

EnVision Kirkwood 2035

City of Kirkwood
Comprehensive Plan
Summer 2017





ACKNOWLEDGEMENTS

Envision Kirkwood 2035 Is The Work Of Numerous Individuals And Community Groups Who Contributed Their Time, Support And Ideas Throughout The Public Engagement Process. It Is Impossible To List All Those Who Have Contributed To The Success Of This Plan; However, Some Of The Main Contributors To The Plan Are Listed Below.



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Executive Summary & Community Profile

01

INTRODUCTION

In 2015 the City saw the end of its 2003 Comprehensive Planning effort, “Vision 2015”. This marked an opportunity for the City to reach out to City residents, business owners and visitors once again to identify and capture the goals and aspirations for the community and to create a renewed vision for the City of Kirkwood. Working with a private engagement and planning firm, the City of Kirkwood led the effort to compose this present vision and plan for the community, EnVision Kirkwood 2035.

The goals of the Plan were the following:

- Fulfill all necessary requirements and provisions regarding establishment of land use controls.
- Provide a document reflecting the vision and goals of the community.
- Provide a means for striking a balance between competing demands relating to land and development.
- Provide protection for valued community resources.
- Provide guidance for shaping the physical appearance of the community and setting forth policies that foster a distinctive sense of place.
- Act as a living document and guide for future decisions.
- Provide a concise outline of action steps to meet the requests and desires of the citizens.
- Establish a methodology of measuring progress and success, and communicating that information to the community.





PUBLIC ENGAGEMENT

Engaging the public in the planning process is critical to a successful, implementable plan. Giving busy residents from all demographic backgrounds a variety of options to engage in the process provides the opportunity to collect diverse ideas, document feedback and encourage citizens to have ownership in what will impact policy and development over the next twenty years.

The City of Kirkwood Staff recognized this challenge and worked with an outside consultant to create a unique multi-pronged outreach strategy. This strategy provided a variety of opportunities for citizens to be a part of the process. A Steering Committee/Policy Group, representing the citizens of Kirkwood, and a Technical Committee, made up of representatives of City Departments, were established by City Staff in order to provide initial feedback and direction for the plan.

In addition, a unique brand was created for the plan that would ensure that any advertisement or message would be associated with the planning process. The brand complemented the current City logo and colors and was used in all the collateral materials, website, meeting materials, advertisements and in the final plan.

Once the brand was established, a website was created that acted as a single source for information regarding meeting schedules, surveys, survey results, open house details and virtual open house materials.

Mini surveys, meeting posters and announcements were created and distributed via the internet as well as being promoted by team members at various City events and outlets such as:

- Community Day in the Park events;
- Concerts on the Square;
- City Website;
- Area businesses;
- Lawn signs, large banners and posters;
- Facebook;
- E-mail blasts;
- Utility bill mailings; and
- Eye on Kirkwood in the Webster-Kirkwood Times.

A total of 5 mini surveys were posted on the website, www.envision2035.org, where they

were kept on line for a minimum of 4 weeks. Two longer surveys specifically designed to achieve feedback on the goals and objectives were also created.

The results from this multi-year planning and citizen engagement effort are captured in this document. The plan's goals, objectives, recommendations and performance measures outlined in this document are the result of the insights and feedback the citizens of Kirkwood and other stakeholders provided throughout the process.

PAST COMPREHENSIVE PLANS

The City of Kirkwood has a long history of planning efforts. Each plan offers a snapshot of the issues and concerns of the time and provides insight into Kirkwood's history. Over time, the purpose and goals of Comprehensive Plans have changed as the community has responded to social, economic, political and environmental change. The main premise of this and all Comprehensive Plans remains the same, a document that succinctly captures the community's vision for future growth and development and acts as a guide to municipal leaders' decisions. It is not a law or regulation, but rather a guide for policy making in the future.

STREETS AND IMPROVEMENTS PLAN

1941

The 1941 Plan addressed three major elements that were of concern to citizens at that time: traffic circulation, housing values and a landscape plan for the recently completed City Hall. Traffic improvements called for the widening of major streets, the construction of an outer bypass on the west side of the city and the construction of viaducts to elevate Kirkwood Road over the existing railroad tracks at Argonne and Big Bend.

LAND USE & ZONING REPORT

1957

The 1957 Plan addressed the robust growth of post-World War II America. Kirkwood had annexed a substantial area of land since 1941 and the 1957 plan recommended numerous changes to the Zoning Code to handle this growth.

COMPREHENSIVE COMMUNITY PLAN

1962

The 1962 Plan for the first time established a thorough review of existing conditions within Kirkwood. This included a detailed analysis of population, land use, circulation, housing, the downtown area and public facilities. It also called for more multi-family residences to be established in the downtown area.

COMPREHENSIVE PLAN

1984

The 1984 Plan recognized that since the 1962 Plan downtown had rebounded, a number of large regional transportation routes had been built (I-270) and Meramec College had been founded and expanded. The plan also established major goals that resonate to this day: protecting residential neighborhoods, improving the Manchester Road corridor and promoting quality commercial development.

VISION 2015 PLAN

2003

The Vision 2015 Plan, developed in 2003, continued the work of the 1984 Plan in calling for the protection of residential neighborhoods, improving Manchester Road and promoting quality commercial development. The Vision 2015 Plan also placed a strong emphasis on urban design within the downtown area and collaboration amongst public and private entities.

HOW TO USE THIS PLAN

This document represents the collective vision for the future of Kirkwood that was provided through engagement efforts during the EnVision Kirkwood 2035 planning process and is designed to be used as a guide in decision making with respect to not only the future growth and development of Kirkwood, but the everyday decisions that preserve Kirkwood's unique sense of place. The Comprehensive Plan is intended to recommend the direction of future policy development in relation to Land Use and is not in itself a code document. As such, this document is designed to be used as a directive for Kirkwood City Officials, Staff and City Agencies in making decisions related to the future development of the community.

The EnVision Kirkwood 2035 Comprehensive Plan is organized into four subject-matter related chapters (Chapters 2-5), a chapter for Future Land Use (Chapter 6), a chapter for recommended future Sub-areas Plans (Chapter 7), and a final chapter on Implementation (Chapter 8).

Within Chapters 2-5, each chapter includes the following elements:

- **Introduction** – An introduction about the chapter's topic and how it relates to Kirkwood.
- **Primary Summary** – The main body of the chapter which provides detailed overview of the goals, objectives and actions steps relating to the Chapter

“ The Comprehensive Plan is intended to recommend the direction of future policy development in relation to Land Use and is not in itself a code document.”





category as determined throughout the comprehensive planning process.

- **Planning Considerations** – Located as a side bar to the main section content, this information provides additional information for consideration as progress is made on the various goals and objectives.
- **Callout Sections** – This information provides a more in-depth look at various issues, history, and events and their impact on the plan.

The goals, objectives, and action steps for Chapters 2-5 can also be found summarized in the EnVision Kirkwood 2035 Quick Guide. This portion of the plan is intended to serve as a reference for those reading the plan and implementing the plan as well as a means through which progress on individual goals and objectives will be reported through the duration of the EnVision Kirkwood 2035 plan.

GUIDING PRINCIPLES, GOALS & OBJECTIVES

The Steering Committee/Policy Team, a diverse group of citizen volunteers, developed the Guiding Principles following review of the initial stakeholder interview results. These principles serve as the foundation for this plan and helped to provide guidance for the creation of the goals and objectives to turn vision into reality.

Listed below are the **Guiding Principles**. EnVision Kirkwood 2035 shall look to create:

- A community that embraces a diversity of housing and neighborhoods that supports citizens of all ages and socio-economic backgrounds;
- A community that is enriched by healthy lifestyle opportunities;

- A community with well-maintained, aesthetic infrastructure that is accommodating to multiple modes of transportation;
- A community that takes a proactive, professional approach to economic development in order to enhance existing commercial and industrial areas; and
- A community with cooperative institutions and organizations working toward shared goals.

The goals and objectives within this plan are built upon the guiding principles and were developed through the collaboration of citizen volunteers, city staff and the public through numerous public engagement opportunities. Goals help define a framework for decision-making and address what the city would like to accomplish over the life of the plan.

Objectives are measurable, timeframe-oriented tasks that recommend how a goal may be accomplished. The objectives and the action steps associated with them are the heart of the plan as fulfillment of the objectives is a fulfillment of the intent of the plan.

The goals and objectives can be found in Chapters 2-5 of this plan. As previously mentioned, a summary of the goals and objectives can also be found in the EnVision Kirkwood Quick Guide.

COMMUNITY HISTORY & PROFILE

HISTORY

The settlement of the area today known as the City of Kirkwood began in 1814. It was that year that a group of Jesuit Priests founded a settlement, later known as the Collins Depot, at the site of what is today the downtown area. This settlement grew to

the point that in 1833 the first church in the area was founded, St. Peter Catholic Church. The next stage of development in Kirkwood's history occurred with the groundbreaking of the Pacific Railroad starting in downtown St. Louis in 1851. An association of promoters, realizing the potential of the railroad, purchased 240 acres of land surrounding the Collins Depot to establish a community oriented around a railroad station that would provide access to St. Louis. This association was incorporated by the State of Missouri in 1853 and named in honor of James Pugh Kirkwood, the Scottish chief engineer of the Pacific Railroad.

The Kirkwood Association sold all of its land by 1862 and in 1865 the Missouri State Legislature granted a Charter incorporating the Town of Kirkwood. The initial municipal boundaries, one square mile, were bounded by the present-day streets of Essex Avenue to the north, Woodlawn Avenue to the east, Woodbine Avenue to the south and Geyer Road to the west. The Town of Kirkwood shared in the growth of the greater St. Louis region through the end of the late 19th century. At that time Kirkwood was a town of farms, greenhouses, open fields and wood lots surrounding a central area of large homes.

The majority of large homes were found north of the Pacific Railroad tracks. The smaller homes of servants, farm workers, railroad porters and other blue collar workers were located south of the tracks. Kirkwood was an important community whose shops and offices served southwest St. Louis County and was a focal point for religious, cultural and retail activities.

Kirkwood continued to expand in land area during the early 20th Century. Annexations to the north, south and southwest increased the overall size of the community to four square miles. Population growth was slow,

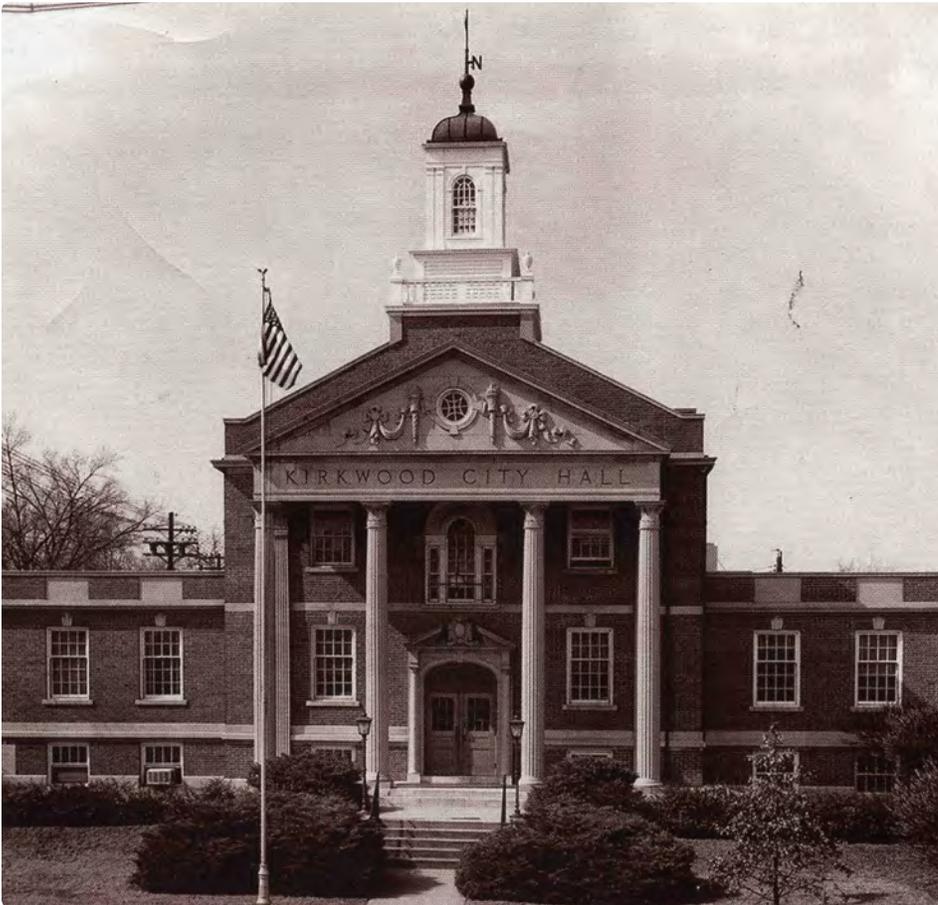


Photo1-1 City Hall - 1940s

IMPORTANT EVENTS THROUGHOUT THE HISTORY OF KIRKWOOD:

1814

Settlement of Collins Depot which is the site of what is now Downtown Kirkwood

1851

The Kirkwood Association purchased 240 acres surrounding Collins Depot

1833

Founding of St. Peter Catholic Church, the first Church in Kirkwood

1853

Original Town of Kirkwood established

1865

Town of Kirkwood is incorporated

1901

Kirkwood Electric begins operating

1924

Establishment of the Kirkwood Public Library

1932

Establishment of the Kirkwood Theatre Guild

1941

Establishment of Kirkwood Park & Dedication of Kirkwood City Hall

1966

Community Center Opens

1991

Annexation of Meacham Park

1992

City Hall addition built

2003

Station Plaza opens Downtown & City purchases Kirkwood Train Station

2010

Library Renovation

but steady during the first half of the century and numerous modern institutions and organizations were established including: original Kirkwood Public Library (1924), Kirkwood Theatre Guild (1932), Kirkwood Park (1941) and Kirkwood City Hall (1942). The end of World War II, however, saw tremendous change within Kirkwood. Large demand for housing, coupled with savings and enticing home mortgages led to almost 6,000 new citizens in Kirkwood. Two separate annexations to the west and northwest brought the total land area to a little over eight square miles.

The Kirkwood of the latter half of the 20th Century and early 21st Century is one of stabilization and maturation. The municipal boundaries have been largely unchanged since the 1960s and total population peaked with the 1970 Census. The last major physical change to Kirkwood was the annexation

of Meacham Park in 1991 which was the culmination of years of discussion and study. Commercial re-development along the Kirkwood Road corridor stands as noteworthy in the recent history of Kirkwood. Woodbine Center, Pioneer Place, Kirkwood Commons, Kirkwood Crossing, Station Plaza, and recent redevelopment near Manchester Road and Kirkwood Road have each contributed and/or will contribute to the commercial tax base and the sustainability of city services. In 2003 Kirkwood celebrated its 150th birthday and in another milestone event reclaimed its train station, which today stands as a strong symbol of the rich history of our community.

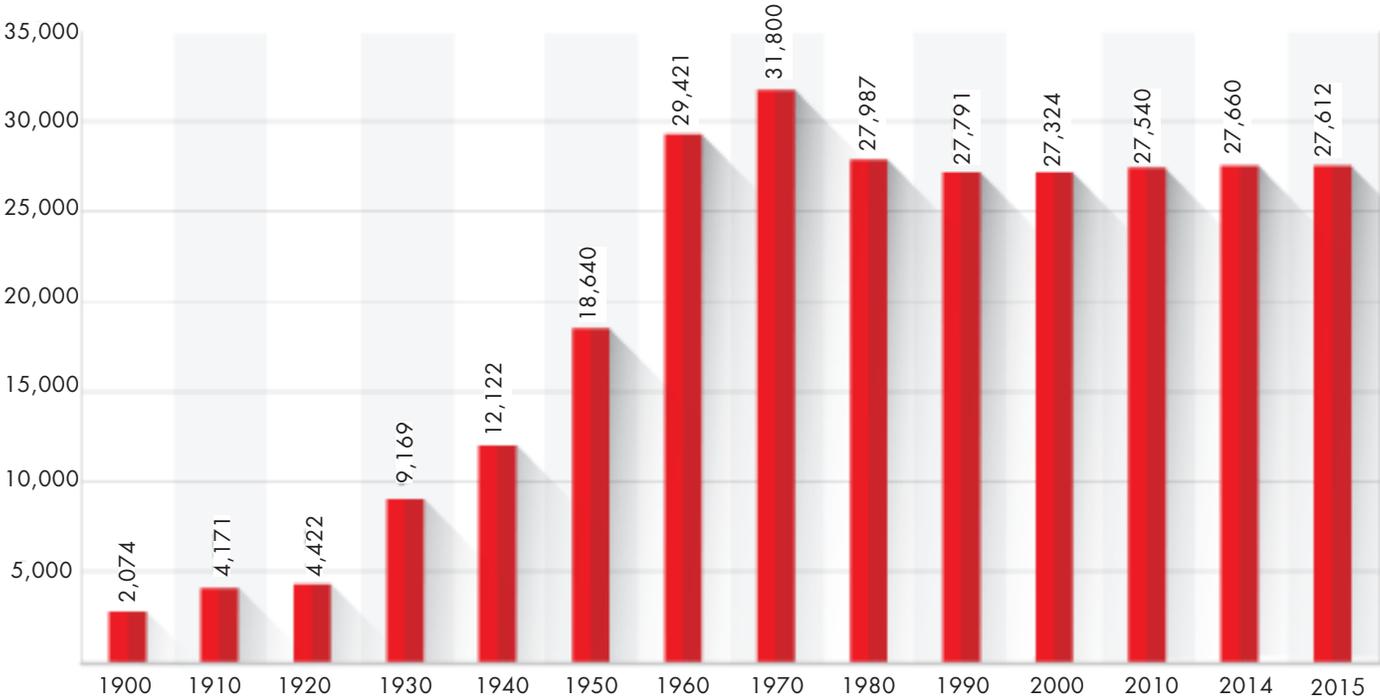
COMMUNITY PROFILE

The City of Kirkwood is located within the heart of the St. Louis Metropolitan area and is located 14 miles to the west of downtown St. Louis. Kirkwood is surrounded

1.1 KIRKWOOD & SURROUNDING COMMUNITIES



1.2 POPULATION GROWTH 1900 - 2015

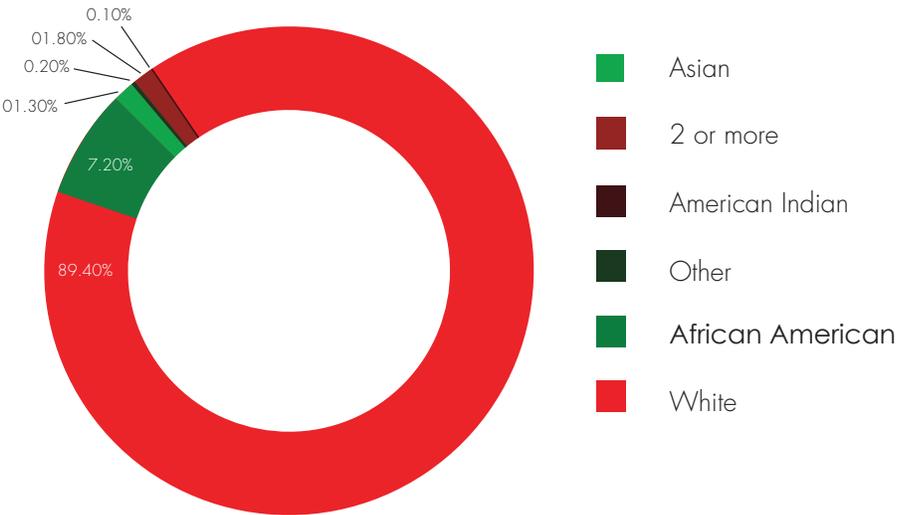


by eight different municipalities and by unincorporated St. Louis County to the southwest. As of the 2010 Census, Kirkwood ranked as the 11th largest municipality in terms of population within the St. Louis Metropolitan area. This is a drop from a peak of 5th place in 1970 and mirrors the broader trend of older, “inner-ring” suburbs such as University City and Webster Groves stabilizing while new growth has moved to St. Charles County, Franklin County and Jefferson County.

Due to its central location, Kirkwood is ideally situated adjacent to major interstates such as I-270 and I-44 and regional roadways such as Lindbergh Boulevard (Kirkwood Road), a state route with a connection to St. Louis Lambert International Airport, and Manchester Road, a state route with a connection to St. Louis City.

The 2015 American Community Survey of the US Census reported Kirkwood to have a population of 27,612. This is an increase of just 1% from the 2000 Census (See Figure 1-2). The City’s population peaked at 31,890 (1970 Census), but dropped during the 1970s,

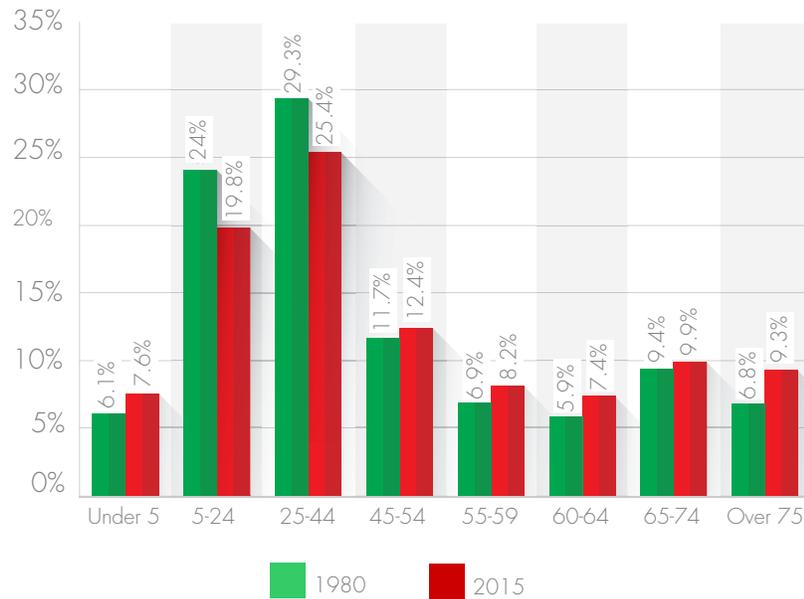
1.3 PERCENTAGE OF RESIDENTS BY RACE



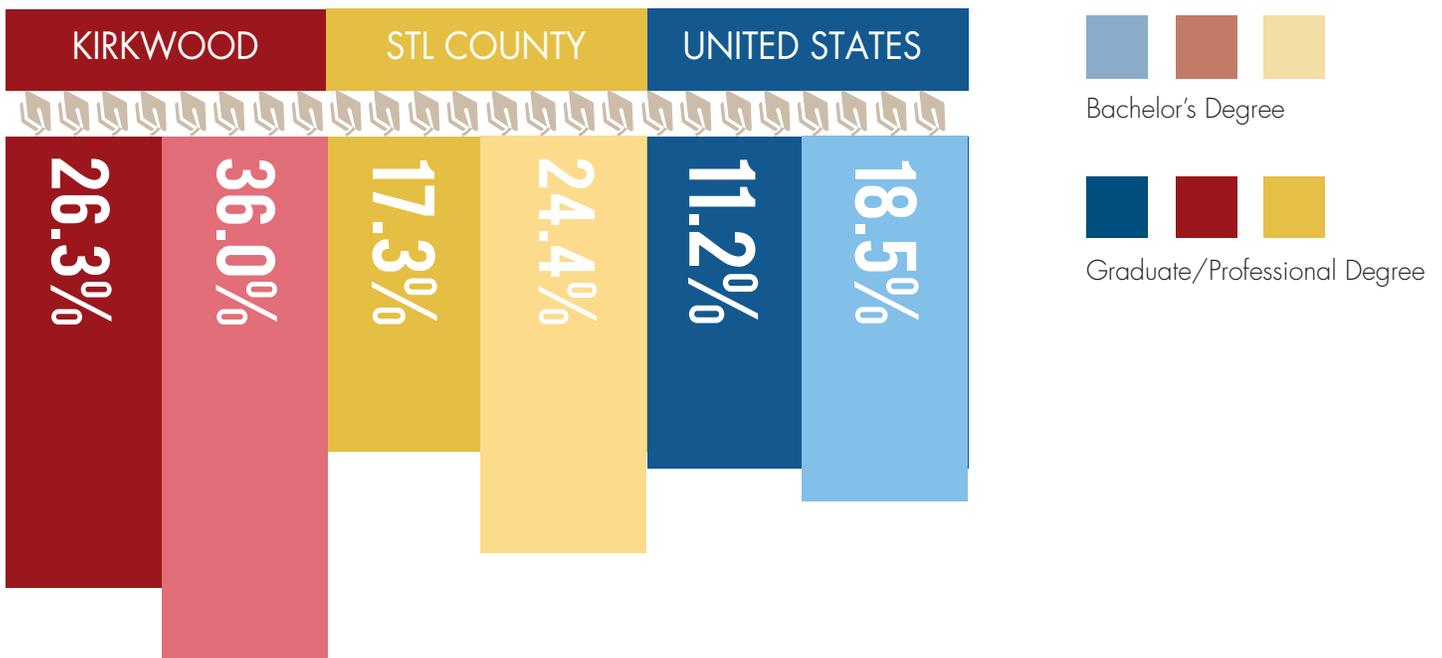
similar to adjacent communities. The two most prominent racial categories represented in the City include 89% White and 7.2% African American residents (See Figure 1-3). The 2015 American Community Survey also reports that 2.3% of Kirkwood residents identify as Hispanic or Latino.

1.4 AGE DISTRIBUTION 1980 VS. 2015

According to the 2015 American Community Survey, the age group breakdown of Kirkwood residents, just like total population, has remained consistent over the past 30 years. Two age groups decreased in total percentage; 5-24 age group (-4.2%) and 24-44 age group (-3.9%). Reflective of national trends, Kirkwood's age groups continue to slowly trend higher. The median age of a Kirkwood resident is 42.8 which is above the national average of 37.3. In terms of gender breakdown, 54% of the population is female and 46% is male. This too varies from the national average of 50.8% female and 49.2% male.

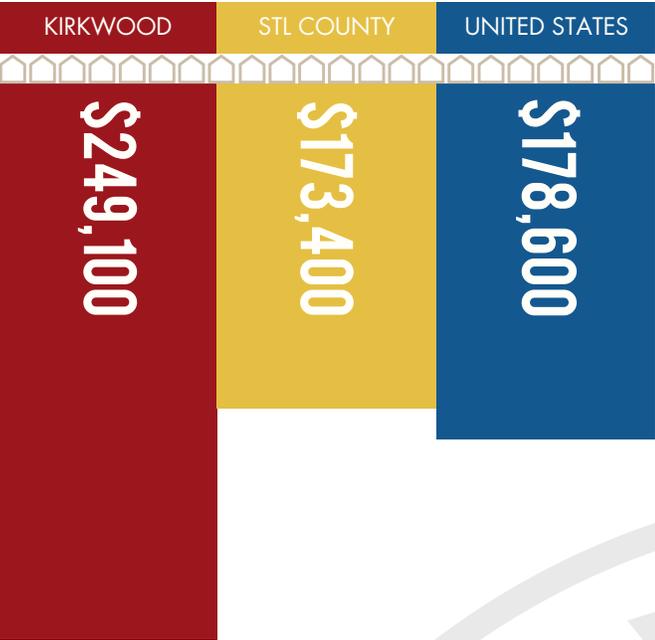


1.5 2015 AMERICAN COMMUNITY SURVEY COMPARISON Educational Attainment (over 25 years in age)

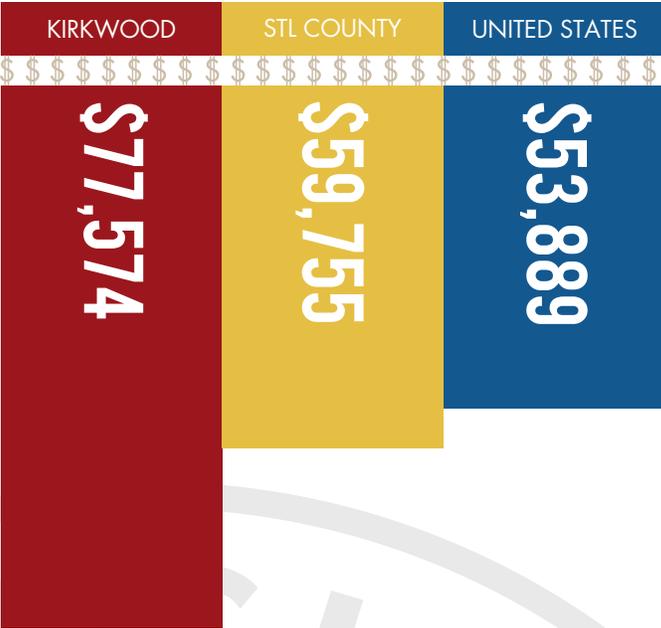


The City is significantly above the national averages on housing value, education and household income. A comparison of these demographic statistics can be seen in Figure 1-5.

Median Housing Value



Median Housing Income



Housing & Neighborhoods

02

INTRODUCTION

The City of Kirkwood, founded in 1853, was for many residents an escape from City living. Given Kirkwood's proximity to the City of St. Louis, the historic growth of Kirkwood can be partially attributed to individuals wanting to escape the noise, density, crime and disease associated with 19th century cities. Kirkwood's primary land use is overwhelmingly single-family homes, accounting for up to 67% of Kirkwood's 9.18 square miles of land area (See Figure 2-1).

Kirkwood is an inner-ring suburb, with approximately 27,500 residents, and one of the more than 90 municipalities that make up St. Louis County. As a part of the Greater St. Louis Metropolitan area that includes approximately 2.8 million people, Kirkwood is the only municipality in the region providing residents with municipal fire, police, sanitation, water, electric, public works and parks and recreation services.

Kirkwood is comprised of tree-lined streets with a mix of neighborhoods and small pocket retail areas nestled within a diverse housing stock. The housing stock includes Victorian-era historic homes, Craftsman-style bungalows, post-World War II minimalist-

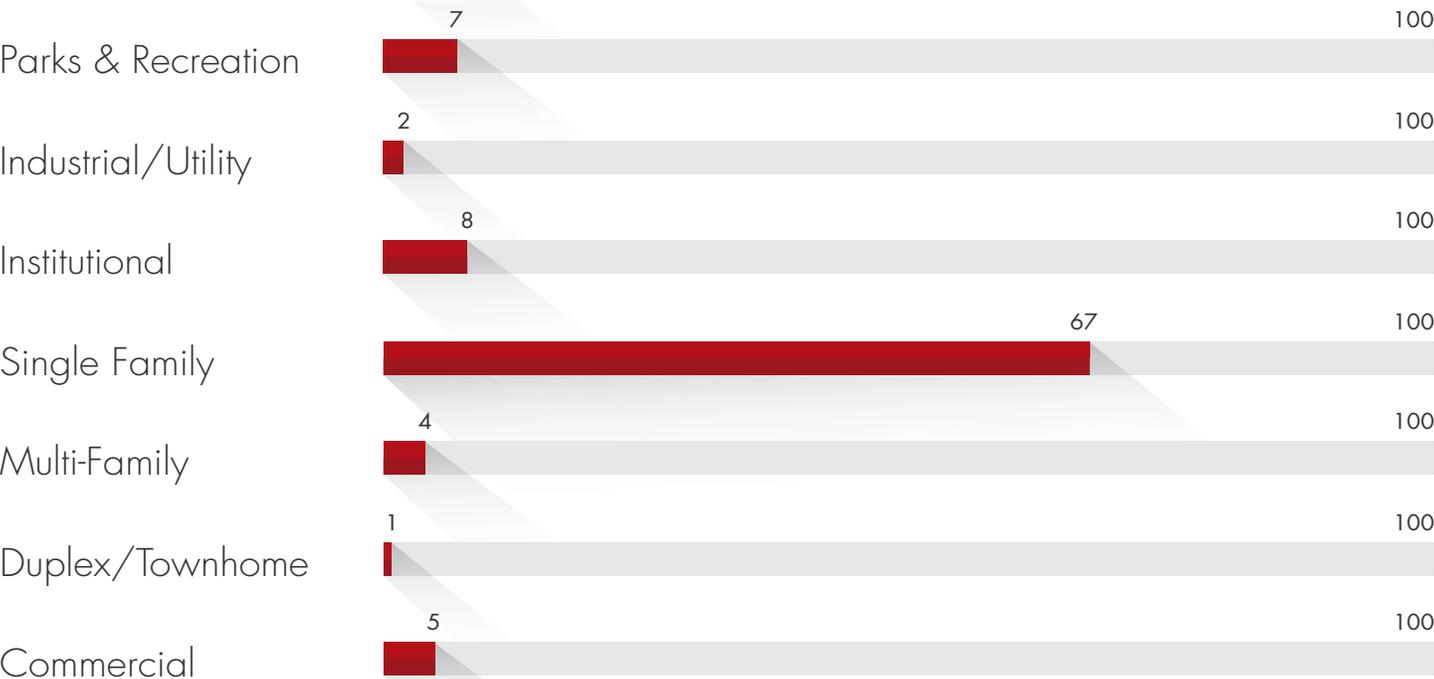
style residences and today's newest construction. These diverse neighborhoods are well maintained both by the residents and by City services.

With an excellent school system, low crime rate, well-maintained parks and amenities, attractive housing stock, and close proximity to regional amenities, Kirkwood is a desirable community. These attributes have led to a strong housing market and a prime market for renovation of existing homes and re-development of older homes through tear-down and new construction.

Because of Kirkwood's development history, age, location within the greater St. Louis region, and the fact that it is a substantially built-out community, there is limited land available for large residential development. As such, new residential housing options are limited to small pockets of vacant land, underdeveloped corridors, additions to existing structures, or the tearing down of existing structures for new infill development. Other residential growth, such as additional mixed-use housing, which already exists to some extent within the historic downtown, will come from the redevelopment of property in the vicinity of the downtown area and other possible sub-areas.



2.1 LAND USE BY PERCENTAGE



Throughout the community outreach process, various issues and opportunities were identified that can help Kirkwood expand upon the attributes the community cherishes, including:

- Improvement and expansion of the network of sidewalks to provide a more walkable community.
- Protection of Kirkwood’s historic past. The lack of protections for historic structures has resulted in several historic homes and structures being demolished. Approximately 55% of the housing stock is older than 50 years and citizens are concerned with the lack of protections for historic structures that impact the neighborhood aesthetic and history.
- Protection of neighborhood character.

Demolition and new construction have given rise to concerns about the character and consistency of the design and massing of structures in relation to the adjacent structures and how these new structures impact the streetscape and neighborhood in which they are built. Residents are concerned with the limited controls on new construction design standards.

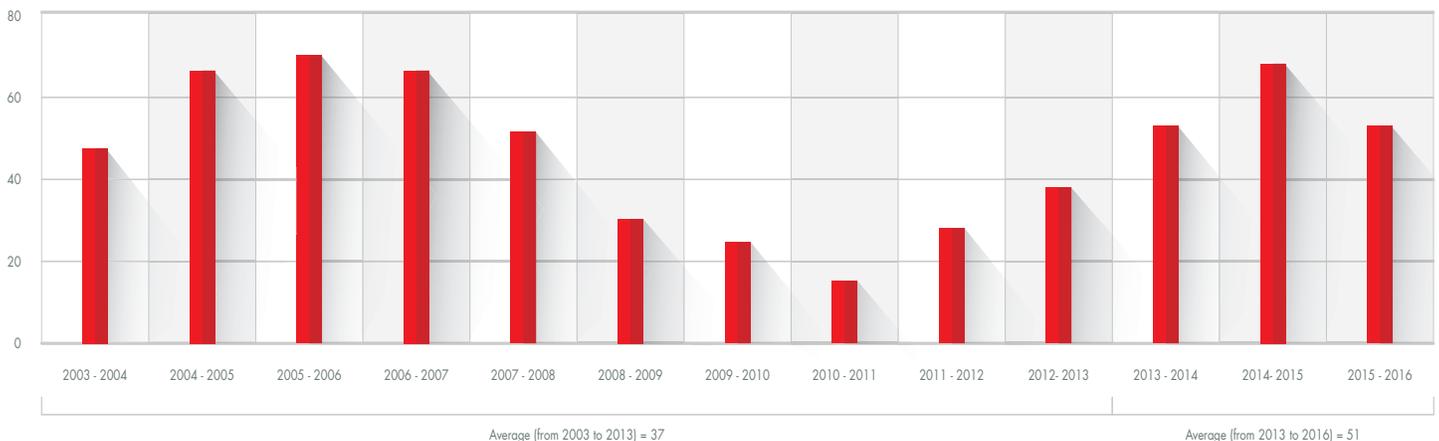
Concerns about protecting the community’s unique history and structures are not new to Kirkwood, as documented in the previous 1984 and 2003 comprehensive plans. These concerns are not unique as many communities throughout the US struggle with how to balance historic protections, neighborhood architectural character, diverse housing stock options, and economic and free-market pressures.



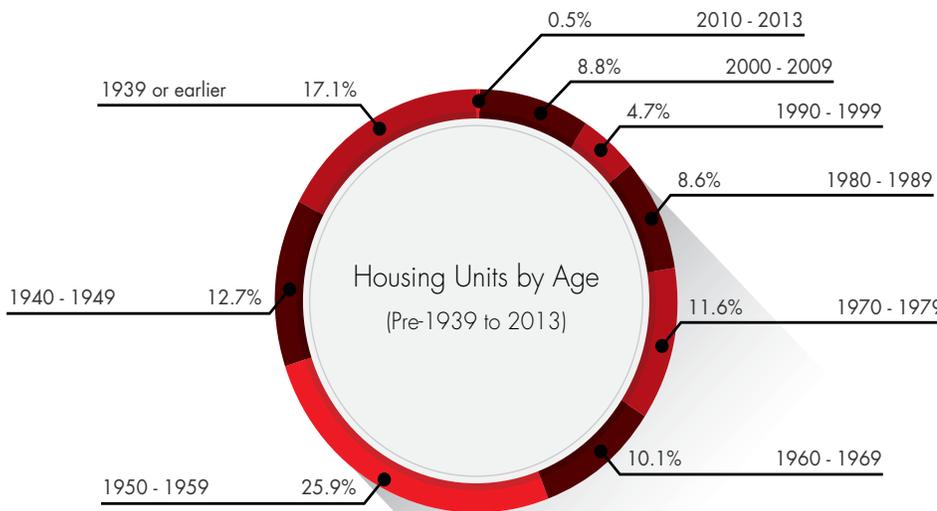
“ To be considered historic, a structure must usually be fifty years old, though in some exceptional cases, less than fifty years old. However, not all historic properties retain enough of their historic physical features or integrity to be considered a “contributing” structure.”

- The Standards for Rehabilitation, from the US Secretary of the Interior’s Standards for Historic Preservation.

2.2 NEW SINGLE-FAMILY HOMES



2.3 HOUSING UNITS BY AGE (PRE-1939 TO 2013)



SINGLE-FAMILY CONSTRUCTION

The City of Kirkwood issued 445 single-family building permits between budget years 2003 and 2012, an average of 37 permits per year. From years 2013 through 2016, the average is 51 permits per year (See Figure 2-2). The majority of new home construction is a result of the tearing down of an existing home and redeveloping the site. A typical home that is torn down is approximately 1,000 to 1,500 square feet in area. These existing homes are being replaced by larger homes of approximately 2,500 square feet or more. According to the US Census Bureau’s American Community Survey, the median home value for all homes in Kirkwood in 2010 was \$233,400. The median value increased in 2015 to \$249,100. These numbers reported by the Census Bureau include value of all homes, existing and new construction, in the City of Kirkwood. In contrast to these numbers reported by the Census Bureau, the median sales price for only new construction homes that were completed during the City’s 2017 Fiscal Year (11 Homes) is \$734,456.

The homes in Kirkwood have a diverse age range, with the 1950s being the peak construction decade when approximately 26% of the homes in Kirkwood were

constructed. Approximately 17% of Kirkwood’s homes were constructed prior to 1939. Over one half of the homes in Kirkwood were constructed prior to 1960. Conversely, only a little over 9% of the homes have been constructed since 2000 (See Figure 2-3).



\$249,100

2015 Median Home Value in Kirkwood

vs.

\$734,456

Median Sale Price For New Construction in Kirkwood for FY 2017

According to survey responses collected during the planning process as well as from past comprehensive plans, new home construction is and has often met with reservation by local residents. The concerns cited include:

- The demolition of historic housing stock is causing the loss of the unique historic character in which the community is based.
- Clear cutting of housing sites and loss of heritage trees impacts the tree canopy.
- The lack of enforceable detailed design guidelines for new construction and additions is negatively impacting the character of the neighborhoods.
- The removal of smaller housing stock decreases the options for first-time home buyers.
- Increased storm water runoff due to loss of vegetation and greater impervious surfaces, such as roofs and asphalt, causes damage to adjacent properties.
- Noise and debris produced by construction.

Per Kirkwood Planning and Zoning, while new home construction has occurred throughout the City of Kirkwood, the densest area of new growth is located between Manchester Road to the north, Clay Avenue to the east, Rose Hill Avenue to the south and Geyer Road to the west.

MULTI-FAMILY CONSTRUCTION

While detached, single-family homes are the most predominant form of living unit within Kirkwood, there is also a significant amount of existing multi-family housing units within the City. Multi-family units comprise only 5 percent of all existing land area in Kirkwood, but they make up 24 percent of all Kirkwood living units according to the 2015 American Community Survey, U.S. Census Bureau. Many of the older apartments that were developed as rental units have been converted over time to owner-occupied condominium complexes. Many of these converted developments are located within one-half mile of downtown Kirkwood (See Figure 2-4).

HOUSING OPTIONS

During the EnVision Kirkwood 2035 process, many residents noted they were concerned with the increasing home prices in Kirkwood. In addition, fifty percent (50%) of residents at the first Open House event stated they wanted to promote a variety of housing types to accommodate a range of socio-economic needs. As reflected in Goal #4 of this Chapter, the Community has identified a need for housing that accommodates a range of ages, abilities, and socio-economic levels. This is the way in which this EnVision Kirkwood 2035 process has defined a diverse housing stock.

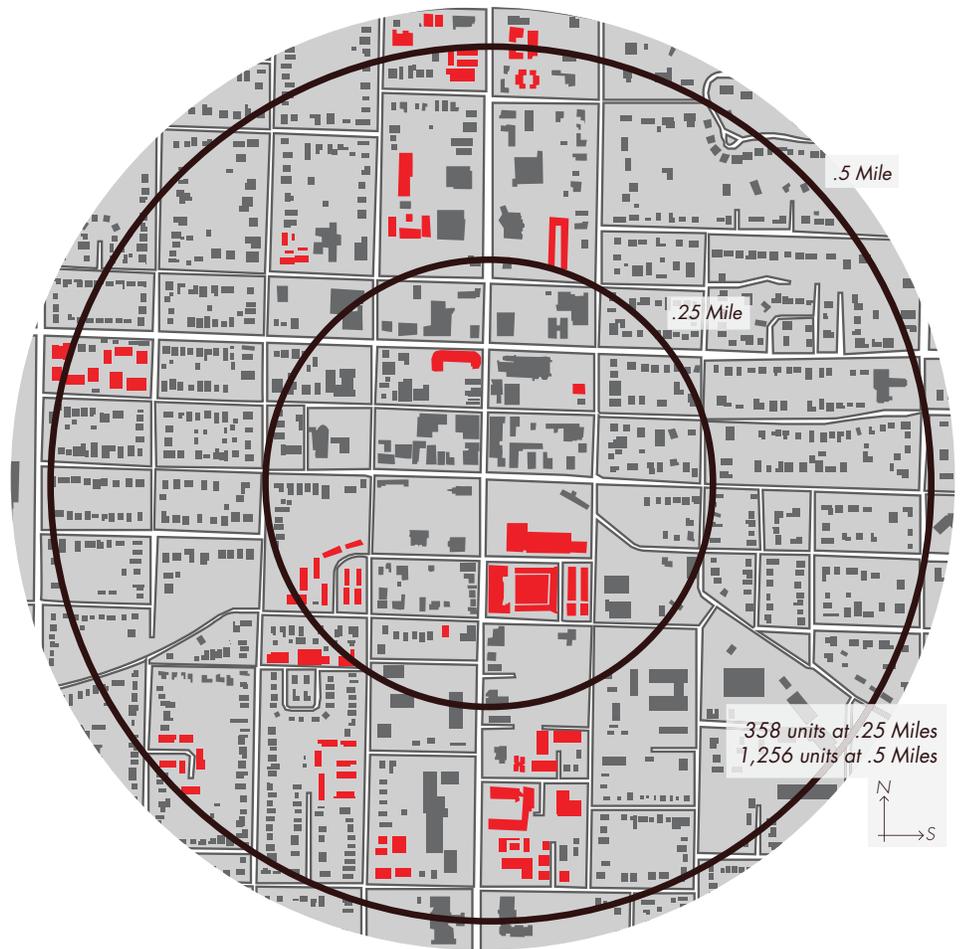
Diversification in housing types provides opportunities for residents to meet their changing housing needs throughout their lives, which helps create a strong economic foundation for the community and allows Kirkwood residents to remain in Kirkwood (See Figure 2-5). Such housing options should include:

- Small affordable units within developments.
- Lower income housing options.
- Senior housing options.

The City of Kirkwood should evaluate the possibility of promoting new housing options throughout the City. Subsidized affordable housing, which started in the 1930s, suffers from a poor reputation. Public and affordable housing, which are different from one another, have undergone significant evolutions since inception and in response to demand. When proactive developers engage designers and the community the result can be creative solutions that are not only aesthetically pleasing, but may create innovative solutions and a safe and positive environment.

As national population increases, household sizes continue to decline. Household sizes have been shrinking since 1900 from an average of 4.6 persons to 2.6 while the number of single person households has doubled since 1960. Rental options for younger residents should be available in areas where they may wish to invest in the long term but initially may not be able to afford.

2.4 MULTI-FAMILY UNITS DOWNTOWN VICINITY



Per the 2010 US Census, over 17% of Kirkwood residents are 65 years or older and that percentage continues to increase. Many area residents who are not ready to move into assisted or senior housing stated they want the opportunity to have housing options available to them so they may remain in Kirkwood.

For those that are at the point of needing additional help and care, Kirkwood is home to several senior housing facility options, such as Aberdeen Heights and Manor Grove. These facilities contribute to housing diversity within Kirkwood and the ability to age in place. The current senior living facilities provide over 1100 living units (See Figure 2-6).



RESOURCES:

“Ten Principles for Developing Affordable Housing”, Urban Land Institute, 2007. http://uli.org/wp-content/uploads/2012/07/TP_AffordableHousing.ashx_.pdf

FIGURE 2.5 HOUSING LIFE CYCLE DIAGRAM

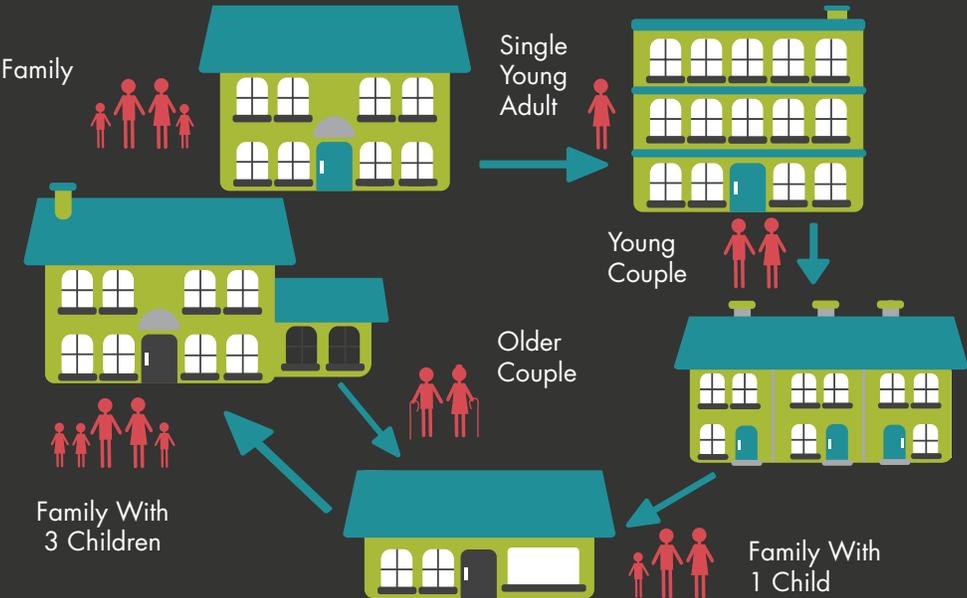


FIGURE 2.6 SENIOR HOUSING FACILITIES

Aberdeen Heights	333 beds
St. Agnes Home	150 beds
Bethesda Garden	132 beds
Manor Grove	117 beds
Kirkwood House	100 beds
Rose Hill House	97 beds
Concordia House	76 beds
Adams Place	44 beds
Mary Culver Home	28 beds
Life Skills Apartment	16 beds
Fillmore Place	16 beds

Housing & Neighborhood Goals

<p>GOAL 1 //</p> <p>Develop design standards for new construction and additions that are appropriate and contextual</p>	<p>OBJECTIVES</p> <p>1.A. Establish more prescriptive design standards that address in-fill housing design standards, materials, and construction methods.</p>	<p>CHAMPION</p> <p>Public Services Department/Planning</p>
	<p>1.B. Encourage developers and property owners to rehabilitate existing structures and to use green building strategies.</p>	<p>Public Services Department/Planning</p>
<p>GOAL 2 //</p> <p>Maintain quality housing through code enforcement and property maintenance efforts</p>	<p>OBJECTIVES</p> <p>2.A. Create opportunities to help residents with existing property maintenance issues</p>	<p>CHAMPION</p> <p>Public Services Department/Building</p>
	<p>2.B. Establish vacant building registration/inspection program to prevent property maintenance issues</p>	<p>Public Services Department/Building</p>
	<p>2.C. Develop a homeowner brochure that addresses maintenance best practices and resources.</p>	<p>Public Services Department/Building</p>
<p>GOAL 3 //</p> <p>Preserve historic buildings and neighborhoods</p>	<p>OBJECTIVES</p> <p>3.A. Strengthen city historic district and landmark regulations to preserve historic structures architectural character.</p>	<p>CHAMPION</p> <p>Public Services Department</p>
	<p>3B. Strengthen current regulations to limit teardowns of existing historic buildings and promote rehabilitation.</p>	<p>Public Services Department/Planning</p>
<p>GOAL 4 //</p> <p>Promote development of a variety of housing types to accommodate residents based on population age, abilities and socio-economic needs</p>	<p>OBJECTIVES</p> <p>4.A. Support the development of senior-oriented housing and accessible home design.</p>	<p>CHAMPION</p> <p>Public Services Department</p>
	<p>4.B. Encourage higher density residential/mixed-use in appropriate areas.</p>	<p>Public Services Department</p>
<p>GOAL 5 //</p> <p>Preserve and enhance neighborhood retail and services within existing neighborhood centers</p>	<p>OBJECTIVES</p> <p>5.A. Provide walkable connections between residential areas and neighborhood commercial areas.</p>	<p>CHAMPION</p> <p>Public Services Department</p>
	<p>5.B. Review existing zoning regulations for identified neighborhood village retail areas.</p>	<p>Public Services Department/Planning</p>

GOAL 1 //

Develop design standards for New Construction and Additions that are Appropriate and Contextual

1.A. Establish a more prescriptive building code that addresses in-fill housing and commercial design standards, materials and construction methods.

A prescriptive zoning code, or what is often referred to as Form-Based Code, is intended to provide a holistic approach to land development. This type of code studies the relationship of adjacent buildings to each other, to sidewalks, and to streets and then outlines a plan for regulation and development. It may be adopted as an overlay for specific districts, or City-wide which then requires the identification of specific zones which are unique to the Community. These zones would each have specific physical principles that guide development based on the community's physical vision.

The City of Kirkwood is a strong market for new residential construction in the form of infill development. As Kirkwood is a built-out city, this new development most often occurs through demolition of an existing house and new single family infill residence construction. Infill housing development has been a topic of conversation since the adoption of the last comprehensive plan in 2003. Many residents feel that new homes are often out of character in terms of their size, materials, and placement on the lot when compared with the surrounding homes and the context of the neighborhoods within which they are being constructed. The City took steps to address this issue in 2008 by adopting a series of zoning code amendments. These amendments addressed:

- Floor-to-area ratio and lot coverage
- Building placement
- Attached garage design
- Setback encroachments

Residential construction has continued to remain strong since the adoption of these new regulations with over 300 new homes built between 2008 and 2015. However, residents continue to state that infill housing is a major concern. Eighty-six percent (86%) of the attendees at the May, 2015 Open House event listed “exercise sensitivity to scale and proportion with new/infill housing” as the most important housing goal. A July 2015 survey found that in terms of new housing policies, the most supported policy is “stronger design regulations to control the size and scale of new construction”.

Kirkwood must continue to evaluate its policies and regulations with respect to the mass and scale of new housing and housing additions to determine the appropriate balance to respond to citizen concerns while recognizing the need for new housing options.

A first step to review the mass and scale of new housing would be to revisit lot coverage (building footprint) and floor-to-area ratio (living space per lot area) regulations and observe if they are as effective as was intended when adopted in 2008. Another step would be to investigate the implementation of other regulations to better address mass and scale.

Kirkwood utilizes the 2009 International Building Code (IBC) to govern the design and construction of structures within the city, though the city is in the process of adopting the 2015 IBC. IBC is a performance-based, or use-based, code in that it specifies construction requirements according to separation of usage. The 2015 IBC, takes into account more details of specific building materials, size, context and methods of construction. The City of Kirkwood should consider the utilization of prescriptive building code amendments in order to promote more historical architecture / reconstruction methods within residential and commercial historic districts.



Photo 2-2 Example of a new house vs. an existing house in Kirkwood

1.A. FOR CONSIDERATION

Like many other communities struggling to balance new development with existing structures and the need to keep a community's unique character, Kirkwood should consider a revision of the existing code, the development of a new code, or the creation of a sub-area specific code that creates specific design standards for various areas. A more prescriptive code clarifies the level of detail acceptable by the community which helps articulate design standards.

Here are examples of some regulations that could be applied to new construction in Kirkwood.

BUILDING CODE STANDARDS

Building codes are considered to be minimum consistent standards established to protect public health, safety, property, and the general welfare of a community.

Impervious Surface Coverage

Regulations could be implemented to control and limit the amount of impervious surface on commercial and residential lots. Impervious surfaces are those that cannot effectively absorb or allow rainfall to infiltrate the soil. This includes driveways, patios, sport courts, rooftops and sidewalks.

Impervious surfaces increase the amount of storm water runoff. Additionally, impervious surfaces shorten the time it takes for storm water to reach a stream. This combination creates a greater probability of more severe flooding and erosion and is directly related to overload of the storm water system.

Building Volume Ratio and Floor Ratio

The measurement or control of building volume is another regulated standard.

1.A. ACTION STEPS

1.A.1. Establish a committee of staff and ARB members to review the current architectural design standards including whether or not they are binding.

1.A.2. Draft revisions to the code that provide more prescriptive details to achieve acceptable contextual design in all areas of Kirkwood. These include, but are not limited to, Floor Area Ratio and Lot Coverage requirements.

1.A.3. Present to Council for adoption.

PROJECTED DURATION: 2 years

Champion: Public Services Department/Planning

Supporting: Architectural Review Board, Landmarks Commission

ARCHITECTURAL DESIGN STANDARDS

Architectural design standards help ensure that new construction maintains the character of the community. The goal of such standards is not to limit creativity or to complicate the development process, but to maintain the character and value of the neighborhood. By creating various parameters, new construction as well as additions can be assets to the entire community. Kirkwood currently includes preferred and discouraged design standards; however, a review of these standards to determine if they are still appropriate is recommended. In addition to reviewing the standards, whether or not the standards should be binding should be reviewed. Currently, the only binding recommendations from the Architectural Review Board are for commercial projects in the downtown district and for all multi-family projects. The following are examples of some of the design standards that can be reviewed.

Building Materials

Regulations that define and control external architectural materials and their quality can help designers and developers create attractive housing options that are in line with the context of the neighborhood.

Examples

- Not allowing vinyl siding where no other examples of vinyl siding exist in the immediate neighborhood.
- Requiring that the type of materials to be used for a building, such as brick, stone, lap siding or clapboard should be used in proportion to the surrounding structures in order to reflect the context of the adjacent homes.

Facade Parameters

Many communities have established detailed parameters for height, width, location on a site, percentage of windows or transparent materials of the primary face. The challenge is to find an acceptable balance in establishing enforceable codes that are acceptable to the community.

Garage Placement

Detailed parameters can be provided to ensure that garage locations are consistent with the neighboring structures. These parameters can provide guidelines that detail acceptable location options for the garage, such as behind the home, to the side, or set-back from the front façade.



1.B. Encourage developers and property owners to rehabilitate existing structures and to use green building strategies.

The US Environmental Protection Agency offers a significant amount of resources on Smart Growth and the benefits of preservation. Smart Growth Programs work to identify strategies that help communities grow economic opportunities while protecting the environment and human health. The EPA states that rehabilitating historic properties can be a critical part of promoting energy efficiency by preserving energy already expended, or ‘embodied energy’, in existing buildings. In addition, benefits of renovation of a historic property include:

- Providing a symbol of a community’s commitment to its heritage, character and preservation of sense of place.
- A more efficient building process. “A new, green, energy efficient office building that includes as much as 40 percent recycled materials would take approximately 65 years to recover the energy lost in demolishing a comparable existing structure.” (www.epa.gov/smartgrowth)

“ Kirkwood is losing its charm. Please do something about the infill that is demolishing appropriately-sized home and building McMansions that are not appropriate for the small-size lots.”

– Survey Comment

- Reducing the environmental expense of new construction. Renovation or repurposing of existing structures reduces the need for new construction materials, consumption of land, energy and financial resources.

Kirkwood must determine whether sustainability and preservation are critical in accomplishing the vision the community has for its future. Voluntary programs are rarely effectual and for the City to achieve smart growth that is pedestrian-oriented and works to protect the unique scale and historic character of the community, programs and codes would need to be created and enacted.

1.B. FOR CONSIDERATION

Should the City undertake the task of rewriting or establishing new building and zoning codes, it should implement incentives to help achieve sustainability goals. Such incentives could include:

- Education of the community and developers on the Historic Tax Credit Programs.
- Creation of a sustainability award program for developers and recognition at local events.
- A commercial/retail façade grant or mini-loan program for property owners who want to return a building to its historic appearance.
- Implementing property tax freeze or abatement for a designated number of years on properties that are rehabbed versus torn down. This could also be done for homes that meet a level of LEED (Leadership in Energy & Environmental Design) certification.

1.B. ACTION STEPS

1.B.1 Create a Committee to research and develop potential incentive programs.

1.B.2 Determine management of the program. Create an application and review, reward process.

1.B.3 Develop a schedule of implementation.

1.B.4 Create an outreach advertisement program to local developers and the community.

PROJECTED DURATION: 1.5 years

Champions: Public Services Department/Planning
Supporting: Finance Department, Building Division

GOAL 2 //

Maintain Quality Housing through Property Maintenance Efforts

2.A. Create opportunities to help residents with existing property maintenance issues.

The housing stock within the City of Kirkwood is stable, established and mature. Over half of all the homes in Kirkwood are fifty years or older as can be seen in Figure 2-3. Throughout the comprehensive plan process the issue of affordable housing was raised by participants. The strong Kirkwood housing market often results in the teardown of an older home because it has not been maintained or updated in

many years and the size and layout are not in demand by current homebuyers. The loss of these smaller, often less expensive homes reduces the number of more affordable housing for first-time buyers or seniors.

In order to preserve the value and quality of smaller or older home options, many communities offer home improvement programs to help residents with the general maintenance and curb appeal of their home. The City of Kirkwood currently has a home improvement grant program which is administered through St. Louis County to help residents. Investigating improvements to this program to increase its effectiveness is recommended.



2A. ACTION STEPS

2.A.1. Investigate state, federal or self-created programs that may be feasible within Kirkwood.

2.A.2. Establish incentive amounts, qualifying criteria and an administrative review process.

2.A.3. Advertise program to the community.

2.A.4. Implement program.

PROJECTED DURATION:
1 year

Champions: Public Services Department/Building
Supporting: Administration, Code Enforcement

2.B. Establish vacant building registration/inspection program to prevent property maintenance issues

While Kirkwood is a very stable community with strong property values, some property owners have reached a point where they are no longer able or willing to preserve their property. More than half of all Kirkwood homes are over 50 years old. These older homes often have maintenance issues and, when vacant or abandoned, can become a safety issue for the surrounding neighborhood. The Building and Code Enforcement Departments work in a complaint-based environment to address vacancy problems or neglected structures to bring them into compliance or pursue demolition. The goal is to prevent the significant deterioration that can occur when maintenance is deferred and to ensure that a minimum standard of maintenance is met for the safety of the community.

2.B. ACTION STEPS

2.B.1. Evaluate the current vacant and derelict property procedures. Determine the level of need for a registration.

2.B.2. Establish a registration process.

2.B.3. Set up a GIS database of properties with associated contact information to allow for more efficient inspections.

PROJECTED DURATION:

1 year

Champions: Public Services
Department/Building

Supporting: MIS Department, Code Enforcement

2.B. FOR CONSIDERATION

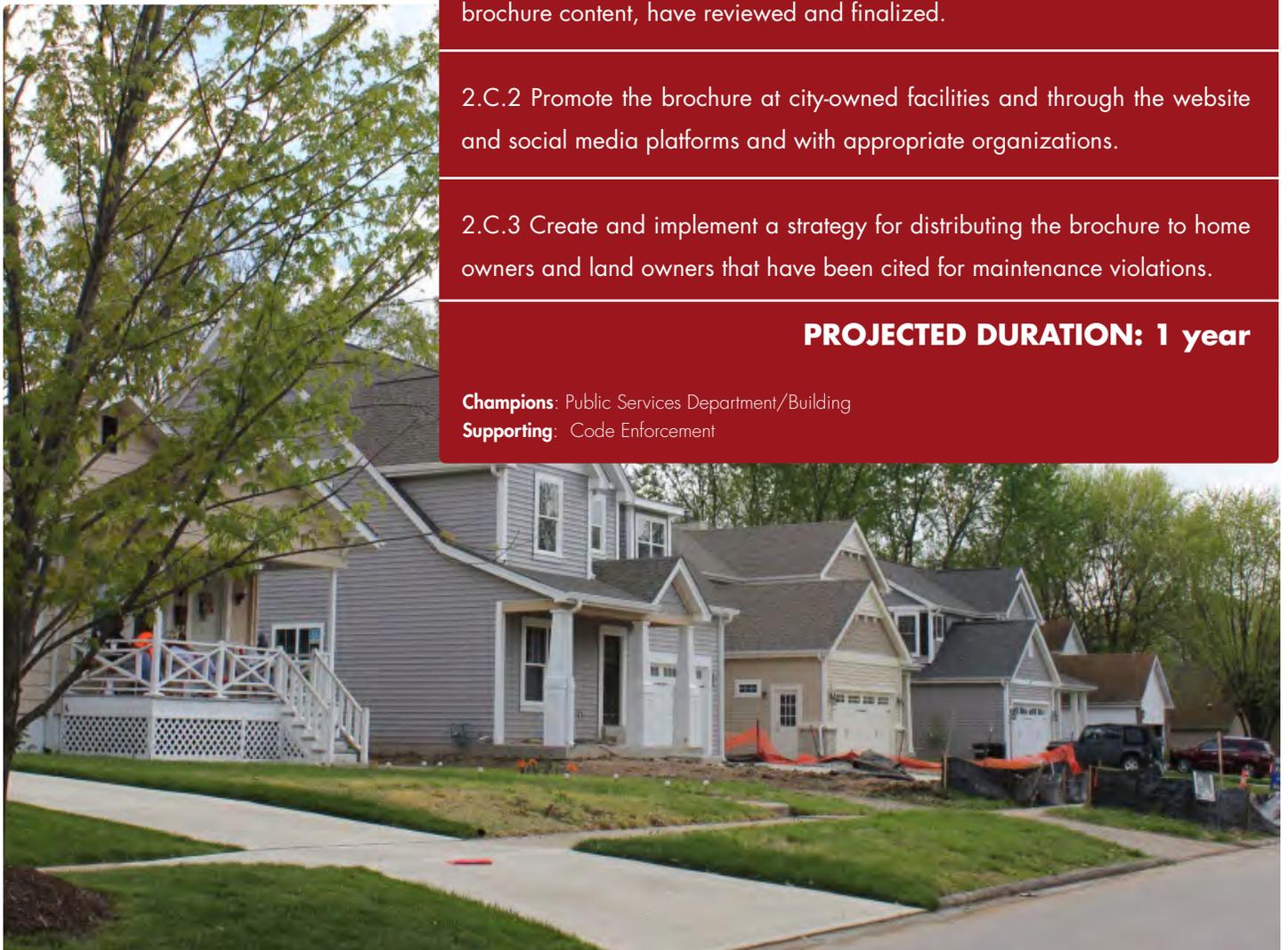
The idea of a vacant building registration program would involve a standard inspection along with an associated penalty fee for vacant properties or those not meeting the standard requirements for maintenance. These processes would create a more formal framework to approach the remediation of these substandard properties by generating a formal listing of properties for Kirkwood staff to address and by creating a financial incentive for properties owners to bring structures into compliance.

More information on best practices can be found in the 2009 Vacant and Abandoned Properties, Survey and Best Practices report which was funded by the United States Conference of Mayors.



2.C. Develop a homeowner brochure that addresses maintenance best practices and resources.

The development of a brief homeowner's maintenance brochure is a cheap and simple way to distribute valuable knowledge and advice so that pro-active maintenance can be taken to prevent costly repairs and City action in the future. A brochure should include best practices for the basic repairs associated with a home, such as: painting, plumbing, energy efficiency, smoke detectors and landscaping. The brochure should provide high level code and permitting information as well as phone numbers and website links for additional information.



2.C. FOR CONSIDERATION

Creating a brochure is only the first step in the process. Distribution of the brochure will be critical in assuring it has an impact. Work with the City's Building and Code Enforcement Departments, and other staff, to create a process for distributing the brochure to properties that have been cited for problems. The brochure should be included in any written notifications sent to the resident and/or property owner.

Consider the distribution of the brochure to local realtors and lenders for distribution to new home owners in the area. Put the brochure on the City website for electronic download. Make the brochure available at City Hall and have staff provide the brochure whenever someone requests a permit. Engage with City staff to determine other opportunities for distribution.

2.C. ACTION STEPS

2.C.1 Working with City staff and reviewing other communities' brochures, identify the appropriate information to include in the brochure. Craft the brochure content, have reviewed and finalized.

2.C.2 Promote the brochure at city-owned facilities and through the website and social media platforms and with appropriate organizations.

2.C.3 Create and implement a strategy for distributing the brochure to home owners and land owners that have been cited for maintenance violations.

PROJECTED DURATION: 1 year

Champions: Public Services Department/Building

Supporting: Code Enforcement

GOAL 3 //

Preserve Historic Buildings & Neighborhoods

3.A. Strengthen city historic district and landmark regulations to preserve historic structures architectural character.

The Landmarks Commission has been active in the City of Kirkwood since 1981. The commission was established to “recognize properties which represent or reflect elements of the City’s cultural, social, economic, political and architectural history”. The commission has been instrumental in the creation of eight local historic districts and over 85 designated landmark properties. The strength of the real estate market has put tremendous pressure on the architectural preservation of Kirkwood’s historic neighborhoods and landmark properties. Historic homes, such as the W.F. Warner House on North Taylor Avenue (See photo 2-3) and the Mooreland

Farm House on Rochdale Drive, continue to be demolished to make room for new single-family construction.

For as much as the Landmarks Commission has done to help preserve the character and historic structures of Kirkwood, without specific ordinances to deny demolition, the destruction of the historic structures of Kirkwood will continue.

Citizens were very united during the public engagement process that stronger regulations are needed to protect historic properties from demolition. At two separate public open houses, 76% and 65% of citizens polled stated they would support a stronger historic preservation ordinance. Although the support was strong during the public engagement process, it is important that Kirkwood acknowledge the role that market forces and personal property rights play in considering stronger regulations.

Some of the options presented at the third public open house include the following changes:

- The establishment of regulations to limit or prohibit the demolition of any historic home over 75 years in age if it is determined to contribute historically and architecturally to the character and context of the community.
- The establishment of additional national, state and local designations of historic areas within Kirkwood which could help minimize demolition of historic structures as more homes would become eligible for tax credits.

Any code or ordinance that is created must be enforceable and should also consider addressing properties that become non-contributing due to additions. In addition, regulations need to consider the condition and integrity of the structure and whether or not it is still a contributing structure.



Photo 2-3 W.F. Warner House, 750 N. Taylor Ave.

“

Listing an historic property on the National Register does not impose limitations or restrictions on the property by the state or federal government. Only local government can afford some protections for historic properties.”

- From the US Secretary of the Interior’s Standards for Historic Preservation.

3.A. ACTION STEPS

3.A.1. Establish a joint citizen/staff committee to review the demolition, addition and new construction processes.

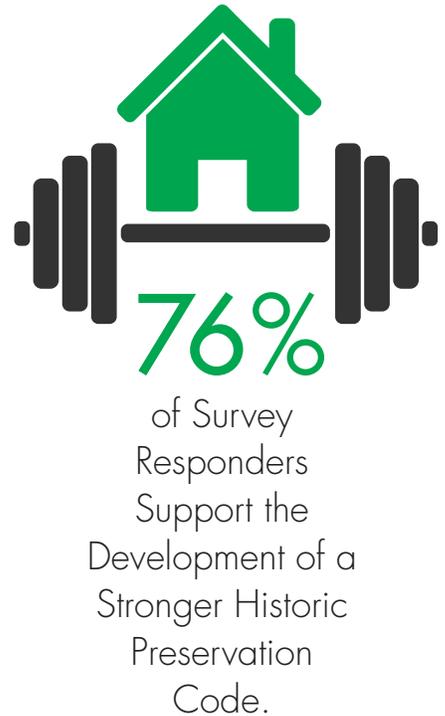
3.A.2. Review the adopted Landmarks Commission (Historic Preservation) Code.

3.A.3. Update the historic inventory forms for landmark properties to identify features that should not be altered.

3.A.4. Draft and prepare a new ordinance that protects landmarks, historic districts and historic homes from demolition as well as alterations that render them non-contributing.

PROJECTED DURATION: 3 years

Champions: Public Services Department
Supporting: Landmarks Commission



3.A. FOR CONSIDERATION

Consider working directly with land owners to determine governance. The Landmarks Commission, working with the Planning & Zoning Commission and City Council, should reach out to residents in each historic district to ascertain whether they would support changes to their immediate district that would create guidelines for additions and architectural alterations to any historic structure as well as further restrict or eliminate demolition of any structure of historic significance within the district. This outreach can help balance the potential for additional restrictions with the potential concern for loss of private property rights.

Based on the responses of the property owners within the areas, the Landmarks Commission, working with the Planning and Zoning Commission, should determine the best next steps for developing a formal ordinance or guidelines.

Although developers often claim the rehabilitation of old structures is too costly, tearing down historic structures and replacing them with new structures comes with extra costs. Review by the ARB, Landmarks Commission, Building Department oversight and at times, Board of Adjustment can all add to the time and cost of new development.

Historic homes are not only part of the unique history and fabric of a community, but their preservation is also a practice of sustainability. Once a structure is gone, it is gone forever. Although not always true, materials used in older homes are often of higher quality with more character. The preservation, repair or partial replacement of materials in these older homes depletes fewer of our natural resources than razing a home and building a new, often larger, home. Additionally, the razing of an existing home creates landfill waste which is unrecoverable.

3.B. Strengthen current regulations to limit teardowns of existing historic buildings and promote rehabilitation.

Not all demolitions in Kirkwood are of historic structures. The National Park Service (NPS) which oversees the National Register of Historic Places (NRHP), created a set of standards which help to determine if a structure is considered to be historic. Per NPS, a building must be 50 years old or older and of historic significance. Historic preservation and the barring or limitation of the demolition of historic structures is not the only issue that necessitates the creation of regulations limiting teardowns.

The trend of tearing down existing housing stock to create new, and often larger, housing is not unique to Kirkwood. This trend, which is impacting communities around the country, can raise a heated debate among members of the community, elected officials and the developers that are proposing new homes. The typical arguments vary and during the EnVision Kirkwood 2035 planning process residents provided a variety of perspectives.

Some residents believe that the newly constructed houses are more sought after because they are new, larger and more expensive than existing homes. While these attributes can provide a boost to the local tax base, others argue that homebuilding that is influenced by trends can cause poor architectural choices that lead to homes that ‘age badly’ and have a long term negative impact on the community.

Another concern cited by Open House attendees was that many of the structures being replaced are homes that accommodated singles, seniors, couples or small young families. Larger homes are often purchased by families, which may add more children to the school system and stress to infrastructure. New home construction may also increase water runoff through removal of landscaping and trees and addition of impermeable land surface.

One additional item of significance is the impact of teardowns on the character of the individual

neighborhoods and the desire of a community to preserve its unique environment. Through public open house meetings and online surveys conducted during the EnVision Kirkwood 2035 planning process residents stated that new construction should be more contextual and sensitive to the existing neighborhood. At the first open house meeting, 86% of survey respondents were most concerned about how the City addresses scale and proportion of new and infill housing in Kirkwood. This was followed by a desire to have regulations to ensure new housing that is architecturally appropriate and contextual.

RESOURCES:

The National Trust for Historic Preservation has an expansive guide that details numerous ways to manage and regulate infill redevelopment, including teardowns. Several potential tools include:

- A demolition fee in an amount that encourages rehabilitation or expansion of an existing home. Typically fees only apply to residential demolition greater than 50 percent or more of the structure.
- A demolition delay ordinance that creates a process where all proposed demolitions are reviewed concurrent with new construction plans and a determination is made whether or not to delay demolition in order to ensure proposed new architecture is consistent with surrounding area.
- Form-based codes to dictate new development through design and physical form, not land use.
- The use of easements and covenants that can be placed on existing properties, especially historically-significant ones, that prevents future demolition.

More information can be found at their website at: <http://www.preservationnation.org/information-center/sustainable-communities/creating/teardowns/Teardown-Tools-on-the-Web-1.pdf>

“Some residents believe that the newly constructed houses are more sought after because they are new, larger and more expensive than existing homes...others argue that homebuilding that is influenced by trends can cause poor architectural choices that lead to homes that ‘age badly’ and have a long term negative impact on the community.”

3.B. ACTION STEPS

3.B.1. Form a multi-disciplinary committee to review potential policies or regulations to discourage and/or regulate demolitions.

3.B.2. Draft a recommendation for approval from City Council.

3.B.3. Adopt demolition limitation regulations.

PROJECTED DURATION:

2 years

Champions: Public Services Department

Supporting: Landmarks Commission, Architectural Review Board



3.B. FOR CONSIDERATION

Many of the goals and issues discussed in Housing and Neighborhoods relate to one another and a few new codes or regulations could quickly advance progress on a number of the issues regarding the preservation of existing homes.

As previously mentioned, any discussion regarding additional and stronger regulation for historic preservation must acknowledge and respect concerns for conflict with personal property rights and market forces within the residential housing market. The City could establish goals to limit teardowns and promoting rehabilitation such as:

- Consider Establishing Protection or Conservation Districts. In areas that may not be historic or have been determined non-contributing, but where residents want to maintain an area's character or general scale, the City could consider developing Protection or Conservation Districts. These districts can establish specific protections or parameters for additions or new construction so that they are complementary to the neighborhood.
- A Renovation Zoning Code. A Renovation Zoning Code can be an overlay to an existing land use code that protects existing historic properties; however, this code would be for properties within those areas and would apply to properties that may not qualify for Historic Landmark Designation or may not be historic.
- A Demolition Delay. The City of Kirkwood already has initiated a significant delay for the demolition of designated historic structures. The City could consider implementing a standard delay of 60 to 90 days for all demolition permits in all areas, or just in specific areas identified as protection or conservation districts.
- Consider a Teardown Fee. One preemptive strategy for limiting demolition can be a fee as a disincentive for removing a historic structure or even a non-compliant structure. These funds can be then ear-marked for affordable housing or other municipal services including the creation of a fund to help save or maintain existing historic structures.
- Establish Enforceable Regulations that Detail Scale and Proportion with New Infill Housing and Additions. This goal recommends the addition of new or more detailed regulation to existing standards to help address mass, scale and character of proposed projects. The parameters must include provisions for consistent setbacks, floor-to-area-ratios, building materials and architectural styles.

Case Study: Lafayette Square

Lafayette Square, a historic district located in St. Louis City is a compilation of Victorian and Second Empire homes that date from as early as 1838, but most from the 1870s-1890s.



Lafayette Square, a historic neighborhood district located in St. Louis City, is a compilation of Victorian and Second Empire homes that date from as early as 1838, but primarily from the 1870s to 1890s. Once a community of affluent business owners and established families, it began its decline with a catastrophic tornado, followed by World War I, the Great Depression and World War II. In the 1960s, with most of the structures having been at one time boarding houses that were then abandoned or in significant decline, a small number of people began to purchase the homes for less than \$10,000.

As people began to reclaim the derelict structures, the community realized they needed to band together to protect the historic character of the neighborhood as well as the 33 acre historic park. Lafayette Square was declared a City Historic District in 1972 and entered in the National Register of Historic Places in 1986.

The City of St. Louis, given the wide diversity of neighborhoods, histories, and architectural styles, established the process of creating district specific ordinances that require aldermanic support and a percentage of property owner support. These ordinances are administered through St. Louis' cultural resources office through cooperation of an appointed Preservation Board.

CULTURAL RESOURCES OFFICE (STAFFED)

St. Louis' cultural resources office provides staff that work with the Preservation Board. They review any proposed project, new construction, proposed changes or demolition in any area that is designated as Preservation Review District or any property listed on the National Register of Historic Places. Demolitions are reviewed under weighted criteria which are detailed in the ordinance. New construction is required to be reviewed by the neighborhood organization and receive a letter of support from the cultural resources office which can be overridden by the Preservation Board.

PRESERVATION BOARD (APPOINTED BY MAYOR)

The nine member appointed panel is made up of eight citizens and design professionals for four year terms, and the chairman of the Aldermanic Committee on Public Safety. Five positions are required to be filled by a registered architect, a registered engineer, a landscape architect or urban planner, a real estate broker, and an art or architectural historian.

SOURCES:

“Sense of Place: Design Guidelines for New Construction in Historic Districts”, A Publication of the Preservation Alliance for Greater Philadelphia. 2007

http://www.preservationalliance.com/publications/SenseofPlace_final.pdf

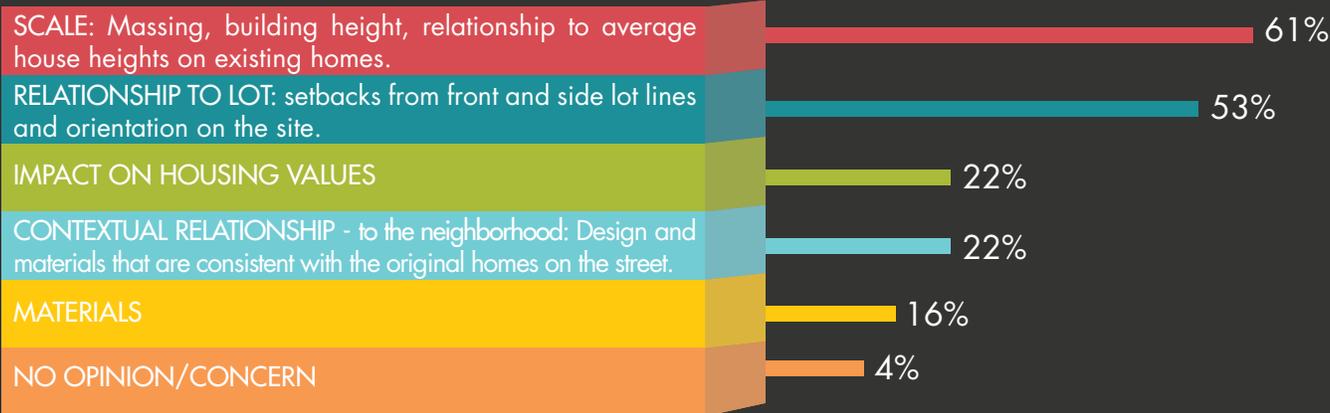
City Historic Districts, St. Louis, Missouri

<https://www.stlouis-mo.gov/government/departments/planning/cultural-resources/reviews/City-Historic-Districts>.

What You Said:

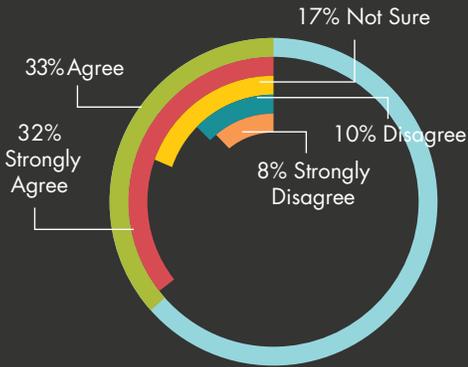
At the Second and Third Open Houses, attendees were asked to help clarify the specifics relating to their concerns about new construction.

The city of Kirkwood has an Architectural Review Board to review new construction and additions to residences and businesses. Survey responders have expressed concern about new housing. Each respondent was asked to rank their top two greatest concerns. (Listed below in order highest to least)

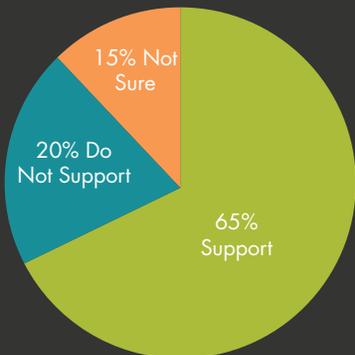


The September EnVision on-line mini-survey asked a general question regarding the demolition of historic properties.

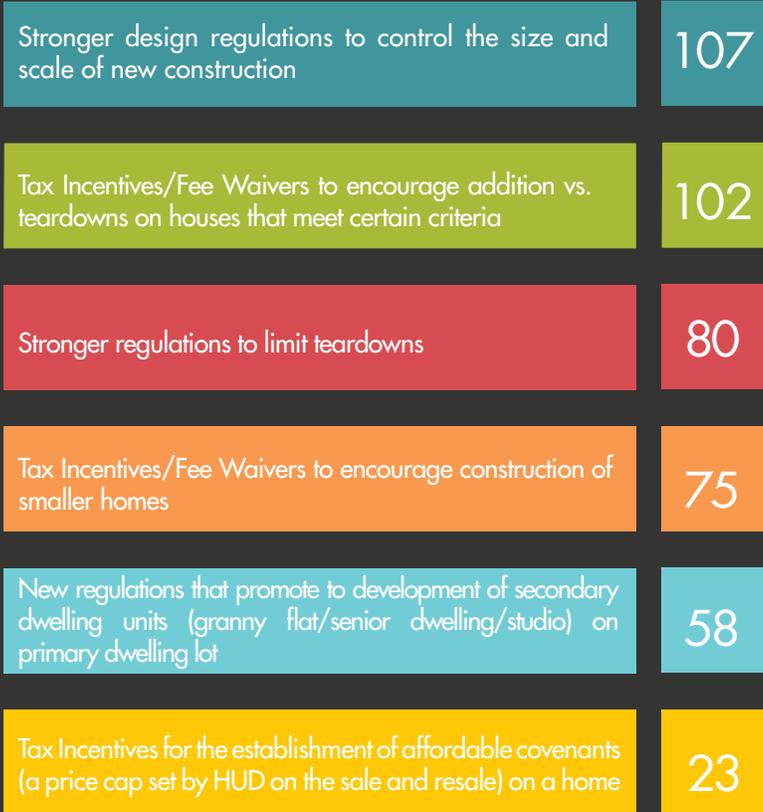
Support for the establishment of an ordinance that would limit demolition of historic properties:



Support for a Stronger Historic Code:



Of the following possible policies or programs which, if any, would you support in the city of Kirkwood? (There were 120 surveyed).



HIGHLIGHT SECTION

The Challenges of Preservation & New Construction

The City of Kirkwood faces complex challenges balancing historic preservation, affordable housing and tear downs that lead to new construction. Historic preservation can be a fundamental tool for preserving a community's character and driving economic growth. However, it takes a willingness to participate in a dialogue by public, private and non-profit sectors to create balanced solutions to the complex issues that face the City.

A strong majority of survey respondents expressed a desire for stricter regulations and limitations on demolition of historic structures and controls on new construction. It is important to note that a community's character is not only comprised of its history and visual character, but also other amenities such as walkability, bike-ability, pedestrian amenities, access to quality schools and community safety. All of these, as well as other physical and non-physical factors, must work in harmony to create a unique and economically vibrant community.

CHALLENGES TO ENFORCEABLE REGULATION IN LOCAL HISTORIC DISTRICTS:

1. Political will

Local elected and appointed officials, around the country, struggle with the balance of keeping their constituents happy and doing what's best for the community. Controversial issues often are shelved rather than risking a public outcry. As previously mentioned, historic preservation regulations can be viewed as an infringement on personal property rights. Acknowledgment and consideration of these private property rights must occur in any review of regulations.

2. Fear of ordinances that are too limiting or grandiose

Any preservation ordinance should be unique to the area to which it applies. Unique sub-areas with their own styles and characteristics have emerged throughout Kirkwood's history. To create a blanket preservation ordinance for all of Kirkwood may, in fact, be too heavy handed. Creating ordinances based on the historically designated neighborhoods and allowing those property owners to determine the extent of the preservation ordinances should be considered.

3. Belief that Preservation is a violation of property rights

Historic preservation law and even private community rules have a long tradition in the United States and have been upheld by courts. Zoning regulations keep residents from tearing down their homes and building an office building, a landfill or even a ten-story apartment complex. For those that live in certain gated communities or sub-divisions, residents are limited by Covenants, Conditions and Restrictions which can include restrictions on grass height, pet ownership, car washing on a driveway, etc. Any potential preservation ordinance should reflect the wishes of the property owners in the impacted area.

4. Belief that Historic Preservation has a negative impact.

Common arguments against preservation ordinances are that restrictions limiting demolition of historic structure will drive prospective home buyers away and that the cost of preserving a building is more expensive than new construction.

However, new homes use a large amount of energy and resources to build. Dealing with an existing home, the land and building are in place and renovation uses less material resources and energy. With the installation of energy saving features, renovation can be almost as efficient, if not more, than new construction.

Not every neighborhood or structure is contributing to the historic past of the community and protections would not apply. Opportunity for new construction would continue to exist.

BENEFITS OF REGULATIONS THAT PROTECT HISTORIC STRUCTURES:

1. Fewer Environmental Impacts
2. Potential for Heritage Tourism
3. Attraction of talent and investment
4. Stabilization of Property Values

SOURCES:

1. "Economic and Historic Preservation: A Guide and Review of the Literature", Randall Mason, The Brookings Institution Metropolitan Policy Program, 2005
2. "Older, Smaller, Better: Measuring how the character of buildings and blocks influences urban vitality", National Trust for Preservation, May 2014
3. "Why do Old Places Matter? Economics", Tom Mayes, Forum Journal, April 2015.
4. "Measuring Economic Impacts of Historic Preservation, A Report to the Advisory Council on Historic Preservation", November 2011, Rypkema D. and Cheong C., PlaceEconomics, Washington DC, Mason, R. PhD, University of Pennsylvania.

GOAL 4 //

Promote Housing to Accommodate Residents of Various Ages, Abilities and Socio-economic Needs

4.A. Support the development of senior-oriented housing and accessible home design.

At the time of the 2010 US Census, approximately 23% of the Kirkwood population was over the age of 60. The aging of the US workforce, or the Baby Boomer generation, will radically alter many aspects of life in America over the coming decades. This trend, coupled with the fact that today's seniors are more active and living longer, healthier lives means that cities will need to be in a stronger position to accommodate senior citizens.

Seniors and people with mobility challenges often need to move out of a community because there is a lack of housing that accommodates their unique needs. One way to help them stay in the community is to promote universal design with respect to housing. Universal design is the concept of creating all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability, or status in life.

4.A. ACTION STEPS

4.A.1. Research implementation methods such as through minimum requirements or an incentive program.

4.A.2. Set up a roundtable discussion with the building community to receive feedback. Distribute feedback.

4.A.3. Write, present and approve an ordinance.

PROJECTED DURATION: 3 years

Champions: Public Services Department

4.A. FOR CONSIDERATION

A number of initiatives influence the development of age and mobility friendly housing and community design options. Such initiatives could include:

- Creation of a Citizen and City Staff Based Task Force. Such task forces are being created around the country, often in partnership with organizations such as AARP, to assess the community's needs relating to livability and to identify areas for improvement. The results from such an analysis would allow the City to create standards for all projects to include amenities and accommodations for all citizens.
- Creation of a Universal Design Ordinance. In many locations around the country this type of ordinance is for larger developments such as a block of 20 homes or for larger multi-family developments. Although Kirkwood is a built-out community, there is always a chance for new development, whether condominiums, townhomes or the subdivision of larger parcels. The City could consider the creation of an ordinance that would require a percentage of universally accessible housing units in new developments.

Having the necessary codes and ordinances in place will help the City reach the goal of having a variety of accommodating housing options.

EXAMPLES

The City of Sacramento, California approved a universal design ordinance for new construction in February 2010. This ordinance requires single family home builders to provide universal design features as an option available to buyers. Single-family and two-family developments of 20 units or more will need to offer basic universal design features to make homes more accessible. Universal design features include, but are not limited to, the following accessible amenities:

- Larger width primary and secondary entries.
- Wider exterior and interior routes.
- A bathroom on route from the primary entry.
- A kitchen on the primary entry level with wider clearances.
- A common use room and bedroom on the primary entry level.
- Outlets at the bottom and top of any stairs to facilitate the use of a chair lift.

The City of Colorado Springs, in conjunction with AARP and the Innovations on Aging Collaborative, issued "Age Friendly Colorado Springs, A Report and Action Plan" in September of 2016 which is an example of a community's proactive approach to accommodating aging and mobility challenged citizens.



Photo 2-5

4.B. Encourage higher density residential/mixed-use in appropriate areas.

Downtown Kirkwood provides the community with a vibrant downtown that acts as the heart of the city. One of the most important ingredients to a successful downtown is a strong residential footprint. When a downtown or other form of commercial area has a “critical mass” of residents, retail follows and the commercial area becomes a place to shop, dine, and socialize. In 2004 Downtown Kirkwood took a leap forward with the mixed-use Station Plaza development which created a civic and commercial gathering space where a big box retailer was once located.

Kirkwood’s commercial areas can be strengthened by the presence of nearby, higher density residential development. A 2014 survey by the American Planning Association found that 56% of millennials and 46% of active baby boomers would like to live in walkable communities that minimize reliance on cars

for access to basic needs. Currently, Kirkwood regulates residential units in downtown and highway commercial districts through either a special use permit or a mixed use development process. Investigating a more streamlined review process may encourage more residential uses in commercial areas and thus increase the customer base within the immediate area.

Another opportunity for creating more housing options through density would be the consideration of secondary/accessory dwelling units. Secondary dwelling units are separate housing units located on the same property as a primary residence. They can either be attached or detached from the primary residence. Secondary dwelling units provide affordable housing that meets the needs of different family configurations. They offer a host of benefits including: increasing housing supply, allowing seniors to live closer to their families and helping young professionals entering the workforce.

“ One of the most important ingredients to a successful downtown is a strong residential footprint. When a downtown or other form of commercial area has a “critical mass” of residents, retail follows and the commercial area becomes a place to shop, dine, and socialize.”

4.B. FOR CONSIDERATION

Like other communities that are working to preserve and enhance their historic downtown areas, Kirkwood must have an updated, well defined plan that captures the vision for the Downtown area. The City of Kirkwood undertook such a process in 2003; the resulting plan was adopted into the Vision 2015 Comprehensive Plan.

An appropriate step toward continuing and supporting the vibrant historic Downtown Kirkwood would be the creation of a sub-area or overlay code that helps define new parameters for renovation, new construction and streetscape design standards. These parameters outline key design elements that create or enhance a consistent pedestrian scale and support the mass and historic character of the area. A specific downtown plan could address the long-term vision area residents have for the downtown relating to:

- Incorporation of more residential/mixed-use development
- Streetscape improvements
- Traffic flow
- Parking
- Lighting
- New construction
- Renovations of, or additions to, existing structures
- Guidelines for the preservation, renovation and re-use of historic structures



Photo 2-6 Downtown Kirkwood

4.B. ACTION STEPS

4.B.1. Determine the need for downtown housing.

4.B.2. Determine action steps to incentivize dense residential developments near downtown if needed.

4.B.3. Consider potential for the allowance of accessory/secondary dwelling units.

4.B.4. Develop and review potential text amendments to the Zoning Code for comment and consideration.

4.B.5. Adopt changes to the Zoning Code as applicable.

PROJECTED DURATION:

4 years

Champions: Public Services Department

Supporting: Building Department, Architectural Review Board, Special Business District

Source

"Investing in Place For Economic Growth & Competitiveness, A Research Summary", American Planning Association, May, 2014.

GOAL 5 //

Preserve and enhance neighborhood retail and services within existing neighborhood centers

5.A. Provide walkable connections between residential areas and neighborhood commercial areas.

Kirkwood adopted a Pedestrian and Bicycle Master Plan in 2015. The plan outlined locations for walking routes based on public comments and identified high priority corridors and destinations. The routes were designed to create a network

of contiguous paths and sidewalks connecting various locations within Kirkwood.

An action item identified within the plan was to prioritize a list of sidewalk gaps and create an action plan to begin filling in those gaps.

Implementing this aspect of the plan furthers the walkability of Kirkwood without creating a significant financial burden. It is the current policy of the City

that the Department of Public Services incorporates sidewalk construction when feasible as an integrated aspect of a road reconstruction project. Closing the sidewalk gaps especially in those areas adjacent to downtown allows residents bicycle and pedestrian access to retail and entertainment. Per recent studies, the ability of a community to have walking and biking amenities increases value and entices new residents into the community.

5.A. FOR CONSIDERATION

As identified in the 2015 Pedestrian and Bicycle Master Plan, Kirkwood should develop a timeframe for the construction new sidewalk sections to eliminate gaps within Kirkwood as identified in the Master Plan. Regular monitoring of sidewalk conditions and improvements will allow the City to plan and budget for on-going sidewalk upgrades.

The City should review current code requirements for housing and commercial developments to ensure that repair, replacement or additions of sidewalks are included in all projects.

5.A. ACTION STEPS

5.A.1. Review sidewalk gap list from the 2015 Pedestrian and Bicycle Master Plan.

5.A.2. Determine if sidewalk construction is feasible as part of a new street project.

5.A.3. Evaluate potential bike routes that can be added based on the bicycle/pedestrian plan.

5.A.4. Construct sidewalks and bike routes as part of street project.

PROJECTED DURATION:

Ongoing

Champions: Public Services Department

Source

"Investing in Place For Economic Growth & Competitiveness, A Research Summary", American Planning Association, May, 2014.



Photo 2-7 A Kirkwood Street without sidewalks



5.B. Review existing zoning regulations for identified neighborhood village retail areas.

The Future Land Use Plan has a specific area, or module type, called Neighborhood Village. This area reflects the development of commercial land uses built around local intersections and is a historical reminder of the initial zoning and land uses in Kirkwood in the 1930s and 40s. The general location of these areas is Geyer Road and Essex Avenue, Woodbine Avenue and Andrews Avenue, and Old Big Bend Road and Ballas Road. Uses in these areas currently include retail services, dry cleaners, convenience stores, automotive repair, hair care and general office uses such as for accountants, financial advisors and real estate professionals.

The purpose of creating specific codes and standards for neighborhood village areas is to support these historically commercial areas as a central gathering place for the surrounding residential subdivisions. Specific design standards and codes would encourage the development of small office buildings, neighborhood-scale retail, and garden apartments or townhomes that would take advantage of the pedestrian-oriented nature of the village. The promotion of neighborhood villages helps to create a more walkable and accessible community and more importantly helps strengthen a sense of place within Kirkwood. The City should pursue the adoption of specific regulations that would allow the identified neighborhood villages to flourish, while protecting surrounding single-family neighborhoods.

5.A. FOR CONSIDERATION

Although Kirkwood's neighborhood villages are small in scale and mass, they provide a more livable, walkable, and sustainable community while embracing its historic past. While some of these areas seem to be flourishing, others have a number of vacancies. Similar to the historic downtown area, Kirkwood should consider creating sub-area plans that directly address how to improve these areas through enhancements such as road diets, bike lanes, pedestrian scale lighting, improved sidewalks and street trees.

Creating a form-based overlay code for the neighborhood villages could help spur development improvements that embrace the neighborhood aesthetic and scale while providing resources to the immediate community and economic growth for the City.

The City of Indianapolis, Indiana along with six key implementation partners developed a plan to help transform neighborhoods and spur urban revitalization. This plan aims to address livability, economic opportunity, population growth and education. As part of their efforts, the partners recognized the role that small pockets of retail play in the fabric of the community and created a guidebook to help support the plan efforts called "Blueprint for an Urban Village."

While Kirkwood's villages would be much smaller in scale and density, the same concept and principles hold true. The blueprint acts as a practical guide for building upon, protecting and promoting the character of an identified village. <http://greatplaces2020.org/>

5.B. ACTION STEPS

5.B.1. Create a Steering Committee that works with Staff to review Kirkwood's current neighborhood business district regulations.

5.B.2. Ensure design standards and codes help facilitate future development and improvements to existing neighborhood villages to meet the vision identified by the community.

5.B.3. Working with the immediate property owners identify and document any unique needs or standards that pertain to the specific area and include within the set of zoning regulations.

5.B.4. Implement revisions to the zoning regulations as needed.

PROJECTED DURATION: 3 years

Champions: Public Services Department

ADDITIONAL RESOURCES & BEST PRACTICES

1. Florissant, Missouri has a Landmark and Historic District Commission which enforces a stronger historic preservation code. The following activities are governed by this Florissant Landmark and Historic District Commission.

- Review any alteration of a landmark property, even if a building permit is not required.
- Prevention of the demolition of a contributing structure in a historic district unless a public health/safety benefit or economic hardship can be demonstrated.

2. Georgetown, Texas established an anti-monotony ordinance that addresses the façade of a new home by requiring review with homes within two lots on either side. A menu of 5 criteria are available for differentiation: type of house, number of stories, type of garage, type of roof, articulation variation. A new home must be different in 2 out of the five categories to meet approval.

3. Preserving Historic Structures

The Technical Services Branch of the National Park Services has an excellent website dedicated to ensuring the proper treatment of historical structures. The Technical Services Branch has developed four approaches to the treatment of historical structures which include: preservation, rehabilitation, restoration and reconstruction.

<http://www.nps.gov/tps/>

4. Form-Based Code Institute

A non-profit professional organization dedicated to advancing the understanding and use of form-based codes. www.formbasedcodes.org

5. Homeowner Handbook Brochure. The Housing and Community Services Department within the City of Wichita, Kansas has a very thorough Homeowner's Maintenance Handbook that addresses maintenance issues, best practices, and provides useful phone numbers for relevant City departments.

www.wichita.gov/Government/Departments/Housing/HousingDocuments/Maintenance%20Manual.pdf

6. Universal Design Ordinance Samples. The 2010 the City of Sacramento, California created an Ordinance that is aimed at encouraging the development of accessible housing options for seniors and those with mobility challenges. <http://portal.cityofsacramento.org/Community-Development/Building/Universal-Design-Ordinance> the City of Sacramento, California created an Ordinance that is aimed at encouraging the development of accessible housing options for seniors and those with mobility challenges.

<http://portal.cityofsacramento.org/Community-Development/Building/Universal-Design-Ordinance>

Mobility & Infrastructure

03

INTRODUCTION

All modes of transportation are key to getting products to market and moving people from one place to the next. Transportation systems are not just highways, but local roads, air traffic, waterways, railways and public transit. Today there is a push to make these facilities multi-use or multi-modal to provide more transportation options including, but not limited to, bicycle and pedestrian options which help alleviate the increased pressure on auto-centric transportation modes.

Infrastructure conditions play a vital role in the long term growth and prosperity of a community. The need for reliable infrastructure in Kirkwood, the St. Louis Metropolitan Area, and the State of Missouri, has become an increasing challenge due to aging infrastructure, deferred maintenance from previous years and a lack of funding at local, state, and federal levels.

Kirkwood, as a built-out city, does not approach mobility and infrastructure from an expansion or construction mindset, but rather a rehabilitation, re-construction and efficiency mindset. The City's network of

“ Love our community. We need our streets, sewers, and water lines repaired. And, we need sidewalks to walk on but I don't support eliminating parking anywhere. It is already at a shortage. More parking means more people which equals more revenue for our city.”

- EnVision Kirkwood 2035 Survey Respondent

streets and utilities have been in place for decades and the next twenty years will be geared toward making these networks as efficient, reliable and user-friendly as possible. When open house attendees and survey responders were asked what the biggest challenges facing Kirkwood in the next 20 years were, three of the top five answers involved mobility and infrastructure. They were:

1. Maintaining infrastructure;
2. Cost of providing services; and
3. Downtown parking/congestion

It should also be noted that, beyond maintenance and the cost of service, Kirkwood residents expect their

infrastructure to be efficient and sustainable. It is no longer acceptable to have a street serve just automobiles, it needs to provide safe accommodations for alternative modes of transportation such as bicycles and pedestrians.

This chapter of the EnVision Kirkwood 2035 plan looks at mobility, the movement of people and materials from one location to another, and the systems, or infrastructure, that make mobility in Kirkwood possible. This infrastructure that supports mobility is the streets, traffic signals, sidewalks, bike lanes and trails, utilities, and public safety services. These elements are all connected via use of the public right-of-way and are all critical factors to the quality of life for all Kirkwood residents.



Photo 3-1 Manchester Road Looking East Near Harrison Avenue

The following is a summary of those areas of mobility and infrastructure that support the lives of the Kirkwood community every day.

THE STREET NETWORK

The City of Kirkwood is strategically located within the regional transportation network. It is bounded on its western and southern borders by interstate highways, I-270 and I-44 respectively. There are also two major regional arterials that traverse the community. Kirkwood Road (Lindbergh Boulevard) moves north/south through the heart of Kirkwood with 25,000 to 35,000 vehicle trips per day according to the Missouri Department of Transportation (MoDOT). This regional thoroughfare connects Kirkwood to south St. Louis County and the important industrial transportation sector of north St. Louis County,

including St. Louis Lambert International Airport. Manchester Road moves east/west along the northern periphery of the city with 25,000 to 35,000 vehicle trips per day. Manchester Road connects Kirkwood to west St. Louis County and the large concentration of retail/commercial centers there. Big Bend Boulevard also serves as an arterial roadway which provides a connection between Kirkwood Road and Interstate 44. According to St. Louis County's Department of Transportation, Big Bend Boulevard carries approximately 18,000 to 23,000 vehicle trips per day.

Maintenance of the roads throughout Kirkwood is shared among the City, St. Louis County, and MoDOT. The majority of roads are maintained by the City of Kirkwood, approximately 124 miles of streets and 116 miles of sidewalks. Of the

52% of Open House Attendees cited street repairs / maintenance is a critical goal.

streets maintained by Kirkwood, 30% are concrete and 70% are asphalt. MoDOT is responsible for approximately 1 mile of Manchester Road and the north and south portions of Kirkwood Road. St. Louis County is responsible for South Ballas Road, West Adams Avenue, and Big Bend Boulevard in Kirkwood making up approximately 9 miles.

Challenges

Cost

The City hired an outside consultant to evaluate and rate the network of streets. This analysis, completed in 2015, has been guiding repairs and general maintenance efforts. One of the challenges facing Kirkwood’s roads is the extensive number of repairs and their related cost. Fifty-two percent (52%) of respondents to EnVision2035 ranked the condition of the streets as a critical priority. This issue was also reflected in the 2016 Community Survey in which 48% percent of survey respondents reported dissatisfaction with the condition of the streets.

Communication

City residents feel the City communicates well with them. Given the strong responses regarding the condition of the streets, the City should take the opportunity to build on the existing communication by providing additional communication with the public on repair progress.

DESIGNING FOR THE FUTURE VISION

The growth of electric cars and the evolution of the self-driving car will have an impact on the City requiring charging stations and possible street design improvements.

In addition, as various sub-areas within Kirkwood are studied, Complete Street design standards and improvements should be considered to help support the vision for those areas and to grow Kirkwood’s walk and bike-ability. Complete Streets provide design considerations to ensure that streets appropriately accommodate all users regardless of age, ability, and mode of transportation.

PASSENGER RAIL SERVICE

A defining element of Kirkwood is its operational train station located in the heart of downtown. It is a symbol of Kirkwood, a landmark, and a transportation hub all rolled into one historic package. It was on the verge of closing in 2002, but in April 2003 the City purchased the station from Amtrak and has maintained and staffed the station with volunteers ever since. The Kirkwood station is also regularly ranked in the top 10 nationally for customer satisfaction amongst Amtrak stations. The station has also inspired the creation of the Kirkwood Train Station Foundation which was founded to raise funding for restoration and continued operation of the historic station as a top-tier Amtrak station.

The station currently serves as a stop on the Amtrak Missouri River Runner route between Kansas City and St. Louis and the eastbound and westbound trains each make

2 stops daily in Kirkwood. Of the ten stops along the route, Kirkwood ranks behind only St. Louis and Kansas City in terms of ridership “on’s” and “off’s”. See Figure 3-1.

MASS TRANSIT

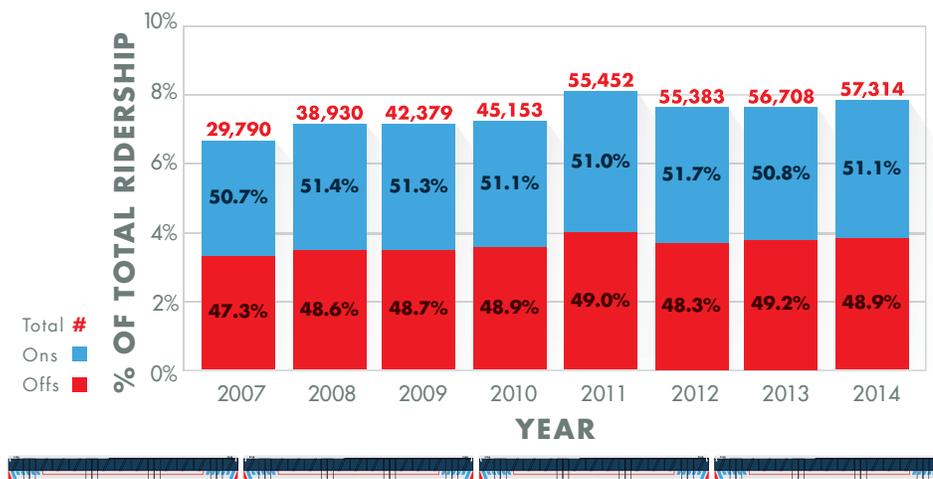
Kirkwood is currently served by Metro Transit, the operator of the public transportation system for the St. Louis metropolitan region, specifically the MetroBus system. At the time of this Plan, there are five principle bus routes that serve the community. These routes connect Kirkwood to a variety of retail, educational, medical and employment centers located throughout the St. Louis region. Routes 21 and 56 also connect with the Shrewsbury MetroLink Station and Route 57 connects to the Maplewood MetroLink Station which ties Kirkwood to the regional light rail system. See Figure 3-2.

ELECTRIC UTILITY

Kirkwood is unique in St. Louis County as the only municipality that owns and operates its electric utility. Kirkwood voters approved the construction of a coal-powered electric-generating plant in 1900. This plant was utilized by the City until the outbreak of World War I in 1914.

Since 2009, Kirkwood has had a 30 year agreement with the Prairie State Energy Campus for energy use from the 1,600 megawatt coal plant located near Marissa, Illinois. Kirkwood has rights to 25 megawatts from this coal plant. If Kirkwood’s daily needs are not met by the Prairie State contract, electricity is purchased on the open-market through the Midcontinent Independent System Operator, Inc. (MISO), which is a not-for-profit, member-based organization administering wholesale electricity markets. The Kirkwood City Council recently approved a power purchase agreement with the Missouri Joint Municipal Electric Utility Commission for 25 megawatts of wind energy from the Iron Star wind generation facility in Kansas. If the Grain Belt Express Clean Line project is granted approval by the Missouri Public Service Commission, Kirkwood Electric will begin receiving that energy in 2021.

Figure 3-1 Amtrak Ridership - Kirkwood



Kirkwood Electric continues to incentivize redevelopment and reinvests approximately 5% of its annual revenue back into the city's general fund in the way of a departmental transfer. Kirkwood Electric has loaned the Recreation Department \$3M for the design and construction of a new performing arts center, and continues to subsidize new service extensions when businesses upgrade or relocate in the city.

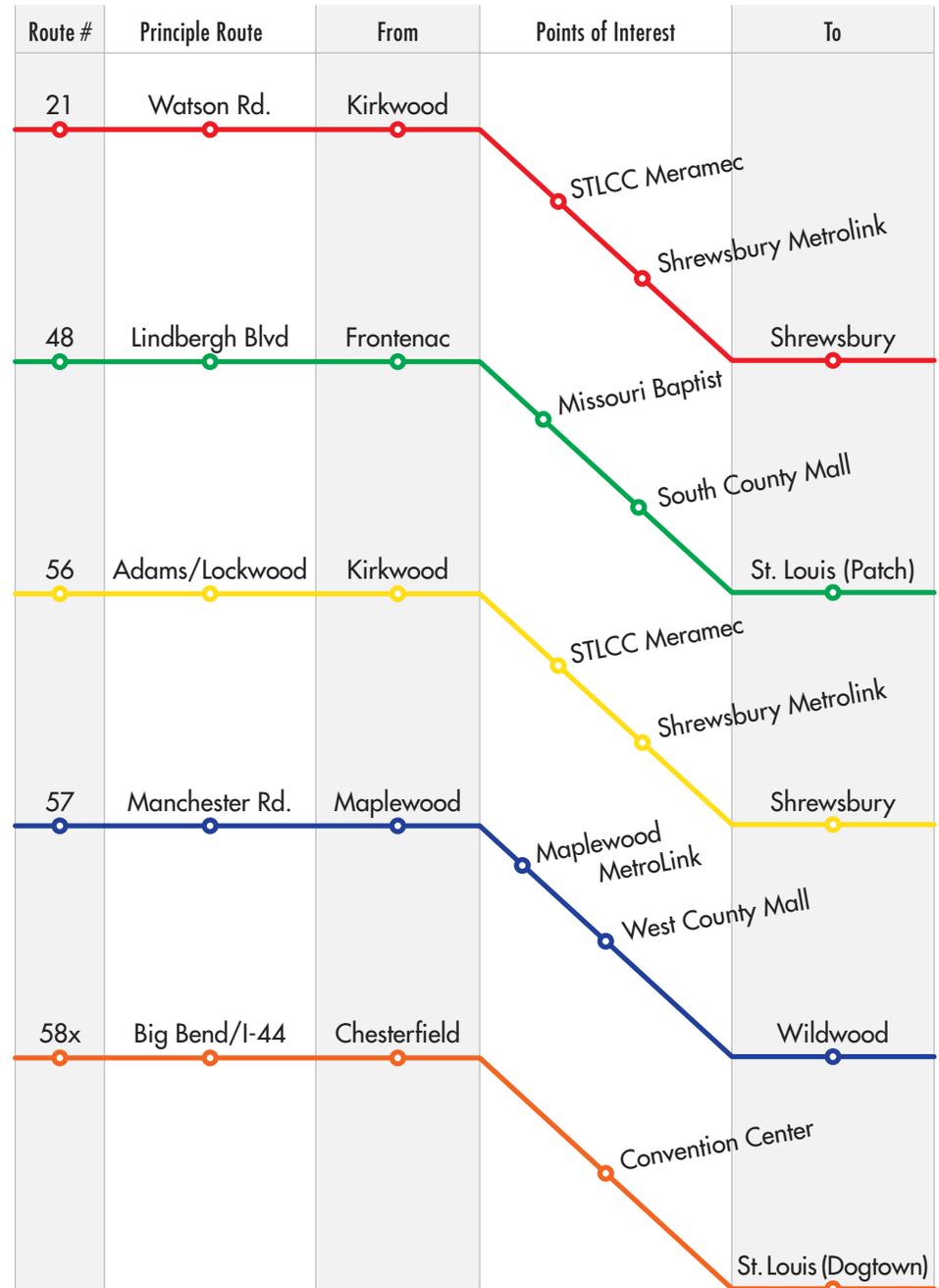
Kirkwood should continue to invest in its electric utility so that it remains viable and reliable far into the future. A healthy Kirkwood Electric gives the City of Kirkwood the opportunity to reinvest in the improvement in the quality of life for the residents, businesses and visitors of Kirkwood.

PUBLIC SAFETY

Fire Department

The Kirkwood Fire Department is an all hazard agency that provides fire suppression, fire prevention, advanced life support services, hazardous material emergency mitigation and technical rescue. The Fire Department serves the nine square miles of the City of Kirkwood and contracts with the City of Oakland from three strategically placed fire stations. The Fire Department consists of 53 uniformed members and one civilian administrative assistant. Each fire station is staffed with a fire suppression apparatus and an advanced life support ambulance. The fire fleet consists of: three rescue engines, one 100' tower ladder, four ambulances, one mini-pumper, two support vehicles, one ATV, and three staff vehicles.

Figure 3-2 Summary of Kirkwood MetroBus Routes



94% of 2016 Community Survey responders ranked their satisfaction with Kirkwood Public Safety Services as **Satisfied** or **Very Satisfied**.

“In order to sustain the reliability of the water system into the future, the City of Kirkwood needs to proactively and pragmatically raise the rate structure to generate new revenue to reinvest directly back into the water system.”

– City of Kirkwood Water Distribution System Master Plan, July 2014, prepared by CH2MHill



Photo 3-2

The Kirkwood Fire Department is also a full advanced life support agency, providing fire-based transport services. Three ambulances are staffed daily with two Firefighter/Paramedics. The fourth ambulance is in reserve.

Community outreach is a major function within the Fire Department. The Fire Department’s goal is to improve the equity of life and safety to the citizens and visitors of Kirkwood and Oakland through various initiatives. These programs are designed to reach targeted risk demographics, such as infants, children, and the elderly. These programs include child safety seat inspections, smoke detector installation, safety talks, and school fire prevention classes. The Kirkwood Fire Department continuously looks for opportunities to collaborate with other entities and to benefit from regional consortia. Due to the size and services provided by the Fire Department and the City of Kirkwood, there are opportunities to expand services in the future.

Emergency Management

Our city Emergency Operations Plan (EOP) originated in March 1987 in coordination with the State Emergency Management Agency (SEMA), St. Louis County, and local authorities. This plan

was designed as an inclusive emergency response to all hazards and includes an all hazards mitigation plan. It is reviewed annually and updated/revised as needed based on new potential threats and response technology. Our Emergency Management mission is to be prepared to implement an effective and coordinated response to any emergency event to protect the lives and property of our citizens and city and when needed, to assist our neighboring cities. Our public safety program is of the utmost importance and root of all our planning and implementation of public services to create, provide and sustain a safe and healthy environment for our city, citizens and visitors.

Police Department

The Kirkwood Police Department consists of 59 commissioned police officers, including a Police Chief, two Captains, five Lieutenants, seven Sergeants, and 44 Officers. In addition, the department employs 14 full-time and 8 part-time civilians working in Administration, Code Enforcement, Dispatch, Records, Municipal Court, and Business District Parking Enforcement. The Department is also assisted by citizen volunteers as part of the Reserve Officers, Police Explorers, Neighborhood Block Captains, and Community Emergency Response Team programs.

The Police Department works to prevent crime and accidents, control traffic, enforce downtown parking, and also provide school resource officers to the Kirkwood School District. While providing these services to the City of Kirkwood, the department also provides the City of Oakland with its law enforcement needs.

WATER UTILITY

Kirkwood has been serving its residents with drinking water since 1903 and is one of the last municipal owned water systems in St. Louis County. The water distribution system serves a population of approximately 27,000 residents inside a service area of 10 square miles. In 2014 the City hired CH2M Hill, an engineering firm, to develop a long-term master plan to evaluate the strengths and weaknesses of the current system and to provide a detailed capital improvement plan. The current water distribution system consists of 135 miles of pipes ranging in size from 2 inches to 24 inches in diameter. Kirkwood receives wholesale water from Missouri American Water Company through 6 points of connection. The maximum contracted rate of water is 9.5 million gallons per day (MGD). The Kirkwood water distribution system also consists of 6 pump stations, 2 elevated storage tanks and 2 ground storage tanks for a total storage capacity of 5.75 million gallons.

Infrastructure conditions play a vital role in the long term reliability of providing quality drinking water and fire protection to the community. The need for reliable infrastructure in Kirkwood has become an increasing challenge due to its aging infrastructure, deferred maintenance and a lack of local, state and federal funding nationwide. The master plan includes financial modeling for the combined capital improvements and replacements to the system with an estimated annual reinvestment cost ranging from \$2.5 to \$3.5 million.

STORM AND WASTE WATER SYSTEMS

Kirkwood has not owned or operated the storm and waste water systems in the

city since the creation of the St. Louis Metropolitan Sewer District (MSD) in the mid 1950's. The City's waste water system is completely handled by MSD. The City of Kirkwood falls within MSD's service area, and will be part of the system wide improvements that have become necessary due to age and demand on the system.

Storm water management is an increasingly important issue at the municipal level throughout this country. The conversion of undeveloped green space to developed land uses, the increase of impervious surfaces on already developed properties, and the re-grading of sites can increase the amount of runoff to streams and rivers. Without adherence to proper storm water management regulations and practices, increases in storm water runoff can lead to increased erosion of streams and more frequent and greater flooding. It is not only important for Kirkwood to implement storm water management regulations, but it is required by the state. Kirkwood is classified as having a Municipal Separate Storm Sewer System (MS4), which means it must meet certain state requirements for management of storm water within its boundaries.

These requirements are currently met through the City being a co-permittee under the Metropolitan St. Louis Sewer District (MSD). The City complies with MSD's regulations and reports annually to MSD to ensure compliance. Due to regulation parameters there are gaps in the implementation of storm water BMP's at localized and/or single residential lot development. Within these gaps MSD does not have the authority to enforce their regulation and Kirkwood does not have ordinances to address these storm water issues.

Kirkwood's storm water issues are generally those that affect smaller streams and tributaries. Excluding the Meramec River, Kirkwood's geography is such that impacts of stream flooding are generally not severe and are more localized. Flooding of the Meramec River can be very widespread; however, in Kirkwood it primarily impacts athletic and recreational property. The Meramec River flood of December 2015/January 2016 and in April of 2017 resulted in hundreds of thousands of dollars in damage to these athletic and recreational properties located in a floodplain along the riverbank with the hardest hit area being in Emmenegger Nature Park.

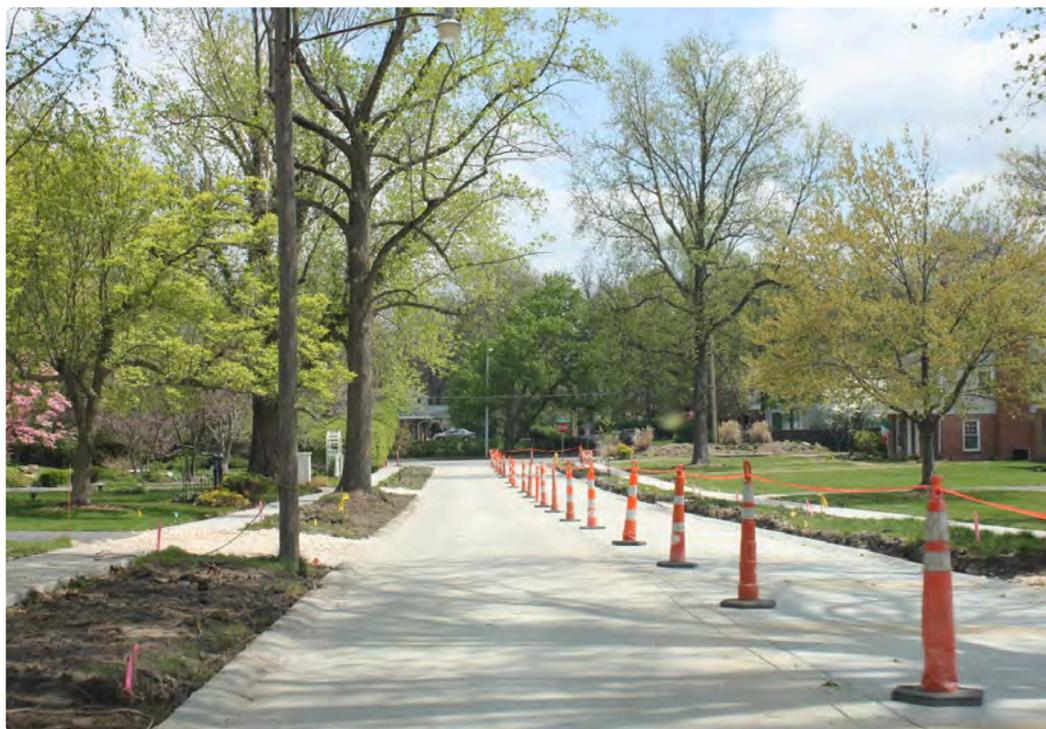


Photo 3-3 Street and sidewalk improvements

Mobility & Infrastructure Goals

<p>GOAL 1 //</p> <p>Improve the maintenance and reliability of Kirkwood's infrastructure and utilities with consideration of technological advances</p>	<p>OBJECTIVES</p> <p>1.A. Maintain and update a pavement condition index for all city streets.</p> <p>1.B. Implement the recommendations of the Electric Distribution Study</p> <p>1.C. Implement the recommendations of the Water Distribution Study</p> <p>1.D. Study the impact of infill and new construction on storm water issues throughout the community.</p>	<p>CHAMPION</p> <p>Public Services Department, Street Department</p> <p>Kirkwood Electric</p> <p>Public Services Department, Water Department</p> <p>Public Services Department, City Forester</p>
<p>GOAL 2 //</p> <p>Become a more walkable and bikeable community</p>	<p>OBJECTIVES</p> <p>2.A. Enhance sidewalk connectivity between neighborhoods, parks, schools and commercial areas.</p> <p>2.B. Identify key pedestrian routes for improved street lighting to promote safety.</p> <p>2.C. Consider adoption of a Complete Streets Ordinance</p> <p>2.D. Improve major intersections and identified gateways with enhanced streetscaping elements.</p> <p>2.E. Implement Argonne Drive streetscaping improvements to improve appearance and walkabil in the downtown area.</p> <p>2.F. Implement the recommendations of the Kirkwood Pedestrian and Bicycle Master Plan.</p>	<p>CHAMPION</p> <p>Public Services Department</p> <p>Kirkwood Electric, Public Services Department</p> <p>Public Services Department/Planning</p> <p>Public Services Department</p> <p>Public Services Department</p> <p>Public Services Department</p>
<p>GOAL 3 //</p> <p>Promote efficient and safe movement of people and goods throughout Kirkwood</p>	<p>OBJECTIVES</p> <p>3.A. Adopt traffic/access management standardsss to promote safe movement through commercial areas.</p> <p>3B. Install traffic calming elements at applicable locations.</p>	<p>CHAMPION</p> <p>Public Services Department</p> <p>Public Services Department</p>
<p>GOAL 4 //</p> <p>Evaluate and update parking standards</p> <p>City-wide</p>	<p>OBJECTIVES</p> <p>4.A. Study the need for additional parking in the downtown area</p> <p>4.B. Review the parking code and investigate the need for new parking standards to meet city-wide market demand, while protecting residential neighborhoods.</p> <p>4.C. Where feasible, create additional on-street parking to meet demand.</p>	<p>CHAMPION</p> <p>Public Services Department/Planning</p> <p>Public Services Department/Planning</p> <p>Public Services Department</p>

GOAL 1 //

Improve the maintenance and reliability of Kirkwood's infrastructure and utilities with consideration of technological advances

1.A. Maintain And Update A Pavement Condition Index For All City Streets.

In both the survey distributed through the Comprehensive Planning Process and in the recent 2016 Community Survey, Kirkwood residents were asked to rate the condition of City streets. Data from the annual Community Survey and the Comprehensive Plan Open Houses indicate that residents have a serious concern about the condition of streets. The City has been proactively working to address the conditions of the streets through a more systematic approach to condition analysis and scheduling of improvements. Public Works has begun using new programming and management software to help manage the process.

A Pavement Condition Index (PCI) is an assessment of the condition of streets based

on a rating scale of 0-100 with 0 being the worst score and 100 being the best score. This assessment is an important tool for overall Pavement Management System (PMS), which plans for pavement repairs and maintenance with the goal of maximizing the value and life of a street. Kirkwood conducted a PCI assessment of its streets in 2015 and found that city-wide, the average PCI score was 64. For concrete streets, the PCI score was 71 and for asphalt streets, the PCI score was 60. These scores help indicate how long a roadway has before it will require either significant maintenance or reconstruction.

While a PCI assessment is a broad overall measurement, it must be done consistently and used in conjunction with other tools and the information integrated into comprehensive maintenance and reconstruction plan. To ensure the accuracy and success of the City's maintenance and reconstruction program, Kirkwood needs to routinely revisit the PCI.

1.A. ACTION STEPS

1.A.1. Update current PCI as projects are completed and maintenance is performed.

1.A.2. Consider a comprehensive review of city streets every 3 to 5 years to renew the PCI.

1.A.3. Incorporate short and long-term projects into the City Capital Improvement.

**PROJECTED DURATION:
ONGOING**

Champions: Public Services Department, Street Department

1.A. FOR CONSIDERATION

The city may also want to consider various methods for providing regular updates on capital improvement projects, including:

- Providing quarterly or bi-annual updates in the Webster-Kirkwood Times.
- Providing updates in utility bills
- Creating a website that provides a map of current and future planned progress.
- Creating small lawn-size signs that mention an improvement project is coming or underway by the City.

1.B. Implement The Recommendations Of The Electric Distribution Study.

Kirkwood is the only municipality in the St. Louis Region that owns and operates its own electric utility. Kirkwood Electric began in 1901 and covers two-thirds of the City. The remainder of the community receives electric services from Ameren UE.

In April 2013, Kirkwood Electric hired Quanta Technology to study Kirkwood's energy delivery system. The results of the study indicated that Kirkwood Electric could serve 1,000 more homes while still purchasing the same amount of energy if it modernizes its network. Kirkwood Electric has always asserted that its plan to upgrade the system would make it much more efficient.

The 2015 study confirms that Kirkwood could save about \$1,800 a day or about \$657,000 a year after the system is modernized. Kirkwood Electric expects to have the new system completed by March 2022. The remaining total cost of modernizing the system is estimated to be a total of \$4,000,000

with improvements occurring annually over the next 5 years at an approximate cost of \$800,000 per year.

The 2016 Community Survey revealed that Kirkwood residents have a very high level of satisfaction related to the overall quality of electric services as well as how quickly Kirkwood Electric responds to outages.

1.B. ACTION STEPS

1.B.1. Integrate the modernization plans into the City's future CIP (Capital Improvement Plan) and finalize funding.

1.B.2. Create an implementation schedule.

1.B.3. Begin modernization upgrades per the implementation schedule.

PROJECTED DURATION: 5 years

Champions: Kirkwood Electric



Photo 3-4

Map 3-1 Kirkwood Electric Company Service Area



1.C. ACTION STEPS

1.C.1. Prioritize water main replacements based on critical need.

1.C.2. Utilize infrastructure renewal fee revenue to replace water mains.

1.C.3. When possible coordinate water infrastructure replacements with street reconstruction projects.

1.C.4. Implement other stated system improvements as practical.

PROJECTED DURATION:
Ongoing

Champions: Public Services
Department, Water Department

1.C. Implement the recommendations of the Water Distribution Master Plan.

Kirkwood adopted a Water Distribution Master Plan in July, 2014. The purpose of the plan is to comprehensively study and evaluate the City's water system infrastructure and to identify strengths and weaknesses of the water utility so that necessary capital improvements can be implemented in order to provide a reliable water system with an equitable rate structure. The master plan determined that the overall existing water system is operating efficiently, yet certain capital improvements are recommended (costing approximately \$42 million over 20 years). A few of the improvements recommended are:

- Piping projects to eliminate head loss near the Swan and Fillmore pumping stations;
- Piping projects to improve fire flow near Woodbine and Magnolia Avenues; and
- Ground storage tank enhancements (mixing units) to improve water quality.

In addition to the aforementioned capital projects, the master plan calls for "significant" renewal and replacement of the water distribution system in order to preserve the reliability of the system. The master plan calls for a proactive and pragmatic approach to raising the utility rate structure in order to generate new revenue to cover the estimated \$42 million cost of renewal and replacement.

1.C. FOR CONSIDERATION

Often upgrades to infrastructure that are located underground can disrupt the community's streetscapes, roads and daily lives. Such infrastructure improvements, while being important to the long-term reliability of the systems, can cause a significant amount of disruption for residents. The City should consider strengthening the following:

1. Improve the existing communication strategy that informs residents of improvements and possible impacts through multiple outreach methods which might include: mailers, news articles, websites, site signage, and notices through other organizations and other City department mailers or emails.
2. Improve coordination of planned work with other agencies to create improvements that occur simultaneously or in sequence with each other. Many infrastructure projects are below grade and directly under the street. City Staff should coordinate improvements to minimize the number of times streets need to be closed or torn up.

1.D. Study the impact of infill and new construction on storm water issues throughout the community.

Kirkwood has instituted several steps during its construction permitting process to ensure that new construction meets the elements of the Storm water Management Plan (SWMP). This includes a site plan review during the permit review process, and inspections of storm water control features, or Best Management Practices (BMPs), during construction. This is done to ensure that new construction does not result in erosion and sedimentation of soil onto neighboring properties or increase the rate of storm water runoff into streams and tributaries. One example of these BMPs is the installation of rain gardens (See Photo 3-5).

Based on commonly received citizen phone calls as well as survey responders during the EnVision Kirkwood 2035 planning processes, the City recognizes that it needs to be more proactive and should develop a more robust plan beyond what is covered in the county-wide SWMP to address storm water throughout the city.



Photo 3-5

1.D. FOR CONSIDERATION

Kirkwood should consider pursuing:

1. The creation of construction codes and storm water BMPs for commercial and residential construction that better address storm water management issues that arise from the cumulative effects of smaller projects.
2. The creation of potential incentives or programs to encourage more neighborhood-level storm water management such as rain gardens, native plantings, reduction in hard surfaces and use of permeable surfaces.

1.D. ACTION STEPS

1.D.1. Hire a consultant to create a stormwater management plan to augment the county-wide SWMP.

1.D.2. Include the removal of barriers to encouraging green infrastructure in the new plan.

1.D.3. Amend the Code of Ordinances to implement stormwater controls and create specific standards within Kirkwood.

1.D.4. Create an outreach program to encourage and educate homeowners and developers on the use of BMPs.

PROJECTED DURATION: 2 years

HIGHLIGHT SECTION

Improving the Sewer System

The Metropolitan Sewer District (MSD) is currently undertaking an ambitious program called Project Clear. According to MSD, the focus of the program is to educate the community on ways to improve the overall sewer system. MSD is focusing on three specific areas:

1. **Rainscaping/Stormwater Management.** Minimizing the amount of rain water entering the system by encouraging the creation of rainscaping, which involves using planting materials, permeable materials, and topography to allow water to absorb slowly into the ground.
2. **System Repair and Maintenance.** MSD has been more proactive on system repairs and monitoring and prevention. In addition, it has initiated an educational campaign to help minimize blockages that occur due to fats, oils and grease (FOG) that are dumped into sink drains.
3. **System Improvements.** MSD has identified the need for repairs and new sewer lines in some areas that will convey waste water and has an extensive plan for upgrading the system over the next 20 years.

Project Clear offers a small grant program to encourage simple techniques to reduce impact on stormwater. MSD, through Project Clear, will spend 100 million dollars to create rain gardens to handle stormwater in a more natural manner. More information can be found at their website. <http://www.projectclearstl.org/>



Photo 3-6



GOAL 2 //

Become a More Walkable and Bikeable Community

2.A. Enhance sidewalk connectivity between neighborhoods, parks, schools and commercial areas.

The Kirkwood Pedestrian and Bicycle Plan was adopted in February 2015. It defined a pedestrian and bicycle route network based on public comments. It also identified high priority corridors and destinations. A prioritized list of sidewalk gaps was created during the creation of the plan.

It is the current policy of the city that the Department of Public Services incorporates sidewalk construction when feasible as an integrated component of a road reconstruction project.

2.A. FOR CONSIDERATION

Active pursuit of federal and other grant funding, when available, could help fund future projects as it was in 2015 for funding of new sidewalks and bicycle facilities. This was done for a new sidewalk connection along the east side of South Kirkwood Road (south of Nipher Middle School) through the Safe Routes to School Program. A large portion of federal grant funding is administered through the local Metropolitan Planning Organization (MPO), East-West Gateway Council of Governments. The City will continue to pursue grants through the East-West Gateway Council of Governments as well as directly from other sources as funding opportunities are available.



Photo 3-7 Kirkwood residents fill out surveys for the Pedestrian and Bicycle Master Plan 2015

2.A. ACTION STEPS

2.A.1. Re-evaluate and update the sidewalk gap priority list created from the 2015 Pedestrian and Bicycle Plan.

2.A.2. Determine if sidewalk construction or improvements are feasible as part of any and all new street projects.

2.A.3. Coordinate with local schools to pursue grant monies to improve sidewalk connections around schools.

PROJECTED DURATION: Ongoing

Champions: Public Services Department

HIGHLIGHT SECTION

Making High Volume Areas Safe for Everyone

MANCHESTER ROAD

Manchester Road, also Missouri Route 100, extends two miles east and west through the northern section of Kirkwood and is owned and maintained by MoDOT. The route is a major arterial with the majority of the roadway consisting of four 12 foot wide lanes. The primary existing zoning along Manchester is B-3, highway business district. A total of six signalized crossings are within the two-mile corridor. Four of the crossings allow a push button to activate the pedestrian crossing, and two crossings do not have pedestrian activation ability. Sidewalks are mostly in place along Manchester Road; however, they vary in widths and conditions.

BIG BEND BOULEVARD AND KIRKWOOD ROAD

The intersection of Big Bend Boulevard (maintained by St. Louis County) and Kirkwood Road (maintained by MoDOT) is another thriving corridor for both small and large commercial businesses. Zoning in this area ranges from neighborhood business to planned commercial along with some multi-family and single family houses. Both Kirkwood Road and Big Bend Boulevard are four-lane roads that widen out to five lanes with center turn lanes at the intersection of the two roadways. There are narrow sidewalks on both the north and south sides of Big Bend from the intersection of Big Bend Boulevard

and Kirkwood Road past Geyer Road to the west and to Interstate 44 to the east.

This corridor does not provide adequate accessibility for other modes of transportation other than automobile and bus. Due to high traffic volumes, wide street widths, and lack of bicycle accommodations, the intersection of Big Bend Boulevard and Kirkwood Road in this area is a poor option for bicyclists. And for a pedestrian, the current state of sidewalks is poor, non-ADA compliant and in some areas, non-existent.

WHAT TO DO ABOUT CREATING A MORE WALKABLE COMMUNITY

In these two heavily trafficked areas, it is important to understand that the roads are owned by other entities. Big Bend Boulevard is owned and maintained by St. Louis County, and Kirkwood Road South of the Burlington Northern Santa Fe railroad tracks is owned and maintained by MoDOT. Manchester Road is also owned and maintained by MoDOT. It is imperative to begin the process of planning these sub-areas in order to ensure that future development will not only have the look and feel that Kirkwood residents want, but that it serves all modes of transportation safely.



Photo 3-8



Photo 3-9

2.B. Identify key pedestrian routes for improved street lighting to promote safety.

The Pedestrian and Bicycle Master Plan referenced in Section 2A specified priority pedestrian routes connecting neighborhoods to schools, parks, and downtown. An improved lighting plan can provide safer routes for all modes of transportation and reduce instances of crime.

A review of studies performed in the United Kingdom and United States over the last four decades shows that crime decreased by 21% in areas that experienced street lighting improvements compared to similar areas that did not. Enhanced street lighting

along the routes identified in the Bicycle and Pedestrian Plan will improve the safety for Kirkwood residents who already use them and encourage greater utilization of the specific routes.

In addition to being aesthetically pleasing, providing more visibility and being a crime deterrent, newer enhanced street lighting can also save the city money through use of more efficient fixtures and LED bulbs.

In 2014 Kirkwood Electric commissioned Ross & Baruzzini, an architectural consulting firm, to analyze the current lighting in the historic downtown district. This study included an inventory of existing lighting fixtures, documentation of lighting levels and provided recommendations for improvements.

2.B. ACTION STEPS

2.B.1. Determine appropriate pedestrian routes that require streetlight improvements.

2.B.2. Prioritize improvements into phases if needed.

2.B.3. Research outside funding opportunities that could supplement City funds.

2.B.4. Evaluate new streetlights to determine if expansion is feasible.

PROJECTED DURATION:

2 years

Champions: Kirkwood Electric, Public Services Department



Photo 3-10 Berkeley, California Streetlight Conversion in Process

2.C. Consider adoption of a Complete Streets ordinance.

Another major recommendation of the 2015 Pedestrian and Bicycle Master Plan is for the city to adopt a Complete Streets ordinance. A Complete Streets ordinance will promote the development and implementation of policies and professional practices that promote streets that are safe for people of all ages and abilities, that balance the needs of different modes of transportation, and that support local land uses, economies, and natural environments. According to the National Complete Streets Coalition, as of 2015, over 700 agencies at the local, regional, and state levels have adopted Complete Streets policies.

The National Complete Streets Coalition has identified multiple elements that a Complete Streets ordinance/policy should include. Some of these elements include:

1. A vision of how and why the community wants to complete its streets.
2. A definition for ‘all users’ that includes pedestrians, bicyclists and transit passengers of all ages and abilities, as well as trucks, buses and automobiles.
3. The ability to be implemented in both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right of way.
4. Encouragement of street connectivity for all modes of transportation.
5. Inclusion of the latest and best design criteria and guidelines while recognizing the need for flexibility in balancing user needs.
6. Solutions that will complement the character of the community.
7. Performance standards with measurable outcomes and next steps for implementation.

EXAMPLE

The City of St. Louis adopted a Complete Streets ordinance in 2010 and amended the ordinance in February, 2015 to incorporate a more multi-department approach to implementation. St. Louis has formed a Complete Streets Steering Committee to oversee the implementation of the policy. This committee will review crash injury and fatality data to identify areas that are deficient and dangerous for users. St. Louis hopes that this more targeted, data-driven approach will lead to more focused investment and improvements where they are needed most.

Another local example can be found in St. Louis County’s integration of the Complete Streets ideas into their various plans and adoption of a Complete Street ordinance. In 2013, St. Louis County revised their “Bicycle Facilities Plan” to include more best-practices and in 2014, a formal Complete Streets Ordinance was adopted by the County. With St. Louis County having ownership of various streets within the City of Kirkwood, coordination with the County’s efforts will be an important step to ensure integration of the efforts at all governmental levels.

2.C. ACTION STEPS

2.C.1. Research nation-wide best practices for Complete Streets ordinance.

2.C.2. Draft Complete Streets ordinance.

2.C.3. Approve Complete Streets ordinance.

2.C.4. Develop a multi-department committee, chaired by Public Services Department, to implement the Complete Streets ordinance.

PROJECTED DURATION: 2 years

HIGHLIGHT SECTION

What are 'Great Streets'?

Similar to Complete Streets, the Great Streets movement came about with the Great Places in America Program started in 2007. Great Streets work to not only create streets designed for **Everyone**, it also takes into consideration the surrounding land use, maintenance cost, landscaping, relationship to context, safety, scale, street scape improvements such as streets trees, lighting, waste receptacles, and the overall character of the street. Great Streets works to combine these elements so they work together to make a street not only multi-user friendly, but makes the street physically memorable. A frequently referenced Great Streets project in St. Louis is Grand Avenue between Arsenal and Hartford. In this example, the scale, site positioning and materials of new construction works to tie into the existing physical fabric of the streetscape. In addition, sidewalks were widened, a turning lane was removed, pedestrian scaled lighting was added along with pervious pavement, rain gardens and trash receptacles.

How can Kirkwood implement a Complete Street Ordinance:

- The City must know the community's vision for the streets.
- Procedures and policies must be reviewed and restructured to accommodate all users on every project.
- Develop new design policies and guides.
- Educate community leaders, staff and citizens on what Complete Streets means for the community.
- Institute performance measures and collect data on how well the street meets its goals and the communities vision.



Resources: American with Disabilities Act, AASHTO, SmartGrowthAmerica.org

Why Should I Care?

The primary focus of street design for a least 60 years has been creating thoroughfares that focused on moving people and goods via automobile from 'Point A to Point B'. This car-centric philosophy has begun to erode as people want to create unique and pleasant places that are destinations with multiple amenities that allow them to stay. Successful small scale community retail areas often incorporate a variety of design elements that make the area more community and pedestrian friendly. Many of these design elements are part of what is called 'complete streets' as well as 'great streets'.

What are 'Complete Streets'?

They are streets that are designed for everyone. Whether new or retrofit, these streets work to safely accommodate children and their safe route to school, adults and those with disabilities, bicycle transportation as well as cars and bus transit. Complete Streets work to be sensitive of the context in which they are in and work to enhance the community.

This design approach takes the focus away from cars, and creates a safe and appealing balance.

Euclidian Code

Regulates land based on use.
Provides proscriptive standards (outlines what you don't want).

Goals

- Reduce density
- Prevent overcrowding
- Segregation of uses based on size, height, noise, pollution
- Provide ample parking

Form-Based Codes

Regulates development to achieve a specific form and emphasizes relationships between streets, buildings, pedestrian and vehicle, and scale. Provides prescriptive standards (outlines what you want).

Goals

- Increase mixed-use within buildings and blocks
- Promote development that is walkable, through emphasis of pedestrian scaled public spaces
- Create zones of higher intensity
- Create mixed-use zones
- Development has a more predictable physical result

2.D. Improve major intersections and identified gateways with enhanced streetscaping elements.

High quality community design contributes to a safe, attractive, and engaging environment that residents, workers, and visitors can all enjoy, and which contributes to a sense of place and identity. Gateways and streetscapes can define the character of a community. Other elements, such as preservation and interpretation of cultural and historical landmarks and the provision of interesting views can add to a city's sense of place, history and identity.

Tens of thousands of people travel through Kirkwood each day. Their impression of the community is what they can see visually through their vehicle. Major intersections and gateways, when designed with enhanced streetscaping elements, can indicate a clear entry into a city and can also provide an attractive and safe street for motorists, pedestrians, and transit.

Gateways can be linear or singular elements, from specially-designed streets or landmarks to signage or public art. The following potential gateways and major intersections were identified through the EnVision Kirkwood 2035 public input process and are noted as such on the Future Land Use Plan.

- Kirkwood Road and Manchester Road intersection

- Kirkwood Road and I-44 interchange
- Kirkwood Road and Argonne Drive intersection
- Kirkwood Road and Big Bend Boulevard intersection
- Geyer Road at the north and south city limits
- Dougherty Ferry Road at the west city limits

The variety of gateway elements at any given location will vary. For some gateways such as those along major city streets, elements will include signage, landscaping and potentially public art. In other areas, gateways may be defined by a combination of landmark elements and the built environment.

EXAMPLE

The community of Lemay in south St. Louis County, in partnership with the St. Louis County Port Authority, developed a Lemay Branding and Streetscape Plan. The plan developed a preliminary streetscape design for important corridors and intersections that represent gateways into the community. The plan included planning and design elements such as: pedestrian lights, road and sidewalk signs, replacement of curbs and sidewalks, and the addition of trees and street furniture. More information can be found at: <http://www.lemaynow.com/lemay-branding-streetscape.html>



Figure 3-3 Visualization of a gateway entrance as part of Lemay Branding and Streetscape Plan

2.D. ACTION STEPS

2.D.1. Prepare a plan for the development of gateways throughout the city.

2.D.2. Identify a financial mechanism (general fund, private monies, grants) for implementation of gateway elements.

2.D.3. Prioritize the gateways within Kirkwood.

2.D.4. Implement the recommendations of the gateway plan.

2.D. FOR CONSIDERATION

Kirkwood can consider developing a pattern book of acceptable streetscape elements for public streets that developers can reference. A streetscaping pattern book is designed to guide public and private entities toward creating an attractive and functional street environment for a community, and to encourage cohesive design for highly visible public right-of-way. A streetscape pattern book should also be used to evaluate new development and redevelopment projects affecting the public right-of-way, and establish acceptable standards and practices that implement the goals and objectives of a comprehensive plan. The City of Kirkwood should consider adoption of such a pattern book so that streetscaping elements over time will be more cohesive and relate to one another.

PROJECTED DURATION:

2 years

Champions: Public Services Department



Figure 3-4 Conceptual Plan for Argonne Drive Pedestrian Improvements

2.E. Implement Argonne Drive streetscaping improvements to improve appearance and walkability in the downtown area.

The 2015 Pedestrian and Bicycle Master Plan recommended that Argonne Drive between Taylor and Clay Avenues be a more pedestrian-friendly street. The city has developed a conceptual streetscape plan for Argonne Drive between Taylor and Clay Avenues that refines the median openings, shortens crosswalks at intersections and creates mid-block crossings (See Figure 3-4). The city used this conceptual plan in its submittal to East-West Gateway Council of Governments (EWG) for a Transportation Alternatives Program (TAP) grant in 2015. The submitted project scored well, but was ultimately not selected for TAP funding. City staff will continue to submit grant applications to EWG for this project in order to help achieve its implementation.

2.E. ACTION STEPS

2.E.1. Submit Argonne Project for federal grant consideration.

2.E.2. Implement the project.

PROJECTED DURATION: 3 years

Champions: Public Services Department

2.F. Implement the recommendations of the Kirkwood Pedestrian and Bicycle Plan.

In 2014, the City began the planning process for a 15 year plan to enhance walking and biking throughout Kirkwood. This process was conducted with a local non-profit, Trailnet, acting as the City’s main consultant on the project. Throughout 2014, various events and analyses were conducted which ultimately resulted in the adoption of the Kirkwood Pedestrian and Bicycle Plan in early 2015.

The plan resulted in a number of pedestrian and bicycle oriented recommendations that were based on feedback from residents at community events, from surveys, and as a part of a steering committee for the plan. These recommendations include a number of pedestrian and bicycle routes that are identified and prioritized in the plan. It will be important for Kirkwood to reference these various routes whenever street and sidewalk projects are undertaken.

2.F. FOR CONSIDERATION

Connectivity and access to trails is one of the consistent recommendations that resulted from the 2015 Kirkwood Pedestrian and Bicycle Plan. One popular example of this is the opportunity for enhanced connectivity that the Grant’s Trail provides for the City of Kirkwood. The City has a very valuable asset with the northern terminus of Grant’s Trail being located at the south end of Kirkwood as seen in Figure 3-5. The City has developed a small parking lot and trail access located at 700 S. Holmes; however, continuing this access into the remaining portions of Kirkwood would provide a significant benefit for both providing access of the regional trail system to Kirkwood residents in addition to providing trail-users from outside of Kirkwood the ability to travel into Kirkwood. While providing an improvement to the bicycle network for transportation and recreation benefits, this would also provide potential economic development benefit through increasing the amount of visitors into Kirkwood. As seen in Figure 3-5, the Kirkwood Pedestrian and Bicycle Plan recommends a combination of on-street and off-street connections to the Grant’s trail.

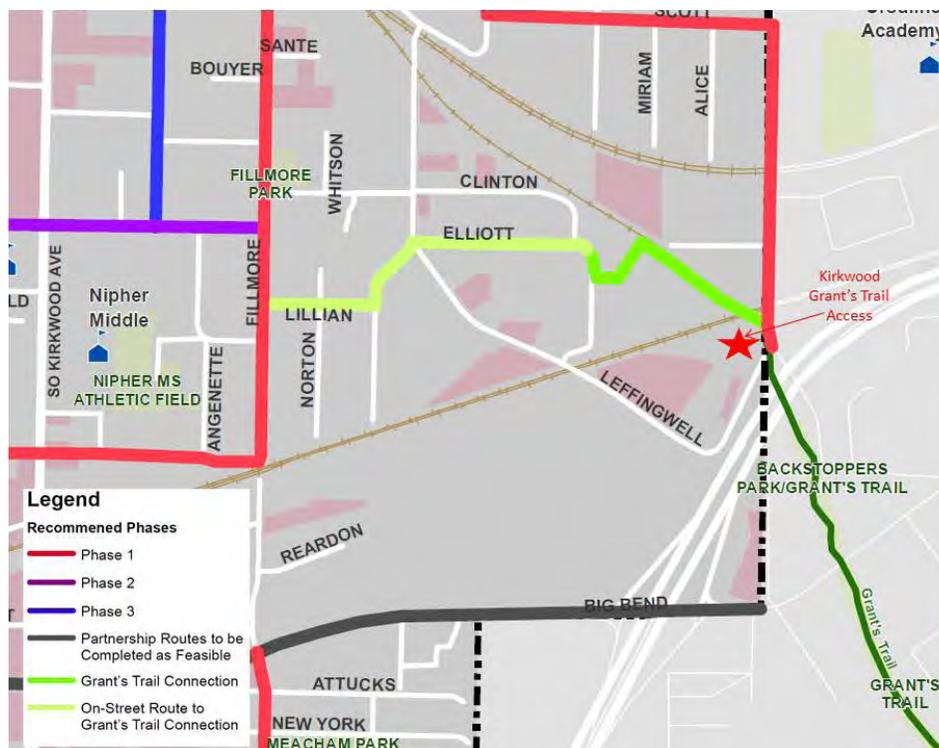


Figure 3-5 Kirkwood Pedestrian and Bicycle Plan Excerpt – Grant’s Trail

2.F. ACTION STEPS

2.F.1. Integrate the recommendations into the City’s future CIPs.

2.F.2. Explore potential outside funding to expand implementation.

2.F.3. Construct the various improvements as part of capital projects.

PROJECTED DURATION:
Ongoing

Champions: Public Services Department

GOAL 3 //

Promote Efficient and Safe Movement of People and Goods Throughout Kirkwood

3.A. Adopt Traffic/Access Management Standards To Promote Safe Movement Through Commercial Areas.

According to the Missouri Department of Transportation, (MoDOT), access management is the proper planning and design of access to the public roadway system that helps traffic flow more smoothly with fewer crashes. Access management guidelines include proper spacing of interchanges, public road intersections, traffic signals, and driveways.

Per MoDOT, roads with poor access management generally experience more traffic accidents and increased traffic congestion which can have negative impacts for adjacent property owners. The Federal Highway Administration reports that more than two-thirds of roadway crashes result from access-related problems.

Kirkwood does not currently have an adopted set of access management standards or guidelines. Such guidelines tend to vary

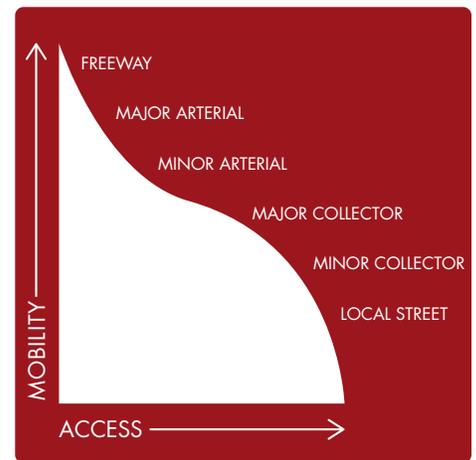
depending on the classification of a roadway and coordination with other agencies responsible for roadways such as MoDOT and St. Louis County.

The roadway classification ranges from a freeway (high speeds and mobility, fully controlled access or no access) to a local street (low speeds and mobility, unrestricted access). Figure 3-6 illustrates the relationship between mobility and access. As mobility, and thus speeds and volumes increase, access should decrease. Conversely, as accessibility increases, mobility and speed decrease.

When too much access is permitted along a road that is supposed to function with higher speeds and mobility, it tends to lead to driver frustration, decreased traffic safety, and more congestion problems.

The City should strive to establish access management guidelines and standards that are appropriate for each roadway classification. The City should also continue coordination with either MoDOT or St. Louis County Highways when pertaining to their right-of-ways. Access management along busy commercial corridors would help

Figure 3-6 Mobility and Access



facilitate safer and more efficient traffic flow, especially in key corridors such as:

- Manchester Road
- Kirkwood Road in the downtown area
- Kirkwood Road north and south of Big Bend Boulevard
- Big Bend Boulevard



Photo 3-11

3.A. ACTION STEPS

3.A.1. Evaluate best practices in the St. Louis region and nation-wide.

3.A.2. Draft access management.

3.A.3. Adopt access management standards.

3.A.4. Implement access management standards as part of the development process.

PROJECTED DURATION: 3 years

Champions: Public Services Department



Figure 3-7 NACTO Example of a Raised Pedestrian Crossing for Enhanced Traffic Calming

3.B. FOR CONSIDERATION

The National Association of City Transportation Officials (NACTO) in 2013 issued the Urban Street Design Guide. This guide is fast becoming the national standard as its recommendations can now be found as point requirements of federal and state grant applications. The Urban Street Design Guide lays out design principles for various types of streets and intersections including crosswalks and pedestrian safety islands. One strategy is shown in Figure 3-7 above.

3.B. Install Traffic Calming Elements At Applicable Locations.

According to a web survey conducted by Kirkwood in June 2015 with respect to transportation goals, the top four goals in terms of priority were:

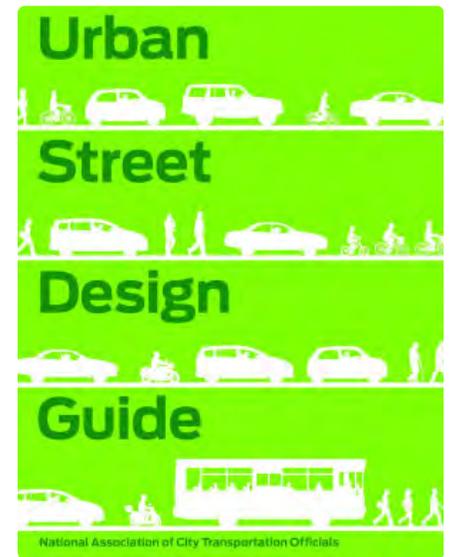
- Improve the maintenance and reliability of city infrastructure and utilities (74%);
- Become a more walkable community (69%);
- Support enhancement of streetscapes (66%); and
- Promote efficient and safe movement of people and goods throughout Kirkwood (59%).

Kirkwood residents have made it very clear that beyond a reliable and well-maintained transportation network, they expect that network to be pedestrian-oriented and safe. The continued maintenance and reconstruction of Kirkwood’s transportation network over time presents an opportunity to redesign and recalibrate this network to better serve pedestrians and bicyclists.

As the transportation network is upgraded, elements can be introduced that promote traffic calming. Traffic calming is the

deliberate slowing of traffic in areas where there is a desire for improved safety and better livability. This can be done through physical barriers or obstructions such as raised crosswalks, roundabouts, road closures, street narrowing and creating of choke-points. It can also be done through non-physical techniques such as speed limit enforcement and driver education. Figure 3-7 illustrates a raised pedestrian crossing as one method that promotes traffic calming.

Kirkwood is working toward this objective by its pursuit of a grant to reconfigure Argonne Drive which would include traffic calming features.



3.B. ACTION STEPS

- 3.B.1. Evaluate and update the current criteria and create a procedure for the implementation of appropriate traffic calming techniques within the City.
- 3.B.2. Create a standard review process for streets selected for upgrade, evaluate for traffic calming enhancements and implement.
- 3.B.3. Pursue grants to implement traffic calming elements.

PROJECTED DURATION: ONGOING

GOAL 4 //

Evaluate and update parking standards City-wide

4.A. Study The Need For Additional Parking In The Downtown Area.

There is an overall impression that available parking in the downtown area can be difficult to find. This was noted during the stakeholder interview process in which, of the 32 challenges listed facing Kirkwood, availability of downtown parking received the fourth most mentions. This perception is despite the fact that the Special Business District produces a printed brochure of available public parking lots and such information is publicized on its website. An updated study to assess the actual parking demand in the downtown area is recommended to assess whether this demand is real or perceived. If the demand is found to be real, the addition of parking spaces could be accomplished through several ways including, but not limited to:

- 1. The conversion of a public surface parking lot to an elevated structure;
- 2. The acquisition of private property to develop an elevated parking structure;

- 3. The acquisition of private property to develop more surface parking; and/or
- 4. The use of private parking lots for public use through agreements with private land owners.

One of the major factors contributing to parking demand in the downtown area is the

number of sit-down restaurants. Sit-down restaurants generate a high degree of demand for parking due to longer stays by customers. Restaurants also require a relatively greater number of employees compared to other non-restaurant retail businesses. However, parking demand fluctuates and should be evaluated in more detail through a parking study for the entire community.

4.A. ACTION STEPS

- 4.A.1. Conduct a downtown parking study.
- 4.A.2. If a demand is present, review all options for new parking including, but not limited to, new lots, new structures, and shared parking opportunities.
- 4.A.3. Develop a financial strategy to study and secure appropriate funding for additional parking.

PROJECTED DURATION: 4-6 years

Champions: Public Services Department/Planning, Special Business District

4.A. FOR CONSIDERATION

North of Adams Avenue between Clay and Taylor Avenues, there are underutilized privately-owned parking lots that could be re-purposed for satellite employee parking if a parking demand is found by the recommended study. Kirkwood has been and should continue to work on addressing the feasibility of utilizing these or other parking opportunities.



Photo 3-12

4.B. Review The Parking Code And Investigate The Need For New Parking Standards To Meet City-Wide Market Demand, While Protecting Residential Neighborhoods.

Since the 1930's, the predominant method of regulating off-street parking is to require a certain number of minimum parking spaces for a given use at peak times.

These minimum requirements are usually not associated with typical parking needs but focus on designing lots to accommodate traffic on the busiest days of the year. This requirement often mandates developers to construct an oversupply of parking to the detriment of landscaping, storm water runoff, and livability.

“ Parking requirements in zoning ordinances create one of the most wasteful elements of transportation and land use systems: unoccupied parking spaces.”

– Richard Willson, “Parking Reform Made Easy”, ACCESS, Fall 2013.

According to the International Parking Institutes's study, 2015 Emerging Trends in Parking, the focus on minimum parking requirements creates significant problems for cities. In response, municipalities are creating new regulations and the concept of “parking maximum” regulations is slowly being adopted across the country. Parking maximums establish an upper limit on parking supply, either at the site level or across an area. Either parking maximum strategy can be imposed in addition to or instead of parking minimum requirements.

Kirkwood's parking standards are based on the concept of determining minimum parking requirements for a specific type of use. The current list of uses is fairly small and sometimes very specific. Parking standards have been in place for many decades and are based on guidelines set by the “Parking Generation” manual published by the Institute of Transportation Engineers (ITE). Often cities base their standards on these decades-old guidelines or on what surrounding cities have adopted. An update to the parking standards and requirements will help to better align current parking needs with other concerns such as storm water and landscaping.

Whereas the developments at Kirkwood Commons are a prime example of parking that is oversized, there is also the issue of parking downtown. Developers often try to push for even more reduced levels of parking for developments that may need more parking.

4.B. ACTION STEPS

4.B.1. Review national parking standards and establish best practices that apply to Kirkwood.

4.B.2. Identify overall parking objectives for the city and prioritize the issue(s) that require immediate attention.

4.B.3. Draft and adopt an ordinance amending the Zoning Code to reflect current national parking best practices.

PROJECTED DURATION: 4 years

Champions: Public Services Department/Planning

4.B. FOR CONSIDERATION

Consider incorporating area-specific parking standards based on density, character and context for such sub-areas as the Manchester Corridor, Big Bend Boulevard and Kirkwood Road and the pocket urban villages, or neighborhood commercial areas.

4.C. Where Feasible, Create Additional On-Street Parking To Meet Demand.

The utilization of existing street right-of-way to create on-street parking is another method to address the potential parking deficiency in downtown Kirkwood. The cost to implement on-street parking would likely be much less than the acquisition of private property for off-street parking. On-street parking can be in the form of parallel parking, angled (diagonal) parking, or 90-degree parking. The configuration of on-street parking would depend on the available width of pavement to be converted.

Where traffic conditions allow it, it is also possible to implement what is known as a “road diet”. A road diet is a transportation planning technique where the number of travel lanes on an existing roadway is reduced and the pavement is converted to some other use, such as on-street parking. Road diets are typically implemented on roads that have experienced a significant drop in traffic and where the reduction of a travel lane, or lanes, does not adversely affect the traffic flow on the road.

A road diet also allows other types of improvements besides on-street parking. These include:

1. Adding or widening of sidewalks
2. Adding or widening of landscaped medians
3. Adding bicycle lanes
4. Adding space in the center of the street for a mass transit option
5. Adding a center turn lane

4.C. ACTION STEPS

4.C.1. Conduct a feasibility study of possible road diet locations throughout Kirkwood.

4.C.2. Do a test of the proposed changes with temporary striping and other materials for a period to determine traffic flow impact and public response.

4.C.3. Pursue grant opportunities for road diet projects.

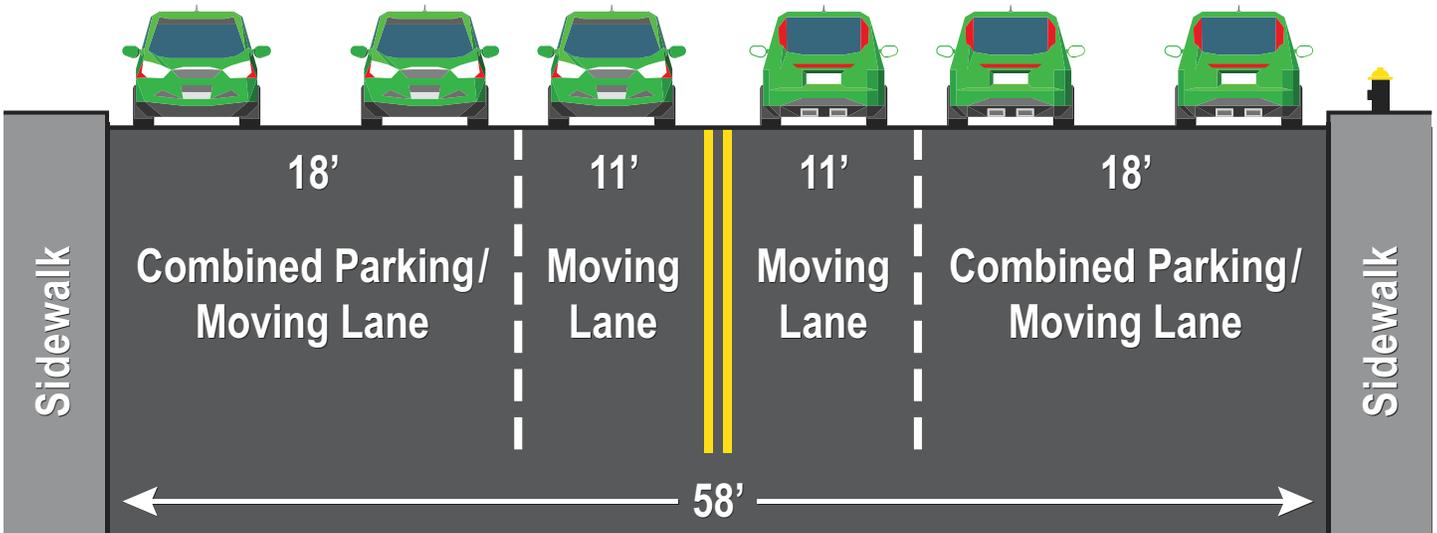
4.C.4. Implement road diet projects with the goal of additional street parking and streetscape improvements.

PROJECTED DURATION: 2 years

Champions: Public Services Department/Planning

The 2015 City of Kirkwood Pedestrian and Bicycle Plan recommends a road diet along Kirkwood Road from Adams Avenue to Washington Avenue and from Monroe Avenue to Woodbine Avenue. This recommendation was made to enhance pedestrian safety and to create expanded on-street parking for the downtown area. To be effective, road diets depend on traffic volumes and speeds. Additional study would be necessary before implementation.

EXISTING



PROPOSED

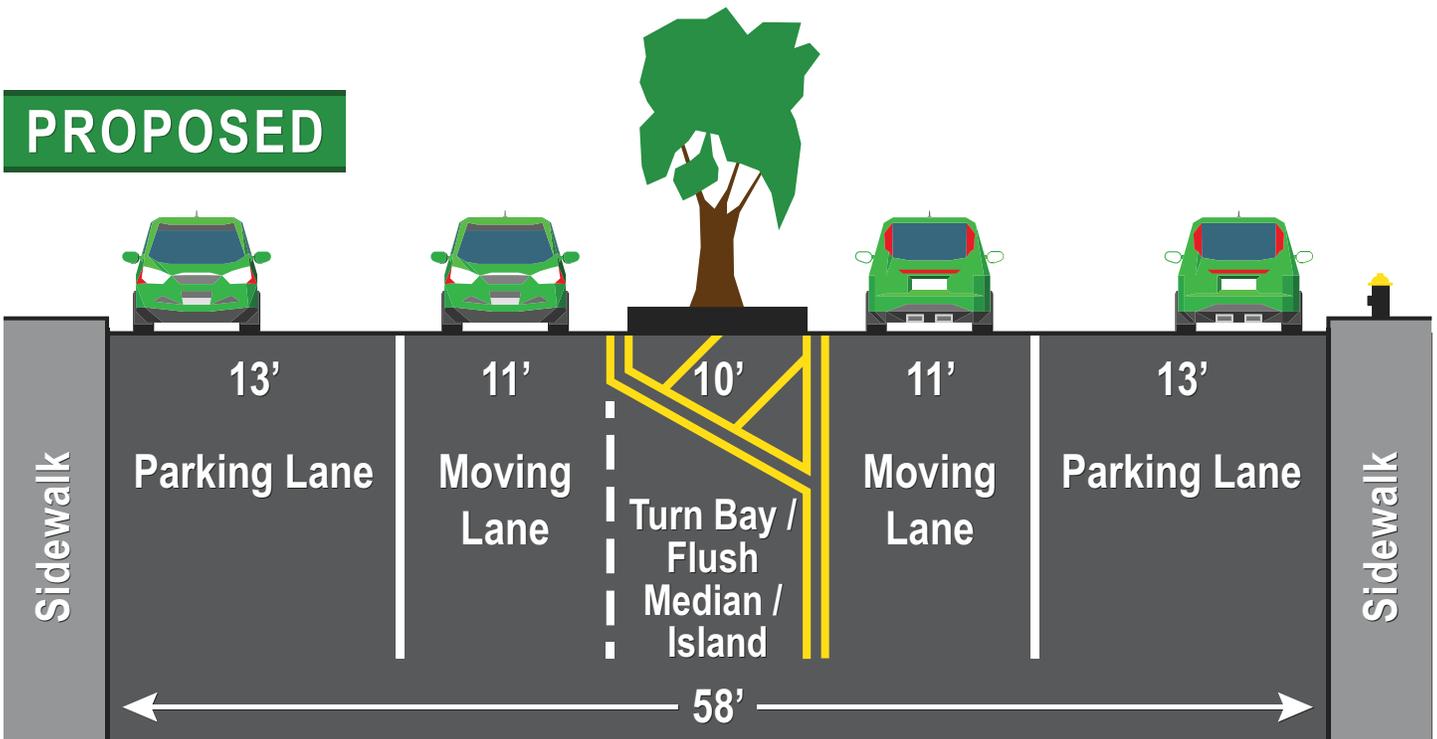
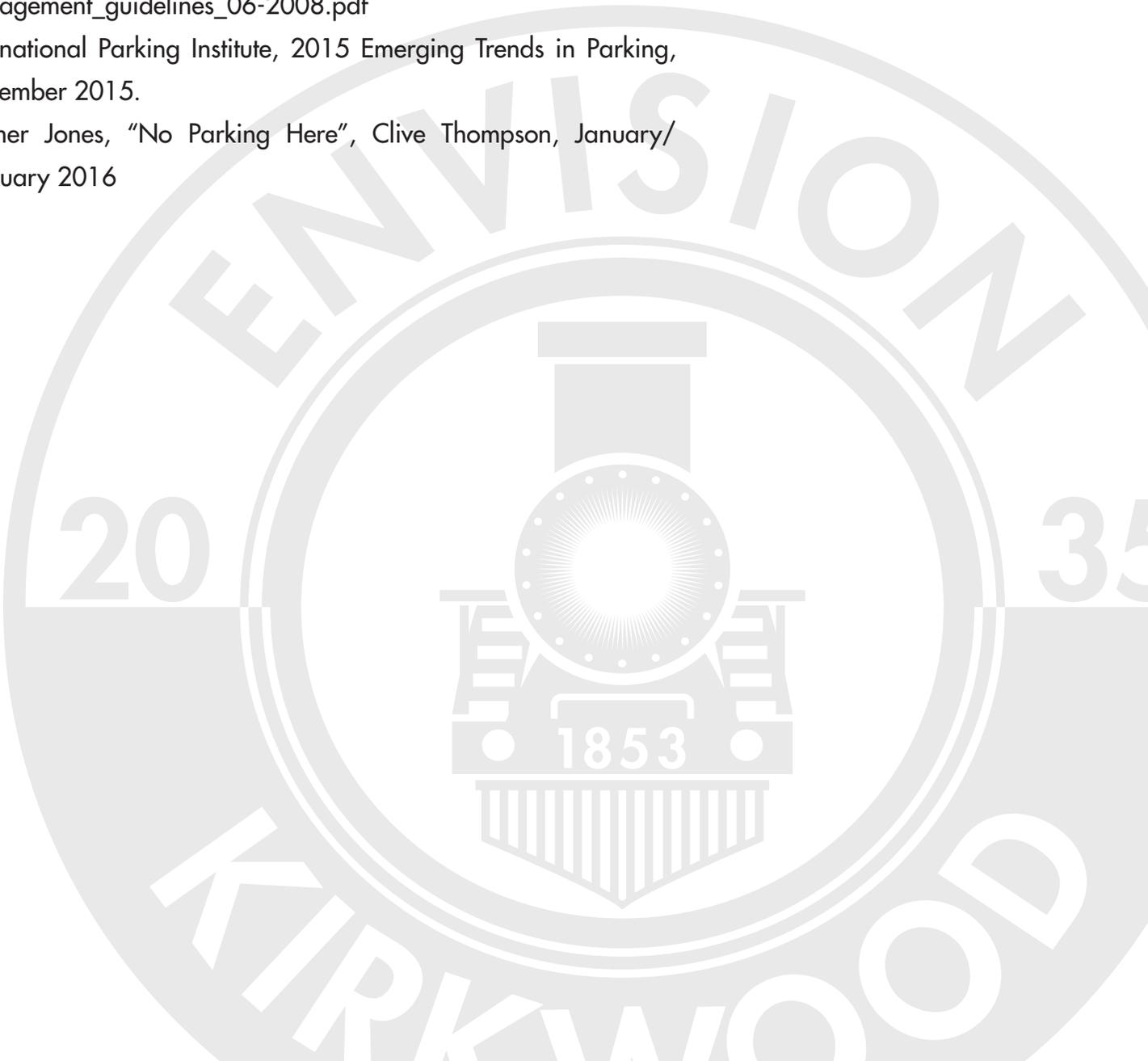


Figure 3-8 Road Diet Example – www.streetsblog.org

ADDITIONAL RESOURCES & BEST PRACTICES

1. MoDOT has a webpage dedicated to access management standards that includes several publications, including a technical manual, of which elements could be incorporated into an access management ordinance.
<http://www.modot.org/business/manuals/AccessManagement.htm>
2. St. Louis County also has published access management standards, which can be found at: http://www.stlouisco.com/Portals/8/docs/Document%20Library/highways/Publications/access_management_guidelines_06-2008.pdf
3. International Parking Institute, 2015 Emerging Trends in Parking, September 2015.
4. Mother Jones, "No Parking Here", Clive Thompson, January/February 2016



Active Living & The Environment

04

INTRODUCTION

This section addresses two important elements of life in Kirkwood:

- The role Parks & Recreation plays in the community now and in the future, and
- The importance of creating more environmentally sensitive policies to help the City and residents of Kirkwood reduce their impact on the environment.

Per the recent “City of Kirkwood 2016 Community Survey Findings Report” published in August of 2016, the City’s Parks & Recreation programs received one of the highest levels of satisfaction ranking by Kirkwood residents. By usage counts, surveys, and daily observation, residents of Kirkwood actively use and support the community parks.

The first city park was designated in 1870 at the corner of Taylor Avenue and Main Street (Argonne Drive) currently the location of the popular Kirkwood Farmer’s Market. The park system has grown considerably since that time with a current total of 14 parks (See Figure 4-1). Today, Kirkwood’s community parks system is well respected in the region and offers amenities to all ages and groups. Continued support and improvements of Kirkwood Park System provides benefits to residents as well as to the environment.

“

The nation behaves well if it treats its natural resources as assets which it must turn over to the next generation increased, and not impaired, in value.”

– Theodore Roosevelt

Environmentally sensitive policies and programs are becoming more necessary to combat the health and environmental impacts caused by issues such as:

- Air pollution;
- Noise pollution;
- Light pollution;
- Wastewater management and pollution in area creeks, rivers and lakes; and
- Resource depletion.

Many of these environmental issues are unintended consequences of how we live today and require a new policy approach to minimize the community’s impact on the environment.

PARKS AND ACTIVE LIVING OPPORTUNITIES

At 92 acres, the flagship of the park system is Kirkwood Park which has served as the

“

71 percent of all millennials reportedly want their home neighborhood to be walkable.”

—“We Want More Walkable Neighborhoods – but Can Our Communities Deliver?” – The Huffington Post, F. Kaid Benfield, 11/30/15.

main city park since its creation in 1941. Located in the heart of the community, Kirkwood Park contains a number of active and passive recreational facilities and is anchored by the Kirkwood Community Center. The community center opened in October of 1967 and serves as a community gathering place and home to the popular ice arena gymnasiums as well as the Robert G. Reim Theater. Kirkwood Park also hosts the award-winning outdoor aquatic center which contains a competitive pool, leisure pool, aquatic playground, and lazy river. Recent enhancements to the park include improvements to the tennis complex and Walker Lake.

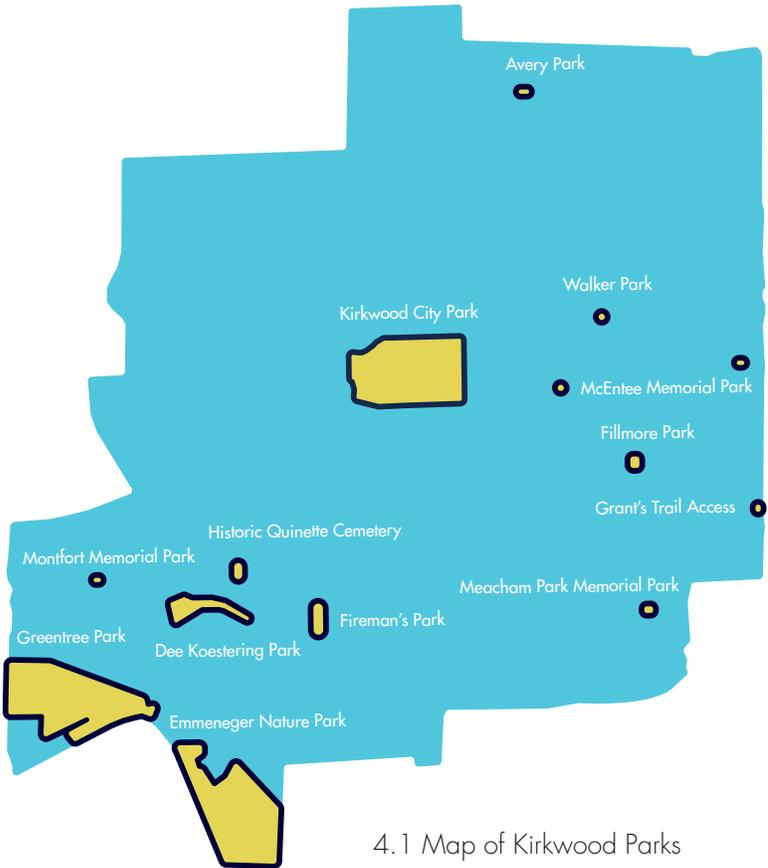
In the 2016 Community Survey, the Parks & Recreation services that residents feel should receive the most emphasis were:

- Maintenance of the parks,
- The quality and condition of the community center facilities, and
- City recreation programs.

One of the largest changes being considered related to the park facilities is the potential development of a downtown performing arts center. A variety of issues and impacts are being considered concerning this new facility and coordinating it with the existing community center and theater. This is one example of how the City of Kirkwood is striving to maintain and improve the level of amenities and recreational experience Kirkwood citizens have come to expect.

4.1 CITY OF KIRKWOOD PARKS

PARK	LOCATION	SIZE
Avery Park	225 Avery Drive	0.75 ac
Dee Koestering Quarry Park	1703 Marshall Road	9.4 ac
Emmenegger Nature Park	11991 Stonewood Drive	134 ac
Fillmore Park	340 S. Fillmore Avenue	1.1 ac
Fireman's Park	11804 Big Bend Blvd.	3.4 ac
Grant's Trail Access	700 S. Holmes Avenue	0.6 ac
Green Tree Park	2150 Marshall Road	82 ac
Historic Quinette Cemetery	12188 Old Big Bend Road	1.9 ac
Kirkwood Park	111 S. Geyer Road	92 ac
McEntee Memorial Park	131 W. Madison Avenue	0.5 ac
Meacham Memorial Park	340 New York Street	1.25 ac
Mitchell Park	115 Mitchell Street	0.37 ac
Montfort Memorial Park	2036 Briargate Lane	0.4 ac
Earl & Myrtle Walker Park	135 E. Washington Avenue	0.5 ac



4.1 Map of Kirkwood Parks



Photo 4-1 Walker Lake

PRESERVATION & CONSERVATION

The City of Kirkwood Park System has grown and evolved significantly over the years. It has accumulated a portfolio of parks that is in keeping with national standards for like cities per The Trust for Public Land's 2015 City Park Facts. According to the Park Master Plan, there are no near term plans for acquisitions of new park land.

As the City owns and successfully maintains over 300 acres of open space, the critical issues for the City on these properties are:

- Continued preservation, conservation, and maintenance of the park system,
- Removal of invasive species,

- Maintenance and protection of mature and heritage trees, and
- Minimization of storm water runoff.

Being focused on these issues will help ensure that the community continues to benefit from the preserved open-spaces that form the park system.

GREENWAYS & CONNECTIVITY

Another important component to provide a community that promotes both active living and a sustainable environment is safe connectivity to parks, shopping districts, schools and other points of interest for all

users, whether walking, running or bicycling. Per the 2015 Bicycle and Pedestrian Plan, written in partnership with Trailnet, getting to Kirkwood Park can be challenging for residents. Reasons for this access challenge included a lack of sidewalks along Adams Avenue, the railroad crossing at South Geyer, and lack of safe bike/ped options along South Geyer. Improving pedestrian and bicycle connectivity to Kirkwood Park and all recreational opportunities in the community would provide many benefits. As an example, better connectivity to the regional trail system via Grant's Trail offers more opportunity to expand recreation and commuting options which can lead to an increased quality of life. One of the commuting benefits that could result from better connectivity to other



Resources:

National Association of Realtors & the Portland State University, 2015 Community and Transportation Preference Survey, July 28, 2015.Pro

The Fourth Economy, “New Economic Realities for Communities Mean New (and More Sustainable) Approaches, October 13, 2015

“The Rise of the Creative Class”, Richard Florida, 2012, Basic Books.

DANIDA Workshop Papers: Improving the Urban Environment and Reducing Poverty; December 5, 2000; Copenhagen, Denmark.

communities would be increased access to transit options throughout the region. It will be imperative to continue to educate all community members of the benefits such connectivity can provide.

The City has enjoyed significant success with Park development and maintenance and has worked toward connecting various amenities through trails and walkways. These connections can increase Kirkwood’s walkability which in turn helps minimize car trips, and improves quality of life.

ENVIRONMENTAL IMPROVEMENT

Improving the environment through sustainability efforts often has different

meanings to different people. For a community to become more sustainable or to be a “green community”, Kirkwood must decide what this means to the community. Acknowledging that we are part of a greater natural eco-system and that future growth and policies should work to minimize negative impacts on our environment is the start of this improvement process. As a community, Kirkwood can work on implementing campaigns and policies to help minimize negative environmental impacts on air quality, water quality, and habitat loss.

One example of a current effort that the City undertakes to improve the environment is its recycling program. The City opened the first St. Louis area recycling depository in 1970 which

became the Francis Scheidegger Recycling Depository. The City of Kirkwood currently provides a recycling cart to all residences for automated, single-stream curbside recycling collection. The City also provides a 24-hour recycling operation at the Francis Scheidegger Recycling Depository where residents may bring recyclable material. Since the beginning of the curbside recycling program, the City has recycled approximately 4,000 tons of material per year.

Active Living & The Environment Goals

<p>GOAL 1 //</p> <p>Provide Amenities that create opportunities for active & healthy lifestyles</p>	<p>OBJECTIVES</p> <p>1.A. implement the recommendations of the Adopted Parks Master Plan.</p> <p>1.B. Promote and grow multi-generational fitness and health programs for all citizens.</p>	<p>CHAMPION</p> <p>Park Board</p> <p>Parks & Recreation Department</p>
<p>GOAL 2 //</p> <p>Maintain open space and natural areas</p>	<p>OBJECTIVES</p> <p>2.A. Coordinate with outside organizations to help with continued support and stewardship of Kirkwood Natural Amenities.</p> <p>2.B. Continue to grow and promote volunteer programs.</p> <p>2.C. Integrate native plantings into city projects and private development that are low maintenance and require minimal care.</p>	<p>CHAMPION</p> <p>Parks & Recreation Department</p> <p>Parks & Recreation Department</p> <p>Parks & Recreation Department</p>
<p>GOAL 3 //</p> <p>Promote a thriving and healthy urban forest</p>	<p>OBJECTIVES</p> <p>3.A. Develop a master plan for addressing the preservation and expansion of the urban forest.</p> <p>3.B. Create a tree preservation ordinance to protect old growth trees and promote new plantings.</p> <p>3.C. Inventory, inspect, and maintain all public trees on a continual basis.</p>	<p>CHAMPION</p> <p>Parks & Recreation Department</p> <p>Parks & Recreation Department</p> <p>Parks & Recreation Department</p>
<p>GOAL 4 //</p> <p>Increase sustainability in the Community</p>	<p>OBJECTIVES</p> <p>4.A. Partner with neighborhood groups and schools to facilitate community gardens.</p> <p>4.B. Continue to educate the community about recycling and explore new recycling opportunities.</p> <p>4.C. Create incentives for commercial and residential developers to practice green building.</p> <p>4.D. Institute internal City agency and department recycling and efficiency programs and measures.</p>	<p>CHAMPION</p> <p>Parks & Recreation Department</p> <p>Sanitation Department</p> <p>Public Services Department/Building</p> <p>Administration Department</p>

GOAL 1 //

Provide Amenities That Create Opportunities for Active and Healthy Lifestyles

1.A. Implement the recommendations of the adopted Parks Master Plan

The City of Kirkwood adopted a Parks & Recreation Master Plan in 2005. The master plan consisted of three major components: new park land acquisition, maintenance and improvements of existing facilities and the creation of a city-wide trail system. The City of Kirkwood and its Parks & Recreation Department have made great strides with respect to the implementation of this plan. A few of the major accomplishments include:

1. Opening Walker Park in 2005 (See Photo 4-3)
2. Completion of four phases of improvements to Walker Lake within Kirkwood Park and the larger Kirkwood Park,
3. Opening Montfort Park in 2008,
4. Opening Avery Park in 2013, and
5. Renovation of Fillmore Park to be completed by Summer of 2017.

The current Parks Master Plan is in the final phases of achieving the remaining goals, which include:



Photo 4-3 Walker Park

1. Renovation of Fillmore Park,
2. Development of additional Greentree sports fields
3. Development of a new Performing Arts Center in the historic downtown area, and
4. Development of the new Community Center.

When these projects begin to wind down, Park and Recreation Staff should begin the process of developing a new Master Plan for the Kirkwood Park and Recreation System.



Photo 4-4

1.A. ACTION STEPS

1.A.1. Review and implement the remaining recommendations of 2005 Parks Master Plan.

1.A.2. Determine the need for an updated 2005 Parks Master Plan.

1.A.3. Begin to plan for a new Parks Master plan.

PROJECTED DURATION: 5 years

Champions: Parks Board, Parks & Recreation Department

1.B. Promote & Grow Multi-Generational Fitness and Health Programs for All Citizens

Kirkwood is fortunate to have a strong recreational program offered by the City's Parks & Recreation Department. A variety of activities and classes are offered throughout the year for residents of all age groups which include such programs as:

- Aquatic activities
- Fitness classes
- Athletic leagues
- Camps
- 55+ oriented programs
- Youth theatre

During the Master Planning process, a number of comments were received requesting that additional programs for some of its recreational programs for seniors be provided and that some of these programs would be at additional locations. The Parks & Recreation Department currently partners with OASIS, a national organization committed to offering seniors stimulating programs for growth and health, for some of its recreational programs.



Photo 4-5 Recreation Station Aquatic Center in Kirkwood Park

1.B. FOR CONSIDERATION

Already partnering with OASIS, the Parks & Recreation Department could consider a variety of responses to address the community requests for additional programming and locations. Consider the following:

1. Actively poll older members of the community to more clearly understand what additional services are needed and achievable.
2. Determine the appropriateness of reaching out to additional sites, such as churches and the Kirkwood School District, to provide additional programs, programming expertise, locations, support and promotion.

1.B. ACTION STEPS

1.B.1. Survey residents on new or additional classes and possible locations that should be considered.

1.B.2. Review findings of survey and determine feasibility of new programs.

1.B.3. Introduce new offerings and locations in recreation calendar and mailers.

PROJECTED DURATION: 2 years

Champions: Parks & Recreation Department, External Partner Organizations

HIGHLIGHT SECTION

THE COMMUNITY CENTER

- Kirkwood is financial partners with Glendale and Oakland in the Aquatic Center.
- In December of 2015 a Feasibility Study and Needs Assessment for the Kirkwood Performing Arts Center was completed.
- In March of 2016 a Community Center Feasibility Study was completed.

January of 2014, ETC Institute Kirkwood Parks & Recreation Needs Assessment Survey.

29% of Survey respondents rated the overall quality of the City of Kirkwood indoor recreation facilities as 'good'.

Reim Theater is home to Stages St. Louis, Kirkwood Theater Guild and Kirkwood Youth Theater

Rec Center approximate average daily attendance

750

2016 Average Daily Outdoor Pool Users

1,173

PARKS & RECREATION AT A GLANCE

The last PARK MASTER PLAN was completed in

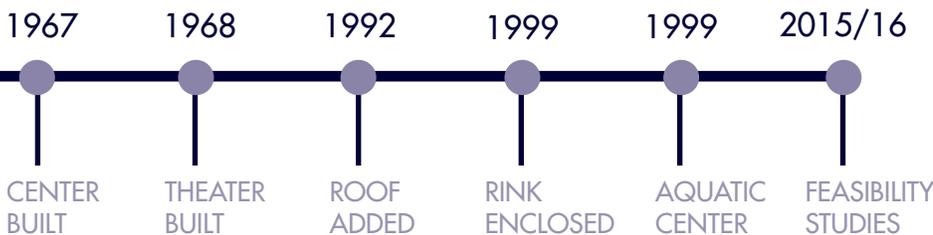
2005

14 PARKS

Ranging From



0.4 to 134 acres



GOAL 2 //

Maintain Open Space and Natural Areas

2.A. Coordinate with outside organizations for continued support & stewardship of Kirkwood's Natural Amenities

There are many parks throughout Kirkwood that provide opportunities for active play and social interaction, but there are also passive, nature-oriented parks dedicated to observing wildlife and the natural environment. Russell E. Emmenegger Nature Park, once part of the estate of the Lemp family, was purchased by Russell

Emmenegger, a real estate developer who donated part of the property to the City of Kirkwood in 1970. It is currently operated in partnership with Missouri Department of Conservation (MDC) and the City of Kirkwood. Emmenegger totals 134 acres and is situated along the Meramec River. Dee Koestering Park is a 9.4 acre nature park on the site of the historic Meramec Highlands Quarry located at 1703 Marshall Road. Although it is not a City park, the 112 acre Powder Valley Conservation Nature Center is partially within Kirkwood's city limits. It was named after the historical use of the general area in the production and storage of explosive powder for the Civil War and World War

II. It is operated by the Missouri Department of Conservation. All of these parks are significant attributes to the Kirkwood community. As such, Kirkwood should coordinate with the various state and local organizations to ensure the continued maintenance and stewardship of these important assets.



Photo 4-6 Emmenegger Nature Park

2.A. FOR CONSIDERATION

There are a number of conservation groups in the State of Missouri that could, if not already, be strong partners to help with the stewardship of Kirkwood’s natural resources. One such group is Audubon Missouri which has a dedicated mission to connect people to nature/wildlife through habitat restoration.

The City could consider building relationships with possible partner groups to help promote these natural areas, including:

- Audubon Society
- Open Space Council
- Great Rivers Greenway
- Department of Natural Resources
- Missouri Stream Team Coalition
- Kirkwood Garden Club
- Kirkwood School District
- University of Missouri Extension

Partnering with the School District could provide an opportunity to educate students on the importance of stewardship and environmental sustainability in the parks and conservation areas.



2.A. ACTION STEPS

2.A.1. Work with the existing organizations responsible for maintaining the parks to identify types of maintenance and stewardship needs.

2.A.2. Identify potential partner agencies and organizations that could provide support to those areas.

2.A.3. Work with partner organizations to develop specific maintenance and stewardship plans and investigate the possibility of creating pilot projects and programs.

2.A.4. Review maintenance and stewardship programs and measure local impacts on an ongoing basis.

PROJECTED DURATION: 3 years

Champion: Parks & Recreation Department

GOAL 1
GOAL 2
GOAL 3
GOAL 4

2.B. Continue to grow and promote volunteer programs

The Parks & Recreation Department of Kirkwood has an established volunteer organization called the Kirkwood Parks Assistance Corp or K-PAC. Since 2012 this group of volunteers has worked to enhance all Kirkwood parks through conservation and restoration of natural landscapes and forests. The following activities have been performed by K-PAC:

- Honeysuckle removal activities,
- Landscaping of city park gardens,
- Replacement of wooden dock at Walker Lake in conjunction with the Rotary Club,

- Construction of a new walking path, Sugar Creek Trail, in Kirkwood Park in conjunction with the Boy Scouts.

K-PAC is managed by a part-time volunteer coordinator within Parks & Recreation.



2.B. ACTION STEPS

2.B.1. Continue promotion of K-PAC to City residents and businesses.

2.B.2. Identify new groups in which to market K-PAC.

2.B.3. Review goals of K-PAC and identify new programs and additional goals.

2.B.4. Identify other volunteer or civic groups to partner together.

PROJECTED DURATION:
5 years

Champions: Parks & Recreation Department

2.B. FOR CONSIDERATION

Currently the City of Kirkwood has a part-time volunteer coordinator. To support growth of a quality and effective volunteer program, the City could consider the following:

1. The possible expansion of volunteer coordinator role,
2. Developing a volunteer recruitment and placement strategy to ensure quality experiences for volunteers
3. Implementing more diverse volunteer activities to attract a broader volunteer base
4. Expanding current volunteer orientation, training, feedback and recognition, and
5. Creating measurable objectives to demonstrate the impact volunteers have on the park system.

The City could also consider creating a unique and effective outreach strategy that emphasizes volunteer roles in health and sustainability.

With a marketing program to grow participation and awareness, the City could expand the existing volunteer program with the help of partners. Possible program expansion could include:

- The addition of a youth component.
- Specific training or classes through Parks & Recreation Department for existing or new volunteers to the program.
- Involvement of the area schools. Consider partnering with some of the teachers for development of re-useable curriculum for various age groups that introduce children to such topics as native plantings, composting, edible gardens, etc.
- Determinations of new outreach methods to grow involvement by seniors and disabled.
- Considering an 'adopt-an-area' program.
- Working with St. Louis County Parks and Forest Park Forever to share lessons learned and explore partnership opportunities.
- Creating a long-term plan for the program that identifies the areas of need for training programs, coordination, marketing, volunteers, project identification and schedules.

2.C. Integrate native plantings into city projects and private development that are low maintenance and require minimal care

Native landscaping is the intentional growing of indigenous plants in their native habitats. As time goes on, plants evolve and adapt to the geography, climate, and hydrology of a region. The Environmental Protection Agency lists the following benefits of utilizing native landscaping:

- Native plants do not require fertilizers.
- Native plants require fewer pesticides than other options.
- Native plants require less water than other options.
- Native plants help reduce air pollution.
- Native plants provide food and shelter for wildlife.
- Native plants promote biodiversity and stewardship of our natural heritage.

2.C. ACTION STEPS

2.C.1. Review existing native landscape programs and initiatives in nearby communities.

2.C.2. Decide the proper method to promote native plantings.

2.C.3. Enact a program to educate developers and residents about native planting options including trees, for new and infill developments.

PROJECTED DURATION: 4 years

Champions: Public Services Department and Parks & Recreation Department

HIGHLIGHT SECTION

The Missouri Prairie Foundation Grow Native! Program is the leading regional program that addresses the use of native landscaping. The program's stated purpose is to help protect and restore biodiversity by increasing conservation awareness of native plants and their effective use in urban, suburban, and rural developed landscapes. The programs' website has a very robust resource guide and native plant information section that can be utilized in order to create a specific program for Kirkwood.

[HTTP://WWW.GROWNATIVE.ORG/](http://www.grownative.org/)

2.C. FOR CONSIDERATION

Kirkwood could consider the establishment of an ordinance that requires the use of native landscaping in city improvement projects and in new construction. This requirement would have long term positive impacts on maintenance costs and stormwater issues. Municipalities across the United States are utilizing native landscaping within landscape buffers and rights-of-way due to the low maintenance and associated cost-savings. Stormwater mitigation is also an important issue addressed by native landscaping as the native plants better allow for filtration. Metropolitan St. Louis Sewer District (MSD) requires BMP, or Best Management Practices, for protecting water bodies from polluted runoff that enters these bodies through the stormwater system.

Additional consideration could be given to the establishment of a watershed coalition, or educational program that works to educate, fund and orchestrate projects that promote native plantings and other BMPs to protect the Meramec and Lower Missouri watersheds. An example of such a program in St. Louis County is the Deer Creek Watershed Alliance, a project partnership with the Missouri Botanical Garden that has offered rainscape rebates and volunteer programs.

GOAL 3 //

Promote a Thriving and Healthy Urban Forest

3.A. Develop a master plan for addressing the preservation and expansion of the urban forest

There are a host of scientific studies and much research that point to the positive impact of a strong urban forest. A few of the noted benefits include the following: property value growth, storm water reduction, air and water quality improvement, reduction of the urban heat island effect, improved energy efficiency and noise reduction. The City of Kirkwood has a long history of working to improve its urban forest as evidenced by the

established Urban Forestry Commission, the hiring of a full-time City Forester, and the citizen-led 50 Trees Program. Despite this strong history, the urban forest is challenged by the redevelopment of residential properties and natural enemies such as the Emerald Ash Borer. The establishment of a master plan to address Kirkwood’s urban forest will help to align multiple parties to work in concert to ensure the viability of this important community asset in the long term.

“The presence of mature street trees and trees in yards can add 3% to 15% to home values.”

- Wolf, K.L. 2007 (August). City Trees and Property Values.



Photo 4-7

3.A. ACTION STEPS

3.A.1. Identify issues and objectives to address.

3.A.2. Outreach to the community for feedback.

3.A.3. Establish an implementation plan between City and affiliated partners.

PROJECTED DURATION: 4 years

Champions: Public Services Department and Urban Forestry Commission and Administration Department

CASE STUDY

The City of Pittsburgh, Pennsylvania adopted an urban forest master plan in 2012. This master plan was broken into four major sections that addressed the following items: the status of the current urban forest and benchmark values, a shared vision of what the community wanted from an urban forest, goals and recommendations for how to achieve the shared vision, and an implementation plan that requires continual monitoring and analysis.

[HTTP://TREEPITTSBURGH.ORG/URBAN-FOREST-MASTER-PLAN](http://treepittsburgh.org/urban-forest-master-plan)



3.B. Create a tree preservation ordinance to protect old growth trees and promote new plantings

The City of Kirkwood is currently in the process of revisiting a tree preservation ordinance for new residential, including infill, and commercial development. The current policy of the city can be described as “Tree Protection” and is voluntary. An infill property must have a tree study performed to catalogue existing trees and list those trees meant to be taken down and those to remain. The trees that are designated by the developer to remain are required to be protected by fencing.

The following Tree Preservation Ordinance Options were presented to Open House attendees. The options were specifically aimed at preservation of existing older growth trees on private land. The options below were created to present broad descriptions of three potential levels of limitations.

This is an important issue to continue to explore in order to find a solution that the community will support. Communities with urban tree canopies from old growth trees benefit from a reduction in the heat island effect, better air quality, shade for homes, help with erosion control, reduction of storm water runoff, and the added financial value to homes. Reduction in the tree canopy can have significant impacts

on the environment. There is considerable concern about several of the regions old growth trees as they are under attack by disease and pests such as the Dutch Elm Disease and Emerald Ash Borer. Old growth tree populations are expected to take a significant hit.

Citizens overwhelmingly favored some form of ordinance when polled during the EnVision Kirkwood 2035 public engagement process with 84% being in favor of a Tree Ordinance. According to the 2016 Kirkwood Community Survey however, only 26% said they would support the development of regulations to govern when trees could be removed on residential and commercial property. Because there is

3.B. FOR CONSIDERATION

The Kirkwood City Forester is currently developing a draft ordinance. This ordinance should build on the feedback provided during the EnVision2035 outreach efforts and the Community Survey. Before a final draft is presented, consider posting it on the City website, publishing it in the Webster-Kirkwood Times, and otherwise inviting the public to weigh in.

The City of Kirkwood should consider the creation of a stronger tree preservation ordinance. Although the City does require permit applicants to provide a tree study and protection fences for existing trees, there is no minimum preservation amount that is required. Permit applicants should be required to continue to provide tree surveys but should be required to work toward saving old growth heritage trees at a minimum.

Based on EnVision Kirkwood 2035 survey responses, residents were in favor of a preservation ordinance requiring:

- New trees be planted to replace old growth trees when they are removed.
- A penalty would be assessed when trees, other than those diseased, dead or of certain species or size, be removed without a permit.

TREE PRESERVATION ORDINANCE

Healthy trees reduce air and noise pollution, provide energy-saving shade and cooling, provide habitat for wildlife and enhance aesthetics and property values. Often new construction, including additions, have a significant impact on the Urban Forest.

The following Tree Preservation Ordinance Options are aimed at preservation of existing older growth trees. These options are broad descriptions of three different levels of a Tree Preservation Ordinance.

OPTION 1

- Removal of 2 of more trees of trunk diameter above 3" would require a permit.
- A landscape plan (stamped by professional landscape architect not required) would be required that includes a reforestation plan with approved tree species to maintain urban canopy.

a disparity in the responses relating to such an ordinance between the Open House surveys and the 2016 Community Survey, the City should consider revisiting this issue directly with the community for a clear direction.

Often new home developers will argue that the protection of trees on a site is too cost prohibitive to the development. While the cost of working around and protecting existing trees may be greater and a nuisance for the builder, studies show that builders do recover the cost of the preservation through higher sales prices and faster sales for houses on wooded lots.

3.B. ACTION STEPS

3.B.1. Determine a clear direction from the community.

3.B.2. Finalize the tree ordinance based on community input and submit to City Council for adoption.

3.B.3. Create an outreach campaign for Community residents and builders to ensure understanding of the ordinance and the long-term benefits. Include this information in any property maintenance and permitting materials.

PROJECTED DURATION: 2 years

Champions: Public Services Department and Urban Forestry Commission and Administration Department

OPTION 2

- Removal of any tree greater than 3" in diameter (bhd - breast height diameter) would require a permit.
- For removal of 3 or more trees with a cumulative total of 30" bhd would require a stamped landscape plan including reforestation plan.
- Replacement of tree would be based on a sliding scale of the size of trees removed. Any new tree planted must caliper at a minimum of 2" in diameter bhd.
- **Example: Removal of one tree between 12"-18" bhd requires 1 new tree be planted. New tree species must caliper at a minimum of 2".**
- **Example 2: Removal of one tree between 18"-24" bhd diameter requires 2 new trees to be planted.**

Note: Citations would be written for non-compliance along with a fee based on number of trees removed and tree size.

OPTION 3

- Removal of ANY tree would require a permit.
- Removal of 2 or more trees would require a stamped landscape plan including reforestation plan.
- The number of replacement trees would be based on a sliding scale of the size of trees removed. Any new tree planted must caliper or a minimum of 2" in diameter bhd.
- A tree Mitigation Fund would be created. This fund, managed by the City, would allow applicants to pay fees in lieu of completing the required plantings. The fund would be used for the maintenance, planting and care of Kirkwood City Trees. An example mitigation formula could be: a 4-inch diameter tree that is replaced 2:1 would require a fee of $\$250 \times 2 = \500 , while a 23-inch diameter heritage tree would be replaced 4:1 equal to $\$250 \times 4 = \1000 .

HIGHLIGHT SECTION

What You Said About Active Living & The Environment



73%

OF OPEN HOUSE ATTENDEES WERE IN FAVOR OF PERMITS BEING REQUIRED FOR TREE REMOVAL

84%

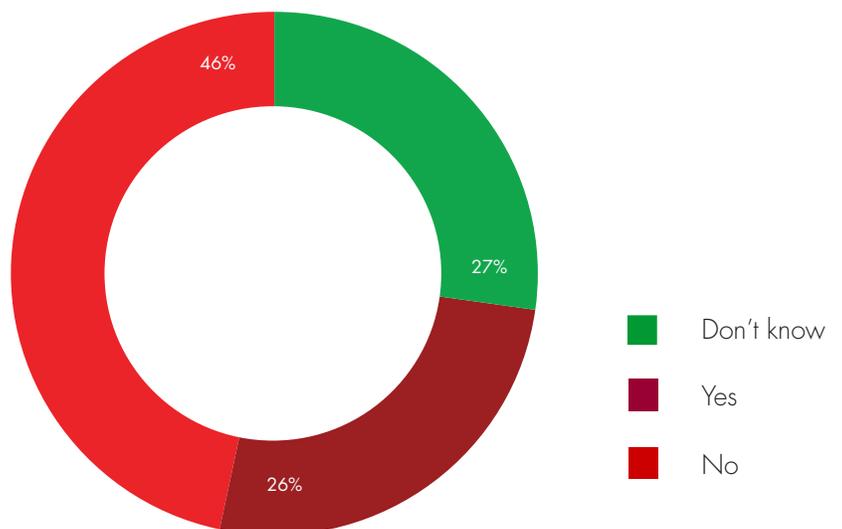
OF OPEN HOUSE ATTENDEES WANT A TREE ORDINANCE

However

The City of Kirkwood 2016 Community Survey recently asked a similar question regarding regulations to govern tree removal.

2016 KIRKWOOD COMMUNITY SURVEY

Would you support the development of City regulations to govern if and when property owners may remove trees on commercial and residential properties?



3.C. Inventory, inspect, and maintain all public trees on a continual basis

A tree inventory allows a community to be proactive rather than reactive with respect to its urban forest. With old growth trees an inventory allows a community to stay ahead of what can be significant tree loss due to disease and storm damage. The City is currently working on completing a tree study by the end of the 2017 fiscal year.

Benefits of a tree inventory include:

1. Providing information for the development of management and policy recommendations,
2. Documenting the species distribution of our urban forest,
3. Determining the overall health of public trees,
4. Determining the quantity and location of potential tree planting sites,
5. Quantifying the dollar value of the community's urban forest,



Photo 4-8

6. Facilitating a comprehensive funding strategy involving public and private funds for inventories and maintenance,
7. Prioritizing maintenance schedules to reduce the potential liability that results from hazardous trees,
8. Streamlining the efficiency of street crews and facilitate long-term budgeting, and
9. Providing the basis for the development

of a comprehensive community forestry management plan.

The City of Kirkwood began an inventory of public trees in 2014 with the utilization of a \$10,000 State of Missouri Tree Resource Improvement and Maintenance (TRIM) grant. As of December, 2015 after receiving a second TRIM grant, the City has inventoried over 5,000 public trees or approximately 60% with a goal to complete the study by the end of the 2017 fiscal year.

3.C. FOR CONSIDERATION

Kirkwood should continue to seek out grants or other funding opportunities to implement the recommendations of the tree inspection and inventory. Establishment of a rolling maintenance program will allow the City to have an updated inventory at all times. The ongoing management of an inventory will assist the protection of Kirkwood's current trees, provide information to identify issues, and provide a resource for future planting.

3.C. ACTION STEPS

3.C.1. Analyze the inventory data to create a full understanding of the age and condition of Kirkwood's Urban Forest and what steps are necessary to maintain and enhance it.

3.C.2. Apply for grants to fund recommendations of the inventory.

**PROJECTED DURATION: 2
years**

Champions: Public Services Department

GOAL 4 //

Increase Sustainability in the Community

4.A. Partner with neighborhood groups and schools to facilitate community gardens

Community gardens are small public spaces where citizens can come together and grow food. Currently, a community garden can be found on the south side of Walker Lake in Kirkwood Park. Numerous research studies highlight the benefits of community gardens such as the fact that gardeners have a healthier diet and are more involved in their community. Community gardens tied to schools have also shown positive impacts on students in terms of academic achievement and social and emotional health according to a study performed in 2007 titled *Beyond the Garden: Impacts of a School Garden Program on 3rd and 4th Graders*. Although some schools have already established community gardens in Kirkwood, investigating further opportunities for expansion and improvement could be beneficial.

Kirkwood's Parks & Recreation Department has long provided support to individuals and groups interested in starting and maintaining community gardens. Information on how to start and maintain a community garden is available through the Community Center.

4.A. FOR CONSIDERATION

The Parks & Recreation Department could consider using K-PAC, the volunteer group coordinated by Parks & Recreation, and/or residents already active in the Community Garden to help distribute information about creating a community garden. This effort would help expand the existing support already provided by the department. This could include basic information including:

- How much space is needed,
- Soil preparation, care and keeping,
- Water sources,
- Ideal native plantings,
- What yields could be expected,
- How schools could use the gardens for learning as well as produce to feed students, and
- Necessary winterizing procedures.

In addition, there are local organizations and businesses that could provide guidance, information and even education. The City could consider contacting:

- Gateway Greening
- St. Louis Compost
- Missouri Department of Natural Resources
- Missouri Botanical Garden
- University of Missouri, Extension
- Meramec Community College

4.A. ACTION STEPS

4.A.1. Review the Zoning Code and other City regulations to identify any potential barriers to community gardens. Eliminate barriers as needed.

4.A.2. Coordinate with existing organizations to determine interest and feasibility for community gardens.

4.A.3. Promote community gardens.

PROJECTED DURATION: 4 years

Champions: Parks & Recreation Department



Photo 4-8 Community Garden – Kirkwood Park



Photo 4-9 City of Kirkwood Recycles



4.B. Continue to educate the community about recycling and explore new recycling opportunities

Currently, Kirkwood provides multiple recycling opportunities for residents. Starting in 2011, single-stream recycling containers were distributed city-wide to over 9,200 single family residences with curbside pickup occurring weekly. In addition, the City provides a 24-hour recycling center, the Francis Scheidegger Recycling Depository located at 350 S. Taylor, and a drop-off for Compact Florescent Lights at City Hall.

The curb-side service the City currently supplies is single-stream recycling. Single-

stream recycling is a system in which all paper fibers, plastics, glass, metals, and other containers are mixed in a collection truck, instead of being sorted by the resident into separate containers and collected individually. By reducing the sorting effort of residents, more recyclables are placed at the curb and more residents may participate in recycling.

The current diversion rate (proportion of volume of waste recycled compared to volume of waste generated) is 43%, with an ultimate goal of a 50%. Kirkwood has seen recycling tonnage stagnate over the past five years, which mirrors national trends. In order to reach its goal the City of Kirkwood should continue to educate the community about single-stream recycling and explore new opportunities.