Parkville Regional Multi-Modal Access and Livable Community Study

Prepared for the City of Parkville

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Section 1 | Introduction

The Parkville Regional Multi-Modal Access and Livable Community Study, funded by the Federal Highway Administration (FHWA) through its Transportation Enhancement Program, and coordinated through the Missouri Department of Transportation (MoDOT), was initiated to identify enhancements to increase multi-modal access in southern Platte County and the City of Parkville. With the addition of a 140-acre regional park; bicycle/pedestrian trails along Route 9 and within English Landing Park; a potential second mainline railroad track through downtown; and development in and around downtown Parkville, there are concerns that transportation network congestion will detract from the livability of Parkville. Transportation is important to the success of growing communities, and a successful Parkville Regional Multi-Modal Access and Livable Community Study will bring together a long-term planning vision for Parkville's transportation system and address on-going issues.

The study area for this project is the city limits of Parkville, Missouri with particular focus on the downtown. The downtown area is generally bounded by the Missouri River on the South, Park University on the east, Sixth Street on the north, and West Street on the west.

Downtown Parkville History and Current Status

English Landing Centre and English Landing Park with the Riverfront Trail were once low-water areas of the Missouri River. They were named after David English. At one time, the River was an active route for riverboats bringing supplies to the town and providing a means for shipping goods to market. Parkville was once even promoted as the ideal gateway to the west.

The beauty of limestone carved bluffs, wooded vistas, and the Missouri River provide a backdrop for Downtown Parkville. The shopping and dining district is a mix of mid 1800's through 1900's traditional modest American architecture and quaint venues. Buildings with colorful facades and cobblestone walkways have evolved to form a charming, historic downtown.

The college, which was first established in 1875, was first housed in Park's hotel known as "Old Number One." Students helped build many of the structures on campus including the magnificent, stone McKay Hall with its steeples and clock tower. The college is now Park University. Sports teams, theatrical performances, Art in the Park, and a diverse student population continue a wonderful partnership with the community.

Today, the City of Parkville, located in Platte County, Missouri, has 5,554 people and 1,900 households residing in the city according to the 2010 Census. The median income for a household in the city is approximately $99,000. Parkville is distinctly known for its antique shops, art galleries, and historic downtown. The city is home to Park University and English Landing Park.

Section 2 | Context and Purpose

Livability is the sum of the factors that add up to a community's quality of life—including the built and natural environments, economic prosperity, social stability and equity, educational opportunity, and cultural, entertainment and recreation possibilities. A livable community is one that has affordable and appropriate housing, supportive community features and services, and adequate mobility options, which together facilitate personal independence and the engagement of residents in civic and social life. This study will focus on the mobility options of livability for the downtown study area.

Context

Several past studies in the downtown area have illustrated concepts to improve traffic conditions and provide more livable characteristics in Parkville. These studies were referenced to provide context and background information to help guide this study.

- Parkville Master Plan, 2009
- Parkville Parks Plan, 2008
- Platte Landing Park Planning, 2012
- Downtown Traffic Study, Missouri Traffic Engineering Assistance Program, 2010
- An Architectural/Historic Survey of Parkville, Missouri, 1994
- Direction Finder Survey, 2009
- Parkville Plan for Progress, 2010
- Parkville Connections, 2012

The Parkville Master Plan is the comprehensive guide for development and redevelopment of the community. It is intended to guide policy and provide recommendations for future actions involving land development, sustainability, development design, provision of infrastructure, preservation of open spaces and natural resources, and preservation of the community character. The Master Plan is particularly relevant because its guiding principles focus on community sustainability, integrated land use and transportation connectivity. Over 20 transportation-related enhancements were included in the Master Plan with several focused on the Downtown area. In this study, the enhancements to the downtown were reviewed and helped to form the specific concepts for livability.

The 2008 Parkville Parks Plan is a road map for the utilization, development and expansion of Parkville's current and future park system. One of the stated important aspects of the plan is connectivity of the trail system to connection points at English Landing Park along the Riverfront and the planned Platte County park system – Platte Landing Park. This was an important element considered in the Livability Study.

The Downtown Traffic Study provided a thorough inventory of existing traffic conditions in Downtown Parkville including roadway configurations, traffic counts, crash history and a review of operational conditions. One outcome of this traffic study was the reconfiguration of the First Street and East Street/Route 9 intersection to improve traffic flow. This study's recommendations were considered as input to concept development.

The architectural history document provided context for the historic and cultural resources review. The Direction Finder Survey was helpful in developing the public engagement components of the study. The

Parkville Plan for Progress provided input into future land use based on the economic development strategies included in the plan.

Parkville Connections is a combination of property owned by residents and business owners, located just north of Downtown Parkville. Their goal is to bring more commerce and prosperity to the city, while keeping the natural beauty of the area. This development will include trails and walkways for bicycles and hiking as well as electric vehicles from The Nationals. Parkville Connections illustrates a community-driven development that could influence the development of downtown Parkville in the future.

Purpose

The purpose of the Parkville Regional Multi-Modal Access and Livable Community Study is to investigate the feasibility and cost to increase multi-modal access in Downtown Parkville and take into account the viewpoint of all users.

Goals and objectives were developed to measure how any concepts developed for the plan meet the purpose of the project. The goals and objectives were developed through review of past studies and utilizing information provided by stakeholders.

Exhibit 1. Plan Goals and Objectives

Goals	Objectives
Promote Efficient Transportation System Management and Operation	▶ Minimize travel delay ▶ Provide accommodations for multiple modes
Enhance Transportation System Safety	▶ Minimize crash occurrences
Protect the Environment	▶ Minimize impact on the natural environment ▶ Provide equitable options to all system users
Support Downtown Economic Vitality	▶ Create connections between Downtown and Park University ▶ Promote preservation of character ▶ Mitigate train horn noise

Implementation Focus

During the study development, determining the available funding sources that can be utilized for project implementation is a key consideration. For any plan to be realized, it is important that it include a realistic set of transportation solutions tied to funding. This will ensure that the plan's goals are achievable. Many types of funding mechanisms are currently available and in many cases, already being applied to projects within Parkville. Potential, innovative funding opportunities are also discussed, which will provide the City with more options to fund potential projects.

The following list provides information on funding opportunities that may be utilized by Parkville for implementation of the projects that are identified in this study. This listing is intended to provide general

information that will then be explored further as the projects are programmed. The various funding alternatives are not mutually exclusive. There are instances where one or more mechanisms may be combined to accomplish the goals of the City. As projects move to implementation, the City would determine the funding methods that could be applied to projects in Parkville and their legal ability use each mechanism.

Federal/State Programs

The Missouri Department of Transportation administers federal sub-allocated programs that utilize funds provided under the Moving Ahead for Progress in the 21st Century Act (MAP-21). These programs are typically funded on an 80% federal match/20% local match basis. The projects that are funded through these programs are outlined in the Mid America Regional Council's (MARC) Transportation Improvement Plan and MoDOT's State Transportation Improvement Plan.

Surface Transportation Program

The Surface Transportation Program (STP) provides flexible funding that may be used by States and localities for projects on any Federal-aid highway, including the National Highway System (NHS), bridge projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities.

All cities, counties and transportation corporations within MARC's metropolitan planning boundary are eligible for STP funds. The Missouri Department of Transportation is also eligible. These funds can be used for the following types of projects:

- Highway (including Interstate highways) and bridge projects (including bridges on public roads of all functional classifications)
- Alternative mode projects
- Safety projects
- Transportation control measures
- Natural habitat and wetlands mitigation efforts (related to STP-funded projects)
- Infrastructure-based intelligent transportation systems capital improvements
- Environmental restoration and pollution abatement projects

Transportation Alternatives

The Transportation Alternatives Program (TAP) provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to safe routes, conversion and use of abandoned railroad corridors for trails, construction of overlooks, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for the planning, design or construction of boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

In Missouri, MARC uses a competitive application process governed by the Missouri TA committee to program available funding. Applications received for Missouri TA funding initially undergo a technical review by MARC staff to determine scores based on the criteria developed by the committee. The process results in a ranking of proposed projects within each category, which are then used to make a recommendation to the TTPC.

Traffic Engineering Assistance Program (TEAP)
Many local agencies and their political subdivisions are unable to fund or conduct expert traffic engineering studies. As a result, the Missouri Highway and Transportation Commission developed TEAP to provide Missouri local public agencies with assistance to proficiently study traffic engineering problems.

The services of this program are to be used for locations on public roads under the jurisdiction of local public agencies that are located off of the state system.
The services of the program are generally provided at a 20% cost to requesting, eligible local public agencies in Missouri. Federal Highway Safety Funds (HSP) and Local Technology Assistance Program Funds (LTAP) will be used for the remaining 80% of expenditures.

Grants
The City of Parkville received a $60,000 (80% funding) Sustainable Places Grant from MARC in late 2012 to complete a Downtown Master Plan.

In the past, the city has received Community Development Block Grants (CDBG) to fund various improvement projects within Parkville. Communities receiving CDBG funds from the State may use the funds for many kinds of community development activities including, but not limited to:

- acquisition of property for public purposes
- construction or reconstruction of streets, water and sewer facilities, neighborhood centers, recreation facilities, and other public works
- demolition
- rehabilitation of public and private buildings
- public services
- planning activities
- assistance to nonprofit entities for community development activities
- assistance to private, for profit entities to carry out economic development activities (including assistance to micro-enterprises)

As such, CDBG funding could also be pursued for transportation facility improvements.

Innovative Funding
Special funding districts may be the best alternative in situations where a new development is being considered, or where property owners of existing development are willing to assist in the funding of improvements through a sales tax, property tax, or special assessment. Cooperation of property owners is often necessary for the formation of special funding districts. The Parkville Old Towne Market Community Improvement District (POTMCID) was formed in 2006 under the leadership of Main Street Parkville Association. Funds from the POTMCID are used for downtown marketing, streetscape beautification and improvements, and economic development of the Parkville downtown. Over the past four years, POTMCID funds have been used to upgrade and enhance downtown lighting, to expand promotional and marketing efforts, and support the economic viability of the businesses within the District.

The use of sales tax rebate or development agreements is an effective tool for smaller new developments. Cities may, by contract, allow the use of a portion of the sales tax generated by a new project to build or reimburse the developer for transportation improvements which serve the project.

General revenue bonds are an alternative when a revenue source has been identified to repay the

bonds. This tool may be useful when property owners in an identified area are not willing to participate in financing improvements through a special funding district or sales tax rebate agreement. Many times general revenue bonds are used to make improvements in established areas of a community or in areas where travel is not limited to the immediate neighbors.

An impact fee is an alternative to fund improvements by imposing a fee on future development. The success of this alternative depends on future development which would be required to pay the fee. This alternative would be generally available throughout the City, and imposed in specific areas which are designated as "service areas."

An excise tax is an alternative to the impact fee which must be approved by the voters but which has the benefit of being available for use anywhere in the City without the necessity of defining the "service areas" as required by imposing impact fees. This type of funding could be utilized on projects such as improving city-wide transportation facilities.

Section 3 | Coordination Process

As part of executing the development of this Plan, public participation was garnered through various means. Exhibit 2 below identifies relevant stakeholders and describes the level of engagement with each identified group. Not only is it important to engage the public and key stakeholders when developing this plan, it will be important to use their involvement to build support for future implementation.

Exhibit 2. Stakeholder Engagement Details

Stakeholder Group	Level of Engagement	Tools
Elected Officials, City Staff and Government Agencies	Collaborate: help to develop alternatives and identify preferred solution	Stakeholder Meetings, One-on-One meetings
University, Business and Neighborhood Representatives, MoDOT	Collaborate: help to develop alternatives and identify preferred solution	Group Stakeholder Meetings, One-on-One meetings, Open House Meetings
General Public	Inform: provide balanced and objective information to assist understanding	Let's Talk Parkville Mind Mixer Site, Telephone Poll, Open House Meetings
BNSF Railway	Collaborate: help to develop alternatives and identify preferred solution	One-on-One meeting

The study was initiated through a series of stakeholder meetings with elected officials, city staff, university representatives, business owners, downtown neighbors, MoDOT and representatives of the BNSF Railway. These initial meetings were small scale and used to gather general feedback to help guide the direction of the study. The main results of the meetings were:

- There is a desire to provide more connectivity between the various aspects of the downtown area – between residential, commercial, university and parks.
- Parkville needs a gateway to mark the location of the downtown.
- Decisions need to be made on improvements to circulation including the jog between Route FF and Route 9, as well as, the railroad tracks.

Let's Talk Parkville

Throughout the study, the website "Let's Talk Parkville" on the Mind Mixer platform was used to solicit feedback (www.letstalkparkville.com). This platform is a town-hall style online meeting where users can comment and second (or show support for) various topics that are posted on the site. A total of 138 people registered to comment on the study. Fifty-one (51) percent are women; 49 percent are male. The average registrant is 48 years of age. Over three-fourths (106 registrants) are those who live or work in the Parkville and Weatherby Lake areas and use the 64152 zip code; the balance includes individuals from other communities in the Kansas City metropolitan area and surrounding states.

During the initial launch of the site, feedback was garnered around Downtown opportunities and threats, multi-modal access, downtown character and potential improvements. Subsequent topics added to the site gathered information on improvement concepts like sidewalk, trail, gateway, circulation and speed and railroad enhancements, along with historic district designation and land use opportunities. The final round of requested feedback focused on the users desire to implement the Concepts for

Livability. More details on the input provided from the Let's Talk Parkville site is provided in later sections of this report and in the Appendix.

Open House Meetings

The first public meeting was held on Thursday, December 13, 2012 from 4 to 6 pm at the Platte County South Community Center/YMCA. A series of display boards were presented and staffed by the City and consultant team. Attendees were engaged in discussion through three groupings including a Welcome (with context, overview and study process), Identified Needs (with previous studies and input from stakeholder meetings, along with existing conditions and assessment of transportation and land use) and a series of Alternative Concepts including transportation and gateway opportunities. Comment cards were distributed and several computer stations were available to provide input on specific questions related to the various concepts including priorities.

Comments noted and written from the 23 attendees included a desire for trails or sidewalks on Route 9, practical solutions to the railroad train horn noise and traffic conflicts, and historic district designation. This feedback, in concert with professional judgment, pointed toward advancing several concepts and continued exploration of certain specific design parameters.

The second public meeting was held on Wednesday, May 29, 2013 from 5 to 7 pm at the American Legion Hall on Main Street. A series of display boards were presented and staffed by the City and consultant team. Attendees were engaged in discussion by reviewing the summary of material previously presented, a compilation of the ideas in three concepts for livability and the issues associated with prioritization, phasing and funding for implementation. Comments noted and written from the approximately 20 attendees included concerns regarding the dismissal of the railroad bypass and the perceived impacts to on-street parking. A follow-up town-hall style meeting was convened by Mayor Brooks on June 20, 2013 again at the American Legion Hall. Mayor Brooks facilitated a discussion on the various design components related to the concepts. This forum allowed many business owners and stakeholders to hear a more information related to their comments.

Getting Around Parkville Survey

A survey was used to test the general public's consensus with the stakeholders that attended the open house meetings. While everyone is invited to the meetings, not every citizen or business will come so polling was used to reach a wider audience and begin to build a groundswell for future project implementation. A two-page survey, administered by ETC Institute, was mailed to a random sample of 3,000 households in and around Parkville in March 2013. Nearly 650 surveys were completed with a precision of +/- 3.7% at the 95% level of confidence. The survey was conducted to verify findings with a broad audience beyond those attending meetings or using Let's Talk Parkville. More information on the survey responses is available through a complete copy of the survey in the Appendix.

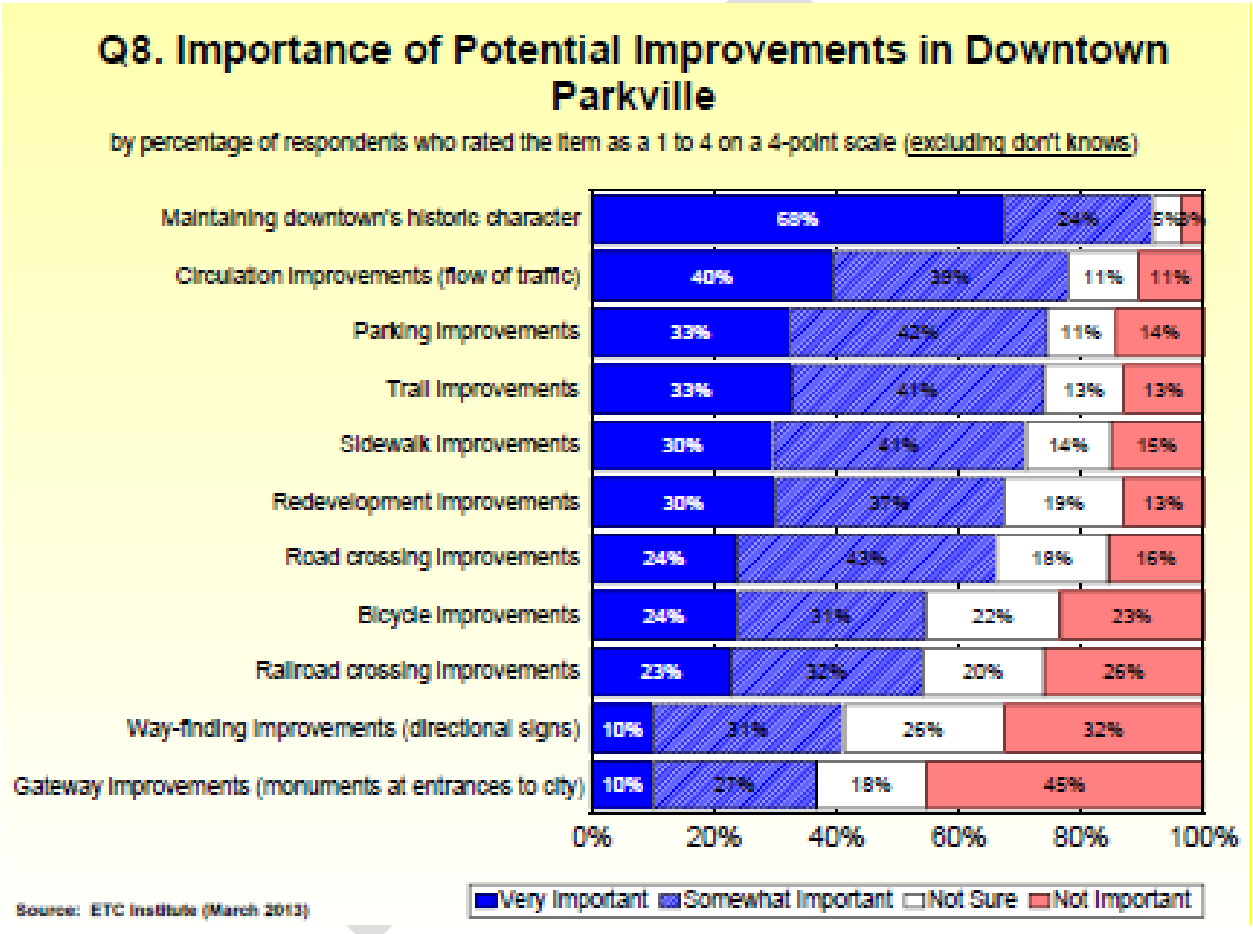
More than 56% of respondents have lived 11 or more years in Parkville and more than 34% are owners, residents or leasees in Downtown. A summary of major findings notes:

FREQUENCY OF TRAVEL
- 50% traveled at least 4 days a week
- 18% traveled at least once a week

FREQUENCY OF VISITS
- 33% visited at least once a week
- 33% several times a month

REASONS FOR TRIPS TO DOWNTOWN
- To eat out, pass through or recreation

COMFORT OF TRAVEL
- Walking – 78% felt 'very' or 'somewhat' easy to walk
- Biking – 17% felt 'very' or 'somewhat' easy to bike
- Congestion – 34% thought 'not' congested



Section 4 | Existing System Identification

Data was collected on the transportation network, land use and historic/cultural resources in and around downtown Parkville. This information is used to describe the existing characteristics of the transportation system and the associated development around downtown.

Transportation System

As part of the data collection efforts and means to document existing conditions, the key street network was identified and information regarding traffic volumes, railroad crossings and accidents was assembled, reviewed and is summarized here. Site visits and observations were conducted through the Summer 2012. Elements from the observations include street conditions and an inventory that included sidewalks and on-street parking. The study area reviewed includes approximately 1.5 square miles with nearly 3.6 centerline miles of roadway.

Roadway and Traffic Volumes

The majority of streets are 2-lane, two-way undivided narrow asphalt roadways. A few of the ways are alleys and 2nd Street is one-way street. Main Street, between 7th and 11th Streets, has a median which accommodates the split-profile of directional travel.

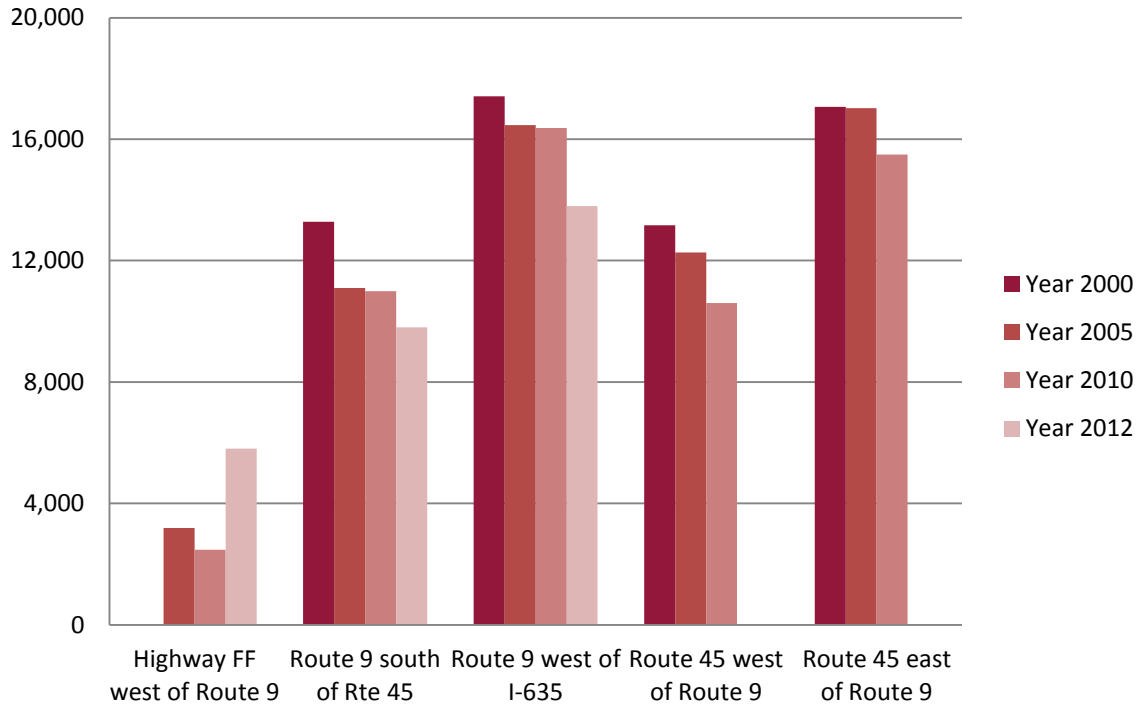
Streets are classified in three basic categories; local, collector and arterial. The majority of streets are local and account for 64% of the centerline miles. Collector streets consist of MO Rte FF (Mill and 1st Streets) and Main Street. MO Rte 9 is the only arterial street. Over half of the streets (55%) are considered primarily residential in character. Just less than 20% of the streets have centerline pavement markings, mostly single yellow dashed lines. Based upon observations only, 70% of the pavement is considered in good condition. Traffic control Stop signs are located at the following intersections:

- Main Street (SB/NB) at 13th Street/Walnut Street
- MO Rte 9 (SB) at 1st Street
- 1st Street (EB) at MO Rte 9
- 1st Street (WB) at Main Street
- Mill Street (EB) at Main Street

Prior traffic counts were reviewed to understand historic growth trends and ascertain travel patterns. The initial focus is upon the State highway system that affords both current and historic traffic volumes. The State highway system through Parkville includes Interstate 435, MO Routes 45 and 9 as well as State Highways K and FF. The two state routes of importance to Downtown Parkville are MO Rte 9 (River Park Drive/ East Street) and Highway FF (Mill Street/River Road). The daily traffic volumes on each highway reflect their function with 2,500 vehicles per day (vpd) on Highway FF and a range of 11,000 vpd (north of 1st Street) to 16,400 vpd (east of East Street) on MO Rte 9. Recent traffic counts conducted in September 2012 indicate some slightly different volumes. Traffic on Highway FF has grown to nearly 6,000 vpd while traffic on MO Rte 9 continues to decline to less than 10,000 vpd (north of 1st Street) and to less than14,000 vpd (east of East St.).

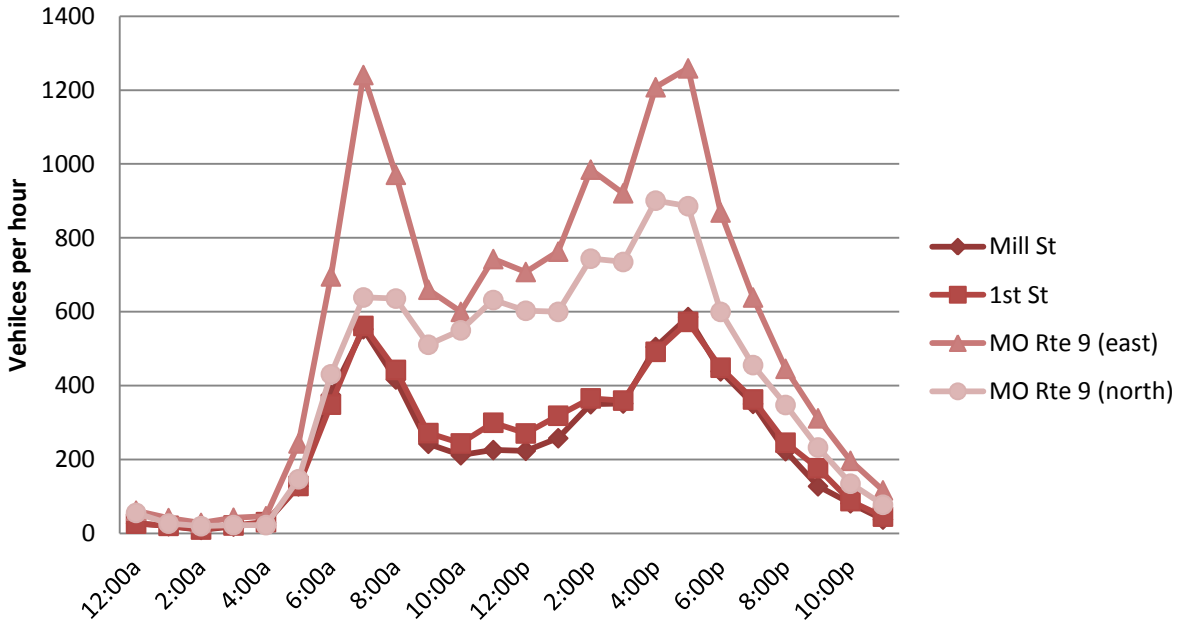
Historic growth along the state highways through the Downtown and a few other highways around Parkville show a consistent decline along many of the corridors including MO Routes 9 and 45 as well as Highway FF. Over a 10-year period from 2000 to 2010, traffic volumes as reported from MoDOT traffic volume maps, all showed a decline as illustrated in Exhibit 3. While many of the count locations are not directly in the Downtown area, they should reflect an overall trend in traffic volumes. In many locations, changes over a five year period (either 2000 to 2005, or 2005 to 2010) were nominal. Traffic volume data was not available for the year 2000 along Highway FF.

Exhibit 3. Historic Traffic Volumes (ADT)



Traffic distributions follow expected commuter patterns of predominantly eastbound in the AM and westbound in the PM along the MO Rte FF/9 corridor. A similar patterns occurs on Route 9 in the north-south orientation; southbound in the AM and northbound in the PM. The FF/9 corridor also follows a near equal total peak for both the AM and PM traffic reaching just shy of 1,200 vehicles per hour (vph) for MO Rte 9 (east) and nearly 600 vph for Highway FF. On the other hand, MO Rte 9 to the north has a higher PM peak (at 900 vph) that the AM peak (over 600 vph) although these volumes last for more than the one hour peaking period.

Exhibit 4. Hourly Traffic Volumes



A recent study conducted through the Traffic Engineering Assistance Program (TEAP) involved a series of intersections along MO Rte 9 and Highway FF. These intersections were also reviewed to gain an understanding of travel patterns. At the stop controlled junction of MO Rte 9 with 1st Street, approximately 60% of traffic (based upon peak hour turning movement counts) goes to and comes from the north. The remaining 40% goes to and comes from the west along Highway FF. It should be noted that the projected peak hour volumes, as shown in Exhibit 5, are approaching the practical capacity of a one-lane roadway for MO Rte 9, east of East Street.

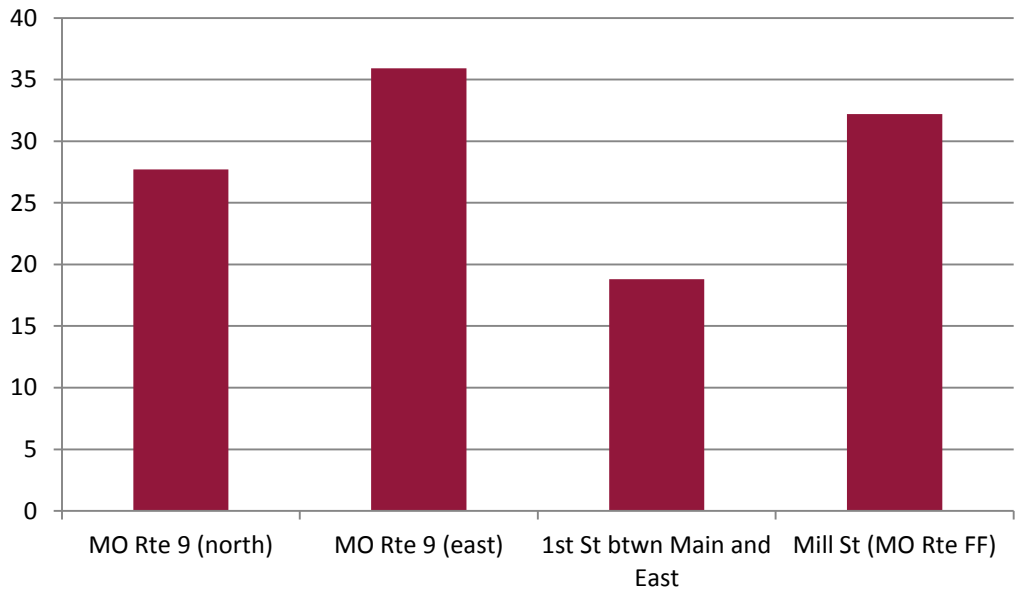
Exhibit 5. Existing and Projected Intersection Peak Hour Volumes

Location	Existing			Projected		
1st Street – Highway FF (West of Main Street)	**WB**	**EB**	**Total**	**WB**	**EB**	**Total**
AM	78	394	472	116	587	703
PM	434	189	623	647	281	928
River Park Drive – MO Rte 9 (east of East Street)	**WB**	**EB**	**Total**	**WB**	**EB**	**Total**
AM	298	882	1,180	461	1,345	1,806
PM	1,103	216	1,319	1,679	660	2,339
East Street – MO Rte 9 (south of 2nd Street)	**WB**	**EB**	**Total**	**WB**	**EB**	**Total**
AM	472	169	641	735	269	1,104
PM	301	655	956	459	1,130	1,589

When discussing travel along Highway FF from the west, one travels along Mill Street and stops at Main Street. The majority of traffic turns left and then immediately right onto 1st Street. First (1st) Street continues through East Street and encounters a stop control at the junction with MO Rte 9. When travelling from the east, westbound traffic on MO Rte 9 does not stop and continues either northward on East Street (essentially turning right) or straight on 1st Street until encountering a stop sign at Main Street. The majority of traffic turns left and then immediately right onto Mill Street, following the route of Highway FF. While Main Street has considerably less traffic volume, both Mill Street and 1st Street are considered the side streets in a typical 3-legged "T" shaped configuration.

Speed data along these roads was also collected, as shown in Exhibit 6. The posted speed limit in all these segments is 25 mph. Only the 1st Street segment achieved a lower 85th percentile speed. The 85th percentile speed is typically used to assess posted speed limits. The 85th percentile speed on MO Rte 9 (east) was highest at 36 mph; this data was collected on Route 9 between the White Alloe Creek bridge and traffic signal at the entrance to Park University. The eastbound approach traffic travelled at 37 mph while the westbound was 34.4 mph. A greater difference might be expected as westbound traffic is attempting to slow down from a posted speed of 55 mph farther east.

Exhibit 6. 85 Percentile Speed Data (mph)



Sidewalks and Pedestrians

Just under half of the streets inventoried (49%) have sidewalks. One-third of the sidewalks are four feet wide or less, which is considered a narrow width. Several segments of sidewalk are at a different (often higher) elevation than the roadway. The majority of sidewalks are concrete with 8% being brick. Not all sidewalks are ADA accessible. A total of 66 ramps were inventoried. Crosswalk delineation occurs at:

- MO Rte 9 at 6th Street, 1st Street, and mid-block east of Aloe Creek
- 2nd Street at Main
- 1st Street at Main Street East Street
- Main Street at 1st Street
- Mill Street at Main Street

- East Street at 1st Street (north and south)

East St./MO Rte 9 - Beginning at Herb Bush Drive, a brick sidewalk is present on the west side north of English Landing Drive. The sidewalk on the west side changes to concrete north of the alley, north of the railroad tracks. Only a partial sidewalk is present on the east side. 1st Street is marked with a crosswalk.

North of 2nd Street, sidewalk is present on both sides until 6th Street. However, several wide driveways create a near continuous curb cut exist along commercial properties on both sides. None of the side streets are marked with crosswalks. A crosswalk is delineated across MO Rte 9 on the north side of 6th Street, with advance warning signs posted. Parking is prohibited on both sides. North of 6th Street, sidewalk is only present on the west side for approximately 800 feet until it stops and is interrupted by a paved surface used for parallel on-street parking. The study limit boundaries stop at 12th Street. North of 12th Street, no sidewalks are present though a 120 foot long pocket of on-street parking is provided.

Main Street - Beginning at Herb Bush Drive, a concrete sidewalk is present on the west side north until English Landing Drive. North of English Landing Drive, a brick sidewalk is present along both sides, crosses the railroad tracks and continues to 2nd Street. Mill Street, as well as 1st and 2nd Streets, is marked with crosswalks. North of 2nd Street, sidewalk is present on both sides until 12th Street. None of the side streets are marked with crosswalks. Stop bars are delineated across Main Street at 6th Street, though a STOP control is not in place. On-street parallel parking is provided on both sides, though this is in part accomplished by the apparent removal of a grass strip. Angle parking is provided in front of a church in the northbound direction. Here the sidewalk is literally flush with the roadway pavement. Between 7th and 12th Streets, a median is provided that accommodates varying elevations. The northbound roadway is lower than the southbound roadway.

West/Elm Streets - Beginning at Mill Street, a narrow concrete sidewalk is present on the west side north until 6th Street. North of 6th Street no sidewalks are present on either side. West Street effectively ends north of 10th Street where it turns northeasterly and becomes Elm Street. North of 8th Street on the east side is a short paved area for on-street parking. A similar on-street parking area is created on the west side north of 10th Street. An internal asphalt path is provided within Watkins Park on the east side south of 10th Street. Along Elm Street, no sidewalks are present on either side.

Observations of pedestrians were made on a Friday and Saturday near the Noon hour. The locations included 1st and MO Rte 9, Main Street at the railroad tracks, and the "square" at Mill, Main and 1st Streets. Saturday was busier except at the crossing of MO Rte 9. On Friday, six (6) of the 23 observations crossing MO Rte 9 were observed to enter the Patriot Bank.

Saturday observations of pedestrians crossing the railroad tracks at both Main Street and East Street indicate several groups of people. Statistically there were 1.9 people per crossing observation. The Main Street crossing was busier and accounted for 87% of all crossings observed. The heavily travelled direction was northbound at 53% of all crossings. During the one hour count period, three trains went through the crossing and blocked the crossing for approximately four (4) minutes each time. The off-street parking lot was observed to be more than half full on Saturday. A similar crossing pattern utilizing Main Street was noted on Friday. On Friday, the off-street parking lot was only marginally utilized.

The junction of Mill/Main/1st Street is a busy intersection for pedestrians. Observations on Saturday are nearly double that of Friday and again many observations had groups of people, up to four (4) in a crossing. Crossings were nearly equal in a cardinal direction; 29% cross to the west, 25% cross to the east, 25% cross to the south and 23% cross to the north. On several occasions crossings were made in

multiple directions by the groups being observed. On-street parking was fully utilized (greater than 80%) on both Friday and Saturday. Observation indicated little parking turnover within the hour.

Safety and Vehicular Crashes

MoDOT provided accident data for the study area over a five-year period from 2007 through 2011. During that time period, 149 total accidents were recorded with 15 injury accidents and one fatal accident. The fatal accident involved a pedestrian along MO Rte 9 at 4th Street. The total number of accidents jumped from 27 in 2008 to 37 in 2010. Exhibit 7 shows the total accidents and injury accidents by month over the five-year period. January had the most accidents (at 18) followed by June and September (at 16 each). Exhibit 8 shows the breakdown of accidents by classification. The top three types of accidents were rear-end, out of control, and right angle. These three classifications encompass 45% of the total accidents and include a majority (56%) of the injury accidents. The overall percentage of injury accidents is 10% which is relatively low. A dot-plot over the five year period of the crash locations is shown in Exhibit 9.

Exhibit 7. 5-year Accidents (2007-2011) by Month

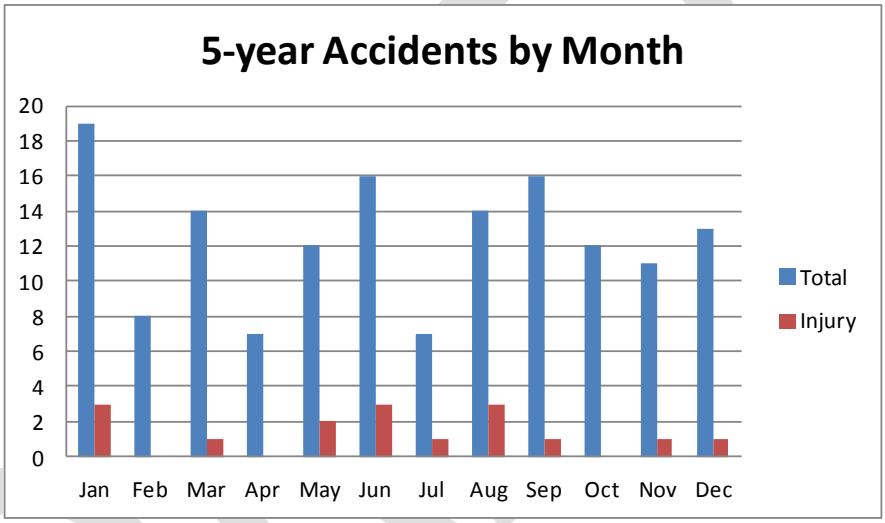


Exhibit 8. 5-year Accidents (2007-2011) by Type

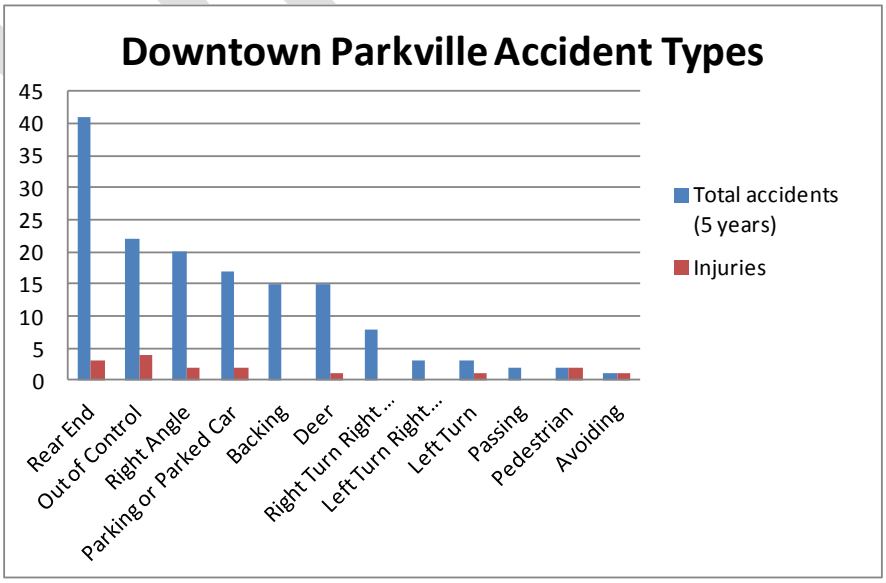


Exhibit 9. 5-year Accident Locations

The majority of accidents (87%) occur at the top three locations along MO Rte 9, MO Rte FF and Main Street. All but one injury accident occurred at these three locations. Exhibit 10 presents a listing of clustered accidents (greater than three) that occurred during the period.

Exhibit 10. 5-year Accident Clusters

Location	Total	Injury	Fatal
MO Rte 9 (3rd - 4th Sts.) Segment	6	1	1
MO Rte 9 at 6th St	6	1	0
MO Rte 9 and FF (1st and East Sts.)	6	0	0
Main and Mill (Hwy FF)	5	0	0
Main Street (1st to 2nd) Segment	4	2	0
Main and 4th Street	4	0	0

Other accident characteristics note:

- The majority (82%) of all accidents are intersection related.
- The majority (75%) of all accidents occur under clear weather.
- The majority (79%) of all accidents occur under dry road surface conditions.
- The majority (73%) of all accidents occur under daylight conditions.
- Half (50%) of injury accidents occur during daylight conditions.

While several accidents occurred in the study area and some clustering of accidents can be noted, a positive aspect is that in general the injury percentage is low. Unfortunately a fatal accident occurred with a pedestrian across MO Rte 9. A comparison to statewide average accident rates is not applicable as the segment lengths within the study area are shorter than required and would result in artificially high crash rates.

Parking and Utilization

A total of 189 marked, on-street parking spaces were counted within the study area. Parking varies amongst parallel, angle in, and perpendicular parking spaces. The majority of spaces are perpendicular spaces, typically located south of the railroad tracks. None of the marked spaces are under time control (signs or meters). The majority of marked parking spaces are adjacent to commercial or public/institutional uses. Unmarked parallel parking is primarily used by residents along local streets.

No formal utilization study was completed but informal observations were made while manual traffic and pedestrian counts were collected. It appears that during normal peak travel hours, there is regular parking and vehicle turnover activity. Observers did note that some cars remained parked through the duration of the counting period indicating that parking duration can last for several hours.

The Americans with Disabilities Act (ADA) does not specifically address on-street parking, though when on-street ADA spaces are provided, various regulations apply. Some general suggestions regarding on-street ADA spaces include:

- **Clearance Space** can be provided by opening space on the sidewalk side of the parking space.
- **Angled spaces** are acceptable as ADA-compliant parking.

- One in eight spots should be **van accessible** to the full 96-inch specification. It is acknowledged that for on-street parking, van spaces may be difficult to accommodate.
- When considering **location**, the shortest route is not necessarily the best benchmark.

The access board also discusses "the project" or "project area" and suggests that on-street spaces be dispersed within the project area. It also notes that "accessible on-street parking shall be permitted to be combined with off-street parking under the same jurisdiction serving the same project area". This is interpreted to mean that ADA parking in the nearby municipal lots could adequately serve the project area. However, spaces dispersed throughout the area should be considered. Review of other discussions regarding on-street ADA parking noted the need for clarity in signing and the use of a map identifying the location of ADA parking spaces.

A total of 10 off-street (in the municipal lot) ADA parking spaces plus 2 on-street spaces (one each) on Main Street and East Street are provided in the study area. Two former spaces on the east side of Main Street north of 1st Street have been removed. Both of the on-street ADA spaces could "double up" and provide additional ADA spaces IF the access aisle had a ramp to the sidewalk. Individually and collectively, both the central parking lot (6 ADA spaces from total of 102 spaces) and the Farmer's Market parking lot (4 ADA from a total of 71 spaces) meet the total number of ADA parking spaces required. None of the ADA spaces are signed as being van accessible. When reviewing the district as a 'project area' and including the on-street spaces along Main and East Streets as well as 2nd Street (total parking of 294 spaces), the number of ADA spaces also appears adequate, although they may not be considered to be well dispersed. For less than 300 spaces, a total of 7 ADA spaces are required. For 301 spaces, a total of 8 ADA spaces are required.

This parking assessment does not consider private off-street spaces or any land use assessment for the number of parking spaces by square foot of commercial or office, or spaces per residential units.

Other Travel Modes

As part of the multi-modal elements of transportation in Downtown Parkville, the existing and proposed trail network as well as the railroad corridor was reviewed.

Trails - There are several existing trails within and adjacent to the study area that need to be considered for potential connections. These include the South Platte Pass trail along MO Rte 45, the trail system within the Nature Sanctuary, and the trail system within English Landing. In addition to these existing trails is a proposed trail from the junction of MO Rte's 9 and 45 south to the junction of MO Rte FF (Mill St) and Main Street. The proposed trail is shown in Exhibits 11 and 12 and is delineated in two phases. Phase I at approximately 0.9 miles from MO Rte 45 to Honor Lane is currently funded with design underway. Phase II is not yet funded. The location is schematic and subject to refinement. The trail is envisioned as a 10-foot wide paved surface separated from any roadways.

Phase I of the trail would start on the east side of MO Rte 9 and travel south for nearly 2,000 feet until crossing MO Rte 9 at the Platte County Community Center. Here the trail becomes an off-road trail connecting to a path around an existing detention pond west of the community center before heading south again for another 2,000 feet passing near the east edge of 51st Street and then connecting into Honor Lane.

Exhibit 11. Trail – Phase I

Exhibit 12. Trail – Phase II

The Phase II trail is shown schematically along Honor Lane crossing Hamilton Street and heading south following along the western property lines of homes along Elm Street for approximately 1,500 feet. A connection is shown along 12th Street towards Main Street. The trail then crosses Elm Street and 10th Street entering Watkins Park. The trail then exits Watkins Park and heads south along West Street for approximately 1,500 feet before turning easterly along Mill Street for 700 feet to Main Street.

The Phase II trail poses several connectivity issues. The connection via 12th Street is only 100 feet from Adams Park. 12th Street also leads to Parkville Nature Sanctuary and its trail system. The trail passes by (or potentially through) the National Register property of the Benjamin Baker School before crossing Elm Street into Watkins Park. The trail is shown stopping at Mill and Main Streets less than 500 feet from the existing English Landing trail network. Eventually future trails are likely to and through Park University.

A brief description of the parallel street network is provided under the assumption that the trail is a 10-foot wide path separated at least 5 feet from the edge of travel way.

- Honor Lane – This 50-foot wide right-of-way and 32-foot wide roadway would require modification unless an on-road system was utilized.
- Elm Street – While the 40-foot right-of-way is relatively narrow, the 28-foot wide roadway could be utilized for a shared roadway. Nonetheless, sidewalks would be desirable.
- West Street - The 40-foot right-of-way is relatively narrow and so is the 20 foot wide roadway. Creating a separated trail in this section may require permanent easements or property takings.
- Mill Street - The 40-foot right-of-way is relatively narrow and so is the 22-foot wide roadway. Conditions are made more challenging by a retaining wall on the north side and a steep drop-off on the south side.
- Main Street – The 80-foot right-of-way provides opportunities for a separated trail. It could connect to the existing trail on the east side of Main Street south of Herb Bush Drive.
- 12th Street - The 40-foot right-of-way is relatively narrow with a 24 foot wide roadway. Conditions are made challenging by a retaining wall on the north side. Crossing MO Rte 9 may also be challenging.

BNSF Railroad - There are two (2) at-grade railroad crossings in the Downtown area which include Main Street and East Street just 225 feet apart centerline to centerline. East Street is milepost (MP) 9.64 and Main Street is MP 9.66. Consequently, when a train passes through, both streets are blocked. The Main and East Street junctions are controlled by gates and mast mounted flashers. Wrought iron fencing is installed along the north side of the railroad track between and adjacent to Main and East Streets in order to control pedestrian crossings. The crossing surface is concrete. No pavement markings are present on the approaches. Both streets are classified as urban local streets that provide access to English Landing Park. Traffic volumes as reported by the FRA in 1994 are 1,000 vehicles per day (vpd) for Main Street and 1,750 vpd for East Street.

The rail line is owned by BNSF Railway and is part of the Nebraska/St. Joseph/KC-Carling division/subdivision/branch. There are 23 to 45 trains per day on the one (1) main track. Many of the trains are coal trains. By track classification, trains can operate up to 60 mph. However, loaded coal trains typically operate up to 40 mph while empty coal trains may travel up to 45 mph. The right-of-way varies though it is typically 80 to 100 feet wide. The rail line is an important freight corridor for the BNSF. Discussion with the BNSF indicates that increases in train traffic are likely to result in a capital improvement to go to two main tracks into the BNSF Yard next to Wheeler Airport in Kansas City. At this time there is no schedule for implementation yet the expansion is considered a long term improvement.

A review of accident history notes a recent fatality (less than five years ago) with a pedestrian that had stopped on the Main Street crossing at night. Exhibit 13 summarizes the five accidents from the Federal Railroad Administration (FRA) database.

Exhibit 13. Crash History at At-Grade Railroad Crossings

Date	USDOT Crossing	Street Name	Time	Visibility	Type of Accident	Casualty	Position	Speed of Train (mph)
10/08/2008	079389S	Main Street	8:40 PM	Dark	Pedestrian	Fatality	Stopped on Crossing	38
06/12/1994	079389S	Main Street	12:35 PM	Day	Auto	Property Damage Only	Moving over Crossing	36
10/07/1987	079389S	Main Street	5:30 PM	Day	Truck	Property Damage Only	Moving over Crossing	40
03/22/1988	079388K	East Street	3:30 PM	Day	Auto	Property Damage Only	Stopped on Crossing	40
09/16/1989	079388K	East Street	9:40 AM	Day	Auto	Property Damage Only	Stopped on Crossing	30

Parkville has its former passenger depot located on the north side of the tracks some 500 feet east of East Street. The next at-grade crossing to the east is at a private crossing to Ball Power Equipment (approximately MP 8.5) approximately 400 feet west of Coffey Road at the eastern edge of Parkville. The next at-grade crossing to the west is at Rush Creek Road (MP 11.77).

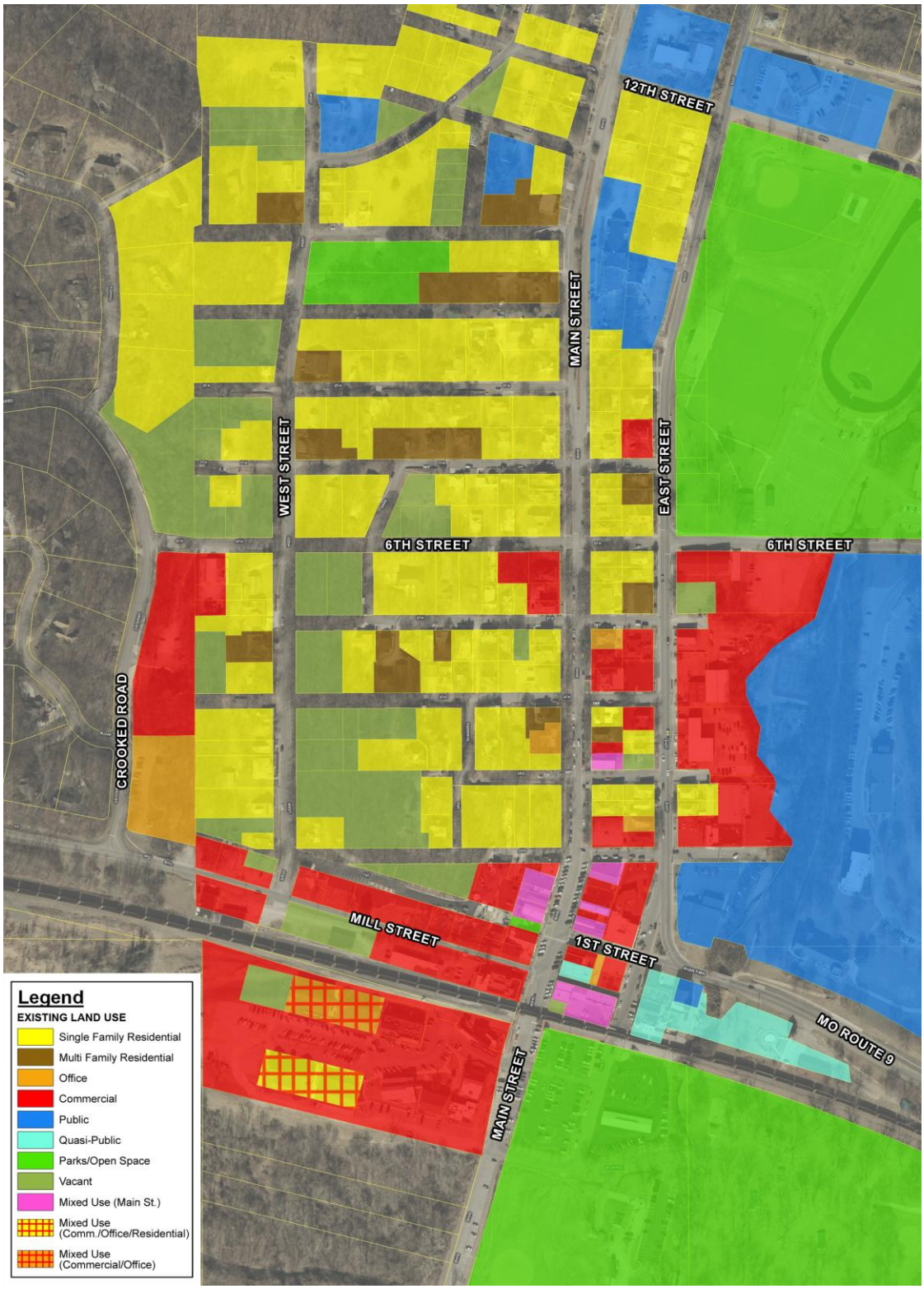
Land Use and Development

Existing Land Use

From 12th to 6th Street, the study area investigated is predominantly residential. Though the residential areas consist mostly of single family housing, a number of multi-family units are sprinkled throughout. This portion of the study area also includes four churches, all intermixed within the residential neighborhood. There is a small neighborhood park (Bruce Watkins Park) at the corner of 10th and West, and the east perimeter of the study area is defined by the Park University Sports Complex.

The portion of the study area south of 6th Street becomes much more mixed, consisting of a combination of mostly residential, commercial, office and public/quasi-public uses. Many of the buildings along Main Street, particularly those south of 2nd Street, are mixed use. This typically includes a combination of commercial on the first floor and office or residential on the second floor. The commercial uses range from bars and restaurants to specialty shops and services. The buildings within the English Landing Center are also mixed use in nature, including two buildings with office and commercial in front and residential in back. The southern portion of East Street has a significant amount of commercial development, though much of it is of the large lot, single use variety. Exhibit 14 shows the existing land use within the study area.

Exhibit 14. Land Use



Vacancy in Downtown is fairly limited. At the time of this analysis, only one building (113 Main Street) was completely vacant along Main Street. Some of the second story office and residential appear to be vacant, but that is difficult to verify based on visual observation. Compared to the rest of Downtown, English Landing Center has a higher rate of vacancy. One of the mixed use buildings on the south end appears to be completely vacant on the first floor. However, all the buildings from English Landing that front Main Street are occupied.

Hours of operation for businesses were observed for Downtown Parkville, particularly those located on Main Street. The following observations were made based on a visual survey as well as an internet search of Downtown businesses:

- Many of the businesses on Main Street do not post their typical hours of operation at all.
- For those that do, most appear to open at 10:00 a.m. and close between 4:00 and 6:00 p.m. from Monday to Saturday. Sunday hours are typically 12:00 to 5:00 p.m.
- The restaurants and cafes tend to stay open later to accommodate evening visitors.
- The office and professional service types typically keep standard business hours.
- The unique specialty shops and galleries on Main Street appear to be the businesses most likely to maintain limited or irregular hours.

As was the case north of 6th Street, the single family residential areas south of 6th Street are dotted with some multi-family units. A collection of public and quasi-public services reside along MO Route 9, including The Post Office, Missouri Water, Firehouse #1 and The Chamber of Commerce. The East Landing Park along the south perimeter provides trail access that feeds down to the river and overflow parking for Downtown. Additionally, there is a small pocket park at 1st and Main Street that allows pedestrian access to Piropos Grille (restaurant) and Parkville Mini Golf.

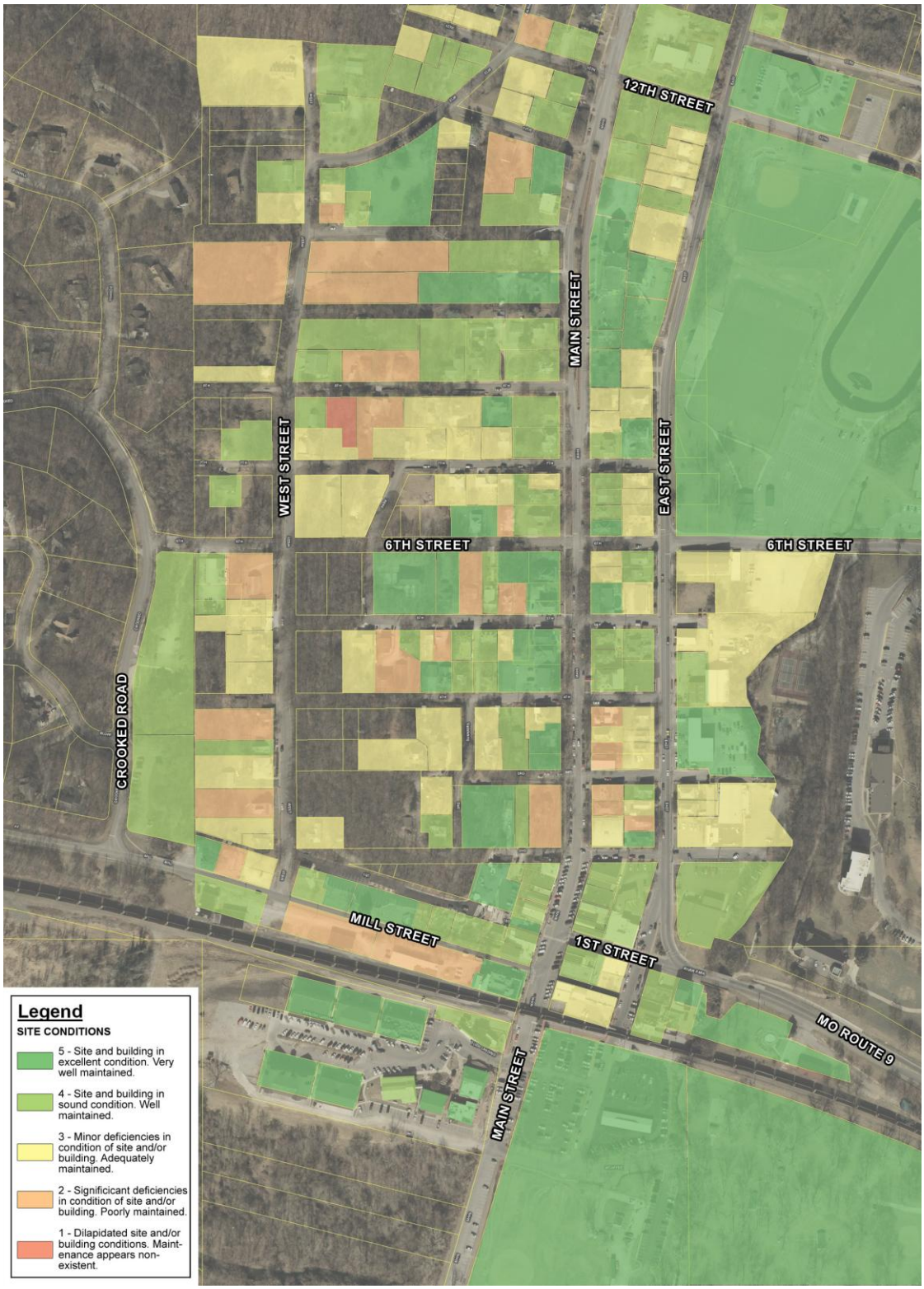
There is a fair amount of vacant land throughout the west half of the study area (see Existing Land Use Plan). This is most likely due to challenges created by the natural topography and vegetation of the area. The elevation drop from west to east is fairly dramatic and the vegetation is quite dense, which makes direct vehicular access to some parcels an issue. Seventh (7th) and 8th Streets dead-end west of West Street, extending just far enough to provide vehicular access for the adjacent residential properties. On the other hand, 9th and 10th Streets west of West Street have been platted but never constructed, leaving some parcels with very limited access.

Commercial rental rates in the study aren't readily available. Surrounding competing rental rates at Parkville Commons range from $14.00-$20.00 per sf and at Parkville Marketplace available rents are at $20.00 per sf. Single story, retail, for-sale properties are averaging approximately $230,000.00 for 2,400-3,000 sf properties within the Main Street area.

Visual Site Conditions

The Visual Site Conditions map (see Exhibit 15) is the result of a survey of each parcel's building and site conditions. This was a quick windshield survey that used a simple rating system. Each parcel was given a score of 5 to 1, with 5 representing excellent site and building conditions and 1 representing dilapidated conditions (see legend below). Building elements that were reviewed for condition quality included roofing, paint, windows, porches and general architectural aesthetics. Similarly, site elements were reviewed and scored based on the maintenance of driveways, retaining walls, lawns and landscaped areas, as well as site access and overall aesthetics. This process has been used to quickly evaluate properties for 1000's of properties in numerous successful redevelopment plans.

Exhibit 15. Visual Site Conditions



In general, conditions are sound throughout much of the eastern half of the study area. Main Street and East Street, as well as the side streets directly west of Main Street include a number of excellent properties. Moving farther west of Main Street, the conditions are much less consistent. Though there are still a number of sound properties in this area, there are also an increasing number of deteriorating ones. Slope issues account for many of the problems. Dead-end streets, deteriorating retaining walls and dramatically sloped properties are all common issues. Gravel driveways, poor lawn maintenance and general building deterioration also contribute to the inconsistency in this portion of the study area.

The core of Main Street's commercial district, from 2nd Street to the railroad, is in sound condition. Though aged, the buildings have been well maintained and show few visual signs of deterioration. English Landing Park, Park University Sports Complex and the pocket park at 1st and Main are all very well maintained. However, Bruce Watkins Park (10th and West) would likely attract more activity by upgrading the picnic shelter and playground equipment.

Other notable observations related to visual site conditions include:

- The newer buildings in English Landing Center, just south of the railroad, are in excellent condition, but completion of the parking lot on the west end would enhance appearance as well as function.
- There are two parcels along the south side of Mill Street, between West and Main Street that have poor site and building conditions. The more easterly of the two parcels has an older building that is occupied by an antique mall, while the building on the west parcel has been demolished in recent years. Site conditions include gravel and deteriorating asphalt paving, and a lack of screening or landscaping of the properties. For both parcels, their proximity to the railroad is likely a challenge for future redevelopment opportunities.

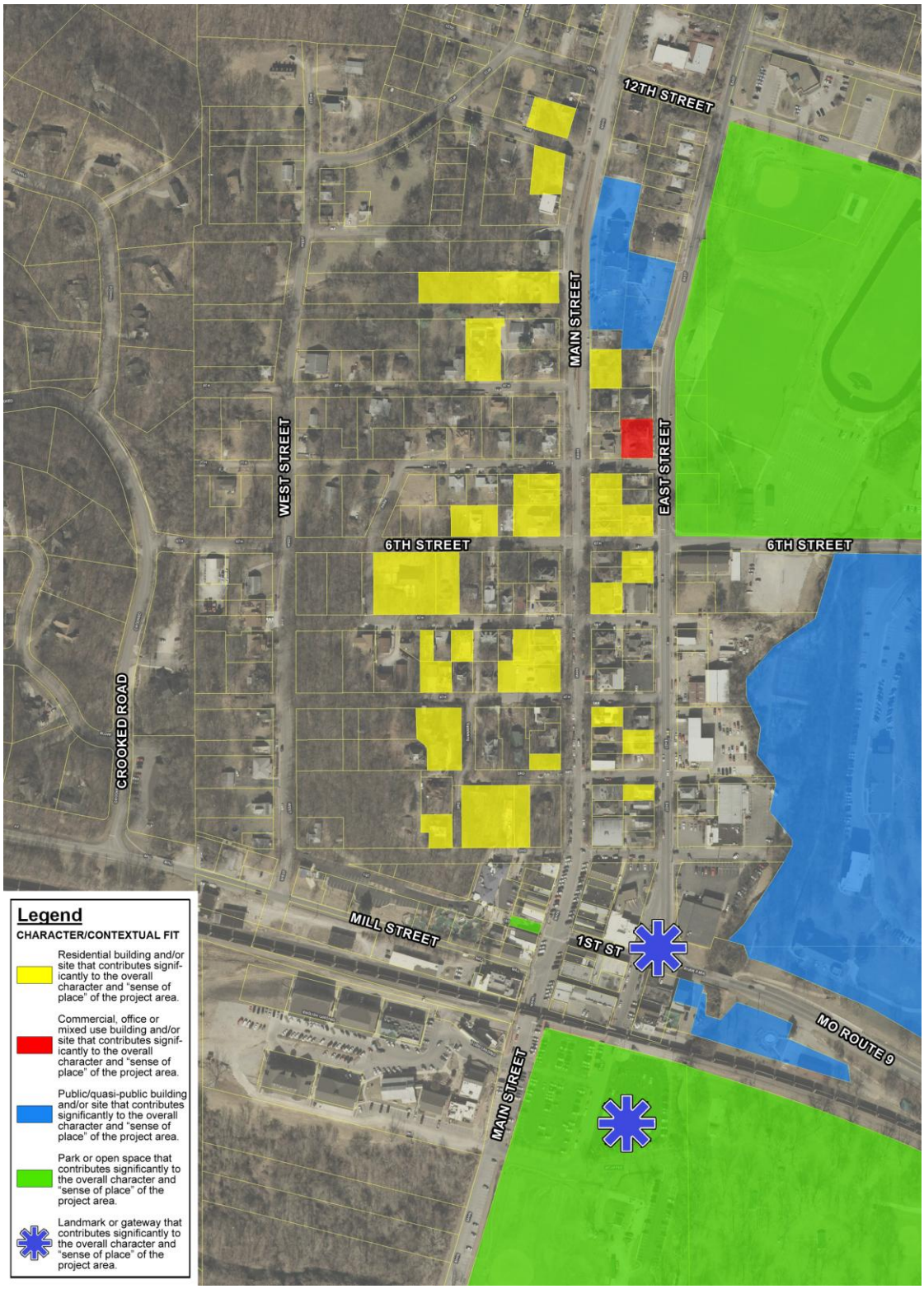
Character/Contextual Fit

The Character/Contextual Fit map (see Exhibit 16) identifies those buildings and/or sites that contribute significantly to the overall character and "sense of place" of the project area. The identified parcels represent important assets that should shape future decisions within the study area. There are a number of significant residential properties within the study area. They typically consist of homes with architectural character that are well maintained. Most of these properties are located within close proximity to Main and East Street, and have the effect of raising the overall sense of quality and character of the area, nullifying the effect of some of the more distressed residential properties.

Similarly, most significant commercial, office and mixed use properties are located along Main or East Street. The building architecture west of East Street, typically, has a "historic downtown" or "train depot" theme to it that exemplifies how the community has embraced the history and character of downtown. Significant public and park uses include Park University, Park University Sports Complex, Parkville Chamber of Commerce, and of course, English Landing Park. In addition to the recreational activities it provides year-round, the park also serves as the location of the Parkville Farmers' Market from April to October. The amount of park and sports complex space and its intensity of use add a significant sense of vibrancy, activity and overall quality to the study area.

The shelter for the market represents one of two significant landmarks identified within the study area. This iconic element also serves as a de facto gateway of sorts to Downtown Parkville. The second landmark is the traffic island located at the intersection of 1st and East Street, marking one's arrival into Downtown from the east.

Exhibit 16. Character/Contextual Fit



Viewing the study area as a whole, it is important to identify the relationship between Main Street and East Street as it relates to character and context. Main Street is densely defined by buildings on both sides, and the character of those buildings gives it a vibrant "downtown" feel. While the west side of East Street is still quite dense, the east side is fronted by a number of large parking lots, undefined open space, and more modern development patterns. As a result, East Street lacks the same "downtown" qualities that make Main Street special. Furthermore, East Street does not offer any visual connections that would invite travelers west toward Main Street. Given the amount of vehicular traffic that exists along East Street, this appears to be a missed opportunity to capitalize on such an asset.

Historic and Cultural Resources

Site visits were made to observe and document photographically existing conditions of Downtown Parkville's commercial buildings. The extent of the visual survey was in part based upon the "Historic Downtown Parkville, Missouri Businesses Map" by the Main Street Parkville Association. During the site visits, the area of review centered on the historic commercial downtown and park areas. The survey boundaries are as follows: 7th Street to the North, the eastern edge of commercial properties along Highway 9 to the East, the railroad to the South and West Street to the West. This area shall be herein referred to as the Parkville Downtown Core and/or the downtown core and is delineated in Exhibit 17. Additional areas surveyed outside of this boundary include: the English Landing Park, the Parkville Farmers' Market, several commercial properties outside of the West Street boundary and the new commercial development south of the railroad.

The Parkville Downtown does not have a historic National Register District currently in place. There are five properties in Parkville listed on the National Register of Historic Places which include:

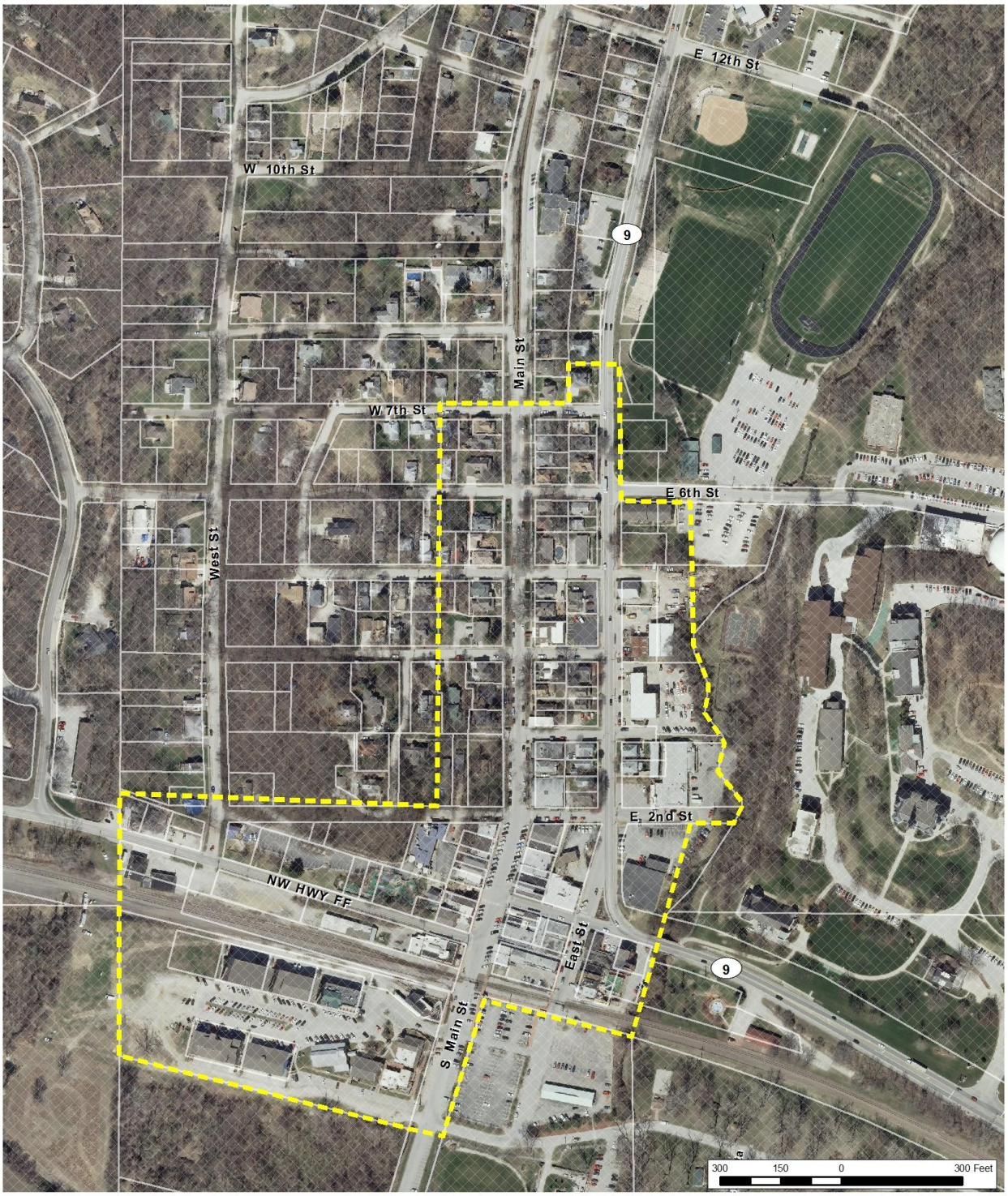
- Banneker School - 31 West 8th Street
- MacKay Building - Park University
- Scott Charles Smith Memorial Observatory - Park University
- Waddell "A" Truss Bridge - English Landing Park (relocated)
- Washington Chapel CME Church - 1137 West Street

These properties were not included in the historic existing conditions survey as they are outside of the project boundaries. Properties within the project boundary, which are considered historic, are buildings and structures which are 50 years of age or older as established by the guidelines for National Register nomination. All recommendations for redevelopment of any historically designated property during the future phases of this study shall be in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Parkville Downtown Core

The Parkville Downtown Core has a variety of buildings which represent a diverse body of construction types, architectural styles and original construction dates. Many of the commercial buildings are traditional one and two part commercial block buildings located along Main Street and 1st Streets. Typical construction materials are brick, concrete block, wood and stone. Several of these buildings have bronze oval plaques depicting their date of construction which are installed on the building's main facade. The majority of these one and two part commercial block buildings are located along Main Street from 5th Street to the North; Highway 9 to the East; and the railroad to the South. The Parkville Post Office is an exception to the overall downtown core architectural styles and represents a midcentury modern style, free standing building with adjacent parking lot. The Missouri American Water building is a historic building located to the east of Highway 9 and represents an industrial property of brick, stone and concrete. Properties along Highway 9 which are historic were reviewed and documented photographically. The fire station, restaurant and other buildings of more recent construction along

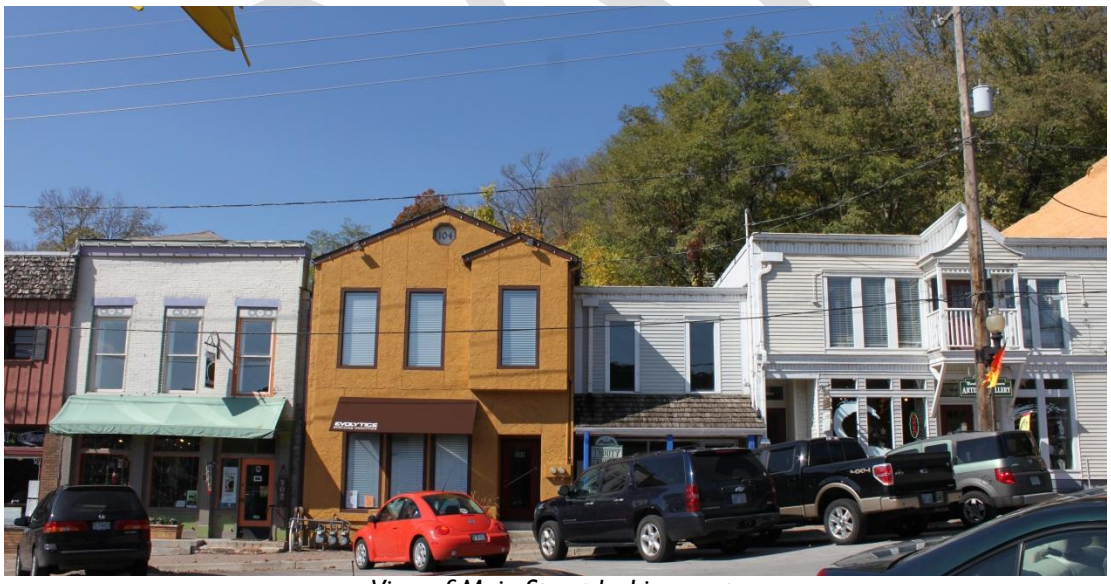
Exhibit 17. Historic Downtown Core Area



Highway 9 were photographed but not reviewed as they are not historic as defined by the criteria above. An example of the variety of architectural styles found within the downtown core is shown in Exhibit 18. Other buildings photographed are included in the Appendix.

Exhibit 18. Views of Main Street

View of Main Street one part and two part commercial block buildings looking east.



View of Main Street looking west.

Commercial properties located to the north of the Meyers Funeral Chapel, located at the corner of 4th and Main Streets, are residential in scale and often are located in a historic residential property. This is also true for properties along the west side of Main Street, north of 2nd Street. Businesses in these locations include, but are not limited to the following occupancies: a dental office, a law firm, a professional office, a bed and breakfast and retail. The downtown Pocket Park is located at the intersection of 1st and Main Streets along the west side of Main Street. The park is an open area consisting of a Gabion retaining walls, concrete steps, wood decks and planter boxes and vibrant plant

materials. The park is set back from the sidewalk and leads up to a miniature golf course and a restaurant building on the top of the hillside as shown in Exhibit 19. The sidewalks within the core downtown area have been rehabilitated with pavers. They provide a welcoming space for pedestrians.

Exhibit 19. View of Pocket Park

View of the Pocket Park stairs and seating areas, looking west, northwest.

Character Defining Features

The historic buildings are in good to fair condition overall. Several buildings with wood trim, windows, storefronts and buildings of wood construction are in need of wood repair and/or replacement. The rehabilitation of these properties should be done in a manner that is in keeping with the historic integrity. The hilly topography and mature trees are character defining features of the downtown core and its surrounding historic residential neighborhoods. Additional important defining features include:

- Storefront windows
- Signage
- Second story fenestration (if applicable)
- Parapets with flat or low slope roofs beyond
- Awnings (fabric, wood or steel)
- Defined front door or main entry
- Angled parking in front of storefronts
- Planters
- Sidewalks
- Streetlights with banners and overhead power lines

The Parkville Farmers' Market pavilion and surrounding parking area, English Landing Park, Grigsby Field and a new commercial area are all located south of the railroad tracks. These railroad tracks bisect the downtown core area into northern and southern zones. The pavilion consists of steel trusses, beams, columns and corrugated metal roofing as shown in Exhibit 20. Grigsby Field is a baseball diamond with

connecting gravel trails and parking areas and was constructed in 2000. English Landing Park is a beautiful park situated along the Missouri River and has several park shelters, a new public performance space, playgrounds, gravel trails, trail markers and the historic Waddell "A" Bridge. It serves as pedestrian connection to the natural riverfront and to Grigsby Field and it appears to be in good condition overall. The newer commercial area which is located south of the railroad consists of contemporary historic-looking buildings with adjacent paved parking lot areas and were photographed but not reviewed as they are not historic as defined by the criteria above.

Exhibit 20. View of Farmer's Market

View of the Parkville Farmer's Market pavilion, looking south, southeast.

Section 5 | Identification of Issues and Community Concerns

In order to develop concepts that increase the livability of downtown Parkville, the issues surrounding transportation, land use and historic/cultural resources combined with general community concerns were identified. After identifying the issues, the need to address those issues with a transportation enhancement concept or through other means was determined.

A variety of issues were discussed during stakeholder interviews and through idea gathering from the Let's Talk Parkville site. On several occasions, specific locations were mentioned when discussing issues. In other cases, general concepts were noted without being assigned to a unique location. Several common themes were noted that identified important issues.

The data collection and inventory assessment of physical elements were used to identify locations where concepts can be developed to address the issues. An example issue is higher travel speeds than the posted speeds when approaching the Downtown. A resulting benefit of using livability concepts to reduce speeds through the Downtown is fewer accidents, including injury accidents, particularly with pedestrians.

Input also indicated that when the data collected is compared to public input there are sometimes competing perspectives limiting the ability to achieve a common goal. An example could be alignments for a trail(s) through Downtown connecting to existing and planned trails both north and south of Downtown, as well as incorporating plans for the Platte Landing Park. In this regard, Downtown Parkville is but a part of a larger decision-making process including the community, county and regional trail advocates.

Issues and Community Concerns from Stakeholders

- Gateway feature
  - on Route 9 near Park University entrance
  - at intersection of Route 9 and 1st to draw people into downtown
  - at entrance to Parks on Main south of RR tracks
- Increasing Connectivity
  - Between parks – parking lots – RR tracks – downtown
  - Between Park University and Downtown
  - Between trail near Rte 45 (north) to Downtown (is this via Route 9, or off road)
  - General sidewalks/ADA
- Increased Circulation
  - The jog between Route FF and Route 9
  - Along Route 9
- Railroad legacy
  - What do we do – leave as-is, install Quiet Zone, build Grade Separation

Issues and Community Concerns from Let's Talk Parkville

- Downtown Character
  - Welcoming Point
- Potential Improvements
  - Better sidewalks
  - Bicycle accommodations
  - Easier parking
- Opportunities
  - College Town

- Threats
    - Spaces for people

Issues from data collection and inventory

- Transportation
    - Reducing higher travel speeds than posted speeds on major approaches to Downtown
    - Creating wider sidewalks (in general) within the study area
    - Accommodating concentrations of pedestrians at the Mill St./Main St. 1st St. "square"
    - Enhancing the walking experience (access) to remote off-street parking lots
    - Preparing for eventual double-tracking of the railroad
    - Creating regional connectivity to existing parks and trails
- Land Use
    - Reinforcing high quality residential character along Main Street through streetscape
    - Solidifying edges of Downtown to compliment Downtown core
    - Integrate the existing and proposed destination parks and public spaces to and through the Downtown core
- Historic Resources
    - Providing pedestrian-friendly environment to visit and learn more about Parkville's history and historic resources
    - Coordinating with the City of Parkville and Downtown property owners to understand the process and regulations associated with seeking and acquiring a historic district designation.

From a transportation perspective, it should be noted that the complete streets approach centers on livable principles. A common principle of livability is context sensitive solutions or CSS. CSS emphasize maximizing the existing resources and working within constraints to minimize impacts. This means that issues such as narrow sidewalks on narrow streets does not imply that the only transportation planning/engineering solution is to widen the roadway. This approach simply does not apply when the right-of-way width for the roadway is 40-feet and buildings lining the street are built to the lot-line. The intent of livable and context sensitive solutions is to explore how best to utilize elements within the public realm to reinforce the character of the street as defined by its surrounding environment including the location and scale of buildings. The development of concepts will also investigate a variety of potential solutions that allow the community to assess probable costs and determine the most cost-effective use of limited financial resources.

Section 6 | Alternative Modal Enhancements

The identification of issues by stakeholders and through professional assessment of data collected noted several locations for potential enhancements. These locations involve the natural and built environment and include elements of transportation and land use as well as the interrelationship between the two elements across the public and private realms.

Livable transportation elements can include making the purely physical sidewalk and trail connections as well as enhancement elements that create an enjoyable experience. A secondary benefit of enhancements such as hardscape and visual treatments is to assist in slowing vehicle speeds thereby creating safer pedestrian crossings. The creation of public spaces could be integrated with pedestrian enhancements while also establishing a distinct sense of place that is Downtown Parkville. As is often the case, the number of parking spaces may technically be sufficient, yet the location and direction to available parking spaces may be unclear. The existing building fabric, while generally consistent and with historic character, could benefit from design guidelines or even a formal historic designation if the community and property owners agree.

In general terms, much of what exists in and around Downtown Parkville is on a solid foundation. Many of the alternative modal enhancement concepts focus upon enhancing those elements and in turn improving upon what is already there.

The majority of alternative modal enhancement concept descriptions discuss a potential range of possible improvements. Included in that discussion are the issues identified followed by generalized goals and then a set of strategies. The strategies provide the range of possible improvements and with them a varying degree of associated costs. At this stage the degree of costs may be an order of magnitude or relative for comparative purposes. Later on an implementation plan will be prepared that will provide probable costs for specific concepts while also considering fiscal realities and scheduling priorities. With that in mind, practical solutions are targeted and the concepts presented are intended to illustrate prudent and feasible alternatives. This however does not prevent the discussion of longer term, large-scale concepts that may entail public private partnerships or the review of some previous concepts.

Transportation

Sidewalk Enhancements

An issue is that the sidewalks in the Downtown area are generally narrow and vary in terms of the types of material. However, sidewalks typically exist on most streets particularly within the commercial areas of Downtown. Some prominent gaps of discontinuous sidewalks are noteworthy, though City actions include grant applications for creating key linkages such as along the south side of MO Rte 9 to the Chamber of Commerce in the train depot. Some of the sidewalk gaps within Downtown are shown in Exhibit 21.

A large-reaching goal could include an annual campaign to widen sidewalks, yet a practical approach may be to provide the critical linkages and continue to add sidewalks before embarking on modifying existing sidewalks. Recent sidewalk activities in the Downtown area have included construction of colored, truncated domed ramps at many crossings. Several of the gaps are noted in the aerial map with examples noted below. Strategies may focus upon making the walking experience more pleasant from the off-street parking lot to Downtown businesses which also includes crossing the railroad tracks. It is worth noting that many of the enhancements can serve multiple functions as numerous concepts overlap.

Exhibit 21. Sidewalk Enhancements Considered

Along Main Street – west side south of Mill Street utilities obstruct pedestrian flow.

Along East Street – east side from English Landing Park to just south of 1st Street. A sidewalk would provide a connection to the Farmer's Market and trail.

Along 2nd Street – north side west of East St. Continuity is an important part of walkability.

Trail Enhancements

Non-motorized mobility envisions creating a comprehensive network suitable for a variety of users. Initial efforts could be to create a continuous path that may involve a mixture of sidewalk and trails, but with a focus upon pedestrian connections as a trail can serve both pedestrians and bicyclists. Trails along the Missouri River within English Landing Park are well established. New trails, such as Platte Purchase Pass, have been built and extensions to the north of Downtown are under design. Several options could

connect the two existing trail systems, which are shown in Exhibit 22.

> *Definition of a "trail" - The Platte Purchase Pass trail is located on both sides of Highway 45 and essentially acts as a one-way bicycle path. A multi-use trail is typically 10 feet wide and is desirably separated a minimum distance of 5 feet from the edge of the motorized travel way.*

Exhibit 22. Trail Enhancements Considered

A Phase II extension locates the trail along West and Mill Streets, though the alignment is not final.

Previous plans have noted White Alloe Creek as an opportunity. While a hard surface trail will not go through the Nature Sanctuary, a connection along 12th Street to the west could occur. A concept to span both the railroad tracks and MO Rte 9 with a multi-use non-motorized bridge could link Park University with English Landing Park, though this crossing may be further east.

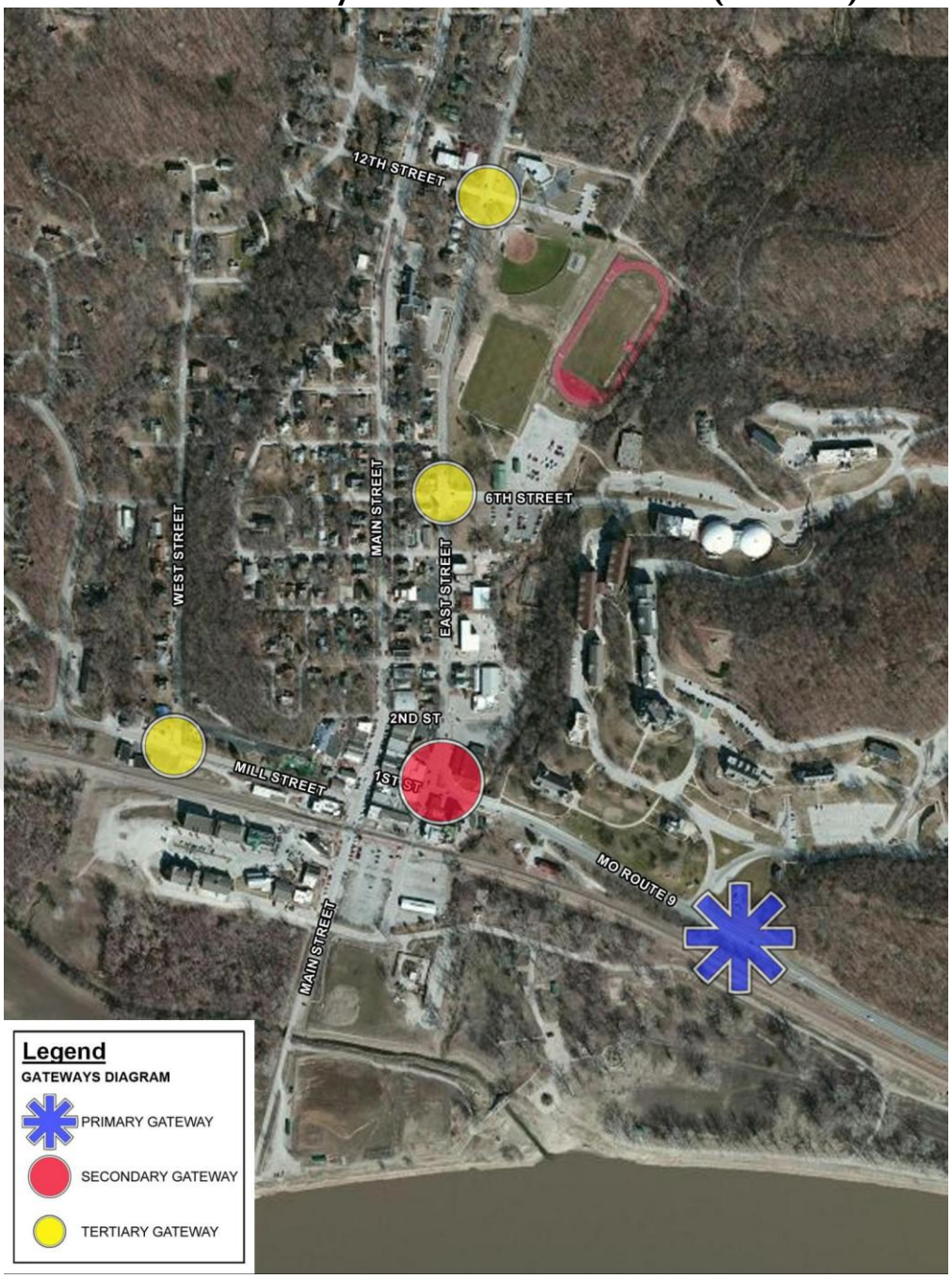
Several comments describe the vision of the trail along MO Rte 9. While maybe not a separate multi-use trail, continuous sidewalks (at least along one side of MO Rte. 9) could be developed to create continuity.

A key potential linkage is along 12th Street with its existing trailhead as well as curb and gutter section. 12th Street has the opportunity to connect with the proposed Phase I trail to the north from Honor Lane. The issue and goal is to connecting to existing and proposed trails. The existing trails are in English Landing Park and the proposed Phase II trail alignment is not yet fixed, yet as proposed would be approximately 1,000 feet west of Rte 9 along West Street. One desire of the trail is to connect to major generators such as Park University and English Landing Park.

Gateways

Gateways present a great opportunity to establish an identity for the Downtown study area, while simultaneously reinforcing the identity of Parkville as a whole. As Exhibit 23 suggests, there are multiple types or levels of gateways, with each type serving a different function. When considering gateway designs, it is important to understand how the various levels will complement one another in a larger context.

Exhibit 23. Gateway Enhancements Considered (Overview)



PRIMARY GATEWAY - Located along MO Route 9, the primary gateway will welcome visitors from the Kansas City metro area to the City of Parkville. This gateway should signal a sense of arrival that speaks to the history and character of Parkville. Located along MO Route 9, the primary gateway will welcome visitors from the Kansas City metro area to the City of Parkville. While Exhibit 24 identifies three alternative treatments for the primary gateway, it is also possible that they could be designed in combination with one another.

The most basic option would be to provide landscaped medians along MO Route 9. The medians would be planted with a combination of colorful overstory and understory plantings, creating and inviting entry into Parkville This option could potentially be used in combination with options 2 and 3. Large gateway marker(s) could be placed on each side of MO Route 9. Markers would likely include a column, low wall, Parkville signage, lighting, and colorful landscaping. If this option were to be used in combination with a landscaped island, the gateway marker could be placed within the island itself. A pedestrian bridge would serve the dual function of providing convenient pedestrian access from Park University to English Landing Park, while also establishing a potentially iconic entry gateway to Parkville.

Option 1 – low cost alternative. MO Route 9 is already wide enough to accommodate the proposed medians. Costs would include demolition, median curbs, and landscape material, plus the associated irrigation and maintenance. Option 2 – low to medium cost alternative, with a wide range depending on the final design. Two large columns with signage and accent lighting would have a fairly low cost. Other elements such as low walls, ornamental railing, accent lighting, and landscape beds could be added. Option 3 – high cost alternative. This size of will have considerable design and construction costs.

Exhibit 24. Primary Gateway Enhancements Considered

SECONDARY GATEWAY - While the primary gateway welcomes visitors to Parkville, the secondary gateway will invite them into Downtown. Located within the traffic island at the intersection of East Street and 1st Street, as shown in Exhibit 25, this gateway's prominent location makes it almost as significant as the primary gateway in its ability to establish that sense of arrival. For all three of the options, it is assumed that the traffic island would be enlarged and pedestrian access would be improved.

A tower element would be the most dramatic of the gateway options for this area. Drawing on the architectural qualities of the study area, a well-designed tower would undoubtedly become a Parkville landmark. A fountain element would also be an excellent gateway alternative, though its effect on pedestrian activity should be considered in this high-traffic area. Landscaping, sidewalk, and crosswalk improvements would be needed to effectively control pedestrian access. Finally, a gateway marker could be used to mark this location. Though a gateway marker in this location could take many shapes or forms, it would likely include some combination of columns, low walls, signage, ornamental railing, and landscaping.

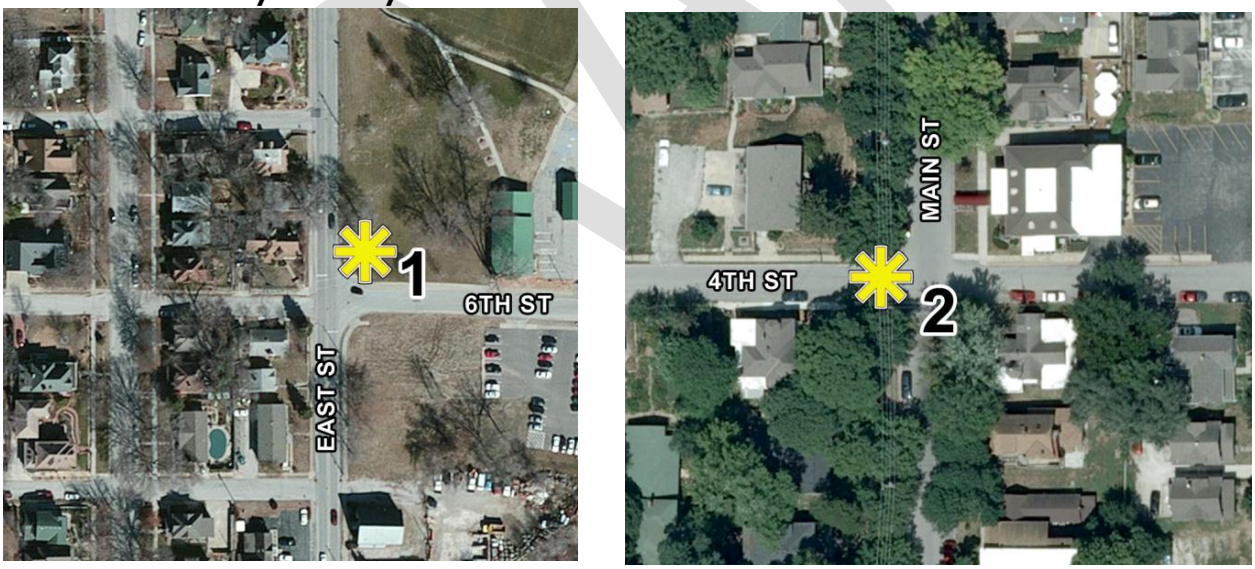
Exhibit 25. Secondary Gateway Enhancements Considered

TERTIARY GATEWAYS - The tertiary gateways, much like the secondary gateway, should serve as entry markers to the Downtown study area. The secondary gateway is located at the southeastern edge of Downtown, because that is the most common entry point for out-of-town visitors. On the other hand, the tertiary locations are much more likely to be traveled by Parkville residents. Thus, they will be designed at a more pedestrian scale.

There are two types of tertiary markers – those that mark entry to the Downtown Core (Option 1), and those that mark entry into the surrounding residential neighborhoods (Options 2), as shown in Exhibit 26. Though the Downtown and residential markers are presented as two unique options, the ideal solution would be to place them in combination with one another. The Downtown markers would be pedestrian in scale. They would likely consist of a column or pair of columns with signage or logo branding, and would be located at high-traffic areas along the outer limits of the Downtown area. The residential markers would serve to identify entry points into the surrounding residential neighborhoods. While designed in a similar style to the Downtown markers, they would be at a smaller scale.

Both options are low cost alternatives as the gateways are limited to the markers themselves. Additional landscaping and maintenance costs could be included, but are not entirely necessary to achieve the desired effect. Even with more tertiary gateway locations, overall costs could be less than the primary and secondary gateway features. Costs will be affected if the gateways are designed as single columns or pairs (one column on each side of the street). The Downtown markers would be twice the size of the residential markers, as will the costs.

Exhibit 26. Tertiary Gateway Enhancements Considered



Parking Enhancements

A key to wayfinding elements is to assist visitors who may be unfamiliar with an area locate parking and then begin their journey on foot. A typical pedestrian walking distance is one-quarter mile or approximately 1,200 feet. Often referred to as a "ped shed," the area encompassing a radius of 1,200 feet can help identify where parking should be placed with respect to major generators or points of interest. The existing off-street public parking lot, south of the railroad tracks, is literally within the Downtown area, yet may be perceived by some to be outside the Downtown simply because of the railroad tracks. As shown in Exhibit 27, a majority of Downtown is within half the typical walking distance. Directing visitors seeking a parking space to this relatively plentiful surface parking lot is important. Yet equally important is creating pleasant pedestrian linkages from this parking facility to Downtown as well as to English Landing Park.

Exhibit 27. Parking Enhancements Considered

The dashed white ring represents 660 feet or HALF the distance of a typical pedestrian shed or walking distance

A combination of elements including wayfinding directional signs, sidewalk enhancements and a series of gateways to the Farmer's Market and park trails in conjunction with increased parking efficiency may help to create a greater sense of place while linking various Downtown locations. Coordination with the Platte Landing Park development will be essential as well as locating ADA spaces.

Another opportunity discussed has been the use of Neighborhood Electric Vehicles (NEV's) that could serve as a shuttle system for distributing patrons to a variety of destinations within the immediate vicinity of the parking lot. A transit center or stop could be integrated with the existing Farmer's Market shelter to create a focal gathering point that can also use the shelter as a means of protection from weather elements. The NEV shuttle system has been suggested as a Spring/Summer/Fall service as the vehicles are unconditioned and open to the air. Coordination with the Platte Landing Park Master Plan is necessary as that plan proposes to relocate the shelter.

Open Space Enhancements

While blessed with a large park along the Missouri River and embracing a cooperative City/County park system and the recreational open-space areas of Park University, the type of open spaces within the Downtown area are limited to essentially two small pocket parks. In utilizing the theme of working within the available constraints, opportunities were explored that seek to increase the size and potentially the function of the pocket parks.

The Pocket Park, 45 foot wide by 85 foot deep, is literally an extension of 1st Street that traverses the steep topography utilizing a set of stairs. The small level area along Main is literally a circle of 20 foot in diameter. This space though is used for some music concerts that include the audience in folding chairs that sometimes spill over into the street. An opportunity exists to expand the park into a larger plaza area that could take many shapes. At a minimum, the areas defined by the extension of 1st Street could be made into a plaza in conjunction with bulb outs on the east side. This has the benefit of reducing the crossing distance for pedestrians, creates a larger gather area for pedestrians while waiting to cross and affords opportunities to provide enhancements and amenities. It may also assist motorists by eliminating the rolling stop, because of the need for westbound motorists to see and be seen by southbound vehicles who have the vehicular right of way.

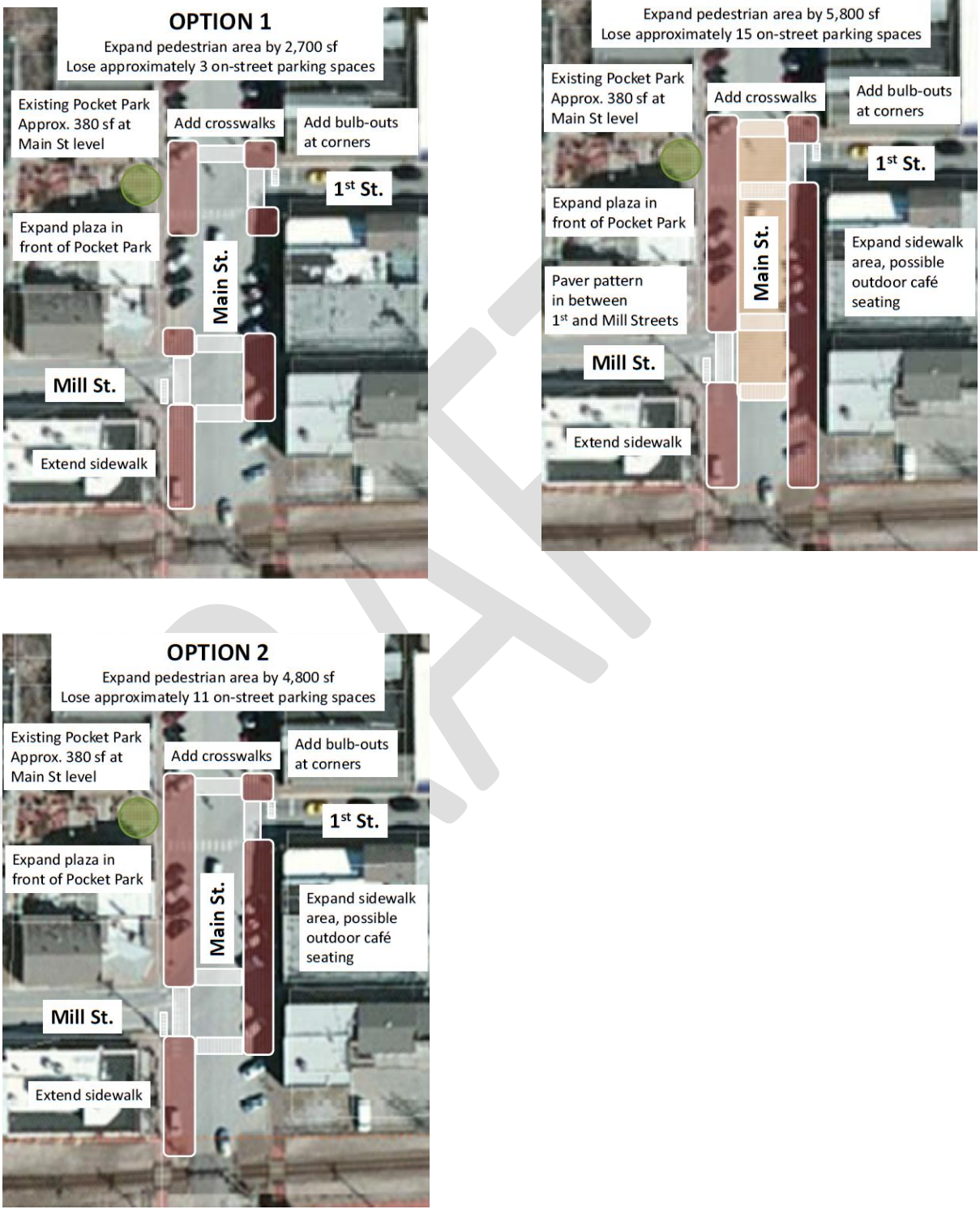
> *Curb extensions—also known as bulb-outs or neckdowns—extend the sidewalk or curb line out into the parking lane, which reduces the effective street width. Curb extensions significantly improve pedestrian crossings by reducing the pedestrian crossing distance, visually and physically narrowing the roadway, improving the ability of pedestrians and motorists to see each other, and reducing the time that pedestrians are in the street. Curb extensions placed at an intersection essentially prevent motorists from parking in or too close to a crosswalk or from blocking a curb ramp or crosswalk. Motor vehicles parked too close to corners present a threat to pedestrian safety, since they block sightlines, obscure visibility of pedestrians and other vehicles, and make turning particularly difficult for emergency vehicles and trucks. Motorists are encouraged to travel more slowly at intersections or midblock locations with curb extensions, as the restricted street width sends a visual cue to motorists. Turning speeds at intersections can be reduced with curb extensions (curb radii should be as tight as is practicable). Curb extensions also provide additional space for curb ramps and for level sidewalks where existing space is limited.*

Several options were developed along Main Street between 1st and Mill Streets that expand the existing open spaces, though it comes with a loss of on-street parking. These are illustrated in Exhibit 28. With the removal of on-street parking between 1st and Mill Streets traffic flow may be improved. Additional open space allows amenities such as trees, lighting, and street furniture to be included and enhance Downtown character.

A further expansion of this concept can occur by continuing the expanded sidewalk treatment south from 1st Street to Mill Street. This involves the removal of approximately 15 on-street parking spaces. This expansion may also afford the opportunity for sidewalk café space and treatment of the street pavement with pavers to visually unify the offset alignment and celebrate it as an element of Downtown Parkville.

The existing channelizing island at East and 1st Street is again a physically small area of approximately 2,100 square feet. While a refuge for pedestrians crossing MO Rte 9, for the island to be an inviting space it needs to be connected to another portion of sidewalk. The previous TEAP study put forth a concept that would allow the island to be connected to the west side of East Street. This affords a significant increase in area that could be exploited as a gateway and a wayfinding opportunity. It too however would require the removal of some on-street parking spaces. The TEAP alignment also pulls the intersection away from the south of the Water Works Building which could afford enough distance to create a wider sidewalk in front of the stairs leading to the Water Works entrance.

Figure 28. Open Space Enhancements Considered



Circulation and Speed Enhancements

The Downtown's two major junctions are in essence several intersections in close proximity to each other. However, as intersections are defined, neither junction functions like a typical intersection.

Exhibit 29. Circulation Enhancements

Exhibit 30. Speed Enhancements Considered

East of Mill Street, the route is offset a short distance (125 foot) along Main Street to 1st Street. At the 1st Street, East Street and River Park Drive (MO Route 9) junction, several turning movements are accommodated by another short roadway segment (East Street). While somewhat unorthodox, the current level of traffic volume allows a reasonable flow of traffic considering the major traffic patterns. The main traffic pattern east of MO Route FF simply follows the offset. A stop sign on the approaches to Main Street and 90 degree turns manage traffic speeds. Truck traffic is routed to cross the railroad tracks at Main and East Streets.

Several circulation and speed enhancements were considered with the focus on maintaining livable principles with any change. One enhancement considered is a one-way squareabout as shown in Exhibit 29. A previous TEAP study considered minor enhancements such as moving the stop bar for the 1st Street westbound approach further into Main Street via use of bulb-outs to increase visibility while enhancing pedestrian crossings. Further enhancements to traffic flow consider removing on-street parking in between Mill and 1st Streets. Installing a raised intersection with pavers or stamped pavement could help with pedestrian crossings while serving as a speed table.

On-street parking is an on-going area of interest for Downtown businesses and patrons. It is important to create a consistent message to visitors looking for parking spaces within the Downtown.

Opportunities exist to utilize angle parking along Main Street as an identifier for the Downtown and on-street parallel parking elsewhere such as along East Street or in the residential areas north of the commercial Downtown. Implementing a consistent parking configuration can aid wayfinding as well as enhance the pedestrian experience to and from the public parking lot. Some have suggested structured parking on the 2nd Street site (NW corner of Main Street as a possibility with development).

The municipal parking lot south of the railroad appears to have been initially created as a series of parking stalls and accessed by the two paved entrances that are now closed with bollards. Parking dimensions are in some cases overly generous which may allow a more efficient parking layout to be developed for the area. Another design element is the lack of sidewalks through the parking lot connecting to East Street or the trail in English Landing Park. Another element to link with is the Farmer's Market Shelter.

Speed studies conducted on the approaches to Downtown Parkville indicate that finding ways to reduce speeds would help improve the livability in the area. There are several options to achieve a reduction in speed, they include:

- Enforcement through police presence or education which has been implemented through variable message signs showing "Your Speed" versus posted speed. While often effective, the results can be temporary.
- Physical devices as well as visual cues to motorists could assist. Some examples include installing medians at gateway locations, which could serve several functions, or changing the dashed pavement markings to solid lines for 'no passing.' Other methods could include the use of on-street parking or a boulevard section.

The current suburban style development of development on East Street indicates that a three-lane section with a center turn lane to address the numerous curb cuts to businesses may be appropriate. But if more traditional development were to occur, complimentary in scale and character to Main Street, then a two-lane roadway with on-street parking, bike lanes and wide sidewalks might be applicable. Even a roundabout, as shown in Exhibit 30 could be considered at the junction of MO Rte's 9 and 1st Street, though this is suggested in coordination with redevelopment and a change in the land use, especially along the east side of East Street.

Currently three marked crossings exist across MO Rte 9 including:

1. East of White Alloe Creek (mid-block)
    a. distance to 1st Street is only 185 feet
2. 1st Street
    a. distance to 6th Street is 1,085 feet
3. 6th Street (mid-block)

While all are appropriately marked for mid-block crossings, the 1st Street crossing (on the north side) acts as an intersection crossing as southbound and westbound movements are under stop control. Each of these crossings provides access to Park University. Pedestrian crossing volumes are typically light (based upon peak hour pedestrian counts) and likely would not meet the need for an active pedestrian crossing device such as yellow flashing lights or hybrid pedestrian crossing. However, an elevated/grade separated crossing of MO Rte 9 could link the trail network together.

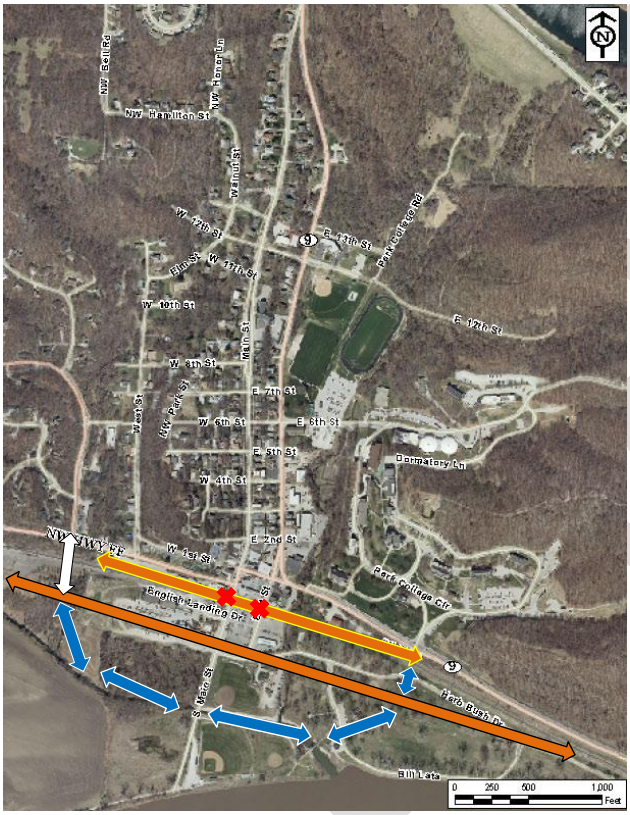
A long-range strategy may be to create a more conducive walking experience along East Street, particularly north of 1st Street. Another visual cue to motorists that MO Rte 9 is not a rural high-speed highway is to replace the dashed yellow pavement markings which allow passing , in a 25 to 35 mph

speed zone, to a double yellow center line which reflects the slower speed associated with the adjacent urbanized character.

Railroad Enhancements

The railroad is a very active single track with as many as 45 trains per day. BNSF has prepared preliminary plans to double track the rail corridor if coal traffic increases. At this time, the plans are not programmed for implementation. Within Downtown Parkville, the plans call for a slight shift in the existing railroad alignment, yet both tracks would remain within the existing railroad right-of-way. The railroad must blow its horn, per FRA regulations, at the two at-grade crossing located only 600 feet apart. The train's horn sounds throughout the day when crossing both East and Main Streets. Future capacity expansion within the rail corridor is likely. Several options have been put forth to address noise and safety concerns as illustrated in Exhibit 31.

Exhibit 31. Railroad Enhancements Considered



A **"quiet zone"** could be established by installing quad gates or raised medians that would restrict vehicles and pedestrians with examples shown below. A quiet zone at both crossings should cost around $1.0 million.

A **bridge over the railroad** could cost between $10 to $15 million, plus costs for additional right-of-way acquisition. The best opportunity for a grade-separated crossing of the railroad may be immediately west of Downtown near Crooked Road.

The **rail could be elevated** over both Main and East Streets, though costs could reach up to $50 to $75 million.

A relocation of the railroad (new alignment) would require extensive environmental review and would adversely impact English Landing Park. Construction costs could be in excess of $100 million.

A roadway bypass would be very expensive and would impact English Landing Park significantly.

Any railroad enhancement should minimize the noise disruption of the trains through Downtown. One way to do that is to eliminate the at-grade crossings or to investigate quiet zones. Grade separations can be costly, not only because of their capital and maintenance costs for structure but associated impacts to adjacent properties. Even if adjacent properties may not be physically and directly affected by a roadway

over the railroad, the lack of access to properties could create an effective taking. Elevating the railroad may reduce the impacts to adjacent properties, yet this option is also quite expensive. A financially feasible option is to consider a "quiet zone." A quiet zone is a segment of a rail line where the locomotive horn is not routinely sounded at public highway-rail grade crossings. The initial requirements for a quiet zone focus on the corridor length and the warning devices installed at each crossing. In most cases, for a quiet zone to be approved one or more Supplemental Safety Measures (SSMs) is installed at *each* public crossing in the quiet zone. For the crossings in Parkville, a median or four-quadrant gates would be considered appropriate SSMs.

Historic District

The Parkville Downtown Core has sufficient historic integrity to satisfy a preliminary Determination of Eligibility (DOE) which is the first step toward the creation of a downtown historic district. A downtown historic district would assist the community of Parkville by attracting new businesses, as well as providing incentives for the rehabilitation of these historic properties. This in part is accomplished through increased awareness/tourism marketing and additional funding opportunities available through a variety of funding mechanisms including the state and federal historic tax credit programs and grants from a variety of public and non-profit sources.

The connection of the Parkville Downtown Core to the Parkville Farmer's Market, English Landing Park, Grigsby Field and the newer commercial development south of the railroad is very important to the success of this vibrant downtown community. The downtown core and the park areas are main attractions for Parkville residents and visitors year round. Access to the accompanying trails should also be maintained and are a vital part of the park system. Enhancements within the Downtown Core and potential enhancements to surrounding connections may be developed as conceptual improvements. If it is determined that any proposed improvements will impact an architectural or historic resource, additional investigation will be required and the Section 106 process with the Missouri State Historic Preservation Office (MOSHPO) may need to be undertaken.

Land Use and Infill/Redevelopment

The current US Post Office site is a highly visible property with great access. It represents an asset that has great potential for redevelopment. Additionally, the construction of a roundabout would require land beyond what currently exists in the right-of-way, and the most sensible location to attain this is the Post Office property. Ideally, the use would complement the future redevelopment being considered along East Street. East Street also represents a great opportunity to expand the Downtown core and bridge the gap between Main Street and Park University. Uses for this redevelopment would likely be commercial or mixed use in nature, addressing the user needs of the Park University student population.

Section 7 | Concepts for Livability

Three Concepts for Livability were developed from the alternative modal enhancements based on input received at the public meetings, on Let's Talk Parkville and the Public Opinion Survey. The concepts represent a select set of the modal enhancements that were considered in this study. The set or "package" described here includes the design elements and opinion of probable costs. Not all of the modal enhancements developed in early stages of this study were advanced into the Concepts for Livability. Some enhancements were not supported by stakeholders or the public. Others were not selected because of the magnitude of impacts. In some cases, multiple concepts addressed the same issue, therefore only one was advanced. Exhibit 32 illustrates which concepts were advanced and how they are included in the three packages.

The Concepts for Livability are set up to take advantage of potential phasing. A discussion of other activities that might trigger when some improvements could occur is included. Initial ranges of probable construction costs are provided in today's dollars.

Exhibit 32. Concepts Considered and Advanced

Concepts Considered	Concepts Advanced	Historic Main Street District Enhancements	Integrating with Our Parks	East Side Connectivity
Historic District				
Maintain character		✓	✓	
	Seek designation	✓	✓	
Land Use				
Infill development		✓		
Redevelopment				✓
Gateways				
Primary	Primary	✓	✓	✓
Secondary	Secondary	✓		
Tertiary				
Controlling Speed and Safety				
Curb Extensions	Curb Extensions	✓	✓	
Raised Intersection				
Lane Configurations	Lane Configurations			✓
Circulation and Parking				
Roundabout				
One-way square				
On-street	On-street	✓	✓	
Off-street	Off-street	✓	✓	
Non-motorized Mobility				
Sidewalks	Sidewalks		✓	✓
Trails	Trails		✓	✓
Railroad Crossings				
Railroad Relocation				
Elevated rail				
Road over Rail	Road over Rail	✓	✓	
Quiet Zones	Quiet Zones	✓	✓	✓

Historic Main Street District Enhancements

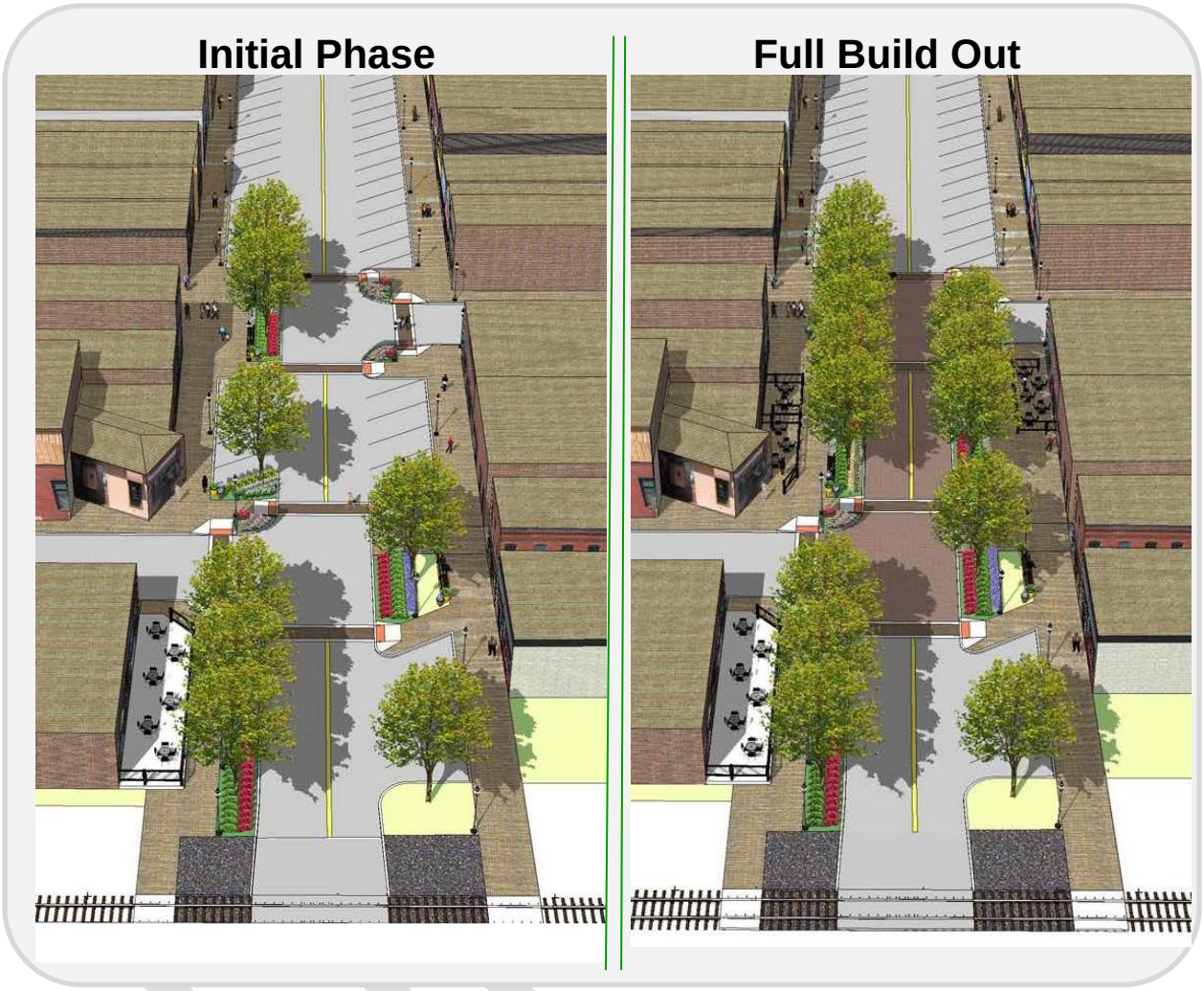
The three elements of this concept could occur in any order. The first element is a historic district designation. Before undertaking this effort coordination with the Downtown property owners is necessary in order for all parties to understand the historic designation process and what it means in terms of potential benefits as well as the restrictions on the types and methods of construction for physical improvements. A historic district would make property owners eligible for a variety of grants, loans and tax incentives. The district would be a property owner driven initiative. Historic designation could be achieved for an individual property or several individual properties. With the potential for multiple contiguous or adjacent properties, an entire District could be achieved either now or later on. It is recommended to meet with property owners in the Downtown to determine what they view as their collective next steps.

The second element, a railroad quiet zone, is suggested to be implemented when the BNSF constructs an additional railroad track capacity to the mainline through Parkville (double track). The timing of the railroad construction is undetermined, though it is not likely to occur within the next five years. The trigger for the construction could be associated with increased rail traffic, such as with coal. That trigger may not necessarily be associated with any activity within the Kansas City region. When the track improvements are constructed it would be beneficial for the city to partner with the railroad to install four quadrant gates at Main Street and East Street which allow the train to pass without sounding its horn. The estimated construction cost is approximately $1.0 million.

The third element, streetscape improvements, involves a wide range of potential improvements including varying limits of work as well as the type and quality of materials. Pedestrian-scale and streetside elements can enhance the sense of community and remove quality of life barriers. Implementing measures to manage traffic speed and access creates a more livable environment for all transportation users. The streetscape enhancements include the introduction of bulb-outs as well as sidewalks, crosswalks and landscaping. The range of probable costs is significant from a basic cost of approximately $130,000 to over $525,000. Again this reflects varying limits of work including crosswalk pavers or street pavers, plaza areas that would require the removal of some on-street parking spaces, and street furnishings. The opportunity exists though to begin with a small initial stage and depending upon the results, the extent or the type of furnishings could be expanded.

An illustration incorporating these elements is shown in Exhibit 33. The illustration shows an initial and a full-build out phase, although the determination of when (or if) a full-build out would occur cannot be determined.

Exhibit 33. Historic Main Street District Enhancements



Integrating with Our Parks

The addition of Platte Landing Park will bring more activity to downtown Parkville increasing the need for better integration with the existing parking, pedestrian connections and businesses. Through redesign and enhancements, the new park resources will easily become an asset to the existing downtown community.

Traveling south along Main Street, Downtown appears to fade into English Landing Park without transition. An iconic, vertical gateway incorporated within a traffic circle would mark the transition between Downtown and the Parks. This icon provides critical wayfinding information for visitors of Downtown and the proposed Platte Landing Park. Locating it in traffic circle would maximize its potential to effectively direct traffic in this area.

The parking lot south of Main Street is currently used to accommodate the needs of Downtown, English Landing Park, and the Farmers Market. Improving the overall parking lot layout provides additional parking spaces, improved circulation for drivers and pedestrians, and opportunities to extend the streetscape experience along Main Street giving pedestrians a safe, attractive, and clearly defined path to Downtown.

Numerous alternatives for providing grade-separated vehicular access to the south side of the railroad tracks have been explored. The most viable option appears to be a roadway overpass connecting Mill Street near Crooked Road to a new roadway south of the English Landing development. Implementation is highly dependent on funding and design considerations.

An illustration incorporating these elements is shown in Exhibit 34. The illustration shows an oblique birds-eye view of the interrelationship amongst the elements.

The major elements of this concept could occur in any order; however, the integration of the design components suggests that certain improvements must be done at the same time. While the elements of gateways integrated with traffic circles could be constructed separately, the inclusion of sidewalk extensions from Downtown to English Landing Park suggests that revisions to on-street parking should occur in conjunction with revisions to the off-street parking lot. These combined improvements are estimated to cost between $825,000 and $1.2 million. The range of costs is associated with adjacent drainage infrastructure as well as the ability to reuse/recycle the existing pavement.

The second element of a vehicular bridge over the BNSF railroad, located near the junction with Crooked Road, is suggested to be implemented in conjunction with the construction of the Platte Landing Park and its elements or activities that would generate significant amounts of traffic. The estimated construction cost for a three-lane wide bridge with a sidewalk and a trail spanning the entire width of the railroad right-of-way is approximately $5.0 million.

Exhibit 34. Integrating with Our Parks

East Street Connectivity

This concept focuses upon non-motorized mobility along East Street (MO Rte 9) in a three-step manner explained below. An illustration incorporating these elements is shown in Exhibit 35.

An important component of a livable community is walking, which requires system continuity and connectivity. Several gaps in the sidewalk along East Street currently exist – there is a lack of sidewalk and in many places the existing sidewalks are in poor condition. Making connections to community destinations such as the Health Center at 12th Street, Park University via 6th Street and English Landing Park are critical first steps. Eventually sidewalks should connect to the trail along MO Rte 45.

Physical constraints may preclude the ability to construct an off-road trail along East Street. Nonetheless, the regional popularity of the English Landing Park trail and the resource of the White Alloe Creek Conservation Area and Parkville Nature Sanctuary offer the opportunity to create a streamway trail along White Alloe Creek. Initial crossing of MO Rte 9 would be at the existing marked crosswalk. It should also be acknowledged that the mobility connections through this trail go beyond the Downtown study area boundaries.

Providing a safe crossing of MO Rte 9 as well as the busy freight railroad for all users (walkers, bikers, hikers) suggests the opportunity for a pedestrian bridge that would also serve as a gateway or placemaker for Downtown Parkville. The bridge is envisioned to naturalistically integrate into hillside topography with Park University.

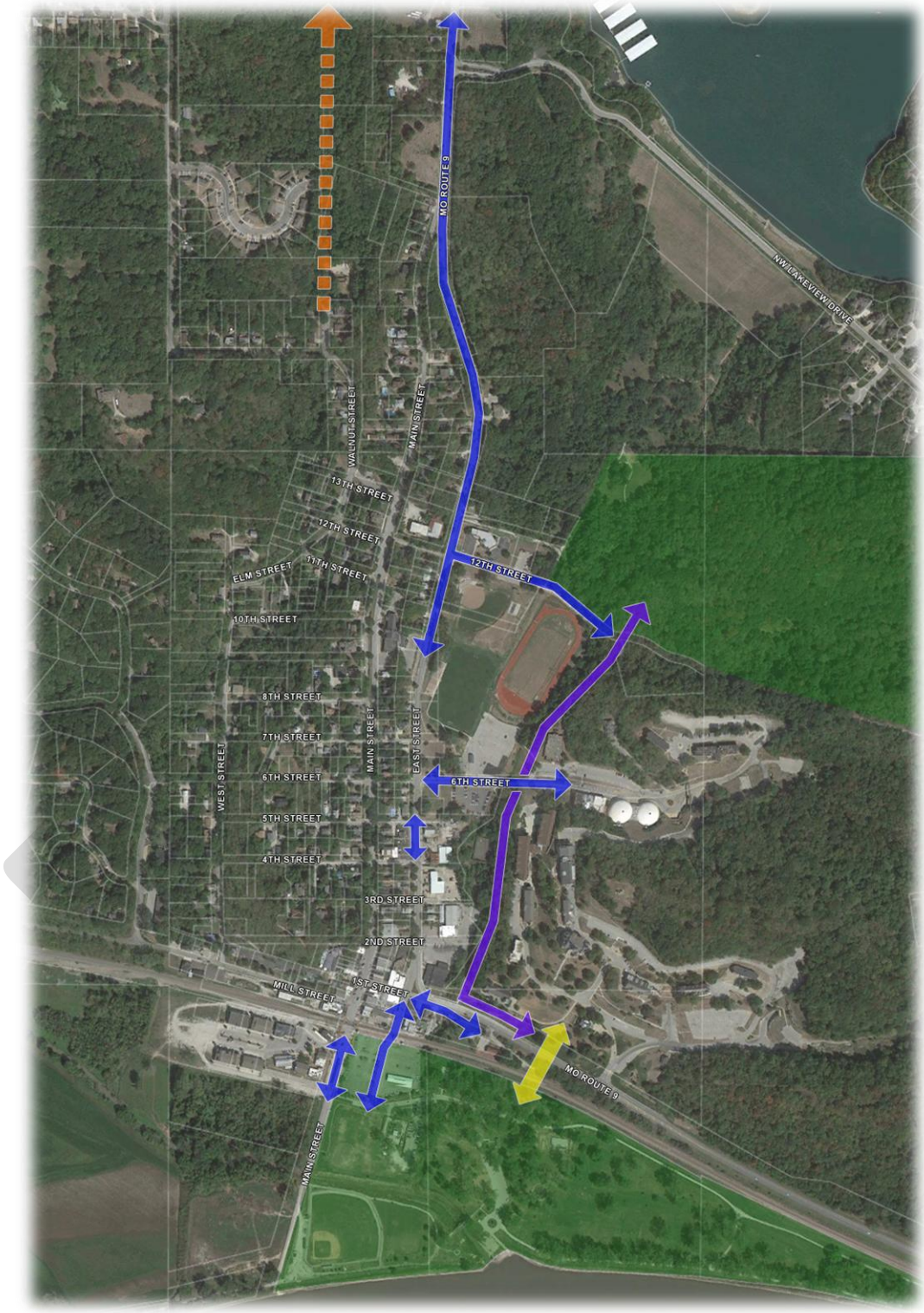
The first element to be implemented in this package could be to construct infill sections of sidewalk and associated ADA ramps, as applicable, estimated at around $100,000 for construction. This cost includes some curb and gutter along with the sidewalk yet the extent of drainage aspects such as inlets and piping is not included.

The second phase of the off-road trail network may occur as part of a public-private-partnership (often referred to as 3P) in conjunction with the adjacent property owners such as Park University or as part of development along White Alloe Creek. The estimated construction cost for this half-mile long paved trail (either asphalt or concrete) is approximately $500,000. Variables to this cost would be the extent of any retaining walls or drainage crossings.

Before the third phase of constructing a pedestrian overpass, a continuous non-motorized network connecting major attractions and generators such as English Landing Park and Park University needs to be provided along the existing street network as discussed in the Integrating with Our Parks concept. The proposed pedestrian bridge would serve several functions including acting as an important gateway into Downtown. Construction costs are estimated to range between $1.2 million and $2.0 million. This range reflects the type of vertical circulation treatment especially on the south side of the pedestrian bridge within English Landing Park as well as the extent of aesthetic treatment on the structure.

Additional non-motorized facilities could be contemplated along East Street (MO Route 9) as part of infill development or redevelopment. The facilities could range from marked on-street bike lanes to wide sidewalks with enhancement zones.

Exhibit 35. East Side Connectivity



Appendix

1. Traffic Count Data
    - Route 9 North of 1st St
    - Route 9 East of East St
    - Mill Street west of Main St
    - 1st Street
    - Main Street south of RR tracks
2. Speed Data
    - Route 9 North of 1st St
    - Route 9 East of East St
    - Mill Street west of Main St
    - 1st Street
3. MoDOT Accident Data
4. Sight Distance Measurement at 12th Street
5. Parking at 1st and East Street
6. MindMixer Idea Reports
7. Land Use Memorandum and Maps
8. Historic Phase I Report
9. Platte Landing Park Phase 1 through 3
10. Concepts for Livability

Traffic Count Data

Speed Data

MoDOT Accident Data

Sight Distance Measurement at 12th Street

Parking at 1st and East Street

MindMixer Idea Reports

Land Use Memorandum and Maps

Historic Phase I Report

Platte Landing Park Phase 1 through 3

Concepts for Livability