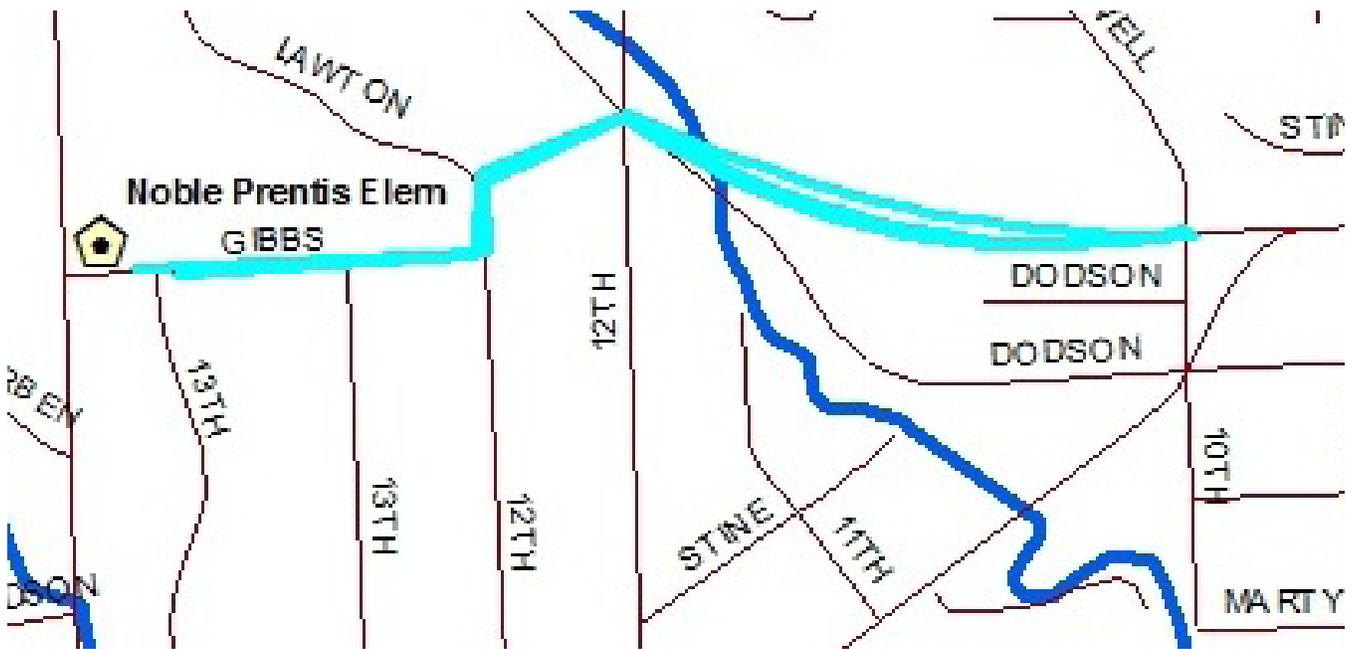
- Orientating the network toward a key demographic of children and families.
- Tie in to the Safe Routes initiative.
- Existing parking located on school premises
- Opportunities for trailhead amenities such as nature centers and after school recreation

The schools within Rosedale are centrally located within residential neighborhoods. Each school is roughly the center point of four distinct areas. Due to the street pattern and topography of Rosedale, the trail must exist both off-street and on-street to achieve all of the desired goals. There are considerations when designing a neighborhood connector trail that include standards on trail width, number of street crossings, surfacing and grade changes. We will separate the network into four sections and consider the desired standards as they relate to the respective section.



Map of neighborhood connector trail network

Noble Prentis Section



To connect Noble Prentis and the surrounding neighborhood to Southwest Blvd and Turkey Creek the trail crosses Lawton then Ball Lane before becoming an on-street trail along Southwest Boulevard and Mill Street.

The primary land use leading up to Southwest Boulevard is residential. Gibbs road lacks sidewalks or crosswalks.

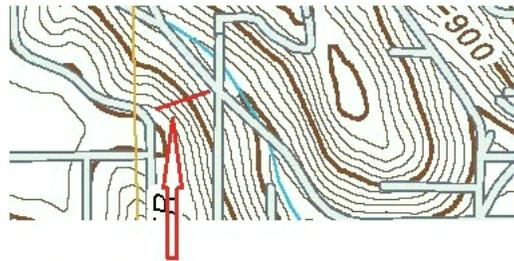
In its current state, Gibbs Road appears unsafe for pedestrians. It is suggested the north side of the road undergo improvements to install sidewalks and it is likely that Wyandotte County has right of way access for this.



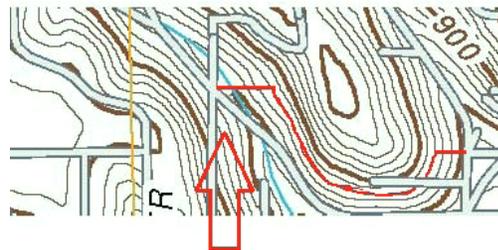
From Gibbs the trail turns north on Lawton Street and is situated on the west side of right of way. It must cross Lawton at a right angle, with special consideration given to pedestrian crossing signage. Beginning along the next stretch, the trail veers through private property and crosses 12th and Ball Lane where the two streets intersect. This was chosen to reduce the number of street crossing. Here, as at the Lawton crossing, adequate pedestrian signage and a controlled crosswalk are desirable. The segment from Lawton Street through to Southwest Boulevard is primary off-street. Rosedale is essentially a river valley, so elevation decreases as the trail approaches Southwest Boulevard. From Lawton to 12th and Ball Lane the grade percentage is approximately 22 percent.

A 22 percent grade change is unacceptable according to trail design standards. The KCMO citywide trails plan calls for no more than 5 percent grade change with a maximum grade of 8.3 percent on individual segments. Since the hill is so steep, switchbacks are required to minimize the slope.

As with the prior segment, switchbacks are required to make the grade feasible and in line with accepted trail design standards. Switchbacks are recommended on the initial rise from 12th and Ball and the final descent towards Southwest Boulevard. This will allow the portion of the trail that curves around the hill to remain relatively level.

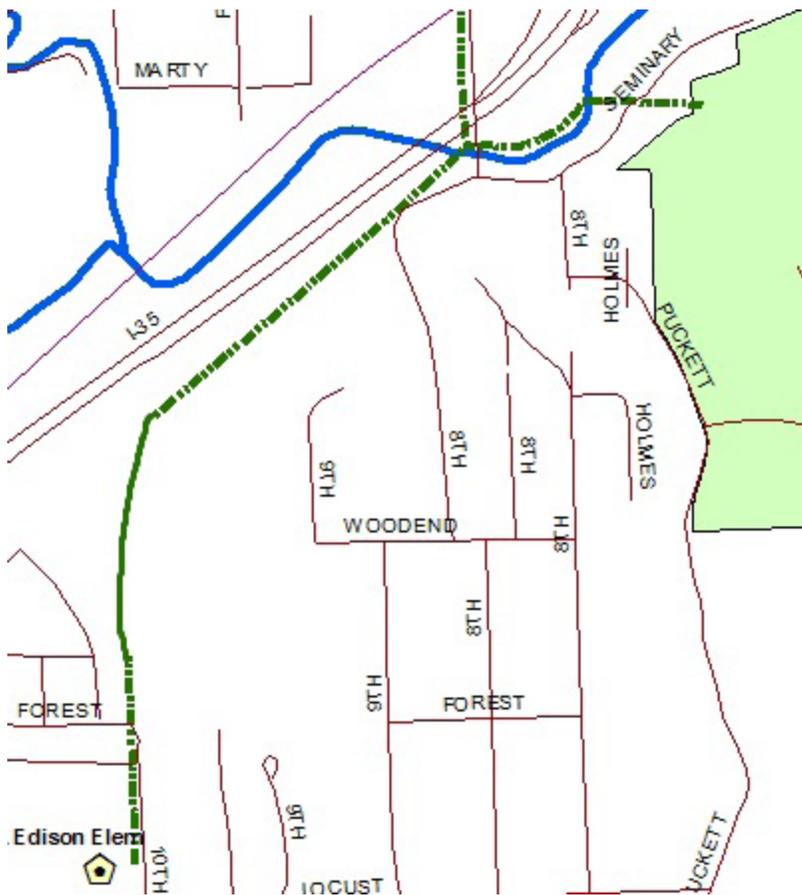


From the Lawton Trail crossing to the intersection of 12th and Ball their is a downhill grade change of 22 percent.



From the 12th and Ball intersection the uphill grade is approximately 12 percent. The trail follows the contour of the hill and descends toward Southwest Boulevard at an approximate 20 percent grade.

Edison Elementary Section



Edison Elementary sits on a rather flat plain in the southwest portion of Rosedale. The school is connected adequately by the street network in Rosedale via Locust Street and Roe Lane. Street improvements such as bike lanes and sidewalks can greatly enhance the ability of children and adults to safely navigate routes to and from this neighborhood. Keeping in line with the goals to utilize the untapped resources of open space, this segment of the trail

network runs north then east from Edison before connecting to Seminary Street and Rosedale Park.

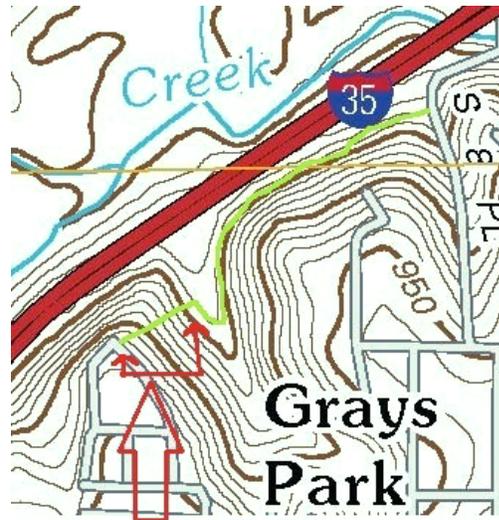
Street improvements such as sidewalks and crosswalks are required and can be placed in the public right away. The trail travels behind Forest Court (identify) apartment complex and then turns east across uninhabited forested area. The open area is zoned RP-5, which is designated for medium density apartment buildings.

An easement is necessary on the private property of the apartment complex. The next section that runs east from the apartment complex is appraised at approximately \$27,000 but is not suitable for building because of the terrain. It is recommended the Unified Government purchase this parcel at market value not only to conserve nature, but to facilitate the addition of a trail. The final section leading up to 8th street and then Seminary Street can exist in public right of way (verify).

The topography of the Edison Elementary section creates the same challenges found at Noble Prentis. Switchbacks are required to bring the grade in line with trail design standards. This network has an advantage as only one street crossing is necessary. Sidewalk improvements can front the elementary school, or exist on the west side of 10th street and an improved crosswalk can be placed towards the entrance of the apartment complex. Where the trail transitions from the off-street portion to the on-



street portion at 8th and Seminary a crossing is not necessary. A new sidewalk running along the north side of Seminary can be placed in the right way and connect the off-street network to the central location.



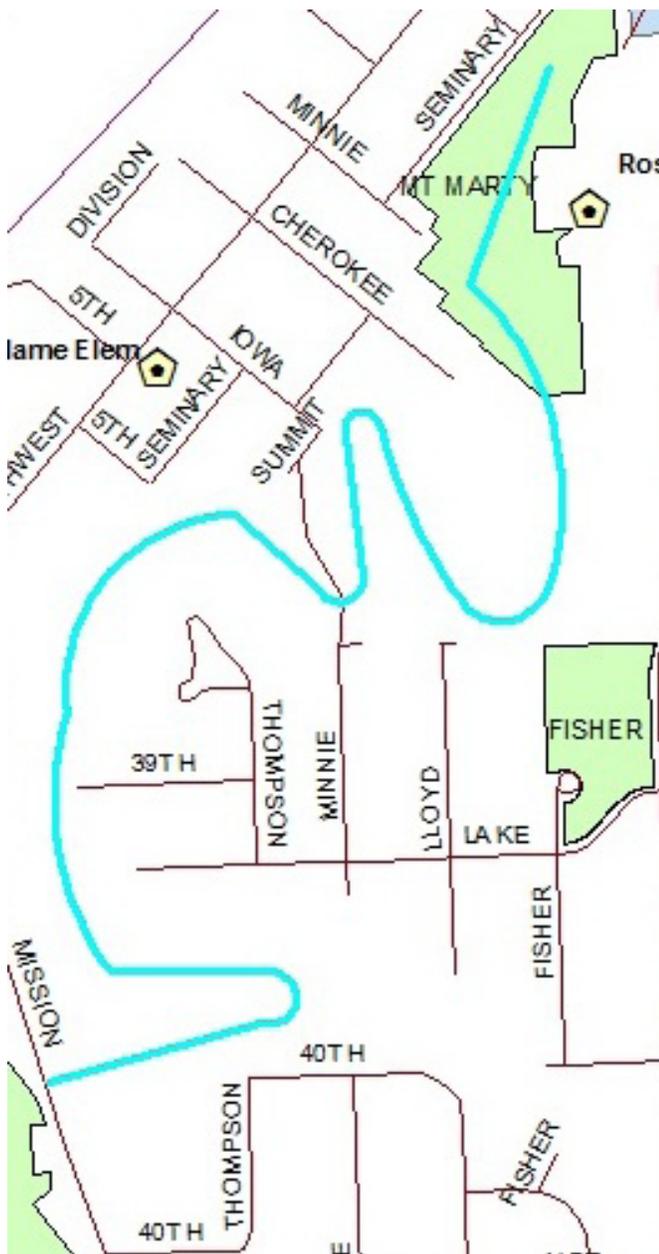
This initial segment has an approximate downhill grade of 22.5 percent.

Switchbacks runs horizontal to the contour of this stretch are necessary to lower the grade to acceptable levels.

Once the switchbacks are in place the next segment, which runs to 8th Place and Seminary Street follows the 850 ft contour and hugs the hill. This creates a relatively long and flat section of the off-street network.



Rosedale Middle School Section



The Rosedale Middle School section has tremendous potential to become a nature laboratory. This trail can exist entirely off-street and follow the contours of the topography making it relatively long and level.

The land just west and below Rosedale Middle School is relatively free from thick vegetation and has a fairly substantial level area approximately midway through Seminary and the school grounds. This is ideal for recreational programs tailored to children organizations or nature hikes. This portion of the trail may be the best suited for members of the community who have accessibility issues. There are also benefits of having the trail connect the school, park and arch all at the same time. Perhaps families of Rosedale or visitors can experience history or enjoy a nice picnic with the inclusion of a way-finding system located at all three locations.

The Rosedale Middle School Section also travels through the most platted parcels of land. Some of these parcels are already owned by the Unified Government. Some of the open space also exists in public right of way.

Major consideration must be given to the crossing at into Rosedale Park at Mission Road. Mission Road is four lanes with a posted speed limit of 30 mph. On any given day, speeds in excess of 40 mph or higher are common. Mission also has on-ramps and off-ramp from I-35 approximately one-half mile from this crossing. Considering the importance of this street to traffic patterns, investment in a pedestrian footbridge or, pedestrian underpass may be the only feasible solution.

Residents have cited crossing Mission Road as the main barrier for pedestrian trips to Rosedale Park from the east.

Contour Map of Rosedale Middle School Section



Since the trail follows the contour of the hillside, there is minimal concerns of grade change.

Map of Rosedale Middle School Land Use



Frank Rushton Section



The Frank Rushton Section is quite unique in that it exists entirely on street. The sidewalk network on 43rd street is well-maintained and adequate for safe travel. There are enhanced crosswalks with pedestrian signals located in front of the school.

Once the route turns north the sidewalks disappear and dirt paths take their place. A sidewalk is advised on the east side of Lloyd running north from 43rd Street. Likewise, a sidewalk is recommended on the north side of 42nd street heading west toward Rosedale Park. Much like the Middle School Segment, the crossing at Mission Road must be given special consideration. It is possible that combining the crossing for the two networks is more economically justifiable.



(Endnotes to Trail Network Analysis Section)

1 Air quality reference.

2 Traffic Speed reference.

3 Explain "green" sector business

4 Explain Boston and Portland's success.

5 The Mid-America Regional Council is a non-profit planning association that serves nine counties and 120 cities in Northeast Kansas and Northwest Missouri. These counties are Leavenworth, Wyandotte, Johnson and Miami County in Kansas; Platte, Clay, Ray, Jackson, and Cass County in Missouri. The current proposal for the Metrogreen® trail network includes the counties of Leavenworth, Platte, Wyandotte, Johnson, Clay, Jackson and Cass.

6 KCMO Citywide Trails Plan

5. Design Guidelines

Hierarchy of Trails

The Rosedale Trail Network will consist of several different kinds of trails. These include:

- Destination trails – (Off-street paved trails)
- Nature Trails – (Off-street unpaved trails)
- Connector trails - (On-street paved trails)
- Improved Sidewalks/Bike lanes

Destination Trails

Destinations trails are the sections of the trail network that are off-street and paved. These trails serve all users and skill types from beginner to advanced. Destination trails are located in areas within natural areas, parks, or greenways. The design of destination trails should be consistent with citywide trail design standards outlined in the Trails KC Plan.¹

Nature Trails

Nature trails are located in natural areas and are designed for more advanced users. They are unpaved, single-track trails and can be located in areas that are more remote, wooded, or topographically challenging. They can be designed for hiking or mountain biking. The Swope Park Trails provide a good example of the design standards for nature trails.²

Connector Trails

Connector Trails are paved trails that parallel city streets. They are intended to connect neighborhood residents to the destination trails. The design should be consistent with the Trails KC design standards for neighborhood connector trails.³

Improved Sidewalks/Bike Lanes

In areas where the space does not allow for connector trails, the street network can be improved with sidewalks and bike lanes. See the bikeways subsection for design standards on bikeways.

Nature Trail Example²

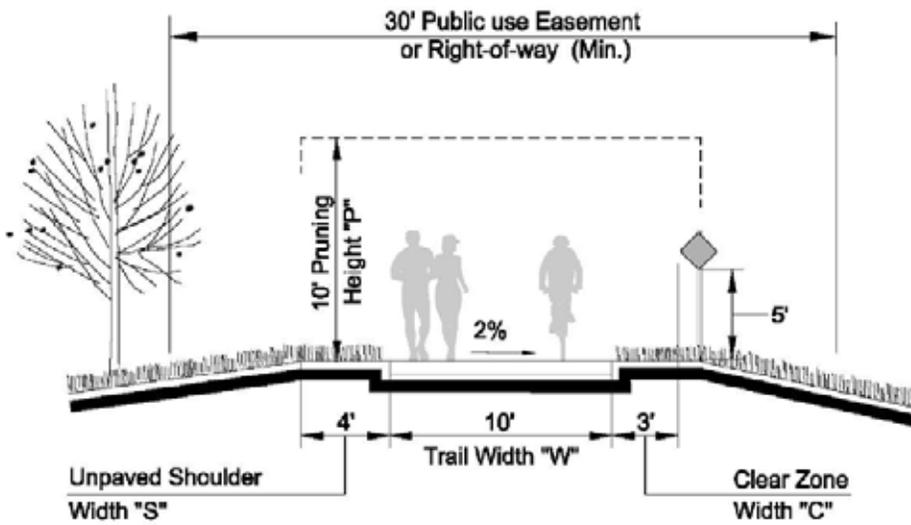


¹ Trails KC, 25

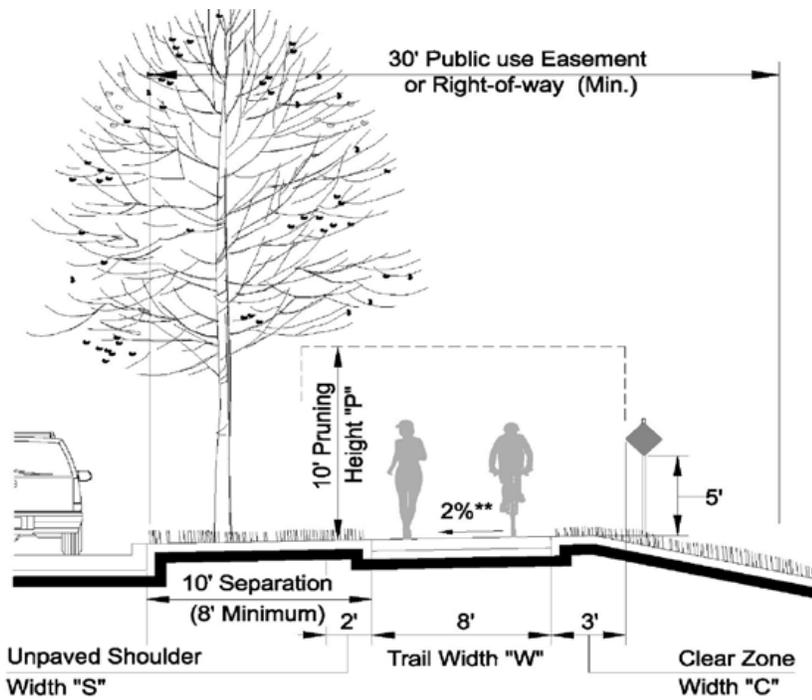
² http://2.bp.blogspot.com/_liQVYPBp-pQ/SNk4vEUe9HI/AAAAAAAAAAk/-QkMF8RN5Mo/s1600-h/beforeduringafter-2.jpg

³ Trails KC, 32.

Destination Trail Standards¹



Connector Trail Standards³



Bikeways

Bikeways benefit communities in many ways including increasing recreational opportunities, improving the transportation system, and reducing air pollution and noise. The Rosedale Green Corridor has an opportunity to incorporate bikeways and increase bicycle safety and ease of use for Rosedale residents and visitors. This system should be designed for recreational use and transportation. In addition, the trails should be designed to serve a broad range of skills. Off-road trails should be designed for recreational bicycle use, especially by less skilled riders such as children. On-road trails should function to increase bicycle safety with bike lanes and signage. These trails should be integrated with the bus system to facilitate multi-modal transportation.

Off-Street Bikeways

Off-street bikeways can be a great recreational resource. According to Frederick Steiner's *Planning and Urban Design Standards*, "Asphalt/bituminous is a common surfacing material for destination trails and can be used in most climates.¹" The slope should not exceed 10 percent. "Generally, trails should be designed for around 20 mph to accommodate most riders. Any higher design speed can encourage riders to go too fast.²" The *Planning and Urban Design Standards* manual also suggests visibility should be at least 50 and preferably 100 feet. On high traffic trails, bicyclists should be separated from walkers. Destination and connector trails can provide off-street bikeways

1 Frederick R. Steiner and Kent Butler, *Planning and Urban Design Standards* (Hoboken, New Jersey: John Wiley & Sons, Inc., 2007), 172.

2 Steiner, 172.

On-Street Bikeways

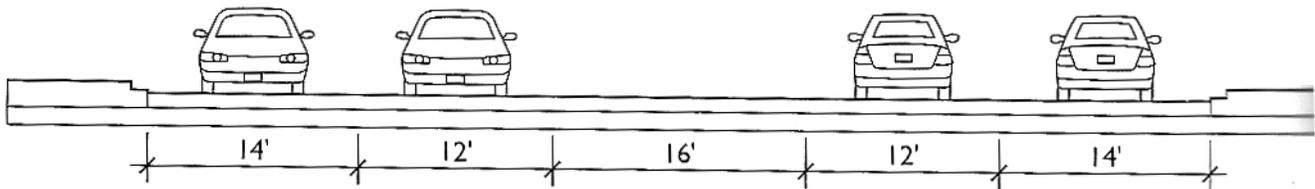
At the stakeholder meeting local residents expressed that they did not feel safe biking on neighborhood streets, especially Southwest Boulevard. Bike lanes can increase the perception of safety, because "bicyclists feel they have a safe space on the road and tend to be more law-abiding and motorists are placed at greater ease knowing where bicyclists are apt to be."³ Bike lanes have also been shown to increase bicycle commuting. "For example, Portland Oregon, has implemented an extensive network of more than 180 miles . . . of on-street bicycle lanes and boulevards. As a result, bicycle use has increased more the 200 percent on its downtown bridges, and bicycle commuting has more than doubled according to local counts and the 2000 census."⁴

Bicycle lanes are "that portion of the roadway designated by 6- to 8-inch . . . striping and bicycle pavement markings."⁵ Bike lanes should be 4-6 feet in width (See "Bicycle and Travel Lanes" below). Bike lanes should especially be created on Southwest Boulevard. Stretches of Southwest Boulevard that currently have four traffic lanes can incorporate bike lanes by narrowing existing travel lanes (see "Integrating Bicycle Lanes into Existing Travel Lanes" below). Removing an existing travel lane could also provide more space for bicycles and/or on street parking. Stretches of Southwest Boulevard that have two travel lanes and already have on street parking can also incorporate bike lanes by narrowing the travel lanes.

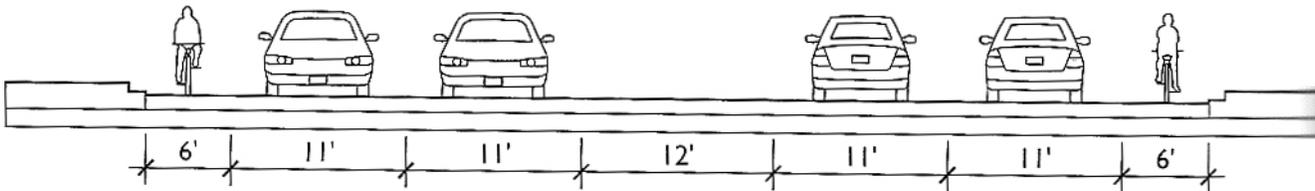
3 Steiner, 170.

4 Steiner, 171.

5 Steiner, 170.



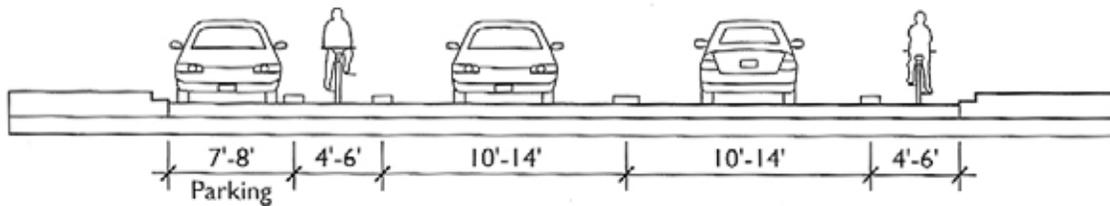
Before



After

INTEGRATING BICYCLE LANES INTO EXISTING TRAVEL LANES

Source: Oregon Department of Transportation 1995.



BICYCLE AND TRAVEL LANE DIMENSIONS

Source: Alta Planning & Design 2004.



Intersections are a particularly dangerous place for bicycles. Collisions between right-turning cars and bicyclists are a concern. Portland, Oregon has recently installed “bike-boxes” to address this risk. The bike boxes work by reserving space for cyclists in front of the automobiles. The bike boxes also work by raising awareness among motorists of the possibility of the presence of bicyclists.



Stu Tomlinson, “First of 14 proposed bike boxes complete,” *The Oregonian*, March 17, 2008. (http://blog.oregonlive.com/breakingnews/2008/03/city_completes_first_of_14_bik.html)

Bike parking should also be considered as part of the design. The Urban Design Compendium, a resource for urban design, points out, “There are numerous designs for cycle parking. They should always be considered with other street users in mind, and as an integral part of the overall street layout. Cycle racks added as an afterthought are generally inconvenient and under used.¹” The bike lanes should be designed to be consistent with the Urban Design Guidelines.

Bike lanes may not be necessary where the bicycle trail coincides with local roads. However, appropriate bike route and “share the road” signage should be installed to protect bicycle safety.

¹ Ilewelyn - davies, *The Urban Design Compendium* (London). (<http://www.urbandesigncompendium.co.uk/public/documents/UDC1FULL.pdf>). 73.

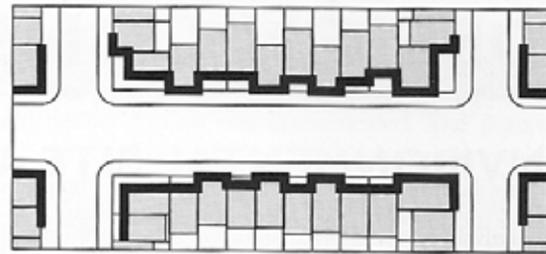
Downtown

These design guidelines should be applied to both infill development and redevelopment in the downtown district (see map on page 3). Many of these recommendations can be implemented when the trail system is constructed through this area. Other recommendations can guide developers as they redevelop the downtown district.

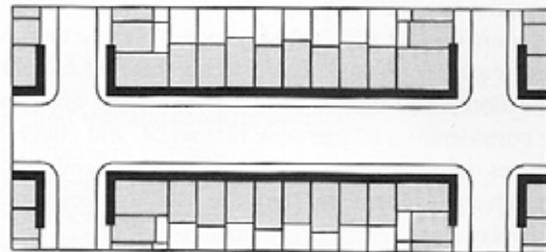
Consistent Street Façade

A consistent Street Façade is an important aspect of a walkable downtown district. All buildings that front onto Southwest Boulevard should have the same set-back from the street. This creates a defined sense of place and creates a space that pedestrians feel comfortable in. This pattern of development is prevalent on many “main streets” and downtown developments across America. See the “Street Edge” graphic for an example of a inconsistent façade and a consistent façade.

Image: Steiner, 261.



Inconsistent Façade



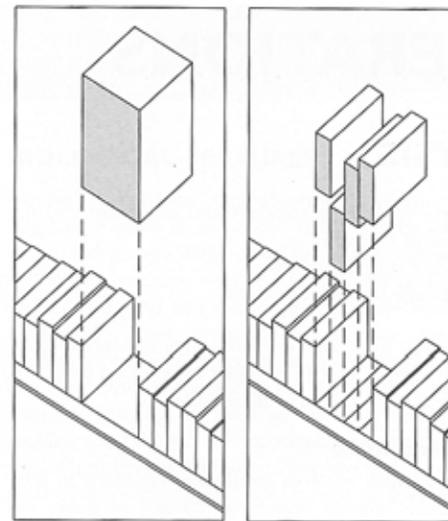
Consistent Façade

Maintain ground-floor façade within an infill project to define a consistent street edge.

Compatible Massing

Massing refers to the scale of buildings on a street. The existing buildings on Southwest Boulevard have slim frontages. Infill buildings should also have slim frontages. If a business must have a larger building, it can vary the style of its frontages to imitate the existing pattern.

Image: Steiner, 261.



Incompatible Massing **Compatible Massing**

Articulate massing to ensure the façade is compatible with surrounding buildings.

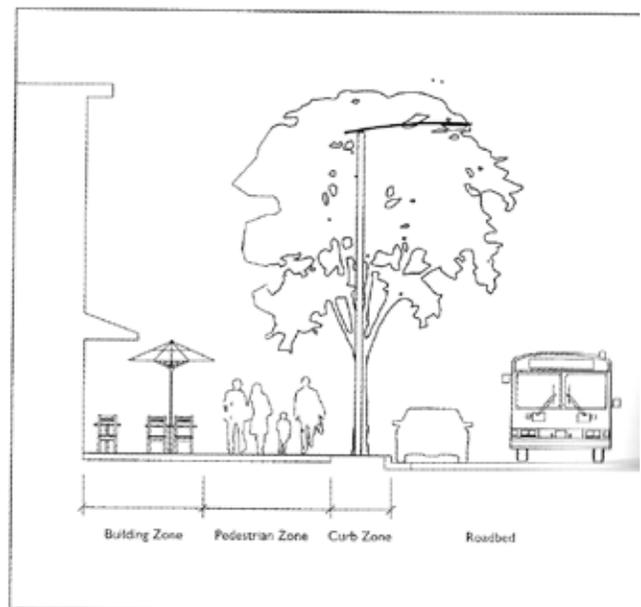
INFILL MASSING

Source: SMWM.

Public Realm

The public realm should be designed with wide sidewalks, spaces for outdoor seating in front of buildings, and a curb zone with amenities such as planters protecting the pedestrians from traffic.

Image: Steiner, 286.



SIDEWALK ZONES

Source: SMWM.

Windows and Doors

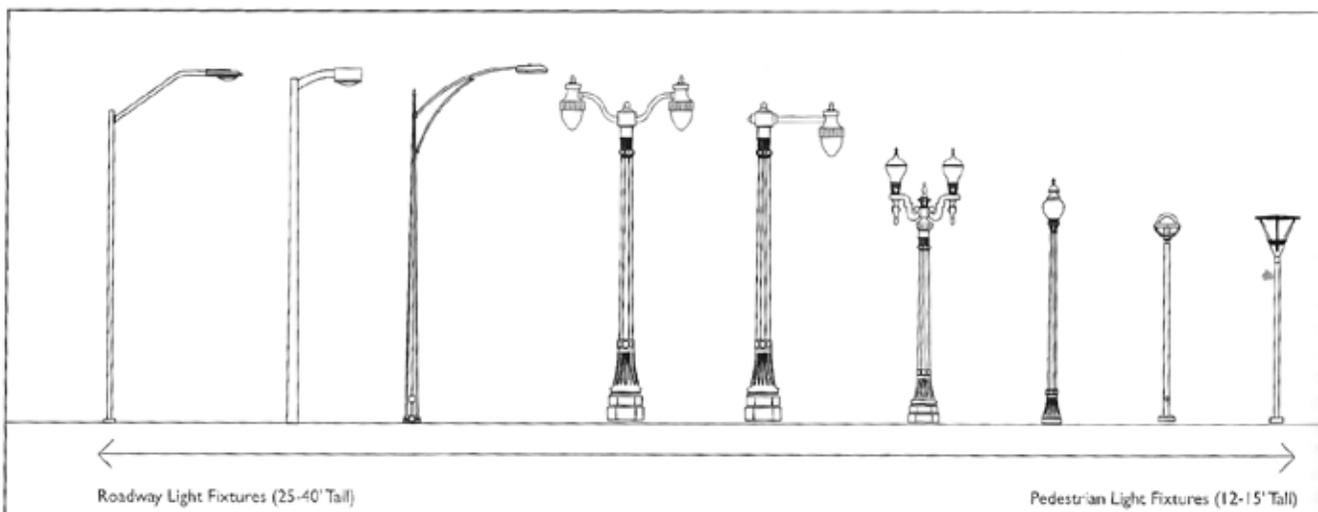
Retail uses should occupy the first floor of buildings in the downtown district. The first floor should have a door that fronts directly onto the street. At least 60% of the storefronts should be made of clear glass. This creates a relationship between the store and the public space on the street.

Image: Atelier_Tee. *Galena Storefront*. February 14, 2005. Licensed under Creative Commons Attribution-Noncommercial 2.0 Generic. (http://www.flickr.com/photos/atelier_tee/163965848/)



Lighting

Lighting in the downtown district is important for pedestrian comfort and safety. Street lights in the downtown district should be designed for pedestrians, as represented on the right in the light fixtures diagram below.



LIGHT FIXTURES

Source: SHWM

Image: Steiner 286.

6. Natural Ecology

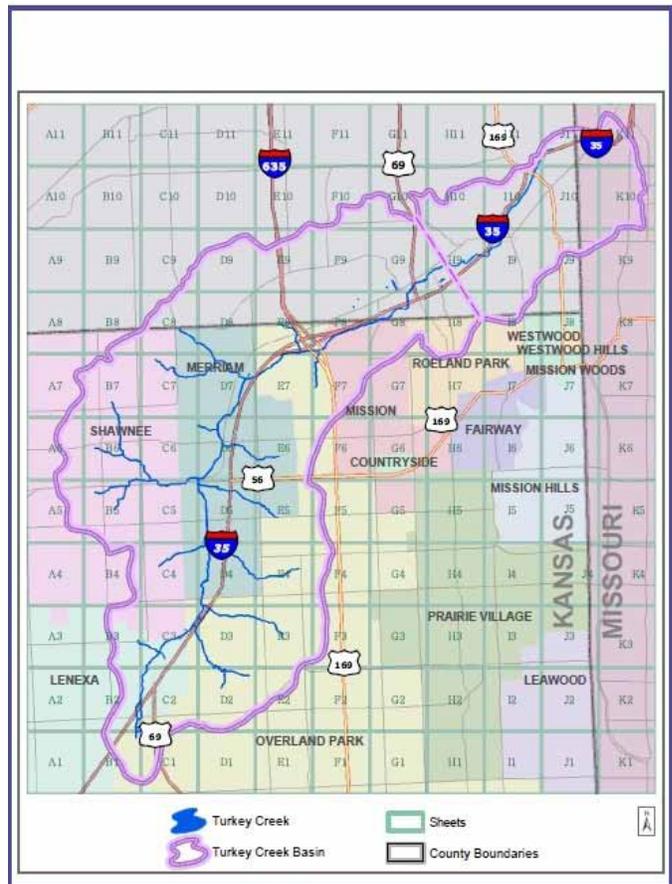
Turkey Creek

The Rosedale Neighborhood is located mostly within the Turkey Creek Sub-watershed. Rosedale is a combination of single and multi-family residential, commercial, and industrial, rail yard, schools, improved open space, natural open space areas as well as Turkey Creek. These areas combine to make Rosedale a diverse and somewhat unique neighborhood located in the Kansas City, Kansas metropolitan area.

In many ways Rosedale is a typical suburban neighborhood until you add in the extreme topography and a large amount of unimproved, forested area in several, noncontiguous areas. The extreme slopes of the topography present a special challenge for human development, accessibility, walkability and sustaining the unimproved areas within the neighborhood.

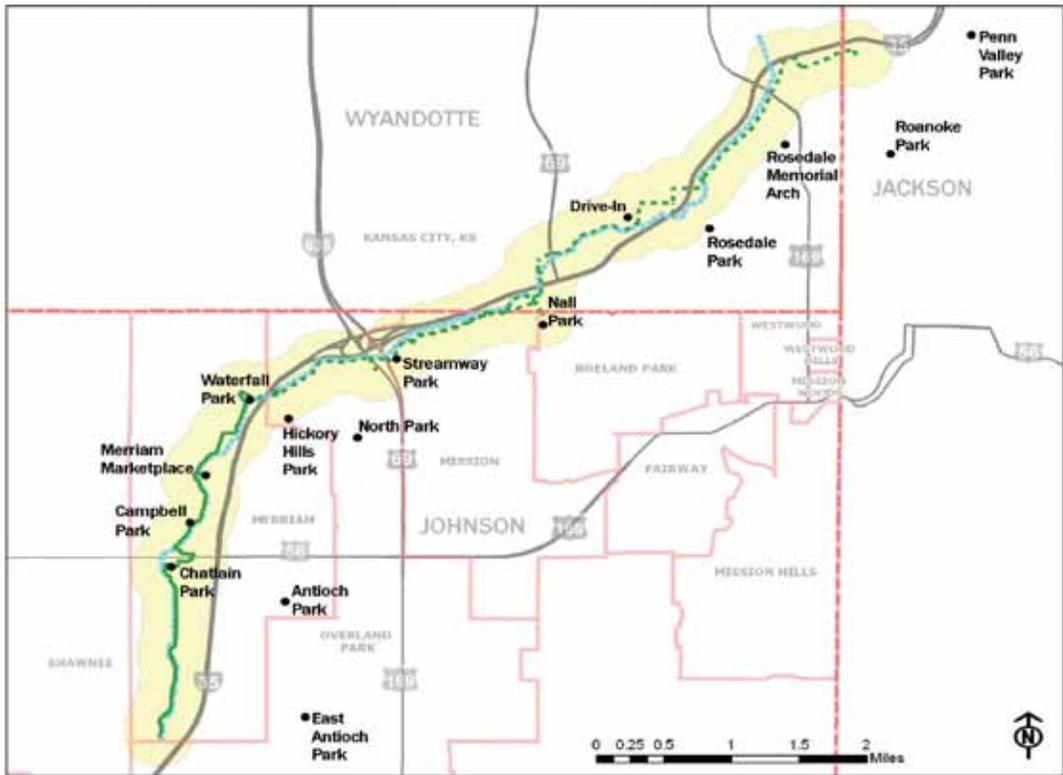
Turkey Creek, its use as a storm drain system and its proximity to the rail yard present another special challenge within the neighborhood. Turkey Creek has been channelized at points; this channelization causes faster water flow, increased sediment load and a decrease in the natural ability of the stream to filter out pollutants and sediment. The Turkey Creek Watershed suffers from the same pollution issues as many urban streamways. Elevated levels of bacteria, elevated nutrient levels and high levels of dissolved solids (sediment) are all issues in the watershed as well as other trace elements from both point source and non-point sources. These trace elements arise from problems such as wastewater treatment effluent, stormwater runoff, leaky sewage lines, septic tanks and atmospheric deposits¹.

The Turkey Creek sub-watershed is included in the Kansas City area's MetroGreen Streamway Corridor Plan. MetroGreen is an interconnected system of public and private natural areas, greenways and trails linking together communities throughout the Kansas



1 www.marc.org/watershed

Figure 2 MetroGreen Turkey Creek Streamway map. Mid America Regional Council (MARC)



City metropolitan area. The plan covers Leavenworth, Johnson and Wyandotte counties in Kansas and Cass, Clay, Jackson and Platte counties in Missouri.

Benefits of MetroGreen include cost-effective improvement of air and water quality; stabilization of streams; reduction of flood risks; protection of wildlife habitat; opportunities for biking, hiking and walking; and ultimately, the formation of a framework around which more sustainable urban development patterns can occur. The purposes of the MetroGreen Streamway Corridor Plan are to restore lost assets of the ecosystem, connect people to nature and connect the land to the people². This is both a project and a process that has been in production and evolution since 1991.

This plan includes Rosedale Park and Rosedale Memorial Arch. The purpose of this plan is a regional greenway system that stretches ten miles through parts of Wyandotte and Johnson Counties in Kansas. In Wyandotte County the plan includes a one mile segment that is part of a U.S. Army Corps of Engineers watershed restoration plan. The MetroGreen trails system is included in the Unified Government's comprehensive plan. This project will Prevent flood damage, maintain and improve water quality, provide streambank stability, provide habitat for wildlife, and promote environmental education.

² MetroGreen, Turkey Creek Streamway Corridor Fact Sheet, July 2009. Mid America Regional Council (MARC)

Flora and Fauna

The natural green spaces of Rosedale are home to a variety of trees such as Poplar, Beech, Ash, Maple and Aspen as well as countless species of shrubs, plants and grasses. Also making these areas home are many animal species such as Silver Fox, Skunk, Raccoon, Opossum, Squirrel, Robin, Sparrow, Finch as well as Deer, Cardinal and Blue Jay. All of the natural species of the area will greatly benefit from continued care of the primitive natural areas of the Rosedale Neighborhood. New plantings that occur in natural areas or in improved areas should be of native varieties to help care for the native animal population, reduce maintenance and care needs and prevent the spread of invasive species.



Examples of flora and fauna in the Rosedale Neighborhood

7. Public Health

Over the years Americans have move away from an active lifestyle of walking and biking to neighborhood conveniences and activities, to a sedentary lifestyle of staying home or driving where ever they go.

This change has been brought on by suburban sprawl and the introduction of big box and chain mega stores such as Wal-Mart, Costco and Lowes. Suburban sprawl necessitated the need for vehicular transportation by moving residential areas to the outskirts of the city, away from conveniences such as shopping. The introduction of big box and mega chain stores further necessitated the move by offering something that locally owned businesses could not compete with; lower prices and the convenience of one stop shopping. This move to a sedentary lifestyle has cause problems such as obesity and heart disease to greatly increase in the twentieth and twenty first centuries.

With the advent of home entertainment and communication items such as home video games, computers and cell phones creating inactivity during growth years, childhood obesity has become just as much of an issue as adult obesity. One of the most effective public health strategies is to encourage active transportation (walking, cycling and variants, such as roller skating).¹

Though the debate about a sedentary lifestyle and increased health risks rages on, current research indicates that regular doses of moderate physical activity provide many benefits including; a fifty percent reduction in the risk of developing heart disease, a fifty

percent reduction in the risk of becoming obese and a twenty percent reduction in common forms of cancer such as breast and colon².

According to a U.S. Department of Health and Human Services study, on average engaging in about one and a half hours of physical activity a week results in about a twenty percent reduction in the risk for all causes of mortality compared to physical activity of less than a half hour per week³.

This physical activity does not have to be strenuous. Just increasing your physical activity, such as walking for twenty minutes each evening instead of watching television, creates the necessary change in the amount of physical activity. Only twenty minutes each evening adds up to over two hours per week. A very small amount of time for increased physical well-being. Increased walkability and the creation of trails in the Rosedale neighborhood would be part of the catalyst needed for many people to increase their physical activity and thereby increase their health as well as decrease risks.

The fight against obesity and a sedentary lifestyle begins at an early age. Childhood obesity in America is at an all time high. Even U.S. departments such as the U.S. Forest Service are recognizing that childhood obesity is a problem and have Contributed more than half a million dollars to a program called, More Kids in the Woods, for projects that promote active lifestyles and connect kids to nature⁴.

¹ Litman, Todd. (2010). Healthy Community Planning – What's It Worth? Retrieved April 10, 2010, from <http://www.planetizen.com/node/43812>

² Litman, Todd. (2010). Healthy Community Planning – What's It Worth? Retrieved April 10, 2010, from <http://www.planetizen.com/node/43812>

³ U.S. Department of Health and Human Services. Physical Activity Guidelines for Americans. Retrieved May 5, 2010, from <http://www.health.gov/paguidelines/report/>

⁴ Daily News Staff Report. Forests as a Tool to Fight Obesity. Retrieved May 5, 2010, from <http://www.summitdaily.com/article/20100505/NEWS/100509917/1078&ParentProfile=1055>

Whether it is fighting childhood or adult obesity, decreasing health risks, increasing activity for a healthier lifestyle or just making it easier for residents to navigate the neighborhood without the use of a motorized vehicle, creating trails, walkable neighborhoods and community programs are all great ways to start the process. The Rosedale Development Association and the Rosedale Healthy Kids Initiative are on the right track, making strides towards a health Rosedale Neighborhood.

8. Revitalization and Redevelopment

The trail system could have a significant impact on Rosedale's economy. It is likely that much of the trail system will use the existing street network. Where the trail system and street network overlap, there is an opportunity for using urban design guidelines to improve the public realm. This will make Rosedale a more appealing place for shopping and may increase the consumption of retail goods.

Creating a "destination" and increasing consumption is a recognized economic development strategy. In an article titled "Consumption Driven Urban Development," Ann Markusen comments, "local spending on parks, recreation, cultural facilities and programming, and good urban planning, as inducements for the attraction and retention of residents, may be as important to economic development as export-oriented programs."¹ The mechanism works as follows: By making location decisions regarding consumption, individuals can contribute to the attractiveness of certain locations in the city. These areas attract/retain/develop highly skilled residents. Firms and "good jobs" follow.

In addition to retaining and attracting skilled workers, the trail system will improve the quality of life for the low skilled segments of the workforce. For example, an increase in retail demand will lead to more entry level jobs for low-skilled workers, increasing employment and cutting down commute times. The trail system will be integrated into the transportation network, making it easier for workers to commute to jobs throughout the metro.

The impact of the trail system on Rosedale's economy can be measured by tracking the employment in different industries and occupations. The County Business Patterns contains employment data for establishments in the Rosedale zip code (66103).

Employment

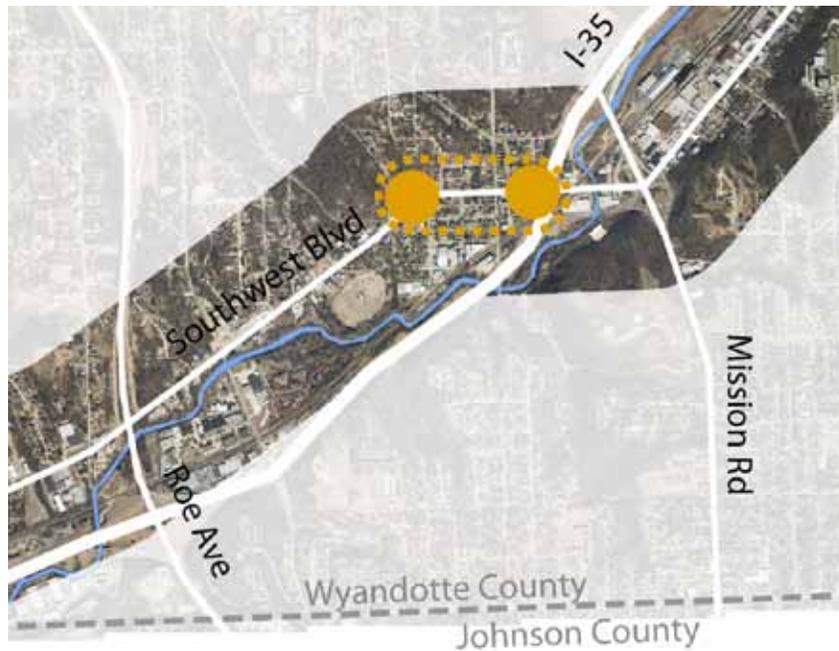
Rosedale (zip code 66103) had 292 total establishments, 10,348 total paid employees, and a total of \$107,262,000 paid in wages. The top industry sectors for employment were restaurants, plumbing and HVAC contractors, drywall and insulation contractors, commercial building constructors, residential lessors, religious organizations, temporary help services, and the hospital.² This mix of industries represents a fairly diverse economy in Rosedale. Rosedale is already home to restaurants, and there is an opportunity to capture more of the income of the area in local retail.

Downtown District

An analysis of the existing building stock and use patterns reveals an opportunity to establish a downtown district in Riverside. This district can become a destination and capture more of the wages paid by employers in the area, keeping this money in the local economy. The following map illustrates the location of the most walkable, commercial-oriented nodes in the neighborhood. There is an opportunity to develop mixed-use areas in this downtown district. The trail system can be planned through this district; it can act as a catalyst for transforming the district into a destination. The Downtown Design Guidelines can further reinforce the district as a destination.

¹ Markusen, Ann and Greg Schrock. 2009. "Consumption-Driven Urban Development." *Urban Geography*, Volume 30, No 4: 1-24.

² U.S. Census Bureau. 2007 County Business Patterns



Future Opportunities

The trail system could act as a catalyst for a larger economic development plan. This consumption driven economic development strategy could be paired with a direct human capital development strategy. For example, job training and continuing education programs could increase the economic opportunities for residents in the neighborhood. For such a strategy to be successful, planners should understand the economy of the region by identifying the competitive industries through a location quotient and shift-

share analysis. Employment in these competitive industry sectors can be projected for the near future. Occupational data can provide a more complete understanding of the growth of different kinds of jobs. Interviews with local firms and institutions can supplement this quantitative understanding. Partnerships with local firms and institutions (i.e. KU Med, local firms, schools systems, churches) should be established.

1



2



3



Realizing the Vision

These diagrams illustrate how the trail system can lead to revitalization and redevelopment in the Rosedale neighborhood.

1. A trail head is built in the downtown district. The trailhead includes signage that maps the trail system. This creates a destination in the downtown district.
2. The street is repaved to incorporate bike lanes and onstreet parking. The sidewalks and public realm are enhanced according to the design guidelines.
3. The improved built environment and trailhead destination brings people to downtown Rosedale. The increased pedestrian and bicycle traffic creates more demand for restaurants, cafes, and retail. Eventually infill redevelopment brings additional residents, offices, and retail to downtown Rosedale.

9. Implementation

Implementing the Rosedale Green Corridor Plan will require drawing resources from federal and local sources. The plan provides a framework and is an important step toward securing grants and organizing local groups and volunteers.

Federal Programs

Bringing the Rosedale Green Corridor to reality will require securing funds from federal programs. The HUD sustainable communities initiative is one program that provides funding for trails and green corridor projects. It may also be possible to find funding for urban parks through HUD and other federal organizations.

National Groups

There are several national groups that provide technical assistance for trail development and natural ecology/ conservation easements. The Trust for Public Land, the Nature Conservancy, and Rail-to-Trails Conservancy are examples. Networking with these groups will be a valuable resource as this project moves forward.

Local Groups

Identifying a network of allied organizations to champion the Rosedale Green Corridor will be an important step toward implementation. Rosedale Development Corporation, KC Health Kids, KC bike federation, outdoors groups, existing natural resource agencies and nature centers are some potential groups to contact. These groups can organize teams of volunteers to help build and maintain the trail network.

Rosedale Land Use Study

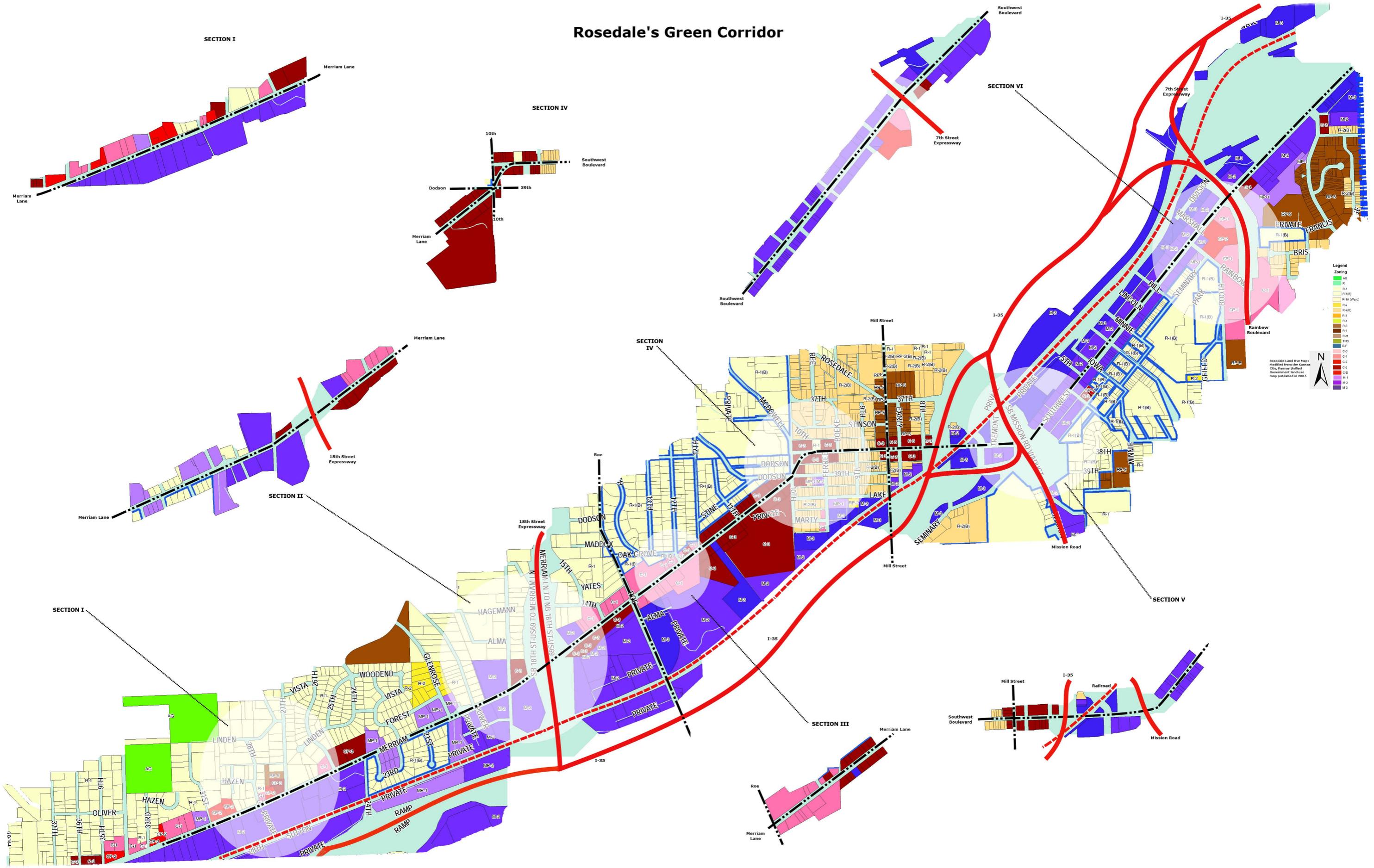
June, 2010

Designed by John Gary

On behalf of:

The Rosedale Development Association and community of Rosedale

Rosedale's Green Corridor

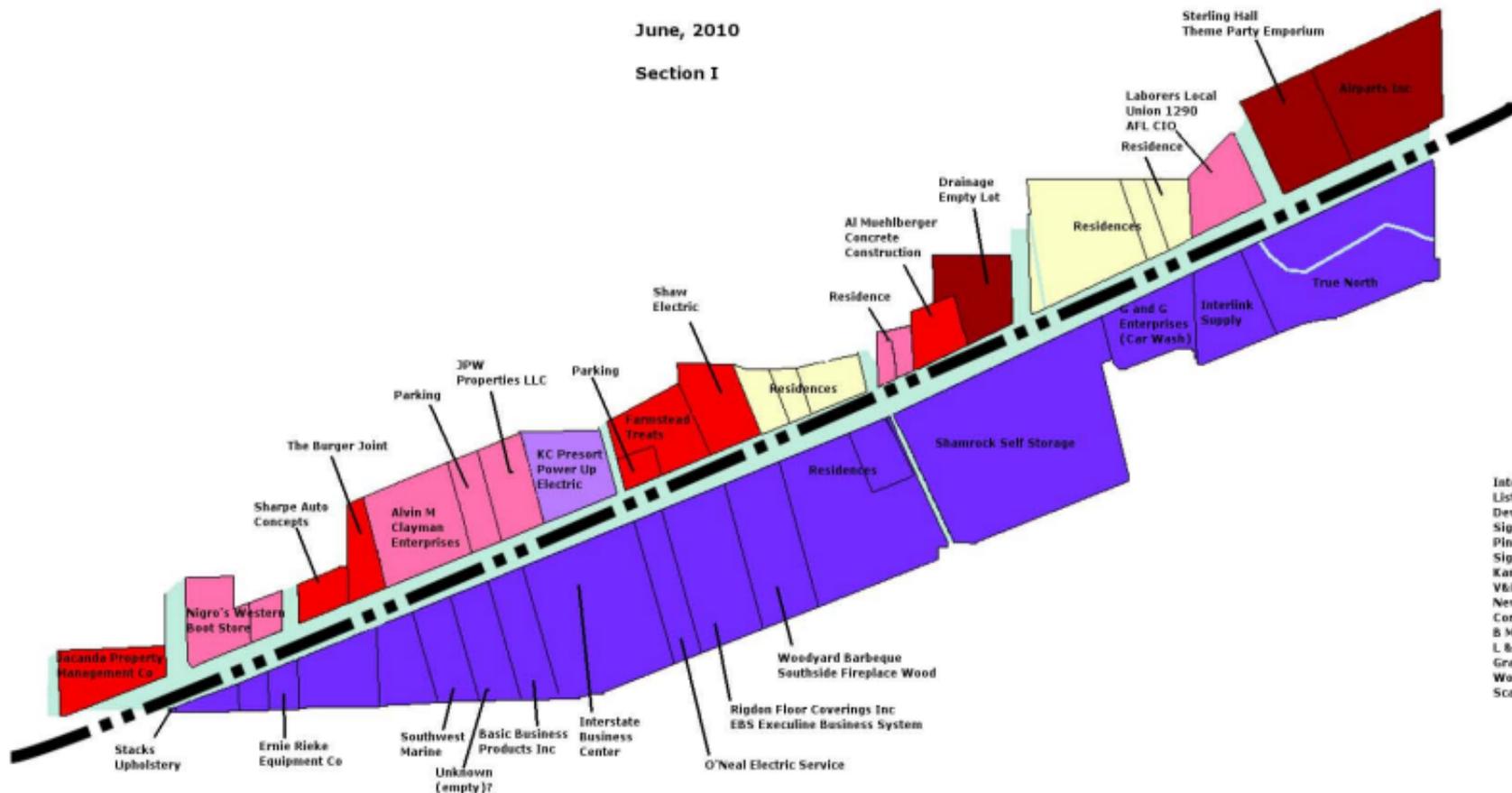


June, 2010

Section I

Merriam Lane

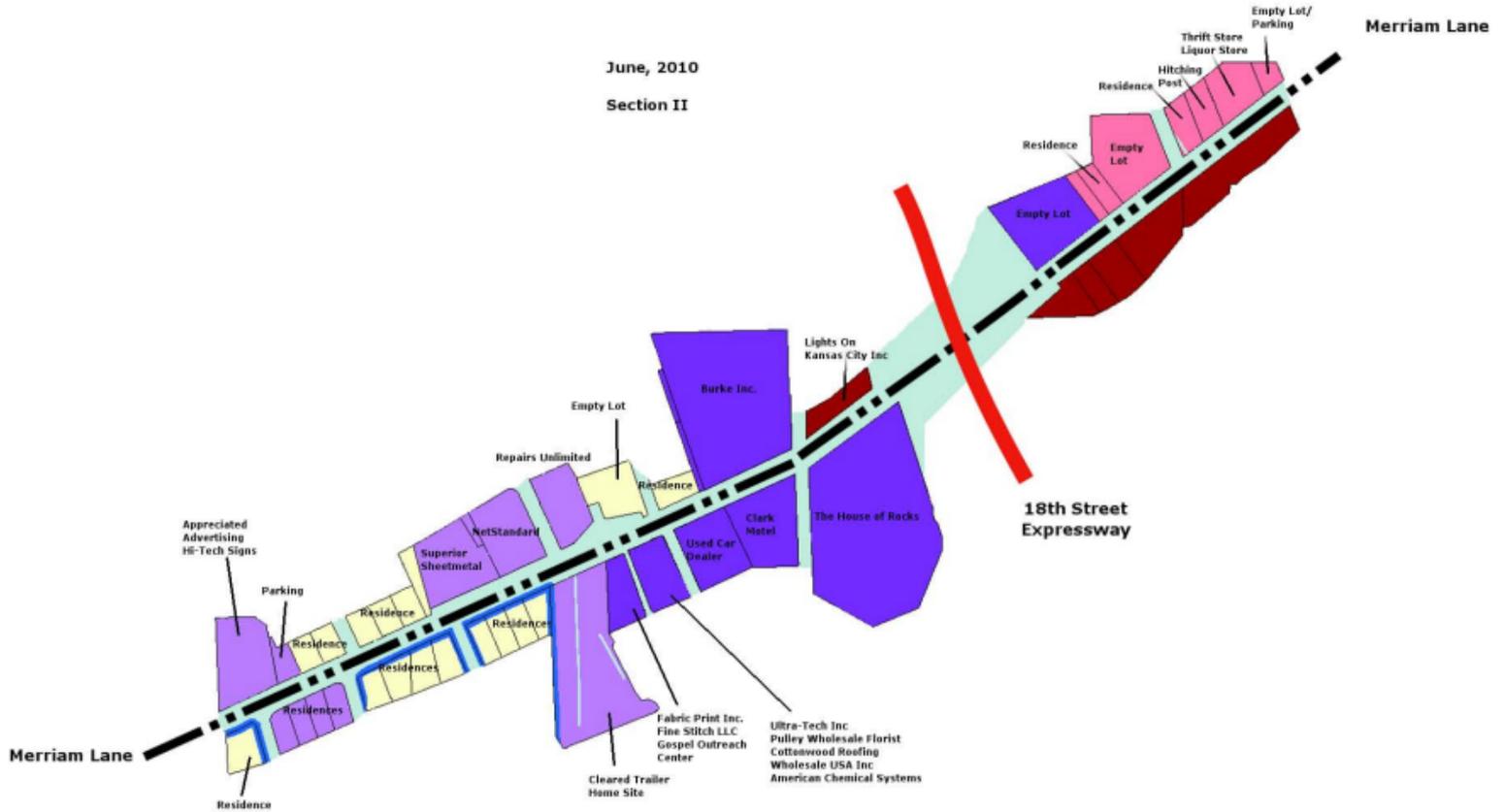
Merriam Lane



- Interstate Business Center Listing:
- Devine Janitorial Service
 - Signature Flooring
 - Pinnacle Plotting and Supply
 - Signco
 - Kansas City Premier
 - V&P Racing
 - New Vision Photography
 - Corporate Printing Services
 - B Mfg
 - L & S Foundation
 - Grabill Plumbing
 - Woodward Clyde Consultants
 - Scan Top North America

June, 2010

Section II



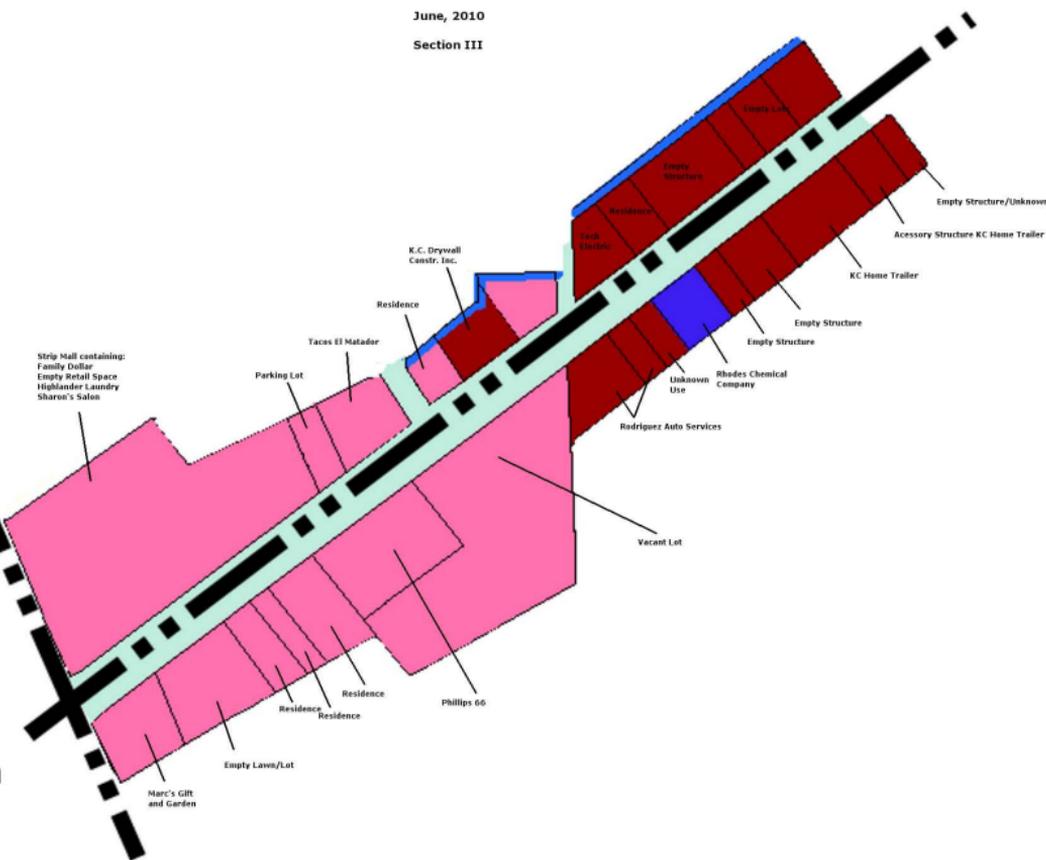
Merriam Lane

June, 2010

Section III

Roe

Merriam Lane



Strip Mall containing:
 Family Dollar
 Empty Retail Space
 Highlander Laundry
 Sharon's Salon

Parking Lot

Yacas El Matador

Residence

K.C. Drywall
Constr. Inc.

Phillips 66

Rodriguez Auto Services

Lincolnville
Use

Rhodes Chemical
Company

Empty Structure

Empty Structure

KC Home Trailer

Accessory Structure KC Home Trailer

Empty Structure/Unknown

Empty Lot

Empty Structure

Residence

Empty Structure

Empty Lot

Empty Lanes/Lot

Marc's Gift
and Garden

Residence

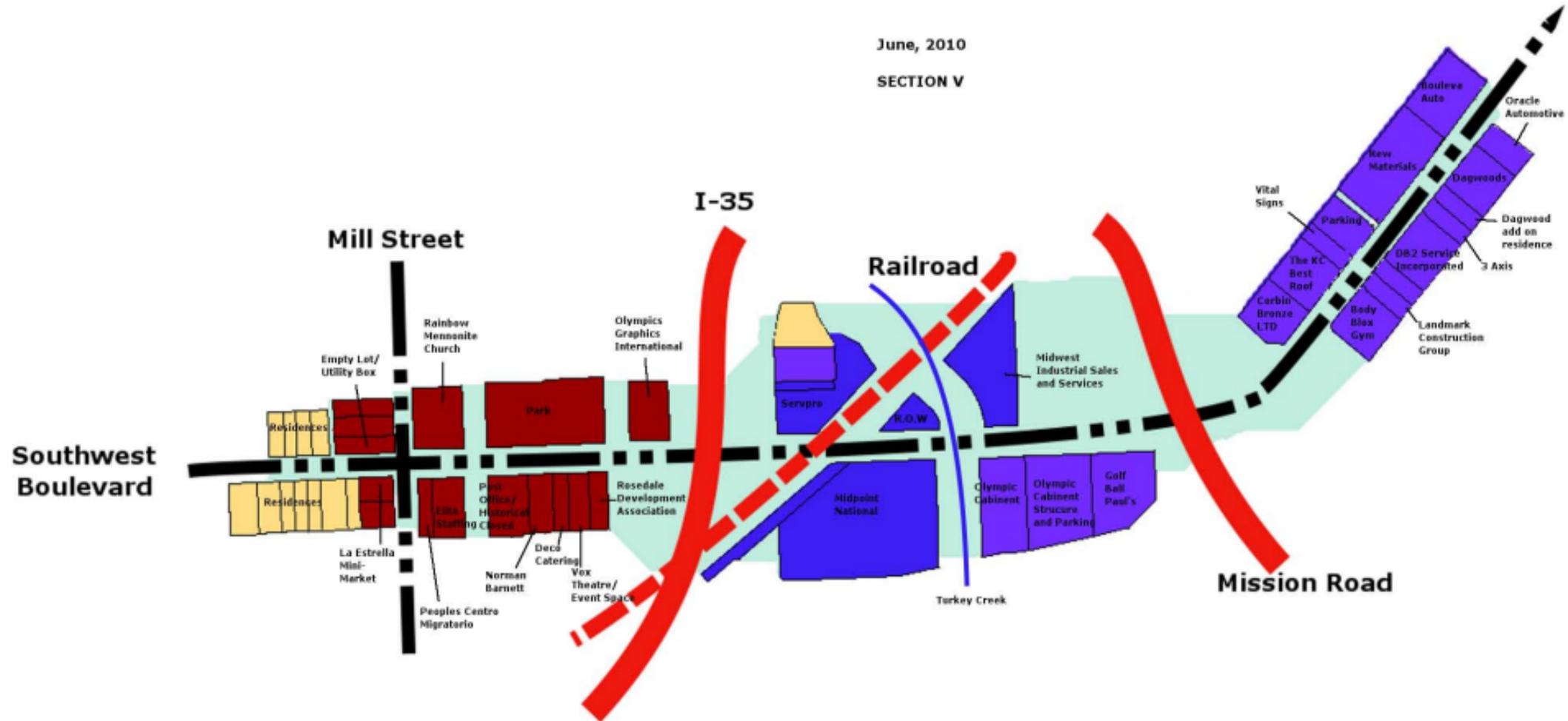
Residence

Residence

Vacant Lot

June, 2010

SECTION V



Mill Street

I-35

Railroad

Southwest Boulevard

Mission Road

- Empty Lot/Utility Box
- Residences
- Residences
- La Estrella Mini-Market
- Peoples Centre Migratorio
- Rainbow Menonite Church
- Park
- Olympics Graphics International
- Reseda Development Association
- Post Office / Historical
- Elite Staffing
- Norman Barnett
- Dece Catering
- Vox Theatre / Event Space

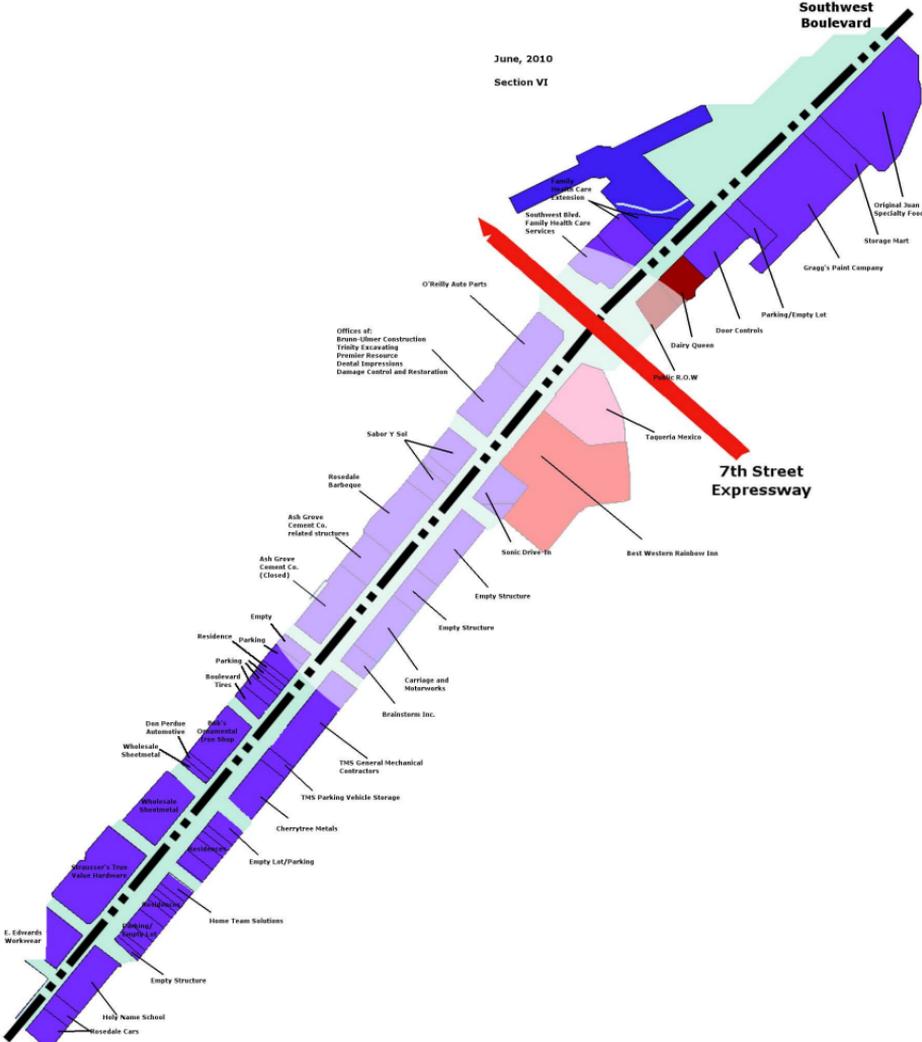
- Serypro
- R.O.W.
- Midpoint National
- Olympic Cabinet
- Olympic Cabinet Structure and Parking
- Golf Ball Pail's
- Midwest Industrial Sales and Services
- Turkey Creek

- Bouleva Autos
- Raw Materials
- Dagwoods
- Dagwood add on residence
- 3 Axis
- Vital Signs
- Parking
- The KC Best Roof
- Carbin Bronze LTD
- Body Box Gym
- DB2 Service Incorporated
- Landmark Construction Group
- Oracle Automotive

Southwest Boulevard

June, 2010

Section VI



Family Health Care
 Esthetics
 Southwest Blvd.
 Family Health Care
 Services

Original Jean
 Specialty Foods
 Storage Mart
 Grogg's Paint Company

O'Reilly Auto Parts
 Deer Controls
 Dairy Queen
 Parking/Empty Lot

Offices of:
 Brun-Silmer Construction
 Utility Excavating
 Precor Resource
 Dental Impressions
 Damage Control and Restoration

7th Street Expressway

Saber Y Sol

Tanneria Mexico

Rosedale Barberage

Sonic Drive Thru

Best Western Rainbow Inn

Ash Grove
 Cement Co.
 related structures

Ash Grove
 Cement Co.
 (Closed)

Empty Structure

Empty

Empty Structure

Residence

Parking

Parking

Embleary
 Tires

Carriage and
 Motorworks

Brainstorm Inc.

Don Perdue
 Automotive

Don's
 Ornamental
 Iron Shop

Wholesale
 Shootmetal

TMS Central Mechanical
 Contractors

TMS Parking Vehicle Storage

Cherrytree Metals

Empty Lot/Parking

Wholesale
 Shootmetal

Wholesale
 Shootmetal

Wholesale
 Shootmetal

Home Team Solutions

Empty Structure

E. Edwards
 Workwear

1100 Name School

Rosedale Cars

Southwest
 Boulevard



Environmental Lab

Rosedale Development

Stephanie Drake

Environmental Lab

In the industrial revolution, planning evolved out of a need for urban living improvements. Planning is in constant battle in the urban core areas trying to keep up with the problems urban development presents. So many of the problems faced in urban areas will be ongoing until the roots of educating the citizens on public issues, such as environmental hazards, is addressed. The youth of the community, who will continue to invest in the city, should be viewed as a tool to work on solving urban environment issues from the base. A successful plan hears and implements the public voice making sure all residents are heard, including the youth. By investing in the future generations, there is an insured future for the city core. Environmental knowledge obtained by school aged children also becomes a media for educating the families of the children resulting as an immediate

form of information sprawl. This is particularly helpful for non-English speaking homes which pose a challenge to disperse comprehensible environmental information to. Through and environmental lab, a natural discovery center, evolves the solution to lack of environmental awareness in the urban core. Taking a holistic view of a community benefits both the community and the planner.

Rosedale Environmental Action Lab (R.E.A.L.)

The lab should be titled to attract the main users of the lab. R.E.A.L. lends itself to a name which is fun and catchy for the audience it is intended for.

Background

Research is showing the lack of a child's exposure to the natural world is in correlation to rising numbers of childhood obesity, depression, and attention disorders. Rosedale's master plan is created with community health in mind.

Children who interact with nature experience higher levels of successful development. They reach higher levels of tests of concentration.¹ Urban children who are already at risk of behavior problems, tend to exert more self discipline especially in impulse inhibition and delayed gratification.² Children who have the opportunity to play in an arena of the natural world also experience greater cognitive functioning.³ With the hectic activity life in the urban core can bring, "green" areas also relieve the stress accumulated, acting as a buffer for life stress.⁴ With all the benefits to be considered, green spaces that children can experience and manipulate with their own hands should be considered essential to an urban community. On the principle that connecting kids to nature is beneficial, the environmental lab would provide a 'hands on' learning environment where students can discover healthy foods and their sources.

Rosedale is unique for an urban community in that it is built upon bluffs which are difficult to develop. The bluffs adjacent to the school are densely landscaped and lend themselves to be urban

¹ (Andrea Faber Taylor, 2002)

² (Wells, 2003)

³ (Wells N. M., 2000)

⁴ (Wells N. M., 2000)

woodland of sorts. To incorporate this resource, trails will be added throughout the woodland connecting two important nodes in the locality; the environmental lab and the historical Rosedale Arch. The trails can be used for field study and interaction with the natural world as part of the outside portion of the lab.

Guiding Principles

In staying with the goals of the Green Corridor, the environmental lab will prove to be a resource center for local environmental issues and to promote healthy living in the community

- **Education is the key to behavioral change.** To encourage a change in behaviors, students must know why the change is beneficial.
- **Nature in a reachable location.** Provide an urban environmental lab in the vicinity of Kansas City residents. The lab would be a node on the trail system promoting physical activity and reinforcing the exposure to the natural resources of Rosedale.
- **A promotion of healthy eating.** In partnership with 4-H, an afterschool program will promote healthy eating. A school garden will expose the students to healthy foods and make the correlation to where the foods originate.
- **A real world experience curriculum.** Through both, traditional curriculum and experience, students of the urban core will have the opportunity to explore their environment's impact on them and their health and also the impact they have on their environment. The curriculum would be based on Kansas State Standards.
- **To increase environmental awareness.** By experiencing the environment on a regular basis, students will be able to make the connection of the impact landscaping practices have on their gardens and watershed. Through this learning, they will be encouraged to minimize their impact on the natural world.
- **A central gathering node.** This plan seeks to use the environmental lab, the athletic complex and the school as a community gathering space; creating a sense of community. The community will benefit from a community ground available for social networking.
- **A useable space.** The lab would use a underutilized space and create a working area that is capable of use for the entire school year and possibly in the summer months through camps or workshops for the community.
- **An adaptable environment.** Outdoor activities can be a problem in the harsh climate of the midwest. As an indoor/outdoor facility, the lab would not be weather inhibited.
- **An expandable program.** The environmental lab would serve the middle school students. In addition, the program can be adjusted to include all Rosedale district students, including the elementary schools. Eventually, the program would act as a field trip destination for other school districts located in the urban core.

Physical Space

The environmental lab is to be part of Rosedale Middle School located at 3600 Springfield Street, Kansas City, KS. The middle school was originally Rosedale's high school. The high school curriculum included auto mechanics and woodworking. The space which accommodated those curriculums is currently being used as a testing center for a short time during the school year and could be put to better use by a facility which is used year round.

- Approximately 3500 sq. ft. indoor.
- Approximately 16 acres outdoor.
 - Approximately 13 acres in public domain (Parcel 215901, Parcel 902317)
 - Approximately 3 acres privately owned (Parcel 123540)
- Indoor space can be broken into multiple classroom/learning centers.
- A kitchen/prep area should be included in the plan to encourage cooking and nutrition instruction.
- An operating overhead door, currently installed, can be changed out to an entry way and windows, letting in more natural light.
- Elements such as plants and animals should be brought into the indoor lab to mimic the outside world in a classroom environment.

Curriculum

The learning experiences should be of a self directed nature. Kinetic learning, or learning by doing, is a practical approach to the hands on nature of the learning objectives of environmental education. By teaching through kinetic learning, students will gain science, health and environment knowledge, leadership and team building skills, and life skills. Environmental knowledge invested in school aged children becomes a media for educating the families of the children resulting in an immediate form of information sprawl. The knowledge gained by the students will also invest in the future of the city.

- Minimum standards should be set in line with Kansas State Standards.
- Should include opportunities for students to explore the physical world resembling field studies.
- Teaching guides should include environmental awareness, environmental citizenship and health and nutrition.
- Curriculum should focus on local environmental issues such as:
 - Nutrition and gardening
 - The local watershed, to include Turkey Creek
 - Chemicals and water run off
 - Native plants and species
 - Soil erosion
 - Air and water pollution

Connections

A system of trail ways linking nodes such as parks, shopping and dining, and other activities will also link the Rosedale Middle School and the environmental lab. Accessible trails encourage a connection between the students and their natural world. The trails located in the urban wild land adjacent to the environmental lab will be beneficial to incorporate field study type lessons of native plant species and identification. This also helps promote an active and healthy lifestyle the green corridor is committed to.

- Rosedale should work to use the approximately 16 acres of urban wild land surrounding the school to connect to Fisher Park located on Springfield and 39th.

- Rosedale should work to connect the historical marker, Rosedale Arch, to the environmental lab with the trail system.

Gateways

Just southeast of the school, on Mount Marty, stands the historical Rosedale Arch, a memorial dedicated to those who served in World War I. Serving as a visual gateway to a community center consisting of Rosedale Middle School, the proposed athletic complex and the environmental lab, the trail system would incorporate the arch as a node on the pathway.

- The historical marker, the Rosedale Arch, should serve as a visual “gateway” to the community gathering node through the trail system.

Model Programs

Wildwood Outdoor Education Center: This outdoor school serves the urban core students during the summer break of the school year. Located in Lacygne, KS, 54 miles south of Kansas City, it is accessible only by bus for most of the inner city students. The school is a residential camp encouraging interaction with the natural world and the development of leadership skills.

Schlagle Library: On the banks of Wyandotte County Lake, this nature center offers residential and day camps during the summer. During the school year, it is a field trip destination offering programs which coincide with Kansas State Standards. The library portion of this center is open to the public, which includes some hands on displays, but the programs are limited to enrollment basis. The camps are cost associated and the facility is remote making it difficult for low income families living in the urban core to use the programs.

West Philadelphia Landscape Project: Mill Creek Project: Since 1995, the program developed by a professor of neighboring campus, University of Pennsylvania, the Mill Creek Project has proven a successful program. From frustration of damage caused by the rising Mill Creek, the professor decided to create a program to educate middle school students of the urban core on sustainable agriculture and landscaping. This method of solving the problem from the bottom up has not only taught environmental awareness to a population which statistically is least knowledgeable and most impacted, but has had a sociological effect also. The program has expanded to include a teen mediation program.

Funding and Resources:

Environmental Education Grant: EPA's Environmental Education Division (EED), Office of Children's Health Protection and Environmental Education

Kansas City Kansas Community Gardens: Resource for planting/harvest guidelines, lesson plans and inexpensive planting materials and garden tools appropriately sized for students.

Kansas State University Extension Offices: Native plantings, senses garden

EPA: Soil testing, water analysis, and planting guidelines

4-H Club: Joint use and programming of environmental lab

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TownCenter

Rosedale Development

Stephanie Drake

Rosedale's Town Center

A downtown creates a zealous environment which all the stakeholders-residents, workers and visitors-value the interactive space. A downtown area is the anchor to the community providing a heart to give the community life. With the construction of I-35, Rosedale lost its downtown and some of its vitality. Prior to I-35, Rosedale's downtown span down Southwest Boulevard between the intersecting roads of Rainbow Boulevard and 39th Street. The remaining parts of downtown lend part to revitalization. Sprouting from I-35's overpass, through the remaining of downtown, and ending just past the 39th intersection, where Southwest Boulevard becomes Merriam Lane, a boulevard is composed with remnants of the small municipality Rosedale once was. It is this plan's desire to create a pedestrian and bicycle friendly corridor along Southwest Boulevard. This plan will:

- Create a stable and sustainable community
- Provide a town center with mixed use activity
- Foster vital and active street life
- Ensure that development is designed with a pedestrian and bicycle orientation

Behavior is a function of our surroundings and environment. Staying in accordance to the Green Corridor's goals to promote healthy and active living, a center which acts like a downtown and is reachable without vehicle assistance to those citizens within the green corridor is desired. In consideration of the public realm, identity, character and experience, the town center is cultivated. The town center is created by the partial city block formed by Southwest Boulevard, S. 10th Street and W. 39th St. A later added cut-through of Southwest Boulevard connecting to Merriam Lane creating a triangle form on the northern part of the block. This cut-through adds interest and creates an environment ripe for a town center.

This plan focuses on a center that will offer a concentration of activity for Rosedale by creating a hub for the district in which the livelihood of activity will radiate from as well as a focus on shopping, services and other amenities. According to Randall Arendt, the most desirable and livable neighborhoods are those that are most walkable.¹ He believes mixed use centers should be located within 1500 feet of residential areas to promote walking as a choice means of transportation over a vehicle for short distances. By creating a mixed use town center in the green corridor, shopping and activity is in walking distance for the residents in the town center and the surrounding neighborhoods. Keeping retail tightly spaced promotes walkability through the center for residents, workers and visitors alike.

The town center should be mixed use. By developing multi-story buildings, an opportunity to use upper levels for rented office space and residential, rental income is generated without increasing the floor area ratio. This promotes a healthier environment by reducing the impact on the natural world and condensing retail. Condensed development promotes walkability. In Rosedale, there is a gap of missing, essential and basic retail such as a healthy food source. A small, local grocery store located in the town

¹ (Arendt, 2010)

center would benefit the health of the community. Other retail placed in the town center would promote healthy and active living and service the community, are small businesses such as service shops, al fresco dining and local art. Small, locally owned businesses promote local culture and economic support.

Goals: Centers and Main Streets

- Create focal nodes for neighborhoods giving each one a distinct identity within the green corridor.
- Promote walkability by providing walkways which are safe from vehicular traffic and sound infrastructure.
- To lessen the intrusion on the natural world while rebuilding infrastructure through best management practices.
- To enhance and replace economic development to function as a multi-use zone; including a local grocery store.
- To eliminate industrial type businesses from town center and main streets.
- Encourage aesthetically pleasing spaces through use of green-scape and pavement patterns.

Policies: Centers and Main Streets

- Foster development of a new town center and main streets.
- Ensure that nodes are thoughtfully placed and spaced as such to encourage foot travel.
- Place buildings on inside edge of sidewalks; eliminate parking impeding direct pedestrian traffic access to front doors of businesses.
- Ensure the center is an attractive destination promoting local culture and pedestrian comfort.
- Foster development of an active daytime and nighttime retail/commercial district.

Street Vistas:

A boulevard implies a pathway which is tree lined and provides interesting views. Southwest Boulevard lends itself to becoming a boulevard. Views and beautification in the green corridor is an asset to creating an area in which people want to engage in by foot path, therefore promoting an active lifestyle.

Goals: Street Vistas

- To encourage a vibrant and active street life by creating an aesthetically pleasing boulevard on Southwest Boulevard.
- To increase shade and noise reduction by lining streets with trees.
- To decrease views of parked cars and parking lots.

Policies: Street Vistas

- Parking will be behind or adjacent to businesses.
- On street parking, where applicable, will be tree lined and bump-outs used for pedestrian safety and comfort.

Traffic Calming

With the increase of street width, vehicles are more comfortable traveling at higher speeds. The wider a street, the higher frequency of vehicle accidents involving bodily injury occur.² Narrowing the streets and creating visible divisions for bicycle lanes and pedestrian pathways will create a safer zone for both non-vehicle and vehicular travelers. Slower traffic decreases the frequency and severity of vehicular collisions. Seattle's DOT reported an increase in average daily traffic during the last decade. By narrowing the street widths, Seattle was able to accommodate the increase in traffic and decrease the collision frequency on main thoroughfares by up to 61%.³ When priority is given to the pedestrian, it is a safer environment to the most vulnerable traveler.

Goals: Traffic Calming

- To create a safe place for pedestrians and bicyclists through marked bike lanes on streets and wide sidewalks.
- To encourage foot travel and decrease vehicle usage in town center, main streets and surrounding neighborhoods.

Policies: Traffic Calming

- Line both sides of streets with trees, narrowing width of street and slowing down vehicular traffic; promote pedestrian traffic.
- Integrate bike lanes into traffic pathways by clearly marked pavement markings ensuring safer bicycle commuting.
- Use pavement patterns through town center district to slow down vehicles.
- Promote pedestrian friendly crossings through use of crosswalks and traffic signals which give pedestrian priority.
- Use bump-outs to enhance and create curbside parking on main streets.

² (Victoria Transport Policy Institute, 2010)

³ (Victoria Transport Policy Institute, 2010)

Streetscape and Building Interface

Streetscape

Tree lined streets add benefits from multiple angles and are not just ornamental. Streets without trees are barren and hotter, discouraging activity on sidewalks. Trees encourage traffic to slow down creating a safer environment for pedestrians and bicyclists. Trees also provide an environmental benefit. Tree lined streets increase property values creating a fertile market. Adding trees fabricates a pleasant environment encouraging shoppers to linger and adds an increase in retail sales. Absorbing carbon monoxide, trees create a cleaner air environment creating a healthier environment and positive health impacts. In addition, green-scape along streets fosters a variety of habitat.

Goals: Streetscape and Building Interface

- Provide a complete street for pedestrians and bicyclists; safety, aesthetics, comfort and a healthy environment.
- Design for pedestrians. Promote safety through use of wide sidewalks, streetscape buffer between street and sidewalk, curbed streets, crosswalks and traffic signalization which gives priority to pedestrians.
- Encourage bicycle travel.
- Encourage natural habitat.
- Encourage economic growth.
- Enhance the town center through distinctive streetscapes. Promote street trees and unified landscape treatments along streets.
- Envision streets as extensions of the town center's open space network, presenting opportunities to linger, stroll, and gather, rather than traffic moving channels.
- Ensure development along streets offers an interactive, visual experience through the use of art; particularly local art.

Policies: Streetscape/Building Interface

- Create criteria for the design of street typologies.
- Work with other city departments and utilities to remove impediments to sidewalk safety and movement.
- Plant trees/green-scape on both sides of street; shade trees spaced no more than 50 feet apart between curbed street and sidewalk.
- Use best management practices of storm water runoff to minimize maintenance needed for tree care.
- Emphasize pedestrian orientation of buildings, especially in the town center and Southwest Boulevard.
- Accommodate bicycle facilities in retail areas.

Parking

Parking in rear or side of businesses promotes street activity and walkability. Minimizing on-street parking in the town center allows visibility of businesses. Parallel on-street parking through main corridors will help to slim streets and calm traffic creating a safer environment for non-vehicle movement. Large slabs of impervious material increases storm water runoff impacting the natural environment.

Goals: Parking

- Promote a healthy environment by decreasing the environmental impact of runoff on parking lots.
- Use on-street parking to calm traffic and make business accessible to vehicular travelers.
- Minimize front parking in town center and keep street views open.
- Minimize visual impact of parking lots through landscape screening.

Policies: Parking

- Use pervious materials for parking lots.
- Protect street views by minimizing curbside parking in retail/mixed use areas; place augmented parking to rear or side of businesses.
- Ensure safe pedestrian travel by placing parking only curbside and to rear/side of businesses.
- Use bump-outs for on-street parking.

Development

Dense development creates a walkable shopping experience. To promote activity, shoppers should want to linger in a development. To accomplish this, the environment must produce a comfortable and safe area. Aesthetically pleasing areas also beckon people to gather and enjoy the shopping/dining experiences a town center development can offer. Developments with varying pavement patterns and streetscape provide interest, comfort and safety to the foot traveler. Buildings that offer more than one floor enhance the mixed use center. By expanding a building vertically the floor to area ratio is maintained but the interior space increases. Larger area, and subsequently more uses, develops with minimal impact on the environment by keeping floor to area ratio.

Goals: Development

- Through adaptive reuse, keep solid buildings and existent trees
- Promote activity with a walkable town center
- Require minimum building heights of 1 ½ - 2 stories for mixed use in town center.

Policies: Development

- Protect pedestrian accessibility by connecting pathways directly to front doors of businesses.
- Create a distinctive culture through retail and service shops and promotion of local art.

Neighborhood/Node Connections

Neighborhoods which possess an identifying piece create a distinction from other areas. Living in an area with identifiable characteristics enables residents to identify themselves by their environment and promotes a sense of ownership in an area. Socially, this nurtures a bond and interest in improving and upkeep in a neighborhood, often even for renters. By placing pocket parks throughout the neighborhoods in the green corridor, several aspects are received. Parks will act like nodes along the corridor connecting adjacent neighborhoods and promoting physical activity both within the parks and also traveling on the pathways which connect these activity nodes. Pocket parks also give the neighborhoods individuality, encouraging neighborhood cohesiveness.

Goals: Neighborhood/Node Connections

- Create pocket parks which encourage physical activity both in the parks and the travel between homes and parks.
- To give neighborhoods defining characteristics.
- To promote social networking.
- Place parks in locations which connect neighborhoods, main streets and the town center all accessible by foot.

Policies: Neighborhood/ Node Connections

- Place parks in residential areas ensuring accessibility by foot.
- Create diverse pocket parks.
- Foster physical and visual linkages between the town center and surrounding neighborhoods.

Town Center Identity

For visitors and residents both, Rosedale should strive for distinct characteristics which foster an identity for the main streets and town center. Through signage, gateways and wayfinding; Rosedale can distinguish neighborhoods, the town center and main streets while still maintaining a cohesive feeling to the neighborhood district.

Goals: Town Center Identity

- Create a gateway to discern Rosedale from adjacent neighborhood districts.
- Ensure sign regulations provide for identity without a dominating appearance.

Policies: Town Center Identity

- Create regulations to ensure signage is allowed as means of identifying pieces of Rosedale while not allowing signs to dominate appearance in town center and main streets.

Sustainable Development

Sustainable development ensures the needs of the present are met without jeopardizing the needs for the future. It also means the results are socially equitable and just among the population. Thinking of all aspects-earth, water and air- impact should be taken into consideration to promote a healthy lifestyle now and ensure improvement for future generations. Many sustainable practices decrease the financial burden municipalities incur from water treatment, maintenance and even health issues. Narrower roads require fewer materials and less maintenance; they also produce less storm water runoff resulting in decreased water treatment expenses.

Goals: Sustainable Development

- Decrease the impact on the natural world through best management practices.
- Decrease storm water runoff and use runoff to decrease maintenance on trees.
- Decrease infrastructure materials and maintenance.
- Increase tree and small green plantings.
- Reduce the urban heat island effect.

Policies: Sustainable Development

- Require no less than 1 ½ story buildings in new development of retail/mixed use areas.
- Re-use and retrofit sound buildings and structures.
- Preserve existing trees where possible.

- Load streetscape with trees and green plantings to help with decrease of air pollutants.
- Make use of storm water runoff for streetscape maintenance.
- Narrow streets, use pervious materials for large paved areas such as parking lots and walkways.

Public Transit

To create an environmentally sound environment, public transit is key to the goal. Currently, public transit is not offered through Rosedale. In the future, should Rosedale be added as a transit stop, the town center would be a suitable stop. Dropping transit users in a bustling center offering needs such as groceries or dining and other services would be to the traveler's advantage. The town center is a place promoting pedestrian travel and creates a safer environment for travelers to disperse from this hub. For transit users that have a destination past the comfortable walking distance, marked bike lanes and bicycle facilities such as bike racks, would accommodate their travels and safety.

Goals: Public Transit

- To provide a transit hub for Rosedale visitors and residents to have means to travel longer distance without the use of a personal vehicle.
- To encourage walkability and bicycling with transit as an option.
- Ensure that a transit stop would be located in a convenient and safe site for the user.

Policies: Public Transit

- Ensure crossing of streets is clearly marked and pedestrian-prioritized to ensure safety of transit accessibility.
- Provide bike facilities and marked lanes for travelers using bicycle mode of transportation.
- Ensure safety and comfort of the transit user by providing shade/shelter for wait times.

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Fall 2010

Park Assessments in the Rosedale Community

University of Kansas Medical Center

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Executive Summary

Four parks are located within the Rosedale community including Rosedale Park, Whitmore Park, Mount Marty Park, and Fisher Park. During the spring of 2009, researchers from the University of Kansas Medical Center were asked by members of the Rosedale Healthy Kids Initiative to perform a baseline assessment of the park and to report areas of concern and needs for improvement. Several key items within and surrounding each park were evaluated including:

- Condition of playground equipment
- Type of and quality of playground surfacing material
- Quality and condition of recreational areas
- Availability of bike racks
- Presence of sidewalks within and surrounding the park
- Presence of crosswalks and/or pedestrian crossing signs
- Access and quality of public restrooms
- Posted information regarding hours of park and shelter rental
- Police or security presence
- Cleanliness of park
- Quality of groundskeeping of the park

The baseline results of the park assessments were presented in June of 2009. Armed with the results of this report, members of the Healthy Kids Initiative made plans to make much needed improvements to each of the parks, contingent on availability of funds.

In September of 2010, two researchers again assessed each park utilizing the same evaluation form used during the baseline assessment. Following is a brief summary of these results for each park.

Rosedale Park

- No changes observed, however a few pieces of equipment appeared to be in poorer condition than last year (protective coverings missing on equipment, broken teeter totter seat in need of replacement). Much of the equipment is in need of fresh paint.
- Similar to last year, not enough mulch was present in high use areas (by swings and climbers). However, too much mulch surrounding the spring riders impeded movement of the equipment.
- New this year was the addition of two soccer goals, however the goals were not secured into the ground and the nets hung loosely and incorrectly from the goals.
- Overall, aside from graffiti in the skateboard park, the tennis courts, skateboard park, and two baseball fields were in good to very good condition, which is similar to last year's results.
- A bench at hole 10 of the disc golf course needs replaced. Disc golfers reported that the 'course needs to be mowed more often.'
- Bike racks are still not available for use at Rosedale Park. One park patron had to chain his bicycle to a tree.
- The lack of sidewalks, crosswalks, and pedestrian crossing signs continues to remain one of the biggest concerns of the park.
- Although a fresh coat of paint to the men's and women's restrooms was observed, the walls were dirty and covered with graffiti. Further, no soap or paper towels were present. A toilet in the women's restroom is missing parts and is in need of replacement.
- Overall, the cleanliness of the park was rated as 'good' with a few areas needing some attention (trash cans in need of emptying, graffiti in need of being cleaned up)

Whitmore Park

- Not much change was observed with the playground equipment, however the equipment was noted to be overall in fair to good condition. One area of concern

that remains is the tall slide that is crooked, however appeared to have been more stabilized and secured into the ground as compared to last year. Several pieces of equipment are in need of a fresh coat of paint.

- To comply with current safety recommendations, the swing set located at the park should have one of the swings removed.
- Surfacing material around the park is not adequate enough to break or cushion the fall of young children. New layers of woodchips and mulch need to be added to comply with safety standards.
- Fresh coats of paint were added to the recreational areas this year, making the boundary lines of the basketball and four-square courts much more noticeable.
- Although pedestrian signs are located near the park on Southwest Boulevard, the lack of crosswalks remains a safety concern.
- Public restrooms are still not present on the premises of the park.
- Overall cleanliness was rated as “good.”
- Although the groundskeeping was in need of attention (trimming of grass, weed-eating around the edging of the park, trimming of bushes), the bright colors and overall aesthetics of the park are appealing to park patrons and passers-by.

Mount Marty Park

- Not much change noted compared to last year.
- Some of the graffiti noted last year appears to have been cleaned up.
- Overall, the park was clean with some broken glass and litter noted. One of the three trashcans was in need of emptying.
- Several groundskeeping areas were in need of attention and maintenance, including bushes in need of trimming, mulch in need of replacement, and tree limbs, sticks, and leaves in need of being cleared from the steps and walkways.
- The lack of a crosswalk to and from the park remains a concern.

Fisher Park

- *Not much change noted from last year's assessment results.*
- New this year was the addition of a temporary volleyball/racquetball net, however the net drooped significantly and needed to be secured better into the ground.
- Sidewalks surround much of the park and are overall in good condition. Patches of sidewalk on the south side of the park are in need of replacement.
- Two of the park benches and one of the grills are in need of replacement.
- Pedestrian crossing signs and crosswalks are still not present to and from the park.
- Cleanliness and grounds keeping were rated as being in good to excellent condition

Park Assessments in the Rosedale Community

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Park Assessments in the Rosedale Community

Four park assessments were conducted within the Rosedale community by researchers from the University of Kansas Medical Center. Assessments were conducted during the fall of 2010. The results were compared to the spring of 2009 assessments to document if any changes or improvements occurred between these two periods.

The following report summarizes the assessments of Rosedale, Whitmore, Mount Marty (also known as Rosedale Memorial Arch), and Fisher parks. The evaluations took place in September 2010. A standardized form was used at both observations. Three validated park assessment tools, the BRAT direct Observation Instrument¹, the CFA/PIRG Playground Safety Survey², and the Playground Safety Checklist³, were used in the development of this assessment form. The Healthy Kids Initiative Steering Committee completed further modification and selection of assessment questions. A copy of the assessment form can be found in Appendix A.

Rosedale Park

Rosedale Park is located at the intersection of West 41st Street and Mission Road. This park is host to several recreational areas including a disc-golf course, two tennis courts, a large skateboard park, two baseball fields, a soccer field, playground area, and a shelter. The following assessment documents changes made to the parks since the baseline assessment. A brief summary of these results can be found in Table 1.

Table 1. Rosedale Park assessment overview.

	Spring 2009 Results	Fall 2010 Results	Change Observed
Playground Equipment	Needs Improvement	Needs Improvement	Some Decline
Playground Surfacing	Needs Improvement	Needs Improvement	Little - None
Recreational Areas	Excellent Condition	Good- Very Good Condition	Some Decline
Bike Racks	None Available	None Available	None
Sidewalks & Walking Paths	<25% area w/ access; Excellent Condition	<25% area w/ access; Excellent Condition	None
Crosswalks	None Available	None Available	None
Water Fountains	2 present; Need Improvement	2 present; Need Improvement	Some Decline
Public Restrooms	1 present; Needs Improvement	1 present; Needs Improvement	Little - None
Shelters, Picnic Tables, & Benches	Good Condition	Good Condition	None
Signage & Notices	Needs Improvement	Needs Improvement	None
Police/Security	Patrolled	Patrolled	None
Graffiti	Widely Present	Widely Present	None
Cleanliness	Fair Condition	Good Condition	Some Improvement
Grounds Keeping	Good Condition	Good Condition	None

Playground Equipment

The playground area includes swings, spring animal riders, a four-way teeter-totter, merry-go-round, and a multi-use play structure featuring a chain ladder, climbing ladder, and two slides. The spring 2009 assessment documented the need for repairs with every piece of playground equipment faded or surface areas with chipped paint (Figures 1-4). Additionally, some pieces of equipment still need replacements including a broken teeter-totter seat (Figure 1 and 2) and the protective coverings on several of the chain ladder rungs on the multi-use play structure. This year, one of the protective coverings was missing completely from one of the ladder rungs (Figure 3). As seen in Figure 4, the attachments of the swing set were extremely rusty and in need of replacement.



Figure 1. Teeter-totter at Rosedale Park.



Figure 2. Teeter-totter seat at Rosedale Park.

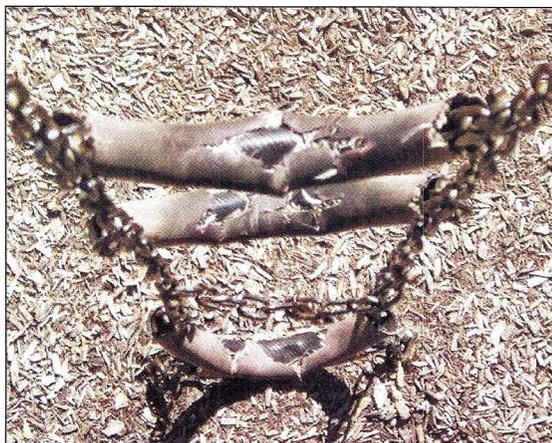


Figure 3. Chain climbing ladder at Rosedale Park.



Figure 4. Chain climbing ladder at Rosedale Park.

Other areas of concern included the merry-go-round, which was not repaired and continued to be unstable, posing a safety hazard to children. Although the seats of the swings were in good condition, the swing attachments need replacing because of severe rusting.



Figure 5. Merry-go-round at Rosedale Park.



Figure 6. Alternate view of the merry-go-round at Rosedale Park.

Several possible head entrapments were still present when assessing the playground equipment. According to both the Consumer Federation of America (CFA) and the Public Interest Group (PIRG), it is recommended that no opening on any playground equipment possess a space between 3.5 and 9 inches, except where the lower boundary of the space is the ground. These regulations are designed to prevent children from entrapping their heads, resulting in possible strangulation or other severe injuries. Rosedale park contained several head entrapment dangers within the multi-use play structure, including many of the railings to the spiral slide, the stairs to the small slide, and the ladder located on the east side of the play structure. There were also clothing entanglement hazards that existed on the first and second platform of the spiral slide.

Areas of Rosedale Park were also identified that were in compliance with current safety recommendations. There were adequate fall zones for swings and play structures, absence of swing seats constructed of wood or metal, no swings attached to other play equipment, no infant or tot swings in the same area as regular swing seats, and not more than two swings in any one section of a swing structure. Swings were also spaced at least 24 inches apart and 30 inches from the support structure with the top support beam below eight feet. Additionally, equipment, which could be deemed as “dangerous” by the CFA and PIRG such as chain or cable walkways, multiple occupancy swings, swinging exercise ropes, or climbing ropes, was not present.

Playground Surfacing. The playground surfacing of Rosedale Park was a combination of shredded mulch and hardwood chips with a sand base. Both the CFA and PIRG recommend a surfacing depth of nine to twelve inches composed of loosely filled wood chips, shredded bark mulch, sand, or pea gravel. Similar to the spring 2009 assessment, it appeared that the sand was filled to an adequate height for playing. However, the woodchips were added later, without regard to how the increased surfacing height would affect surrounding playground equipment. Therefore, in several high use areas on the playground, such as under the swings, slides, spring animal riders, and merry-go-round, only a depth of 0.5 to 3.0 inches of shredded mulch/chips were measured before hitting compounded sand material.

As documented in the spring assessment, the playground surface surrounding the spring animal riders blocked the full range of motion of the equipment. The woodchips were built up too high around the spring attachment and foot rests.



Figure 7. Spring rider at Rosedale Park.



Figure 8. Surface surrounding base of spring rider at Rosedale Park.

Recreational Areas

Rosedale Park consists of several recreational areas including two tennis courts, a disc golf course, consisting of “upstairs” and “downstairs” courses, two baseball fields, and a skateboard park. New to the park this year is a soccer field complete with two soccer goals. Overall, the recreational areas were rated as “good” to “very good” based on factors related to surfacing condition, player safety, equipment condition, and absence of trash in and around the recreational areas. Each recreational area and its condition is described in the following section



Figure 9. Tennis Courts at Rosedale Park.

Tennis Courts. Overall, the tennis courts were in excellent condition with well-marked boundary lines (Figure 9). There was one small tear observed in the net of court #2. Very little trash was found in or around the courts.



Figure 10. Skateboard park at Rosedale Park.

Skateboard Park. Aside from several areas with graffiti and some rusty equipment, the skateboard park was in excellent working condition (Figure 10). Although some of the graffiti observed from last year was removed, other equipment had new graffiti that needs removal. A sign posting the hours and rules of the skateboard park was still present.

Soccer Fields. Two soccer goals on a large open area of Rosedale Park were added to the park's recreational area this year. However, the goals were not sturdy and the nets were very loose and were hung incorrectly from both goals (Figures 11 and 12).



Figure 11. Soccer goal (back) at Rosedale Park.

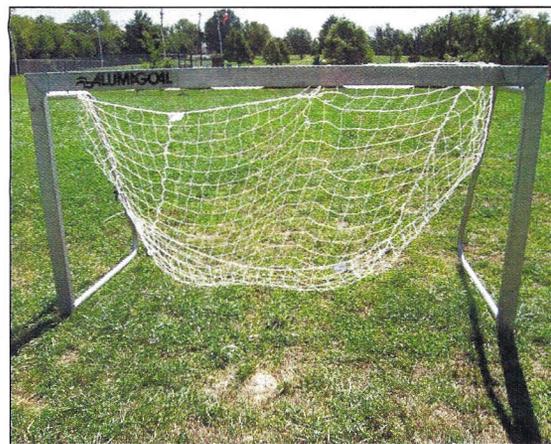


Figure 12. Soccer goal (front) at Rosedale Park.

Baseball Fields. Two baseball fields are located at this park. Little noticeable change was observed from the last assessment. The west baseball field includes a set of bleachers, a backstop, two dugouts, and field lights. As noted last year, bases were not available for use with the exception of the pitcher's mound and home plate. Both the mound and home plate were in good condition. The pea gravel appeared to have been groomed recently and was level for playing. Similar to last year, the backstop overhang behind the batter's cage had several large holes, with entire panels missing. The dugout benches and bleachers are in fair condition but had noticeable rusted and worn areas and chipped paint. Two of the trashcans were full of trash, with some trash found in the batter's cage. The east baseball field is less equipped than the west field with two benches and a backstop but no formal dugouts, field lights, or outfield fence. A set of bleachers adjacent to this field are in poor condition with replacements needed for several seats. The home plate and batter's cage were in good condition. No trash was found on the field and the trashcans appeared to have been emptied recently. The grass on the baseball field needed trimming.

Disc Golf Course. The disc golf course features both "upstairs" and "downstairs" courses. A few of the golf course holes were assessed and were found to have minor equipment problems, similar to last year's assessment including missing flags and mild rusting on the baskets. One disc golfer who frequents the course alerted us to a bench at hole #10, which is caved in and needs to be replaced. A second golfer reported that the "course needs to be mowed more often."

Safety, Cleanliness, and Other Issues

Bicycle Racks. Bicycle racks are not available for use at Rosedale Park. Because of the lack of bicycle racks, we observed one bicyclist chaining his bicycle to a tree near the tennis courts and hole #1 of the disc golf course (Figure 13).



Figure 13. Tree used as a bike rack at Rosedale Park.

Sidewalks and Walking Paths. Sidewalks and paths were assessed within and surrounding Rosedale Park. Similar to last year, access to the park is difficult with few sidewalks (<25% of areas have sidewalk access). Those areas with sidewalk access included the tennis courts, bathrooms, and entrance into the skate park. The current sidewalks were in excellent condition with few surface cracks.

A major barrier to safe access to Rosedale Park is the lack of sidewalks and crosswalks leading into the park (Figures 14 and 15). There are no signs indicating the park entrance to oncoming motorists or flashing light warnings that pedestrians or small children may be crossing the road. On the east side of Mission Road, only a narrow dirt footpath leads into and out of the park. Pedestrians have worn a dirt path alongside the street where a sidewalk is desperately needed. Furthermore, Mission Road is a narrow road with an extremely high volume of traffic. The park entrance is located at the top of a steep hill, making visibility difficult for both motorists and pedestrians. Although the speed limit of Mission Road is 30 miles per hour, motorists frequently exceed this limit since they are often exiting off 18th Street Expressway where the speed limit is 55 miles per hour. Several improvements need to be made, including the addition of a crosswalk, pedestrian crossing signs, and sidewalks located on both sides of the street.

Within the park is Rosedale Park Drive, which is a curvy, tree-lined road with several shoulder drop-offs. This road also lacks sidewalks and a crosswalk for those individuals

entering the park from the west side, posing safety hazards for both pedestrians and bicyclists.



Figure 14. Mission Road at the entrance of Rosedale Park.

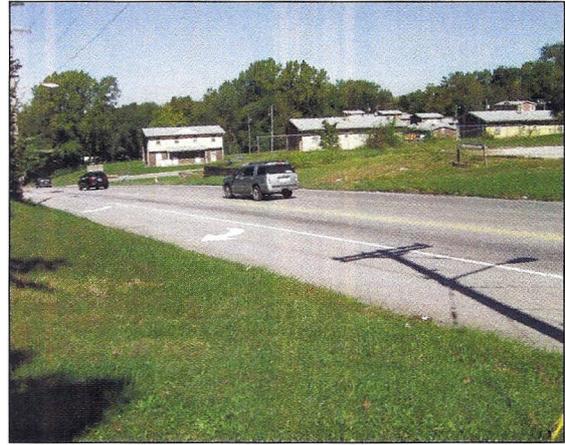


Figure 15. Mission Road leading to Rosedale Park.

Crosswalks. As mentioned previously, Rosedale Park has serious safety and access issues with no crosswalks, lack of pedestrian crossing signs, and the absence of pedestrian lights leading into the park entrances.

Water Fountains. Rosedale Park has two water fountains, one located near the tennis courts and the first tee box of the disc golf course (Figure 16) and the second fountain located near the west baseball field. Both fountains had clear, lukewarm water. Similar to last year, the fountain near the tennis courts had a “metallic” taste but no distinguishable odor, while the other fountain did not have taste issues but the water had a “bitter” smelling odor. Both water fountains had mold growing within the fountain itself as well as water drainage problems.



Figure 16. Water fountain at Rosedale Park.

Public Restrooms. Rosedale Park includes both a men's and women's public restroom. The women's restroom was assessed first and a few improvements were noted compared to last year's assessment. Last year, the women's restroom was filthy and the walls needed a fresh coat of paint. This year, the women's restroom was rated as being in fair condition. The walls appeared to have been recently painted, but were dirty and needed cleaning. The bathroom was much cleaner than last year and smelled as if it had been cleansed recently. The sink had adequate water flow but soap or paper towels were not available (Figure 17). Both toilet stalls had plenty of toilet paper but the toilets were rusty, stained, and chipped with part of the seat missing on the toilet near the wall.

The rating of the men's restroom was similar to last year. The restroom appeared to have been painted recently. However, lots of graffiti covered the walls. Overall, the men's restroom was in fair condition with urinals and toilet in clean condition, an adequate supply of toilet paper, and a functioning sink. However, the floors were extremely wet, indicating possible drainage problems (Figure 18). As noted last year, the restroom lacked soap and paper towels. Similar to the women's restroom, the men's restroom also smelled as if it had been cleansed recently.

Shelter, Picnic Tables, and Benches. A large shelter with six picnic tables and a park bench is available for patrons. The shelter is in overall good condition with plenty of shade and picnic tables. The area was absent of noticeable trash and the trash cans appeared to have been emptied recently. The six picnic tables were rated to be in fair to good condition, with some of them covered with graffiti, markings, and indentations in



Figure 17. Restroom sink at Rosedale Park.



Figure 18. Restroom stall at Rosedale Park.

the plastic coating. Both of the trashcans also had graffiti, and one of the trashcans needed to be replaced because of rusted holes lining the bottom of the can.



Figure 19. Barbeque grill at Rosedale Park.

There is one barbecue grill with two separate grilling surfaces available for use at the shelter (Figure 19). The barbecue grill was rated as being in poor condition and unusable. The grill is so severely rusted that it is caving in the middle, creating a hazard for park patrons who want to barbecue. As observed last year, there are no signs available regarding the hours of the shelter, or information about reserving the shelter for large parties.

Signage and Notices. As observed last year, Rosedale Park does not include signs indicating park hours or information on how to rent the shelter. The only sign displaying hours belonged to the Skateboard Park (Figure 20), which listed the park hours as “Dawn to Dusk.” A map of the disc golf course was painted on a sign in 1997. It needs replaced and updated for disc golfers. Many patrons walk their dogs within Rosedale Park and there is a sign encouraging patrons with dogs to pick up their pets’ waste. The signpost was stocked with small plastic bags for waste disposal.

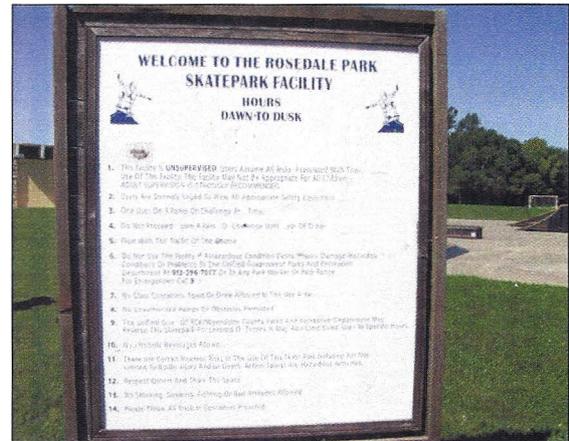


Figure 20. Skateboard park sign at Rosedale Park.

Police/Security Presence. Similar to last year, the presence of security was not observed. However, a Kansas City, KS police officer was seen driving through the park and sitting in his patrol car in the parking lot for a long period. This year, a parking control vehicle was observed coming into the park and remaining parked for a lengthy period near the baseball fields. There were no “Neighborhood Watch” signs near the park, alerting residents to report suspicious or unlawful behavior at the park.

Graffiti. As noted in several sections of this report, many areas of the park were littered with graffiti. As noted in last year's assessment, the skateboard park appeared to have the most graffiti with several of the ramps containing spray paint and markings. Graffiti was also present on several trashcans located throughout the park, on some of the park benches and picnic tables, and on some areas of the playground equipment. The men's restroom, although recently painted, contained graffiti on the walls (Figure 21).

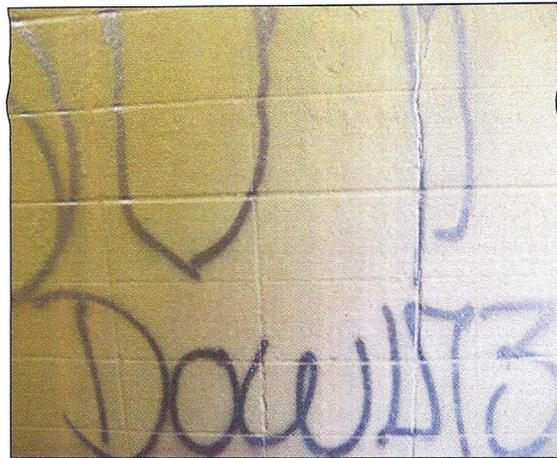


Figure 21. Graffiti on the wall of the men's restroom at Rosedale Park.

Cleanliness. Several key areas were used to determine overall cleanliness of Rosedale Park including ratings for trash observed in trashcans and around the park, litter, and graffiti, the condition of barbeque grills, park benches, and picnic tables, and restrooms. Many of these indicators have been described previously in individual sections of this report. Overall, Rosedale Park received a "Good" rating assessment. Although there were a few areas of concern, the park is well maintained.

Grounds Keeping. Ratings for grounds keeping were established by using indicators such as grass height, dead or dying landscaping, overgrown shrubbery, and fallen tree limbs. Overall, the assessors rated the grounds keeping of Rosedale Park as in "good" condition. A few tall patches of grass were observed within the disc golf course, which needed maintenance, and a few areas needed weeding. While the assessment was being completed, a disc golfer approached and shared that the disc golf course needed more frequent mowing and trimming. While the shelter provides a lot of shade, additional shade trees could be added to the park.



Figure 22. Drainage hole at Rosedale Park.

One small area of concern was what appeared to be a large and deep drainage hole located near the shelter (Figure 22). Although an attempt to barricade the hole was made, the loosely strung netting did not provide an adequate barrier for young children. A sturdier barrier should be considered for adequate safety.

Summary

A few positive changes were observed this year at Rosedale Park, including the addition of soccer goals and fresh coats of paint in the restrooms. The women's restroom was in much better condition than last year with cleaner and more usable facilities. However, no other major changes to the park were observed. Graffiti continues to be a problem although the park looks to be fairly well maintained. As noted last year's assessment, one of the significant areas of concern is the lack of sidewalks and crosswalks into the park. This major issue needs to be addressed. Providing sidewalks and crosswalks can encourage greater use of the park and increase the safety of its patrons.

Whitmore Park

Whitmore Park is located between 8th Street and Early Street, both intersecting with Southwest Boulevard within the Rosedale Community. This park is owned and maintained by the Sharing Community Churches. The following sections summarize the assessment results conducted in September 2010. A brief summary of these results can be found in Table 2.

Table 2. Whitmore Park assessment overview.

	Spring 2009 Results	Fall 2010 Results	Change Observed
Playground Equipment	Needs Improvement	Needs Improvement	None
Playground Surfacing	Needs Improvement	Needs Improvement	None
Recreational Areas	Fair Condition	Very Good Condition	Significant Improvement
Bike Racks	None Available	None Available	None
Sidewalks & Walking Paths	>75% area w/ access; Good Condition	> 75% area w/ access; Good Condition	None
Crosswalks	2 present; Need Improvement	2 present; Need Improvement	None
Water Fountains	1 present; Good Condition	1 present; Good Condition	None
Public Restrooms	None Available	None Available	None
Shelters, Picnic Tables, & Benches	Good Condition	Good Condition	None
Signage & Notices	Excellent Condition	Excellent Condition	None
Police/Security	Patrolled	Patrolled	None
Graffiti	None	Little Present	Slight Decline
Cleanliness	Good Condition	Good Condition	None
Grounds Keeping	Excellent – Good Condition	Good Condition	Slight Decline

Playground Equipment

The playground equipment at Whitmore Park includes swings, spring animal riders, four-way teeter totter, merry-go-round, two multi-use play structures featuring slides and a fire pole, multiple climbing structures and tunnels, teeter totter, and a sand backhoe. No major changes were observed in comparison to last year's assessment, with all of the equipment rated as being in "fair" to "good" working condition, with only minor problems noted.



Figure 23. Wooden climber at Whitmore Park.



Figure 24. Merry-go-round at Whitmore Park.

The large wooden climber was in excellent working condition with some minor chipped boards and normal areas of wear and tear (Figure 23). The long side of the climber was crooked and needed to be straightened, but appeared to be fastened securely to the ground compared to last year's assessment. The merry-go-round was in similar condition to last year with little or no improvement in stability with it continuing to wobble when spun (Figure 24). The merry-go-round was also rusty and in need of painting. The black tunnel was worn in spots but the children would not be exposed to major hazards when crawling through it. The large "tractor" tires for climbing were found to have normal areas of wear and tear, with some cracking in the tires and worn edges. Both the standard teeter-totter and four-way teeter-totter were worn in areas and wobbly, but in otherwise good condition. The spiral slide contained rusty areas, some graffiti, chipped paint, and a few loose "slats" on the slide, making for a bumpy ride for children as they slid down (Figure 25). The tall slide was observed to be uneven (Figure 26). Aside from normal wear and tear, chipped paint, and rusty areas, the playground equipment, with the exception of the unstable merry-go-round, was in good to very good condition and safe for children to use.



Figure 25. Spiral slide at Whitmore Park.



Figure 26. Tall slide at Whitmore Park.

Similar to last year's assessment, safety issues were noted throughout the playground. According to the Consumer Federation of America (CFA) and Public Interest Research Group (PIRG), it is recommended that all playground equipment be surrounded by a six foot "fall zone" surfaced by appropriate protective materials (wood chips, sand, shredded mulch, and pea gravel) and free from obstacles. The provision of a fall zone to provide a safe landing area is recommended. However, Whitmore failed to meet most of the recommended playground equipment standards, lacking the appropriate surface areas for the large wooden climber, long slide, and spiral slide. The swings also were positioned too closely to cement, and the hardwood chips did not cover the swing set area adequately.

Additionally, the CFA and PIRG recommend no opening possess a space between 3.5 and 9 inches, except where the lower boundary of the space is the ground, because it may pose a risk of head entrapment. Similar to last year's assessment, the playground continued to have multiple head entrapment areas including the open circles of the steel climber (opening is less than 7 inches); foot rests of the 4-way teeter totter (6.5 inches), and, as seen in Figure 27, the hand rails for the slide and slats to the climbing platform attached to the larger wooden climber (6.5 and 7.5 inches, respectively). Additionally, there were areas on



Figure 27. Opening of a climber at Whitmore Park.

both the slides and tunnel, which are potential entanglement hazards for children.

Safety issues were noted with the swing set. Three swings are available for use in one swinging section, which is against the recommendations by both the CFA and PIRG. These institutions recommend that only two swings be present within each swinging section. Further, the outside swings are too close to the support structures, measured at 26 inches. The CFA and PIRG recommend 30 inches of clearance.

The park did comply with several current safety recommendations; notably a lack of swing seats constructed of wood or metal, the absence of swings attached to other play equipment, and the lack of infant or tot swings in the same areas as standard swing seats. Swings were also spaced 24 inches apart. No equipment (i.e., chain or cable walkways, multiple occupancy swings, swinging exercise rings, rope swings, or climbing ropes) was deemed “dangerous” by the CFA and PIRG regulations.

Playground Surfacing. The type and depth of surfacing material under the playground equipment was assessed. Both the CFA and PIRG recommend a surfacing depth of nine to twelve inches composed of loosely filled wood chips, shredded mulch, sand, or pea gravel. Whitmore Park consists mostly of hardwood chips, shredded mulch, sand, and grass. As noted last year, asphalt was still found underneath the black tubing tunnel, which is deemed unacceptable surfacing material by the CFA and PIRG. The asphalt should be removed to comply with safety standards. Surface depths were measured under the swings, spiral slide, long slide, and climbing structures. Depths ranged from 0.75 inches to 2.5 inches, which does not comply with the recommended depth of surfacing material to prevent injury.

Recreational Areas

Whitmore Park contains areas for four square (Figure 28), hopscotch, and other games along with four basketball courts (Figure 29), with each basket of varying height to accommodate children of all ages and sizes. This area included the most positive changes when compared to last year’s assessment.



Figure 28. Hopscotch area at Whitmore Park.



Figure 29. Basketball court at Whitmore Park.

Compared to last year's "fair" rating, the condition of the recreational areas was rated as "very good" during this year. The most noticeable changes included fresh coats of paint to delineate and clearly define the play area boundaries for the four-square and basketball courts. The equipment was also in good condition. The basketball backboards showed normal wear and needed fresh coats of paint. Two of the metal nets were rusty and tangled but were assessed as "usable." All basketball posts securing the nets and backboards were sturdy and in good condition. No trash or litter was observed in any of the recreational areas.

As noted last year, raised yellow "mounds" were located by the larger basketball courts. These mounds could pose a safety concern for players who venture out of bounds while playing basketball. Cracks on the court surface were also visible, but none was large enough to pose major safety concerns or tripping hazards for players.

Safety, Cleanliness, and Other Issues

Bicycle Racks. Bicycle racks were not available at Whitmore Park.

Sidewalks and Walking Paths. Although sidewalks are not located within the park, the condition of sidewalks surrounding Whitmore Park was assessed. To access different park areas, the park contained asphalt walking paths for children and adults (Figure 30). The walking paths contained brush and moderate cracking, but should not

pose tripping hazards. Steps inside the park have several chipped areas and are uneven, posing a potential tripping hazard, especially for small children. Sticks and brush also littered the steps and need to be removed (Figure 31).



Figure 30. Walking path at Whitmore Park.



Figure 31. Stairs at Whitmore Park.

Sidewalks surround the outside of Whitmore Park. The sidewalks leading to the park were in fair to good condition with several cracks that needed patching (Figures 32 and 33). Curb ramps were present; however, patrons with physical disabilities accessing the park by wheelchair might have difficulty maneuvering into and through much of the park because of uneven areas.

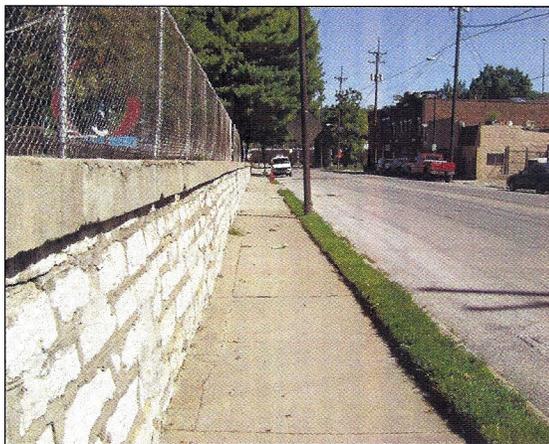


Figure 32. Sidewalk surrounding Whitmore Park.



Figure 33. Steps at an entrance of Whitmore Park.

Crosswalks. Although two pedestrian signs are located near the park on Southwest Boulevard, no painted lines or stoplights were present to alert oncoming motorists of crossing pedestrians. The first sign is located at the front of the park while the second sign is located at the front of the church and preschool on Early Street.

Water Fountains. Whitmore Park has a single water fountain located near the large wooden multi-use climbing structure. The water was lukewarm, clear, and did not have any distinguishable odor or taste.

Public Restrooms. Whitmore Park does not have public restrooms.

Shelter, Picnic Tables, and Benches.

Whitmore Park contains one very small shelter that includes one picnic table (Figure 34). The shelter was in good condition. The picnic table had scratches and graffiti. It also needed to be fastened securely to the ground. A barbeque grill is available to patrons and appeared to have been recently used and cleaned. The trashcan located by the table had been emptied recently. No signs were posted to indicate shelter hours or about how to reserve the area for parties.

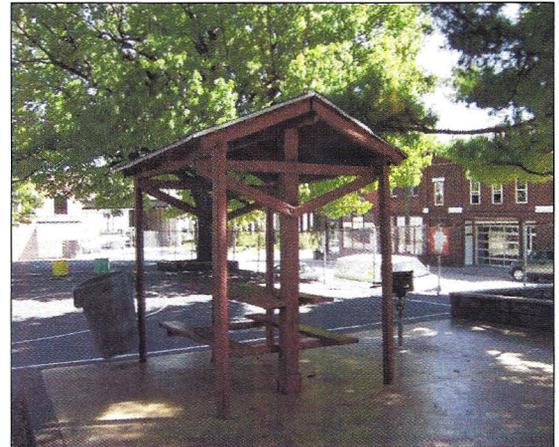


Figure 34. Shelter at Whitmore Park.



Figure 35. Swinging bench at Whitmore Park.

Several park benches were located within Whitmore Park. The benches were in fair to good condition but some were in need of repainting. The yellow swinging park bench was unsteady, swinging awkwardly with jerky motions (Figure 35). This bench could pose slight safety concerns for children attempting to swing back and forth.

Signage and Notices. Whitmore Park contained several signs throughout the park posting hours of use. These signs, written in both English and Spanish, were located at the entrance to the park and throughout several areas of the playground (Figure 36). As noted above, there were no signs informing patrons of the shelter house hours or information on reserving the shelter. Signs did indicate that patrons were not allowed to bring alcoholic beverages within the park, and that the area was monitored by a “Neighborhood Watch” program (Figure 37). Additionally, one pedestrian crossing and one playground cautionary sign was located directly outside the park.



Figure 36. Welcome sign at Whitmore Park.



Figure 37. Alcohol Policy and “Neighborhood Watch” sign at Whitmore Park.

Police/Security Presence. While no police or security presence was observed, signs are posted throughout the park indicating that Kansas City, Kansas Police Department officers patrol the park after 10:00 p.m. A “Neighborhood Watch” sign is also posted in the parking lot.

Graffiti. Some graffiti was noted throughout the park. One of the park benches, the picnic table, and the spiral slide contained small areas of writing and graffiti.

Cleanliness. Several key areas were used to determine overall cleanliness of Whitmore Park including the condition of the trashcans, barbeque grill, and picnic tables , and the amount of litter or graffiti. Overall, this playground was rated as “Good.” Minimal amounts of graffiti, litter, and overflowing trash accounted for this rating (Figure 38).



Figure 38. Trashcan at Whitmore Park.

Grounds Keeping. The quality of grounds keeping was assessed using factors such as grass height, dead or dying landscaping, overgrown shrubbery, and fallen limbs as key indicators. The grounds keeping at this park was rated as “Good.” The park has beautiful aesthetics and plenty of shade trees (Figure 39). However, the park needs raking and weeding in some areas. Trimming of bushes and trees is also needed. Additionally, the playground area needs additional woodchips or mulch for surfacing around the playground equipment.

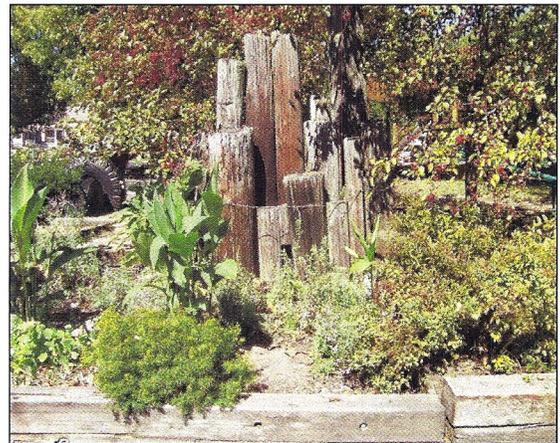


Figure 39. Landscaping at Whitmore Park.

Summary

The most notable improvement to Whitmore Park included the painting of lines to define clearly the play area boundaries. However, additional improvements are needed to comply with safety standards; the additions of playground surfacing material, the removal of asphalt under a piece of playground equipment, and the removal of swings from a swing section. Overall, the park has aesthetically appealing landscaping and bright colors.

Mount Marty Park (Rosedale Memorial Arch)

Mount Marty Park is located on Seminary Avenue. It houses the Rosedale Memorial Arch, which is dedicated to the men of the Rosedale Community who served World War I, a historic marker honoring those who served during World War II, the Korean War, and the Vietnam War. It offers a panoramic skyline view of the Kansas City area. The following sections summarize the assessment results for Mount Marty Park. A brief summary of these results can be found in Table 3.

Table 3. Mount Marty Park assessment overview.

	Spring 2009 Results	Fall 2010 Results	Change Observed
Playground Equipment	None Available	None Available	None
Playground Surfacing	None Available	None Available	None
Recreational Areas	None Available	None Available	None
Bike Racks	None Available	None Available	None
Sidewalks & Walking Paths	>75% area w/ access; Fair Condition	> 75% area w/ access; Fair Condition	None
Crosswalks	None Available	None Available	None
Water Fountains	None Available	None Available	None
Public Restrooms	None Available	None Available	None
Shelters, Picnic Tables, & Benches	Excellent Condition	Good Condition	Slight Decline
Signage & Notices	Needs Improvement	Needs Improvement	None
Police/Security	None	None	None
Graffiti	Some Present	Little Present	Slight Improvement
Cleanliness	Fair Condition	Good Condition	Slight Improvement
Grounds Keeping	Good Condition	Fair Condition	Slight Decline

Playground Equipment

Mount Marty Park does not contain playground equipment or playground surfacing.

Recreational Areas

Mount Marty Mark does not contain recreational areas.

Safety, Cleanliness, and Other Issues

Bicycle Racks. Bicycle racks are not available at Mount Marty Park.

Sidewalks and Walking Paths. Nearly all of Mount Marty Park is accessible by sidewalks. However, there is not sidewalk access to the picnic tables. Throughout the park, the sidewalks were in good overall condition but some sections had cracks and overgrowth. One stretch of sidewalk could possibly pose a tripping hazard because large chunks of asphalt were missing (Figure 40). Removal of tree debris in several areas of the park and on the sidewalks is needed. A set of stairs leading up to the Memorial is in fair condition with a few cracks and chips in the steps (Figure 41). No sidewalks were present on Mount Marty Road. This park does not have walking paths.



Figure 40. Sidewalk located at Mount Marty Park.



Figure 41. Stairs to the Memorial at Mount Marty Park.

Crosswalks. Mount Marty Park does not contain a crosswalk, pedestrian crossing signs, or pedestrian lights to gain safe access to the park. In addition, the park entrance is located on a steep, curving hill making it difficult to see oncoming traffic and poses a safety concern for patrons crossing Seminary Avenue (Figure 42).



Figure 42. Entrance to Mount Marty Park.

Water Fountains. Mount Marty Park does not contain water fountains.

Public Restrooms. Mount Marty Park does not have public restrooms available for use.

Shelters, Picnic Tables, and Benches. Mount Marty Park does not contain a shelter or barbecue grills but does have three picnic tables which were in good to excellent condition. Each table contained mild amounts of litter and graffiti along with some scratches on the surfaces (Figure 43). Some debris was left on one of the tables but it was otherwise in good and usable condition.

Six park benches are scattered throughout the park, with all benches in good to excellent condition (Figure 44). Small amounts of graffiti were found on two benches. Moderate scratching was observed on the benches, along with some cracking on the bench surfaces. Broken glass was observed at one of the park benches.



Figure 43. Picnic table at Mount Marty Park.



Figure 44. Bench at Mount Marty Park.

Signage and Notices. Mount Marty Park does not contain signs informing patrons about park hours. The only signs present were those that displayed notices that prohibited littering, alcohol, and fireworks (Figure 45).



Figure 45. Sign at Mount Marty Park.

Police/Security Presence. There was no security presence or signs indicating police patrols or neighborhood watches at Mount Marty Park.

Graffiti. Minimal amounts of graffiti were found in the park. Some graffiti was found on a few of the park benches (Figure 46) and tables as well as one trashcan (Figure 47).



Figure 46. Graffiti on a bench at Mount Marty Park.



Figure 47. Graffiti on a trash can at Mount Marty Park.

Cleanliness. Mount Marty Park was rated “Good” on the cleanliness assessment. Overall, the park was very clean with only some littering noticed (e.g., broken glass and an empty Corona beer box). Three trashcans are located within and around the park. One of the trashcans needed emptying. This trashcan also was marked with graffiti. The graffiti that was located on the back wall of the park last year has been removed.

Grounds Keeping. The grounds keeping for Mount Marty Park was rated as “Fair.” Several areas of the park needed attention and maintenance. The grass needed trimming in several areas and the edging around the sidewalks needed weeding. Tree limbs and sticks littered the sidewalk areas. Much needed improvements to the landscaping were also noted, with bushes that needed trimming and mulching replaced in several areas.

Summary

Not much change was noted with this year’s assessment of Mount Marty Park; however, some graffiti had been removed since last year’s assessment. Overall, the park was clean but improvements are needed with the grounds keeping. Consistent with last year’s evaluation, the lack of a crosswalk leading into the park’s entryway is a major safety concern.

Fisher Park

Fisher Park, located at the intersection of Fisher Street and West 39th Avenue, includes a playground, picnic tables, barbecue grills, basketball hoops, and a volleyball/badminton net. The following summarizes the assessment results conducted in the spring of 2009 and the fall of 2010. A summary of these results can be found in Table 4.

Table 4. Fisher Park assessment overview.

	Spring 2009 Results	Fall 2010 Results	Change Observed
Playground Equipment	Fair Condition	Fair Condition	None
Playground Surfacing	Needs Improvement	Needs Improvement	None
Recreational Areas	Good Condition	Fair Condition	Slight Decline
Bike Racks	None Available	None Available	None
Sidewalks & Walking Paths	<25% area w/ access; Fair Condition	<25% area w/ access; Fair Condition	None
Crosswalks	None Available	None Available	None
Water Fountains	None Available	None Available	None
Public Restrooms	None Available	None Available	None
Shelters, Picnic Tables, & Benches	Fair Condition	Fair Condition	None
Signage & Notices	Needs Improvement	Needs Improvement	None
Police/Security	None	None	None
Graffiti	Little Present	Little Present	None
Cleanliness	Fair Condition	Fair Condition	None
Grounds Keeping	Excellent Condition	Excellent Condition	None

Playground Equipment

The playground area at Fisher Park includes swings (Figure 48), spring animal riders, and a multi-use play structure featuring three slides and multiple climbers (Figure 49). Similar to last year's assessment, the playground equipment was in fair condition, with areas of rust, chipped paint, cracks, and scratches noted on several pieces. Underneath the spring animals, the cement platform was visible, posing safety hazards for small children who might fall and land on the hard surface (Figure 50). An additional safety hazard with the chain-linked climber located on the multi-use climbing structure was noted. It had several cracks with the inner metal exposed (Figure 51).



Figure 48. Swings at Fisher Park.



Figure 49. Play structure at Fisher Park.

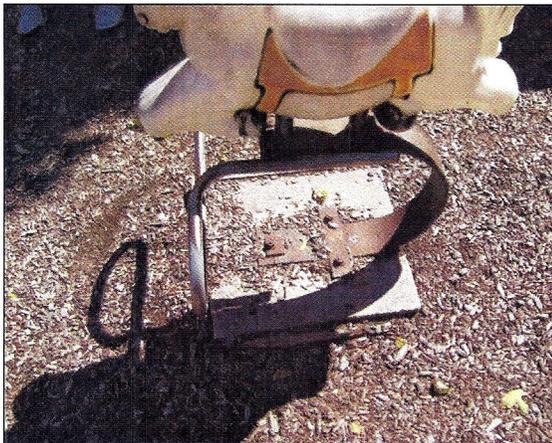


Figure 50. Base of Spring rider at Fisher Park.



Figure 51. Chain-link climber at Fisher Park.

The CFA and PIRG recommend no opening of playground equipment possess a space between 3.5 and 9 inches, except where the lower boundary of the space is the ground. This recommendation is designed to reduce the risk of head entrapment. However, the foot rests of the spring animals had only a 5.5 inch width, posing a head entrapment concern for small children (Figure 52). Other areas of concern included

possible clothing entanglement atop the spiral climber and other features within the multi-use climbing structure.

The park complied with a number of safety recommendations in several areas, including adequate fall zones for the swings and play structures, swing seats that were not constructed of wood and metal, swings not attached to other play equipment, no infant or tot swings in the same areas of standard swing seats, and no more than two swings in any one section of a swing structure. Swings were properly spaced 24 inches apart and 30 inches from the support structure. There was also no equipment deemed “dangerous” by the CFA and PIRG such as chain or cable walkways, multiple occupancy swings, swinging exercise rings, rope swings, or climbing ropes.

Playground Surfacing. The playground surfacing material at Fisher Park consisted of hardwood chips and shredded mulch. Surface depths were measured at six locations throughout the playground. Measured surface depth ranged from less than 0.5 inches by the swings (Figure 53) to over 3 inches by the climber. In order to comply with safety standards, both the CFA and PIRG recommend that the surfacing depth should be nine to twelve inches and surfaces should be composed of loosely filled wood chips, shredded bark, mulch, sand, or pea gravel. Each of the measured areas within the park failed to meet these standards.



Figure 52. Footrest of a spring rider at Fisher Park.



Figure 53. Playground surfacing at Fisher Park.

Recreational Areas

Volleyball Court. This year, Fisher Park added a temporary volleyball net (Figure 54). However, there are a few improvements needed. The volleyball net droops significantly in the middle and is not very sturdy. The boundary areas of the volleyball court are delineated with ropes, which could present potential tripping hazards.

Basketball Courts. Two basketball courts are available for use in this park (Figure 54). One of the basketball courts contained graffiti, had rusty rims, and a backcourt with a large drop off which could pose as a safety hazard. Both the backboard and net were in good condition. The second basketball court had several shards of broken glass on the court the backcourt had a slight drop off. The backboard was worn, but both the net and rim appeared to be in good condition. Some cracks were visible on this court, but should not pose as potential tripping hazards. Overall, the recreational areas of Fisher Park were rated as “Fair.”

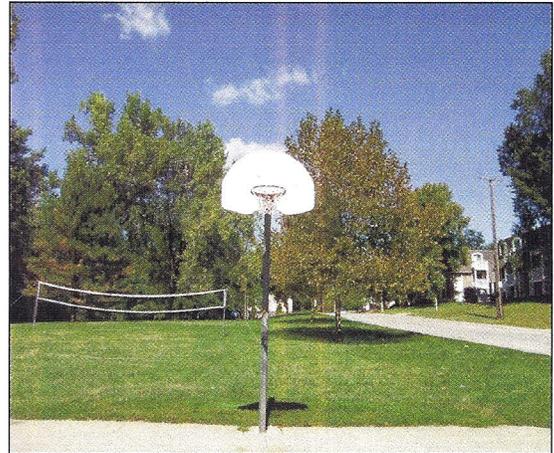


Figure 54. Basketball and volleyball courts at Fisher Park.

Safety, Cleanliness, and Other Issues

Bicycle Racks. There were no bicycle racks available for use at Fisher Park.

Sidewalks and Walking Paths. The condition of sidewalks were assessed within and surrounding Fisher Park. Within the park, there were no sidewalks leading to any of the park areas. Sidewalks were present on the east and south perimeters of the park. The east and part of the south sidewalks were in good condition, with some cracks present (Figure 55). However, the last part of the south sidewalk was in poor condition (Figure 56). Several cracks, uneven walking surfaces, and overgrown grass covering much of the sidewalk was noted. There were no walking paths at this park.

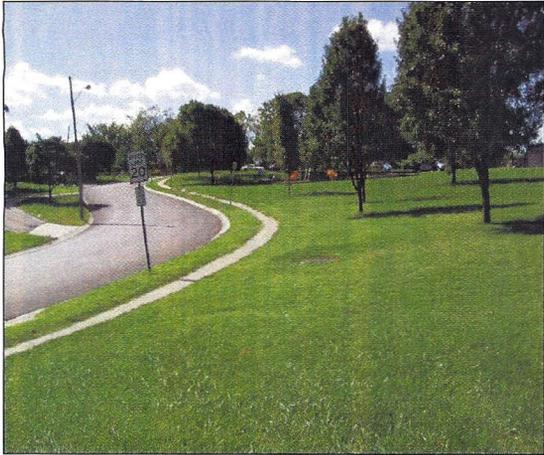


Figure 55. Sidewalk on the east side of Fisher Park.



Figure 56. Sidewalk on the south side of Fisher Park.

Crosswalks. As noted again this year, Fisher Park does not contain a delineated crosswalk, pedestrian crossing signs, or pedestrian lights, which would allow safe access.

Water Fountains. Fisher Park does not contain any water fountains.

Public Restrooms. Fisher Park does not have public restrooms available for use.

Shelters, Picnic Tables, and Benches. Fisher Park does not have a shelter, but does contain four picnic tables and several benches. The first picnic table had several shards of broken glass atop and beneath the table. There was graffiti on the table and the plastic coating was missing in several places (Figure 57). This table needs to be replaced. The second picnic table was in good overall condition. However, some of the plastic coating was missing and the surface had a few scratches. The third picnic table was in excellent condition. Unlike the other tables, the fourth picnic table did not have plastic coating but was in good condition.



Figure 57. Picnic table at Fisher Park.



Figure 58. Bench at Fisher Park.

Three park benches are scattered around the park (Figure 58). Two of the park benches need replacements because of chipped paint, old and cracked wood, and knots or sharp ends that could catch onto clothing or scrape skin. The cement block of one of the park benches was coming out of the ground, deeming it as unusable. The park bench located near the playground area was situated two feet off the ground, which could pose a hazard to small children. The bench contained a few areas that had chipped paint.



Figure 59. Barbeque grill at Fisher Park.

Four barbecue grills are located near each picnic table (Figure 59). Three of the grills were in fair to good condition and ready to be used with some slight cleaning needed. One of the grills was severely rusted and not usable.

Signage and Notices. Fisher Park contains only one sign, which states the hours in which the park is closed (Figure 60). The sign also indicates no alcohol beverages

within the park grounds. One speed limit sign was found on the road directly east of the park, which limits the speed to 20 miles per hour.



Figure 60. Sign at Fisher Park.

Police/Security Presence. There was no security or police presence or signs indicating neighborhood watches at Fisher Park.

Graffiti. During this assessment, very little graffiti was observed within the park. Only two areas had graffiti; at one of the basketball courts and on one of the picnic tables.

Cleanliness. Overall, the cleanliness of this park was rated as “Fair.” A higher rating was not given because of the presence of trash and broken glass near one of the picnic tables (Figure 61) and on one of the basketball courts. Although the trashcans appeared to have been emptied recently, trash littered the area surrounding the trashcans (Figure 62).



Figure 61. Litter surrounding a bench at Fisher Park.



Figure 62. Trashcan at Fisher Park.

Grounds Keeping. Grounds keeping was assessed using factors such as grass height, dead or dying landscaping, overgrown shrubbery, and fallen tree limbs as key indicators. Fisher Park was given an “Excellent” rating. The park had several large shade trees scattered throughout the park and no dead or dying landscaping or large branches were found in any areas of the park. The grass appeared trimmed recently. Flowerbeds, plants, and bushes could be added to improve the scenery within the park.

Summary

With the exception of the addition of a temporary volleyball net to Fisher Park, no major changes were observed between baseline and this most recent assessment. A few areas of concern include the poor condition of two park benches and the barbecue grills, and the lack of crosswalks to and from the park. The basketball courts, a majority of the picnic tables, the playground equipment, and overall grounds keeping were rated as good to excellent condition and usable for park patrons.

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APPENDIX A:

**ROSEDALE COMMUNITY
PARK AND PLAYGROUND ASSESSMENT FORM**

**Rosedale Community
Park and Playground Assessment**

Park/Playground Name: _____

Location: _____

Date Surveyed: _____ **Surveyor's Initials:** _____

1. Playground Equipment

Does this park have any playground equipment (i.e., monkey bars, slides, swings, etc.)? If so, what is the general condition and quality of this equipment?

Playground Equipment			
	Yes	No	Comments
Fall zones for climbers and slides: Does the fall zone extend a minimum of 6 feet in all directions from the perimeter of the equipment?			
Fall zones for swings: Does the fall zone extend a minimum of 6 feet from the perimeter of the support structure on each size of the swing set structure?			
Are any swings constructed of heavy, rigid material such as wood or metal?			
Are any swing structures attached to other play equipment, such as a slide or climber?			
Are there more than two swings in any one section of the swing structure?			
Are infant/tot swings suspended in the same section as a regular swing seats?			
Is the horizontal distance between adjacent swings at least 24 inches?			
Is the horizontal distance between the swing and any adjacent support structure at least 30 inches?			
Is the height of the pivot points/swing beam higher than 8 feet?			
Head entrapment*: Does the play equipment have any openings with an interior dimension between 3.5 and 9 inches, which may cause head entrapment?			

Clothing entanglement hazards**: Does the play equipment have any entanglement hazards on which children may catch clothing or anything else around their neck?			
Is there peeling, chipping, or cracking paint on any equipment surface?			
Dangerous Equipment: Does the playground contain any of the following equipment?			
Track Rides			
Chain or Cable Walks			
Multiple Occupancy Swings or Gliders (Tire swings are exempt)			
Animal Swings			
Swinging Exercise Rings or Trapeze Bars			
Rope Swings			
Individual Climbing Ropes			

*Head Entrapment includes any opening, except those where the ground is the lower boundary, with an interior dimension of between 3.5 and 9 inches and may cause head entrapment, possibly resulting in strangulation.

**Entanglement incidents—look for open “S” hooks, especially on swings. Look for gaps, protrusions, or equipment components which may act as hooks or catch points, especially at the top of slides.

What type of surfacing is under and around the play equipment?

- | | |
|--|--|
| <input type="checkbox"/> Concrete
<input type="checkbox"/> Asphalt
<input type="checkbox"/> Grass
<input type="checkbox"/> Soil
<input type="checkbox"/> Hardwood Chips
<input type="checkbox"/> Other: _____ | <input type="checkbox"/> Shredded Mulch
<input type="checkbox"/> Sand
<input type="checkbox"/> Pea Gravel
<input type="checkbox"/> Shredded Tires
<input type="checkbox"/> Rubber Tiles or Unitary Synthetic Surface |
|--|--|

If the surfacing material is a loose material, such as hardwood chips, shredded mulch, sand, pea gravel, or shredded tires, use a yardstick or ruler to measure how deep it is, making several measurements in different spots.

- | | |
|----------------------------|----------------------------|
| Area 1 Depth: _____ inches | Area 4 Depth: _____ inches |
| Area 2 Depth: _____ inches | Area 5 Depth: _____ inches |
| Area 3 Depth: _____ inches | Area 6 Depth: _____ inches |

2. Recreational Areas

Are there recreational/sport activity areas available in the park (basketball court, tennis court, baseball diamond, etc.)? If yes, please explain what this park has available.

What are the conditions of these recreational areas?

_____ Very Poor (unusable, poses a significant safety hazard to players, severely cracked or uneven surfaces, equipment such as basketball rims or tennis nets are in disrepair or completely missing, trash litters playing surfaces)

_____ Poor (surfaces contain many cracks and a few uneven places, players may risk injury if they use the area, all equipment is present but may be in poor condition, trash is present on playing surfaces)

_____ Fair (surfaces have few cracks but paint may be faded, players may participate with only a slight risk of injury, all equipment is present but may have mild maintenance issues, some trash may be visible on playing surfaces)

_____ Good (surfaces have no cracks but paint may be faded, players may participate safely, all equipment is present and without need of repair but may demonstrate mild rust or isolated holes in netting, no trash should be present on playing surfaces)

_____ Very Good (surfaces appear new and clean, players may participate safely, all equipment is present and appears new and clean with no visible signs of wear, trash is not present on playing surfaces)

Other comments about the recreational areas of this park?

3. Safety, Cleanliness, and Other Issues

Is there a bike rack available for use?

_____ Yes _____ No

How many bike racks are available for use in this park?

Are the bike racks located within easy view?

_____ Yes _____ No

Other comments about the availability of bike racks in this park?

What is the relative amount of sidewalks contained within this park?

Nearly all the park has sidewalks (75-100% of areas have sidewalk access)

Much of the park has sidewalks (50-74% of areas have sidewalk access)

Some of the park has sidewalks (25-49% of areas have sidewalk access)

Very little of the park has sidewalks (<25% of areas have sidewalk access)

None of the park has sidewalks (no sidewalks present within park)

If sidewalks are present, what is the condition of these sidewalks? Include hazards such as cracks or overgrown areas and the presence of curb ramps.

Does the area surrounding the park have sidewalks for pedestrians?

Yes No

If yes, what is the condition of these sidewalks? Include hazards such as cracks or overgrown areas and the presence of curb ramps.

Are pedestrian crosswalks available at the entryways to this park?

Yes No

If yes, what is the condition/quality of the crosswalks? Include visibility to motorists, presence of crosswalk lights, road signs alerting motorists to crosswalk, and ease of crossing.

Are there working water fountains in this park?

Yes No

If yes, what is the quality of the water (taste, odor, color, etc)
Is there a men's public restroom in this park?

_____ Yes _____ No

If yes, how would you describe the quality/cleanliness of the men's restroom? Include light fixtures, accessibility for disabled individuals, number of stalls, and overall cleanliness.

Is there a women's public restroom in this park?

_____ Yes _____ No

If yes, how would you describe the quality/cleanliness of the women's restroom? Include light fixtures, accessibility for disabled individuals, number of stalls, and overall cleanliness.

Is there a visible shelter with picnic tables in this park? If yes, please describe the conditions of this shelter and picnic tables.

Are there signs posting information about renting the shelter and/or the park? If yes, where are these signs located?

Are there signs posting the hours of the park? If yes, where are these signs located?

Is there any police or security presence in this park?

_____ Yes _____ No

Is there graffiti in this park? If yes, please describe the location of the graffiti.

How would you rate the overall cleanliness of the park?

_____ Very Poor (trash cans are overflowing, trash litters most areas of the park, equipment is dirty and/or covered in graffiti, picnic tables are covered in animal droppings and/or trash, public grills contain trash or do not appear to have been cleaned recently, public restrooms are unusable with broken equipment and unsanitary conditions, missing soap, toilet paper, and paper towels)

_____ Poor (trash cans are full but not overflowing, trash may litter ground in many areas, graffiti is present in some areas, picnic tables appear to need cleaning but are unusable, public grills need to be cleaned, public restrooms are unsanitary with one or more sinks and/or toilets in disrepair and missing soap, toilet paper, and paper towels)

_____ Fair (most trash cans appear to have been emptied recently, some trash may be present on the ground or equipment areas, little to no graffiti, picnic tables may need to be cleaned, public grills may be dirty, public restrooms may need to be cleaned but are sanitary with no more than one toilet and/or sink in need of repair, soap, toilet paper, and paper towels are found in most sinks or stalls)

_____ Good (trash cans appear to have been emptied recently and are in good condition, no trash is noted in areas outside of the trash cans, there is no graffiti, picnic tables are mostly clean, public grills appear to have been cleaned recently, public restrooms appear to have been cleaned recently with no broken sinks or toilets, and no more than one area missing soap, toilet paper, or paper towels)

_____ Excellent (trash cans are clean and have been emptied, no trash or graffiti is noted in the park, picnic tables are clean, public grills have been cleaned recently, public restrooms appear clean with no broken sinks or toilets, and every sink or stall contains soap, paper towels, and toilet paper)

Other comments about the cleanliness of this park?

How would you rate the quality of the groundskeeping of this park?

_____ Very Poor (shrubbery is overgrown and obstructing most sidewalks, roads, or equipment, grass is more than knee high, flowers and other landscaping is dead, fallen trees or large tree limbs need removal)

_____ Poor (shrubbery is overgrown and obstructing many sidewalks, roads, or equipment, grass is no more than knee high, most of the flowers or landscaping is dead or dying, some large tree limbs need removal)

_____ Fair (shrubbery is overgrown in several areas and may be obstructing some sidewalks, roads, or equipment, grass is no more than mid-shin level, some flowers or landscaping are dead or dying, no large tree limbs need removal)

_____ Good (shrubbery may be overgrown in a few places but does not block any sidewalks, roads, or equipment, grass is no more than ankle high, few flowers or landscaping is dead or dying, no large tree limbs need removal)

_____ Excellent (shrubbery is not overgrown or blocking sidewalks, roads, or equipment, grass has been recently cut and is below the ankle level, no flowers or landscaping is dead or dying, no tree limbs need removal)

Other comments about the grounds keeping of this park?

Other comments about this park?

Green Corridor Community Meeting October 13, 2010

The following represents the comments and thoughts assembled during the Green Corridor Meeting on October 13, 2010. Strengths, weaknesses, visions and other factors were elicited from participants for consideration during the planning process. Numbers in parentheses are the result of a voting process during the meeting. They represent the relative importance assigned to each topic or issues by the participants.

STRENGTHS

Good traffic access to entire metro (12)
Good police presence (9)
KU Med Center (7)
Home grown – mom and pop businesses (6)
Reliable / Safe major arterial street (6)
Hills have a lot of trees (5)
Neighbors watch out for each other (4)
Rosedale Development Association Leadership (4)
Corridor traffic is good for business (3)
No fast food chain restaurants (3)
Rolling hills (2)
Homes clustered (2)
Close by ethnic restaurants (2)
Good mix of uses (2)
Church Presence (2)
Beautiful buildings (2)
Parks (1)
Friendly Neighbors (1)
Good ethnic mix (1)
Code Enforcement
Fresh - clean air

WEAKNESSES /NEEDS

Deplorable sidewalks to Merriam (10)
No community center (10)
Speed of traffic along corridor (9)
Lack of bus service (5)
Lack of tax abatement for improving buildings (5)
Lack of usable trails (5)
Stormwater management (5)

Waiting for trains (4)
Lack of decorative street lights (4)
Appraisals not current (3)
Train noise (3)
Slow street repair process (3)
Absentee slumlords don't keep properties up (2)
Vacant buildings/properties (2)
Lack of convenient grocery stores (2)
Uncollected back taxes (1)
Signs knocked down (1)
Lack of bike lanes (1)
Code enforcement - weeds/trash (1)
Weeds in public right of way
Planet Aid box littered with clothing around container
Lack of identity of Rosedale
Multiple governments overlap corridor
Lack of open space
Inadequate street lights
Negative perception of real estate
Stormwater/ flooding
Signage for directions – lacking / incorrect
Lack of knowledge to problem solve – who to call
Lack of safe pedestrian crossings (Mill)

MAIN ISSUES FACING CORRIDOR - CARDS

Sidewalks/curbs, bike paths, safe pedestrian crossings, traffic calming, stormwater, trails (17)
Streetscape, trees, decorative lighting, signage, identity (11)
Community Center (10)
Development, building enhancements (9)
Parks/Green space (8)
Crime (6)
Public Transit (5)
Trains (5)
Marketing of Corridor (2)
Stormwater (2)

Other specific issues included:

No grocery store – need good food options
Restrict 24-hour businesses, QuikTrip, CVS, Walgreens, fast food restaurants
Boulevard Drive-in a plus for the corridor
More cultural activities for the arts, music, theater, museums etc.

VISIONS FOR THE FUTURE

Distinguish community from UG and KCKS
Small Business Campus
Real Jobs
Slow traffic flow
Well lit
Wake board park attraction
Artist location/district
Unified corridor, trees, benches
Define Community - Placemaking
Mom and pop shops
Retail seven days a week
Destination
People walking with dogs and kids
Community center with activities
Park open space for recreation, not leagues
Energy efficient homes
Wind generator with free electricity
Places to play (old trailer park)
Soccer fields
Skateboard park
Put train in tunnel or over Boulevard. Silent
Boutique businesses with quaint facades ie. Parkville
Thousands on bike trail
Quaint homes
Mixed use, live/work residential
Landmarks – Rosedale arch, Saurer castle

The Green Corridor Study

SUMMARY OF MEETINGS WITH BUSINESS OWNERS

East Corridor Group
State Line to Mission Road
October 6, 2010

Attendance

Kevin Dennis	Family Health Services (913) 722-3100	300 Southwest Boulevard www.swbfhc.org
Leroy Andrew	Strasser Hardware (913) 236-5858	910 Southwest Boulevard www.strasser-hardward.com
Ryan Edwards	E. Edwards Inc. (913) 262-2360	1010 Southwest Boulevard www.eewprlwear.com
Tom Corbin	Corbin Studio (913) 766-4012	1166 Southwest Boulevard www.tomcorbin.com

General Comments

1. Would like more retail activity in evenings and weekend.
2. Great commercial location right on I-35.
3. Want walking/biking trails. Many bicycle riders now use the boulevard.
4. The boulevard is good for artists. Rents lower than Crossroads and City Market.
5. The Unified Government is much easier to work with than KCMO.
6. Why is parking allowed during rush hours, but not at night?
7. There are problems with ponding.
8. Suggest more retail on south side of boulevard and multi-family behind that. Save north side of boulevard for industrial uses.
9. Would like the boulevard to connect to KU Medical Center.
10. Overall crime very much less than other areas although copper theft is up. Most theft is Midnight to 4 am. Crime much less than people think it is.
11. The City has cleaned up weeds around the Mission Road triangle. Volunteers have planted the triangle.
12. Health Care Center open until 9 pm 4 nights a week.
13. All present are interested in creating a business association.
14. The group felt the main improvements needed are:
 - Road improvements
 - Drainage improvements
 - Repair sidewalks and complete missing links.
 - More street lighting

Middle Corridor Group
Mission Road to 18th Street
October 12, 2010

Attendance

Alistair Tutton	Alistair Tutton Photography (816) 500-4402 Vox Theatre (913) 588-1623	1405 Southwest Boulevard alistair@alistairtutton.com www.voxthetre.com
Roland Rhodes	Rhodes Chemical Co (913) 432-2424	1129 Merriam Lane www.rhodeschem.com
David Dussair	Design Build Team Inc (913) 722-1443	1243 Merriam Lane www.designbuildteam.com
Marc Van Meehaeghe	Marc's Gift & Garden (913)722-6433	1281 Merriam Lane www.marcs-kc.com

General Comments

1. Vacant buildings are a big problem in terms of appearance and fostering more crime.
2. An improved streetscape, similar to what Merriam has done, would attract more commercial businesses.
3. Important to retain and enhance old character.
4. Train noise negatively impacts wedding events at the Vox Theater. Traffic delays are also a problem. Trains would impact a bus route if it were established.
5. Appearance of gateway area around Rainbow and Southwest Boulevard needs to be improved. Are any of those buildings or land, such as the grain elevator and the land west of the DQ, going to be redeveloped?
6. Area has excellent local and interstate access, particularly for trucks. It is central to established areas.
7. Older buildings can offer unique design attributes – i.e. Vox Theater
8. Prohibit or strongly discourage undesirable land uses.
9. Similar to Lenexa, should encourage high quality business park uses.
10. Concern with continual lack of code enforcement. People should be encouraged to fix their properties up.
11. Low income housing should be discouraged and home ownership encouraged. Some additional new residential uses would be OK.
12. A business association might be beneficial.
13. As far as this plan, it's important to get a few small things completed first.
14. Area is affordable, both in terms of land and building.
15. There is a lack of sewers in some areas.
16. Streetscape and building enhancements are needed at multiple intersections.

West Corridor Group
18th Street to Overland Park
October 15, 2010

Attendance

Walter Neal	Boulevard Drive-In Theatre (913) 262-2414	www.boulevarddrivein.com 1051 Merriam Lane
Reid Graham	NetStandard, Inc (913) 262-3888 ext 282	www.netstanard.com 2000 Merriam Lane
Dana Reese	Superior Sheetmetal Co. Inc (913) 831-9900	www.superiorsheetmetal.com 2100 Merriam Lane
Randy Davis	Farmstead Treats (913) 432-3638	www.farmsteadtreats.com 2920 Merriam Lane
Chris Lang	The Burger Joint (913) 362-0607	3212 Merriam Lane
Mike Jones	True North Services (913) 722-1122	www.truenorthsnow.com 2405 Merriam Lane
Paula Kramer and Jim Ernst	Burke Mobility (913) 722-5658	www.pacesaver.com 1800 Merriam Lane

General Comments

1. Almost all participants said it's a great location. Quick access to balance of Kansas City. Good central location for employees.
2. One owner has seen increase in crime. Another long time owner has only had 2 break-ins in recent years and said one was his fault.
3. Been there 15 years. Things have improved a lot.
4. Likes longevity of businesses.
5. Likes the variety of warehouses.
6. Suggested copying 1st Fridays.
7. Getting more businesses will make the City pay more attention to area.
8. There are some drainage problems. Lack of stormwater sewers mentioned by several.
9. Road repairs are needed although they have made some repairs.
10. Enforcement of codes needs to be more consistent mentioned by several.
11. There is a large increase in bicycles. Need to make it safe for them with bike lanes.
12. More street lighting is needed.
13. There is no unified theme along the boulevard.
14. Needs to improve entry markers to area.
16. Parking in some areas is too close to street and poor sight distance.
17. Most of group interested in organizing the business owners.
18. Suggested continuing along the boulevard what Merriam has done, i.e. streetscape, a theme, etc.

Project Team Present at Meetings

Wendy Wilson, Executive Director
Gil Pintar
Brant Gaul
Roger Kroh
Jane Heide
Sergeant Kent Anderson
Officer Amy Allen

Rosedale Development Assn.
Project Manager
Project Team
Project Team
Project Team
KCK Community Policing
KCK Community Policing

Results Summary

Health Fair Assessment

The following results represent data collected from health fairs for the Green Corridor, a target neighborhood, of Kansas City, Kansas. Although the health fairs were open to the public, data reported will represent those residents who live within the Green Corridor. The health fairs were held on Saturday, October 23rd, 2010 at the Southwest Boulevard Family Health Clinic and Sunday, October 31st, 2010 at the Mennonite church and Whitmore Playground. Numerous health measures were conducted including body composition assessment, blood pressure, and blood lipid/glucose profiles. All participants were invited to participate at each station. Patients were counseled based on their results. Free influenza and pneumonia vaccines were also offered to all participants. The event on the 31st was a “Healthy Halloween” fair and incorporated additional outdoor activities for children and families, including a moon walk, face painting, pumpkin decorating, games and other activities.

A total of 135 people attended the health fairs. Of those, 51 adults, and 18 children were from the Green Corridor. Descriptive and health assessment data for all adult participants as well as those from the Green Corridor can be found in Table 1. Table 2 represents the same information but for children only.

Table 1. Adult Participant Characteristics

	All	Green Corridor
N	102	51
Gender (% male)	43	39
Age (years)	44±14	42 ± 14
Height (feet/inches)	5'4" ± 4"	5'5" ± 5"
Weight (lbs)	176.06 ± 45.67	180.57 ± 53.23
Body Mass Index (BMI)(kg/m ²)	30.46 ± 7.15	30.51 ± 8.19
Waist Circumference (cm)	96.31 ± 15.09	97.81 ± 17.19
Systolic Blood Pressure (mmHg)	125.48 ± 15.47	125.18 ± 15.08
Diastolic Blood Pressure (mmHg)	77.91 ± 10.49	77.77 ± 9.60
Heart Rate (bpm)	77.03 ± 11.08	75.52 ± 10.80
Glucose (mg/dL)	112.07 ± 44.17	102.62 ± 19.53
Total Cholesterol (mg/dL)	197.40 ± 45.29	193.81 ± 35.46
High Density Lipoprotein (mg/dL)	48.45 ± 16.16	45.48 ± 14.66
Low Density Lipoprotein (mg/dL)	136.59 ± 52.19	127.10 ± 41.79

Table 2. Child Participant Descriptives

	All	Green Corridor
N	33	18
Gender (% male)	46	44
Age (years)	9.09 ±3.72	9.94 ±3.99
Height (feet/inches)	4' 6" ± 8.5"	4' 7" ± 9"
Weight (lbs)	111.5± 71.77	125 .39± 83.25
BMI Percentile (%)	86.26 ± 14.19	87.13± 14.51
Waist Circumference (cm)	75.66 ± 23.41	76.87± 26.98

As seen in Figures 1 and 2, approximately 47% of adults and 44% of children from the Green Corridor can be classified as obese (BMI ≥ 30 or BMI percentile ≥ 95th).

Figure 1. Adult BMI Classification

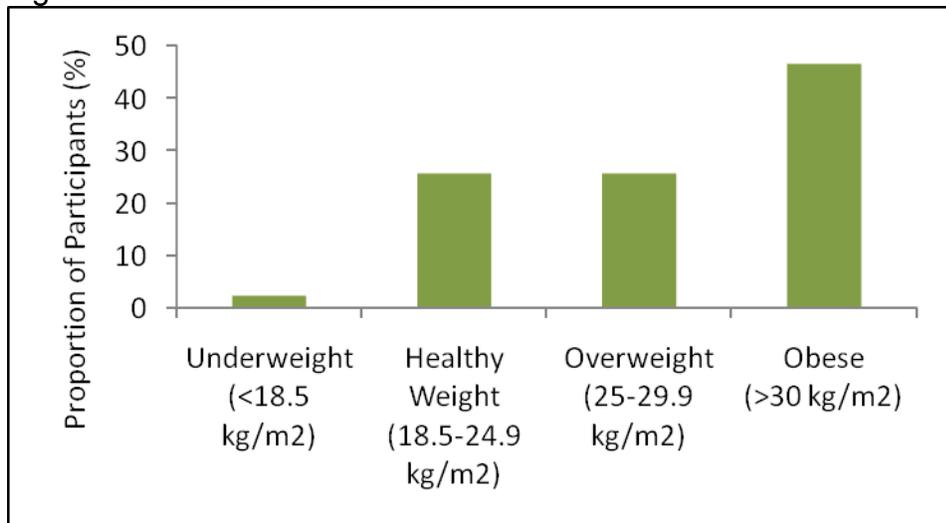
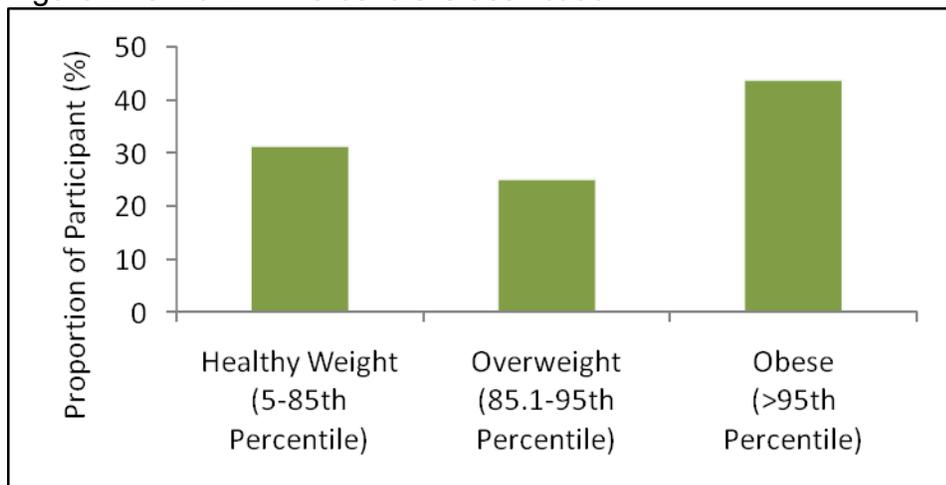


Figure 2. Child BMI Percentile Classification



As seen in Figure 3, the majority of adults from the Green Corridor fell into the At Risk category for waist circumference. For children, 35.3% fell into the 90th percentile or above for waist circumference (Figure 5).

Figure 3. Adult Waist Circumference Classification

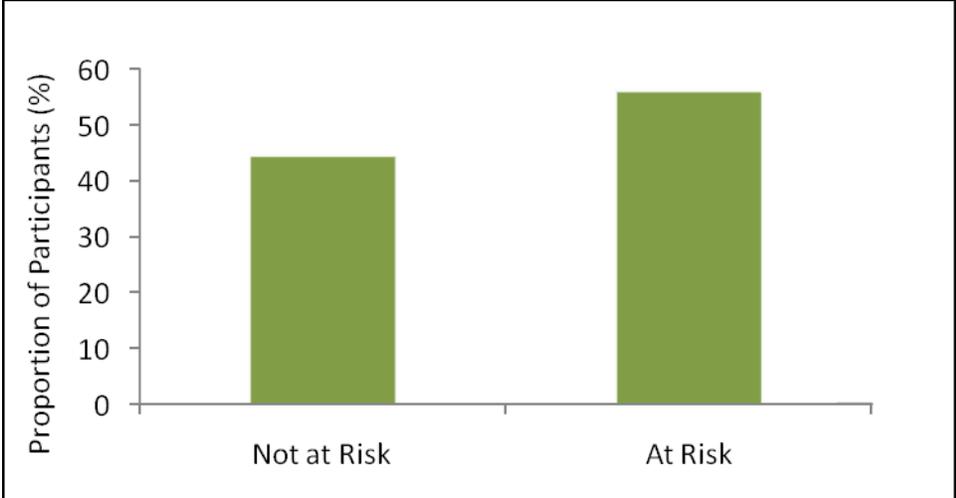
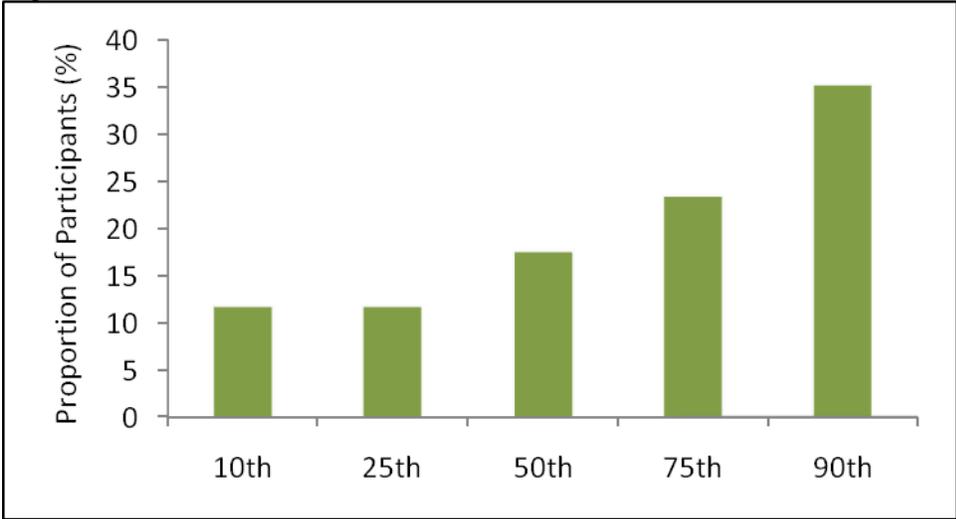
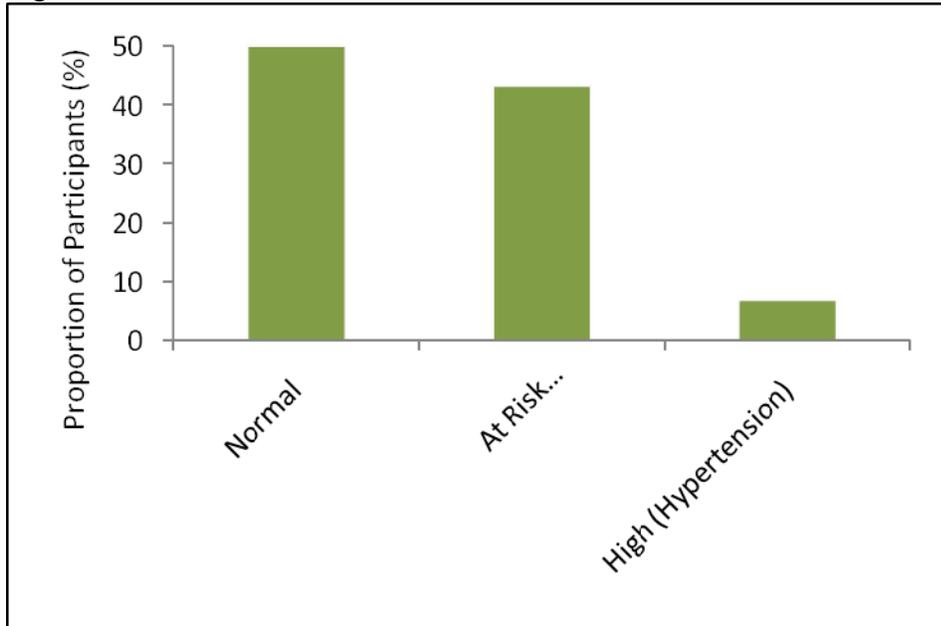


Figure 4. Child Waist Circumference Percentile



Blood pressure was measured only in adult participants. Nearly half of the participants from the Green Corridor could be classified as having blood pressure that places them at risk for hypertension (HTN) (Figure 5).

Figure 5. Adult Blood Pressure Classification



Blood draws for lipid and glucose levels were conducted on adult participants only. The majority, 61.9%, of participants from the Green Corridor had normal glucose levels, while 11.9% had glucose levels that could be classified as at risk for diabetes (Figure 6). Over half of the participants from the Green Corridor had normal total cholesterol levels (Figure 7), ideal HDL cholesterol levels (Figure 8), and normal triglyceride levels (Figure 10). However, 69% of participants from the Green Corridor could be classified as having high LDL cholesterol levels.

Figure 6. Blood Glucose Classification

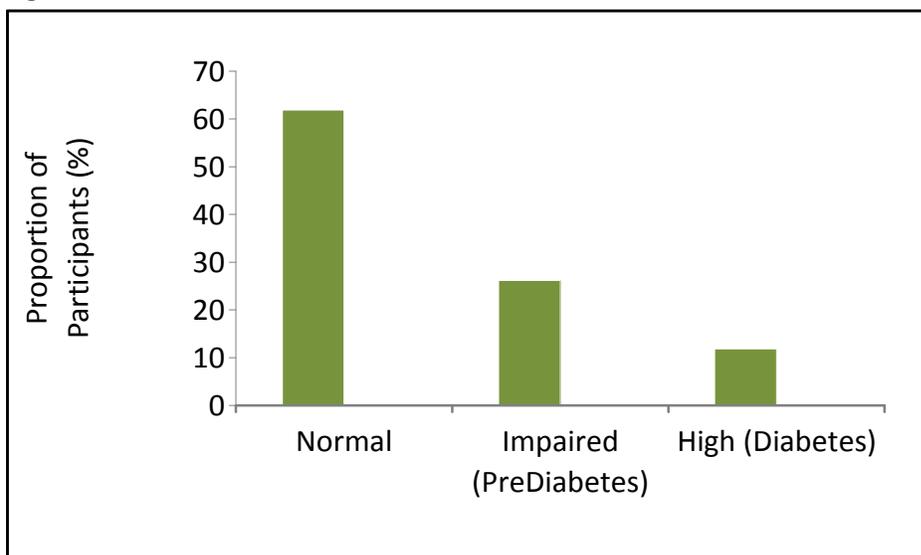


Figure 7. Total Cholesterol Classification

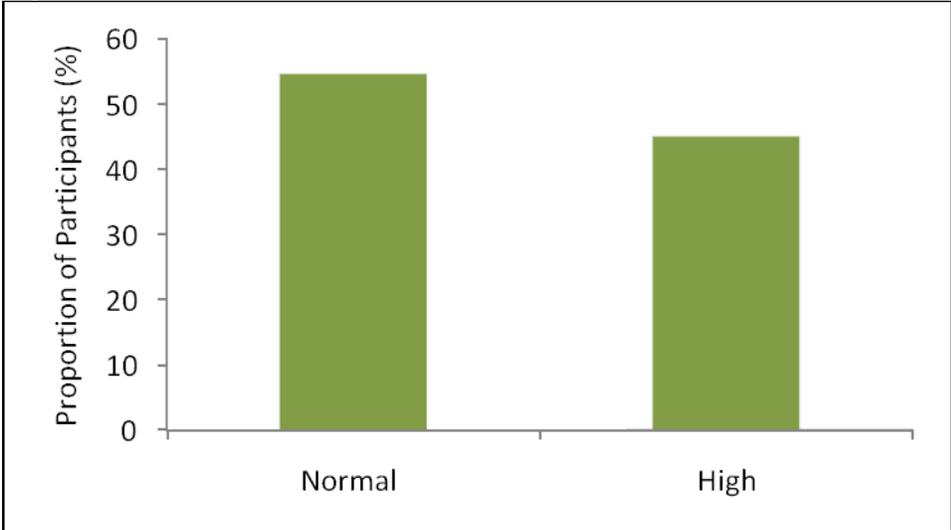


Figure 8. HDL Cholesterol Classification

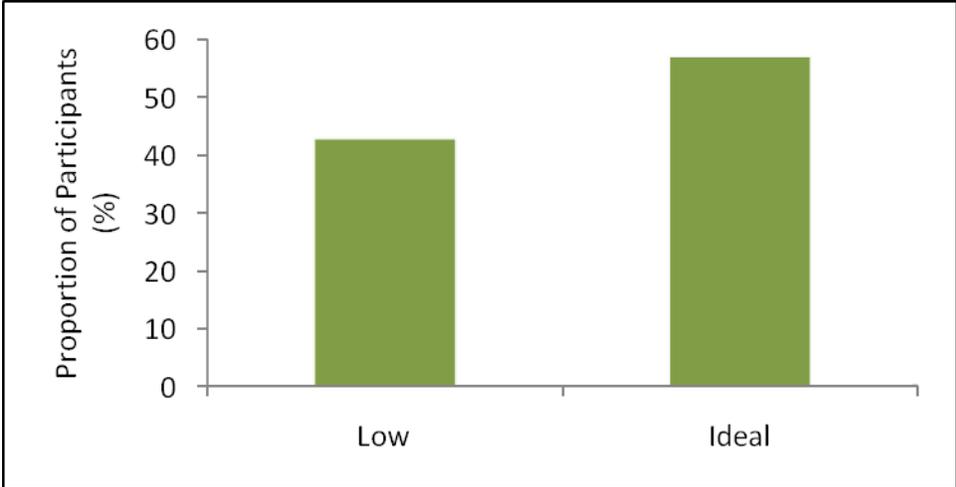


Figure 9. Low Density Lipoprotein Cholesterol Classification

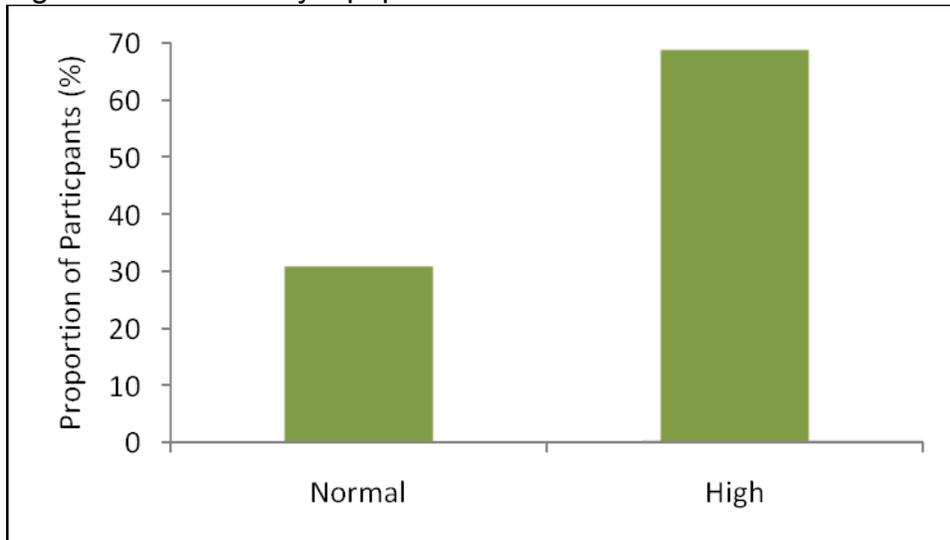
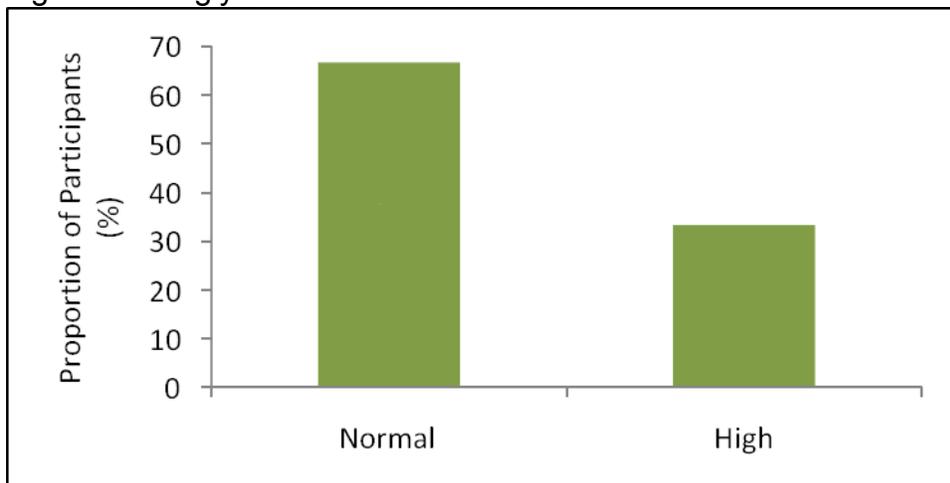


Figure 10. Triglyceride Level Classification



Of all the adult health fair participants, 72.3% received influenza vaccinations while 70.6% of those who received vaccinations resided in the Green Corridor. Only 2% of Green Corridor adult participants received a pneumonia vaccination. Of all the child health fair participants, 78% of them received influenza vaccinations while 61% of those children resided in the Green Corridor.

If participant values were out of range for any health measure, they were offered the opportunity to consult with a health care professional and offered a referral to see a physician at a local Safety Net Clinic. Ten percent of adult participants and 3% of child participants opted to receive a clinic referral.

Health and Environment Survey

The Health and Environment survey was designed to address general health topics as well as specific factors that might influence the health of the residents living within the Green Corridor. Only those people attending the health fairs who lived within the Green Corridor were asked to complete the survey. A total of 75 surveys were completed. Twenty-four surveys were completed on October 13 at the Green Corridor Community Meeting. A total of 51 surveys were completed at the Health Fairs on October 23 and October 31. Of those surveys, 29 were completed on October 23, and 22 were completed on October 31, 2010. A majority of participants reported that they were informed of the health fair events through the community flyer (Table 3).

Table 3. "I learned about this event from..."

Mode	Participants (%)
Family or Friends	21.3
Community Flyer	46.8
Mail	8.5
Health Clinic	2.1
School	2.1
Church	8.5
Other	10.6

Demographics

As seen in Table 4, survey participants reported to have lived at their address within the Green Corridor for an average of 14.7 years, were on average 44.4 years old, and about half were male (47.3%). A total of 21 participants or 30% of participants reported to be of Hispanic ethnicity. Racial distribution can be found in Figure 11. Eighty-four percent of the population reported to have completed their high school diploma or higher education (Figure 12).

Table 4. Demographics.

Length of residence (years)	14.7
Age (years)	44.4
Gender (% male)	47.3

Figure 11. Race Distribution.

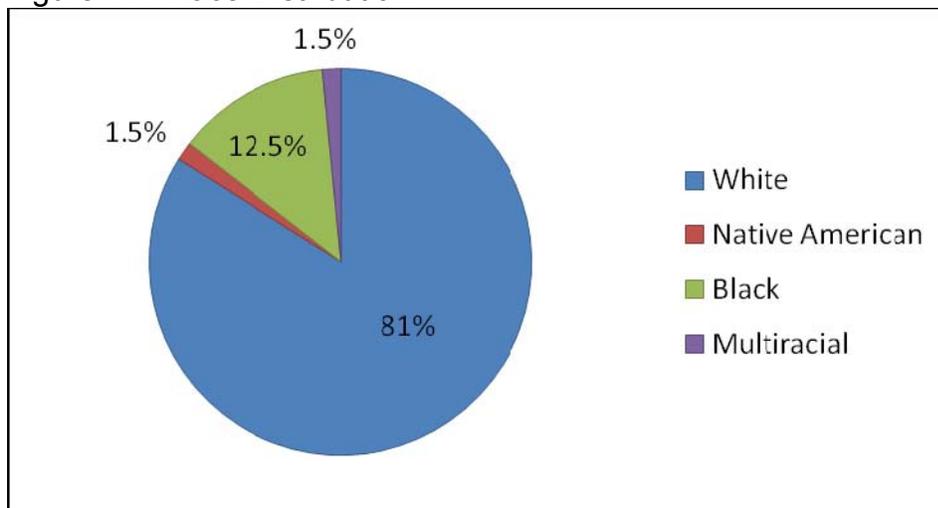
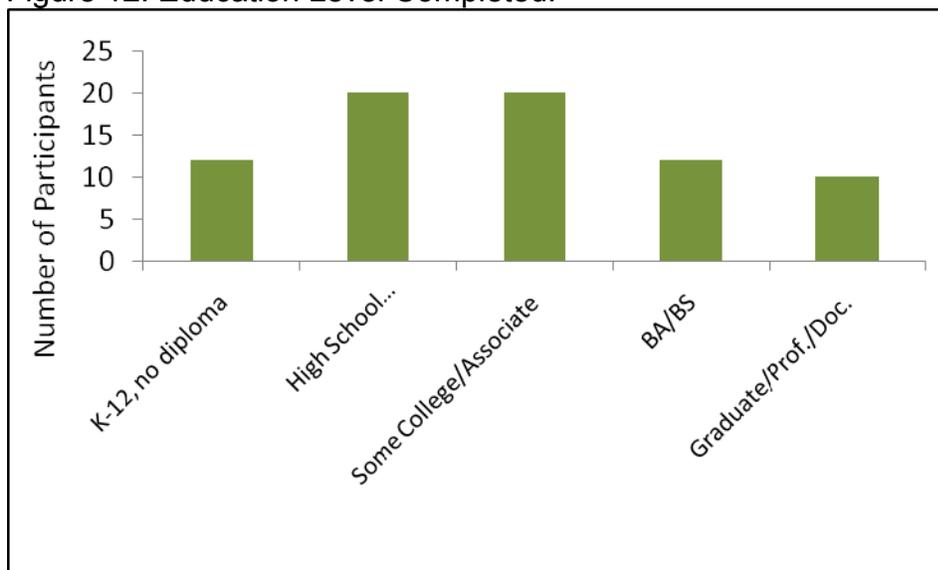


Figure 12. Education Level Completed.



Health Status

Participants were asked to report their self-perceived health status and their medical conditions (Figure 13). The majority of participants considered themselves to be in good health. Participants were also asked to report if they had ever been told by a doctor or other health professional that they had hypertension or high blood pressure, any kind of heart disease, asthma, cancer or malignancy of any kind, and/or pre-diabetes, diabetes, impaired glucose, or high blood sugar. Results can be found in

Table 5. Smoking status was also addressed in the survey with 50% of participants reporting to have smoked at least 100 cigarettes in their entire life.

Figure 13. Perceived Health Status.

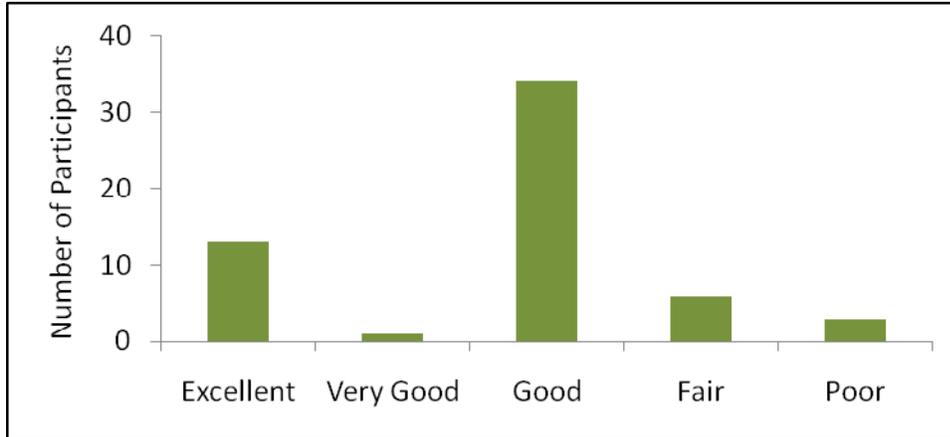


Table 5. Reported Medical Conditions.

Medical Condition	Participants (%)
Hypertension	31.4
Heart Condition or Heart Disease	4.3
Asthma	17.1
Cancer or Malignancy	2.9
Pre-Diabetes, Diabetes, Impaired Glucose, or High blood Sugar	14.3

Health Related Behaviors and Access

A majority of participants reported having a place to go when sick or needing health advice (Figure 14). Almost 75% of participants reported that they usually receive health care at a community health clinic or doctor’s office (Table 6). Forty-two percent of participants reported that they did not have any form of insurance or health care coverage.

Figure 14. “Is there a place where you USUALLY go when you are sick or need advice about your health?”

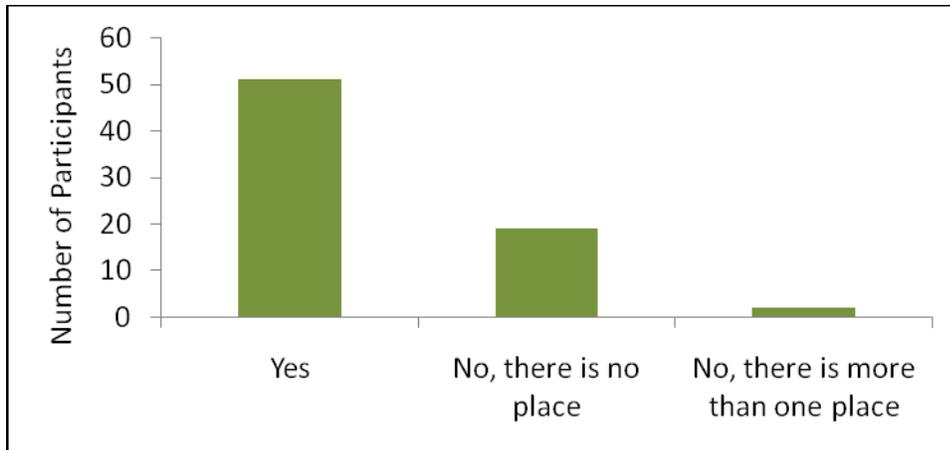


Table 6. Health care source.

Health Care Source	Participants (%)
Community Clinic or Health Center	21.4
Doctor's Office or HMO	52.9
Hospital Emergency Room	7.1
Hospital Outpatient Department	2.9
Other place	4.3

Forty-three percent of participants reported that they/their families had fruits and vegetables at home most of the time (Figure 15). Participants were also asked where they commonly buy groceries or snacks. Participants were allowed to report multiple sources where they commonly shop. The most frequently reported places where participants buy snacks and groceries were the Roeland Park Price Chopper and other grocery stores outside of the Green Corridor (Figure 16). Other grocery stores included the Westwood Apple Market and the SunFresh in Westport. Most participants reported that they eat at home three to five times a week (Figure 17), while they eat two to four times a week away from home (Figure 18).

Figure 15. Fruit and Vegetable Consumption.

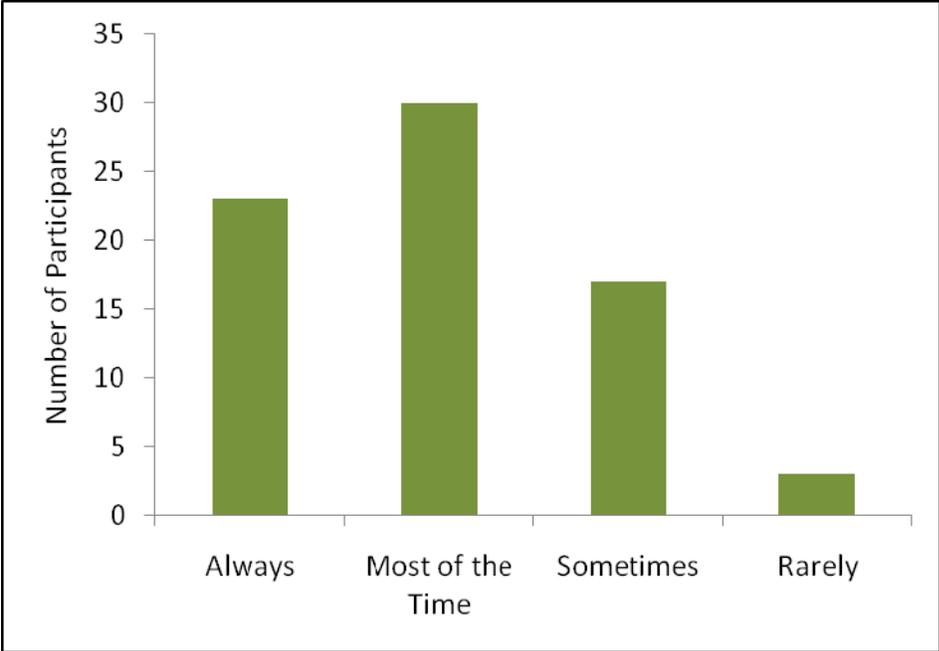


Figure 16. Grocery and Snack Sources.

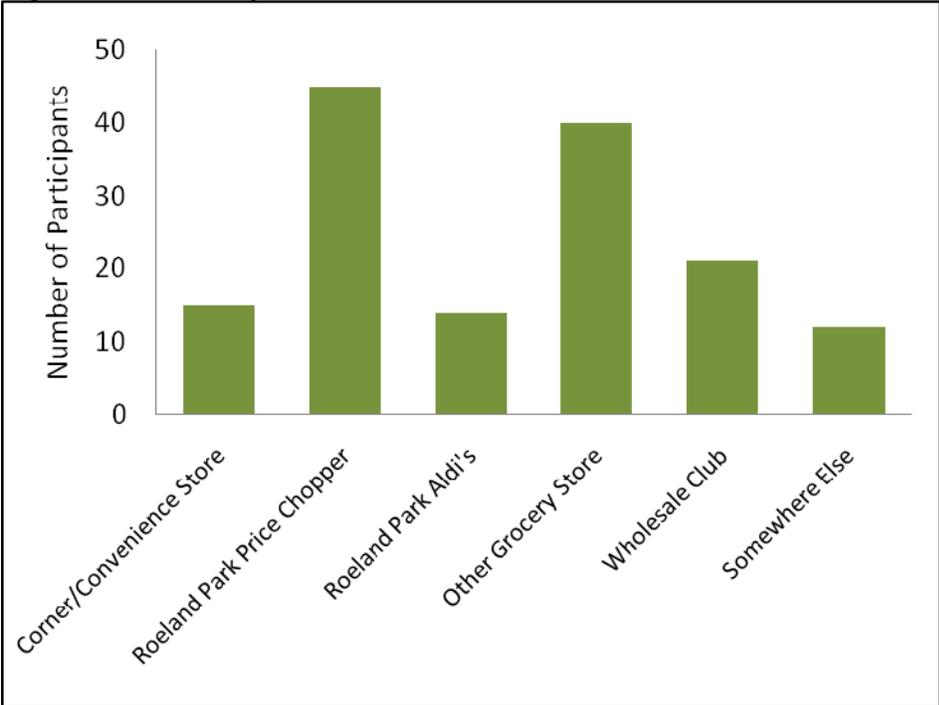


Figure 17. Times eaten at home per week.

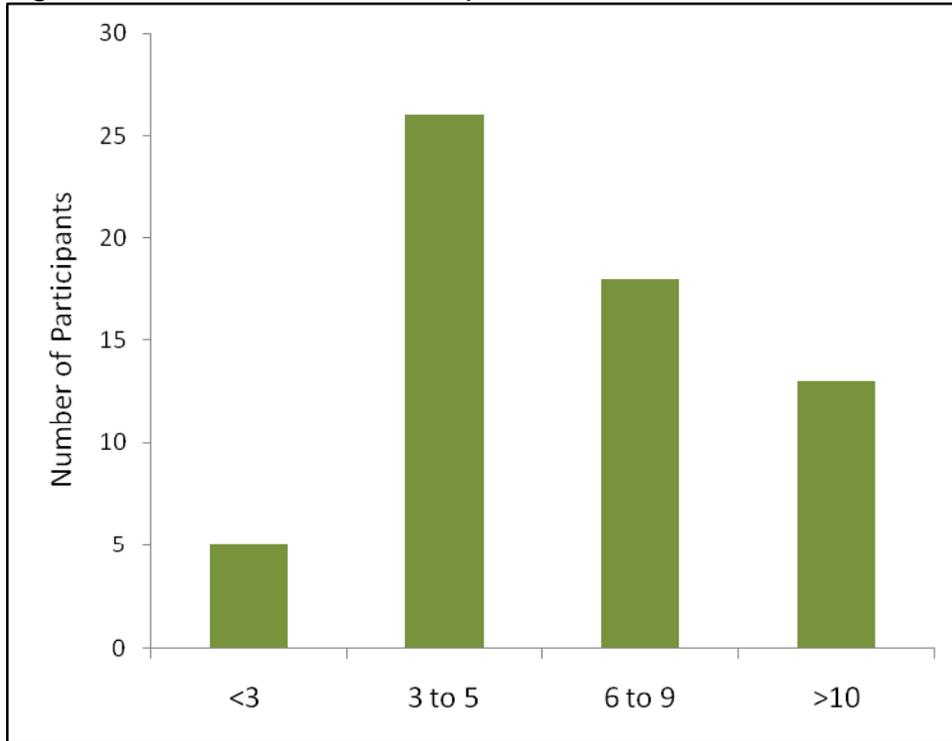
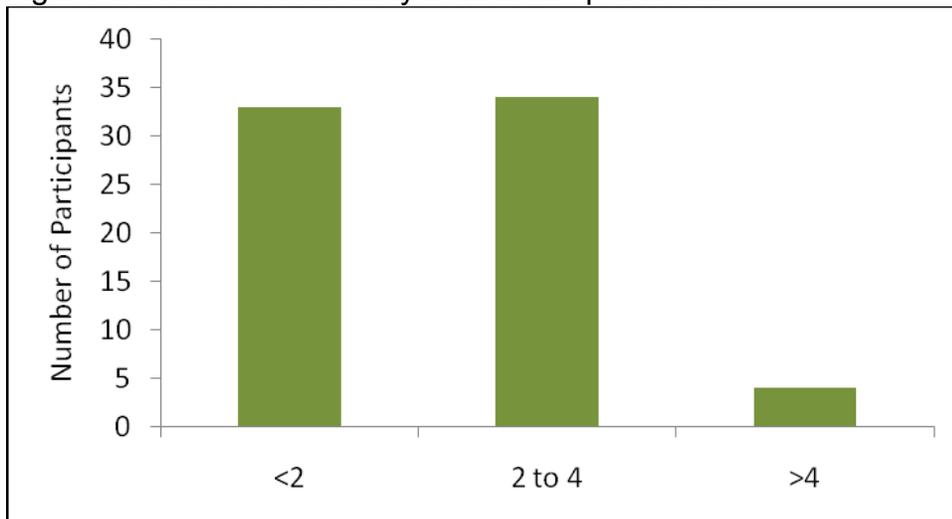


Figure 18. Times eaten away from home per week.



About one fourth of participants indicated that they had received food assistance from SNAP, Food Stamps, WIC, free/reduced meals, or any other government food assistance. Twenty-seven percent of participants indicated that they cut the size of their meals or skipped meals because they did not have enough money or food, while 16%

indicated that they received emergency food from a church, food pantry, food bank, or soup kitchen.

Nearly half of participants from the Green corridor indicated that they are physically active for 60 minutes or more on two or less days per week (Figure 19). Ninety percent of participants reported that they owned a car, while 42 percent of participants reported that they owned a bike. All participants reported that their most common form of transportation is by car. However, some also reported walking, biking, and using public transportation (Table 7) as well. Note the percent adds to more than 100 because the participants were able to choose more than one category.

Figure 19. Number of days getting 60 minutes or more of physical activity per week.

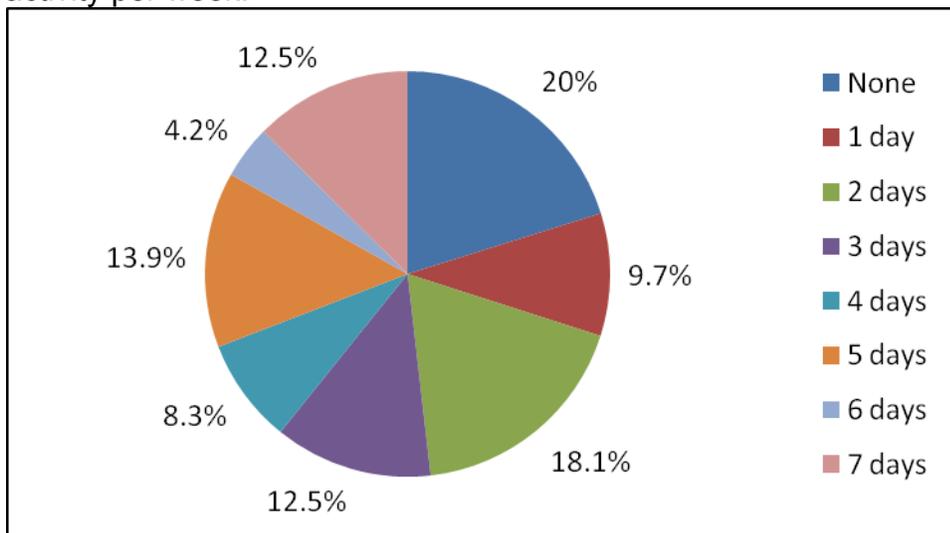


Table 7. Most common form of transportation.

How Participants Arrived to Event	Participants (%)
Car	100
Bike	4.3
Walk	10.0
Public Transportation	2.9

Safety and Neighborhood Access

Participants were asked to complete questions regarding their feelings about the level of access within their neighborhood. Figures 20 through 27 below illustrate the distribution of answers to these questions. Participant chose the answer that best described how they felt about each statement. About 60% felt that they could do most of their shopping at local stores and about 60% felt that parks are in easy walking distance of their homes. However, about half of the participants reported that they felt there were not many places within walking distance of their homes and over half reported that it is

not easy to walk to a bus or train stop from their house. Close to 75% of participants reported that there are sidewalks on most of the streets within their neighborhood, but 70% claimed that the sidewalks were not well maintained. About 70% of participants felt that there are bicycle or pedestrian trails in or near the Green Corridor neighborhood that are easy to access. About half of participants felt that there was too much traffic along the street, which makes it difficult or unpleasant to walk.

Figure 20. "I can do most of my shopping at local stores."

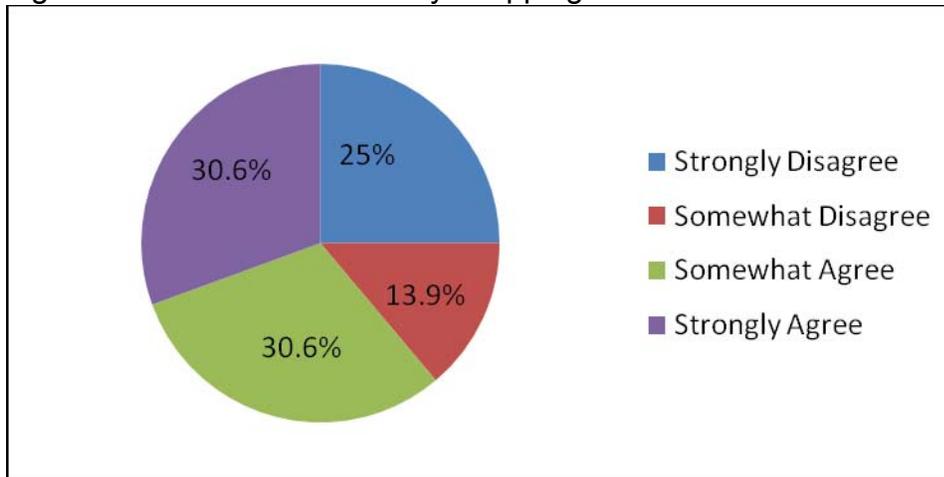


Figure 21. "Parks are within easy walking distance of my home."

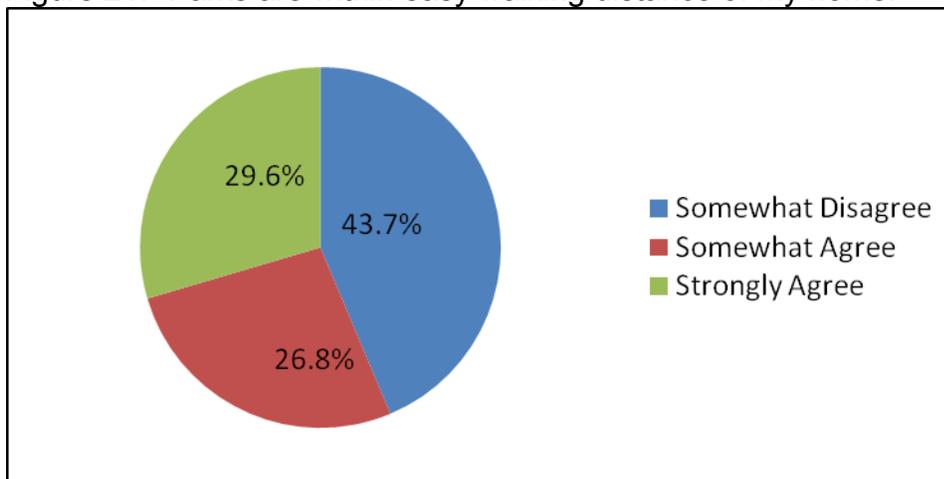


Figure 22. "There are many places to go within easy walking distance of my home."

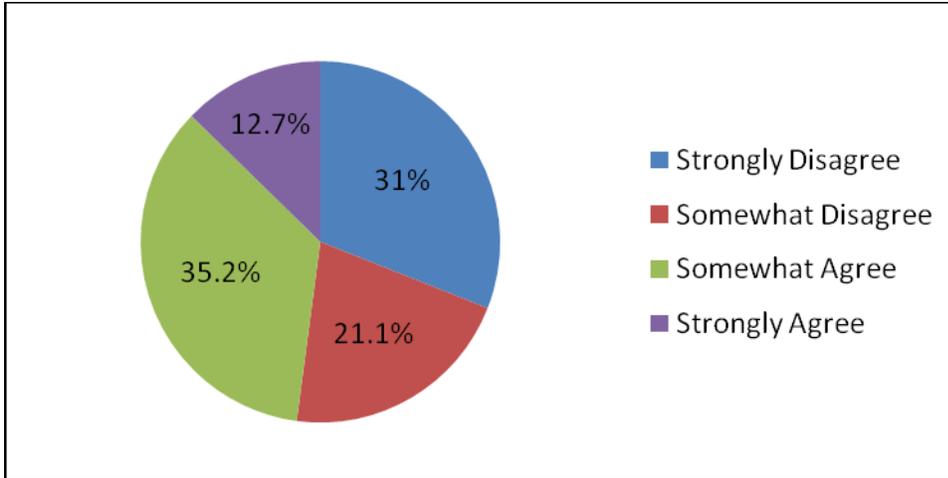


Figure 23. "It is easy to walk to a transit stop (bus, train) from my home."

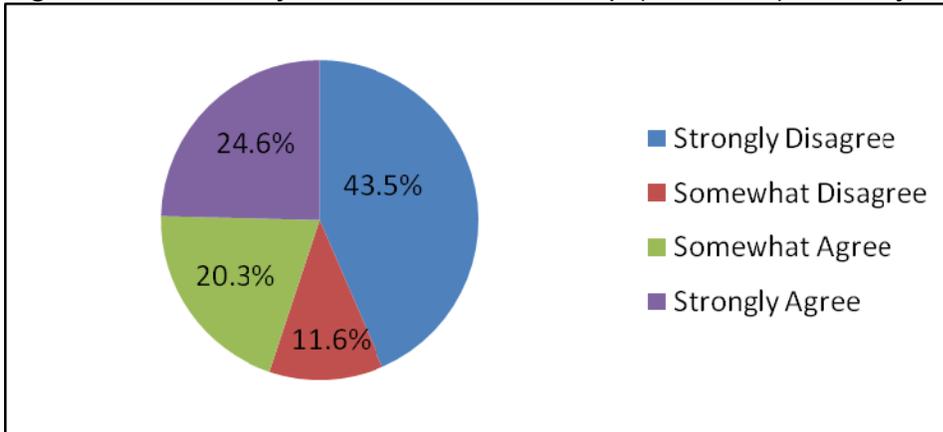


Figure 24. "There are sidewalks on most of the streets in my neighborhood."

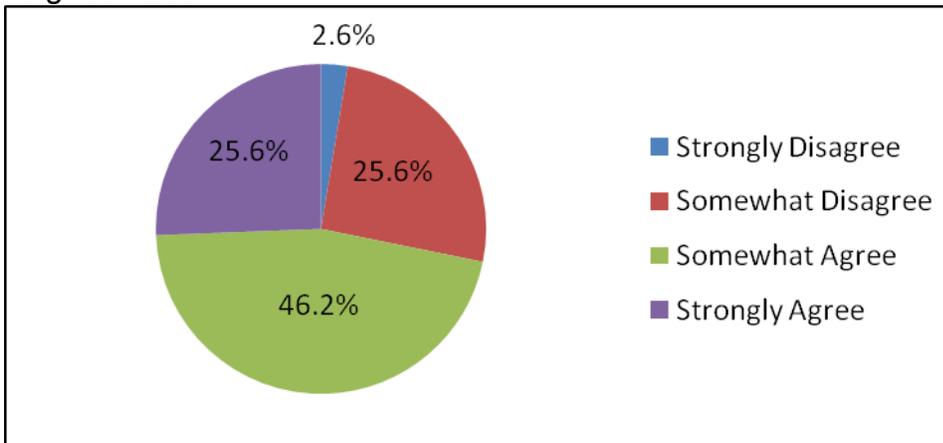


Figure 25. “The sidewalks in my neighborhood are well maintained (paved, even, and not a lot of cracks).”

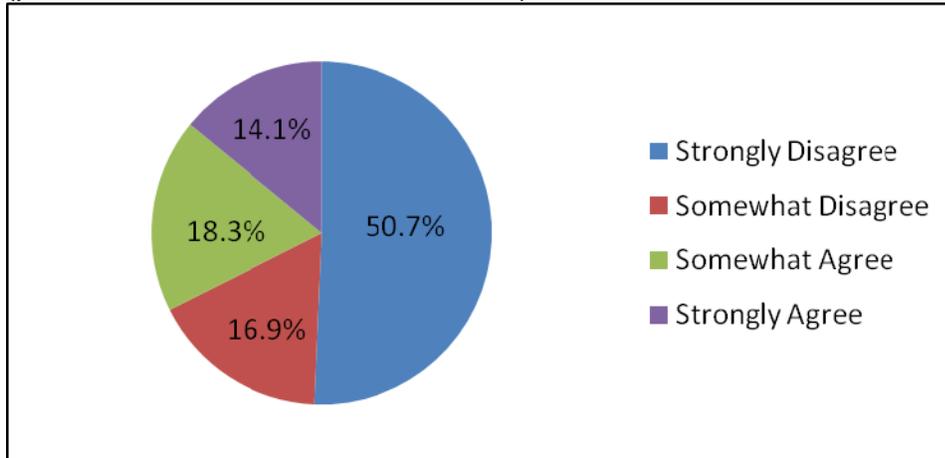


Figure 26. “There are bicycle or pedestrian trails in or near my neighborhood that are easy to get to.”

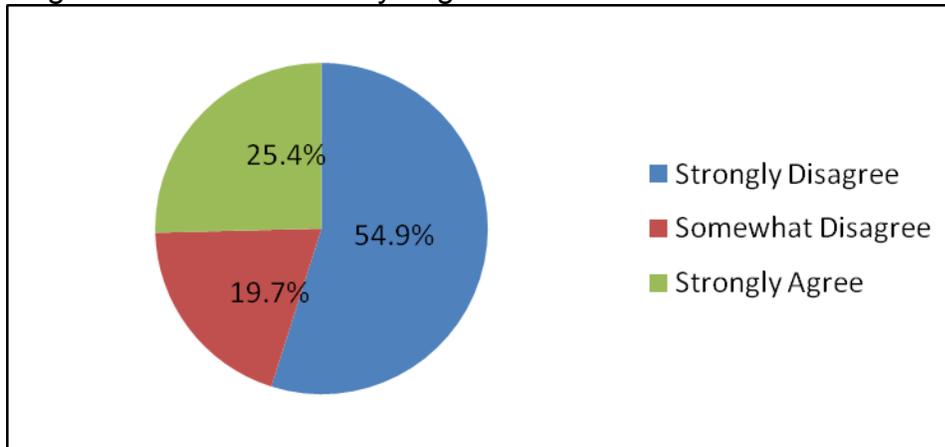
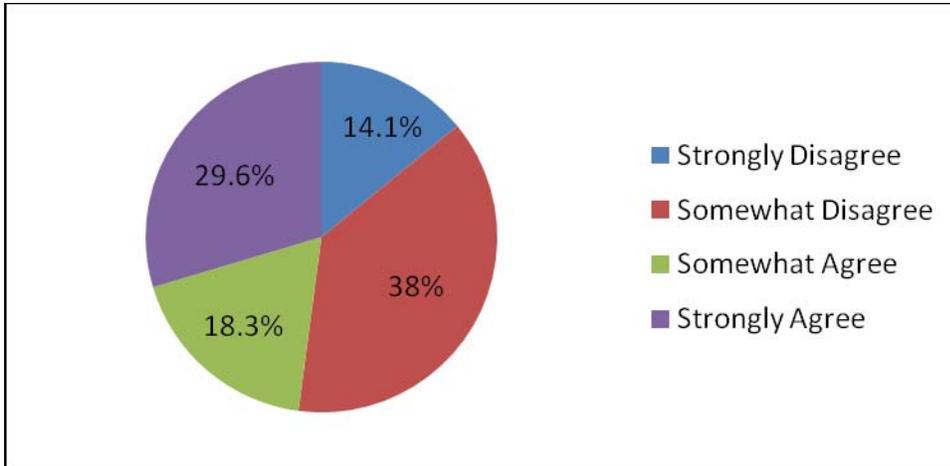


Figure 27. “There is so much traffic along the street I live on and nearby streets that it makes it difficult or unpleasant to walk in my neighborhood.”



Participants were also asked to complete questions regarding their feelings about the safety within their Green Corridor neighborhood. Figures 28 through 31 below illustrate the distribution of answers to these questions. Participants chose the answer that best described how they felt about each statement. Over half of all participants agreed that the streets are well lit at night and that there is not a high crime rate in the Green Corridor. They further reported that the crime rate did not make it unsafe for them to walk within their neighborhood during the day. However, the majority of participants did feel that the crime rate is too high for them to walk in the Green Corridor at night.

Figure 28. “My neighborhood streets are well lit at night.”

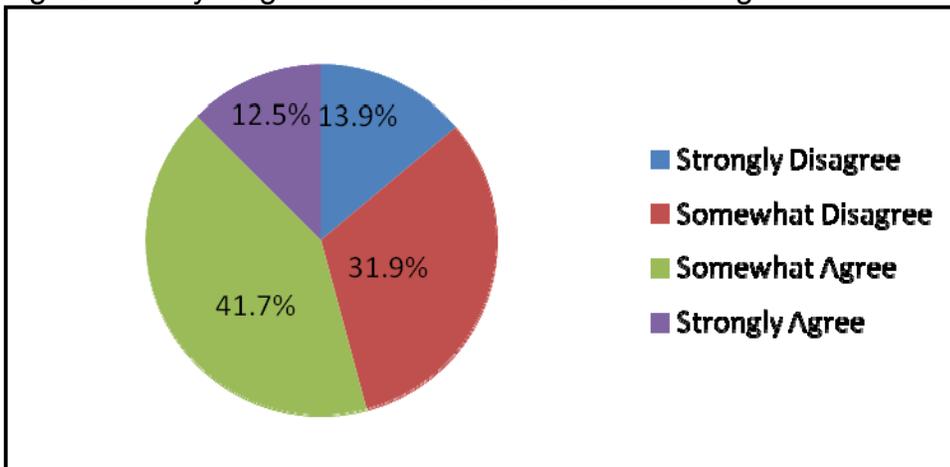


Figure 29. “There is a high crime rate in my neighborhood.”

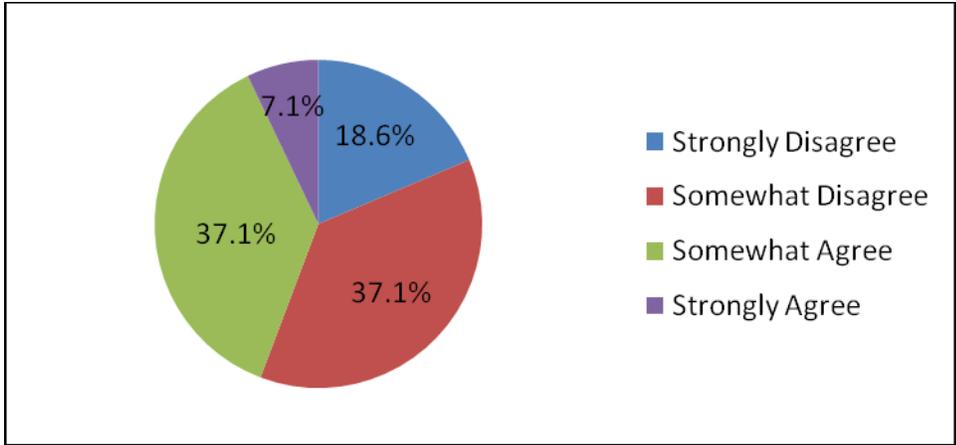


Figure 30. "The crime rate in my neighborhood makes it unsafe to walk during the day."

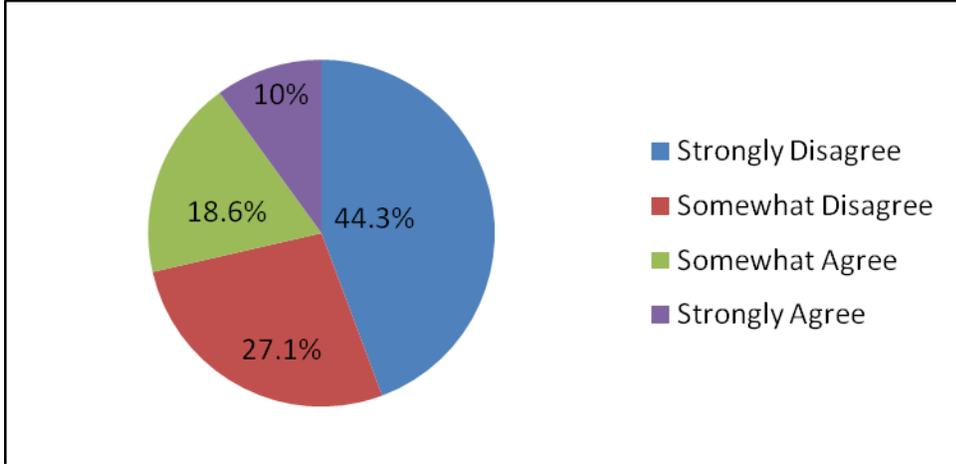
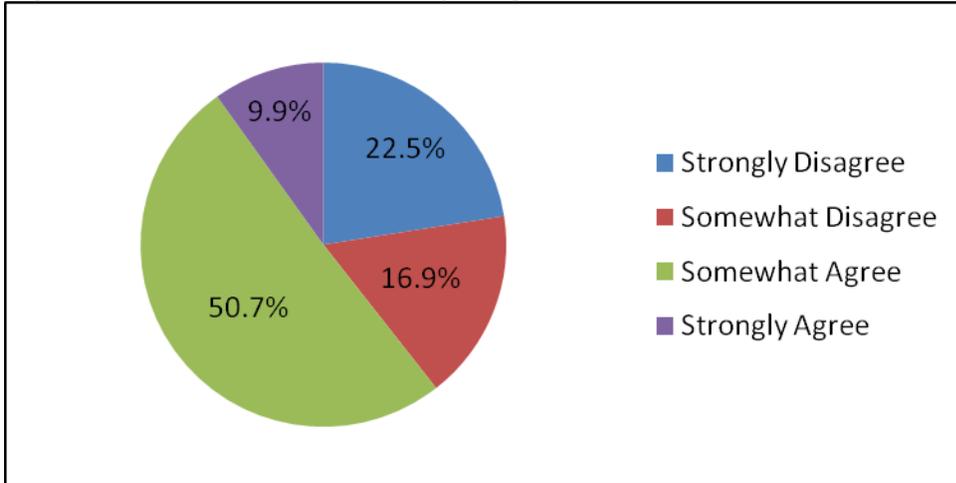
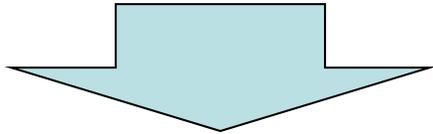
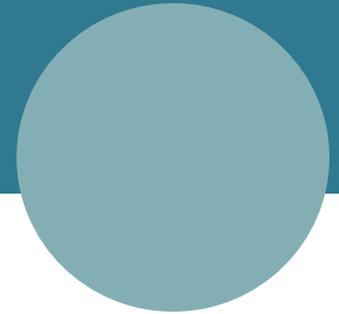


Figure 31. "The crime rate in my neighborhood makes it unsafe to walk at night."



Incentive Sources



State Incentives

Local Incentives

Utility Incentives

PERSONAL PROPERTY TAX EXEMPTION

Overview

For personal property, the Kansas Legislature passed a state law which exempts the property tax on commercial and industrial machinery and equipment purchased or transferred into Kansas after June 30, 2006.

Promoting Employment Across Kansas (PEAK)

Overview	Incentive using withholding tax for projects involving relocation of entire operation from another state or country
Minimum Eligibility	Companies must at least 10 net new jobs within 2 years and pay at least 50% of adequate health insurance coverage for employees
Benefits	For projects that create over 100 jobs - Company retains 95% of withholding for: <ul style="list-style-type: none">• 7 years if wages are at least 100% of county avg• 8 years if wages are at least 110% of county avg• 9 years if wages are at least 120% of county avg• 10 years if wages are at least 130% of county avg

INVESTMENTS IN MAJOR PROJECT & COMPREHENSIVE TRAINING (IMPACT)

Overview	Incentive is based upon capital investment, job creation and the salaries associated with jobs – IMPACT can provide the company with direct financial assistance based upon the creation of net new jobs & payroll generated
Eligible Business Types	New or Existing Business
Minimum Capital Investment	No Minimum – factored into offer
Minimum Job Creation	100 New jobs or 250 Retrained existing employees

Kansas Economic Opportunity Initiatives Fund (KEOIF)

Overview	The program provides a 0% interest, forgivable loan to qualified companies and can be utilized to cover cost associated with establishing a new facility or expansion of an existing facility.
Eligible Business Types	New or Existing Business
Incentive	The amount of funding offered depends on various factors including the number of new jobs, rate of pay, benefit to the State and the community and capital investment.
Minimum Job Creation	Factored into KEOIF offer

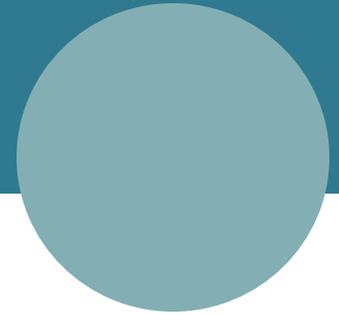
Kansas Industrial Training(KIT)

Overview	Kansas offers several different training programs designed to meet the individual needs of the project, including the Kansas Industrial Training (KIT) program.
Minimum Requirement	Creating at least 1 net new job
Incentive	KIT can be structured as pre-employment, classroom, on-the-job or a combination of all three approaches. Incentive is given depending number of jobs, salaries, and training needs.

Kansas Industrial Retraining (KIR)

<p>Overview</p>	<p>Kansas offers several different training programs designed to meet the individual needs of the project, including the Kansas Industrial Retraining (KIR) program which retrains existing employees.</p>
<p>Minimum Requirement</p>	<p>Restructuring or retraining of workforce due to one or more of the following:</p> <ul style="list-style-type: none">• Incorporation of existing technology• Development of new technology• Diversification of production• Development of new production
<p>Incentive</p>	<p>Incentive is given depending number of jobs, salaries, and training needs but is a \$1 for \$1 match.</p>

SALES TAX EXEMPTION



Overview	100% sales tax exemption on items used to construct, remodel, furnish, & equip eligible projects
Minimum Criteria	2 Net New Job and \$1 dollar capital investment associated with new jobs

INVENTORY TAX EXEMPTION

Overview

All merchants and manufacturers inventories are exempt from property taxes

CORPORATE INCOME TAX CREDITS

<p>Overview</p>	<p>Currently, the corporate income tax rate in Kansas is 4% of net income. Net income in excess of \$50,000 is subject to a 3.35% surtax. However, the 2008 Kansas Legislature passed a new law that will reduce this surtax in phases over the next three years for a total corporate income tax rate of 7.0% by 2011 for net income in excess of \$50,000</p>
<p>Program</p>	<p>Kansas offers several income tax credit programs to reduce a company's income tax liability. The tax credits can be earned under either the Kansas Enterprise Zone Program or the HPIP Program.</p>

KANSAS ENTERPRISE ZONE PROGRAM

Overview	Enterprise Zone tax credits are one-time earned credits for the year the jobs are created and the investment is placed into service. Unused credits can be carried forward indefinitely.
Minimum Eligibility	Create at least two net new jobs and capital investment
Benefits	<ol style="list-style-type: none">1) Corporate Income Tax Credit of \$1,500 per job in metropolitan areas2) Corporate Income Tax Credit of 1% of qualified capital investment3) Sales tax exemption on the purchase of materials and services to construct, remodel furnish and equip the facility

HIGH PERFORMANCE INCENTIVE PROGRAM (HPIP)

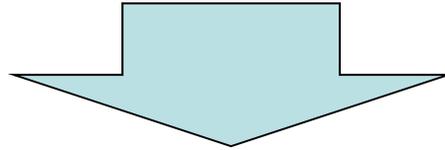
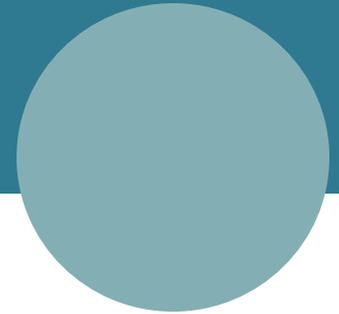
<p>Overview</p>	<p>The High Performance Incentive Program (HPIP) offers a 10% tax credit on the qualified net, new capital investment for a project. For-profit companies having employees, payroll and corresponding qualified investment are eligible to apply.</p>
<p>Minimum Eligibility</p>	<ol style="list-style-type: none">1) Pay salaries that are at or above-average for similar types of businesses within Wyandotte County.2) Participate in one of our state-sponsored training programs or invest at least 2% of annual payroll in workforce training

UTILITY SALES TAX EXEMPTION

Overview

Electricity, gas, and water consumed during manufacturing are exempt from Kansas sales tax.

Incentive Sources



State Incentives

Local Incentives

Utility Incentives

Tax Increment Financing (TIF)

Overview	Reimbursement of new “incremental” taxes generated from the project for eligible expenses. Eligible expenses typically include property acquisition, demolition, environmental remediation, public improvements, and horizontal private improvements (and parking facilities).
Eligibility	Must be in Enterprise Zone or Blighted area per an approved Blight Study.
Length of Incentive	Tax Increment can be reimbursed up to 20 years.
Incentive	Reimbursement offsets extraordinary cost for redevelopment, in particular projects that remedy blighted conditions and have a positive impact on community.

Tax Abatement: Industrial Revenue Bonds (IRB)

Overview	Tax abatement up to 10 years on increased taxes for significant improvements to commercial property by issuance of Industrial Revenue Bonds.
Eligibility	Must comply with State statute for eligible uses
Project Size	Greater than \$2,000,000 of improvements
Incentive	Standard 45% abatement – bonus percentages depending on details of project – abatement length and percentage dependent upon project scope. Issuance of IRB also exempts sales tax on construction related to project.

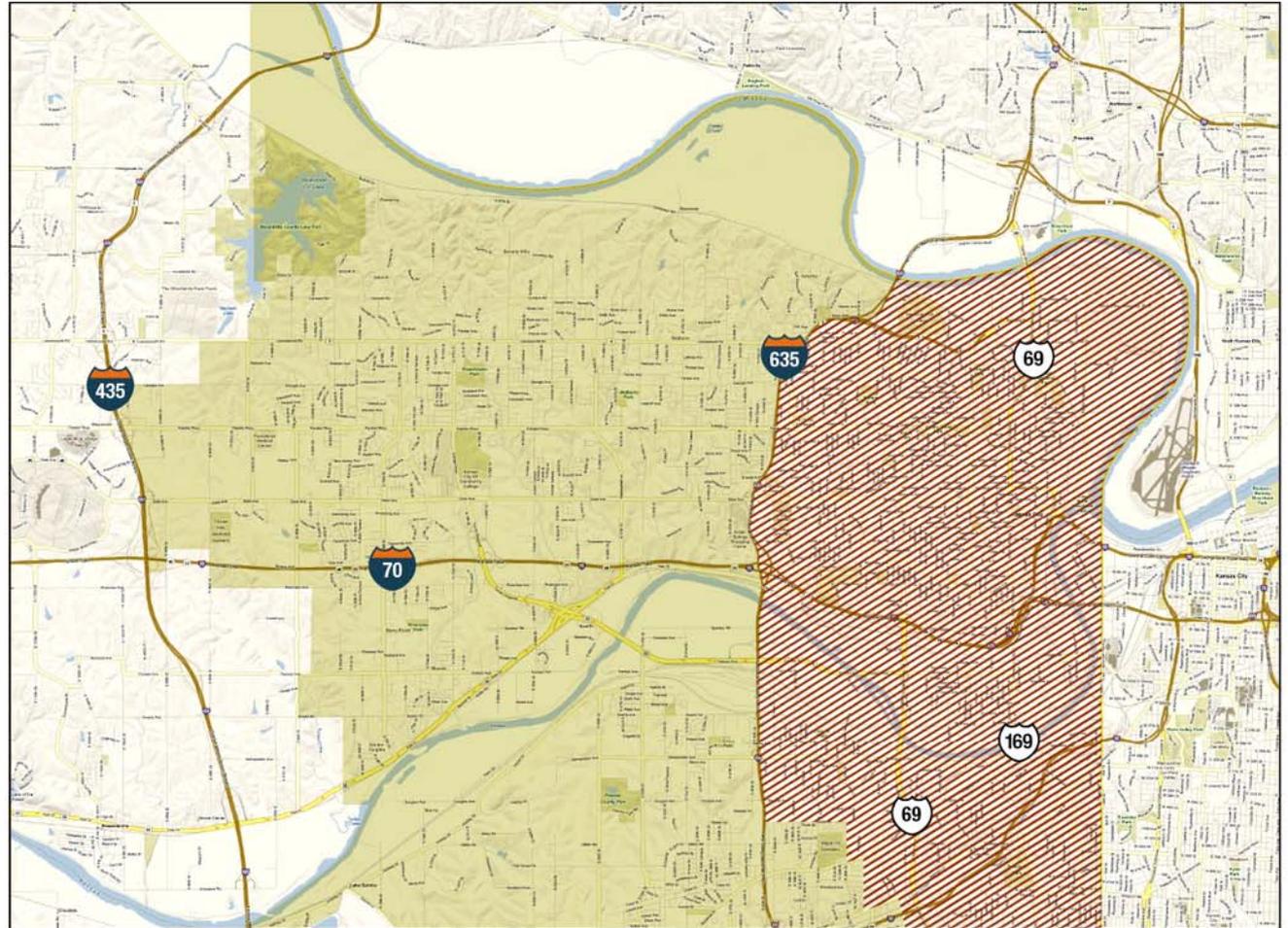
Provision	Abatement %
Length of Term Abatement	Dependent on Size (Existing and New)
Standard Abatement	45%
Project Investment Bonus	5-15% Bonus
Target Area Bonus	10% Bonus
Target Industry Bonus	5-15% Bonus
Residency Bonus	5-10% Bonus
MBE / WBE / LBE	5-10% Bonus
LEED Certification Bonus	5-10% Bonus

Neighborhood Revitalization Act- Commercial

Overview	Tax rebate up to 10 years on increased taxes for improvements to commercial property in designated area (s).
Eligibility	In designated Neighborhood Revitalization Area (see map)
Project Size	Improvement must equal 15% of assessed value and increment must be less than \$2M
Incentive	Tax abatement comes as refund to property owner.

NEIGHBORHOOD REVITALIZATION PLAN AREAS

- AREA I 
- AREA II 



AREA I

TYPE OF INVESTMENT	TYPE OF UNIT	TENURE	MINIMUM VALUE	REBATE %	YEARS OF REBATE
Historic Designation	Rehab	Owner or Rental	5% Assessed Value	100%	10
New/Rehab Commercial/Industrial	Projects not eligible for IRB or EDX**		15% Assessed Value	50%	10
Environmental Contamination Area	All Uses		15% Assessed Value	50-95%	10

AREA II

TYPE OF INVESTMENT	TYPE OF UNIT	TENURE	MINIMUM VALUE	REBATE %	YEARS OF REBATE
Historic Designation	Rehab	Owner	10% Assessed Value	95%	5
New Commercial/Industrial**					
Rehab Commercial/Industrial**			15% Assessed Value	95%	5
Environmental Contamination Area	All Uses		15% Assessed Value	50-95%	5

AREA I

TYPE OF INVESTMENT	TYPE OF UNIT	TENURE	MINIMUM VALUE	REBATE %	YEARS OF REBATE
Historic Designation	Rehab	Owner or Rental	5% Assessed Value	100%	10
New/Rehab Commercial/Industrial	Projects not eligible for IRB or EDX**		15% Assessed Value	50%	10
Environmental Contamination Area	All Uses		15% Assessed Value	50-95%	10

AREA II

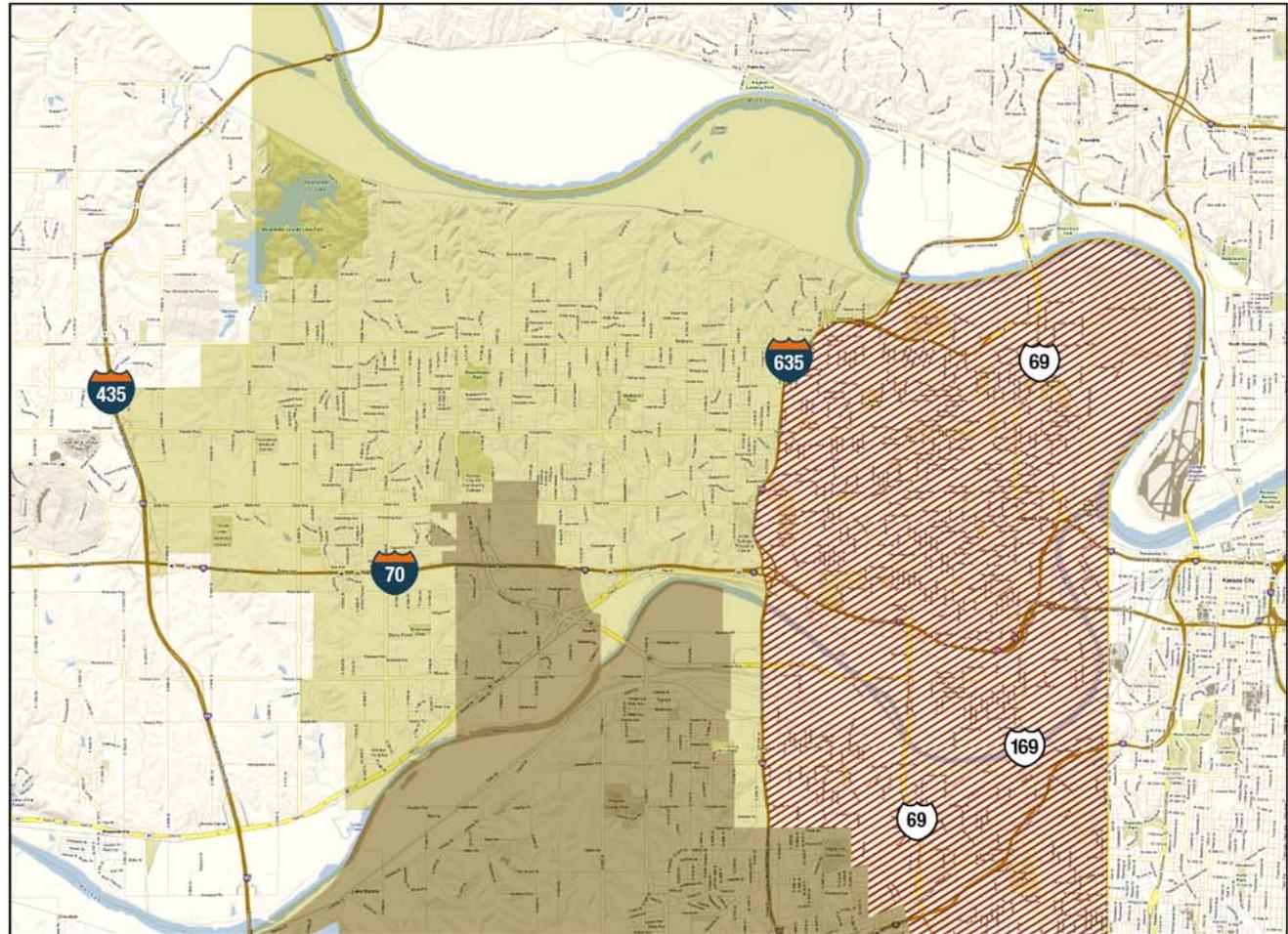
TYPE OF INVESTMENT	TYPE OF UNIT	TENURE	MINIMUM VALUE	REBATE %	YEARS OF REBATE
Historic Designation	Rehab	Owner	10% Assessed Value	95%	5
New Commercial/Industrial**					
Rehab Commercial/Industrial**			15% Assessed Value	95%	5
Environmental Contamination Area	All Uses		15% Assessed Value	50-95%	5

Neighborhood Revitalization Act- Residential

Overview	Tax rebate up to 10 years on increased taxes for improvements to commercial property in designated area (s).
Eligibility	In designated Neighborhood Revitalization Area (see map)
Project Size	Improvement must equal 15% of assessed value and increment must be less than \$2M
Incentive	Tax abatement comes as refund to property owner.

NEIGHBORHOOD REVITALIZATION PLAN AREAS

- AREA I 
- AREA II 



AREA I

TYPE OF INVESTMENT	TYPE OF UNIT	TENURE	MINIMUM VALUE	REBATE %	YEARS OF REBATE
New Construction/ Rehabilitation	Single Family/ Duplex	Owner	5% Assessed Value	95%	10
Rehabilitation	1-4 Unit Structure	Rental	5% Assessed Value	95%	5
Rehabilitation*	5+ Unit Structure	Rental	15% Assessed Value	95%	5
Historic Designation	Rehab	Owner or Rental	5% Assessed Value	100%	10

AREA II

TYPE OF INVESTMENT	TYPE OF UNIT	TENURE	MINIMUM VALUE	REBATE %	YEARS OF REBATE
New Construction*	Single Family/ Duplex	Owner	\$175,000	95%	5
Rehabilitation	Single Family	Owner	5% Assessed Value	95%	5
Rehabilitation	1-4 Unit Structure	Rental	5% Assessed Value	95%	5
Rehabilitation	5+ Unit Structure	Rental	15% Assessed Value	95%	5
Historic Designation	Rehab	Owner	10% Assessed Value	95%	5

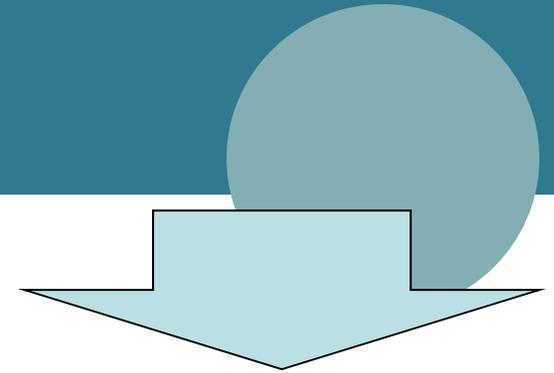
AREA I

TYPE OF INVESTMENT	TYPE OF UNIT	TENURE	MINIMUM VALUE	REBATE %	YEARS OF REBATE
New Construction/ Rehabilitation	Single Family/ Duplex	Owner	5% Assessed Value	95%	10
Rehabilitation	1-4 Unit Structure	Rental	5% Assessed Value	95%	5
Rehabilitation*	5+ Unit Structure	Rental	15% Assessed Value	95%	5
Historic Designation	Rehab	Owner or Rental	5% Assessed Value	100%	10

AREA II

TYPE OF INVESTMENT	TYPE OF UNIT	TENURE	MINIMUM VALUE	REBATE %	YEARS OF REBATE
New Construction*	Single Family/ Duplex	Owner	\$175,000	95%	5
Rehabilitation	Single Family	Owner	5% Assessed Value	95%	5
Rehabilitation	1-4 Unit Structure	Rental	5% Assessed Value	95%	5
Rehabilitation	5+ Unit Structure	Rental	15% Assessed Value	95%	5
Historic Designation	Rehab	Owner	10% Assessed Value	95%	5

Incentive Sources



State Incentives

Local Incentives

Utility Incentives

BPU Economic Development Rider (EDR)

Purpose	To encourage industrial and commercial development within the BPU's electrical service area.
Eligibility	Large Power Service and Large General Service rate customers
Eligibility	New Customers – monthly electrical demand of 200 kw Existing Customers – additional energy usage of 20%
Incentive	See schedule – discounted electrical charge

BPU EDR Incentive Schedule

Contract Year	Customers with loads between 200 kW and 500 kW	Customers with loads greater than 500
1st Year	50%	50%
2nd Year	30%	40%
3rd Year	10%	30%
4th Year	N/A	20%
5th Year	N/A	10%

Green Corridor Final Report

Cheryl Gibson, Ph.D.

University of Kansas Medical Center

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FIGURE 21. "THE CRIME RATE IN MY NEIGHBORHOOD MAKES IT UNSAFE TO WALK AT NIGHT." 14

Health and Environment Survey

A Health and Environment survey was designed to address general health topics as well as specific factors that may influence the health of the residents living within the Green Corridor. Only those people attending the health fairs who lived within the Green Corridor were asked to complete the survey. A total of 109 surveys were completed. Twenty-four surveys were completed on October 13, at a Green Corridor Community Meeting. A total of 51 surveys were completed for the Health Fairs on October 23 and October 31. Of those surveys, 29 were completed on October 23, and 22 were completed on October 31. A total of 33 surveys were obtained during the summer of 2011. A majority of participants reported that they were informed of these health fair events through the community flyer (Table 1).

Table 1. "I learned about this event from..."

Mode	Participants (%)
Community Flyer	36.3
Mail	31.3
Family or Friends	13.8
Other	8.8
Church	6.3
Health Clinic	2.5
School	1.3

Demographics

As seen in Table 2, participants reported to have lived at their address within the green corridor for an average of 16.4 years, were an average of 47.5 years old, and were 45.0% male. A total of 23 participants or 21.1% of participants reported to be of Hispanic ethnicity (Figure 1). Racial distribution can be found in Figure 11. Eighty-six percent of the population reported to have completed their high school diploma or higher education (Figure 2).

Table 2. Demographics.

Length of residence (years)	16.4
Age (years)	47.5
Gender (% male)	45.0

Figure 1. Race Distribution.

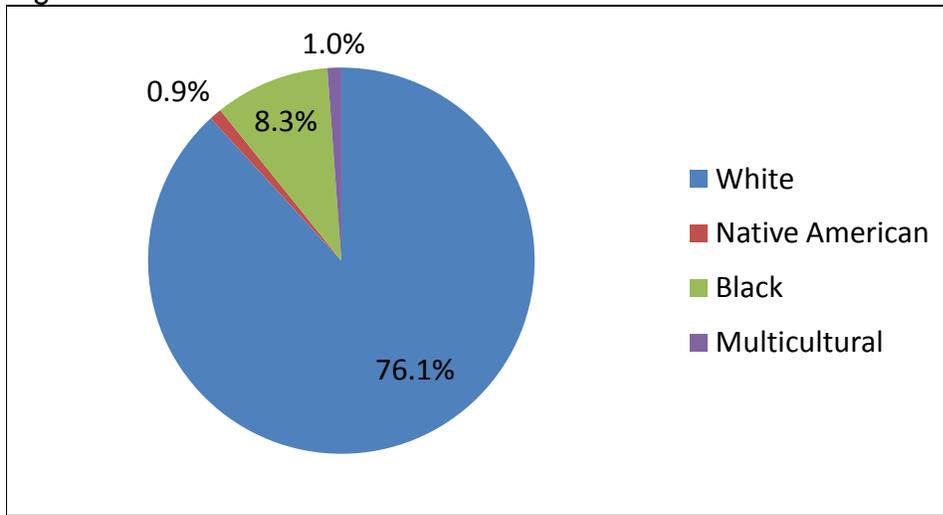
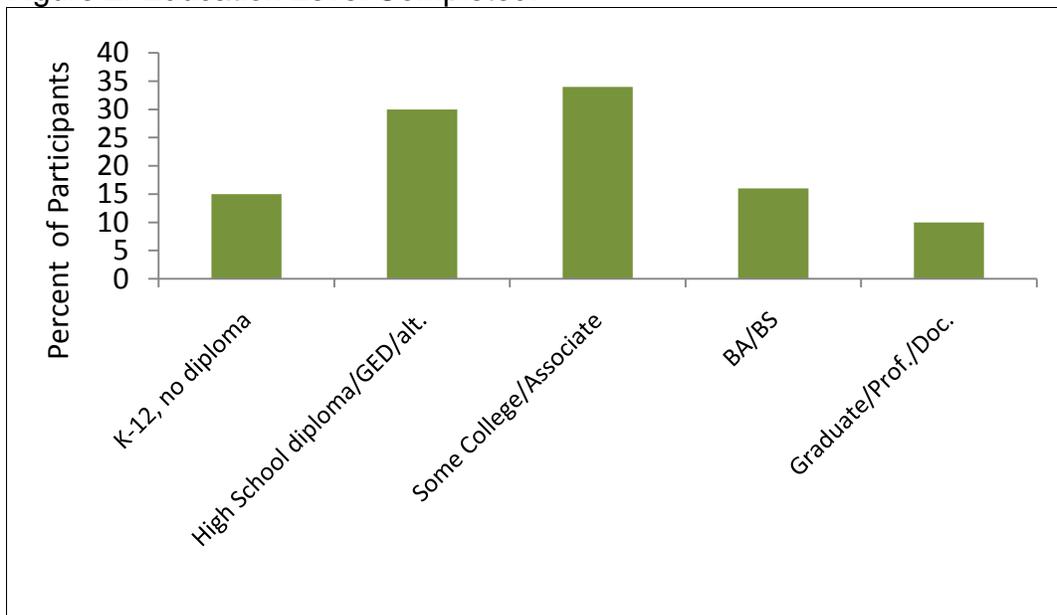


Figure 2. Education Level Completed.



Health Status

Participants were asked to report their self-perceived health status and their medical conditions (Figure 3, Table 3). The majority of participants considered themselves to be in good health. Participants were also asked to report if they had ever been told by a doctor or other health professional that they had hypertension or high blood pressure, any kind of heart disease, asthma, cancer or malignancy of any kind, and/or pre-diabetes, diabetes, impaired glucose, or high blood sugar. Smoking status was also

addressed in the survey with 50.5% of participants reporting to have smoked at least 100 cigarettes in their entire life.

Figure 3. Perceived Health Status.



Table 3. Reported Medical Conditions

Medical Condition	Participants (%)
Hypertension	31.2
Pre-Diabetes, Diabetes, Impaired Glucose, or High Blood Sugar	16.5
Asthma	14.7
Heart Condition or Heart Disease	10.1
Cancer or Malignancy	3.7

Health Related Behaviors and Access

The majority of participants reported there is a place where they usually go when sick or needing advice about health (Figure 4). Almost 75% of participants reported they usually receive health care at a community health clinic or doctors office (Table 4).

Thirty-eight percent of participants reported that they did not have any form of insurance or health care coverage.

Figure 4. “Is there a place where you USUALLY go when you are sick or need advice about your health?”

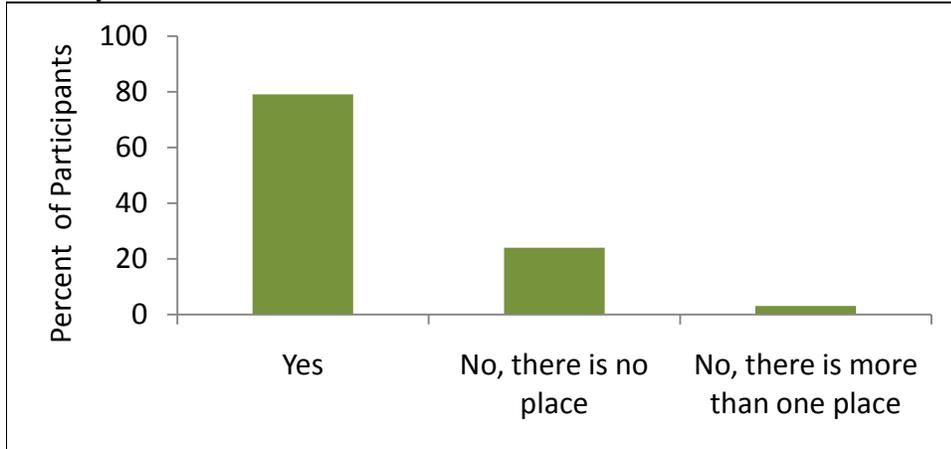


Table 4. Health Care Source.

Health Care Source	Participants (%)
Doctor’s Office or HMO	54.1
Community Clinic or Health Center	17.4
Other place	7.3
Hospital Emergency Room	4.6
Hospital Outpatient Department	3.7

Thirty-nine percent of participants reported that they/their families had fruits and vegetables at home most of the time (Figure 5). Participants were also asked where they commonly buy groceries or snacks. Participants were allowed to report multiple sources where they commonly shop. The most frequently reported places where participants buy snacks and groceries were the Roeland Park Price Chopper and other grocery stores outside of the Green Corridor (Figure 6). These other grocery stores included the Westwood Apple Market and the SunFresh in Westport. Most participants reported that they eat at home five to seven times a week (Figure 7), while they eat less than three times a week away from home (Figure 8).

Figure 5. Fruit and Vegetable Consumption

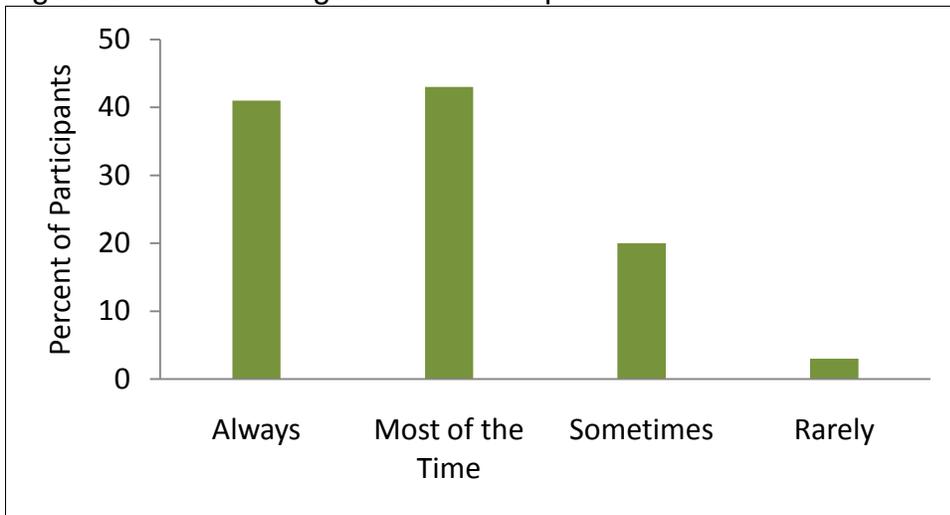


Figure 6. Grocery and Snack Sources.

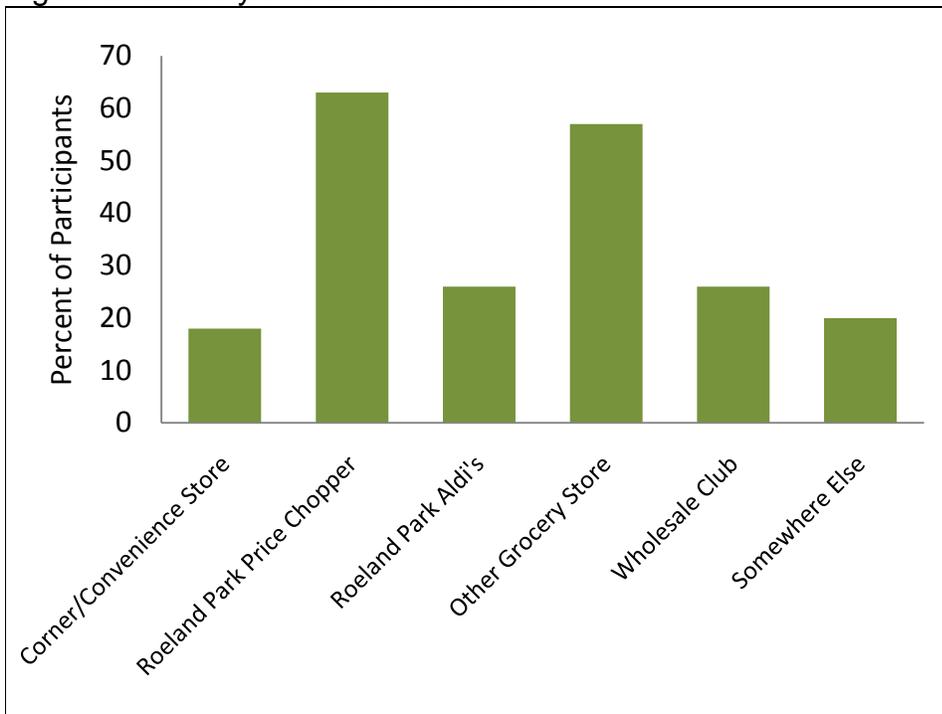


Figure 7. Times Eaten at Home Per Week.

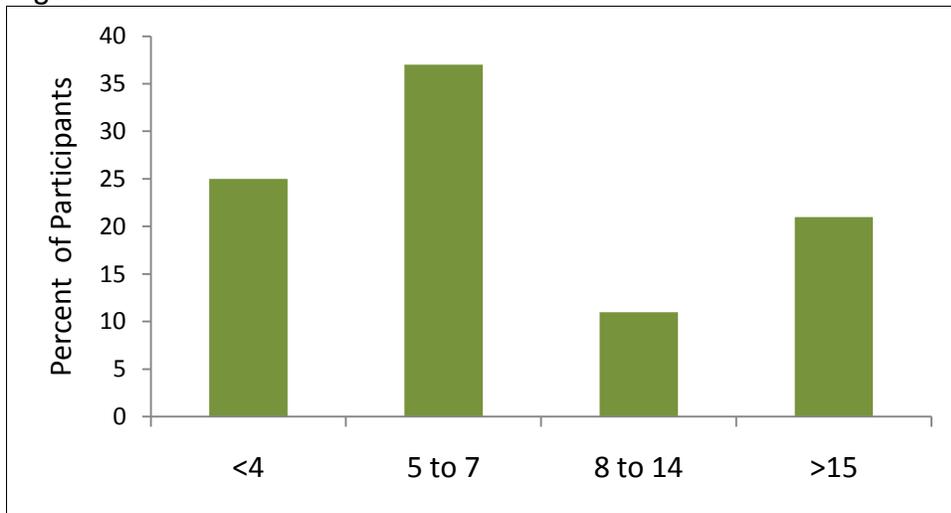
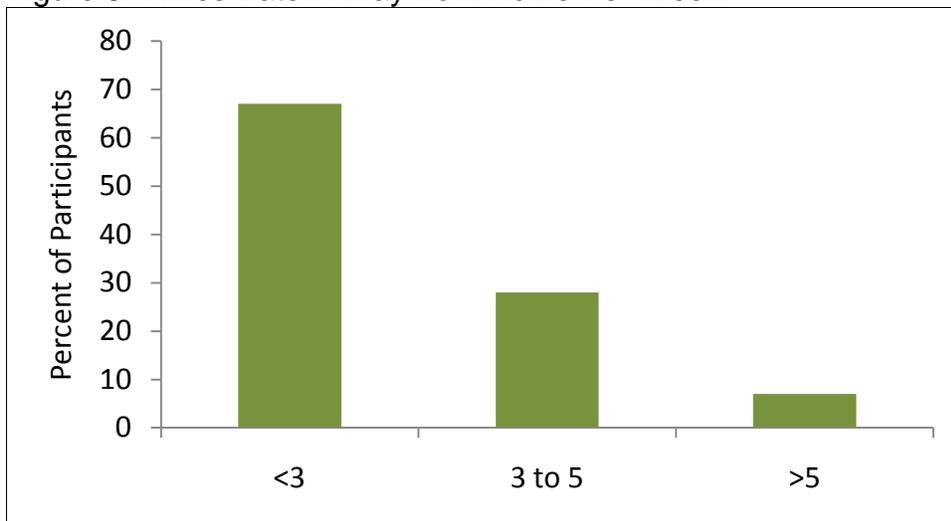


Figure 8. Times Eaten Away from Home Per Week.



About one fourth of participants indicated that they had received food assistance from SNAP, Food Stamps, WIC, Free/Reduced meals, or any other government food assistance. Twenty-two percent of participants indicated that they cut the size of their meals or skipped meals because they did not have enough money or food, while 11% indicated that they received emergency food from a church, food pantry, food bank, or soup kitchen.

Nearly half of participants from the Green corridor indicated that they are physically active for 60 minutes or more on two or less days per week (Figure 9). Eighty-eight percent of participants reported that they owned a car, while 32 percent of participants reported that they owned a bike. Ninety-four percent of participants reported that their

most common form of transportation is by car, but some also reported that they walk (8.3%), bicycle (4.6 %), and use public transportation (1.8%) as well (Table 7).

Figure 9. Number of days getting 60 minutes or more of physical activity per week.

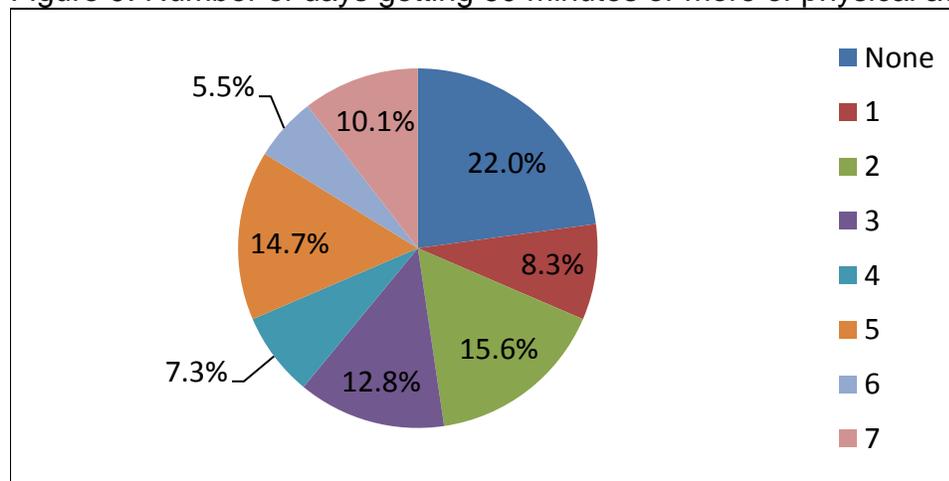


Table 7. Most common form of transportation.

How Participants Arrived to Event	Participants (%)
Car	93.6
Walk	8.3
Bike	4.6
Public Transportation	1.8

Safety and Neighborhood Access

Participants were asked to complete questions regarding their feelings about the access within their neighborhood of the Green Corridor. Figures 10 through 17 below illustrate the distribution of answers to these questions. Participants chose the answer that best described how they felt about each statement.

Almost 65% felt that they could do most of their shopping at local stores and just over 40% felt that parks are in easy walking distance of their homes. However, 64% of participants reported they felt there were not many places within walking distance of their homes and 70% reported that it is not easy to walk to a bus or train stop from their house.

Close to 30% of participants reported there are sidewalks on most of the streets within their neighborhood, but 76% claimed these sidewalks were poorly maintained. About 20% of participants felt that there are bicycle or pedestrian trails in or near the Green Corridor neighborhood that are easy to get to. However, more than half of participants

felt that walking is difficult or unpleasant because of the high volume of traffic along the street.

Figure 10. "I can do most of my shopping at local stores."

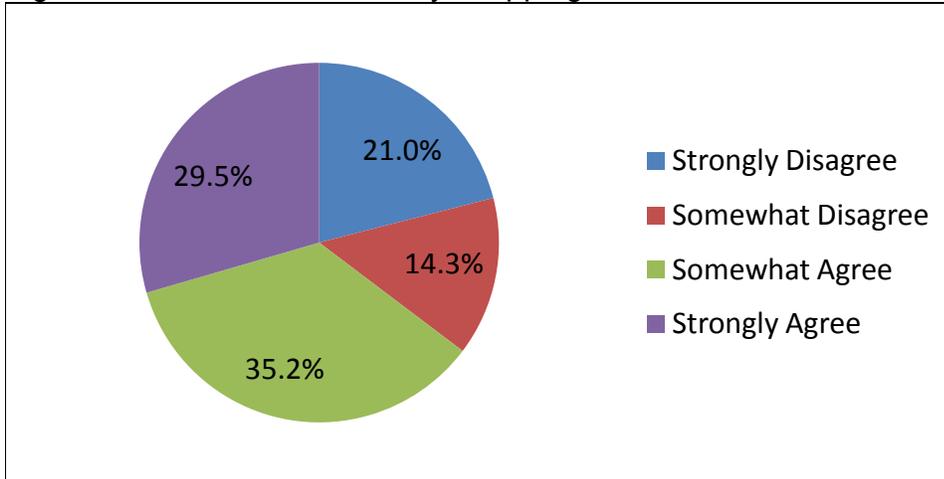


Figure 11. "Parks are within easy walking distance of my home."

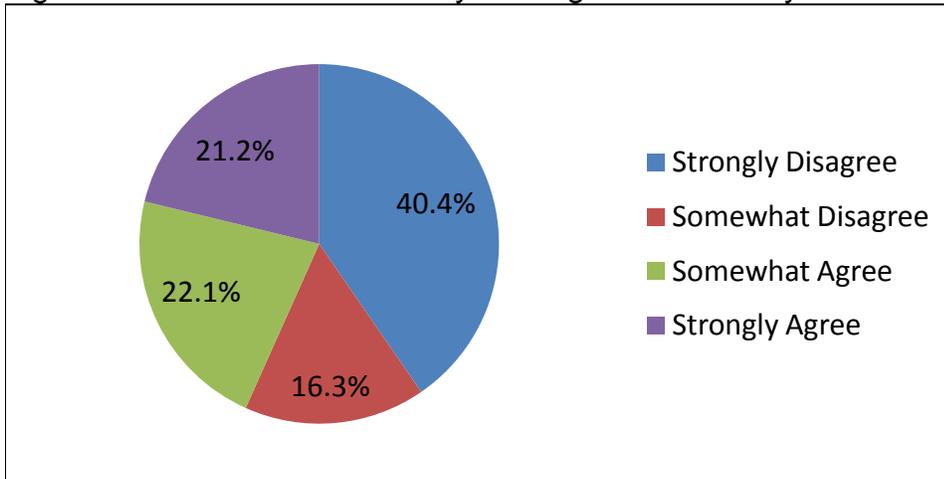


Figure 12. "There are many places to go within easy walking distance of my home."

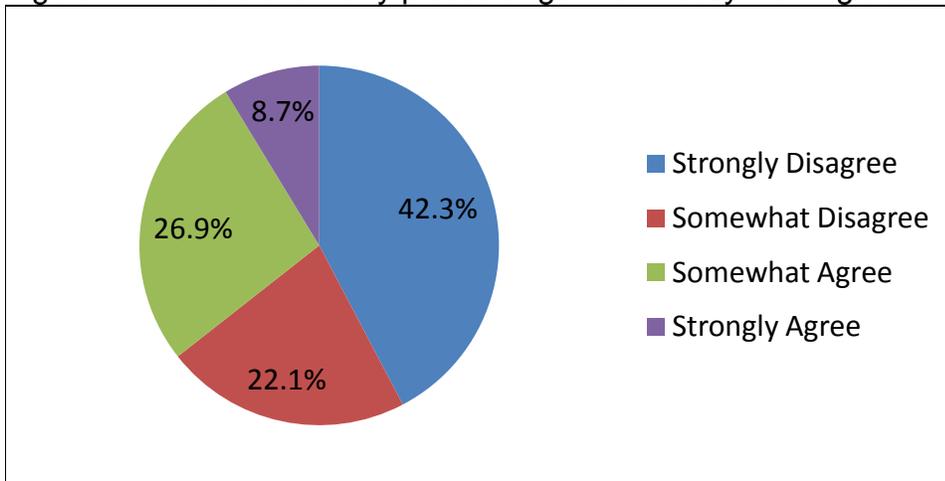


Figure 13. "It is easy to walk to a transit stop (bus, train) from my home."

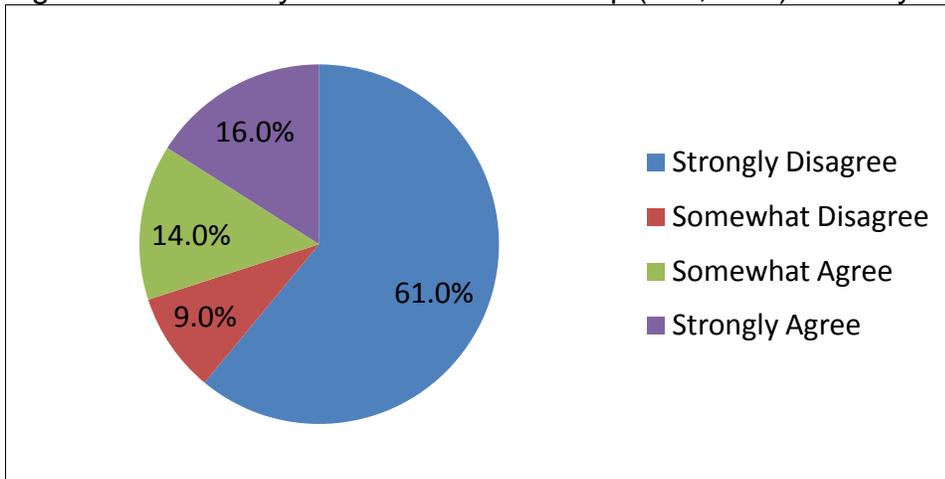


Figure 14. "There are sidewalks on most of the streets in my neighborhood."

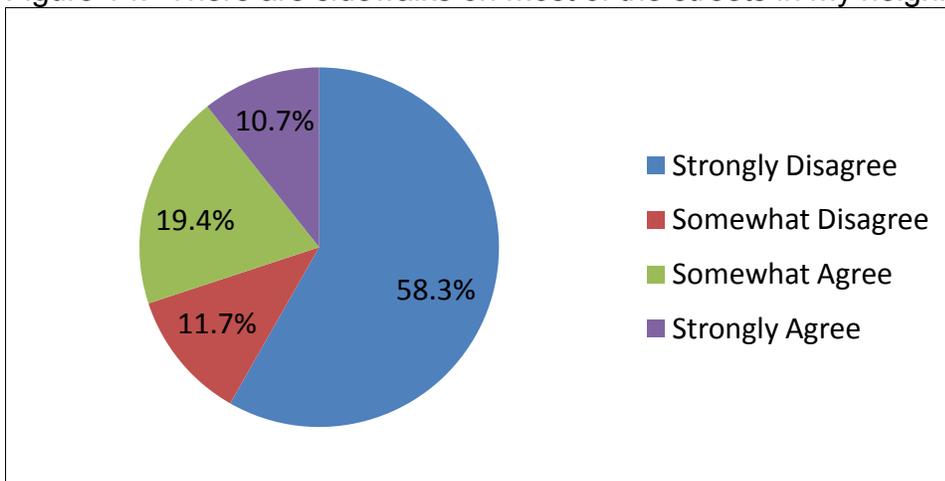


Figure 15. "The sidewalks in my neighborhood are well maintained (paved, even, and not a lot of cracks)."

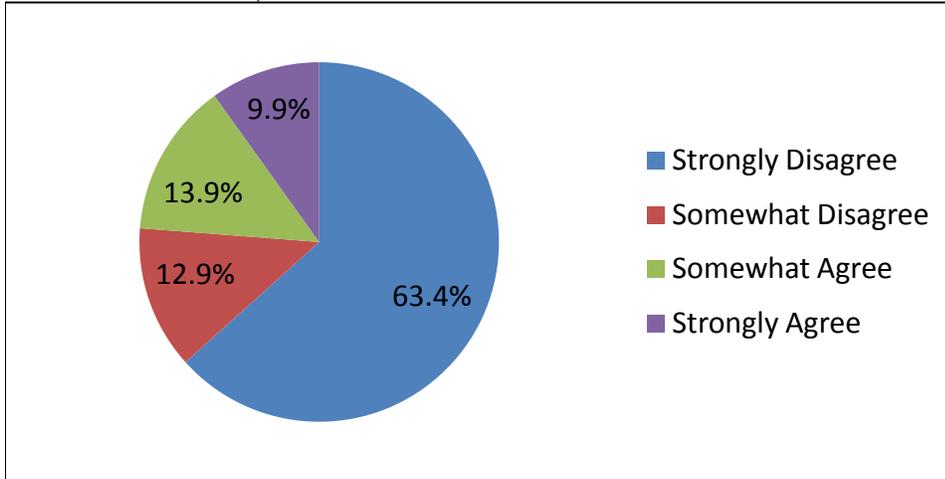


Figure 16. "There are bicycle or pedestrian trails in or near my neighborhood that are easy to get to."

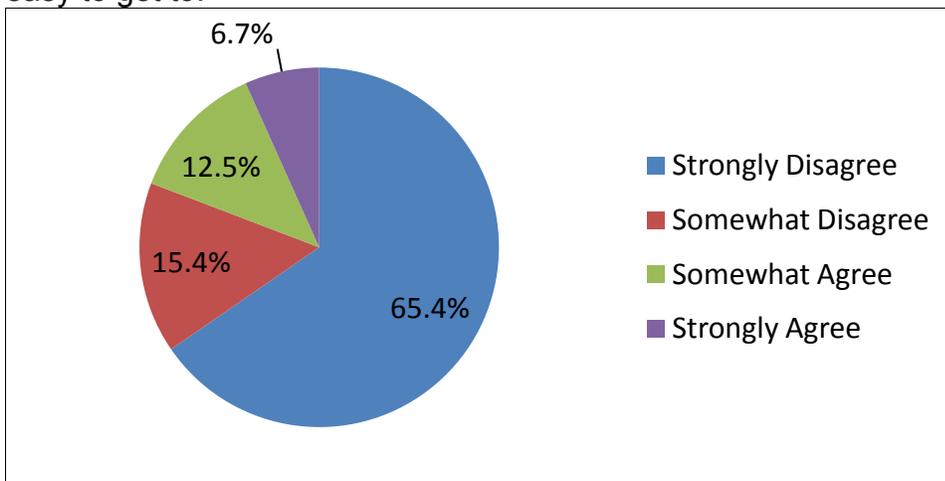
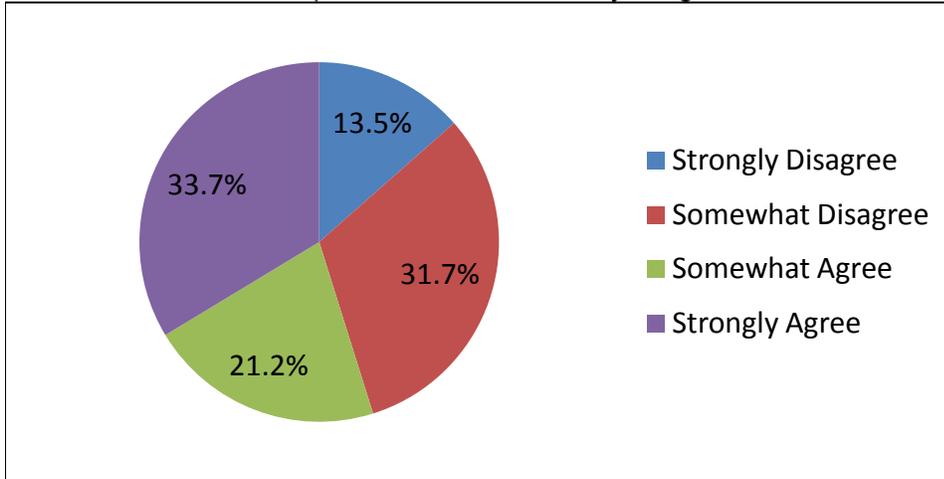


Figure 17. “There is so much traffic along the street I live on and nearby streets that it makes it difficult or unpleasant to walk in my neighborhood.”



Participants were also asked to complete questions regarding their feelings about safety within their neighborhood of the Green Corridor. Figures 18 through 21 below illustrate the distribution of answers to these questions. Participants chose the answer that best described how they felt about each statement. Over half of all participants agreed that their streets are well lit at night and that there is not a high crime rate in the Green Corridor. They further reported that the crime rate did not make it unsafe for them to walk within their neighborhood during the day. However, the majority of participants did feel that the crime rate is too high for them to walk in the Green Corridor at night time.

Figure 18. “My neighborhood streets are well lit at night.”

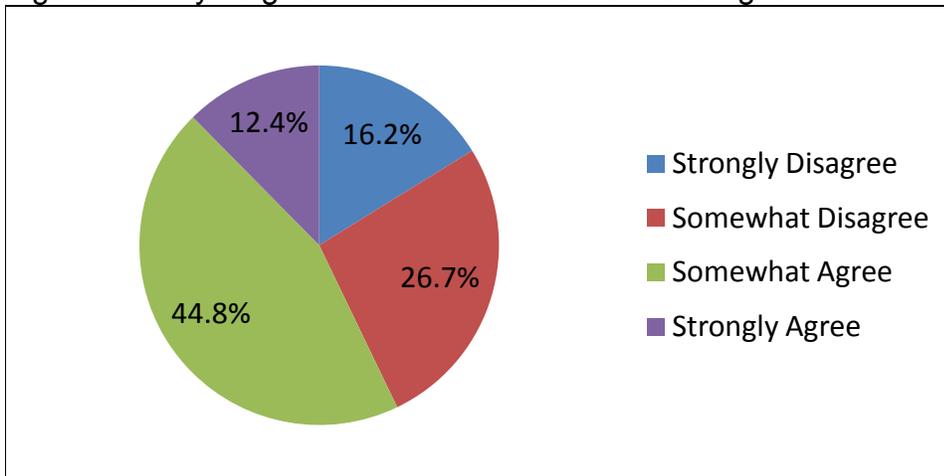


Figure 19. "There is a high crime rate in my neighborhood."

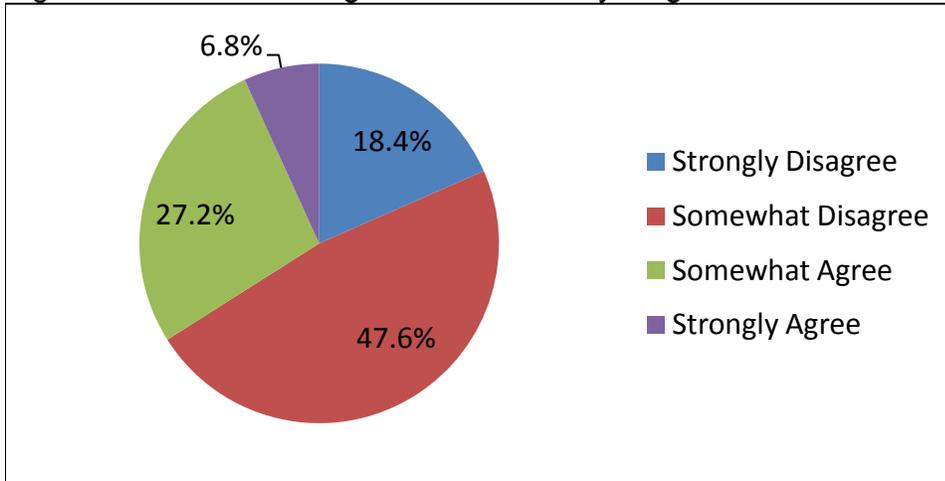


Figure 20. "The crime rate in my neighborhood makes it unsafe to walk during the day."

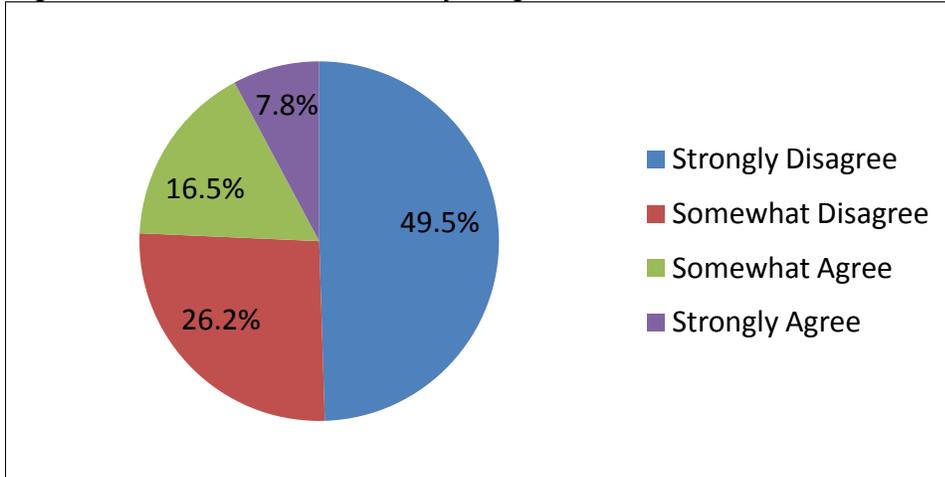
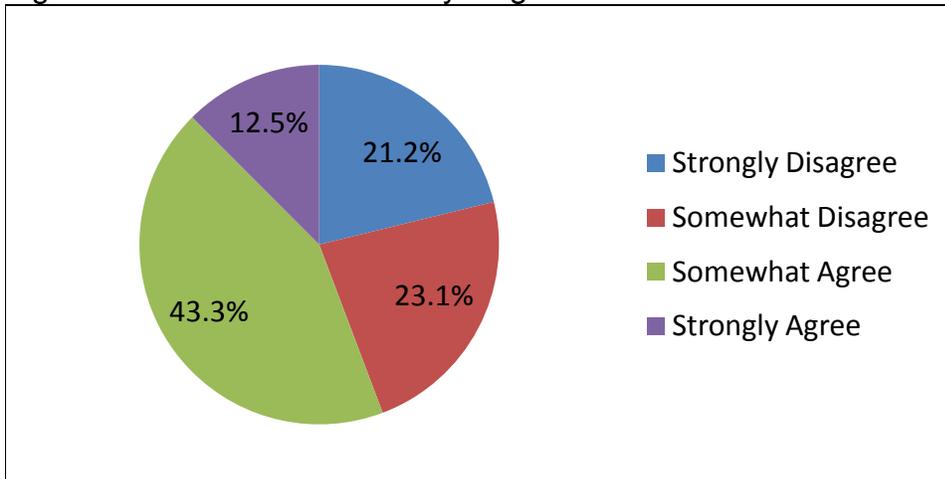
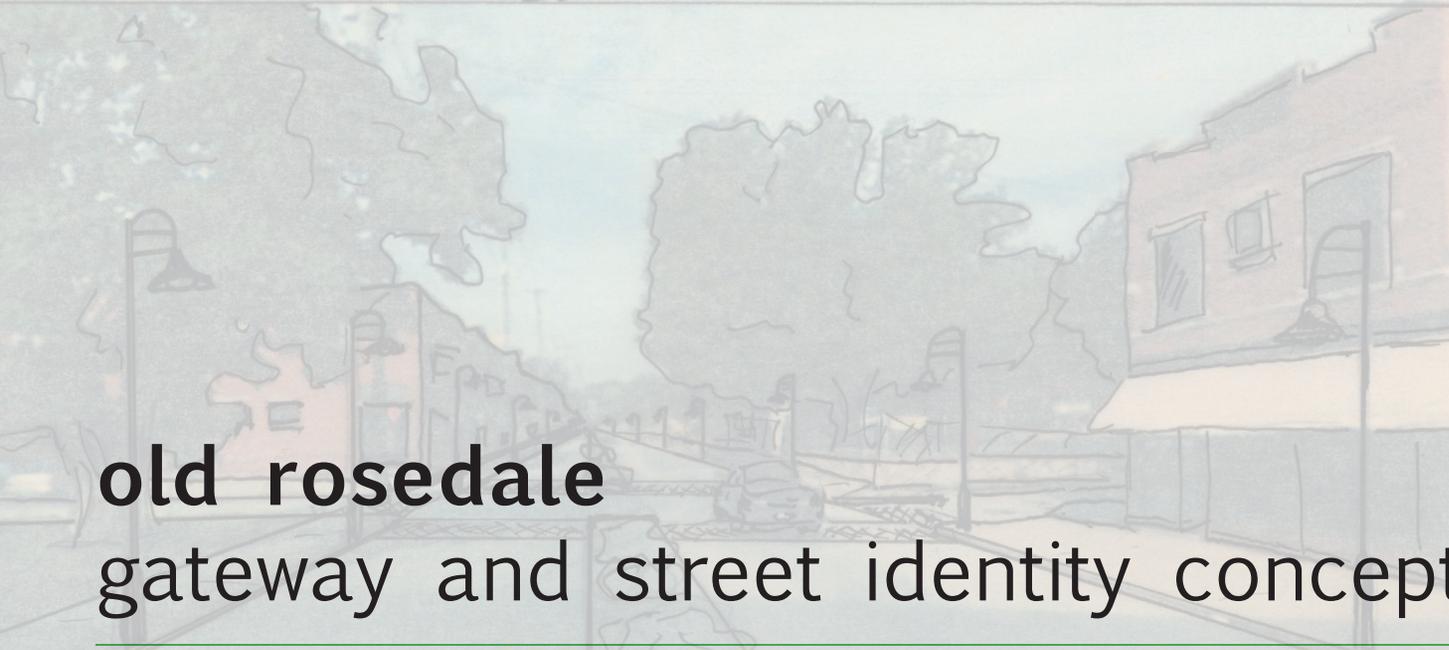
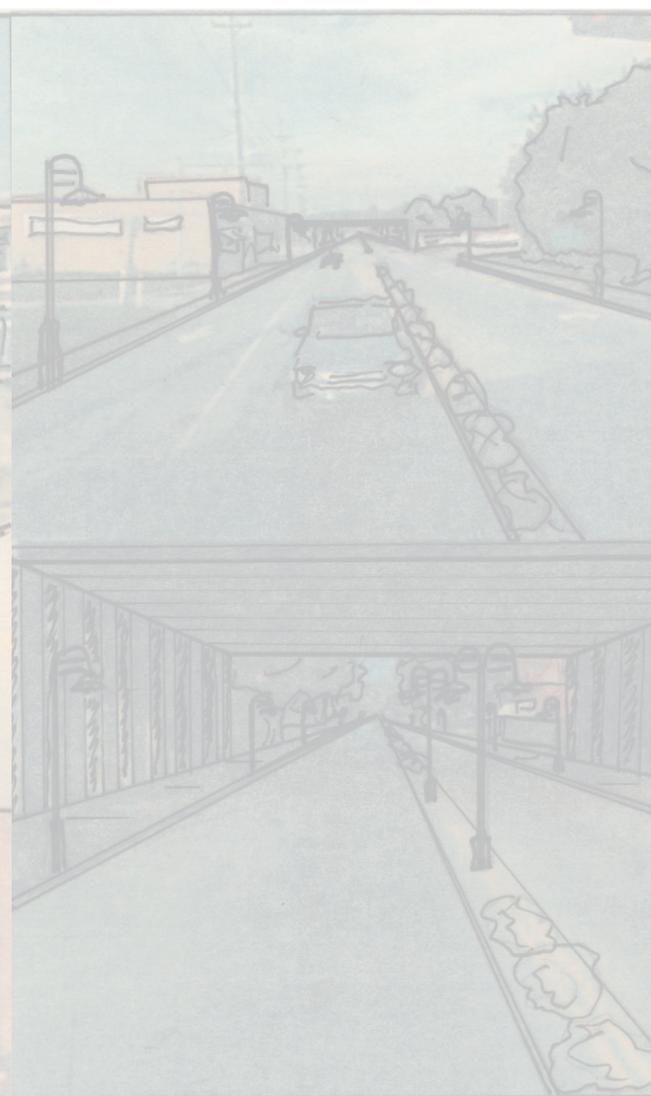


Figure 21. "The crime rate in my neighborhood makes it unsafe to walk at night."





old rosedale gateway and street identity conceptual

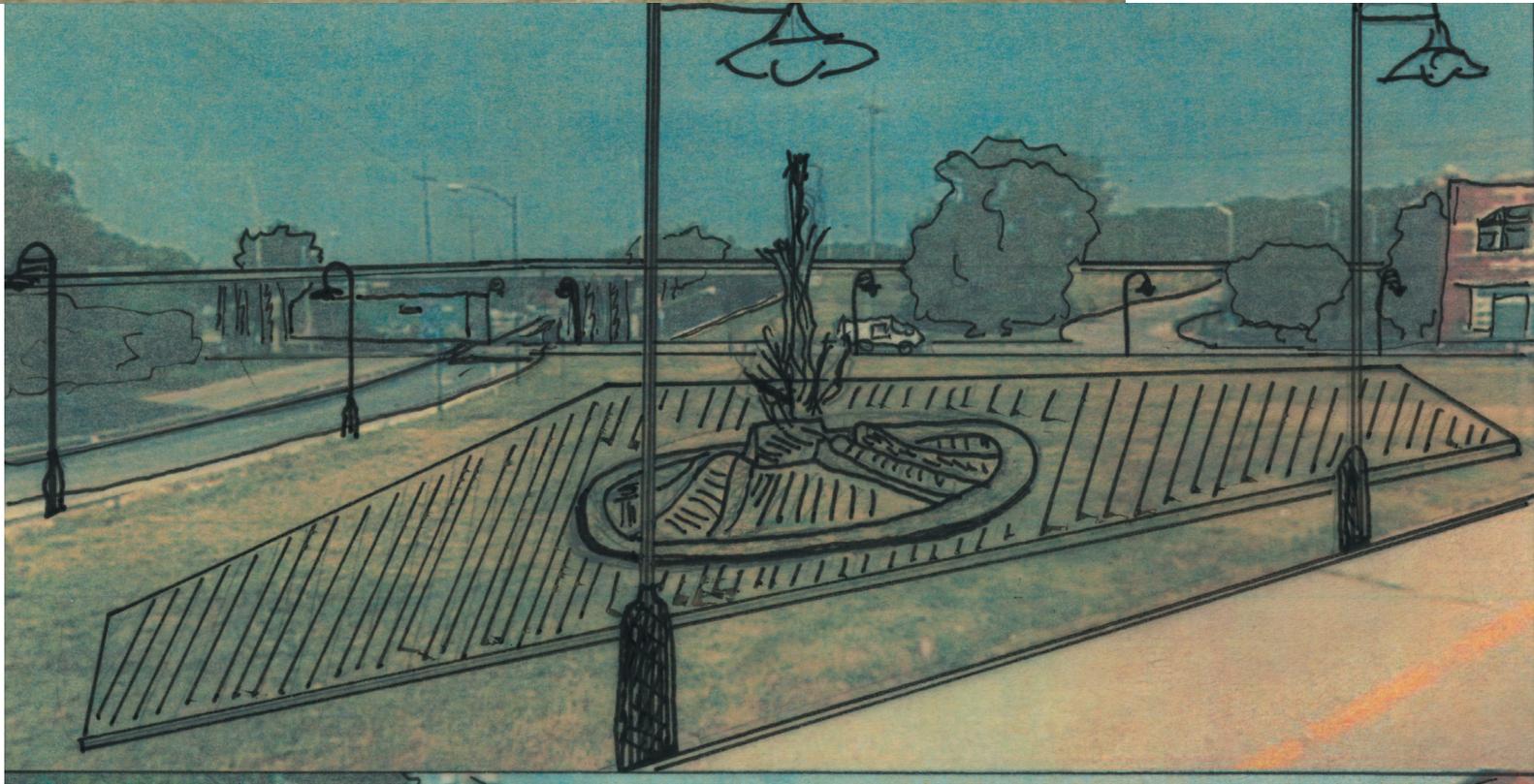


The entry to Rosedale should be represented by an attractive and warm gateway. This gateway is not a single element signaling entry into Rosedale. Rather, it is a new street identity that cues the driver/pedestrian that they have entered a new neighborhood. This new neighborhood is Old Rosedale, consisting of an old business district and boulevard.



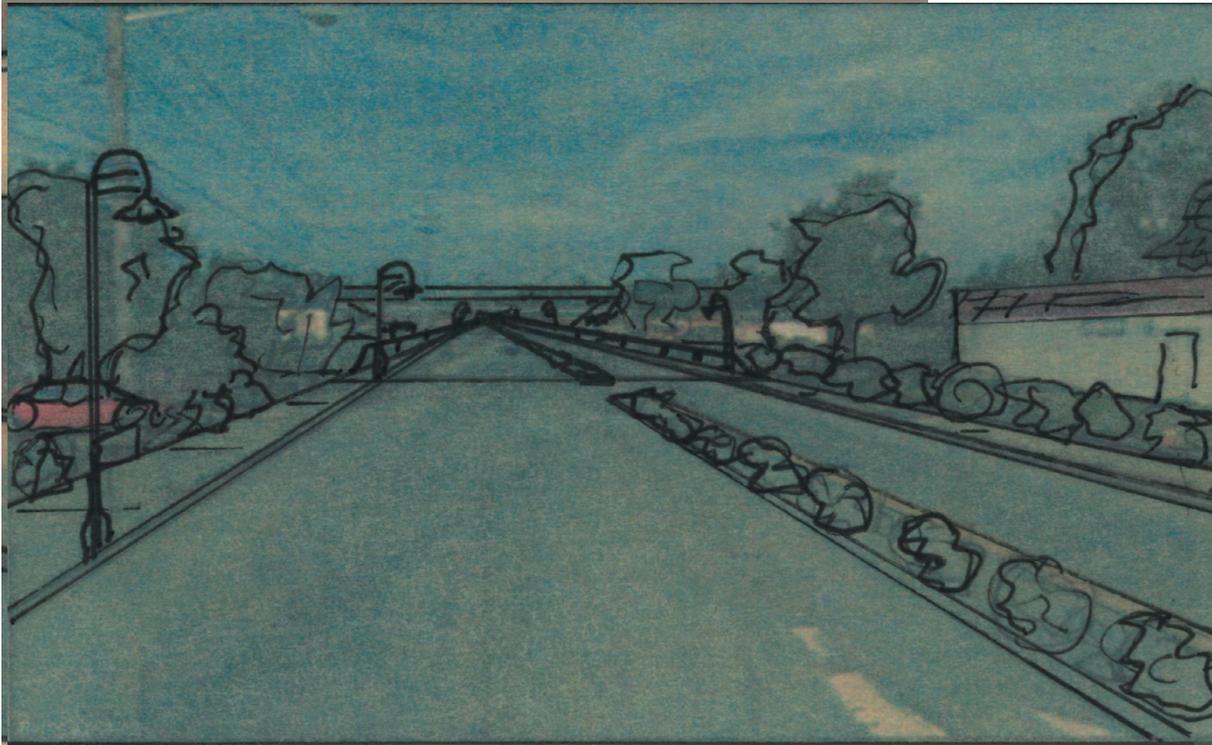


The Old Rosedale Gateway begins with a small plaza. This fountain is not designed to draw loitering or much physical attention. It is to signal a transition and beginning of a new destination.



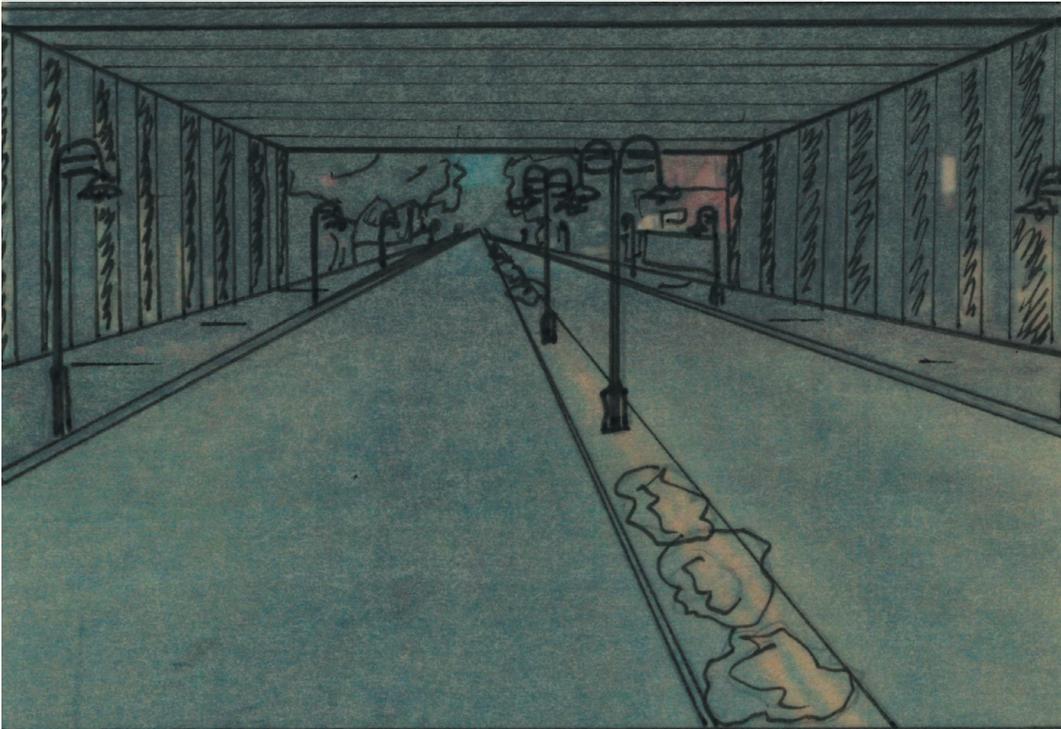


This is more than a streetscape. It is a rebranding of Rosedale. The center median and landscaping subconsciously narrows the street feel causing drivers to slow down. The street lamps create continuity from the entrance of Old Rosedale into the business district. These two elements, along with raised intersection crosswalks create a warmer and more inviting gateway to Old Rosedale.





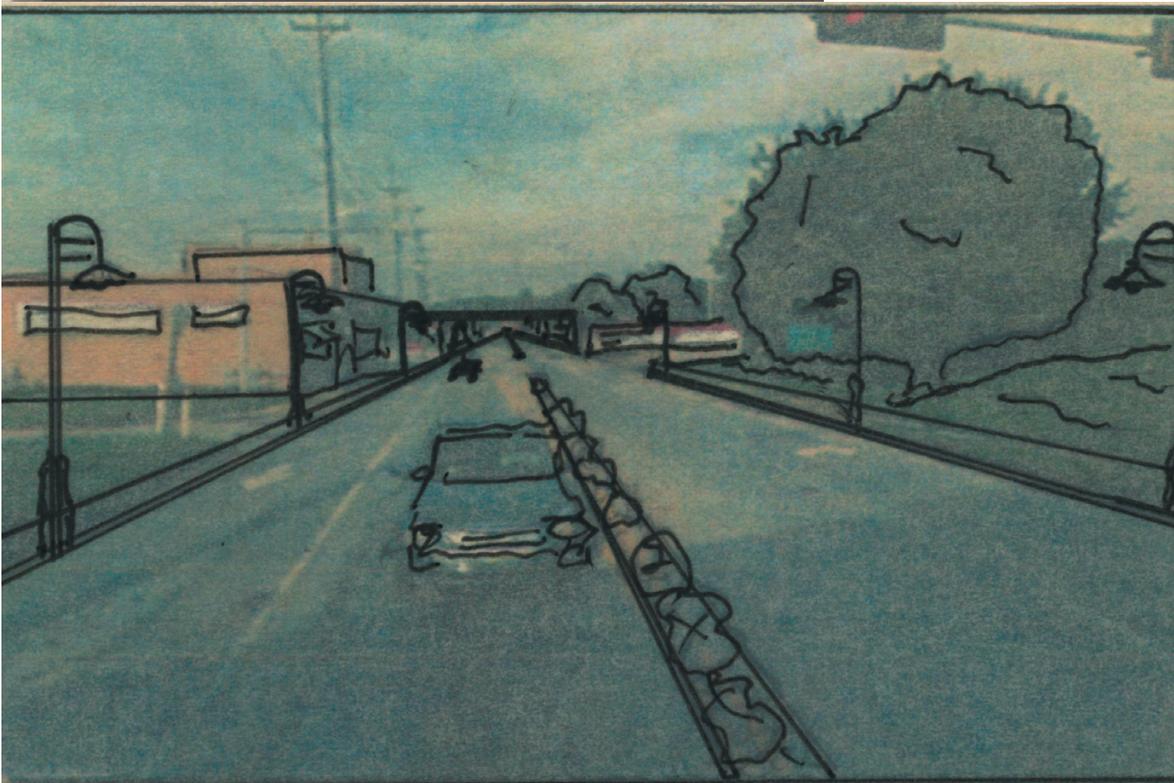
The continuum of landscaping and street lamps will draw people into Old Rosedale and past the semi-industrial buildings between the I-35 on-ramp and Old Rosedale proper. This will work especially well at night as the street lamps emit a soft and welcoming glow. People will be curious as to where the lite boulevard will lead them. This design theme could be continued throughout the Rosedale Corridor adding incentive and economic potential to perspective patrons and visitors.





This design theme could be continued throughout the Rosedale Corridor adding incentive and economic potential to perspective patrons and visitors.

The narrow and low profile median is used to attract attention while not overwhelming the built landscape. It should add to, not take away from existing building.



*Mapping the Path
to Healthy Food
Access for Rosedale
Entrepreneurs*



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Introduction

The Rosedale neighborhood of Kansas City, Kansas is unique in many ways. Our residents have roots that come from a wide variety of ethnic, cultural, and economic backgrounds. Topographically, our landscape consists of steep hills, winding valleys and flatlands, which are divided by Interstate 35. The diversity of our residents and our centralized location is what makes Rosedale such a wonderful place to live and raise a family. There are, however, some challenges that the community must solve in order to improve its inadequate access to traditional living standards for its populace. One of the more challenging of these problems is the lack of a grocery store within Rosedale that offers nutritious and healthful foods that can encourage and support a healthy lifestyle.

It is a primary goal of Rosedale Development Association to get healthy food options into Rosedale. The goal of this resource is to display a few of the ways the Rosedale community can support healthy food access in the area and some of the strategies that entrepreneurs can employ to help change the healthy food landscape for everyone's benefit. Under the Rosedale Community section are ideas that community leaders can use to help increase healthy food access in Rosedale. We are doing a great job already with our community gardens and Farmer's Market, but more must be done. In the Existing Corner Store section are ideas for local entrepreneurs to use in changing their stores to ones that offer healthy produce. It is no secret that this won't be easy, but in the long run it will be a benefit to both store owners and customers. Finally, under the Future Grocery Entrepreneurs section reasons and incentives to building a grocery store in the Rosedale community. Kansas City, Kansas offers many tax incentives, but Rosedale itself contributes many things that other communities aren't able to offer. From location to community gardens to the Green Corridor Plans, Rosedale offers many unique benefits to a new grocery store.

Rosedale Community

Green Corridor Master Plan

The Green Corridor Master Plan was developed by the Rosedale Development Association in order to emphasize physical improvements that will encourage healthy lifestyles and green redevelopment. It will include all sections of Merriam Lane and Southwest Boulevard located within Kansas City, Kansas. Its objective of making the physical improvements necessary for healthy living will create a thoroughfare capable of supporting a grocery or healthy corner store. Bicycle lanes, sidewalks, and businesses committed to sustainable living habits would encourage the prime environment for healthy food access.

Encourage Participation in Rosedale Farmer's Market

The Rosedale Farmers Market has entered its third year and the community support is increasing at a steady pace. This project is providing a great resource for connecting Rosedale families with healthy foods. The market provides double value for SNAP and Senior Farmers Market Nutrition Program users through the Beans and Greens Program and provides transportation for residents from Rosedale Towers and Belrose Manor Public Housing Developments. It is truly at the heart of a healthy food access revolution in the neighborhood and needs to be supported. By supporting the market, it allows it to expand benefitting both the farmers and consumers who will have increased access to healthier foods.

Help with Marketing and Patronage of a New or Existing Store

Using our community to back a marketing strategy and utilize a local store selling healthy produce is of the utmost importance. While there is no store currently selling healthy produce, in the event that one were to be established, everyone's participation would be needed to ensure its future success. Creating special events around healthy food retailers would be helpful in creating awareness for the store. It is important to recognize, through the support of the residents, that a project of this magnitude will be in a better position to succeed by working together.

Co-Ops

A co-op grocery idea may be something that can greatly benefit Rosedale, as it is an organization that takes the idea of working together and puts it into a business structure. A cooperative is a business voluntarily owned and controlled by the people who use it — its members. It is operated solely for the benefit of its members to meet their mutual needs. By persuading the city to partner with residents of Rosedale, this idea is very much a possibility. Co-op members have a say in the operation of the business and also receive special discounts that non-members do not receive. By having a minority stake in the market and receiving discounts, residents would be inclined to use it and make it their “own.” As more people join the co-op, the portion contributed by the city could be purchased through membership funds allowing the city to recover its initial down payment. A model very similar to this is currently enjoying quite a bit of success in a low income neighborhood in St. Louis.

Community Gardens

The neighborhood must continue building and contributing to the growth of community gardens in Rosedale. There are currently 11 successful gardens, but we would like to have many more, including an orchard. By supporting these gardens and increasing their number, healthier foods would be grown in Rosedale, creating a ripple effect by increasing healthy food awareness among residents. Selling excess produce to local corner stores and possibly a future grocery store would also make a tremendous contribution to healthy food access in Rosedale. These stores could provide a venue for selling produce which would ultimately mean profit for everyone involved and fresh produce at an affordable price for consumers.

Land Bank

Another great resource in the Rosedale neighborhood are the multiple buildings and vacant properties that are controlled by the city. Being able to turn these properties into community gardens at minimal cost and provide property for a grocery store would greatly contribute in the effort to increase healthy food access. Utilizing this land correctly and not allowing it to waste away as vacant property must be a priority. Rosedale Development Association already has a relationship with the city that could make this possible. All that is needed are potential gardeners and grocers.

Existing Corner Stores

Tax Incentives and Funding

NRA (Neighborhood Revitalization Act) – Property tax rebate program. No bonds are issued. Property owners who make improvements are eligible for up to a 100% rebate on the additional property taxes created by their improvements for up to 10 years. This would include remodeling and increasing the space of a store in order to carry healthy produce.

IRBs (Industrial Revenue Bonds) – These can provide 100% tax abatement on sales tax of construction materials. They can also be used to grant property tax abatement, up to 100% for 10 years. They cannot be used for retail, but can be used to exempt sales tax on building materials to build a retail building.

CIDs (Community Improvement Districts) - Up to an additional 2% sales tax can be approved for goods sold in a community improvement district in the Wyandotte County. One store could apply to be the community improvement district and the additional tax would then go back directly to the store. A CID can be used to finance any cost of a project. Under the CID Act, a cost means the cost of land, materials, labor, and other lawful expenses incurred in planning and doing any project, as well as costs to create the CID and employ consultants (including attorneys, financial advisors, engineers, and architects), and other administrative and preliminary expenses. The definition of project is likewise broad and nearly all-encompassing and includes land acquisition, horizontal and vertical construction costs, public infrastructure costs, and ongoing maintenance costs.

Low-interest “gap” loan- These could be used by businesses offering healthier food options for starting a business or expanding or modifying existing businesses. The interest rate would be 4% and could be paid back over a fifteen-year period. The loan would need to be one-third of the total cost of the project. The total project cost could come from another loan, the owner’s own resources, or from another source.

Possible Incentives

U.S. Department of Housing and Urban Development (HUD) is making grants through their Healthy Food Financing Initiative (HFFI) available to community development associations. A consortium of agencies is applying in the Greater Kansas City area for these funds. If the consortium is successful, then grants and loans may be available for healthy corner stores and other healthy food retailers in the Kansas City area as early as 2012.

Possible Future Incentives (continued)

Another significant incentive to potential owners could come from streamlining applications for occupancy and other permits necessary for healthy food retailers, by assigning staff from the Unified Government to help the retailers through the. Currently, the Unified Government tries to strictly follow a first come first serve basis for permits and has no exceptions for healthy food retailers. Given the need for healthy food in urban areas and the costs to the city related to obesity and other health conditions related to poor nutritional habits, it is justifiable to make permits for healthy food retailers a priority. A new policy would need to be developed that provides clear and fair guidelines.

Another possible incentive could be to provide discounted rates for trash, recycling, energy and water and sewer charges for healthy food retailers in food deserts. These incentives may also require additional advocacy for policy changes.

Marketing/Design of Store

By learning about the produce that you are promoting, you will become more effective at selling. Having knowledge of fruits and vegetables and being able to offer information and recipes readily can really help a corner store grocer connect with consumers. Learning to appropriately market items by placing them the front of the store, having clean display cases, and easy to read signs can also play a major role in supporting the purchase of fresh produce. Members of RDA and RHKI have attended many conferences regarding these topics and could help considerably in establishing and implementing some strategies. Additionally, we have made contact and exchanged ideas with many people who specialize in assisting small corner stores in the conversion to healthy food. Resources and contacts are readily available and we are happy to support in any way possible.

Classes/Demonstrations/Recipes

Incorporating cooking classes, demonstrations, sampling and recipes using the healthy foods that are in season is not only a great way to sell the products, but to educate the patrons of the store. Trying new, healthier foods that are unfamiliar can be very intimidating and the availability of these resources would be informative to customers and profitable for businesses. Classes and demonstrations that teach how to prepare balanced healthy meals would also encourage people to come to the store for reasons other than food purchase. The availability of recipe cards near seasonal fruits and vegetables would promote healthy eating and promote the sale of products included in the recipes.

WIC Participation

Participation in the WIC (Women Infants and Children) Program) could be a great asset to a corner store trying to convert to selling healthier produce. Since a store must sell a required amount of fresh produce, very few corner stores qualify for WIC. As a result, WIC participants must go to large grocery stores to use their redeemable vouchers. This leaves local corner stores out of the mix and bereft of an entire consumer population. If a store were to convert to accepting WIC vouchers, it could greatly increase its customer base, especially in lower income neighborhoods, where many women are on the program. By making this conversion and marketing it correctly, the revenue earned could help support the transition to a “healthier” corner store. If used correctly this could be an extremely useful tool.

Partner With Community Gardens

Rosedale is home to 11 community gardens, with this number growing rapidly. The residents of Rosedale, with the help of RDA and Rosedale Healthy Kids Initiative, are learning how to grow their own food in their own neighborhood. These opportunities are allowing for more sustainable and healthy eating habits in people of all ages, and also provide a unique resource to a community corner store. Being able to sell locally grown produce at a community corner store is extremely marketable and affordable. Instead of trying to find a wholesale distributor or buy produce from another store, a corner store could purchase “homegrown” goods at a reduced cost. The community gardeners would be willing to work with a local grocer to allow the sale of some of their fresh produce, effectively benefiting both sides.

Serve to a Niche Market

Due to its ethnic and cultural diversity, Rosedale would be an ideal location to sell specialty goods to certain populations. Both African Americans (13%) and Hispanics (25%) have high populations in Rosedale and would benefit greatly from the ability to purchase familiar goods in their own community. This would be a terrific source of revenue from a niche market and could provide a consistent income to a corner store that is trying to change its healthy food philosophy. Also, selling prepared foods and meals would help supplement income and help market the store more effectively.

Green Corridor Master Plan

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Future Grocery Entrepreneurs

Tax Incentives and Funding

NRA (Neighborhood Revitalization Act) – Property tax rebate program. No bonds are issued. Property owners who make improvements are eligible for up to a 100% rebate on the additional property taxes created by their improvements for up to 10 years. This would include remodeling and increasing the space of a store in order to carry healthy produce.

IRBs (Industrial Revenue Bonds) – These can provide 100% tax abatement on sales tax of construction materials. They can also be used to grant property tax abatement, up to 100% for 10 years. They cannot be used for retail, but can be used to exempt sales tax on building materials to build a retail building.

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Low-interest “gap” loan- These could be used by businesses offering healthier food options for starting a business or expanding or modifying existing businesses. The interest rate would be 4% and could be paid back over a fifteen-year period. The loan would need to be one-third of the total cost of the project. The total project cost could come from another loan, the owner’s own resources, or from another source.

Possible Future Incentives

U.S. Department of Housing and Urban Development (HUD) is making grants through their Healthy Food Financing Initiative (HFFI) available to community development associations. A consortium of agencies is applying in the Greater Kansas City area for these funds. If the consortium is successful, then grants and loans may be available for healthy corner stores and other healthy food retailers in the Kansas City area as early as 2012.

Possible Future Incentives (continued)

Streamlining applications for occupancy and other permits for health food retailers, with staff from the Unified Government assigned to help the retailers through the process could provide a significant incentive to business owners. Currently, the Unified Government tries to strictly follow a first come first serve basis for permits and has no exceptions for healthy food retailers. Given the need for healthy food in urban areas and the costs to the city related to obesity and other health conditions related to poor nutritional habits, it is justifiable to make permits for healthy food retailers a priority. A new policy would need to be developed that provides clear and fair guidelines.

Providing discounted rates for trash, recycling, energy and water and sewer charges for healthy food retailers. These incentives may also require additional advocacy for policy changes.

Location

The location of Rosedale is one of its biggest assets. Situated next to Johnson County, the Country Club Plaza, and Westport, Rosedale is really at the heart of midtown. It is bisected by Interstate 35 and Southwest Boulevard and is home to the University of Kansas Medical Center and its medical and nursing schools. These characteristics provide a high traffic flow and an economically diverse population. Residents who may not be able to drive to other grocery stores would benefit from a local store, as would the people that are driving through Rosedale on a daily basis.

Marketing/Lobbying Assistance

Rosedale Development Association has many great relationships with community members and city government officials that have been built and solidified over years of working together. We would help market a new grocery store to our community through our newsletter, website, and the many community events that we sponsor or take part in every year. Working with our contacts in the Unified Government of Wyandotte County we could help a grocery entrepreneur with any troubles he or she may encounter. If there are foreseeable problems with laws, zoning, etc... we could work with the city to help make the necessary changes.

Niche Markets

Due to its ethnic and cultural diversity, Rosedale would be an ideal location to sell specialty goods to certain populations. Both African Americans and Hispanics, thirteen and twenty-five percent respectively, have high populations in Rosedale and would benefit greatly from the ability to purchase familiar goods in their own community. This would be a terrific source of revenue from a niche market and could provide a consistent income to a new grocery store.

Green Corridor Plans

The Green Corridor Master Plan was developed by the Rosedale Development Association in order to emphasize physical improvements that will encourage healthy lifestyles and green redevelopment. It will include all of Merriam Lane and Southwest Boulevard located within Kansas City, Kansas. Its objective of making the physical improvements necessary for healthy living will create a thoroughfare capable of supporting a grocery store. Bicycle lanes, sidewalks, and businesses committed to sustainable living habits would encourage the prime environment for healthy food access.

Community Gardens

Rosedale is home to eleven community gardens, and this number seems to be growing rapidly. The residents of Rosedale, with the help of RDA and Rosedale Healthy Kids Initiative, are learning how to grow their own food on their own land. These opportunities are allowing for more sustainable eating habits in people of all ages, and also provide a unique resource to a community grocery store. Being able to sell locally grown produce at a community grocery store is extremely marketable and affordable. The community gardeners would be willing to work with a local grocer to allow the sale of some of their fresh produce, effectively benefiting both sides. One Johnson County grocery store already sells locally grown okra from the community gardens.

Resources

Beth Low

Director—Greater Kansas City Food Policy Coalition

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(816) 585 4738

Bruce Anderson

Public Health Department- Environmental Health

(913)573-6700

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WIC Vendor Application

(785)296-1327

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Brent Miles

Wyandotte Economic Development Council

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bmiles@wyedc.org

Wendy Wilson

Rosedale Development Association

(913)677-5097

info@rosedale.org

Heidi Holliday

Rosedale Healthy Kids Initiative/Community Gardens

(913)645-7826

heidi@healthykidsinitiative.org

Chris Slaughter, Manager

Wyandotte County Land Bank

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cslaughter@wycokck.org

HEALTHY DEVELOPMENT CHECKLIST

Please provide written responses to each applicable question. For those questions which are not applicable, please indicate so on the form. Attach additional sheets if more space is necessary to respond fully to the questions. Submit completed form with your project/development application.

PROJECT NAME: _____

ADDRESS/LOCATION: _____

CASE #: _____

TYPE OF PROJECT: Residential Mixed Commercial Office Civic

LAND USE

YES NO

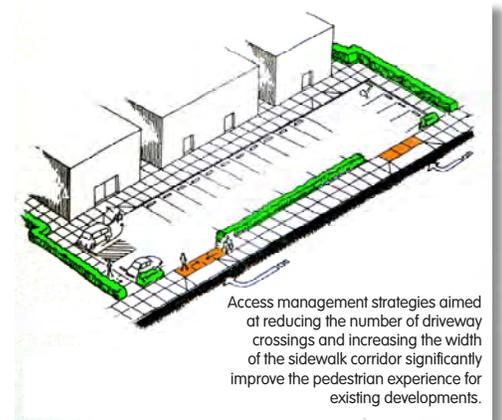
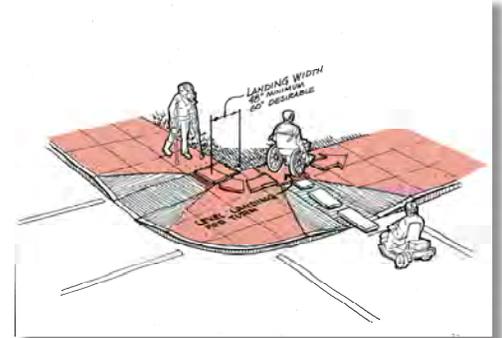
- Does the project/development promote interaction between neighbors?
If YES please list: _____
- Is the physical design of the project harmonious with the overall neighborhood?
- Is this development adjacent to existing development and connecting to the development with pedestrian links and roadway connections?
- Is there an adequate mix of land uses that provide a variety of housing choices?
- Do these mixes provide for a great diversity in incomes, and especially provide for affordability?
- Are there locations for non residential land uses that are integrated with the residential?
- Is the land use configured around a walkable block size (¼ mile perimeter)?
- Is there a range of density permitted in the neighborhood?
- Are fronts of homes properly placed and have windows watching over schools, parks, streets, trails and other public places?
- Is the architecture of buildings attractive and supportive of life on the street, park, school?
- Are there provisions eliminating garages from "mooning" the street (i.e. required garage setbacks, lot frontage percentage)?
- Are public buildings, parks and other common destinations properly placed to maximize the number of people that can walk to them?
- Can the majority of people walk safely and comfortably in ten minutes (2500 feet), and without crossing dangerous intersections to an elementary school?
- Can the majority of people walk safely and comfortably in twenty minutes (5000 feet), and without crossing dangerous intersections to a high school?
- Is there too much emphasis on providing large amounts of off-street parking (relates to affordability, density)?



TRANSPORTATION, STREETSCAPING, & STREET DESIGN

YES NO

- Does the project/development achieve a connectivity index of 1.4? The index is calculated by dividing the number of street links (street sections between intersections, including cul-de-sacs) by the number of street nodes (intersections and cul-de-sacs). A grid street network would yield an index of 2.0.
- Does the project/development provide mobility options for those who cannot drive?
- Does the project/development have a well connected sidewalk system that lead to local destinations?
If YES what is the proposed width of the sidewalks (5.0 foot minimum recommended)? _____
- Are sidewalks detached from the curb allowing planter strips to take up driveway elevation changes?
- Do all corners have ADA accessible ramps (2 ramps per corner preferred)?
- Do planter strips offer canopy street trees (each 15-30 feet recommended)?
- If median tree plantings are preferred, are plantings adequate for canopy development (each 15-30 feet recommended)?
- Are there adequate provisions made for proper care and maintenance of canopy trees?
- Do building practices eliminate privacy fences (above 4.0 feet) toward the public side of properties?
- Are there specifications that public facing fencing be attractive and transparent above 4.0 feet?
- Do curbs, swales, curb extensions, or other designs keep cars parked in correct locations (no rollover curbs)?
- Does the project/development have, or connect to, a trail system for walking or biking?
- Does the project/development contain elements that enhance the feeling of neighborhood security and safety?
- Are local streetlights provided?
- Are houses oriented toward the street to provide "eyes on the street?"
- Are the buildings addressing the street? (i.e. front doors)
- Is there parking between the building and the street?
- Can a child walk safely, comfortably, and feel watched over enroute to school?
- Are there sidewalks/pathways along the route to the school(s)?
What is the walking distance to the area's schools? _____
- Is the visibility at intersections good? Can drivers see short children, physically handicapped?
- Does the route contain known dangerous intersections?
If YES please list _____
- Are there crossing guards at these intersections?
- Will the project/development contain a significant elderly population?
- Can the elderly walk to important destinations (i.e. banks, post office community centers, and library)? What is the walking distance to these destinations? _____



TRANSPORTATION, STREETSCAPING, & STREET DESIGN CONTINUED

YES NO

- Are there sidewalks/pathways along the routes to these destinations?
- Is the overall speed at or below 25 mph for all local streets?
- Is the overall speed at or below 30 mph for all collector streets?
- Does the project contain design elements to calm traffic such as curb extensions, mini-circles, parking chicanes, roundabouts, medians, raised street crossings, or similar features?
If YES please list _____
- Does the project/development present unsafe conditions or deter access and free mobility for the physically handicapped?
- For projects/development on arterial streets, does the plan include pedestrian crossing signals and/or mid-block crossing islands?
- Is public transportation available?
If YES, where and how close is the nearest bus/train stop? _____
- Does the nearest bus/train stop have a shelter?
- Does the nearest the bus/train stop have a bench and litter can?
- Do curb extensions or other treatments prevent motorists from parking too close to corners?
- If narrow streets are used, do streets provide a physical space (20 feet wide) every 200 feet for emergency response operations?
- If alleys are used, is there high transparency (surveillance) in the alley?
- If paseos (connectors or links) are used, is there high transparency (surveillance) to the paseo?
- Do schools, parks, and other public destinations have adequate well located and secure bike parking?



PARKS & OPEN SPACE

YES NO

- Can the majority of people walk safely and comfortably in five minutes (1500 feet) to a public gathering place, park, plaza, or community center?
- Are there an adequate number of parks provided within walking distance (1/8 — 1/4 mile) from every residence?
- Are there sidewalks/pathways, ADA ramps along the route to the above services?
- What is the walking distance to the area's amenities? _____
- Is the size of parks and open space adequate for the amount of potential residents?
- Are there a number of buildings/houses that watch over parks, trails, and open space?
- Are these parks well used? If not yet built, are there a number of things to discover and do in these parks?
- Do parks have appropriate on-street parking, or is there too much off-street parking?



El Sol Market Evaluation

El Sol is a small ethnic/specialty food store located on Lloyd Street within the Rosedale community. A research team from the University of Kansas Medical Center completed an evaluation of El Sol using a standardized tool that can be found below. A member of the Rosedale steering committee fluent in Spanish accompanied the researchers to ensure that it was okay to perform the evaluation and to help translate some of the questions from the assessment tool. The baseline evaluation for El Sol was conducted on April 30th, 2009 and the follow-up evaluation was conducted on July 27th, 2011.



Baseline Results

Items Carried:

- El Sol did not carry any sort of fresh chicken, turkey, lean beef, or seafood. However, several frozen seafood products were available for purchase, including shrimp, fish, and a seafood “mix.”
- Chorizo was available for purchase.
- This store carried skim milk, part skim mozzarella, and a low-fat drinkable yogurt for low-fat dairy products.
- Eggs were available for purchase.
- Whole grain cereals including oatmeal were available for purchase. There were some pastas containing “100% durum semolina,” but after research we determined that this did not constitute a whole grain product.
- “Use by” or “sell by” dates were found on all perishable and refrigerated items.
- We observed only one refrigerated item to be expired by a couple of days.
- We did not observe any low-fat, low-sodium, low-sugar, or diabetic food products on shelves where they could be easily located.
- Alcohol was not available for purchase at this store.
- Tobacco products were available for customer purchase

Payment Options, Availability, and Other Characteristics:

- El Sol does accept food stamps but does not accept WIC vouchers.
- A credit card machine is available for customer purchases.
- This store accepts coupons ONLY for the purchase of cigarettes.
- A store club card is not needed to purchase items or receive discounts.

- This store is not handicap accessible. Although disabled people can get in through the front door, they cannot navigate through the narrow aisles. The access to the front of the store where the register is located is also difficult to navigate around due to a large display by the counter.
- A microwave is available for customer use.
- This store, although in an older building, was very clean and well taken care of.
- El Sol does not have a public restroom available for customer use.
- A public phone is not located near this store.
- A small discount shelf with baskets of various food products on sale was easily located in the store.
- A healthy deli option is not available.
- A bus stop is located just across the street from the store.
- A delivery service is not available.
- Alcohol and tobacco products are not advertised inside or outside of this store.
- One small sign located outside advertised Mexican pastries. The remainder of the signs located on the outside of the store advertised for money wiring services, money orders, international calling cards, and a narcotics anonymous sign.
- There was a small, hand-written sign located on the door advertising papaya for \$0.95 per pound.
- A rack of candy was prominently displayed by the checkout counter.
- El Sol did not prominently display soda or other sweetened beverages.

Availability of Fruits and Vegetables:

- Five fresh fruit items were available for purchase (bananas, apples, papaya, avocado, and limes). The overall quality and freshness of these items was rated as average to good.
- Five fresh vegetable items were available for purchase (potatoes, onions, garlic, jalapeno peppers, and tomatoes). The overall quality and freshness of these items was also rated as average to good.

Other Observations and Comments:

Among some of the other specialty items was also a freezer containing the frozen seafood, guava, yucca, pork papusas, tamales, lorocco flowers, and banana leaves. Although the store carried 100% orange juice which was located on a shelf by the front entryway of the store, there was some concern because it was not refrigerated. We did check the label which indicated that the product should “Remain refrigerated.” The store clerk on duty was very friendly and accommodating. She was able to speak mostly English and answer our questions without the use of a translator. Although she was unsure of the prices of some of the produce items, she was very helpful in answering our questions.

Follow-up Results

Items Carried:

- El Sol did not carry any of USDA top grade chicken, turkey or Select/Choice grade lean beef. However, there was frozen shrimp available for purchase.
- This store carried low-fat dairy products; including 2% reduced fat milk, and low-fat string cheese. There was no yogurt available for purchase. Vitamin D whole milk was also available for sale.
- Eggs were available for purchase.
- There were no whole grain breads, cereals, or pastas available for purchase. White bread, white rice, and sugary cereals were available.
- “Use by” or “sell by” dates were found on all refrigerated items. We did not observe any refrigerated items to be expired.
- We did not find any soy products in the store.
- We did not observe any low-fat, low-sodium, low-sugar, or diabetic food products on shelves where they could easily be located.
- Alcohol was not available for purchase at this store.
- Tobacco products, including cigars and cigarettes, were available for customer purchase.

Payment Options, Availability, and Other Characteristics:

- El Sol does accept SNAP vouchers, but does not accept WIC vouchers.
- A credit card machine is available for customer purchase.
- This store does not accept any coupons for food or tobacco products.
- El Sol does not offer a store club card to purchase items or receive discounts.
- The store is not handicap accessible. Although disabled people can get in through the front door, they cannot navigate through the narrow and crowded aisles. Access to the front of the store where the register is located is also difficult to navigate around due to the large counter.
- A microwave is not available for customer use.
- This store, although in an older building, was very clean and well taken care of.
- El Sol does not have a public restroom available for customer use.
- There is a public phone located at the Laundromat, which is next to the store.
- A discount shelf for dented cans and other items was not available.
- A healthy deli option was not available.
- A bus stop is located one block from the store.
- A delivery service is not available.
- Alcohol and tobacco products are not advertised inside or outside of this store. The owner mentioned that they are not allowed to advertise these products.

- One sign outside advertised a Mexican dinner. The remainder of the signs located outside the store advertised for money wiring services, money orders, and international calling cards.
- Candy racks were prominently displayed near the front counter.
- El Sol did not prominently display soda or other sweetened beverages at the front of the store; rather they were displayed near the back of the store.

Availability of Fruits and Vegetables:

- Five fresh fruit items were available for purchase (bananas, limes, apples, avocados, and mangos). The overall quality and freshness of these items was also rated as Good.
- Five fresh vegetable items were available for purchase (onions, tomatoes, carrots, jalapenos, and tomatoes). The overall quality and freshness of these items was also rated as Excellent.

Other Observations and Comments:

Aside from the selection of fruits and vegetables, there were limited options for customers to purchase healthy foods. In addition to the assortment of ethnic foods (including rice, beans, taco shells, and vegetables), there were numerous displays of candy, soda, chips, ice cream, and Mexican candies. A variety of fresh baked pastries were also prominently displayed by the store entrance. El Sol carried a variety of party accessories, cleaning supplies, and jewelry. There was also a large display of herbs, spices, chilies, and hot sauces against the back wall of the store. Next to the candy display by the checkout counter was an assortment of nuts and pumpkin seeds. The store clerk on duty was very helpful in answering our questions. She was able to speak mostly English and answered our questions without a translator.

Observed Changes

Changes were observed in the El Sol market from baseline to follow-up. These changes included:

- Yogurt was no longer available for purchase. However, low-fat string cheese was a new low-fat dairy option.
- Whole grain cereals or oatmeal were no longer available.
- Customers could no longer purchase tobacco products with coupons.
- A microwave was no longer available.
- A public telephone was located at the Laundromat next to the store.
- The quality of vegetable available improved to "Excellent".
- No foods were found to be expired.

Rosedale Community Grocery Store Assessment

Date: _____

Time: _____

Store Name & Address: _____

Store Type: _____ Supermarket _____ Convenience _____ Other
 _____ Large grocery _____ Gas/grocery
 _____ Small grocery _____ Ethnic/specialty

1. Does this store carry...			
	Yes	No	Comments
USDA top grade poultry (chicken, turkey)?			
Select/Choice grade lean beef?			
Fresh seafood?			
Non-fat and low-fat dairy products (milk, yogurt, cheese)?			
Eggs and/or egg substitutes?			
Whole grain breads, cereals, and pastas?			
Expired "use by" or "sell by" dates on products?			
Soy products?			
Low-fat food products where you can easily find them?			
Low-sodium food products where you can easily find them?			
Low-sugar food products where you can easily find them?			

Food products for diabetics where you can easily find them?			
Alcohol?			
Tobacco products?			

2. Does/Is this food store...			
	Yes	No	Comments
Accept food stamps?			
Accept WIC vouchers?			
Have a credit card machine?			
Accept coupons?			
Have a store club card?			
Handicap accessible?			
Have a microwave available for customer use?			
Clean inside?			
Have restroom access?			
Have a public phone nearby?			
	Yes	No	Comments
Have a discount shelf for dented cans or other items?			
Have a healthy deli option?			
Have a bus stop nearby?			
Have a delivery service?			
Market or advertise alcohol inside and/or outside of the store?			
Market or advertise tobacco products inside and/or outside of the store?			
Market or advertise unhealthy food items (chips, soda,			

candy, pastries) inside and/or outside of the store?			
Market or advertise healthy food items (fruits, vegetables, low-fat milk) inside and/or outside of the store?			
Prominently display candy at the front of the store or adjacent to checkout counters?			
Prominently display soda and other sweetened beverages (juice drinks/ sport drinks, etc.) at the front of the store or adjacent to the checkout counters?			

3. For the fresh produce items in this store:					
How many fresh fruits does the store currently have in stock?	None	1-2	2-3	3-4	>5
How would you rate the quality and freshness of the fruit in stock?	Poor	Average	Good	Excellent	N/A
How many fresh vegetables does the store currently have in stock?	None	1-2	2-3	3-4	>5
How would you rate the quality and freshness of the vegetables in stock?	Poor	Average	Good	Excellent	N/A

4. Record the lowest prices for the following items:

a) 1 loaf of bread

Size _____
Have _____

Price _____

Don't

b) 1 quart of low-fat milk

% Milk _____
Have _____

Price _____

Don't

c) 1 pound of fresh bananas or other fruit

Fruit_____ Price_____ Don't
Have_____

d) 1 pound of fresh ground beef

% Lean_____ Price_____ Don't
Have_____

e) 1 dozen eggs

Size_____ Price_____ Don't
Have_____

f) 1 pound of fresh vegetables

Vegetable_____ Price_____ Don't
Have_____

Overall impressions or comments of this store?

**This assessment was adapted from the Fresno County Community Food Assessment and the Los Angeles Community Health Council Neighborhood Food Watch Checklist*