



#3.0

PLAN ELEMENTS

3.1 Quality of Life

3.2 Strong Neighborhoods & Housing Choice

3.3 Resiliency & Economy

3.4 Multimodal Transportation

3.5 Facilities & Infrastructure

3.6 Sustainable Environment

3.7 Land Use & Community Design

3.0 PLAN ELEMENTS

3.1: QUALITY OF LIFE

Our quality of life represents the standard of health, comfort and happiness experienced by the people who live, work and play here. Lee's Summit's high quality of life is the result of the great jobs, schools, homes and community

amenities such as parks, trails, and cultural facilities available here. Parks, recreation and cultural resources are critical to achieving a high quality of life and a safe, vibrant and healthy environment.

3.1.A Historic Resources

Goal 1.A. Create a community that celebrates, welcomes and supports cultural and recreation amenities.

Objective 1.A.1: Celebrate and preserve our historic resources.

Context

Since the early 1800s, local governments have preserved historic places in their communities. In 1906, the federal government passed the Antiquities Act granting government agencies the power to protect and manage historic assets. The National Historic Preservation Act (NHPA) of 1966 protected historic and cultural resources from demolition—especially federal-funded infrastructure and urban renewal projects built after World War I.

The NHPA established the National Register of Historic Places and gave state governments greater authority by creation State Historic Preservation Offices (SHPO). Certified Local Governments (CLG) were also formed under the NHPA to give local governments more influence and control over historic preservation in their communities. Individual properties, neighborhoods and cultural sites can be recognized and placed on the National Historic Register or designated by a local government.

Insight

In 1988, Lee's Summit became a Certified Local Government (CLG), demonstrating the City's commitment to preserve and protect its cultural and historic resources. As a CLG, Lee's Summit is eligible for technical assistance and funding through Missouri's SHPO to help maintain the community's unique and historically significant features.

Incentives and funding are an integral component of cultural and historic preservation. In 1998, the State of Missouri established the State Historic Preservation Tax Credit for property owners that incur expenses related to rehabilitating historic properties. The tax credit excludes public or nonprofit organizations, religious buildings, historic bridges and cemeteries.



Lee's Summit's Downtown Historic District is one of many historic designations in the city. Lee's Summit has a total of 15 districts and four properties on the National Register as well as three local historic landmarks.

Other historic resources in Lee's Summit are not designated but contribute to the community's cultural heritage:

- William B. Howard Home
- Lee's Summit Historical Cemetery
- Howard Station Park
- All Veterans Memorial
- The Historic Browning Inn Lee's Summit

Lee's Summit National Register Districts

- Longview Farm (1985), including the Longview Mansion, church, schoolhouse and nearly 60 other structures
- Lee's Summit Downtown Historic District (2005), including the Historical Society of Lee's Summit Museum
- Bailey Family Farm Historic District (2006)
- Howard Neighborhood Historic District (2007)
- Northeast Douglas Street Residential Historic District (2008)
- Northeast Forest Avenue and Northeast Green Street Residential Historic District (2008)
- Northeast Green and First Streets Residential Historic District (2008)
- Southeast Green Street Historic Cottage District (2010)
- Southeast Third Street Residential Historic District (2010)

What is the difference between the National Register of Historic Places and a Local Designation?

National Register of Historic Places

- Provides formal application and review process
- Determines if the historic asset is nationally significant
- Does not offer the same level of protection as those that are locally designated
- Triggers automatic review when development is proposed that may impact the historic integrity of the site
- Qualifies for federal tax credit to maintain the property

Local Designation

- Recognized by the municipality as an individual property or district to protect
- Adopts a local ordinance to designate the site
- Local regulations in place to protect properties (National Historic Register is not protected)
- Does not qualify for federal tax credits to maintain the property

- Southeast Grand Avenue and Fifth Street Residential Historic District (2011)
- Southeast Third Street and Southeast Corder Ave. Ranch House Historic District (2011)

- Morningside Acres Historic Ranch House District (2012)
- Bayles Addition Historic District (2013)
- Southwest Third and Southwest Madison Historic District (2013)
- Southwest Market Street Historic District (2013)

- Howard Cemetery – 633 NE Woods Chapel Road
- Todd George House – 408 SE 3rd Street

Lee’s Summit National Register Landmarks

- Saint Paul’s Episcopal Church (1985)
- George, Todd M. Sr., House (2010)
- Sherwood Manufacturing Company Building (2010)
- Lee’s Summit Christian Church Building (2011)

Lee’s Summit Local Register Historic Landmarks

- Lee’s Summit Train Depot Building – 220 SE Main Street

Map 3.1 shows Lee’s Summit’s Historic Resources

Historic Designations

NATIONAL REGISTER

LOCAL HISTORIC LANDMARKS

15 Districts

4 Properties

3 Properties

Source: LS Historic Preservation Commission

The City of Lee’s Summit, Missouri is a Certified Local Government (CLG), since 1988. As such, its historic preservation program meets federal guidelines. The designation also allows the City to compete for a pool of grant funds available each year to CLGs in the state.



- Planned Historic Survey Area**

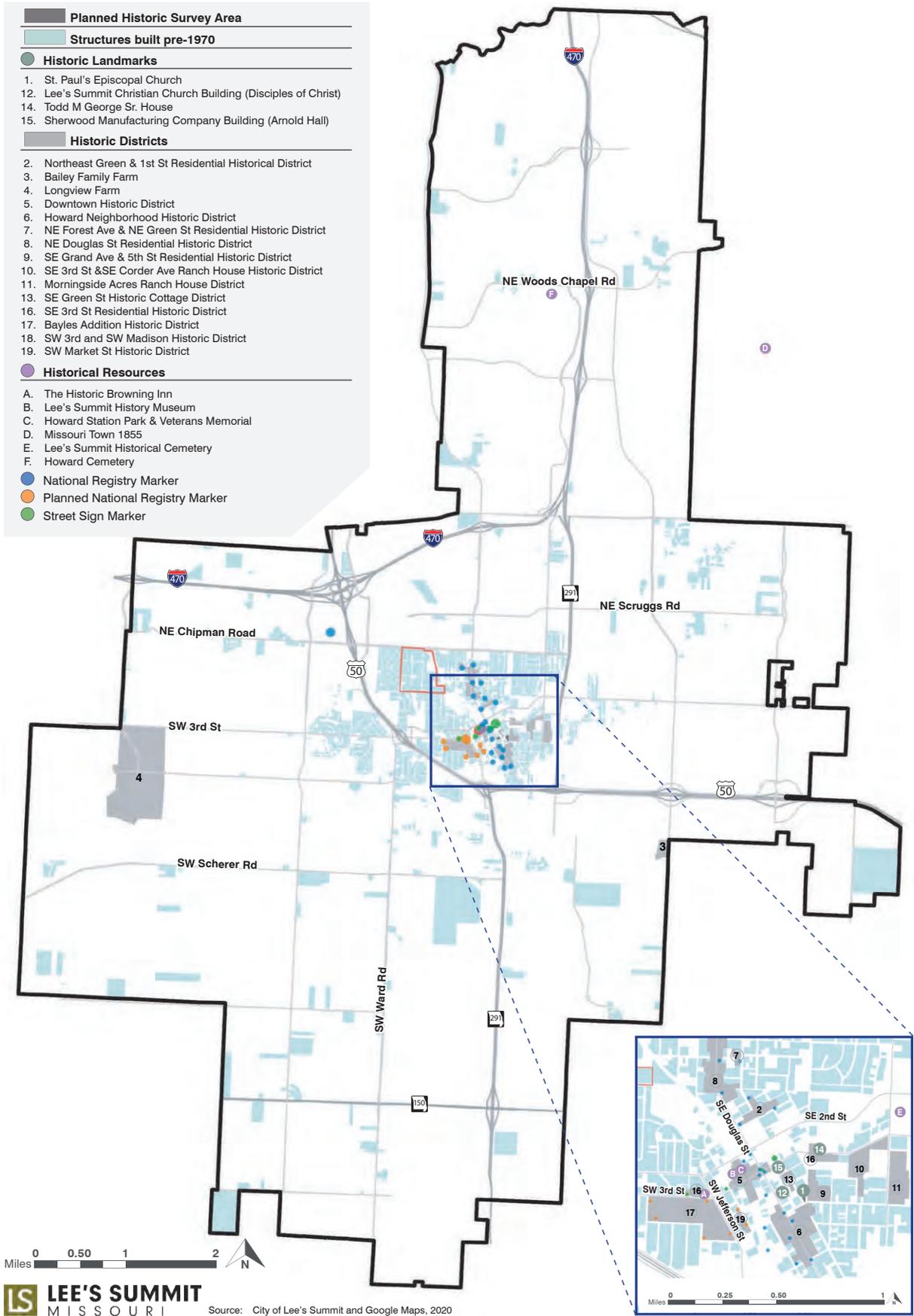
- Structures built pre-1970**

- Historic Landmarks**
- 1. St. Paul's Episcopal Church
- 12. Lee's Summit Christian Church Building (Disciples of Christ)
- 14. Todd M George Sr. House
- 15. Sherwood Manufacturing Company Building (Arnold Hall)

- Historic Districts**
- 2. Northeast Green & 1st St Residential Historical District
- 3. Bailey Family Farm
- 4. Longview Farm
- 5. Downtown Historic District
- 6. Howard Neighborhood Historic District
- 7. NE Forest Ave & NE Green St Residential Historic District
- 8. NE Douglas St Residential Historic District
- 9. SE Grand Ave & 5th St Residential Historic District
- 10. SE 3rd St & SE Corder Ave Ranch House Historic District
- 11. Morningside Acres Ranch House District
- 13. SE Green St Historic Cottage District
- 16. SE 3rd St Residential Historic District
- 17. Bayles Addition Historic District
- 18. SW 3rd and SW Madison Historic District
- 19. SW Market St Historic District

- Historical Resources**
- A. The Historic Browning Inn
- B. Lee's Summit History Museum
- C. Howard Station Park & Veterans Memorial
- D. Missouri Town 1855
- E. Lee's Summit Historical Cemetery
- F. Howard Cemetery

- National Registry Marker
- Planned National Registry Marker
- Street Sign Marker

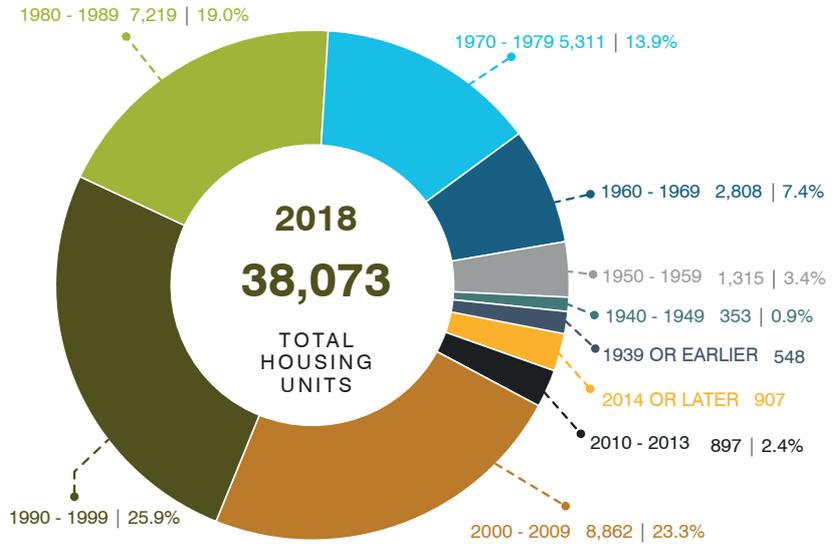


LEE'S SUMMIT
MISSOURI

Source: City of Lee's Summit and Google Maps, 2020

As a new wave of properties reach eligibility requirements, additional cultural resource surveys will be conducted. Properties generally must be 50 years or older for historic consideration. Rare eligibility exceptions can be made for buildings less than 50 years old, if exceptionally significant.

The City of Lee's Summit is currently seeking proposals to survey historic residential neighborhoods surrounding downtown. Due to financial constraints, the survey will occur in two phases over several years. Surveys establish a baseline of information about the City's historic resources and help ease the application process if the individual property owner voluntarily applies for designation. Historic overlay districts and conservation overlay districts can also protect



1,804 units built since 2010 after Great Recession **5%**

2,216 units built prior to 1950 **6%**

45% of the housing stock was built between 1980-1999 **17,072** units

Source: ACS, 2018

architectural or cultural attributes of residential and commercial areas through a local design review.

Currently, neighborhoods and properties built in 1970 and earlier are eligible to apply for designation, based on historical significance. In 2040, buildings constructed before 1990 will be eligible. The City must be selective and strategic about what to save and what to build. When developing a Comprehensive Plan, we should ask:

Are we building neighborhoods and structures today that future generations will choose to preserve?

Trends & Foresight

People of All Ages Want to Celebrate Culture, History and Authentic Places

Cultural and historic resources enhance a community's attractiveness as a desirable place

to live and work and can help give meaning to a building or area of town by providing a sense of place reminiscent of earlier periods in the City's history.

While older generations tend to be more active in historic preservation, younger generations are gaining interest and becoming involved. Young and old alike visit Lee’s Summit’s Downtown because of its walkable environment, local shops and restaurants; mix of historic buildings and varied cultural amenities and attractions.

Historic resources are defined as districts, buildings, sites, structures or objects that exemplify a period of history. In addition to age, established criteria determine the historical value—an association with significant historical events; association with significant persons; embodying a particular architectural or cultural style, type or method of construction; yielding information important to history or prehistory.

What we think of as “historic” is changing. Buildings that are 50 years old or more can be considered historic for preservation purposes. There is a renewed interest in modernizing and preserving structures from the 1950s,60s and 70s, primarily ranch-style homes. Here is why:

- Young home buyers find ranch houses to be affordable, entry-level homes.
- Single-story, ranch house floorplans attract older buyers looking for a house they can safely navigate.
- The open floorplan is desirable in today’s market.
- Maintenance costs are lower than in homes built before the 1950s.

Millennials Value Historic Preservation

“One-in-two millennials view historic preservation as important through the lens of engaging in authentic experiences, preserving a sense of community and creatively re-using structures.” (Edge Research, 2017)

- National Trust For Historic Preservation Survey 2017
- Many neighborhoods featuring ranch houses are now well-established with large trees.
- Their heating and cooling systems, wiring, plumbing, windows, doors and other building systems make repairs and upgrades easier.
- Ranch homes are a uniquely American architecture style, and owner modifications can be made easily to showcase a family’s unique character.

Preserving historic resources attracts and retains a growing population that desires authentic experiences, affordable housing, a strong sense of community, and an improved quality of life.



Strategies & Actions

Strategies

- Review and modify practices that impede the identification, nomination and designation of meaningful places.
- Continue to identify, evaluate and protect Lee's Summit's cultural resources.
- Harness technology and social engagement to help Lee's Summit identify the places that are considered worthy of preservation and that tell more complete stories.
- Affirm the importance of intangible heritage such as language, festivals, food and music traditions and legacy businesses.
- Enhance cooperation and partnerships among government entities, institutions, and the private sector.
- Strengthen and enhance historic

preservation as an economic development tool.

- Integrate historic preservation strategies into planning and routine procedures.
- Educate and promote the value of historic preservation.

Strategies

Education and Outreach

- Continue to encourage property owners to pursue a National Register designation and/or local historic designation.
- Continue to increase awareness of historic preservation through the development of public education programs, technical assistance programs, heritage tourism and social and print media.
- Continue to provide information regarding historic preservation and historic resources in a variety of locations and venues



including the City's website.

- Showcase local people, musicians, artists and family-run businesses to celebrate local community assets.
- Target private and public agencies to develop specific public education and technical assistance programs.
- Develop an education component in the Historic Preservation Commission monthly agenda.
- Continue programming for historic preservation and historic properties.

Plan Development

Continue to facilitate the identification, evaluation, designation and preservation of historic and archeological resources by developing and implementing a Comprehensive Historic Preservation Plan for Lee's Summit.

Preserve what remains of Lee's Summit's rural resources by incentivizing preservation and discouraging redevelopment of higher intensity of uses on prime agricultural land in the southern portion of the community where development is not prioritized.

Policy and Code Adjustment

- Develop standardized "conservation" building and fire codes for older buildings.
- Improve and update the historic preservation ordinance.
- Develop or modify appropriate zoning regulations to facilitate the preservation, renovation and rehabilitation of historic resources.
- Review and update existing zoning to be compatible with existing or desired land use that promotes preservation of intact residential neighborhoods and commercial

centers that have historical, architectural, and physical integrity.

- Expand the use of overlay districts and design guidelines to maintain historic districts and enhance sense of place.
- Review Chapter 353 Redevelopment, Tax Increment Finance and Board of Zoning Adjustment policies and practices to identify barriers to reuse of historic properties and opportunities for preservation.

Practice Improvements

- Include preservation planning staff in land use, public improvement and planning decisions processes, including dangerous building cases, requests for demolition permits, plat reviews, and City Planning Commission review.
- Continue to monitor post-war development, especially those properties that will be more than 50 years old when grant money becomes available.
- Embrace evolving technologies, new research and social media to expand the stories that historic sites tell and encourage visitors to interpret their own experiences and perspectives.
- Continue to integrate the identification, evaluation and designation of Lee's Summit's significant historical and archeological resources into the planning process, including the funding of a comprehensive resources inventory program.
- Develop a preservation handbook that outlines policies, processes, criteria and incentives, for use by City staff during orientation and for reference.
- Provide technical assistance brochures

published by the National Park Service to property owners in historic districts.

- Notify by mail, each February, the property owners of landmarks and/or properties in historic districts about the design review process and availability of technical assistance.

Enforcement and Incentives

- Continue to assure consistency of land use zoning and historic overlay zoning.
- Develop programs or services for proactive, ongoing and consistent maintenance code enforcement, specifically for the Old Town area.
- Create Conservation Districts that buffer historic districts to maintain the appropriate size, scale, massing and building setbacks in the area.
- Establish traditional and non-traditional economic incentives and adaptive reuse alternatives for historic resources.

- Leverage tax credits and historic preservation incentives to redevelop and revitalize underutilized buildings.

Inventory, Assessment or Survey

- Continue to conduct a Multiple Property Submission (MPS) to ease the nomination process when grant money is available.
- Complete at a minimum a reconnaissance-level survey of the omitted properties from previous survey efforts to include each property's address, approximate date of construction, architectural style/property type, original function and integrity.
- Develop a central listing of significant historic properties available for lease or sale that includes information about available incentive programs.



3.1.B. Community Health, Safety & Well-Being

Goal 3.1.B. Support Community Health, Safety & Well-Being – Support a healthy, happy community by improving healthy lifestyle choices and opportunities.

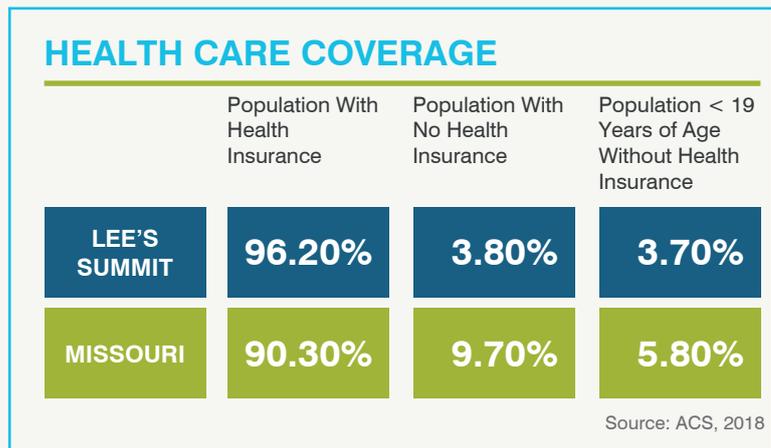
Objective 3.1.B.1: Improve access to physical and mental healthcare services.

Context

Access to Care

Six of Lee’s Summit’s top ten employers are in the healthcare and social service sector, including three hospitals and one mental

health clinic. The availability of facilities does not always translate into ready access for healthcare consumers. In the U.S., distance to healthcare facilities, transportation costs, lack of transportation and lack of insurance or financial capability to pay for services are common barriers to access.



Insight

Access to Healthcare

People who do not have access to medical facilities are less likely to obtain preventive healthcare. Routine medical visits can reduce the risks of developing serious health issues and chronic illnesses.

Quality of care, when it is accessible, is another significant contributor to a healthy community. When people think they will receive good care, they are more likely to seek it. AARP’s

Livability Index shows that about 76 percent of patients in Lee’s Summit rated local hospitals a 9 or 10, with 10 indicating the highest level of satisfaction.

Access to Mental Healthcare

In 2018, the National Council for Behavioral Health reported four barriers to mental health care.

- 1. High cost or insufficient insurance coverage.** The cost to receive services is too high for many to seek treatment. Insurance



often limits the quantity and type of services covered.

2. Limited options or long waits. Some communities have too few mental health providers to meet needs. Almost 40 percent of people seeking services report having to wait one week or longer to get an appointment.

3. Lack of awareness. Many people are unaware of the resources available or how to get started with treatment.

4. Social stigma. Over 30 percent of Americans report fearing negative judgment if others knew they sought mental health services.

Trends & Foresight

Consumers are demanding more choice and participation in their healthcare. In response, providers are changing business models to increase convenience and access, decrease costs and engage consumers. At the same time, providers are implementing cost control measures to maintain or increase revenues. Both consumers and providers must adapt to ever-changing public and private health insurance programs.

A key trend in improving and increasing access is using technology to bring healthcare to consumers rather than relying on consumers to schedule and travel to service providers. Consumers have embraced technology to gather health information. Still, they have been slower to adapt to using technology for their care.

The World Health Organization forecasts that by 2030 the largest health risk on earth will be depression. Focusing on mental well-being and happiness is vital to turning around declining productivity and social instability. Medical services, schools, private businesses and governments will turn to integrative medicine.

Impact of COVID-19 & Risks Associated with Future Pandemics

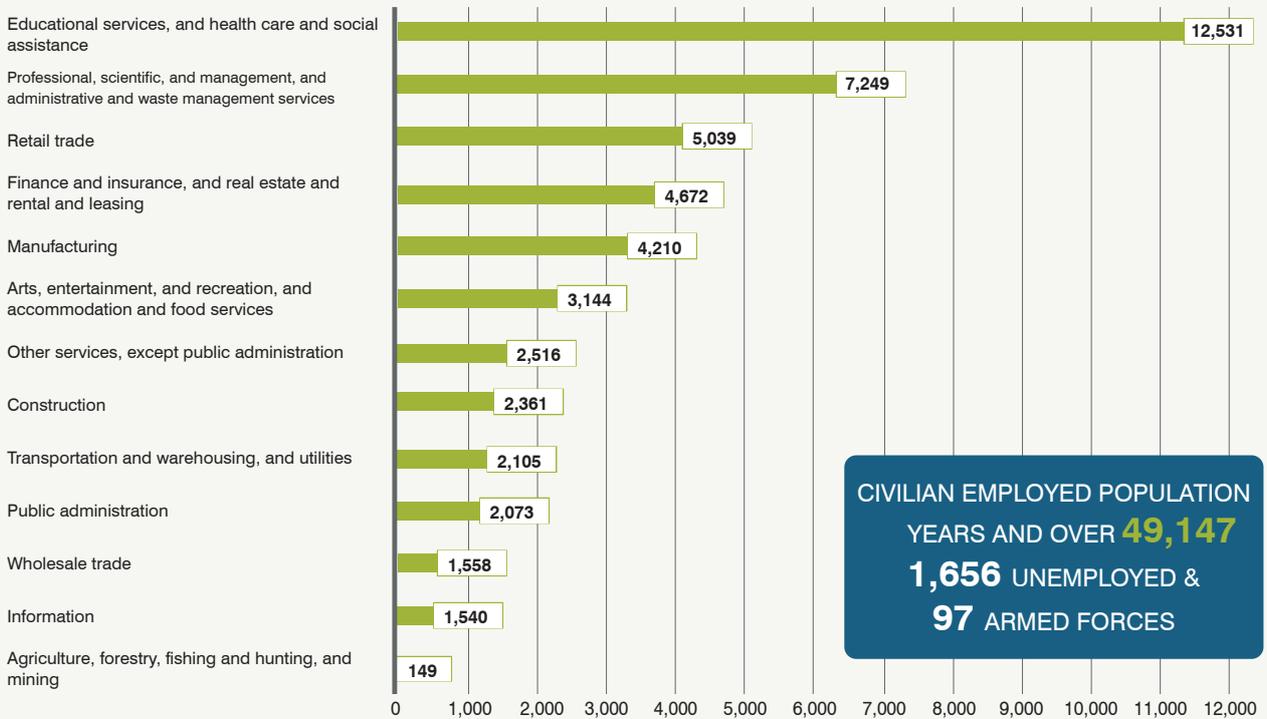
The COVID-19 virus exposes inequalities in the economy and healthcare worldwide. The

virus is an unprecedented threat to vulnerable populations who often have the least access to information, resources, healthcare and insurance. Older adults are at a higher risk of contracting COVID-19. This risk is concerning for Lee's Summit as nearly 15 percent of its population is 65 years or older. Nationwide data indicates People of Color die at a higher rate from COVID-19 than White people. Unequal access to healthcare and pre-existing health conditions such as asthma (often related to living environments and locations) partially explains the disparity.

Future Access to Quality Physical and Mental Healthcare

COVID-19 has caused millions of Americans to lose their jobs. The Bureau of Labor Statistics has identified the employment sectors "most exposed" to job loss: travel and transportation, entertainment, personal services/other sensitive retail and sensitive manufacturing. Wages for the most exposed sectors are typically lower than in other industries. Approximately 20 percent of all U.S. jobs are in the exposed sectors. As shown in the chart, significant number of Lee's Summit residents work in exposed sectors.

EMPLOYMENT SECTORS OF LEE'S SUMMIT RESIDENTS



CIVILIAN EMPLOYED POPULATION YEARS AND OVER **49,147**
1,656 UNEMPLOYED &
97 ARMED FORCES

Source: ACS, 2018

Coronavirus and Mental Health

The coronavirus pandemic is stressful for people. Fear about the disease and the related economic uncertainty can be overwhelming and provoke anxiety. Required health actions like social distancing and quarantine can make people feel isolated and depressed. COVID-19 has, however, dramatically changed mental

healthcare with providers quickly moving to telehealth appointments. Removing barriers, such as the stress of driving to an appointment, can increase the likelihood of someone in distress to seek treatment. A critical issue is making sure that patients and potential patients have the technology to participate.

Strategies & Actions

Strategy

- Use existing resources and programs to improve resident's healthcare needs.

Actions

Practice Improvements

Create liaisons in the community to bridge the gap between consumers and providers of physical and mental healthcare.

Partnerships and Collaboration

- Encourage partnerships between providers and school districts to provide mental and



physical healthcare in school facilities.

(Community Survey Respondent Priority #2: 44.55% rated as 'Very Important,' 8/7/20)

- Partner with healthcare technology companies (e.g., Cerner) to develop low-cost, accessible technology.
- Collaborate with Jackson County to provide online mental health services.

(Community Survey Respondent Priority #3: 41.38% rated as 'Very Important,' 8/7/20)

- Promote joint-use facilities for healthcare, the City and the community.

- Allow pop-up, neighborhood-based service providers (e.g., mobile healthcare).
- Partner with hospital to conduct a community health study to identify current needs and future strategies to improve residents' health.

Programs or Services

- Train police officers in mental health and crisis intervention.

(Community Survey Respondent Priority #1: 65.02% rated as 'Very Important,' 8/7/20)

- Increase low- or no-cost transportation options to healthcare facilities.

Objective 3.1.B.2: Improve opportunities for making healthy lifestyle choices.

Context

Health & Wellness of Lee's Summit Residents

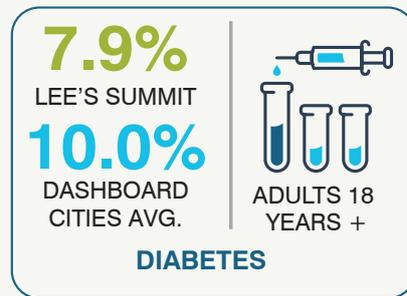
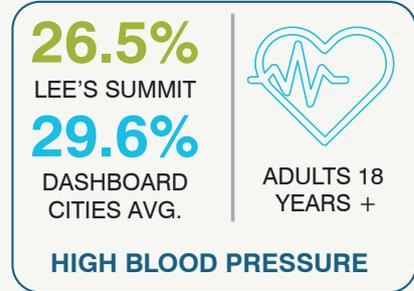
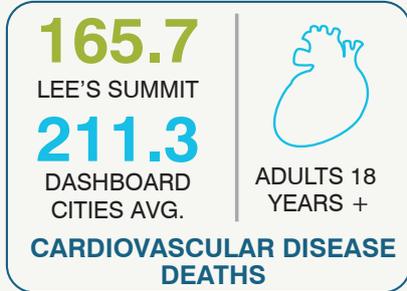
City Health Dashboard (www.cityhealthdashboard.com) assesses community health, the factors that shape health and the drivers of health equity at the city level. With support from the Robert Wood Johnson Foundation, the dashboard compares data for over 750 cities with populations over 50,000. Detailed health data is categorized into three

domains: health outcomes, health behaviors and physical environment.

The AARP Livability Index rates neighborhoods and communities across the U.S. for services and amenities that influence residents' lives. The index measures housing, neighborhoods, transportation, environment, health, engagement and opportunity characteristics. For each category, the Index evaluates current conditions and compares it to the median U.S. neighborhood.



HEALTH OUTCOMES:



Source: cityhealthdashboard.com

HEALTH BEHAVIORS:



Source: cityhealthdashboard.com

PHYSICAL ENVIRONMENT:



Source: cityhealthdashboard.com

When comparing Lee’s Summit to median U.S. neighborhoods and the average of 749 other cities with populations over 50,000, health outcomes are consistent with other cities. For health behaviors and physical environment, four areas stand out:

1. Smoking rate is slightly higher than the City Health Dashboard average.

Vaping is a growing community health concern. In January 2020, Lee’s Summit City Council banned the use of vaping products from all locations where the Indoor Clean Air Act prohibits smoking. Vaping is still allowed in public parks and outdoor facilities.

2. Excessive drinking rate is higher than the City Health Dashboard average.

Excessive drinking is linked to significant economic costs and early death. Car crashes, falls, burns, alcohol poisoning and violence are all more likely among those who drink excessively. Adverse health outcomes such as chronic diseases, cancer and memory problems are associated with excessive drinking behaviors.

3. Walkability is significantly lower than the City Health Dashboard average.

The walkability rating relates to an individual’s ability to be physically active as part of a daily routine. It is not a measure of leisure-time physical activity. Being able to walk to conduct daily business, such as walking to the grocery store or work, boost a community’s walkability. Incorporating exercise in daily routines improves physical health and increases the likelihood of social interaction and sense of community.

4. Physical inactivity is lower than the City Health Dashboard average.

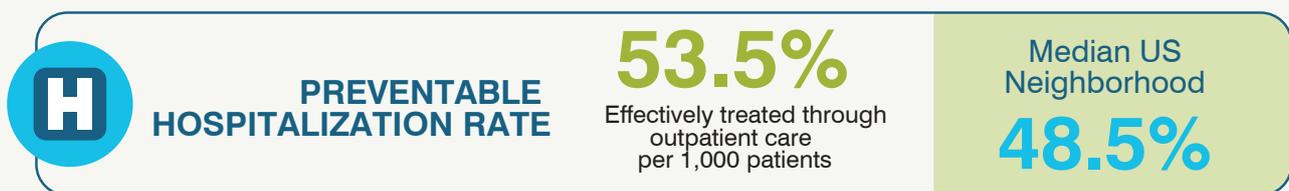
Overall, Lee’s Summit residents have greater physical activity as part of their daily routine compared to the Dashboard average.

When comparing Lee’s Summit using the AARP Index, access to exercise opportunities is higher than the median U.S. neighborhood. This rating indicates plentiful opportunities for Lee’s Summit residents to engage in physical activity, which likely contributes positively to the City’s health outcomes.



At the same time, the preventable hospitalization rate is higher than the median U.S. neighborhood. Preventable hospitalizations occur when a person does not receive

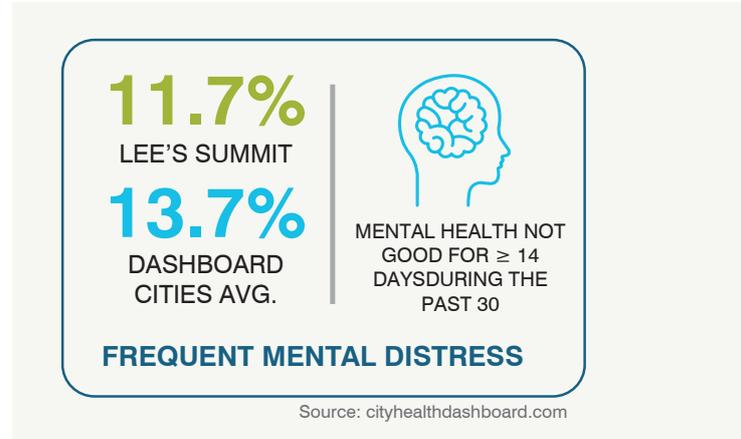
preventive care and waits until a serious condition develops to seek medical help. Access to and affordability of care often influence the rate of preventable hospitalizations.



Good mental health is essential for the individual and helps achieve a resilient, sustainable city. Around the world, one in four people will experience mental health problems. The World Health Organization projects that a failure to treat just depression and anxiety costs the world \$1 trillion per year.

We are witnessing a rise in anxiety, stress, depression and suicide, specifically in young adults. Lee's Summit is not immune to these mental health issues, although Lee's Summit residents have fewer mental distress incidents compared to cities on the Health Dashboard. Nearly 12 percent of residents indicate that 14 or more of the past 30 days were not good mental health days. The Missouri Department of Mental

Health (2018) ranks suicide as the number one cause of death for people between the ages of



10 and 17. Suicide ranks 10th of all causes of death in the state.

Lee's Summit has abundant parks, open spaces and recreational programming. These amenities are essential factors in creating a healthy community. Nearly 94 percent of Lee's Summit residents are within three miles of recreational activities. Lee's Summit has four community centers with multi-generational programming. Like many suburban communities, the

design of Lee's Summit existing development accommodates automobile travel. Automobile centered design can have negative impacts on the built environment, especially for low-income residents that don't have the means to afford a vehicle. Automobile dependent communities can weaken the need to walk somewhere because driving is quick and easy.



*BASED ON LS 2018 YEAR END POPULATION ESTIMATE

Insight

Combating unhealthy behaviors like physical inactivity and obesity, which often lead to chronic diseases, is a challenge. Local government is in a unique position to reduce

the occurrence and negative outcomes of chronic illnesses by connecting activity centers better to neighborhoods through land use planning, building connecting infrastructure and recreation to support healthy lifestyles. Easy access to parks, gyms and farmers' markets or



neighborhood grocery stores increases physical activity in daily life. It promotes mental wellness by increasing a sense of community and belonging.

Even when opportunities to make healthy lifestyles are available, the health of a

Trends & Foresight

The definition of a healthy lifestyle is becoming more holistic, emphasizing physical fitness, healthy eating, and mental well-being. The rise of mental health disorders around the globe has prompted many cities to act. Studies show that the risk of mental illness is generally higher in cities than in more rural areas. Overstimulation and increased exposure to sounds, smells and overcrowding are potential explanations, but this remains a subject of debate. Traditionally, the provision of mental health treatment happens after symptoms occur. New methods, like one used in New York, are proactive and focus on preventing mental illness. The ThriveNYC campaign involves local government, hospitals, the community and school staff, working together to identify effective prevention methods. Such efforts emphasize that mental health is as vital as physical health for the community.

community is unlikely to transform overnight. Measurable success will come over the years and decades. Sustained success requires encouragement and education.

Obesity affects almost one in five children and one in three adults, putting people at risk for chronic diseases such as diabetes, heart disease, stroke and some cancers. Childhood obesity has more than tripled in the past 30 years. Obesity currently costs the U.S. healthcare system \$147 billion a year. That figure will rise without significant, multi-faceted intervention.

People who use parks and open spaces are three times more likely to achieve recommended physical activity levels than nonusers. Obesity and other adverse health outcomes correlate to the amount of time traveling in vehicles. Increasing walking and other physical activity is shown to improve health outcomes. The most significant health benefits occur when the least active people become slightly more active.

Strategies & Actions

Strategies

- Make existing resources and facilities more active and accessible.

Actions

Practice Improvements

- Make healthy food options easily

accessible in all neighborhoods through proper land use planning.

(Community Survey Respondent Priority #2: 40.39% rated as 'Very Important,' 8/7/20)

Plan Development

- Conduct a community health study to identify current needs and future strategies to improve residents' health.



Policy and Code Adjustment

- Improve the health of all people by incorporating health considerations (social, physical and economic) into decision making.

(Community Survey Respondent Priority #3: 35.47% rated as 'Very Important,' 8/7/20)

Partnerships and Collaboration

- Collaborate with school districts, the healthcare industry, nursing homes/ assisted living facilities, daycares, nonprofits and community leaders to create an integrated approach to supporting healthy community lifestyles.

Facilities or Infrastructure Improvements

- Continue building and filling gaps in sidewalks, bike lanes and trails to make walking and biking more convenient and safer.

(Community Survey Respondent Priority #1: 61.08% rated as 'Very Important,' 8/7/20)

- Add more fitness and exercise equipment in parks that is accessible for a broad range of ages and abilities.

Objective 3.1.B.3: Enhance public safety.

Context

Lee's Summit is a safe community to live, work and raise a family. The City has 10 police districts. The crime rate is stable, with property and violent crime rates lower than those for the State of Missouri and the national average. Calls for services have increased since 2017. The

Lee's Summit Fire Department provides fire and emergency medical services to the City of Lee's Summit and neighboring Greenwood and Unity Village. Nearly 70 percent of calls are for EMS. A new public safety communications system will be complete in 2020.



While most residents enjoy a sense of safety, Lee’s Summit’s continued growth has increased the need for facilities, equipment and staffing. Residents rated their lowest levels of satisfaction with the Fire/EMS Department response times, with only 83 percent being satisfied or very

satisfied. For the Police Department, police visibility in neighborhoods received the lowest satisfaction ratings (75 percent satisfied or very satisfied). Both Police and Fire/EMS have difficulty filling current job vacancies.



Insight

Compared to other communities in the Kansas City area, Lee’s Summit residents have a high level of satisfaction with police services. Fire and Emergency Medical Services have similar satisfaction levels and compare favorably to other communities in the area.

Community safety is not just about injury prevention and crime prevention; it is about increasing well-being and building healthy, cohesive, vibrant and participatory communities. In addition to improving the quality of life to existing residents and businesses, safe, healthy communities attract commercial and business investment and are a strong draw to new residents.

Perception of safety impacts community health and well-being by influencing residents’ participation in physical and social activities. People who don’t feel safe in the community are less likely to get involved, increasing their risk of isolation, obesity, diabetes, high blood pressure and other chronic conditions.

COMMUNITY SATISFACTION SURVEY



Source: LS Citizen Satisfaction Report, 2019



Trends & Foresight

Drug use is a growing challenge to public health and safety. It is affecting public safety services in cities across the U.S. Drug use can influence other criminal activity. The Bureau of Justice Statistics reports that offenders convicted of robbery, burglary and larceny/theft were most likely to commit their offense to obtain money to buy drugs.

After alcohol, marijuana is the most used psychotropic drug in the United States. In 2018, early 12 million young adults used marijuana in the past year. The Missouri Legislature approved medical marijuana use in 2019. Currently, there is no objective measure to determine if marijuana impairment is involved in accidents or impaired driving.

In 2018, the number of drug overdose deaths in the U.S. was four times higher than in 1999. Nearly 70 percent of 70,000 deaths involved an opioid. The number of overdoses related to prescription opioids is falling, while overdoses attributed to synthetic opioids are on the rise.

New technologies such as artificial intelligence and data analytics will be integrated into public safety services. Privacy concerns may grow. The movement to change police tactics, employ community policing and demilitarize police services will continue. Calls for Emergency Medical Services will rise as the population ages. The number of people in a mental health crisis is growing, altering the types of services needed.

Strategies & Actions

Strategies

- Continue to provide safety for people who live, work, and visit Lee’s Summit.

Actions

Practice Improvements

- Improve post-incident investigative capabilities.
- Improve Police Department training, administration, and fiscal efficiency systems.

(Community Survey Respondent Priority #1: 54.68% rated as ‘Very Important,’ 8/7/20)

- Continue to improve efficiency in police operations to assure resources are best

allocated to achieve reductions in crime and disorder.

- Assure sufficient manpower exists and is utilized effectively to meet the law enforcement needs.
- Continue to provide first responders and staff with excellent equipment and technology to maximize capabilities. (e.g., tasers, license plate readers, surveillance cameras, etc.)
- Continue to expand training and keep police officers up to date with current issues and develop them for the future.
- Continue to seek grant funding opportunities for public safety services and programs.

Policy and Code Adjustment

- Ensure ample night-time lighting in public space, neighborhoods, and businesses to reduce instances and probability of crime.

- Make buildings and development sites safer and healthier by design.

Partnerships and Collaboration

- Increase public safety presence in the community and continue to develop community relationships.

Programs or Services

- Improve first-responder ability to manage and refer people to mental health and addiction services.

(Community Survey Respondent Priority #2: 51.72% rated as 'Very Important,' 8/7/20)

- Improve emergency service response times and service coverage as the community grows and needs change.
- Develop a program to recruit and retain highly motivated, qualified employees to ensure an effective and efficient public safety/emergency service workforce that is reflective of the community demographics.

(Community Survey Respondent Priority #3: 49.75% rated as 'Very Important,' 8/7/20)

- Evaluate, develop and maintain an employee health and wellness program for all emergency service departments.

Facilities or Infrastructure Improvements

- Enhance public safety features of public facilities and public space with improvements such as lighting and security cameras.
- Improve traffic safety through infrastructure design and investments in improvement projects.
- Consider co-location of new public safety facilities and potential integration into other community buildings.
- Continue to develop and maintain facilities that meet the needs and anticipated growth of public safety buildings.

Objective 3.1.B.4: Foster Lee's Summit's unique spirit of community and culture of caring.

Context

Most Lee's Summit residents are likely or very likely to recommend Lee's Summit to a colleague as a place to live, work or visit. A substantial majority (90 percent) are satisfied or very satisfied with the overall image of the City. Many factors contribute to a positive image and feeling about a city: a healthy environment, a sense of safety, maintained infrastructure, excellent schools and so on. But community spirit and sense of belonging are what turn a city into a community.

Developing community spirit and a sense of belonging is an active process. The City of Lee's Summit provides community members opportunities to get involved, with Citizen's and Junior Police Academies and a Citizen's Leadership Academy. The City also encourages volunteerism that offers services to the less fortunate, promotes the arts and cultural events and creates a healthier environment. The City's Creative Services department plays an essential role in providing accurate and timely information about community news, activities

and events. Civic, social service and religious organizations and their members are actively involved in the community.

CITIZEN SATISFACTION SURVEY



Source: LS Citizen Satisfaction Report, 2019

Insight

A 2018 CIGNA study revealed that nearly half of Americans always or sometimes feel alone or left out. When people feel like they do not belong, they are less likely to invest time and energy to maintain or improve what is around

them. People who feel connected interact more with others and enjoy better mental and physical health than those who are more isolated. Getting people to engage with each other and organizations in purposeful ways are keys to building community cohesion and pride and improving individual health.

Trends & Foresight

Despite having digital methods to connect, isolation and loneliness are increasing across the U.S. Generation Z, people aged 18-22, report feeling lonelier than all other generations. Depression and anxiety are on the rise across all ages; increases are most significant among those between the ages of 12 and 17. Over the past decade, the number of youths with mental health disorders has more than doubled.

Those without access to transportation or who have limited contact with others may need inclusion tactics.

Older residents can be particularly vulnerable to isolation, especially as more people communicate digitally. This population may not use technology to communicate, which makes them even more susceptible to loneliness.

Communities can take a proactive approach to prevent loneliness from becoming chronic by addressing the needs of groups that are socially excluded and at most risk of isolation. Community design that promotes human interaction and offers public spaces and meeting places can create and sustain social networks.

Residents with disabilities comprise another population who can be susceptible to isolation.

Communities that come together around a vision and goals show their community spirit and willingness to collaborate for the common good. They care about what they are doing, why they are doing it, and what can be the most impactful for the community. This approach promotes inclusion and equity.





Strategies & Actions

Strategies

- Provide more opportunities for residents to be included in celebrations, programs and events.

Actions

Education and Outreach

- Seek input from members of underrepresented groups in the community to gain their perspectives, wants and desires as the community grows and changes over time. (Community Survey Respondent Priority #1: 40.59% rated as 'Very Important,' 8/7/20)

Plan Development

- Develop a community engagement strategy that identifies methods and tools to reach all areas of the community.

(Community Survey Respondent Priority #3 (tie): 28.71% rated as 'Very Important,' 8/7/20)

Policy and Code Adjustment

- Encourage development of neighborhood "hubs" or gathering places where a variety of activities can take place.

Partnerships and Collaboration

- Design businesses with gathering spaces including outdoor space for employees.
- Bring a variety of people, employers and groups together to increase collaboration and togetherness.

(Community Survey Respondent Priority #2: 29.06% rated as 'Very Important,' 8/7/20)

Programs or Services

- Increase opportunities for volunteerism and reduce barriers to participation.

(Community Survey Respondent Priority #3 (tie): 28.71% rated as 'Very Important,' 8/7/20)

Facilities or Infrastructure Improvements

- Design public spaces and retail locations to attract people to gather for community events.



3.1.C. Cultural Amenities & Facilities

Goal 3.1.C. Cultural and Recreational Amenities: Create a community that celebrates, welcomes and supports cultural and recreation amenities.

Objective 3.1.C.1: Expand and prioritize cultural events and programming, space needs and identify funding.

Context

Cultural amenities include a wide range of activities, programming and facilities related to music, theater, media, fashion design and applied, culinary and visual arts.

Nurturing culture, the arts, and creativity is increasingly crucial to the vitality of communities, how they grow and innovate. In recent years, cities across the nation focusing on revitalization have found success using arts as a catalyst to drive robust economic development and neighborhood transformation.

Communities with a strong arts and culture presence demonstrate an increased sense of place, skilled workforce population, visitor attraction and increased participation and engagement from community leaders. Art is no longer a luxury for the affluent—it is an integral component of planning, community development and enhancing quality of life.

Local cultural art amenities and programming help reduce economic disparities, increase a sense of identity and spur development. Communities rich in arts and culture attract



“Whether it is health, education, economy, or faith, the arts improve our communities and our lives, and they lend themselves to practical, solution-oriented philosophies to bind us socially and improve the world in which we live.”

Robert L. Lynch

President & CEO,
Americans for the Arts

sectors such as tech, finance, creative and media. Cultural amenities also positively influence the health, safety and wellbeing of people, especially low-income individuals.

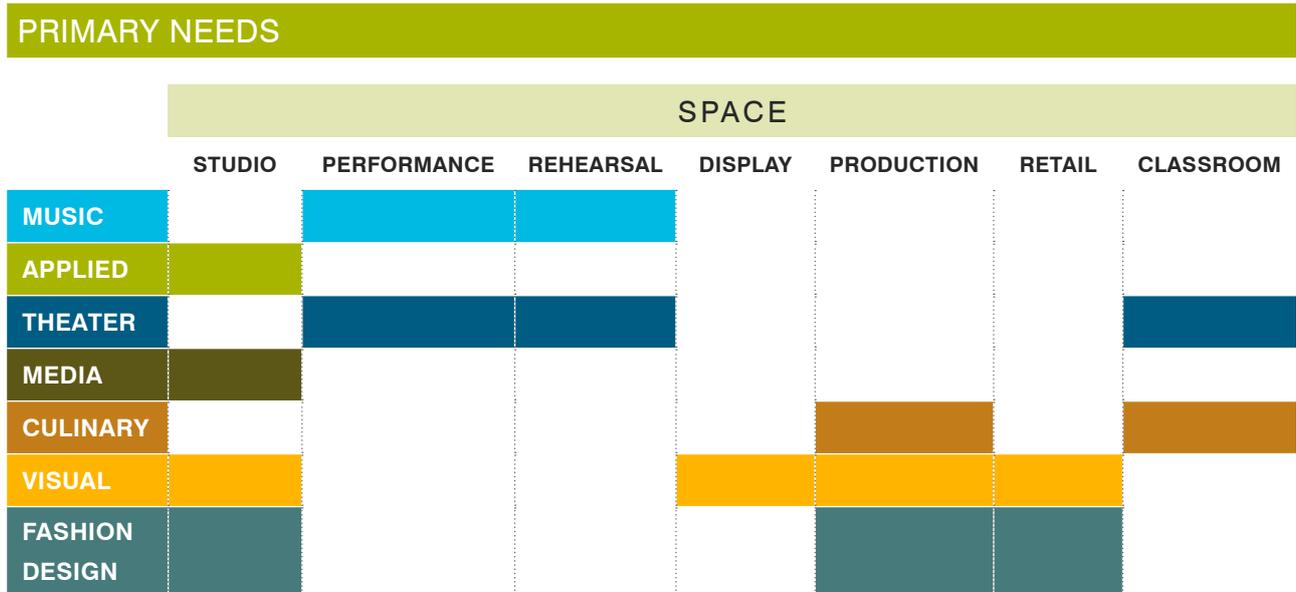
Lack of funding for cultural amenities and facilities is a barrier in many communities. Proactive planning and a firm understanding of the resource requirements and potential benefits of cultural amenities helps communities make sound investment decisions.

Figure 3.1.C.1 describes at primary needs and secondary impacts of arts and cultural activities and can inform community decisions related to facilities and programming.

Planning for Arts and Culture

Taking a proactive approach to arts and culture planning, rather than a reactive one, is the

best way to ensure realistic, effective arts and culture plans that complement the surrounding community and minimize unintended consequences.



SECONDARY EFFECTS

| | IMPACT LEVEL | POTENTIAL EFFECTS |
|----------------|----------------|---|
| MUSIC | Medium to high | REHEARSAL SPACES: noise, equipment loading' PERFORMANCE VENUES: foot and auto traffic. late-night crowds, alcohol-related impacts. Best for high-intensity commercial areas. |
| VISUAL | Medium to high | Noise. odor, fumes, dust. Best for high-intensity commercial or industrial areas. |
| THEATER | Medium | PERFORMANCE SPACES: foot and auto traffic: COMEDY CLUBS, ETC.: late-night crowds, alcohol-related impacts. Best for high-intensity commercial areas. |
| MEDIA | Low to medium | PRINT/ONLINE MEDIA. VIDEO GAME PRODUCTION: typical of office use: PRODUCTION FACILITIES, MOVIE STUDIOS: traffic, noise, light, loading. Best for high-intensity commercial or industrial areas. |
| CULINARY | Low to medium | FOOD TRUCK PRODUCTION: proper ventilation: FOOD TRUCKS: conflict with restaurants, impacts of outdoor food service. traffic. litter control. |
| VISUAL | Low | GALLERIES OR ART LESSONS* foot and auto traffic: EXHIBITIONS similar to any performance event. Present few issues in commercial areas. |
| FASHION DESIGN | Low | HOME-BASED: Similar to any home occupation: FULL-SCALE PRODUCTION: similar to any light industrial production. Could encourage related businesses. |
| APPLIED | Low | Typical of office use. |

Source: Arts and Cluture Planning: A ToolKit Communities

Insight

The Lee’s Summit Arts Council, established in 2002, is responsible for promoting cultural vibrancy and serves as the local arts agency for the community. The City and its many community partners annually host a variety of events that offer enriching cultural experiences, including a Fourth Friday Art Walk, Music in the Park, Downtown Sculpture Walk, Downtown Days, farmers’ markets and various seasonal festivals and activities. These public events showcase the City to a broad audience, drawing visitors from across the region. Community organizations also promote arts and culture by providing other unique experiences for residents.

Artists & Performers

Lee’s Summit is also home to many local artists and organizations that provide a sense of community culture. Summit Art is a nonprofit that provides exhibition opportunities,





“Kids at Heart” by Kwan Wu & “Hartley Heart” by Dave Eames



“Emergence” by Dave Eames

professional development and mentoring to visual artists, and hosts the annual Summit Art Festival. The Lee’s Summit Symphony entertains thousands of people each year, including families with school-aged children.

Summit Theatre Group is a community theatre company that produces several small and large-scale theatrical productions each year and has recently launched a theatre education program for school-aged students. In 2019, the Lee’s Summit Jazz Orchestra was formed giving musicians interested in Jazz music an opportunity to perform as part of a group. Many members of the jazz orchestra are music teachers within the school district.

Venues & Performance Space

The public library, local high schools and the Metropolitan Community College provide performance venues, but demand for this limited space creates scheduling challenges, forcing local artists and performers to look for new opportunities elsewhere in the region.

In April 2013, Lee’s Summit voters approved a \$2,898,000 general obligation bond to construct



“Longview Mural”

and rehabilitate public improvements for cultural arts, including enhancements to the Legacy Park Amphitheater, rehabilitating the former city hall building and the creation of a downtown performance and festival space.

The Legacy Park Amphitheater is a major cultural and entertainment



Public art takes many forms in Lee’s Summit. Sculptures and murals are placed throughout the community enhancing the vibrancy of the city.

amenity in Lee’s Summit. Located in Legacy Park, the amphitheater serves as an indoor and outdoor facility space for a variety of groups such as musicians, actors, actresses and performance artists. The Legacy Park Amphitheater is available to rent for weddings, corporate picnics, family reunions, festivals, movies, and more. The amphitheater also hosts an annual summer concert series to introduce local bands to the community.



Performance at The Legacy Park Amphitheater located in Legacy Park

The approved bonds and meetings with the City and key stakeholders resulted in the conceptual plan of The Downtown Market Plaza in 2020. The conceptual plan includes several public and private facilities and uses that would greatly add to the cultural vibrancy of the downtown. Most notably for cultural amenities are the addition of an outdoor performance area and farmer’s market.

Planning for Arts & Cultural

The Lee’s Summit Cultural Arts Plan, adopted in 2007 and updated in 2016, guides the City’s investments in culture. The City’s 2012 Cultural Facilities Survey indicated that 96 percent of respondents thought there was a need for additional arts and cultural facilities.

Respondents identified the top three types of spaces as those with high-quality acoustics (76%), a large stage (66%), and a large lobby or reception area (54%).

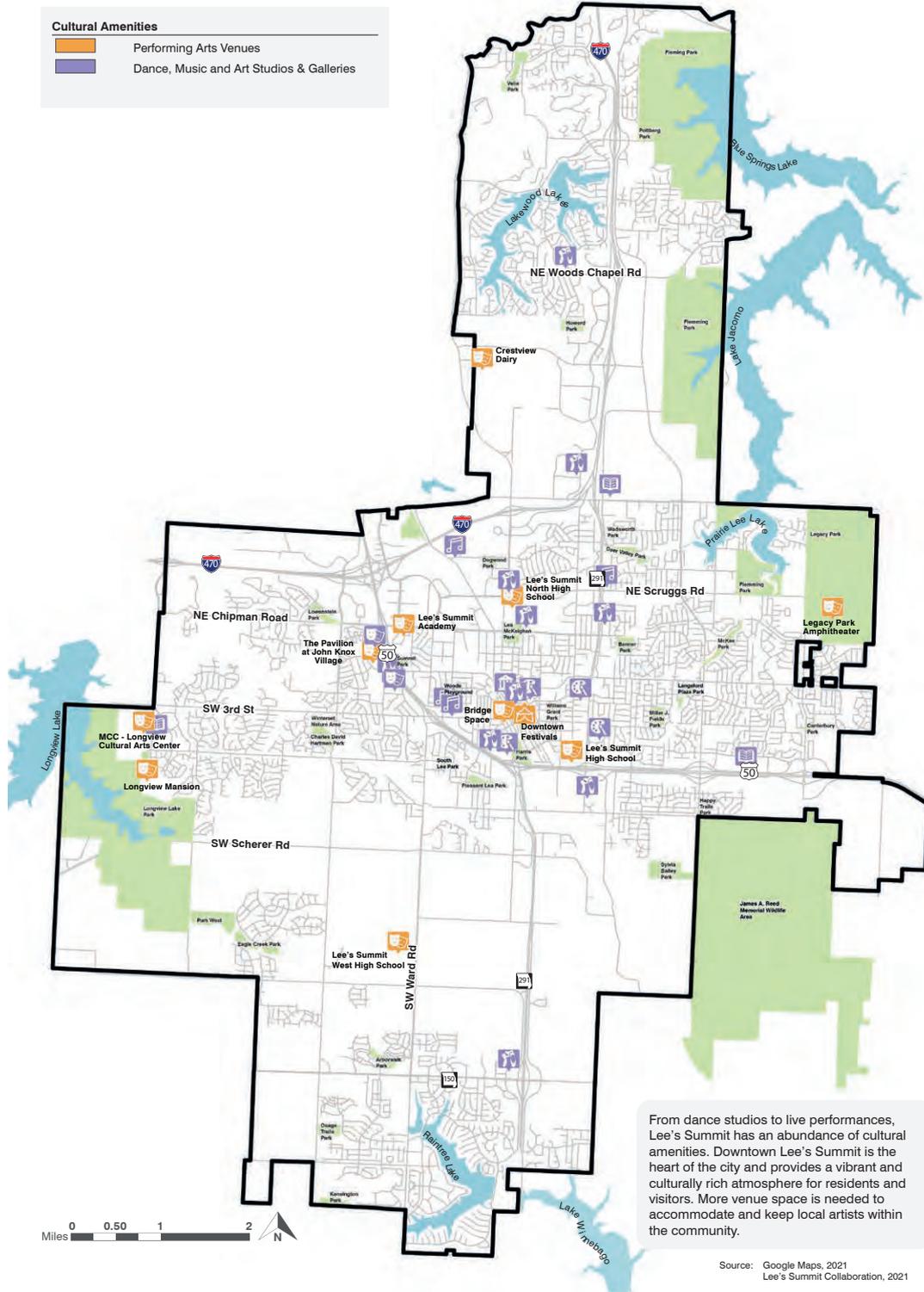
In 2018, the City hired a cultural arts manager to coordinate, develop, and implement programs that enhance quality of life and provide diverse learning opportunities for residents.

Lee’s Summit struggles to retain its artists and cultural amenities. The Got Art Gallery on Third, an independent nonprofit gallery managed by Summit Art, permanently closed in 2020. Past cultural plans are now outdated, based on significant changes in public demand for the arts, and facility needs.



Conceptual Rendering of the Downtown Market Plaza by Ochsner Hare + Hare & The Olsson Studio

Map 3.1.C.1 shows Lee’s Summit’s Existing Cultural Amenities





Trends & Foresight

Americans highly value the arts and actively seek out cultural experiences. In 2016, the Council of Foundations reported that 68 percent of Americans attended traditional arts events (e.g., concerts, presentations or exhibits) in the past year. Even more (77%) experienced art in non-traditional venues such as parks, airports or shopping malls. The benefits of arts extend beyond the sheer enjoyment of those seeking these experiences; they also enhance health and wellness. Nearly half of U.S. healthcare institutions provide arts programming for patients, families and staff, citing healing benefits and shorter hospital stays.

Artists, cities, and arts and cultural organizations also collaborate to address complex community challenges, such as homelessness, violence, disaster relief and other social issues. In some places, art programs are partner with veterans' organizations to provide art therapy for post-traumatic stress recovery.

Although in-person arts and cultural experiences are in demand, preferences are changing. High-quality recorded and broadcast performances

are becoming more popular. They are less expensive and more convenient than live activities. The 2020 coronavirus pandemic increased the demand for virtual entertainment. This trend is expected to grow as younger generations are more comfortable with online entertainment platforms and prefer experiences that allow them to choose what they want to do, on their terms.

Concentrations of arts and cultural establishments and creative workers in a specific geographic area can create energy in communities and improve the quality of life for residents. In areas where creative individuals and organizations cluster, partnerships and cooperative projects develop, and innovation can flourish. Vibrant areas attract visitors and spur other economic activities, like restaurants and small businesses, increasing the area's prosperity. The Crossroads Arts District and West Bottoms are examples of thriving arts and culture areas. A robust arts and culture sector can influence where workers, especially younger ones, want to live, which cities can leverage for workforce recruitment and retention strategies.

Strategies & Actions

Strategy

- Use targeted and purposeful methods to create authentic, cultural experiences that attract the most people and enhance community well-being.

Actions

Education & Outreach

- Continue to work with Cultural Arts Division and Arts Council to educate the community and encourage arts activities.

Practice Improvements

- Continue to involve more people, more often, in more meaningful cultural experiences.

(Ranked #1 Priority by Ignite Comprehensive Plan Community Survey Respondents: 76.59% rated as 'Very Important' or 'Important' as of 2/12/21)

- Increase funding for projects and plans related to art, culture, festivals and celebrations.

(Ranked #2 Priority by Ignite Comprehensive Plan Community Survey Respondents: 72.82% rated as 'Very Important' or 'Important' as of 2/12/21)

Policy and Code Adjustment

- Create new cultural amenities to serve the community now and as it grows.

Partnerships and Collaboration

- Develop collaborative programming with local arts, cultural, and historic organizations to promote and present events in community spaces.

Facilities or Infrastructure Improvements

- Work with Parks and Recreation to ensure future improvements to the Legacy Park Amphitheatre to appeal to higher caliber performances and improve audience experiences.
- Continue to consider alternative spaces for a year-round cultural center.

Plan Development

- Develop a new cultural arts plan to guide the long-term vision for cultural arts and amenities in Lee's Summit.
- Align economic and community development with cultural amenities promotion and creation.

(Ranked #3 Priority by Ignite Comprehensive Plan Community Survey Respondents: 70.95% rated as 'Very Important' or 'Important' as of 2/12/21)



3.1.D Parks and Recreational Amenities

Goal 3.1.D. Create a community that celebrates, welcomes, and supports cultural and recreational amenities.

Objective 3.1.D.1 Create policies that expand and prioritize park investments, recreational programming, facility needs and identify funding strategies.

Context

Parks have been a part of the American landscape since 1634, when Boston created Boston Common. Since then, municipalities continued to place value on these natural spaces, building parks of all sizes and shapes, and featuring a variety of facilities. Parks serve a wide variety of purposes to achieve three essential objectives: provide health and environmental benefits, economic value and enhanced cultural identity.

Lee’s Summit established a park and recreation department with three parks and one staff member in 1968. The department grew into a national award-winning team serving with 41 full-time employees, 300 part-time and seasonal staff, 30 parks with a total of 1,200 acres, four community centers, 91 miles of trails, an outdoor aquatics facility, an amphitheater, a youth sports complex, an outdoor ice-skating rink, an adult sports complex and hundreds of available recreational programs.

In a 2019 survey, 88 percent of residents indicated they were satisfied or very satisfied with the number of city parks and how parks are maintained. Lee’s Summit’s achievements of receiving national accreditation for 15 years



and winning a Gold Medal Award for Park and Recreation Excellence demonstrates its leadership in this area. Lee’s Summit’s 2016 Parks & Recreation Strategic Plan and 2017 Parks Master Plan provide a roadmap for continuous improvement.

Insight

Lee’s Summit is committed to continuing its standard of park and recreation excellence, planning to add new programs and facilities. Future projects include one community center, renovations to neighborhood parks, new splash pads, athletic field house, a nature center and extending its trail network. Maintaining a standard of excellence includes more than adding new facilities—new industry trends and changes in culture and public health must guide future development of park and recreation offerings.

Map 3.1.D.1 shows recreation amenities.

Access to parks and recreation resources are important measures of community success and livability. Lee’s Summit has 12.5 acres of parkland per 1,000 residents, well above the national average of 9.35 acres per 1,000 residents. Jackson County also developed an extensive park system that is third in the nation for amount of public land converted to parks. Lee’s Summit benefits from those resources—nearly 80 percent of the city’s population is



“There are no communities that pride themselves on their quality of life, promote themselves as a desirable location for businesses to relocate, or maintain that they are environmental stewards of natural resources, without such communities offering a robust, active system of parks and recreation programs for public use and enjoyment.”

National Recreation and Park Association

located within a half mile from neighborhood parks, falling short of the national standard of 85 percent. All Lee’s Summit residents live within three miles of off-road trail access.

Map 3.1.D.2 shows park and trail access.



Lee’s Summit provides robust youth activity programming, ranging from Lego workshops to horsemanship. Youth sports are thriving, as both the City and private non-profit organizations provide recreational and competitive sports programs. However, additional indoor and

outdoor practice spaces for youth sports are required to meet demand.

Most rapidly growing cities such as Lee’s Summit find it challenging to keep up with the community’s need for adequate parks and facilities because they tend to rely on a one-

size-fits approach. Cities that fare better are those that develop policies and facilities that meet the community’s unique needs. This local-level approach creates greater flexibility to adapt

to emerging trends, changing resources and community preferences.

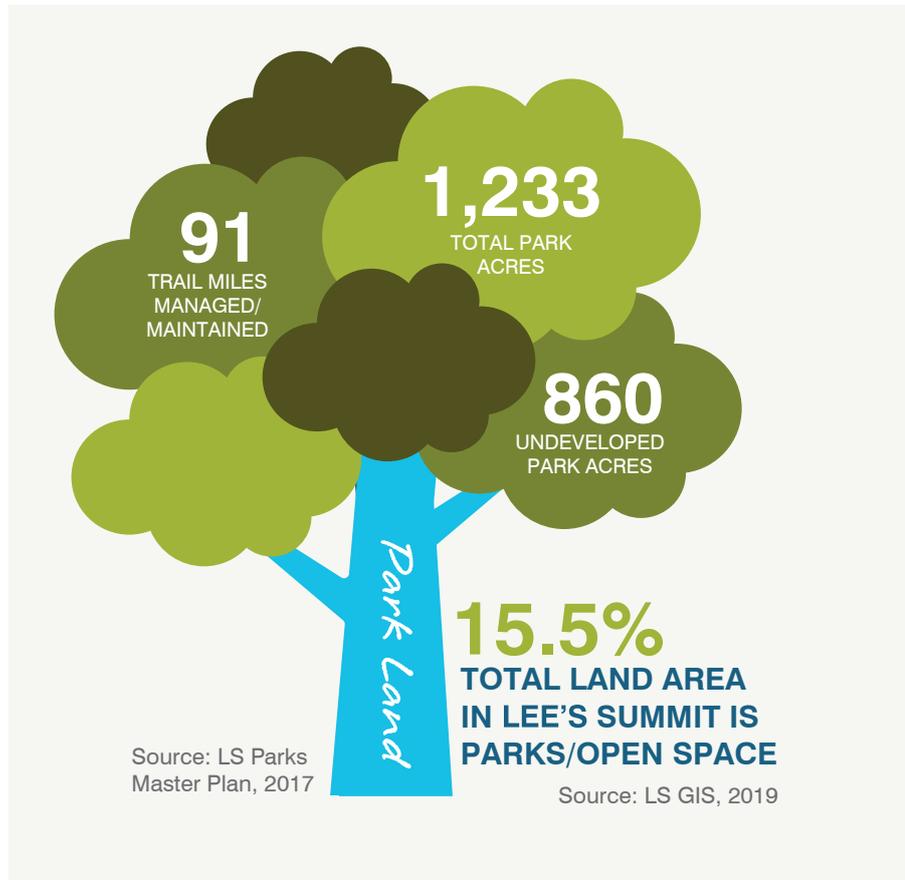
Trends & Foresight

Future parks and recreation programming and facilities should focus on equity, inclusion, health and the environment.

The demand for increased access to parks and trails continues to grow nationwide. The 2020 COVID-19 pandemic has increased residents’ appreciation and desire for parks, particularly non-programmed open spaces. Park and trail users would rather access those locations by foot instead of relying on cars to get there. The Trust for Public Land has an initiative that calls for cities to pledge a “10-minute walk to a park” standard, even as motorized vehicles become increasingly popular. Lee’s Summit developed a Greenway Master Plan to connect people to places throughout the community.

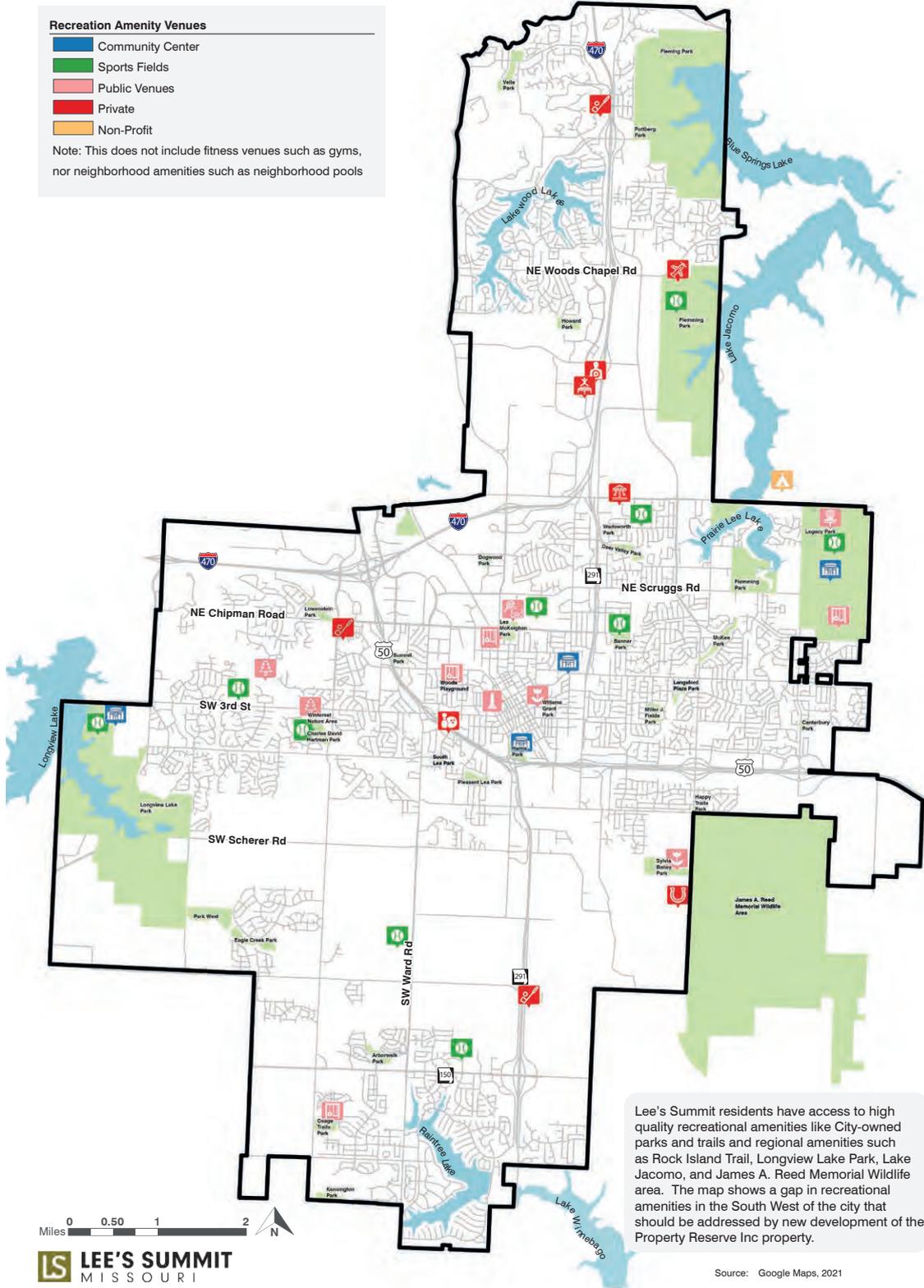
Map 3.1.D.3 shows the Greenway Master Plan which is incorporated as part of this Comprehensive Plan.

Trends in how residents want to use park and recreation facilities frequently change. Recent enthusiasm for drones, gaming and green infrastructure are just some of these. New technology is driving innovation and improving access, including the exponential growth of online fitness class instruction the current COVID-19 pandemic, and emerging technologies such as LED-illuminated sports floor line markings, user ID badges with access-control credentials, and virtual reality activities.



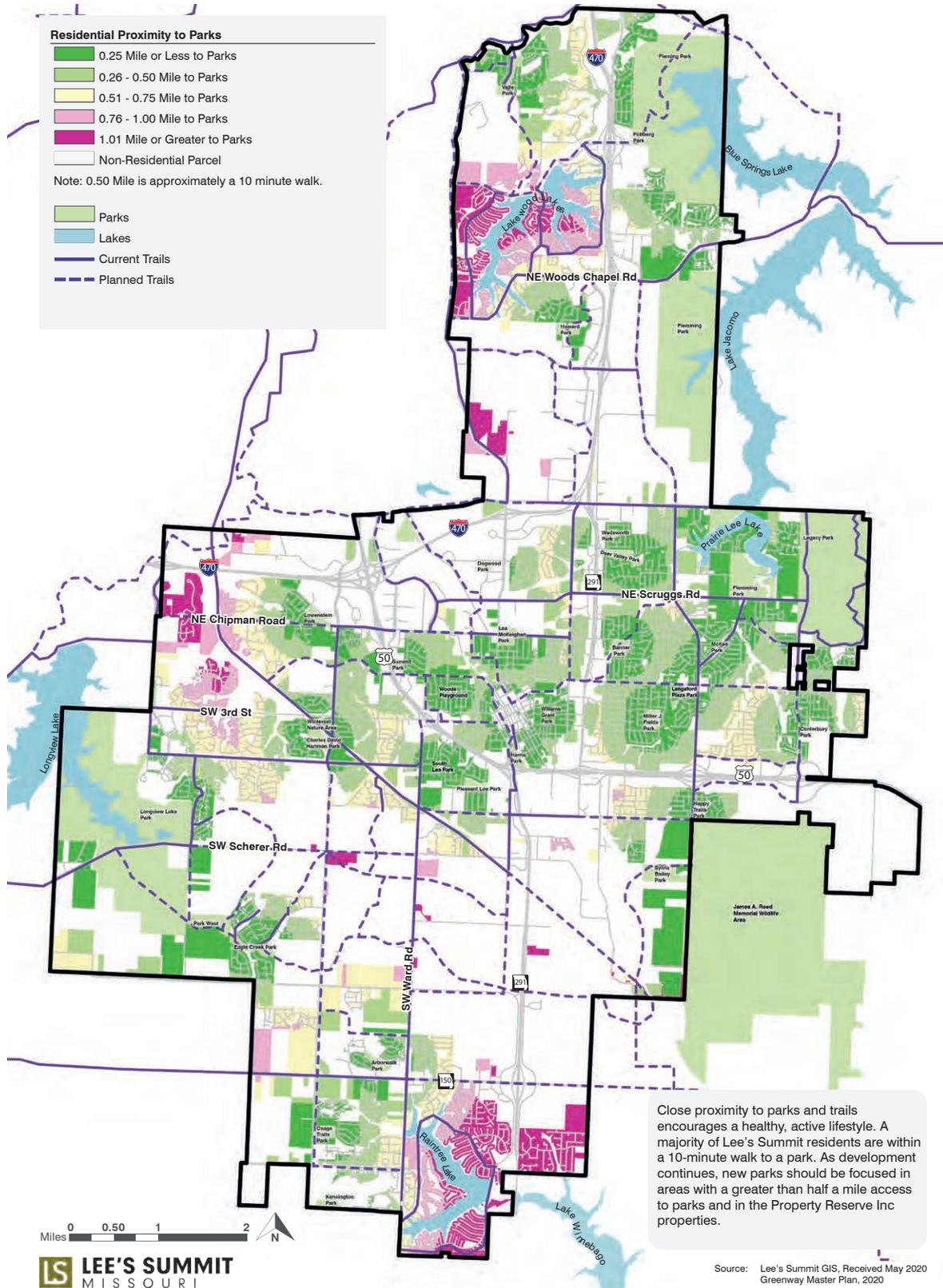
Despite technological advances, people continue to seek ways to connect with others through in-person interaction. Communities are looking for ways to increase intergenerational socializing—dog parks, cultural arts events, activities and facilities designed for people of all ages and abilities are some examples of ways to create new community connections through parks and recreation programming.

Map 3.1.D.1 shows recreation amenities.

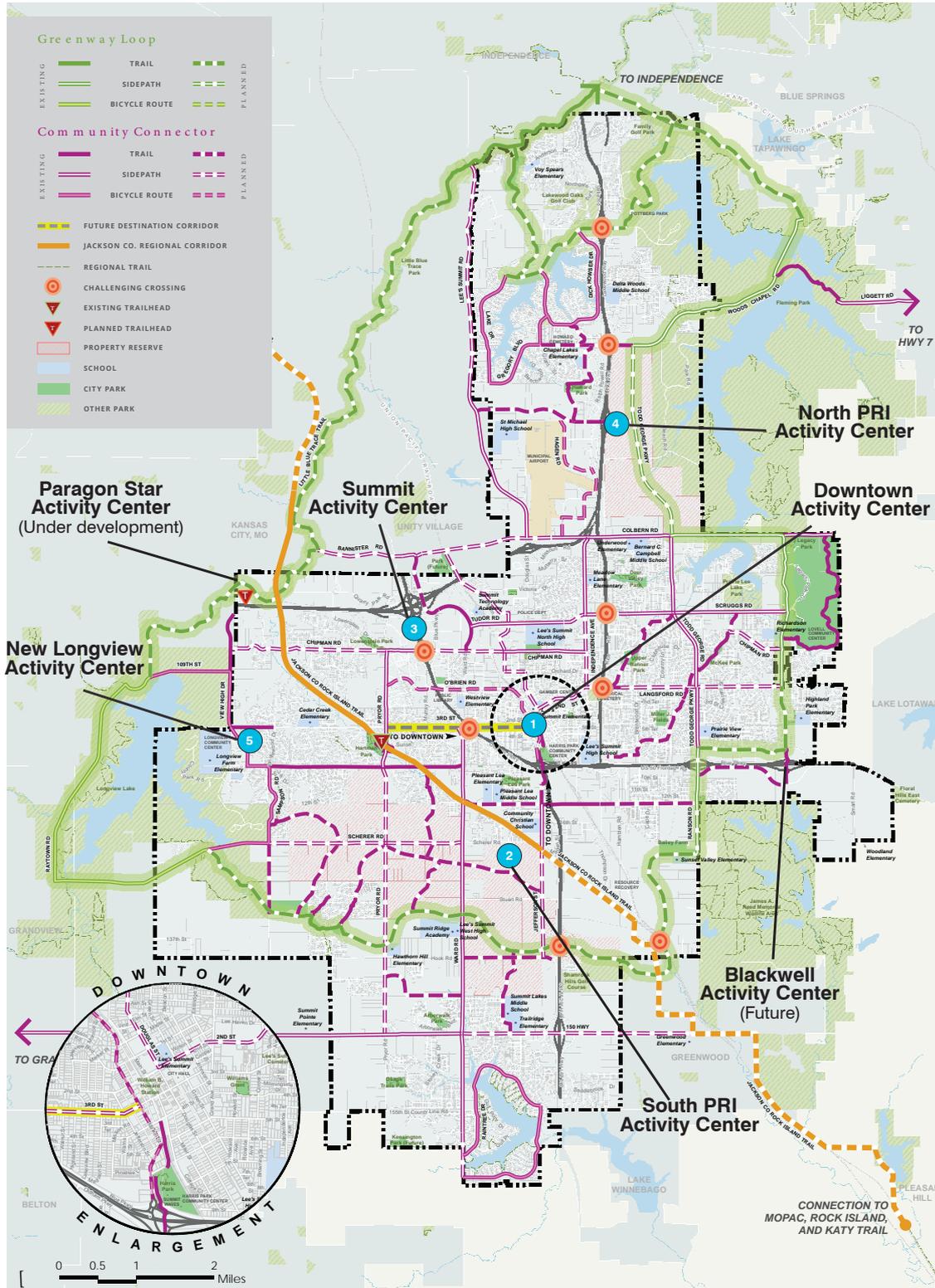


Lee's Summit residents have access to high quality recreational amenities like City-owned parks and trails and regional amenities such as Rock Island Trail, Longview Lake Park, Lake Jacomo, and James A. Reed Memorial Wildlife area. The map shows a gap in recreational amenities in the South West of the city that should be addressed by new development of the Property Reserve Inc property.

Map 3.1.D.2 shows park and trail access.



Map 3.1.D.3 shows the Greenway Master Plan which is incorporated as part of this Comprehensive Plan.





Strategies & Actions

Strategies

- Make investments in parks and recreational amenities that increase participation and improve access.
- Work with community partners to enhance parks and recreation opportunities.

Actions (primarily from 2017 Parks and Recreation Master Plan)

Plan Development

- Complete the Greenway Master Plan and connect parks to neighborhoods and develop a funding plan for implementation. More information about the Greenway Master Plan is included in Chapter 3.4 Multimodal Transportation.

(Ranked #2 Priority by Ignite Comprehensive Plan Community Survey Respondents: 83.53% rated this as 'Very Important' or 'Important' as of 2/12/21)

Partnerships and Collaboration

- Seek partnership opportunities with other government and non-government organizations to support and enhance the outdoor, indoor and programming needs of the community.
- Work with Public Works, neighboring agencies and private sector to expand greenway system.

Best Practice Improvements

- Continue to develop the Greenway Master Plan in conjunction with other marketing initiatives.

- Update 1 or 2 parks annually to improve neighborhood facilities and reduce maintenance costs.
- Utilize the best practices for the maintenance and operation of parks and facilities as well as appropriate asset and needs management plans for all parks facilities.
- Continue to seek grants and partnership opportunities to support parks and recreation in Lee's Summit (e.g., Land & Water Conservation Fund in Perpetuity, Recreational Trails Program, etc.)
- Develop a fee in lieu to fund parkland acquisition that is more accessible and logical to better serve the community.

Programs or Services

- Improve existing parks to include, but not be limited to, upgrades and/or installation of the following amenities: shelters, shade, restrooms, trails, outdoor fitness equipment, playgrounds and climbing structures.

(Ranked #1 Priority by Ignite Comprehensive Plan Community Survey Respondents: 87.78% rated as 'Very Important' or 'Important' as of 2/12/21)

- Develop programming to support outdoor education.

Facilities or Infrastructure Improvements

- Develop a park within 1/2 mile of 85 percent of residences where feasible as the community grows. (80% of residents currently meet this standard)
- Add splashpads in areas of the community underserved by water play opportunities.



- Develop an outdoor adventure park with various elements to challenge participants of all ages.
- Develop a fifth community center.
- Develop a nature center.
- Develop additional athletic practice spaces for youth and an athletic field house to serve the diverse recreational needs of our community.
- Develop a blue way for recreational water usage along the Little Blue Trace River.
- Support acquisition and development of the Rock Island corridor and connect to the Katy Trail.

(Ranked #3 by Ignite Comprehensive Plan Community Survey Respondents: 80% rated 'Very Important' or 'Important' as of 2/12/21)

- Position Lee's Summit Parks and Recreation to acquire property strategically to serve community growth.
- Continue to create and acquire indoor and outdoor recreation space for all ages and abilities.

3.1.E. Collaborative Relations with Education Partners

Goal 3.1.E. Collaborative Relations with Education Partners: Enhance current educational opportunities and plan for future educational opportunities that support the City’s economic development.

Objective 3.1.E.1: Improve and expand partnerships with local education partners and institutions to promote lifelong learning.

Context

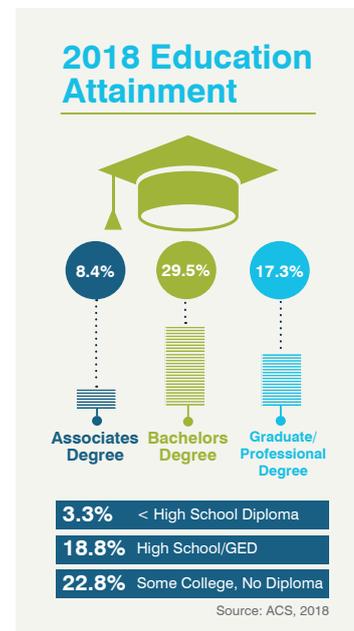
Education plays a significant role in the quality of life and vitality of a community. Educated individuals earn higher incomes and experience greater opportunities, tend to live longer and lead healthier lifestyles. Cities reporting high rates of educational completion and achievement among residents see lower crime rates and experience higher levels of civic involvement.

Historically, most cities’ roles in education were limited to providing the infrastructure for students to access facilities. Cities are now more active participants, understanding that collaboration between cities and educational partners drives economic development and attracts new people into the community.

Likewise, schools now rely on cities to bridge gaps they cannot fill alone. Cities also seek meaningful and functional partnerships with key education partners, institutions, industry professionals and community organizations.

These cooperative efforts increase student outcomes and support local workforce needs.

Increasingly, workplaces and industries in many sectors require education beyond a high school diploma. Post-high school education can include pathways other than a traditional four-year university degree, such as community college programs, apprenticeships, trade school, certificates or online skills training. Such alternatives increase the knowledge and skillsets employers require while minimizing student debt.



Insight

Preschool through High School Overview and Trends

Most of the city’s students are served by the Lee’s Summit R-VII School District, but students also attend schools in Blue Springs, Raymore-

Peculiar, Hickman Mills and Grandview. Lee’s Summit R-VII School District also serves students from outside Lee’s Summit, including those who reside in Greenwood, Lake Lotawana, Lake Winnebago, Unity Village and portions of Kansas City, Missouri. Private schools include Our Lady of the Presentation, Saint Michael’s and Summit Christian Academy.

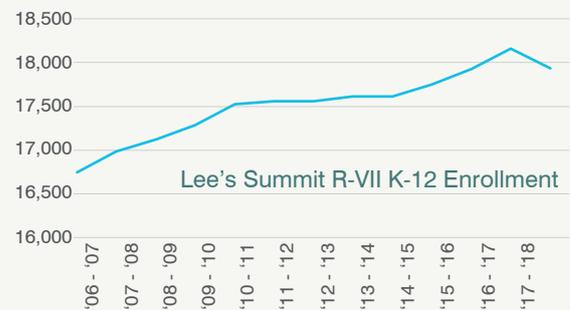
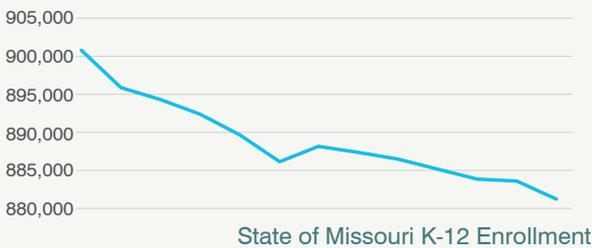


Although increased housing construction is expected in the short term, the aging Lee's Summit population will likely continue offsetting much of the increase in the school-age population resulting from new housing. Longer term, the Lee's Summit R-VII School District foresees great possibilities for the city's

growth. The district is well-positioned to benefit from economic expansion and the potential for the renewed growth from Property Reserve Inc. (PRI) land development. Figure 3.1.E.1 compares Lee's Summit R-VII K-12 enrollment to the State of Missouri.

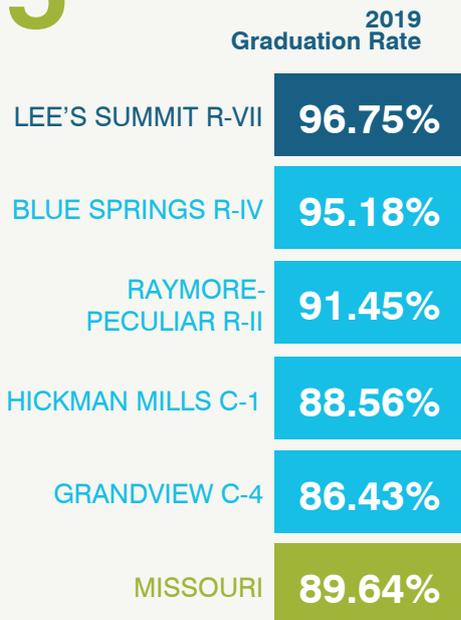
Figure 3.1.E.1 Lee's Summit R-VII K-12 Historical Enrollment vs. State of Missouri

Enrollment



Source: Missouri Department of Elementary and Secondary Education, LS R-VII School District

5 Public School Districts



Source: Missouri Department of Elementary and Secondary Education, 2019

R-VII



Source: LS R-VII School District



3 SCHOOLS WITHIN CITY LIMITS NOT SERVED BY R-VII

CHAPEL LAKES ELEMENTARY
BLUE SPRINGS R-IV

VOY SPEARS JR. ELEMENTARY
BLUE SPRINGS R-IV

DELTA WOODS MIDDLE SCHOOL
BLUE SPRINGS R-IV

Source: Blue Springs School District

3 PRIVATE SCHOOLS

OUR LADY OF PRESENTATION
KINDERGARTEN - 8TH GRADE

SUMMIT CHRISTIAN ACADEMY
PRESCHOOL - 12TH GRADE

ST. MICHAEL THE ARCHANGEL
HIGH SCHOOL

Source: National Center for Education Statistics, 2018-2019

Like many other school districts nationwide, the Lee’s Summit R-VII School District has experienced a sharp increase in students eligible for the Free or Reduced Lunch Program

since 2000. In 2019, 3,586 students (nearly 20% of all students) qualified for the program. However, the dropout rate for students has decreased over the past 20 years.

Higher Education

Post-high school education helps build the foundation for a thriving economy and enhance quality of life that brings both public and private benefits to a community. Lee’s Summit is home to two higher education institutions: Metropolitan Community College – Longview Campus (MCC-Longview), and the University of Central Missouri – Lee’s Summit Campus.

The MCC-Longview campus opened in 1969 and became one of the first community colleges to earn TIME Magazine/Princeton Review “College of the Year” honors and MCC – Longview offers one of the best automotive technology programs in the nation.

The University of Central Missouri – Lee’s Summit Campus, commonly known as the

Missouri Innovation Campus (MIC), opened in 2017. MIC is a partnership between Lee’s Summit R-VII School District, Metropolitan Community College and the University of Central Missouri

The MIC campus is a high-tech facility with a STEM-focused curriculum. It serves nearly 600 Lee’s Summit R-VII School District students, numerous students from other area high schools, and 1,200 University of Central Missouri students. MIC’s 2+2 program is a collaboration with industry professionals that provides a rich, immersive experience to prepare students for the workforce. MIC also permits students to attend high school while simultaneously earning an associate degree, a model that decreases college debt and increases job placement.



HIGHER EDUCATION

METROPOLITAN COMMUNITY COLLEGE - LONGVIEW

DEGREE TYPES:

15 Associates and 12 Certificates

UNIVERSITY OF CENTRAL MISSOURI - LEE'S SUMMIT

DEGREE TYPES:

23 Graduate Degrees

5 Graduate Certificates

21 Undergraduate Degrees

3 Minor Programs

1 Doctorate Program

SUMMIT TECHNOLOGY ACADEMY

A shared campus of junior and senior students for half-day programs, an extension of their home high school. Courses in engineering, technology, computer science, health science and arts & communications.

College credit through UCM, UMKC, Missouri S&T and MCC.

Trends & Foresight

The need for education and learning will never disappear; educational models and service delivery will continue to take different forms. The future of education will focus on access and collaboration. All generations seek opportunities for lifelong learning.

Many cities use creative strategies to address educational and community needs, such as local health and educational institutions that work together to strengthen school-based health systems, expanding access to healthcare and improving community health. Libraries are transforming into technology hubs and activity centers, facilitating innovative lifelong learning models and community cohesion. Cities, school districts, and higher education institutions are increasingly pursuing joint-use facility-sharing agreements to maximize efficient use of physical resources and bring services or amenities to areas in need. For example, a building that serves as a school by day may become a community recreation center or healthcare clinic in the evening.

As K-12 education pivoted to provide virtual, online learning during the COVID-19 pandemic, it is anticipated that more students will continue to use remote education platforms into the foreseeable future.

Individualized learning technology is leading to new curricula built around a student's specific interests and needs. Skills are assessed based on performance, and students will learn with tools that adapt to their capabilities. Ensuring access to educational opportunities, regardless of the model, is needed to ensure that education systems address inequalities.

Future generations may not pursue traditional college education due to cost or desires for entrepreneurial learning pursuits. Online degree and certification programs will become more credible as their use becomes more prevalent, as such programs earned greater acceptance during the COVID-19 pandemic.



Strategies & Actions

Strategies

- Leverage relationships with community partners to advance educational outcomes and maximize resources.

Actions

Education and Outreach

- Promote a culture of post-secondary education through increased advocacy and powerful partnerships with education, business, government and communities.

Practice Improvements

- Reduce or eliminate barriers to access education (e.g., transportation, technology, etc.).

(Community Survey Respondent Priority #3: rated as 42.71% 'Very Important,' 8/7/20)

Partnerships and Collaboration

- Collaborate with school districts to identify where renovation, expansion and construction of school facilities can support city growth and development objectives.

- Encourage forums across industries and sectors to discuss opportunities and concerns related to workforce demands, educational programming, and community needs.
- Continue establishing and building relationships with agencies and businesses that may be possible sources of funding for specialized education and facilities.
- Produce graduates with valuable high-quality post-secondary degrees and certificates relevant to individuals, employers, and the community.

(Community Survey Respondent Priority #1: 47.40% rated as 'Very Important,' 8/7/20)

- Continue and expand the City of Lee's Summit's participation in Summit Technology Academy Career Pathways.
- Establish an apprenticeship or shadowing program, in collaboration with local high schools.

(Community Survey Respondent Priority #2: 46.35% rated as 'Very Important,' 8/7/20)

Facilities or Infrastructure Improvements

- Leverage joint-use facilities.

Chapter 3.2 Strong Neighborhoods & Housing Choice

Goal 3.2.A. Maintain thriving, quality neighborhoods that connect a diversity of residents throughout the community.

Context

Lee's Summit is a fast-growing, auto-centric suburb of Kansas City with a population of 100,300. Located both in Jackson County and Cass County it is often named as one of the best places to live in Missouri. Living in Lee's Summit offers residents a variety of neighborhoods with mostly single family detached housing ranging in square feet, lot size and value.

The vision for all neighborhoods in Lee's Summit by 2040 is:

- Neighborhoods are clean and safe.
- Properties, roads and infrastructure are well-maintained.
- Street trees provide much needed shade as weather patterns change.
- Streetlights illuminate sidewalks and streets to improve safe travel.
- Shared open space provides places for people to gather for neighborhood activities and events.
- Neighborhoods do not experience road overtopping by rainwater. Homes do not experience flood damage. Stormwater infrastructure is installed to manage rainstorm runoff.
- Homes are within walking or biking distance from parks.
- Well-maintained sidewalks connect children to schools.
- Off-road trails and a complete sidewalk system connect neighborhoods to commercial areas and public places.

Goal 3.2.B. Create and maintain a variety of housing options, styles and price ranges.

Context

Historical & Current Population

Families with school aged children made Lee's Summit one of the fastest growing suburbs in Missouri over the past 20 years. New housing reasonably priced, safe neighborhoods and highly ranked education system attracted families. Lee's Summit's population will continue to grow at a rate 1-2% annually like the last 20 years but demographic shifts mean neighborhood and housing preferences will change. Quality



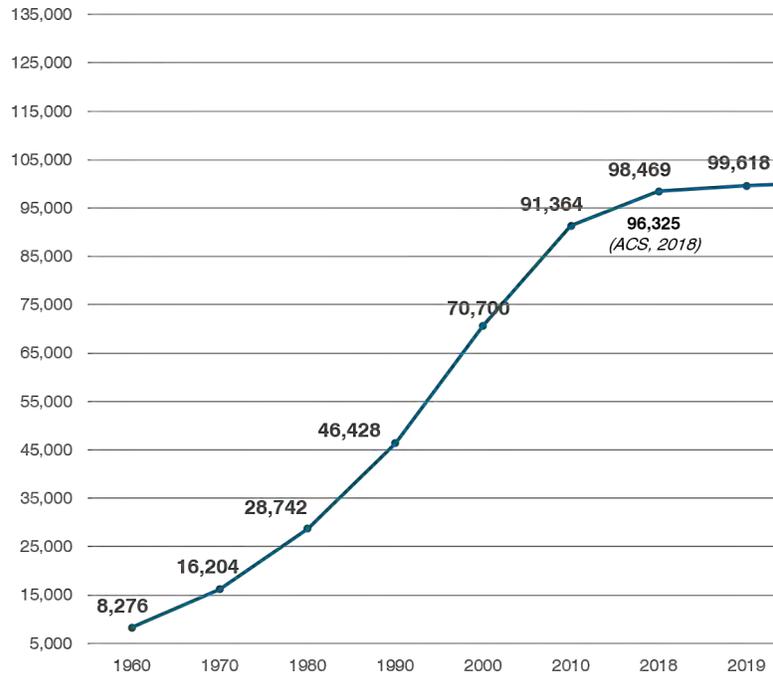
POPULATION

2020: 100,300 people

Growing 1-2% Annually

65+ will see largest growth over next 20 years

neighborhoods and housing choice will continue to attract people to Lee's Summit into 2040.



Insight & Foresight

Population Projection

Historical data and projections from Mid-America Regional Council and the State of Missouri were used to develop the population growth expected. This growth is a target set to measure the implementation of the Comprehensive Plan. More growth or less growth than the target population over the next 20 years means the City will need to adjust the Comprehensive Plan to accommodate the actual population change.

By 2040, Increase population by 37,700 (38%).

| | 2020 | 2025 | 2030 | 2035 | 2040 | Population Growth | |
|----------------------------------|---------|-----------|-----------|-----------|-----------|-------------------|----------|
| Total Population Estimate | 100,300 | 108,100 | 116,300 | 126,700 | 138,000 | 37,700 | |
| Projected Population Growth | | 2020-2025 | 2025-2030 | 2030-2035 | 2035-2040 | 2020-2040 | % CHANGE |
| Net Additional Population | | 7,800 | 8,200 | 10,400 | 11,300 | 37,700 | 38% |
| % Change in Population | | 8% | 8% | 9% | 9% | 38% | |

Population Projection by Age Group

Families with school-aged children will continue to locate in Lee's Summit but the largest increase by population group is 65 and over. Those under 18 years of age will remain the largest population group with 32,800 people projected by 2040 (a 32% increase). Age 65+ will increase from 14,800 currently to 28,100 projected (a 90% increase). These numbers reflect the large generation, the Baby Boomers, aging into the 65 years and older category.

Median Age

| | |
|----------------------------------|------|
| Lee's Summit | 38.5 |
| Kansas City, MO KC Metro Area | 37.3 |
| Missouri | 38.5 |

Source: ACS, 2018

AGE DIVERSITY INDEX

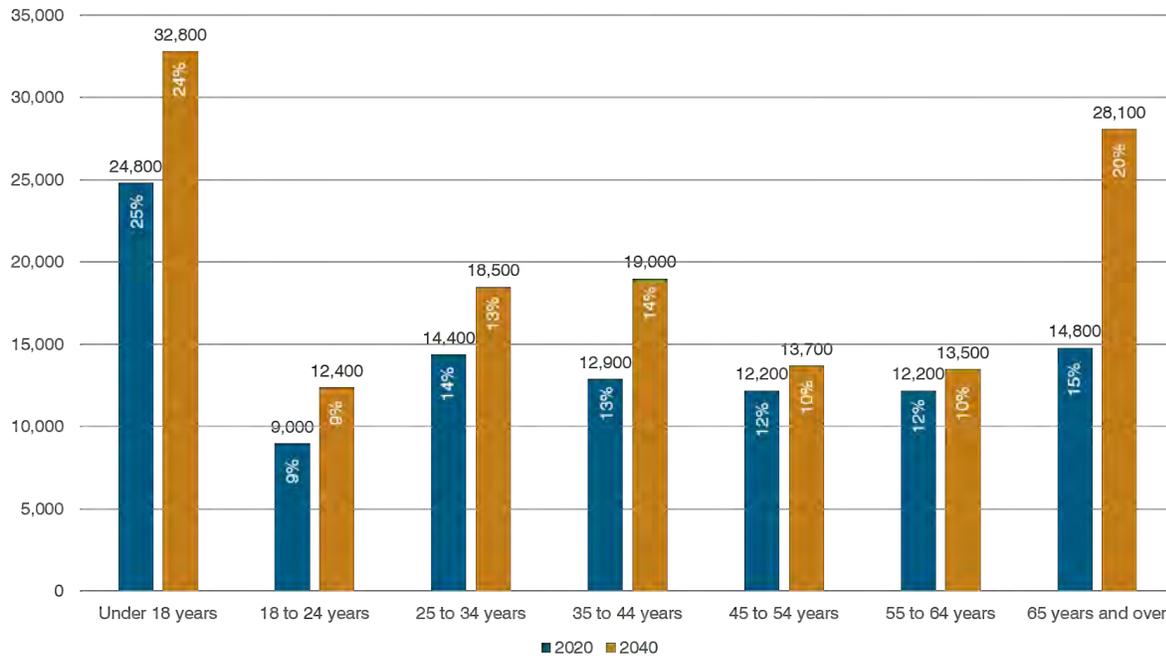
0.87 Lee's Summit

1.0 National

Lee's Summit is less age diverse than the nation as a whole

Source: AARP, 2018

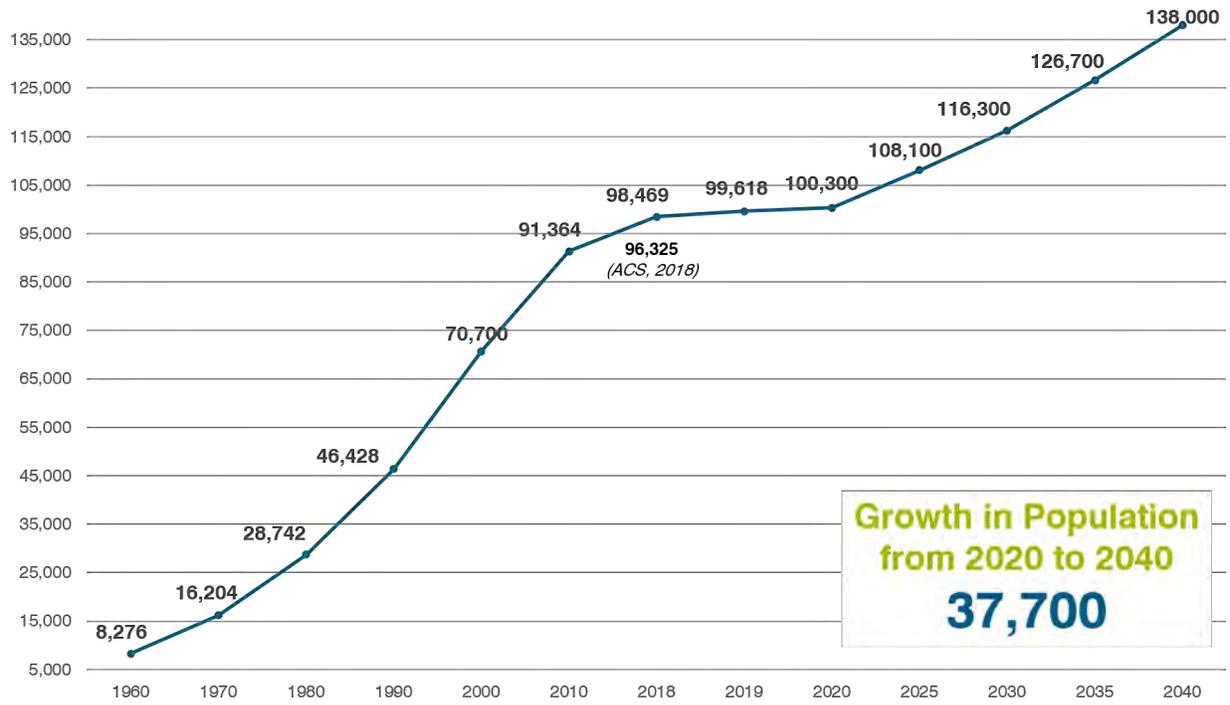
Lee's Summit Population Projections by Age Group



As the Baby Boomer generation grows, so will housing needs for this population. Many aging adults are seeking aging in place opportunities where they can remain in their community and close to family, friends, and activities. To age in place, older community members will need affordable, low to minimal maintenance homes and access to necessities such as healthcare services and groceries. This will require walkable neighborhoods and options for alternative transportation as senior residents age out of driving or owning personal vehicles.

According to the 2020 student demographic projections shown to the R-7 School Board in November 2020, an 1,800-student increase is possible over the next ten years. This growth in the school district indicates the potential for more younger family housing needs. Based on the Fall 2020 Demographic and Enrollment Update Report for R-7 School District, the housing inventory of the District is expected to reach about 52,400 units by 2030/2031 which is an increase of more than 26%. Note the R-7 School District is located inside and outside of Lee's Summit's boundaries. There are also several other school districts within Lee's Summit's boundaries. But the R-7 Schools enrollment projection provides a good information for planning housing in Lee's Summit.

For the period 2020-2040, Lee's Summit is expected to experience a 38 percent increase in the city population for an estimated total population of 138,000. Based on this growth projection, an estimated 17,455 new housing units will be needed in the city.



By 2040, Housing Units by 17,455 (42%).

| Housing Projections | 2020 | 2025 | 2030 | 2035 | 2040 | New Units Needed |
|---------------------|--------|--------|--------|--------|--------|------------------|
| Total Housing Units | 41,825 | 46,530 | 51,080 | 57,100 | 59,280 | 17,455 |

Housing Market Demand in Lee’s Summit Will Continue to be Strong.

As a city of 100,300 residents (2020 population estimate) Lee’s Summit has added nearly 30,000 residents since 2000. There are 41,825 housing units with a housing vacancy rate of five percent (identical to 2010 statistics). The housing market in Lee’s Summit will continue to be strong in Lee’s Summit due to the quality of housing, good schools, and quality public services. Families will continue to be drawn to Lee’s Summit.



| Families | 2010 ACS | 2018 ACS |
|-----------------------|---------------|---------------|
| Average family size | 3.11 | 3.13 |
| TOTAL FAMILIES | 25,126 | 26,425 |

Source: ACS, 2010 and 2018

Fewer People Per Household Will Live in New Units Built

Dramatic growth projected in 65+ age group, changing home preferences, and the cost of housing will drive down the number of people per household in the future. This reflects a growing national trend—in recent decades, most regions of the U.S. have reported decreases in household size. Generational numbers and preferences will drive housing market demand. The number of people per household will decline because more people will be single and married without children. Nationally, 80% of net new households in the next 20 years will be singles and couples without children under 18. In the near term, 69% of net new households in the next 8 years will be singles and married couples without children under 18. In our region, the number of people per household has declined over the past 10 years. This trend will continue and is projected to be down from 2.76 to 1.73 people per housing. This means that while the population will grow at a similar rate than the last 20 years, the number of households needed will be more because the number of people per household will decline overall from 2.67 to 2.46. Currently, Lee’s Summit’s people per household is 2.40. In 2040, it is projected to be 2.33 people per household. New housing being built between in the next 10 to 20 years will average 1.73 people per household. Smaller households mean Lee’s Summit needs more Missing Middle housing as well as medium to large lot single-family detached homes and apartments.



| Population Per Housing Unit | 2018 Average Household Size | 2018 House holder Living Alone | 2018 House holder 65+ | 2020 | 2025 | 2030 | 2035 | 2040 | Total Change 2020-2040 |
|--|-----------------------------|--------------------------------|-----------------------|------|------|------|------|------|------------------------|
| Kansas City MSA | 2.53 | 29% | 10% | 2.56 | 2.54 | 2.52 | 2.51 | 2.50 | (0.06) |
| Total City - Lee's Summit, Mo. | 2.65 | 23% | 10% | 2.40 | 2.32 | 2.28 | 2.22 | 2.33 | (0.07) |
| Population Per Additional Housing Unit Added | | | | | 2.32 | 1.80 | 1.73 | 1.73 | |

Housing Affordability

Nationally, housing affordability impacts a growing number of people. Wage stagnation and increasing cost of living means more people are spending 30 percent or more of their incomes on housing and 15 percent or more on transportation. The cost of living in Lee's Summit closely compares to the national average with housing being slightly higher.



Housing Affordability

Cost-burdened is described as spending 30% or more of monthly income on housing



Median housing value over the past years has grown from \$185,500 to \$210,400 from 2010 to 2018. Since 2018, prices have continued to climb.

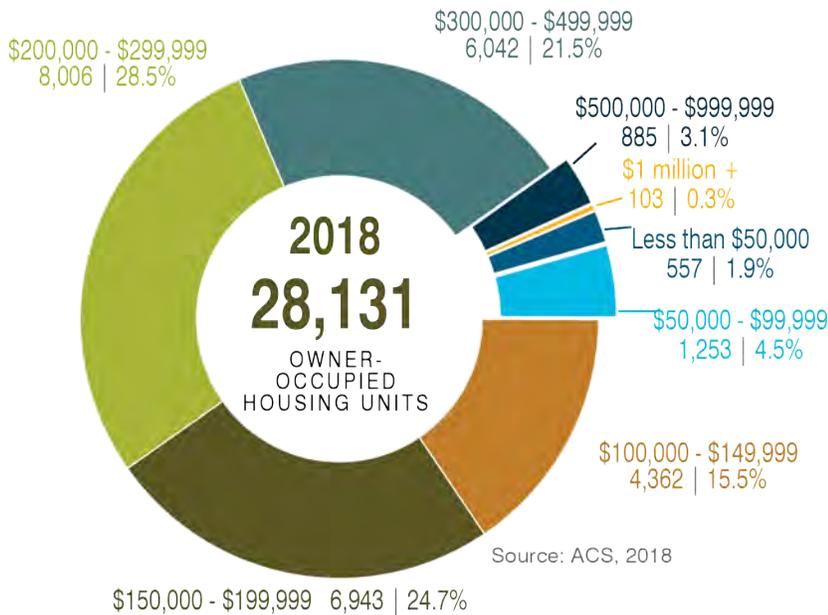
About 47 percent of people in Lee's Summit are housing cost-burdened which means they spend 30 percent or more of their incomes on housing. Notably, median housing values are 21 percent higher, on average, than in the greater metropolitan area. Fifty percent of Lee's Summit homes recently sold for more than \$300,000. The average cost of a new home in Lee's Summit is approximately \$370,000.

Median Home Value in Lee's Summit



Almost 25 percent of the housing stock would be considered as more affordable housing units for most families. These range from \$150,000 to \$199,000. Well-kept houses at this price point are rarely on the market and go quickly when they are listed. Most housing is valued in the \$200,000 to \$299,999 range.

Housing Values



| | LEE'S SUMMIT | JACKSON COUNTY | KANSAS CITY METRO | MISSOURI | UNITED STATES |
|-------------------------------|------------------|------------------|-------------------|------------------|------------------|
| MEDIAN LIST PRICE | \$357,250 | \$188,500 | \$265,000 | \$185,950 | \$282,000 |
| MEDIAN APPRAISED VALUE | \$257,239 | \$156,063 | \$205,552 | \$164,799 | \$247,084 |

Source: Zillow, 2020

AVERAGE COST OF NEW HOME IN LEE'S SUMMIT
\$370,000 (138 active listings)

MEDIAN SALE PRICE IN LEE'S SUMMIT
\$304,113
Source: Heartland MLS, May 2020

| 2010 ACS | | Housing Values | % Change by Category | 2018 ACS | |
|------------|------------|----------------------------|---|------------|------------|
| # of Units | % of Units | | | # of Units | % of Units |
| 319 | 1.3% | Less than \$50,000 |  74.6% | 557 | 2.0% |
| 1,403 | 5.5% | \$50,000 to \$99,999 |  -10.70% | 1,253 | 4.5% |
| 5,385 | 21.3% | \$100,000 to \$149,999 |  -19.00% | 4,362 | 15.5% |
| 7,102 | 28.1% | \$150,000 to \$199,999 |  -2.24% | 6,943 | 24.7% |
| 6,930 | 27.4% | \$200,000 to \$299,000 |  15.53% | 8,006 | 28.5% |
| 3,499 | 13.8% | \$300,000 to \$499,999 |  72.7% | 6,042 | 21.5% |
| 597 | 2.4% | \$500,000 to \$999,999 |  48.2% | 885 | 3.1% |
| 49 | 0.2% | \$1,000,000 or more |  110.2% | 103 | 0.4% |
| 25,284 | 100% | Total Owner-Occupied Units |  11.26% | 28,131 | 100% |

Source: ACS, 2010 and 2018

The amount of housing units valued at \$50,000 to \$199,999 declined from 2010 to 2018. Many of these units were torn down due to the condition of the property. Homes in the \$200,000 to \$999,999 grew with the \$300,000 to \$499,999 growing the most at 73%. The number of \$1,000,000+ homes doubled.

Lee's Summit prepared a housing assessment in 2017 to identify housing needs.

<https://hacis.org/wp-content/uploads/2018/08/Lees-Summit-Housing-Lees-Summit-Housing-Needs-Study.pdf>

Attainable Housing vs. Affordable Housing

Attainable housing refers to market rate housing for-sale that is unsubsidized, profitable and meet the needs of those with incomes between 80% and 120% of the Area Median Income. The price points for attainable housing vary by

| | PER CAPITA INCOME | MEDIAN HOUSEHOLD INCOME | MEDIAN FAMILY INCOME |
|-----------------------|-------------------|-------------------------|----------------------|
| LEE'S SUMMIT | \$39,568 | \$85,183 | \$104,198 |
| JACKSON COUNTY | \$30,237 | \$55,929 | \$71,506 |
| CASS COUNTY | \$31,675 | \$71,114 | \$81,615 |
| KC METRO | \$34,444 | \$64,020 | \$80,648 |
| MISSOURI | \$29,537 | \$54,478 | \$69,188 |

Source: ACS, 2018

Source: ACS, 2018

Source: ACS, 2018

metro area depending on the Area Median Income, with FHA Loan Limits typically hovering around 115% of Area Median Income. Attainable housing is not the same as affordable housing or subsidized housing. Attainable Housing is sometimes called workforce housing because it is important to have teachers, firefighters, police officers and others who make up the workforce living in the community. The chart below describes what is considered attainable in Lee's Summit. While this may not seem affordable to many, this is seen by most banks as attainable.

The amount that is considered affordable is also listed for the same income levels for comparison. While the goal is to keep housing costs at 30% of Median Household Income, the “H+T Index” or cost of housing and transportation should not go above 45% of income. Anything more is a cost burden.

United States Department of Housing and Urban Development (HUD) defines affordability as paying no more than 30% of median household income for housing. This affordability standard is not an underwriting standard, and it does not say that households are unable to pay more than that amount, but it is a useful rule-of-thumb. Households may choose to pay more to get the housing they need or want but, according to HUD standards, they should have access to decent, safe housing for no more than 30% of their household income. Many Lee’s Summit upper income level households spend more than 30% of their income on their homes. The average household spends \$13,334 per year or \$1,111 per month on transportation.

To learn whether there is an adequate supply of affordable housing, the number of households within the various income categories must first be determined:

| INCOME AND BENEFITS (IN 2018 INFLATION-ADJUSTED DOLLARS) | Income & Benefits | Number of Households | Percent of Total Households | Affordable Monthly Housing Costs 30% of Household Income | Affordable Monthly Transportation Costs 15% of Household Income | Total Affordable Monthly Housing + Transportation Costs by Income 45% of Household Income |
|--|------------------------------|-----------------------------|------------------------------------|---|--|--|
| Lee’s Summit, MO | | 36,134 | 36,134 | | | |
| AFFORDABLE HOUSING + TRANSPORTATION EXPENDITURE BY INCOME LEVEL | | | | | | |
| Less than \$10,000 | \$ 10,000 | 872 | 2.40% | \$250 | \$125 | \$375 |
| \$10,000 to \$14,999 | \$ 15,000 | 1,083 | 3.00% | \$375 | \$188 | \$563 |
| \$15,000 to \$24,999 | \$ 25,000 | 2,113 | 5.80% | \$625 | \$313 | \$938 |
| \$25,000 to \$34,999 | \$ 35,000 | 1,760 | 4.90% | \$875 | \$438 | \$1,313 |
| \$35,000 to \$49,999 | \$ 50,000 | 3,514 | 9.70% | \$1,250 | \$625 | \$1,875 |
| \$50,000 to \$74,999 | \$ 75,000 | 6,142 | 0% | \$1,875 | \$938 | \$2,813 |
| \$75,000 to \$99,999 | \$ 100,000 | 5,955 | 16.50% | \$2,500 | \$1,250 | \$3,750 |
| \$100,000 to \$149,999 | \$ 150,000 | 7,567 | 20.90% | \$3,750 | \$1,875 | \$5,625 |
| \$150,000 to \$199,999 | \$ 200,000 | 3,563 | 9.90% | \$5,000 | \$2,500 | \$7,500 |

| | | | | | | |
|---|------------|-------|-------|---------|---------|---------|
| \$200,000 or more | | 3,565 | 9.90% | | | |
| Area Median household income (dollars) | \$ 85,325 | | (X) | \$2,133 | \$1,067 | \$3,200 |
| Mean household income (dollars) | \$ 103,841 | | (X) | \$2,596 | \$1,298 | \$3,894 |
| ATTAINABLE HOUSING & TRANSPORTATION TARGET – housing that meets the needs of those with incomes between 80% and 120% of the Area Median Income | | | | | | |
| 80% of Area Median Income(dollars) | \$ 68,260 | | (X) | \$1,707 | \$853 | \$2,560 |
| 120% of Area Median Income (dollars) | \$ 102,390 | | (X) | \$2,560 | \$1,280 | \$3,840 |

The average Lee's Summit household currently spends:

| Household Type | Monthly Average Spent on Housing |
|----------------|----------------------------------|
| Owner-Occupied | \$1,636 |
| Renter | \$1,015 |

The average Lee's Summit household spends \$1,111 on transportation in addition to housing.

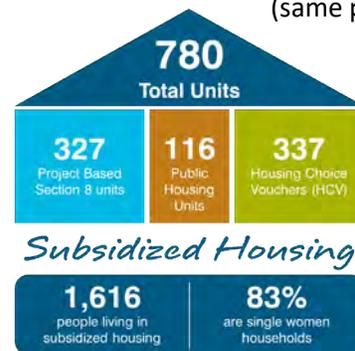
Households with incomes under \$50,000 per year are likely cost burdened.



\$1,111/month or \$0.88 per mile (same prices as an uber)

Subsidized & Special-Needs Housing

Subsidized housing is subsidized by the federal government or built with federal assistance and owned by the local housing authority or private entities. In other cases, the subsidy is distributed to the household who pays the rent for a privately owned unit. In Lee's Summit, 15 percent of the rental stock is subsidized. The largest share of the assisted units are in low-income housing tax credit (LIHTC) developments, with 500 units in 5 developments subsidized through this program. Property available below 100% Average Median Income as shown in the table above could potentially qualify for federal housing subsidy. The U.S. Department of Housing and Urban Development (HUD) for Consolidated Plans also looks at the median income for a community and determine how many units are available to various low- and moderate-income households.



Lee's Summit 2020

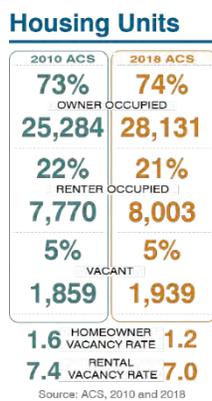
Many federal and state housing funding programs are tied to the 30%, 50%, and 80% of the median income for households of different sizes.

| Subsidized Housing Thresholds (2018 American Community Survey data) | Income Level |
|--|---------------------|
| Area Median household income (dollars) | \$ 85,325 |
| <i>Extremely low-income</i> households are those with incomes below 30% of the area median household income. | \$ 25,598 |
| <i>Very low-income</i> households with an income between 30% and 50% of the area median household income. | \$ 42,663 |
| <i>Low-income</i> households are those with incomes between 50% and 80% of the area median household income. | \$ 68,260 |
| <i>Moderate-income</i> households have incomes between 80% and 95% of the area median household income. | \$ 81,059 |

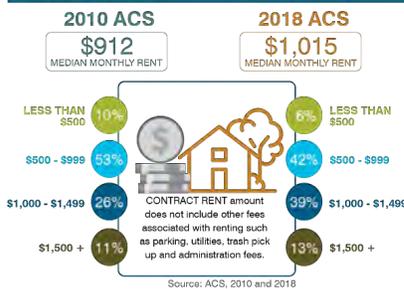
About 10% of the population is considered extremely low-income with 15% each of the other categories. Approximately 45% of the households are considered high-income when compared to the Area Median Income.

Owner Occupied and Rental Units

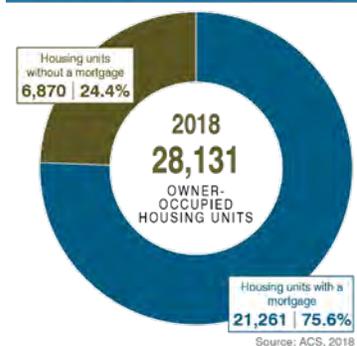
About 75 percent of all homes are owner-occupied so there is very little Summit



Gross Rent



Mortgage Status



opportunity to move to Lee's without the wealth to own a

home. Vacancy rates tells a great deal about the health of a housing market. If the vacancy rates are too low, the market is not providing enough housing. If the vacancy rates are too high, the market is providing more than is needed. In a healthy market, the rental vacancy rate is usually between 5.0 and 7.0 percent. In the market for owner-occupied housing, the vacancy rate is usually between 1.75 and 2.0 percent. Increasing demand, low vacancy rates and low supply means increasing costs to purchase and to rent.

Preserving Quality of Existing Homes

Most of the housing was constructed between 1980 to 2010. Most houses built pre-1980 (10,335 – 27%) generally have a smaller footprint and therefore may be more affordable to purchase and maintain.

But as homes age, the cost to maintain it increases. Housing needs system upgrades over time along with day-to-day maintenance. Updates to electrical, plumbing, HVAC, roofing, siding, etc. can be costly. Incentives such as home repair programs ease the cost burdens of upgrading homes.

Continued infrastructure investment and improved connectivity to amenities and services can maintain the desirability and attractiveness of older neighborhoods. Public infrastructure investments in neighborhoods can also encourage property owners to make improvements.

Preservation of housing stock is important to conserve the character of neighborhoods and the history of a city. Housing is often a reflection of its time—architecture, function, size—so it connects future generations to the past. Housing can become obsolete, but most can be adapted for today’s needs. Some homes are remodeled to meet current needs while others are torn down and new homes built in their place. Preserving existing housing is more cost-effective and easier than new construction. Rehabilitating an existing affordable apartment can cost one-third to one-half less than building a new apartment.

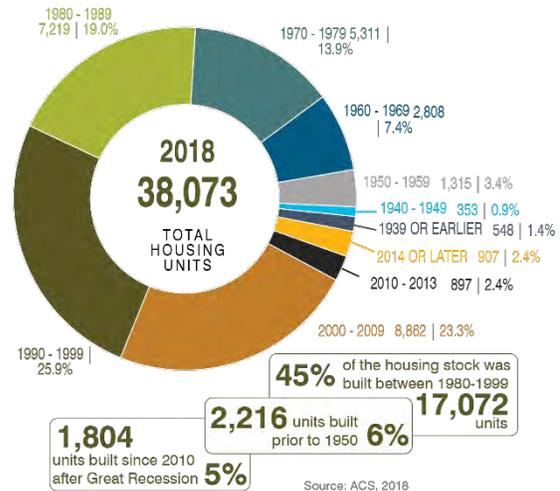
Thinking Outside of the Housing Box

Re-purposing obsolete commercial strip centers in the city is another approach to provide attainable, charming neighborhoods. Re-purposing obsolete strip center locations for added housing can effectively accommodate townhome type developments adjacent to corridors. Well-served by utilities and transportation these locations may have outlived most of their commercial functions and can accommodate residential and mixed-use developments more cost-effectively undeveloped property.

Communities for All Ages

Many people want to live in a community throughout their lifespan. Different housing is needed at different stages of life.

Age of Housing (year built)



Gold Level Recipient

Lee’s Summit offers quality senior housing facilities. Senior housing that offers a maintenance-free lifestyle and varying levels of care are not affordable to everyone. Some seniors would like to live in their home and community safely, independently, and comfortably, regardless of age, income, or ability. The American Planning Association refers to the concept as “aging in community,” where “older adults can live as independently as possible in the community of their choice.”

The City of Lee’s Summit is an aging-friendly community with awareness, implementation and strategies that address changing demographics. Lee’s Summit is recognized for its Community for All Ages Plan with Gold and Silver certifications.

Senior Living Facilities

2 RESIDENTIAL CARE & ASSISTED LIVING

SENIOR APARTMENTS

3 RETIREMENT COMMUNITY

Source: LS Annual Development Report, 2019

\$4,050/mo.

Source: caring.com

Universal Design

Neighborhoods and housing that work for people with disabilities, older people and everyone is called universal design. As the population ages, market demand for universal design in housing and entire neighborhoods will grow.

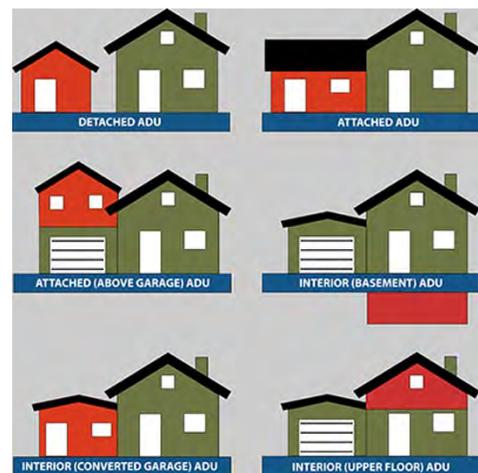
Multi-generational Housing

Demand for multigenerational housing is increasing. We are seeing more people building on to their existing home or an accessory unit places for their parents or adult children to live. As our community becomes more diverse, many immigrant cultures prefer multiple generations living under one roof.

Co-housing

Roommates are not just for people in their 20’s. Seniors are turning to cohousing to cut costs and loneliness. Cohousing is community designed to foster connection. Physical spaces allow neighbors to easily interact with others just outside private homes. Common areas including kitchen, dining space and gardens bring people together. Collaborative decision-making builds relationships.

Accessory Dwelling Units



Impact of Technology on Housing

Technological advances will improve the quality and efficiency of homes. Smart homes equipped with several devices that automate tasks normally handled by humans are becoming the norm. Lighting, climate, entertainment systems, appliances and security systems can already be run from a phone app. In the future, energy and resource efficient homes will be designed to keep utility costs reasonable. Technological advances in building materials and construction practices will improve the quality and efficiency at a more attainable cost.

Changing Housing Market

Charming, friendly, inclusive and welcoming communities generally offer a variety of housing products with varying types and price points. Ideally, sidewalks, trails and open spaces connect homes within neighborhoods to the broader community.

Lee's Summit will continue to be known for the finest quality single-family neighborhoods well into 2040. The current and projected largest land use is single-family detached housing on medium and large lots.

Nationally and regionally, the suburban housing market is changing. The number of people per household will decline. Some baby boomers, millennials (Gen Y), and Gen Z's American Dream are very different than their parents. Most millennials will not own homes due to affordability issues but also preference. With a median income in the US of \$33,883, millennials are encountering an average rental price of \$925 per month. This price point puts many homes outside the reach of millennials and Gen Z. Smaller single-family homes on smaller lots are generally more affordable and less to maintain. As people age, many are looking for homes with a master on the first floor and smaller yards so they can stay in their homes.

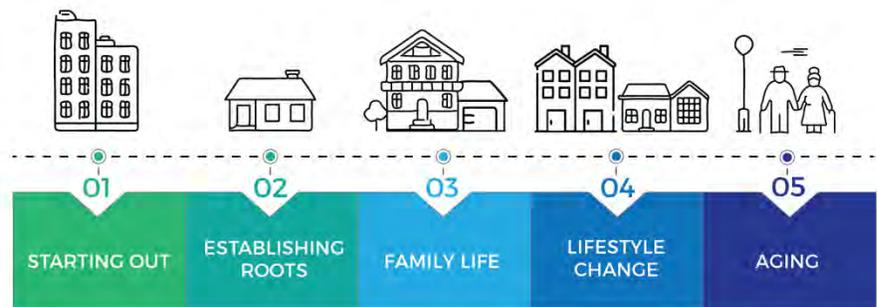
Kansas City's suburbs fueled population growth in the metro over the last 70 years. This growth will continue over the next 20 years and Millennials will drive that growth. Many high-income Millennials are choosing to live in the suburbs -- 84% of high-income millennials in the Kansas City region live in the suburbs. Millennials and Baby Boomers are drawn by suburbs that are becoming denser taking on certain characteristics that seem urban-like. They are more diverse, have more mixed land use and more people commute to them as they become job centers. This is a gradual process that will change perception we have of the suburbs. People of all generations are seeking homes connected to vibrant activity centers with walkable areas where every day needs are nearby. People used to move where the jobs are located. Now and into the future, jobs will move to where people want to live.

Neighborhoods designed with smaller lots and smaller homes with more extensive shared indoor and outdoor common areas are growing in demand. Maintenance-provided housing is growing in demand that accommodates young professionals and empty nesters who want to lock up and leave to travel periodically. This type of housing appeals to young and old who do not want to personally maintain a property. Housing developers in Lee's Summit are already providing these types of homes. This trend will continue.

Housing for All

Housing demand is most often spurred by a change in lifestyle such as marriage, divorce, change in employment, birth of a child, children moving out, or retirement, any of which can result in a choice to simplify life with low-

maintenance living and greater disposable income. The types of housing needed in a community to allow people to live there regardless of age or lifestyle include housing for people starting out, those establishing roots, families, those looking for a lifestyle change and those



aging. It is important that a variety of housing be available at different price points and for different stages of life.

Housing types are broken into three categories based upon intensity for purposes of planning. Rather than focus on whether the housing product is single-family, multi-family, detached or attached, residential categories are based upon the intensity of each use. Intensity is described as how different uses relate to each other. Whether it be building scale, the amount of traffic generated, or operational impacts, types of residential development are grouped by the intensity of use.

Category 1 – Lower intensity

- Traditional medium and large lot single-family detached housing (8,500+ square foot lots)

Category 2 – Medium intensity -- sometimes called Missing Middle Housing

- Small lot single-family detached housing (4,000 – 7,499 square foot lots)
- Duplex side-by-side or stacked
- Fourplex stacked
- Courtyard building
- Cottage court
- Townhome
- Multiplex Medium
- Triplex-Stacked
- Live-Work

Category 3 --Higher intensity

- Midrise Mixed Use
- Apartment Complexes

The current mix of housing units is 72% Category 1; 13% Category 2; and 15% Category 3.

Fill the Missing Middle Housing Gap

Housing of all types are needed to meet future demand. The largest gap to fill is missing middle housing. Missing middle housing fills the gap between traditional detached single-family housing and larger multi-unit apartment buildings. Missing middle building types, such as duplexes, fourplexes, cottage courts, courtyard buildings, and townhomes provide diverse housing options and support locally serving retail and public transportation options. Missing middle housing is the same scale as the typical single-family home in Lee’s Summit but has multiple

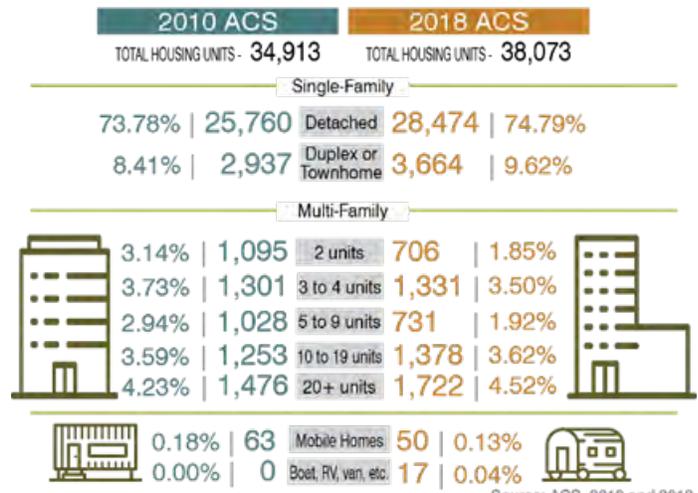


Example of pocket neighborhood

units in walkable neighborhoods near employment and services. Increasing the number of housing units per acre and locating them near commercial services and transportation reduces the overall cost to live in that neighborhood.

Homebuilders, initially looking to target the emerging millennial demographic through reduced footage and lower price points, have discovered that other generations are also interested in smaller homes. Singles, couples, and small families of all ages and income levels are looking to maximize their disposable income and minimize their home maintenance commitment, hoping to prioritize experience and free time over possessions and a large home. The market for single-family detached homes is strong regardless of income level or age of occupants. The cost of land and construction materials for a traditional size Lee's Summit home can be prohibitive for many income groups. Smaller homes are not just becoming a necessity for affordability but are increasing in demand due to changes in personal preferences and lifestyles. Many builders define a home as "small" if it is less than 1,800 square feet. But those on the leading edge of this category are pushing the definition of a small home to less than 1,400 square feet. Detached cluster homes allow higher density than traditional single-family homes but create the traditional feel that many homebuyers are looking for. The design of pocket neighborhood, green cottage court, and alley loaded configurations yield densities with smaller house footprints are desirable, especially if there is maintenance provided.

Housing Units by Structure



Attainable housing yields similar margins to higher priced homes due to faster turnover and more rapid price appreciation. Attainable housing addresses pent-up demand in a segment that has limited supply, which creates greater price elasticity and more upside revenue potential than any other segment.



By 2040, Increase Housing Choice to Meet Market Demand by Increasing Percent of Total Housing Units for Category 2 & 3 by approximately 9,000 units.

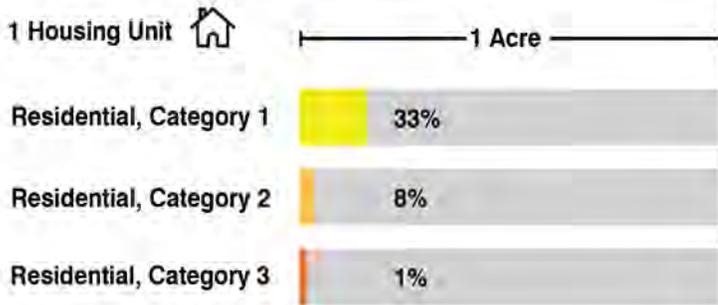
The current mix of housing units is 72% Category 1; 13% Category 2; and 15% Category 3. To move closer to market demand and maintain the community character and high-quality provision of public services and infrastructure an increase in Missing Middle Housing Category 2 as a percent of the total is recommended.

Current Mix: 72%/13%/15%
 To
 Recommended Mix:
 65%/20%/15%

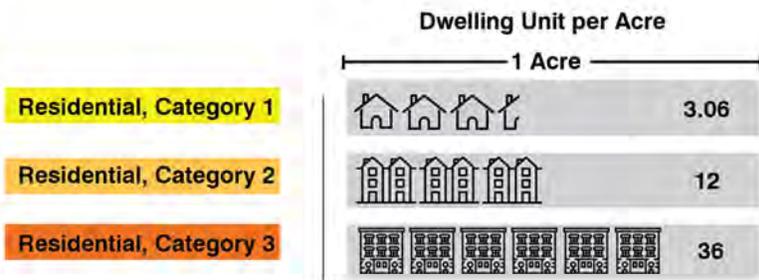
The following table details future housing projections based upon the recommended mix of housing types.

| Residential Development By Type | Current Dwelling Units | Current Dwelling Units/Acre | % Current Dwelling Units | Total Future Dwelling Units | Total Future % Dwelling Units | Future Dwelling Units Per Acre | Change Total Dwelling Units | Current Residential Acres | Future Residential Acres |
|--|-------------------------------|------------------------------------|---------------------------------|------------------------------------|--------------------------------------|---------------------------------------|------------------------------------|----------------------------------|---------------------------------|
| Category 1 | 30,049 | 2.54 | 72% | 38,532 | 65% | 3.04 | 8,483 | 11,830 | 12,675 |
| Category 2 | 5,562 | 8.36 | 13% | 11,856 | 20% | 12 | 6,294 | 665 | 988 |
| Category 3 | 6,214 | 14.75 | 15% | 8,892 | 15% | 36 | 2,678 | 421 | 247 |
| TOTAL | 41,825 | | 100% | 59,280 | 100% | | 17,455 | 12,917 | 13,910 |

Land Use Consumption



Density



Population per Acre

| Category | People per Unit | Units per Acre | People per Acre |  = 3 people |
|-------------------------|-----------------|----------------|--|---|
| Residential, Category 1 | 2.66 | 3.06 | =  | 8.14 |
| Residential, Category 2 | 1.8 | 12 | =  | 21.6 |
| Residential, Category 3 | 1.8 | 36 | =  | 64.8 |

1 Acre

Resiliency – Basis for Housing Mix Targets & Location

By 2040, ensure the lifecycle cost of providing infrastructure and services for new development is offset by the revenues received. (Per Acre, Per Housing Unit, Per Capita)

By 2040, Increase the Population & Number of Housing Units within Walking Distance to the Heart of an Activity Center.

By 2040, Increase Number of New Category 2 & 3 Housing Units in Activity Centers to Support Commercial/Office/Retail.

| Projected Housing Demand | Existing Dwelling Units | New Dwelling Units | 2040 Total Dwelling Units | % New Units Allocated | % Total Dwelling Units |
|--------------------------|-------------------------|--------------------|---------------------------|-----------------------|------------------------|
| Activity Centers | 5,930 | 9,800 | 15,730 | 56% | 27% |
| Outside Activity Centers | 35,895 | 7,655 | 43,550 | 44% | 73% |
| Total | 41,825 | 17,455 | 59,280 | | |

The numbers in the table above only include growth projected to 2040. More housing units are expected both inside and outside of the Activity Centers to full-build out.

By 2040, Increase the % of Residential Development within Walking Distance to Commercial Development.

**27% of All Housing
within 15-minute walk of an Activity Center.**

By 2040, Concentrate/Consolidate/Capture Number of New Category 2 & 3 Housing Units in Activity Centers to Support Commercial/Office/Retail.

- (9,800 Units in Activity Centers)
- Track those going into your corridors as well as they redevelop and develop.

Goal 2.A. Maintain thriving, quality neighborhoods that connect a diversity of residents throughout the community.

Objective 2.A.1. Preserve and enhance neighborhood character.

Strategies

- Document unique assets of neighborhoods that tangibly distinguish each from another.
- Consider community benefits when analyzing development projects.
- Urge small-scale, convenient retailing and personal service nodes in new and existing neighborhoods.

Actions

- Identify architecturally or culturally significant neighborhoods and create programs to revitalize and preserve their identity.
- Conduct historic resource surveys.
- Create neighborhood conservation districts.
- Evaluate scale, architectural design, and site placement of new and renovated housing in relation to existing nearby structures and functions.
- Evaluate net benefits and costs of new or redevelopment projects in terms of traffic impacts, accessibility to daily services, walkability, noise, lighting, and density.
- Quantify buying power and convenience needs of typical households in the neighborhood.
- Map and evaluate distances and mobility to commercial centers to determine convenience needs.
- Identify possible sites for small, convenient commercial nodes serving neighborhoods.

Goal 2.A. Maintain thriving, quality neighborhoods that connect a diversity of residents throughout the community.

Objective 2.A.2. Promote the development of neighborhoods that are charming, friendly, inclusive, welcoming and community minded.

Strategies

- Enhance opportunities for social interaction in neighborhoods.
- Promote and support a variety of neighborhood events as determined by the neighborhoods themselves.
- Emphasize the value for all neighborhoods to share in providing housing that meets the needs of many walks of life, incomes and lifestyles.

- Assure that each neighborhood offers range of opportunities for aging in place and disabled residents. These are not limited to nursing homes, assisted living centers, or seniors-only buildings.
- Promote a mix of affordable housing types for all ages and abilities.
- Survey each neighborhood to determine key points and areas of social interaction.
- Evaluate urban design characteristics that encourage, discourage, or potentially encourage social interaction.
- Prepare social interaction design plans to maximize use of common meeting areas.
- Encourage neighborhood festivals, street fairs, and related events.
- Provide technical and logistical support for family movie and concert nights in neighborhood parks.
- Assist neighborhoods in preparing historic or architectural tours and collateral material.
- Continue to work with organizations that assist low-income residents and families such as the Lee's Summit Housing Authority.
- Continue to support agencies that assist people experiencing homelessness.
- Continue to provide financial assistance to low- and moderate-income (LMI) homeowners for the upkeep of their homes through the Minor Home Repair Program and to the local public housing agency to implement its CIP.
- Identify locations for higher density housing locations, including undeveloped and under-developed locations, or redevelopment sites such as aging or dysfunctional commercial centers.
- Establish design criteria to buffer higher density housing from lower-density areas and from high-intensity commercial concentrations.
- Create building and site design patterns that developers and property owners can immediately construct on specially designated properties.
- Evaluate needs of all types of housing to accommodate older and disabled residents (e.g., universal design standards).
- Identify resources for building retrofits to accommodate older and disabled residents.
- Modify zoning and other regulations to accommodate housing additions or accessory dwelling units that are intended for use by elderly or disabled family members.
- Identify possible sites for new, renovated, or redeveloped housing for specific elderly or disabled projects.
- Repair, improve or replace deteriorating public sidewalks, landscaping and infrastructure.
- Encourage improvement and upgrades to vacant strip malls or large-scale structures.
- Continue researching ways of applying universal design approaches to increase accessible housing stock.
- Consider small lot development when applicable to increase density and affordable housing stock.
- Infill development should respect the existing character of neighborhoods while providing neighborhood enhancements.
- Encourage green building (energy-efficient and cost-effective) techniques and methods in redevelopment and revitalization projects.
- Reevaluate short-term housing absorption for the City of Lee's Summit and the Downtown Market Area.
- Reevaluate opportunities for future new housing construction in the Downtown Market Area, including market segmentation (i.e., prospective target markets and pricing) and housing product types (i.e., for-sale, rental and senior housing).

Goal 2.A. Maintain thriving, quality neighborhoods that connect a diversity of residents throughout the community.

Objective 2.A.3. Connect neighborhoods to nearby opportunities for shopping and support services, convenient public facilities such as quality roads, pedestrian connections, parks and schools.

Strategies

- Create and support neighborhood business associations.

Actions

- Require business associations to undergo training by property owners, business owners, and business operators in collective organization, management and branding that connects them to their adjacent neighborhoods.
- Utilize such programs as the Missouri Main Street Connection (Downtown Lee's Summit is a member but any commercial area can join) to provide the training.
- Encourage use of Missouri's Community Improvement District (CID) law to assist neighborhood business associations in self-organizing and self-funding.
- Assist CIDs that have undergone training with creation of reinvestment strategies for infrastructure, urban design and marketing.

Objective 2.B.1. Preserve and protect existing housing stock.

Strategic Approach

- Require that neighborhood revitalization and enhancements result in no net loss of housing units.

- Encourage infill housing development and replacement of obsolete housing.
- Enhance the capabilities and knowledge of neighborhoods and their leaders when collaborating with City departments.

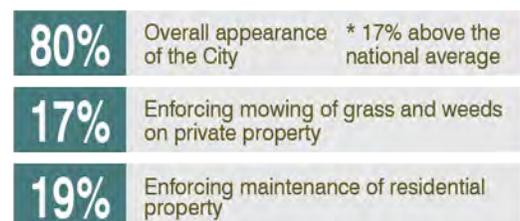
Strategies

- Conduct housing conditions surveys to document units or structures that may need substantial resources for repair or upgrade.
- Enforce building codes that require upgrades only to the degree that property owners can afford such improvements. Compliance with codes, however, would be required to qualify for public assistance resources (grants or loans).
- Offer assistance in planning for housing improvements including architectural drawings, hiring of contractors, and free inspections.
- Obsolete housing that must be removed should be replaced by higher quality units of similar style and number.
- Consider preparation of pre-approved patterns for infill housing that match existing neighborhood design and zoning requirements.
- Provide priority development rights for property owners or developers using pre-approved patterns which enable site development/redevelopment on a faster track than normal.
- Assist neighborhoods in forming partnerships to communicate with City departments when addressing specific, localized issues.
- Enforce existing codes by coordinating with HOAs and neighborhood organizations.
- Respect the character of all neighborhoods by encouraging them to preserve and improve upon the positive qualities that make each area unique.
- Encourage neighborhoods to retrofit and/or add amenities such as parks and paths.
- Continue to require historic preservation elements as part of neighborhood and area plans.

Development Services

Proactive code enforcement is required to protect the appearance and safety of residential and commercial properties. Proactive code enforcement depends on increased staff time more than complaint-driven code enforcement. This will change the way service is delivered, and the number of code enforcement officers needed.

CITIZEN SATISFACTION SURVEY



Source: LS Citizen Satisfaction Report, 2019

Objective 2.B.2. ENHANCE our single-family neighborhoods to meet changes in housing market demands, while not impacting the quality, look and feel of them.

Critical Questions

How can we maintain our quality neighborhoods while providing a range of housing choices?
How can we maintain our quality neighborhoods while improving connections to amenities and services?

Assessment:

In 2020, Lee's Summit's leadership used foresight to develop some new single-family neighborhoods and to meet the evolving needs and marketing for a variety of single-family detached homes.

Technological advances will improve the quality and efficiency of homes. Smart homes equipped with several devices that automate tasks normally handled by humans are becoming the norm. Lighting, climate, entertainment systems, appliances and security systems can already be run from a phone app. Energy and resource efficient homes will be designed to keep utility costs reasonable.

Technological advances in building materials and construction practices will improve the quality and efficiency at a more attainable cost.

Filling sidewalk gaps and making trail and sidewalk connections from neighborhoods to places people want to go will enhance the value of Lee's Summit's quality neighborhoods. Some new neighborhoods will be built with a grid-street network so community can grow in a financially sustainable way. Less land will be consumed for infrastructure allowing for more open space, amenities and single-family homes within the neighborhood. Designing neighborhoods to use less infrastructure but provide the same level of quality services means:

- Less cost up front to build infrastructure keeping the cost of building a new home more attainable.
- Lower cost to maintain infrastructure in the long run for homeowners.
- Narrower streets in a grid pattern will not only save homeowners money, they will slow traffic on residential streets and give drivers more ability to slow or stop their vehicles over a short distance to avoid collision.
- Shared open space to enhance the neighborhood.

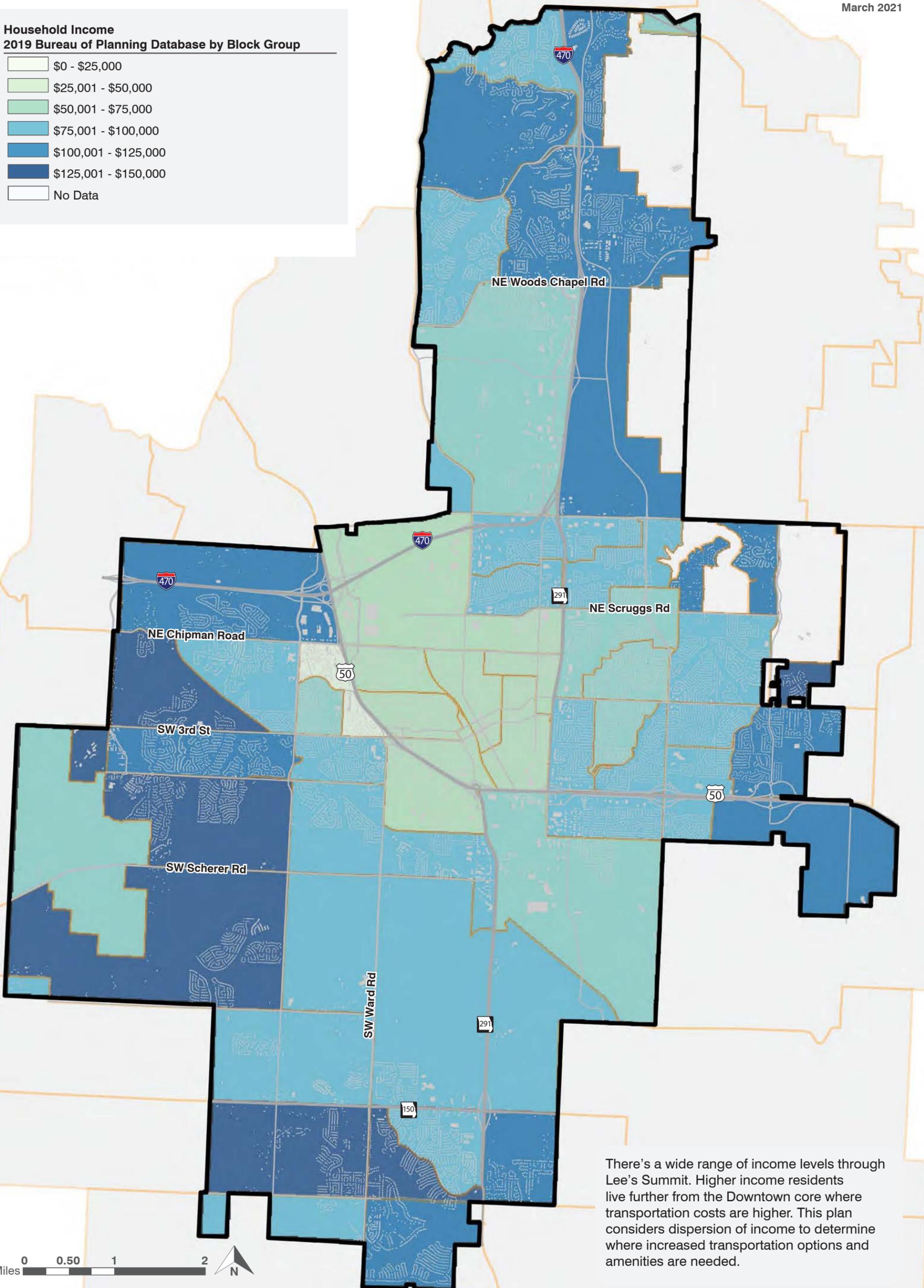
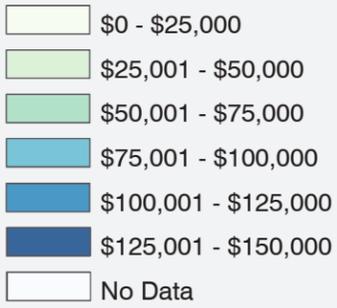
Strategic Approach

- Create policies to protect the character of single-family neighborhoods.
- Enhance single-family homes & neighborhoods to meet evolving needs.
- Build a connected, grid-street network community.
- Chart a sustainable growth strategy.

Strategies

- Protect the character of existing neighborhoods where people want to build on a vacant/infill lot.
- Protect single-family neighborhoods with appropriate transitions in land use.
- Modify some City ordinances to allow existing single-family neighborhoods to better meet the evolving needs and marketing for a variety of single-family detached homes
- Explore, with input from home associations, allowing Accessory Dwelling Units (ADUs) for existing single-family homes.
- Provide guidance about how to best integrate ADUs in the neighborhood to maintain the character.

Household Income
 2019 Bureau of Planning Database by Block Group



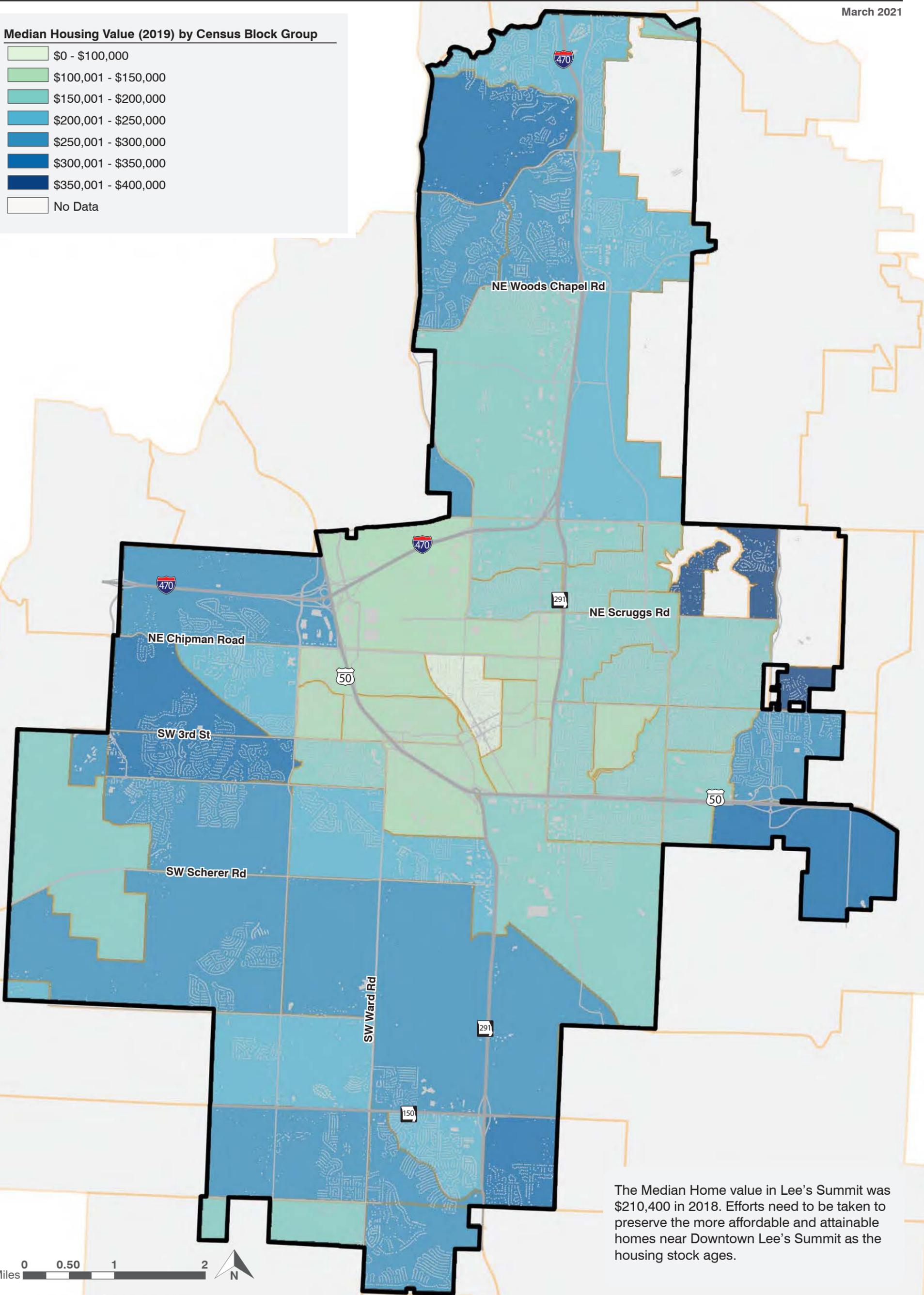
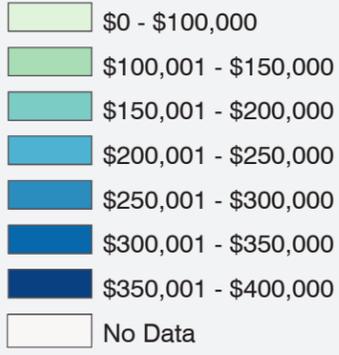
There's a wide range of income levels through Lee's Summit. Higher income residents live further from the Downtown core where transportation costs are higher. This plan considers dispersion of income to determine where increased transportation options and amenities are needed.



Median Housing Value

March 2021

Median Housing Value (2019) by Census Block Group



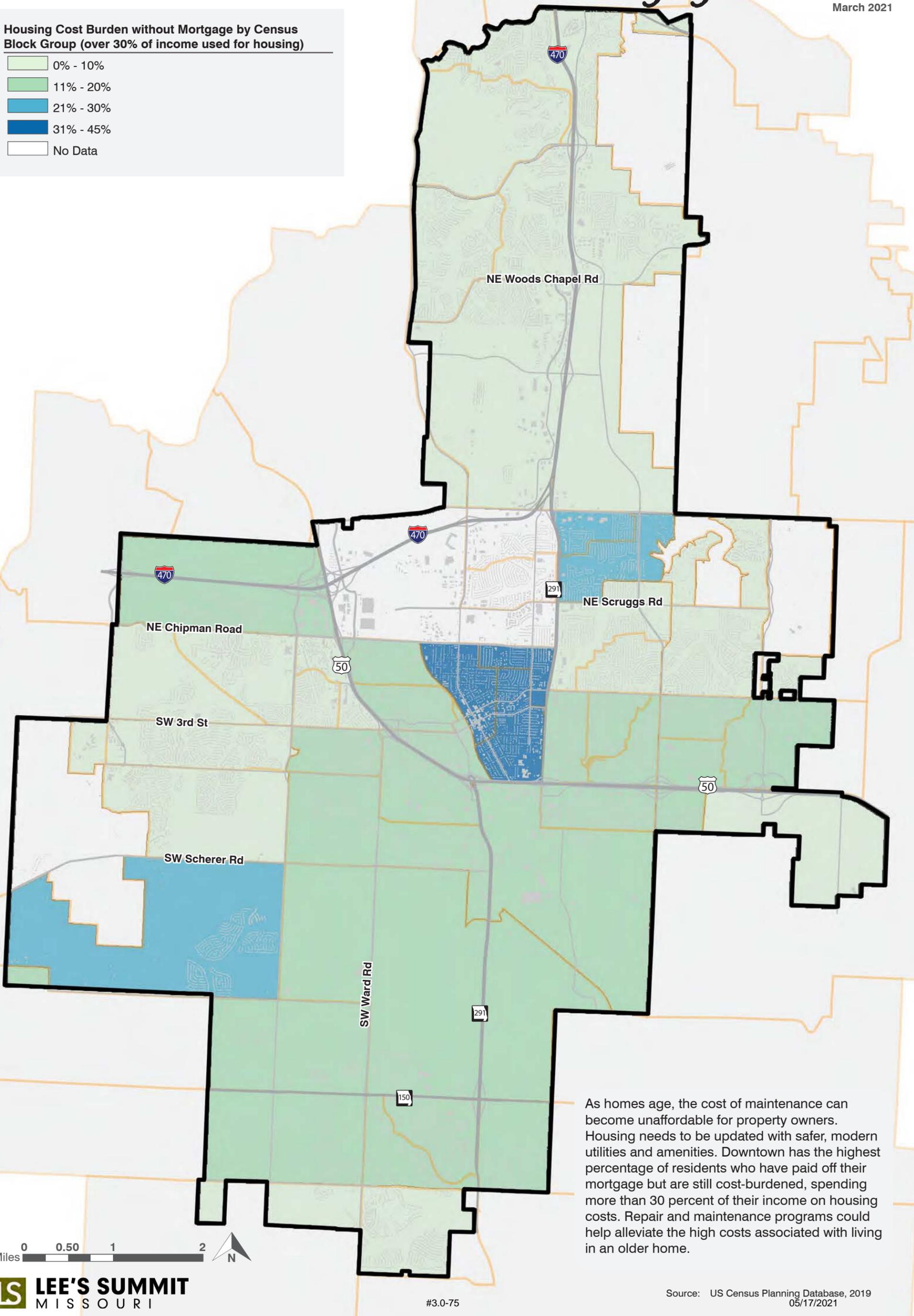
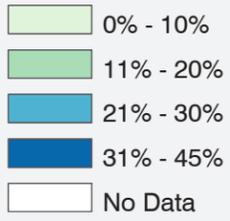
The Median Home value in Lee's Summit was \$210,400 in 2018. Efforts need to be taken to preserve the more affordable and attainable homes near Downtown Lee's Summit as the housing stock ages.



Homeowner Cost Burden without Mortgage

March 2021

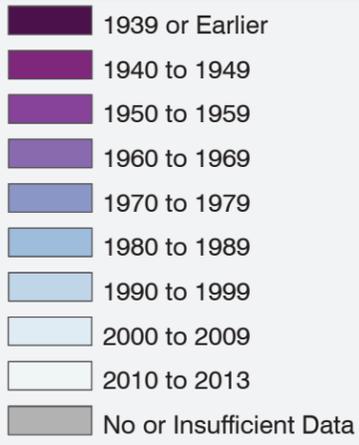
Housing Cost Burden without Mortgage by Census Block Group (over 30% of income used for housing)



As homes age, the cost of maintenance can become unaffordable for property owners. Housing needs to be updated with safer, modern utilities and amenities. Downtown has the highest percentage of residents who have paid off their mortgage but are still cost-burdened, spending more than 30 percent of their income on housing costs. Repair and maintenance programs could help alleviate the high costs associated with living in an older home.



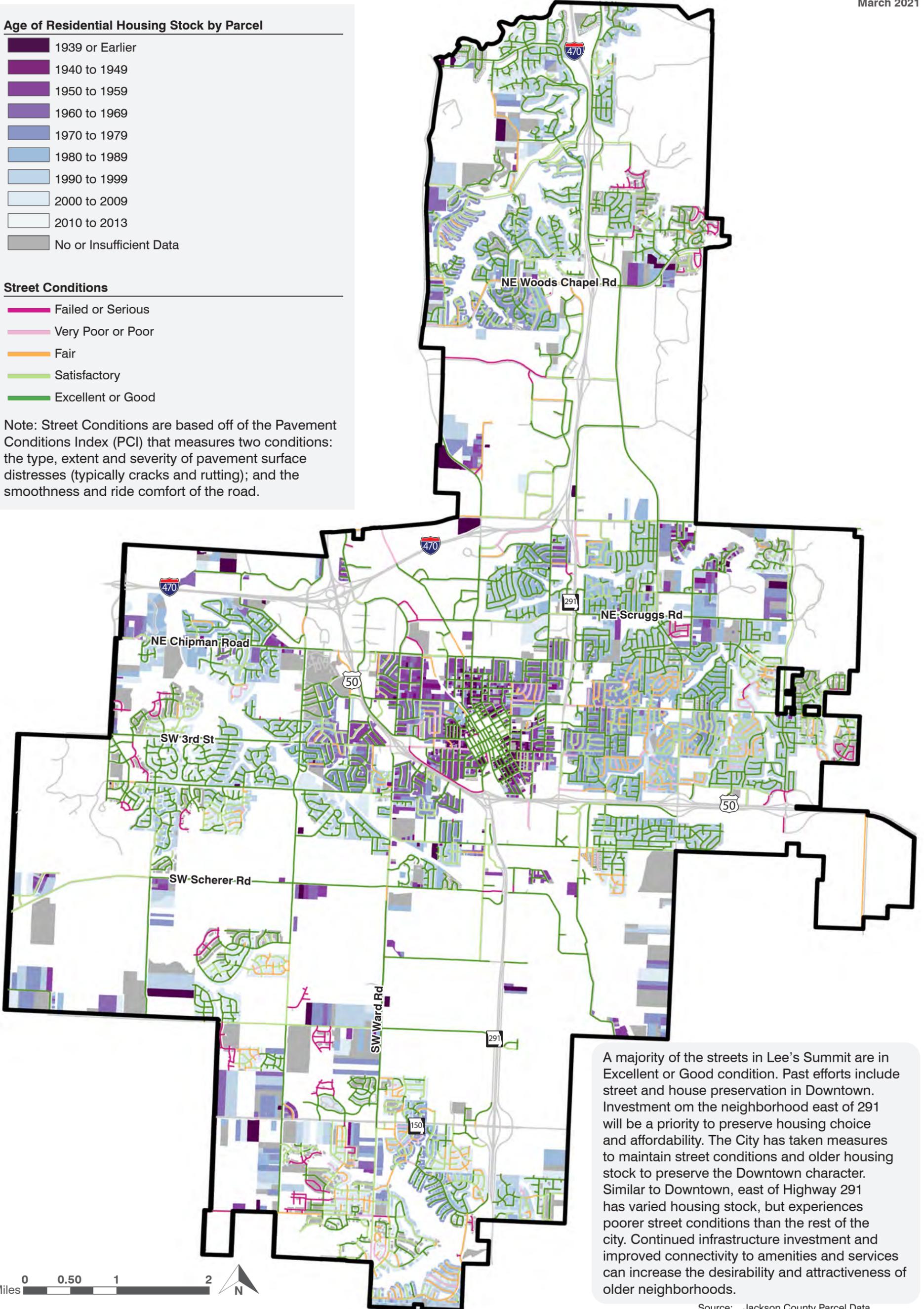
Age of Residential Housing Stock by Parcel



Street Conditions



Note: Street Conditions are based off of the Pavement Conditions Index (PCI) that measures two conditions: the type, extent and severity of pavement surface distresses (typically cracks and rutting); and the smoothness and ride comfort of the road.



A majority of the streets in Lee's Summit are in Excellent or Good condition. Past efforts include street and house preservation in Downtown. Investment on the neighborhood east of 291 will be a priority to preserve housing choice and affordability. The City has taken measures to maintain street conditions and older housing stock to preserve the Downtown character. Similar to Downtown, east of Highway 291 has varied housing stock, but experiences poorer street conditions than the rest of the city. Continued infrastructure investment and improved connectivity to amenities and services can increase the desirability and attractiveness of older neighborhoods.



Chapter 3.4: Multimodal Transportation

Our multimodal network is critical for supporting safe movement and connectivity between places that support a high quality of life in our community. Lee's Summit is home to people with a wide range of ages and levels of mobility, and this Comprehensive Plan's vision for growth is based on focused mixed-use development in a series of activity centers and connecting corridors, with the remainder of the City's growth adding to the single-family neighborhoods that make up much of the City today. Our residents need a variety of transportation options in places where non-driving options are more practical for short trips to enjoy various amenities such as parks and cultural offerings, convenient access to local and regional jobs and schools, and reliable access to healthcare and healthy food sources. Infrastructure and policies that support the safe use of all modes are essential for supporting the City's future evolution and growth.

Context

Transportation Intersects with Every Part of Our Lives and Belongs at the Table for All Types of Planning Decisions

Transportation planners for Lee's Summit coordinate with other groups in a variety of ways to broaden resources and streamline cross-organizational efforts to advance local transportation planning needs and goals. Transportation planning is coordinated with housing, education, economic growth, infrastructure, utilities, emergency management, and more.

However, this element has taken an approach that focuses two goals for transportation on their connection with land use and growth management, letting strategy and policy approaches generally follow the types of growth and development in the City and where this is to be focused.

The element also sets a goal around making sure transportation systems are complete, connected, resilient and adaptable for the future, with more explicit connections to utilities, other key infrastructure, and public safety.

Foresight

Lee's Summit generally enjoys a high standard of transportation service, as it has had the room to expand its transportation infrastructure along with the community's growth and an automobile-focused travel paradigm has fit in well with the city's historic development patterns (especially since World War II). The City has taken modern approaches to infrastructure planning and management that have allowed it to keep this high level of service. However, as Lee's Summit matures as a community, it is looking ahead to new ways to promote growth, embrace new preferences in development patterns, and integrate other forms of travel into daily life. It is also seeing the challenges arising from a previously successful model of community building. To provide safe, accessible, and convenient options for all will require foresight into major themes of growing importance in transportation planning such as:

Chapter 3: Resilient Economy

The concept of economic resilience relates to a community's ability to foresee, adapt to and advantageously leverage changing conditions. Economies are resilient when they demonstrate:

- The ability to recover quickly from a disruptor;
- The ability to withstand a disruptor; and
- The ability to avoid the disruptor altogether.

Disruptors may include:

- Downturns in the national or global economy that impacts demand for local goods and services;
- Downturns in economic sectors critical to maintain and sustain local economic activities; and
- External impacts such as natural or man-made disasters, closures of a major employer, changing climate, and other uncontrollable factors.

With recent experience gained from the Great Recession and the COVID-19 Pandemic, it is more important than ever to focus on resilient economic strategies. Our community's long-term economic prosperity is linked to its resilience when facing disruptions to the local and regional economy.

Goal 3.A. Build an adaptable framework for continued growth in a changing environment.

Objective 3.A.1 Define and plan for a diversified economic base.

Critical Questions

- What are the opportunities by sector?
- What are our local market and regional market opportunities?

Comprehensive job count numbers for the City of Lee's Summit are not available, but Census data indicates the number of jobs in the City increased by 61 percent between 2002 and 2017, while net growth was only four percent in Jackson County, and 14 percent in the greater bi-state region. Both Jackson County and the wider metropolitan area offer well-balanced employment economies compared to national averages, securing Lee's Summit in a positive position for continued growth and resilience. Residents of Lee's Summit are within close proximity to a wide range of job opportunities.

Within the City, 49.5 percent of jobs (based on 2017 data) are in economic sectors projected for quick growth throughout the U.S.—construction, transportation and warehousing,

professional, scientific and technical services, educational services health care and social assistance, and hospitality and food service. In 2002, 43.9 percent of Lee’s Summit’s jobs were in these sectors, suggesting a trend toward greater resilience. In addition, 58.6 percent of jobs at the City’s 35 largest employers are in ascending sectors.

Another potential strength is Lee’s Summit Municipal Airport. With City demographics favoring higher income households and the executive class, the Lee’s Summit’s airport traffic could increase with additional corporate and private air travel. This might also become a crucial center for quick delivery of online purchases by households, businesses, and the healthcare sector.

Projections & Critical Questions

- What are the opportunities by sector?
- What are our local market and regional market opportunities?

By 2040, Increase Jobs by 24,200 (25%).
By 2040, Increase Commercial Development by 9.9 million square feet.
By 2040, Increase Industrial Development by 1.6 million square feet.

| | |
|---|-----------|
| Current Jobs | 95,471 |
| Future Projected Jobs | 119,671 |
| Increase In Jobs | 24,200 |
| % Increase in Jobs | 25% |
| Current Acres of Nonresidential Development | 2980.94 |
| % Increase | 20% |
| New Commercial Square Feet | 9,873,500 |
| New Industrial Square Feet | 1,600,000 |

| Nonresidential Floor Area by Job Sector | # of Jobs 2020 (ESRI) | % of Jobs 2020 | Increase Jobs By 2040 | Percent Increase in Jobs by Sector 2040 | Total Jobs in 2040 | Percent of Jobs in 2040 | Additional Square Feet by Sector | Additional Sq Ft Floor Area Needed to Meet Demand | % of Additional Sq Ft Floor Area |
|---|-----------------------|----------------|-----------------------|---|--------------------|-------------------------|----------------------------------|---|----------------------------------|
| Construction | 3,941 | 4% | 1,360 | 35% | 5,301 | 4% | 200 | 272,000 | 2.40% |
| Education | 8,868 | 9% | 1,510 | 17% | 10,378 | 9% | 550 | 830,500 | 7.20% |
| Health Care | 15,398 | 16% | 4,330 | 28% | 19,728 | 28% | 650 | 2,814,500 | 24.50% |
| Industry/Manufacturing | 8,025 | 8% | 1,600 | 20% | 9,625 | 8% | 1,000 | 1,600,000 | 13.90% |
| Information Technology | 3,267 | 3% | -70 | -2% | 3,197 | 3% | 250 | -17,500 | -0.20% |
| Lodging & Dining | 4,123 | 4% | 790 | 19% | 4,913 | 4% | 500 | 395,000 | 3.40% |
| Management of Enterprises | 191 | 0% | 4,070 | 2131% | 4,261 | 4% | 250 | 1,017,500 | 8.90% |
| Other Sectors | 19,398 | 20% | 3,530 | 18% | 22,928 | 19% | 350 | 1,235,500 | 10.80% |
| Other Services | 3,508 | 4% | 770 | 22% | 4,278 | 4% | 300 | 231,000 | 2.00% |
| Prof Services, Science, Technology | 17,660 | 18% | 4,880 | 28% | 22,540 | 19% | 500 | 2,440,000 | 21.30% |
| Real Estate | 2,355 | 2% | 200 | 8% | 2,555 | 2% | 200 | 40,000 | 0.30% |
| Retail Trade | 8,737 | 9% | 1,230 | 14% | 9,967 | 8% | 500 | 615,000 | 5.40% |
| Total Jobs by Sector | 95,471 | 100% | 24,200 | | 119,671 | 112% | 480 | 11,473,500 | 100% |

Strategies

- Market the City’s assets and special competencies

- Strategic investments in forward-thinking ideas
- Strategic investments in existing non-residential real estate to preserve, as appropriate, the commercial character of Lee’s Summit and to preserve resources by reusing buildings and sites.

Actions

- Create and maintain a detailed inventory and interactive map that highlights a wide range of community assets—civic, business, infrastructure, educational, etc.
- Continue to collaborate on regional economic attraction and retention efforts to integrate City interests with regional efforts.
- Leverage the development potential of land on and adjacent to Lee’s Summit Municipal Airport.
- Improve and expand airport services, equipment and facilities when necessary to attract new corporate aviation users.
- Improve internal and external perceptions of the region with marketing and outreach programs aimed at attracting and retaining talent and establishing a positive local identity.
- Document relative competitiveness (“cost of conducting business”) of the tax base in relation to other cities/counties in metro Kansas City area, the Great Plains and the Midwest.
- Identify the “critical technologies” that will lead the national and world economies in the next decade and determine which of those can be developed or marketed in Lee’s Summit.
- Create partnerships with adjacent cities and counties to share fiscal resources and responsibilities to implement common plans.
- Provide strategic technical assistance and information for commercial, industrial and retail rehabilitation.
- Encourage programs and incentives that promote the compatible, adaptive reuse and sustainable modernization of vacant or deteriorating properties.
- Prioritize revitalization and redevelopment projects to promote economic development and neighborhood planning.
- Implement programs that encourage existing retail developments to remain “current” and competitive to avoid the need for costly revitalization efforts in the future. Membership and participation in organizations, similar to the City’s participation in the Missouri Main Street program in locations outside of Downtown Lee’s Summit could help support and inspire these changes and improvements.

Objective 3.A.2 Focus recruitment and retention efforts.

Critical Questions

- How do we strengthen recruitment and retention efforts?
- What is our recruitment and retention sector focus?

Recruitment and retention of businesses depend on several factors—Lee’s Summit’s existing strengths, national and regional projections for jobs as value-added by sector, the amount of real estate “inventory” ready for economic development, and in-commuting and out-commuting access and trip times for jobs.

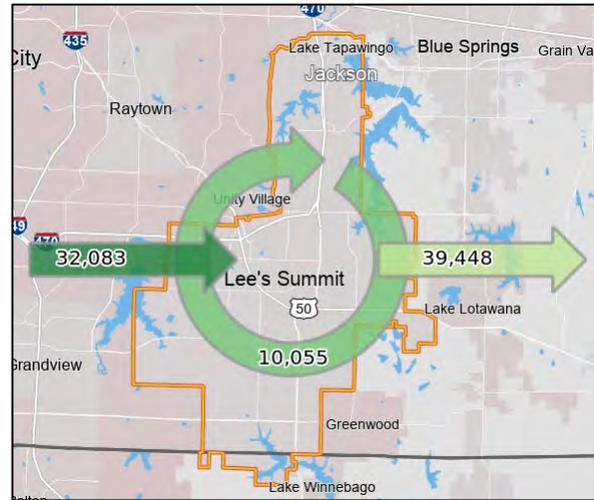
Location quotients for Lee’s Summit and Jackson County show strengths in the healthcare sector, the retail and food service sectors, educational services, professional, technical and scientific services, and construction. These are “export sectors” to target for further recruitment and retention—they are also among the most rapidly growing sectors in the United States and in the Kansas City metropolitan area. In many ways, Lee’s Summit is well positioned with a diverse and resilient economic base.

Major challenges to additional growth in these areas include land inventory for commercial development and the number of existing buildings ready to accommodate recruited or expanding businesses. The City needs access to sufficient business-oriented real estate for quick construction or move-ins, and economic developers need to maintain a full record of what is available.

Another way to think about economic resilience is the pattern of commuting in and out of Lee’s Summit. Eighty percent of employed residents of Lee’s Summit commute elsewhere for work. (Note: these are pre-pandemic metrics and do not reflect recent work-at-home trends.) More than 80 percent of these out-commuters are “replaced” each day by in-commuters holding jobs in Lee’s Summit. A recruitment opportunity could be to attract more of those in-commuters to become residents who would spend more of their earnings in the City. Moreover, a large portion of the out-commuters work in growing economic sectors. Attracting more businesses in those sectors might enable the city to keep more of its own residents in Lee’s Summit during working hours.

Furthermore, Lee’s Summit’s out-commuters earn substantially more than the in-commuters, or even Lee’s Summit residents who both reside and work in the city. In other words, out-commuters are earning more *outside of the city* and are bringing those earnings home to spend. That’s a healthy portion of the City’s economy, which supports retail with household purchases. It also means that people employed at jobs in the City earn less than other current residents. There could be room for more high-paying jobs in Lee’s Summit and additional middle and lower-wage workers to become residents, which would diversify the local workforce. In all cases, commuting times and costs could be reduced.

For the year 2018 (latest available data from the U.S. Census Bureau), there were an estimated monthly average of **42,138** wage and salary jobs located in the city of Lee's Summit. Of those, **10,055** (24%) were held by residents of Lee's Summit while **32,083** (76%) commuted into the city from other places.



On the other side of the commuting ledger, there were **49,503** employed residents of Lee's Summit in 2018. Of those, **10,055** (20%) remained in the city for work while **39,448** (80%) commuted to other places for their jobs.

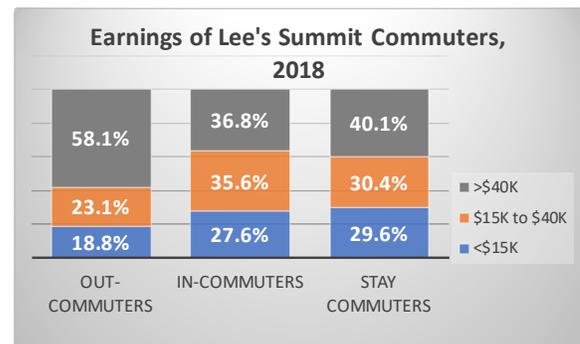
In one sense, therefore, Lee's Summit's population "during the day," when more commuters left than entered, was lower than "at night" when all the commuters returned to their homes.¹

2018 numbers from the U.S. Census Bureau's "On-the-Map" data series

These 2018 numbers are notably different from 2002, the beginning point of the available data. In 2002, 64% of jobs in the city were filled by outside workers (increasing to 76% in 2018) and 77% of the city's employed residents commuted to other places (slightly lower than 80% in 2018).

The Census Bureau's commuting data assigns all commuters into just three annual earnings categories:² Under \$15,000, between \$15,000 and \$40,000, and above \$40,000.

In 2018, out-commuters earned quite a bit more than the other two commuting categories. Almost six of ten Lee's Summit residents who commuted elsewhere had jobs where they earned more than \$40,000 per year. Only four out of ten Lee's Summit residents remaining in the city for their



¹ This isn't a fully accurate assessment, just illustrative. Many jobs, both in an out of the city, are night and weekend jobs. But the net effect is to classify Lee's Summit as something of a "net bedroom community."

² Earnings are job-based wages or salaries. They do not necessarily represent all annual income.

jobs earned that much, while people commuting into Lee's Summit had an even lower percentage at just over a third.

In other words, jobs *in* Lee's Summit appear to be generally paying lower wages, on average, than those earned by residents working outside the city. This means, of course, that Lee's Summit residents are bringing home substantially higher wages from outside the city, which increases local buying power, the ability to afford higher value housing, and so on.

Class A Office Opportunities

The commercial real estate brokerage of Newmark-Grubb-Zimmer provides quarterly market reports on the office market for various sub-geographies of the Kansas City metropolitan area. Lee's Summit is within two sub-geographies: Eastern Jackson County and Southeastern Jackson County.

As of the 4th quarter of 2020, NGZ reported that EastJack and SEJack together had 5.56 million square feet of office space, (7.5% of the metropolitan inventory). But these two areas had only 1.0% of the metro area's Class A office space (269,450 square feet). On another other hand, these two areas had one-fifth (20.1%) of the region's Class C office space.

Moreover, EastJack and SEJack have just four Class A buildings, or only 2.4% of all Class A buildings in the metro area. The average Class A office building in this Lee's Summit area has 67,360 square feet, or about 40% the size of the average of 165,380 square feet for the 168 metro area Class A buildings.

In short, "greater Lee's Summit" is focused on lower quality, lower priced office space, not on the higher value, higher priced buildings. That said, the relatively little Class A office space in or around Lee's Summit averaged \$23.50 per square foot in annual asking rents at the end of 2020, virtually equal to the metropolitan area's Class A space (\$23.58). Lee's Summit looks like it can command Class A rents if only it can attract Class A space.

The relative abundance of Class C space in and around Lee's Summit, however, forces the overall average office rent per square foot to just 91% of the metro area overall average (\$18.93 psf vs. \$20.82 psf).

Only two of the nine sub-geographies of the NGZ office report have Class A office space under construction—Downtown KCMO and South Johnson County—a total of 368,000 square feet which, itself, is more Class A space than currently exists in EastJack and SEJack.

Again, this is an indicator that the Lee's Summit area is not a significant player in the Class A market. Yet 80% of the Lee's Summit employed workforce commutes to other places for their jobs and those people have considerably higher earnings than those working in Lee's Summit. Might it be possible to attract more Class A office development into Lee's Summit that could capture more of this relatively high-paid workforce?

But now we have to consider the lingering potential effects of the Covid-19 pandemic. In the short run, almost nine out of ten U.S. office workers were able to shift at least some of their work to their homes—sharply reducing the “demand” for office space. With the lengthening of the pandemic's timeframe, there is increasing speculation that future office space demand will not be what it once was. With telecommuting technology advancing rapidly, many corporations may opt for less office space that is “shared” by employees when they are in the office, but much/most of the time, these office workers will work remotely.

The nation and the world are still sorting out options for different uses and absorption of work places—particularly office space where workers tend to have jobs that can be done remotely. This could very well reduce the demand for office space—especially Class A space which is more expensive. That said, more easily accessible office space nearer to workers' homes might better satisfy future demand for common work areas. Still, competition to fill existing space and retain tenants will likely intensify, thus reducing potential rates of return for new construction. Pursuing an aggressive policy toward more Class A space in the next few years may not be sensible while the market continues to shake out.

Critical Questions

- How do we strengthen recruitment and retention efforts?
- What is our recruitment and retention sector focus?

Strategies

- Increase the inventory, availability, and databases of business and commercial real estate.
- Leverage existing, or promote the creation of new, tax credit programs, lending and other funding programs that support entrepreneurs and small businesses.

Actions

- Collaborate with owners of undeveloped property to determine appropriate times for offering the property for market-based development.
- Expand the role of Downtown Lee's Summit Main Street in stimulating property and business development.
- Continue to incorporate co-working space in development and redevelopment.
- Continue to evolve the economic incentive policy to meet current needs.

- Assure that previously developed but presently under-developed or vacant property is environmentally clean.
- Assemble land parcels into larger, single parcels where necessary to attract high quality reinvestment.
- Participate in shared regional data and administrative systems to promote real estate development and reinvestment activity.
- Support talent development, business innovation and new business creation for young professionals.
- Expand opportunities for minority- and women-owned businesses.
- Assure that Downtown Lee's Summit remains a leading model of experiential shopping and dining, and an attraction for both residents and visitors.

Objective 3.A.3 Implement economic development plans.

Critical Questions

- How do we build an adaptable framework for prosperity and continued growth in a changing environment?

The field of economic development has dramatically evolved in the last 40 years to where it is tightly integrated into city planning, public works and infrastructure, education and training, and fiscal sustainability, among other responsibilities of city management. Even parks and recreation departments are involved as they support quality of life in the community, which potentially attracts and retains workforce talent.

If possible, Lee's Summit should prepare for additional economic disruptions. These may be similar or not to the COVID-19 pandemic's impact with community lockdowns and employee working from home. One such scenario could be a permanent shift of many jobs from separate office buildings and business parks to home settings. This could depress the commercial real estate industry, leading to increased vacancies, lower rents and less construction. It could also increase demand for faster, more affordable and reliable residential internet service.

While the non-residential real estate sector could weaken due to the pandemic, expanding the City's participation in the Missouri Certified Sites program is a good way to inform developers and businesses of Lee's Summit's growth potential. Re-imagining how the City leverages current commercial centers is also critical. Many are under-occupied and obsolete in the current retail environment, yet they are well-served by transportation and utility networks and may hold potential for high density housing as mixed-use developments that require a small amount of commercial space.

While Lee's Summit will continue to grow by adding new housing, new residents, and new commercial buildings with new jobs, it also has many areas where reinvestment, and even redevelopment, are in order. As a city with both old and new components, it is just as important to reinvest in previously developed areas as it is to attract and manage new growth. A city cannot allow itself to suffer disinvestment even as new investment is taking place. A few suggested strategies for reinvestment and redevelopment include:

Commit to a Diversified Economy: Support growing industry sectors such as healthcare, hospitality, professional services, and even the arts to capitalize on national and regional trends.

Foster Startups and Innovation: Older buildings and aging strip centers can be less-expensive opportunities for new companies while giving those properties a new lease on life.

Reinvest in Older, “Affordable” Housing: Work with economic development officials, housing investors, and lenders to provide resources to preserve and upgrade older neighborhoods which are important for attracting younger families, entry-level workers, and lower-wage workers in essential local jobs.

Enforce Zoning, Building, and Design Codes: Assure that long-developed neighborhoods and commercial centers aren’t allowed to deteriorate for lack of compliance. Public assistance for financing improvements might be required.

Attract Infill Housing: Capitalize on market forces favoring higher density housing and mixed-use environments where appropriate and where increased density enhances overall community value. Aging strip centers, near-downtown neighborhoods, and higher-traffic corridors and intersections can be targeted.

Concentrate and Disperse Retail: Commercial centers should be reinforced to assure that incompatible uses do not infringe on the retailing experience. Convenience retail, however, should be relocated to mixed-use areas to encourage walking and less dependence on automobiles.

Create or Reinforce Commercial Organizations: Better coordination of marketing, tenancing, parking, business hours, and the like through strong local associations will lead to more sustainable commercial areas. The Main Street program as implemented in Downtown Lee’s Summit is an excellent model,

Placemaking: Make investments in the public realm and “hidden” infrastructure that provide a more comfortable environment for consumers, residents, and workers.

Access and Connections: Define districts and implement wayfinding to create better connections between different areas of the city.

Build a Greenway System: Create a citywide greenway system to promote active lifestyles and community health while also attracting talent for economic development.

Take the Comprehensive Plan “On the Road” to state and federal government representatives, legislative leaders, and executive departments to identify funding and related opportunities for redevelopment locations. Keeping government representatives well-informed is always good policy.

Create a Public Relations and Marketing Program: Design it to attract private investors and development talent committed to realizing revitalization elements of the plan and, conversely, to resisting public and private actions and investments that are not compatible with the plan.

Critical Questions

- How do we build an adaptable framework for prosperity and continued growth in a changing environment?

Strategies

- Stimulate continued economic development investment and reinvestment by the private sector in Lee's Summit.
- Provide mechanisms and opportunities to explore and experiment with new business ideas that could lead to breakthrough products and services, greater investment in Lee's Summit and more opportunities for jobs closer to home.

Actions

- Support development and redevelopment with major infrastructure improvements and upgrades.
- Assure that internet service is comprehensive and affordable throughout the City for business, household and work-at-home purposes.
- Encourage innovation by holding contests and offering small grants for innovative ideas, start-ups, and pilot programs. Partner with regional and university programs.
- Establish incubators to reduce start-up costs and provide common space and services for innovation and entrepreneurial support.
- Continue, and intensify, technical assistance to Lee's Summit's independent businesses.

Objective 3.A.4 Ensure fiscal sustainability.

Critical Questions

- What is our economic growth and change strategy?
- How can we revitalize certain areas of town, such as Downtown or strip shopping centers?

Objective 3.A.4 Ensure fiscal sustainability.

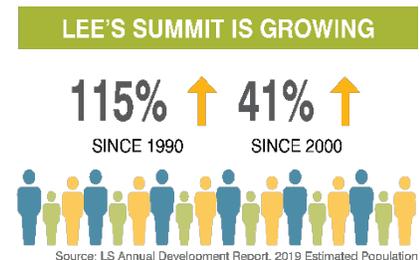
Adjusted for inflation, Lee's Summit's city government revenues increased by 24 percent between fiscal years 2003–19 (73 percent when *not* adjusted for inflation), even when factoring in economic downturns such as the Great Recession. Lee's Summit's inflation-adjusted revenues were \$121.4 million at its previous peak in 2007, a level not reached again until 2017.

However, the City's population grew approximately 40 percent between 2000–19, outpacing inflation-adjusted revenue growth so that per capita revenues declined seven percent between 2003–19. Inflation-adjusted per capita revenues peaked in 2007 but declined by 15 percent through 2019.

Analysis of the City's *Comprehensive Annual Financial Reports* for 2003–19 show that property and sales taxes made up nearly two-thirds of Lee's Summit's government revenues in 2019 (32.0% and 32.1%, respectively), down 6.5 percent from 2003 (36.9% and 33.7%, respectively). This demonstrates a gradual decline in reliance on each source, but also shows how each grew more slowly than overall revenues. On a non-inflation-adjusted basis, total revenues increased 73 percent from 2003–19, but property taxes increased by only 50 percent and sales taxes by 65 percent. These two major sources of revenues did not keep up with overall revenue growth.

Less reliance on those two taxes could signal a positive trend but it also reflects potentially sluggish property values and slow growth in retail sales as more shopping is conducted online or other communities. Principles of economic resiliency would suggest that attracting more high value commercial (or even residential) property, could support an increase in property taxes, which would also benefit other taxing jurisdictions. Taking into account the relatively high-paying jobs of many Lee's Summit residents, attracting high value real estate might encourage more residents to shift their workplace locations to Lee's Summit from other locations. These scenarios, of course, should be weighed against uncontrollable forces that

Rapid Population Increase



potentially depress commercial real estate values, such as social distancing and online shopping.

The potential for sales tax growth is significantly influenced by the rapidly changing retail climate. The United States has approximately five times the retail space per capita as is available in Europe. This metric could indicate a significant surplus as the result of over-building if other factors such as population, spending trends, and retail demand are in balance to validate the comparison.

The largest area of growth for City revenues from 2003–19 came from the “other” category, which captured 8.6 percent of all revenues in 2003, doubling to 16.2 percent in 2019. This 224 percent increase significantly surpassed the 73 percent growth of all City revenues combined. Addressing the categorical breakdown of “other” revenues should be a priority.

Changes in consumer spending and shopping preferences are key factors impacting the city’s—and the nation’s—retail and commercial real estate situation. Malls and strip shopping centers have becoming less appealing than in the past. Experiential shopping and dining, in places with character such as downtown areas, are more appealing to consumers, as is online purchasing. Focusing economic development in the City’s Downtown area or creating experiential shopping environments where old strip shopping centers have become dormant, could be a viable strategy.

Critical Questions

- What is our economic growth and change strategy?
- How can we revitalize certain areas of town, such as Downtown or strip shopping centers?

Strategies

- Maintain a diverse and valuable tax base.
- Promote housing Downtown and in activity centers.
- Grow the impact of current Downtown workers and businesses.

Actions

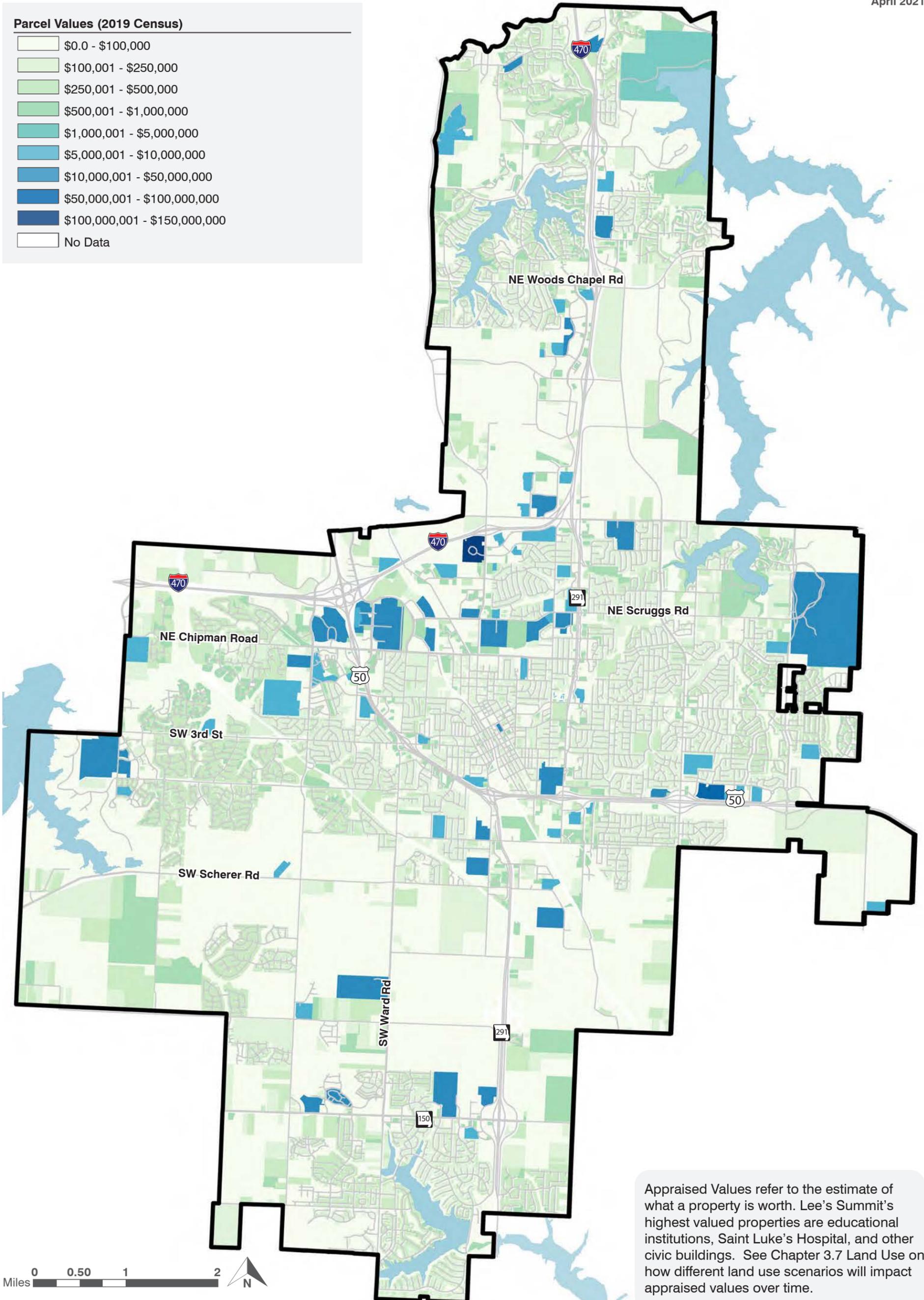
- Pursue high value commercial development to support real estate property tax revenues. Keep in mind that City development also impacts other property taxing jurisdictions.
- Continually evaluate various franchise and business taxes to assure these revenues support business growth and do not discourage businesses from choosing Lee’s Summit.
- Incentivize installation of fire lines to Downtown buildings to support residential redevelopment of existing buildings.
- Create a set of incentives and resources to encourage and support upper-floor development.
- Continue to increase residential density with new development and redevelopment.
- Continue to support promotional and special events downtown to attract visitors and residents.
- Continue to bring arts into the public realm including streets shops, and storefronts.

- Work with business owners and local retailers to extend or adjust operating hours during special events Downtown.
- Collaborate with Downtown Lee's Summit Main Street and the Cultural Arts Division to create an ongoing storefront arts initiative.

Appraised Value

April 2021

Parcel Values (2019 Census)



Appraised Values refer to the estimate of what a property is worth. Lee's Summit's highest valued properties are educational institutions, Saint Luke's Hospital, and other civic buildings. See Chapter 3.7 Land Use on how different land use scenarios will impact appraised values over time.

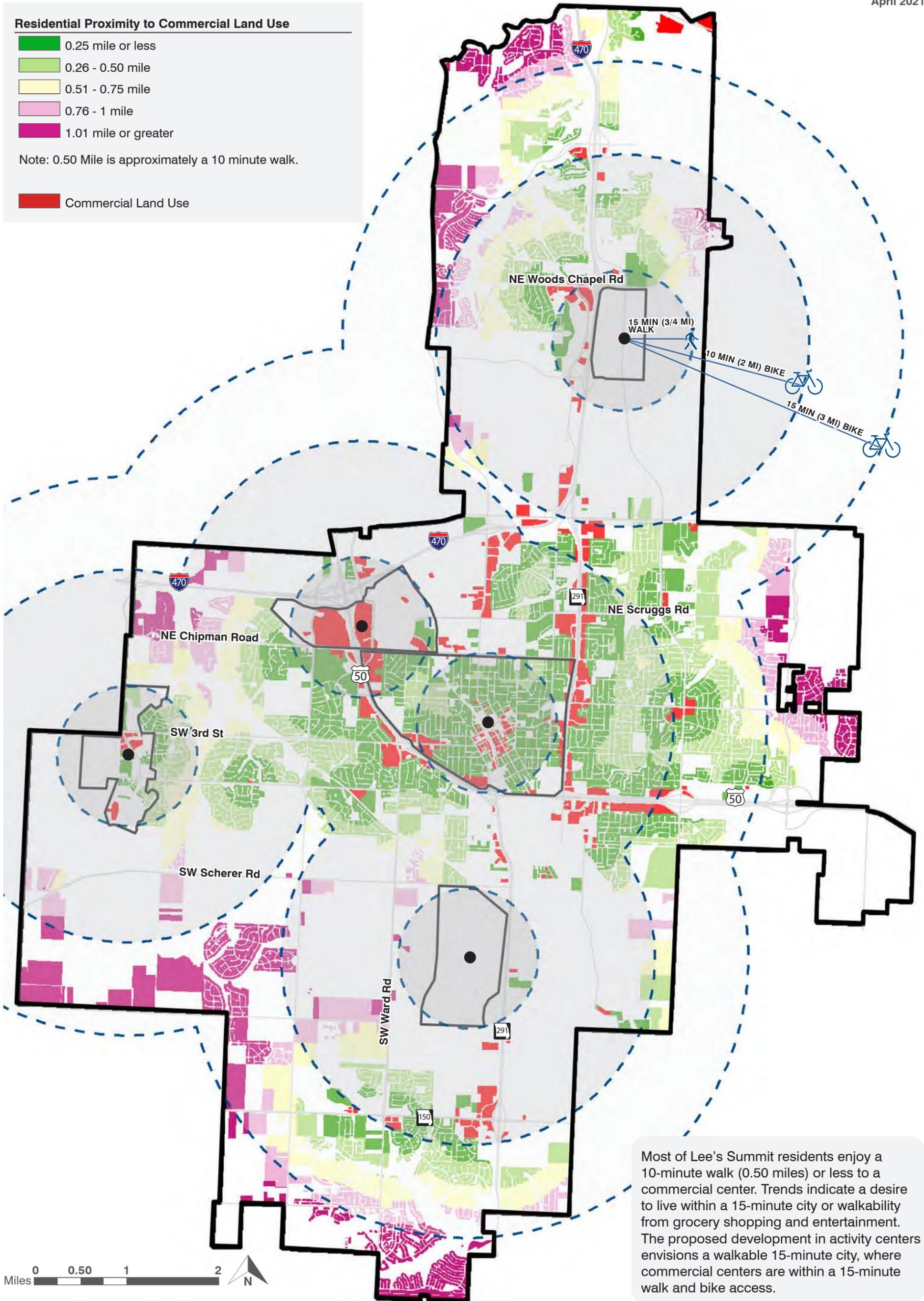


Residential Proximity to Commercial Land Use

- 0.25 mile or less
- 0.26 - 0.50 mile
- 0.51 - 0.75 mile
- 0.76 - 1 mile
- 1.01 mile or greater

Note: 0.50 Mile is approximately a 10 minute walk.

Commercial Land Use

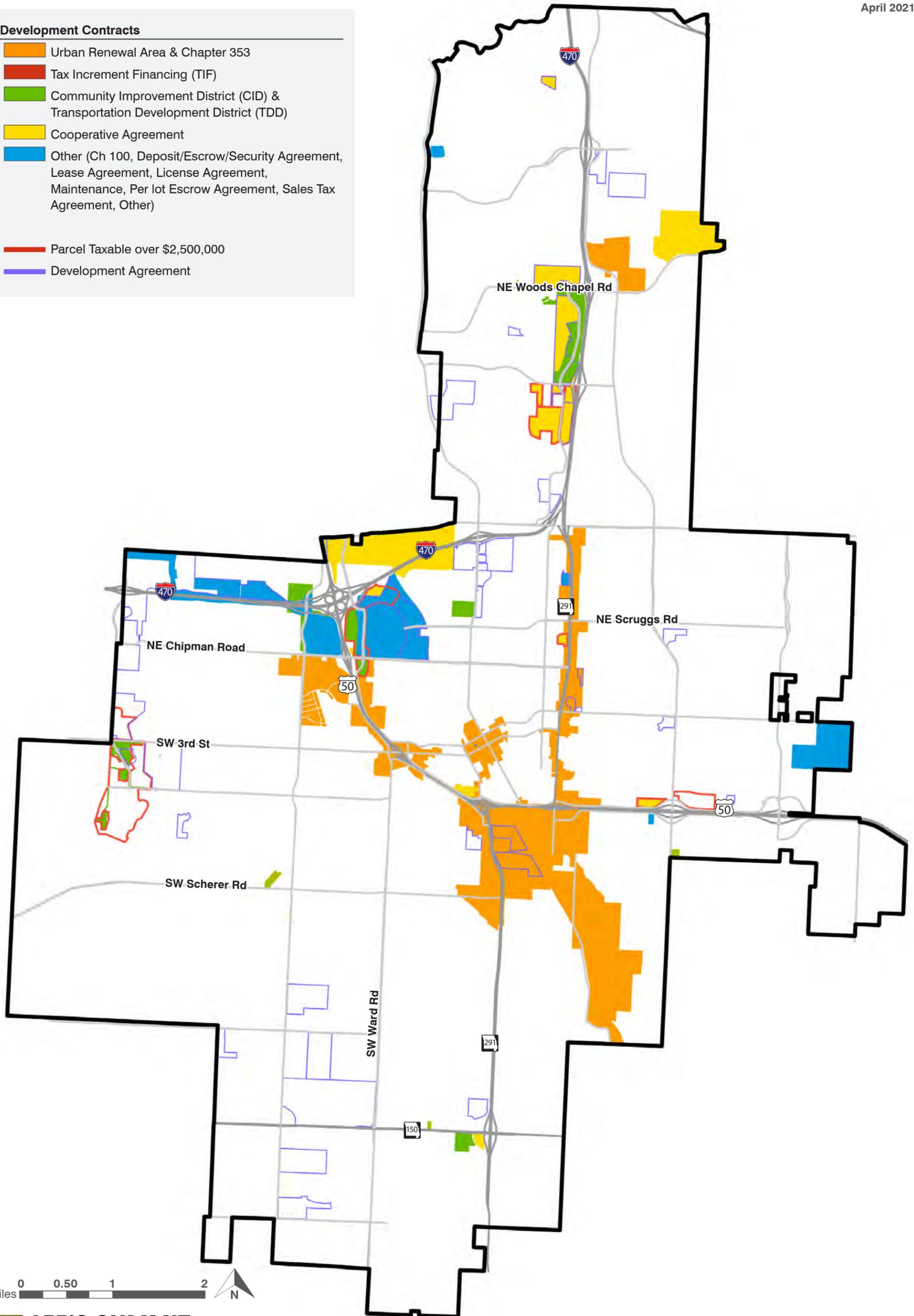


Most of Lee's Summit residents enjoy a 10-minute walk (0.50 miles) or less to a commercial center. Trends indicate a desire to live within a 15-minute city or walkability from grocery shopping and entertainment. The proposed development in activity centers envisions a walkable 15-minute city, where commercial centers are within a 15-minute walk and bike access.

Development Contracts

- Urban Renewal Area & Chapter 353
- Tax Increment Financing (TIF)
- Community Improvement District (CID) & Transportation Development District (TDD)
- Cooperative Agreement
- Other (Ch 100, Deposit/Escrow/Security Agreement, Lease Agreement, License Agreement, Maintenance, Per lot Escrow Agreement, Sales Tax Agreement, Other)

- Parcel Taxable over \$2,500,000
- Development Agreement



Focused Approaches to Roadway Safety

A growing awareness of roadway safety challenges, with the Vision Zero policy movement perhaps the nation's mostly publicly known and promoted example, is based on targeted infrastructure improvements to eliminate traffic fatalities and severe injuries. The core principles of this movement can continue to guide the City's transportation decision-making.

Aging Population & Universal Design

Lee's Summit is a Community for All Ages Gold Level Recipient because of efforts to increase mobility for all generations. This should continue to be a driving element of how the City makes transportation decisions, understanding that not everyone of advanced age can or wants to drive as their primary form of transportation.

Last Mile Connectivity

Those seeking to travel long distances without driving alone will still find "last-mile" connectivity a barrier compared to other alternatives. Transit in Lee's Summit can play an essential role in closing the gaps to traveling to far-off destinations for a broader range of people. However, enhancements to alternative modes can benefit all users. For example, anyone who parks a car becomes a pedestrian at the beginning and end of their trip, so a quality walking environment improves parking systems that serve most areas.

Tech-Reliant Last Mile Strategies

Technologies once inconceivable are now a reality, and we must learn to adapt. One of the benefits of tech-reliant transportation is the potential to close gaps between travel modes or provide last-mile solutions. Since their emergence more than a decade ago, rideshare services have disrupted the taxi industry and are now commonly used for short trips in urban areas. Downtown business owners in Lee's Summit are working with the City to support and expand this travel option. These businesses say accommodating these transportation companies (e.g., Lyft, Uber) provides convenience and reduces pressure on parking.

Micro-mobility

Although some communities initially struggled with the impacts of micro-mobility services and devices such as e-scooter, others crafted thoughtful policies and leveraged them to safely close the gaps in modal networks to provide valuable services to vulnerable communities.

Car-Free Lifestyles

People are giving up cars for a variety of reasons, including:

- The cost burden of owning and maintaining a vehicle.
- A desire to improve mental and emotional health by reducing stress associated with commuting and losing hours of personal productivity.
- The need to improve physical health through increased walking and biking.
- High demand for transportation modes that decrease environmental impact.

Goal 3.4.A.: Provide safe, convenient and accessible travel options in the parts of the City where a more balanced system is key to a high quality of life.

Objective 3.4.A.1.: Refine policy approaches for how transportation concerns will be addressed in the City's Activity Centers and Connecting Corridors.

Context

The Land Use and Design element of the Ignite Comprehensive Plan identifies five Activity Centers, including Downtown Lee's Summit, that will be the focus of redevelopment, greater density development, and mixed use. It also identifies the connecting corridors of the City as creating a hub-and-spoke network connecting Downtown to the other activity centers. Both of these are the kinds of environments where density and a complementary mix of uses offer the greatest potential—and the most logical case—for non-driving travel to satisfy transportation needs. For this reason, these are the parts of the City where a more explicitly multimodal approach should be taken to transportation—both the capital projects and the strategic policy approaches to maintenance, design, and behavior-changing incentives.

Insight

Lee's Summit has prioritized safety as a key concern in its transportation system. Safe mobility for all requires policies and monitoring that guides development of the physical environment. And transportation data and trends, and not just for vehicles but also for bicycles and pedestrians, factor into the City's regular procedures on evaluating and addressing its transportation challenges. However, the City does not currently have a robust policy platform to assess how well infrastructure is performing for a broad range of users *before* crashes occur and safety-related challenges become apparent, and this leaves responses to these challenges still largely in favor of vehicle travel. Lee's Summit uses Level of Service (LOS), a set of conventional engineering metrics that assesses infrastructure performance and the efficiency of movement on local roads, but only for vehicles. LOS tracks the performance of vehicle flow based on indicators such as vehicle speed, driver delay, and traffic congestion and can indicate where improvements are needed. However, as travel demands shift, especially in response to a focus on more dense, mixed-use development in key community nodes, new ways of evaluating infrastructure performance will be required to support those needs. The City's LOS policy does not include non-motorized modes of travel and cannot consider rights-of-way it does not own or manage (such as MoDOT's roads and highways).

However, the City has promoted safety for this full range of users through other approaches. The City's Neighborhood Traffic Safety Program addresses safety issues with a 'Three E' strategy (Education, Enforcement, Engineering) using a priority ranking system. Other traffic engineering safety programs include the Road Safety Audit/Neighborhood Sign Audit Program that is based on an expected asset life; the Crash Analysis Program which assesses high crash locations and community trends typically every three years; and a traffic safety analysis of all 22 schools every five years. The City has also made advancements in its infrastructure to support

active transportation. All of Lee's Summit's traffic signal controlled intersections with crosswalks feature pedestrian countdown indications.

With several significant developments underway or planned for the City, the City should move toward careful prioritization of capital improvement projects and policies to support a shift in the number of vehicles, pedestrians, bicycles, and transit vehicles sharing road networks. A first step to doing this is creating a more modernized system of metrics to evaluate its streets and roads for these users and to address challenges.

Strategies

Establish policies and guidance, based on the Place Types as identified in the Land Use and Design Element, for how transportation networks should be developed and augmented relative to development occurring in Activity Centers or along key connecting corridors.

Actions

Policies

- Define Level of Service (LOS) standards comparable to those used for vehicle traffic that are acceptable for non-motorized forms of travel. These should address the quality and performance of infrastructure for bicycles and pedestrians.
- On corridors that are in the City's control and that connect Activity Centers, consider revised or parallel LOS measures that reflect the nature of a more urban pattern of development. This may include relaxing standards for Intersection LOS to be consistent with more urban conditions. It may also include adopting alternative standards from Highway Capacity Manual-based metrics, such as Corridor LOS that measures overall travel speeds or times, that could be used in place of intersection LOS metrics.
- Develop flexible curbside policies to support local businesses with pick-up and drop-off needs.
- Work with private vendors such as Uber and Lyft to organize pick-up and drop-off areas for improved service, safety and congestion.
- Develop policy around new transportation disruptors such as lightweight individual transportation (LIT) devices such as e-bikes and e-scooters (see also Goal 4.C and its supporting objectives).
- Create a 'right-sizing' policy to re-purpose excess road capacity for non-Single Occupancy Vehicle modes such as protected bike and LIT lanes. Develop quantitative targets for underutilized roadways that identify them as 'reuse' candidates once traffic volumes are recorded for at least three consecutive years below identified threshold levels relative to roadway capacity.
- Develop mode share goals for activity centers and augment these with a more focused program of annual surveying in this part of the City to understand trends and the effectiveness of these policy recommendations.

Objective 3.4.A.2: Enhance the evaluation systems and metrics used to study transportation infrastructure and services in the City's Activity Centers and Connecting Corridors.

Context

As discussed in the previous objective, the City's use of LOS standards applies only to vehicular traffic, and it will need a more robust way of understanding how other forms of travel in Activity Centers and along key connecting corridors are performing for users. Likewise, the City will need more focused channels of gathering and analyzing this information to support a more multimodal policy approach and to make more informed decisions.

Strategies

Coordinate data collection and analysis of both safety performance and modal network access for all potential users.

Actions

Inventory, Assessment or Survey

- Establish an annual review process for sidewalk improvements.
- Increase the frequency of school safety audits, aiming for once per five years but also within one year of any major infrastructure or development-related changes around school locations.
- Increase data available on cyclist's data. Create a bicycle count program, as budget, staff resources, or possible external funding allow and to be inaugurated once key connections are made in the bicycle network, that uses several methods of data collection to create an understanding of current bicyclists and the effects of new facilities on bicycling in Lee's Summit. Current traffic count program does identify cyclists separately, but very limited to intersection peak hours. Additional bike count data is needed though.
- Develop a dynamic map resource hosted on the City's website for the broader Lee's Summit community to suggest locations of safety concerns, infrastructure gaps or deficiencies, or other impediments to multimodal travel.
- Monitor service demands on an annual basis for all existing transit services to identify priority time periods or service areas requiring increased service.

Goal 3.4.B.: Use and enhance existing approaches in the rest of the City outside of Activity Centers and Connecting Corridors.

Objective 3.4.B.1.: Review and, as needed, refine other City policies that govern transportation and its relationship to land use.

Context

Lee's Summit works with a variety of organizations and City government departments to address transportation needs. Planning for transportation involves several agencies and efforts dependent on various schedules, funding, organizational capacities, and political processes. Traffic engineers in the Public Works Department coordinate with the Development Services Department and the Police Department in efforts to implement transportation master plans, improve traffic safety and maximize multi-modal operational performance. The City's Planning Commission approves the Thoroughfare Master Plan and other infrastructure master plans within the Comprehensive Plan, which could impact the road network. The Livable Streets Advisory Board is responsible for education and oversight related to the City's Livable Streets policy.

This also extends outside of the City's jurisdiction. The City is in the planning area for the Mid-America Regional Council, a federally designated metropolitan planning organization tasked with allocating funds for transportation improvements and coordinating with the Missouri Department of Transportation (MoDOT) to address regional transportation goals and challenges.

Insight

Many City plans, programs, studies, and policies influence networks supporting cars, walking, biking, and transit vehicles in Lee's Summit. These four plan and policy documents are most significant in long-range transportation planning-related decision making:

- Livable Streets Policy
- Access Management Code
- Thoroughfare Master Plan
- Bicycle Transportation Plan

In addition, the broad collection of policies, documents, and programs listed here is also relevant as a framework guiding daily operations:

- Unimproved Roads
- Greenway Plan
- LOS Policy
- Transit Demand Assessment
- Sidewalk Inventory Analysis Report
- Capital Improvement Plan
- Code of Ordinances
- Unified Development Ordinance

- Design and Construction Manual
- Traffic Signal Communications Master Plan
- City Traffic Safety Programs, consisting of:
 - Road Safety Audit Program
 - Neighborhood Traffic Safety Program
 - Crash Analysis Program
 - School Area Traffic Safety Program

Independently, these efforts successfully address short, and long-range, planning approaches. Some plans and policies complement others, while some function more or less independently. For instance, the Thoroughfare Master Plan is positioned to function as a ‘flagship’ plan and leading a synchronized approach to implementing projects that support the City’s multimodal needs and growth trajectory, and several plans and policies address more detailed concerns in tandem with it. However, the ways that these plans and policies can be understood by the Lee’s Summit community as addressing the City’s needs may not be clear. Coordination between all transportation plans reinforces goals and actions that speak to the City’s vision while also identifying needs and prioritizing improvements.

Strategy: Align all plans by taking the following actions:

- Update Traffic Impact Assessment process and forms to more clearly and concisely indicate how various City plans and policies have been addressed.
- Develop an abbreviated, public-facing summary document for the City’s transportation plans and policies that explains how they are related and what particular functions each serves.
- Share plans and policies with utility providers who use plans to identify future project locations.
- Update and maintain major planning tools such as the travel demand model, as appropriate, to reflect major changes in the City transportation system or development patterns, to reflect changes in City limits, land use, development and street network. At a minimum this should occur at least once per year, but may need to be coordinated outside of that annual basis for special purposes such as state and Federal coordination.

Objective 3.4.B.2.: Improve transportation equity by focusing on accessibility and convenience for people of all means, ages and abilities.

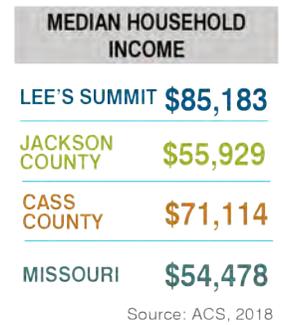
Context: Imagining a time when the average American household did not depend on automobiles to get around is difficult. In 2019, 93 percent of U.S. households owned at least one vehicle. During the 1950s auto industry boom, car ownership was part of the American Dream, and most families could only afford one car. Those who could not purchase a vehicle relied on walking, biking and public transit to get where they needed to go. Today, owning a car is common and access to public transportation in the Kansas City region much scarcer than before the auto boom.

Safe and convenient access to transportation varies based on income, physical and mental abilities. The community will experience increased economic and individual health, and unity when all residents are given more transportation choices.

Insight

Access and Equity

Although Lee's Summit is a suburb that owes much of its prosperity and growth to automobile use, today, not all households own a vehicle. According to Census data for Lee's Summit, four percent of households (1,377) do not own a car, and due to a lack of other transportation options, their mobility is limited. However, eight percent of Lee's Summit households (2,754) are families with children living below the poverty level, suggesting they are cost-burdened from owning a vehicle). The average household in Lee's Summit spends \$13,334 per year on transportation costs—16 percent of the City's median household income (\$85,183).



While approximately 5.2% of Lee's Summit residents live below the poverty line, reducing the annual cost of transportation would increase the amount of household income available for other needs.

Percent of Population Below Poverty Line

| LEE'S SUMMIT | JACKSON COUNTY | CASS COUNTY | MISSOURI |
|---------------------------|----------------------------|---------------------------|----------------------------|
| 5.2% | 15.2% | 9.8% | 14.2% |
| Under 18 6.3% | Under 18 22.5% | Under 18 13.1% | Under 18 19.5% |
| 18 - 64 years 4.9% | 18 - 64 years 13.7% | 18 - 64 years 8.6% | 18 - 64 years 13.7% |
| 65+ years 4.9% | 65+ years 8.6% | 65+ years 7.0% | 65+ years 8.6% |

Source: ACS, 2018

Nearly 10,000 people over the driving age face mobility challenges (including hearing, vision, or cognitive disabilities) that prevent them from using a car. Driving a privately-owned vehicle is not an option for these residents, and their dependents under the legal driving age must rely on walking or bicycling to get around due to the lack of a robust public transportation system.

The estimated poverty threshold in 2019 for a family of 4 (2 adults & 2 kids) is **\$26,167**.

In Lee's Summit, 1,790 households are below the poverty line.

Workforce

The Kansas City region's efficient and far-reaching highway system provides short commutes to Lee's Summit for many workers coming from outside the City. Before the COVID-19 pandemic, employers had difficulty filling job positions, potentially due to Lee's Summit's relatively higher cost of living and the lack of public transportation—factors that tend to limit economic growth.

Lee's Summit residents rely primarily on automobiles for transportation, with the Census data counting 83 percent who commuted by driving during 2014–18 (U.S. average was 76 percent during the same period). During this timeframe, the City also saw an increase in car ownership of one- (15 percent), three- (21 percent) and four-vehicle (142 percent) households, with a minor decrease in two-car households (7 percent). Those people most reliant on cars are commuters—61 percent of workers travel outside the City for work, with half of these journeys in the range of 10-24 miles. Only 6.5 percent took advantage of carpooling between 2014–18.

Less than one percent either walk or take public transportation. Within city limits, there are 34 highway miles, including highways I-470, US-50, MO-350, MO-150 and MO-291. The City owns and maintains 1,068 lane miles of roadway.

Roads & Highways



1,068
LANE MILES*

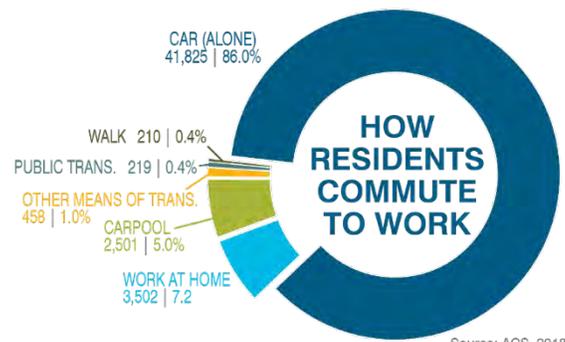
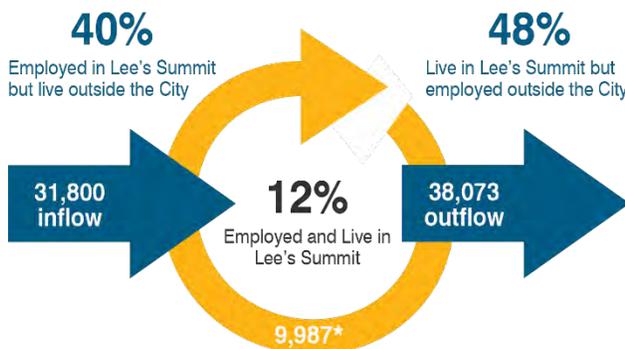
*Does not include private, state or county roads or highways.

34 HIGHWAY MILES ARE WITHIN THE CITY LIMITS

I-470 MO-350
ROUTE-291
MO-150 US-50

Source: LS Public Works

Prior to the COVID-19 pandemic, 7.2% of Lee's Summit residents worked from home, and that number is expected to grow post-pandemic, depending on sector. More people leave Lee's Summit to work than commute into the City for work.



Source: ACS, 2018

Most Lee's Summit residents who leave to work elsewhere drive alone to jobs in Jackson County and Johnson County, Kansas. More than half commute 10–24 miles.

WHERE RESIDENTS ARE LEAVING TO WORK

| | # of Workforce | % of Workforce |
|---------------------|----------------|----------------|
| Kansas City, MO | 13,609 | 28.3% |
| Lee's Summit, MO | 9,987 | 20.8% |
| Overland Park, KS | 3,756 | 7.8% |
| Independence, MO | 2,873 | 6.0% |
| Blue Springs, MO | 1,596 | 3.3% |
| Kansas City, KS | 1,367 | 2.8% |
| Lenexa, KS | 1,354 | 2.8% |
| Olathe, KS | 873 | 1.8% |
| North Kansas, MO | 803 | 1.7% |
| Grandview, MO | 758 | 1.6% |
| All Other Locations | 11,085 | 23.1 |
| Total All Workforce | 48,060 | 100% |



Source: LS Economic Development Council

WHERE THE LEE'S SUMMIT WORKFORCE LIVES

| | # of Workforce | % of Workforce |
|---------------------|----------------|----------------|
| Lee's Summit, MO | 9,987 | 23.9% |
| Kansas City, MO | 5,868 | 14.0% |
| Independence, MO | 3,623 | 8.7% |
| Blue Springs, MO | 2,509 | 6.0% |
| Raytown, MO | 1,035 | 2.5% |
| Overland Park, KS | 807 | 1.9% |
| Grandview, MO | 708 | 1.7% |
| Raymore, MO | 696 | 1.7% |
| Belton, MO | 671 | 1.6% |
| Pleasant Hill, MO | 604 | 1.4% |
| All Other Locations | 15,279 | 36.6% |
| Total All Workforce | 41,787 | 100% |

Transit stops located along U.S. 50 Highway south of I-470 serve the densely populated areas of Lee's Summit. Stops along Lee's Summit Road, the City's northwest border, serve lower density areas. Access to transit south of U.S. 50 Highway is limited, and most transit users in this area of town do not walk to Lee's Summit Express stops, they tend to park and ride. These fixed route transit services have limited operations and limited connections for peak weekday commuter traffic hours only.

The Lee's Summit Express primarily takes riders to and from Kansas City, Missouri, without service to Kansas, where more than 15 percent of Lee's Summit residents work. Transit also does not serve Independence, where many workers come to work in Lee's Summit.

Public transit service is limited in Lee's Summit and to the rest of the region, with only two small bus routes (Route 340–TMC Lakewood and Route 550–Lee's Summit Express served by RideKC). The express services have experienced a decline in ridership. Capacity continues to meet demand.

People requiring in-city, door to door service can use the on-demand RideKC Lee's Summit service operated by OATS. This demand response transit serves approximately 25,300 trips annually. Demand has been increasing. Service denials have also been increasing, but they are still relatively few.

According to a Transit Service Assessment conducted for the City in 2015, the current annual ridership potential for transit in Lee's Summit is around 171,000. Population growth forecasts for 2040 show that ridership potential could grow to 221,000 (only considering one-way trips), a 29 percent increase.

Public Transit



| 2019 Bus Route Ridership | | | | | | | | | | | | |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| #550 Raytown Express | 2,463 | 2,148 | 2,761 | 2,747 | 2,555 | 2,448 | 2,500 | 2,516 | 2,321 | 2,505 | 2,046 | 1,773 |
| #340 TMC Lakewood Connector | 424 | 410 | 530 | 547 | 545 | 580 | 676 | 666 | 623 | 548 | 572 | 604 |

| 2020 Bus Route Ridership | | | | | | | | | | | | |
|--------------------------------------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| #550 Raytown Express | 2,184 | 1,921 | 2,173 | 148 | 270 | 531 | 555 | - | - | - | - | - |
| #340 TMC Lakewood Connector | 533 | 531 | 735 | - | - | - | - | - | - | - | - | - |

A 2015 Transit Service Assessment study identified challenges to providing adequate transit, including the low population of residents living within walkable distance to existing fixed bus routes. In addition, there are few connections to key urban areas and some routes require multiple transfers and inconvenient travel to reach destinations for the 30,000 commuters who frequently require transportation beyond Lee's Summit boundaries.

As the City continues to grow, demand could reach a point where more balanced travel modes could be necessary to ensure mobility for the community. The Thoroughfare Master Plan does not project land use; it reflects the land use illustrated in the Comprehensive Plan. The land uses are applied for trip generation purposed only to assess transportation forecasts, level of service and needs. The Thoroughfare Master Plan will be updated following the adoption of the Comprehensive Plan to reflect changes in land use including the activity centers and other intense land uses. These developments could attract many more residents, workers and visitors, thus increasing traffic congestion while significantly impacting mobility and the character and livability of the City's older neighborhoods. A shift to alternative modes of travel could mitigate these outcomes, even in areas not designated as Activity Centers or connecting corridors in the Ignite Comprehensive Plan.

Strategies

- Remove barriers to access reliable, affordable transportation.
- Prioritize areas to connect when transit services are supported and expanded.
- Partner with local and regional employers to fill employees' desires for new and alternate modes of transportation,
- Accommodate new transportation technologies (modes, method of payment for services, etc.)

Actions

Strategy: Identify physical, financial, and geographic access barriers to safe alternative modes, and prioritize actions to increase access for those faced with barriers.

Policy and Code Adjustment

- Continue to incorporate recommendations from Community for All Ages, Walk Friendly Community, and Bicycle Friendly Community programs:
 - Promote bicycle trails, lanes and initiatives.
 - Promote sidewalk connectivity, lighting, street furniture, street trees, improving pedestrian accessibility and level of service.
 - Improve intersection safety for all users, with traffic calming strategies such as marked crosswalks, island refuges and adjusted signal crossing times.
 - Develop multi-use trails that link residential areas and activity centers to parks and public open space.
 - Promote public transportation that meets the needs of all first suburbs residents.
 - Develop transit stops that serve as an integral part of the community.
 - Address boundary issues that hinder availability of transportation services.

Partnerships and Collaboration

- Involve representatives from non-profit organizations (e.g., local United Way chapter), mental/physical healthcare service providers, cultural organizations, and local religious institutions to share information and identify pressing transportation needs for consideration by the City's Livable Streets Advisory Board.
- Partner with businesses at high-activity locations or along key trails and greenways to secure agreements and collaborate on funding options for the installation of bike racks and storage lockers.
- Partner with local bike shops to develop an incentive program or other similar effort to increase bike access for children or low-income people.

Plan Development:

- Continue to update and consistently incorporate and complete other adopted transportation master plans, such as Bicycle Transportation Master Plan, Greenway Master Plan, ADA Transition Plan for Public Rights of Ways.

Facilities & Infrastructure Improvements:

- Consider upgrades to paved shoulders and outside travel lanes for bike lanes and other improved accommodations for cyclists that are more suitable to use by people of all ages and abilities.

Strategy: Broaden the advertisement and education of safety awareness and alternative mode options for all residents

Education and Outreach

- Engage and work with local schools to design and champion a citywide safety program.
- Develop outreach program for school districts to further promote walking and biking (such as Walking School Bus programs) and advance urgent infrastructure improvements that remove barriers and encourage or better accommodate walking and biking.
- Hire volunteer downtown ambassadors to teach people how to use alternative modes (e.g., how to purchase a ticket and board a bus, how to access a micro-mobility device, etc.)
- Develop a visually engaging and clear city map highlighting the routes for bikes, walking, and transit and other important features like park and ride locations, trail heads, etc. The map should be posted on the city website and available by paper in locations like libraries and schools.

Partnerships and Collaboration

- Request local businesses to provide website links to both the Lee’s Summit Transit Services website page for transit information and the Rideshare KC website page for information about carpooling.

Objective 3.4.B.3.: Increase incentives, amenities and comfort for walking, biking and other alternative modes.

Context

Lee's Summit's character and livability will likely attract new residents, some of which prefer walking, biking and transit options, even outside of Activity Centers. This change may also increase demand for other options such as bike-share systems and micro-mobility devices like e-scooters to support short trips. Although the policies of this element focus them more on Activity Centers, non-driving modes allow active way for people to interact with the City.

Strategy: Boost commitment to programs that support non-vehicle travel modes and incentivize their use

Local Actions

Inventory, Assessment or Survey

- Conduct an annual evaluation of outstanding steps and define actions necessary to maintain and advance the *Walk Friendly* Community status and *Bicycle Friendly* Community status designations the City has at any given time (such that this is possible).

Education and Outreach

- Promote and incentivize participation in national walk or bike-to-work or school days.
- Host a competition for local artists and designers to create an engaging brand/symbol for Bike/Walk/Roll Lee’s Summit brand that can be used for posters and businesses who support alternative modes, as well as for potential community events.

- Offer a periodic training session to local businesses and institutions on how to develop a Transportation Demand Management program and reduce employee dependency on car commuting.

Partnerships and Collaboration

- Pursue opportunities with potential micro mobility provider for partnership, which may include financial contribution from the City, to conduct a short-term pilot program with the intention of reducing vehicle trips for short distances between specific locations.
- Develop code modifications in preparation for micro-mobility.
- Work with owners of private parking lots to encourage accommodation of spaces for electric vehicles and charging stations.

Strategy: Raise awareness about the correlation between vehicle-related emissions and commuting trends in Lee’s Summit, and environmental and physical health impacts

Education and Outreach

- Utilize social media to periodically advertise statistics about Lee’s Summit status related to vehicle emissions.
- Utilize social media to raise awareness of bicycle and pedestrian activity, modal benefits (health/emissions), laws, safety statistics, available routes, etc.
- Utilize social media to advertise availability of transit services.

Strategy: Continue pursuing infrastructure and policy improvements that support the reduction of vehicle emission impacts

Practice Improvements

- Continue synchronization of traffic signals along priority circulation routes and major thoroughfares to minimize vehicle idling and emissions.
- Continue participation in Kansas City Metropolitan Area *Operation Green Light* Program to support regional development of Intelligent Transportation Systems (ITS)
- Refine where necessary the Level of Service (LOS) standards for vehicles, bicycles, and pedestrians, then integrate all into one LOS policy document.

Goal 3.4.C.: Lee’s Summit’s transportation networks, for any mode or technology, will be connected, complete, resilient and adaptable to the future.

Objective 3.4.C.1.: Close gaps in connectivity to improve how people get around the region.

Context

A well-connected transportation network reduces the distances traveled to reach destinations, increases the options for routes of travel, and can facilitate walking and bicycling.

Interconnected multimodal networks are characterized by seamless bicycle and pedestrian infrastructure, direct routing, accessibility, and few physical barriers. Increased levels of transportation connectivity are also associated with higher levels of healthy physical activity.

In addition, connected transportation networks also improve health by increasing access to health care, goods and services.

Characteristics of a comprehensive multimodal network:

- Journeys from home to a nearby bus stop offer a continuous sidewalk.
- Bus stops connect to a point along a trail network to drop off a bicyclist.
- Ride a bike safely from a trail or road to a train station or other destinations in town.

Transportation choices should provide flexibility in trip planning and not overcomplicate or lengthen the trip. A well-connected community offers a range of safe mobility options, with synchronicity between the physical environment and the transportation system.

Insight

Roadways

Efficient road planning in Lee's Summit (and any city) influences how people choose to get around, including potential access to a variety of transportation modes. The Thoroughfare Master Plan shows which City's primary streets and roads are expected to reach vehicle capacity by 2025 and 2040, pointing to a need for near-term and long-term strategies that accommodate travel demand and encourage a partial shift from people driving alone in cars for daily trips.

Bus, Rail & Air

Although a comprehensive transit system in Lee's Summit does not exist, residents' express interest and a willingness to use public transportation. Fifty-four percent of residents said in a 2019 survey that they would walk or bike 5–10 minutes to ride a fixed-route bus system in Lee's Summit. Sixty-three percent also said they would be "very likely" or "somewhat likely" to drive or carpool to a park-and-ride location and take an express bus to their destination.

The Transit Service Assessment conducted for the City in 2015 proposes five potential scenarios for phasing in more comprehensive transit services. The demand for increased frequency and range of routes continues to grow.

Amtrak passenger rail to or from Lee's Summit offers potential increased regional connectivity and reduces single-person vehicle trips. However, the Missouri River Runner and Southwest Chief routes only make a few stops in the City per day, and only serve a limited number of travelers with specific destinations near its stops.

Municipal Airport Master Plan

Most of the airport's current Master Plan and Business Plan recommendations are complete. Implementation of these plans strengthened the airport's position as a premier Fixed Base Operator (FBO) in the Kansas City area and the U.S. The City of Lee's Summit is currently developing a new 20-year Master Plan and Business Plan for the airport to ensure the airport's continued success. The recent increase in aircraft operations and airport-owned land providing potentially more airfield access are driving the planning process.

Rail



Air



Bicycles

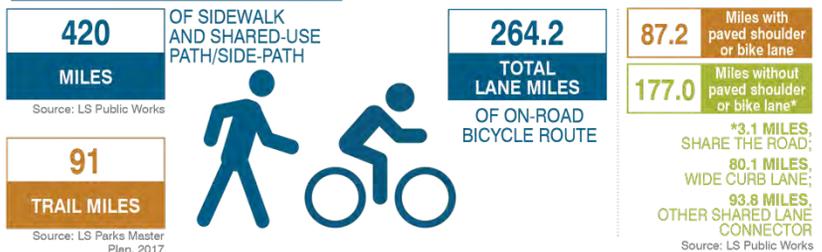
Lee's Summit became the first city in Missouri designated a Bicycle-Friendly Community 2012, thanks to the Bicycle Transportation Plan's adoption in the City's Comprehensive Plan. The Bicycle Plan outlines a long-term strategy for providing improved bike routes and networks that will improve options for short trips. In contrast, but with overlapping accommodations, the Greenway Master Plan highlights the recreational biking and walking opportunities and the existing trail network.



All City-owned roadways permit bicycles, but not all are bike-friendly. The Bicycle Transportation Plan outlines a comprehensive approach to the overall bike network. The plan features more than 100 miles of connector routes throughout the City, including on-road, unprotected facilities (such as shared streets and bicycle lanes) and protected trails.

The Bicycle Transportation Plan emphasizes that "bicyclists need an interconnected system of Greenway trails, shared-use paths, and roadways to reach all desired destinations." It also clarifies that "different types of bicycle facilities are appropriate in different situations." This follows national best practices that emphasize flexibility in bicycle facility design, based on place-specific constraints.

Pedestrian & Bicycle



Strategic infrastructure improvements throughout the City would encourage and safely accommodate more riders of all skill levels. One of the goals in the Greenway Master Plan is "to continue to incorporate on-street bicycle improvements and multi-use trails along streets as a routine part of scheduled roadway construction and retrofit projects."

The Bicycle Transportation Plan identifies strategies for improving bike network design, route integration, and signage, including capital improvement projects, maintenance projects, and modification through development/redevelopment projects. These strategies will require creative coordination and funding through potential sources like the Congestion Mitigation & Air Quality Program, the Surface Transportation and Bridge Program, and Transportation Enhancements Program administered by the Mid-America Regional Council.

Table 1: Bicycle Transportation Plan - Bike Route Accommodations

| Facility Type | Existing (Miles) | Plan (Miles) | Plan Completion | Plan Facility Type |
|----------------------------------|------------------|---------------|-----------------|--------------------|
| Connector Route | 20.15 | 20.15 | 100% | 12% |
| Share-the-Road Route | 1.83 | 3.31 | 55% | 2% |
| Wide Curb Lane Route | 44.99 | 63.14 | 71% | 38% |
| Paved Shoulder Route | 16.31 | 35.84 | 46% | 22% |
| Bike Lane Route | 0.00 | 0.00 | 100% | 0% |
| Sidepath Route | 17.85 | 26.38 | 68% | 16% |
| Shared-Use Path (Trail) Route | 3.07 | 17.56 | 18% | 10% |
| Plan Total | | 166.38 | 63% | |
| Sidepath Supplement | 6.41 | 22.24 | | |
| Shared-Use Path (Non-Bike Route) | 12.50 | 50.76 | | |

Note: Existing connector routes exceed plan, being that existing connector routes are planned paved shoulder, wide curb lane, share-the-road, sidepath, or bike lane.

Pedestrians

The City Health Dashboard measures health and other drivers for the 750 largest U.S. cities with a population of more than 50,000. Overall, Lee's Summit is healthier than the average of these municipalities. But in terms of walkability, Lee's Summit scores lower than other cities. This is based on a specific measure of walkability that features a greater mix of land uses short distances apart. A different measure might help communities like Lee's Summit, where people living in neighborhoods that are connected with their street and sidewalk networks might be able to walk, but may have limits on what they can walk to. Or, alternatively, Lee's Summit might also adopt growth policies that promote this mix of use within short distances. The City Health Dashboard suggests that communities achieving this more balanced, destination-focused definition of walkability tend to have more active residents, including how often they walk and use public transportation. Research finds that people in such neighborhoods have lower rates of diabetes and obesity than those living in less walkable areas. Walkable neighborhoods often have less vehicle use, which also leads to better air quality.



The City's network of sidewalks is comprehensive, thanks in part to voter support in approving \$2.5 million for closing existing gaps and constructing new sidewalks. The City also influenced the design of interchange projects to increase connectivity across interstate freeways and links to two trail systems. Lee's Summit was also the first city in Missouri to earn a Silver-level Walk-Friendly Community designation, thanks to a comprehensive series of community-supported efforts and the adoption of its Livable Streets Policy.



Like all municipalities, Lee's Summit maintains an Americans with Disabilities Act (ADA) Transition Plan to ensure compliance with that law's accessibility requirements. The ADA Transition Plan is an important, ongoing tool for ensuring that sidewalks accommodate users of all abilities and are present on both sides of the street.

Strategy

Identify gaps in modal networks and prioritize closing them.

Actions

Partnerships and Collaboration

- Partner with Downtown Lee's Summit to close areas of downtown for pedestrian access only in coordination with significant city events.
- Continue discussions with MARC and adjacent jurisdictions to identify missing vehicle, bike, and walking network links between boundaries.

Education and Outreach

- Design an online community feedback system or survey to understand where people want to most see improved connections or closed gaps.
- Conduct an annual public survey on overall user experience of mobility in Lee's Summit and the region at-large.

Practice Improvements:

- Continue to consistently incorporate the Thoroughfare Master Plan in the consideration of development, transportation improvement needs, future right-of way requirements and the overall project approval process.
- Continue to identify funding opportunities to help finance future roadway capital improvements.
- Reserve or purchase right of way at locations where improvements are identified

Facilities or Infrastructure Improvements:

- Continue to develop alternative bicycle/pedestrian routes to connect Rock Island Trail to Lee's Summit Greenways.

Strategy

Lay the foundation for supporting an efficient and accessible multimodal transportation network.

Policy and Code Adjustment

- Develop a guidance system, informed by project prioritization elements outlined in the Thoroughfare Master Plan, to be incorporated into the development review process to help ensure development is making contributions to the transportation network that meet broader policy goals and give developers flexibility in how to make improvements if they follow guidance. Help developers understand why the City asks for these contributions and where their contributions fit into a larger system and provide a rational nexus between the improvements and the development project. This would apply to all roads, sidewalks, bike facilities within and impacted by development.

Education and Outreach

- Incorporate links to or relevant guidance from the Thoroughfare Master Plan with application procedures or other processes relating to development so that applicants understand how their development projects fit into and impact a larger transportation system.

Practice Improvements

- Develop a comprehensive map atlas, whether electronic or in a static form, to use as an evaluation tool in the development review process so that potential development-based contributions can be understood with individual applications.
- Amend the City's more visionary plan documents and their recommended networks, such as the Greenway Master Plan, to allow flexibility in determining route alignments should development projects or other opportunities allow a way to fill system gaps that might otherwise have no strategy for how to be completed.

Objective 3.4.C.2.: Prepare Lee's Summit to integrate new technology and emerging mobility options.

Context

The rapid pace of technological change has affected many aspects of modern life, including transportation. In addition to the improvements this has allowed for vehicle performance, efficient coordination of infrastructure, and collection and distribution of data to multiple users, new forms of technology-driven transportation modes have emerged. Rideshare services have disrupted the taxi industry and are now commonly used for short trips in urban areas.

Electric scooters, bicycles, and other micro-mobility services and devices have changed ways that people make short trips, with many cities responding by crafting thoughtful policies and leveraging them to safely close the gaps in modal networks to provide valuable services to vulnerable communities. Autonomous vehicles show potential to greatly reduce the stress and danger of driving travel, especially in busy peak travel periods. And as the COVID-19 pandemic illustrated, working from home may take on new importance as a way of avoiding some types of commuting and travel altogether, at least for sometimes of a typical day or week.

In addition, other major disruptions to transportation and travel patterns prevalent in the United States over the last half-century offer added promise for the transportation network, although they must be met with revised policy approaches.

Autonomous Vehicles

The Blueprint for Autonomous Urbanism states that cities should focus on the near-term policies and decisions to adopt autonomous technologies for improved transportation outcomes, rather than overall increase in driving, greenhouse gas emissions, and diminished public space.

Technology and Smart Cities

Technologies such as signal coordination, connected vehicle communications, and fiber-optic based integration with other public service systems are increasingly integrated across the U.S. to improve traffic flow and reduce conditions that cause collisions at high-volume intersections. Technology is also changing how people pay for and find information about transportation options (such as pay-by-app technology, or real-time travel displays). All of these may influence how a person selects their route according to ease of access, comfort, and perception of safety.



Work from Home

More people are working from home than ever before, which puts fewer people at risk for traffic crashes. This has certainly been tested on a mass scale during the COVID-19 pandemic, with potential future changes to travel patterns that have yet to be observed and understood. The fewer car trips mean less gas purchased and declining gas tax revenue to fund maintenance of existing transportation infrastructure.

Strategy

Identify current and future state of transportation demands to be able to prepare to meet needs.

Actions

Policies

Develop policies to accommodate autonomous vehicles.

- Develop policies and incentives that encourage people to use efficient modes. Because autonomous vehicles will make transportation more accessible and cheaper, traffic and pollution will increase.
- Prepare to manage additional data. Balancing the use of crucial planning information and privacy protections for individuals will be needed.
- Develop urban freight policies that combine deliveries to reduce the number of freight trips while increasing efficiency and safety. Autonomous technology could make long-distance freight movement more efficient, but these technologies could also prove detrimental to cities by flooding streets, sidewalks, and airspace with bots and drones.
- Adjust parking requirements as new transportation technologies such as micro mobility and autonomous vehicles change the demand for driving and parking.

Facilities or Infrastructure Improvements:

- Plan for and implement an expansion of the City's telecommunications infrastructure and capability, making upgrades in fiber and wireless infrastructure, combining this with similar efforts tied to public safety.
- Plan for and implement a Data Management Center that incorporates traffic and transportation as one of its focus areas but that allows integration with other City operations such as public safety, emergency management, and utilities monitoring.

Inventory, Assessment or Survey

- Use the City's travel demand model to the extent that is practical and feasible within the City's typically staff resources to most accurately reflect the City's current conditions and changes in modes and technologies. This would be intended to help balance the focus this tool has historically had on vehicle-based mitigation and infrastructure improvements.

Partnerships and Collaboration

- Continue to work with *Operation Green Light* program to improve the coordination of traffic signals and incident response on major, multi-jurisdictional, routes.

Practice Improvements

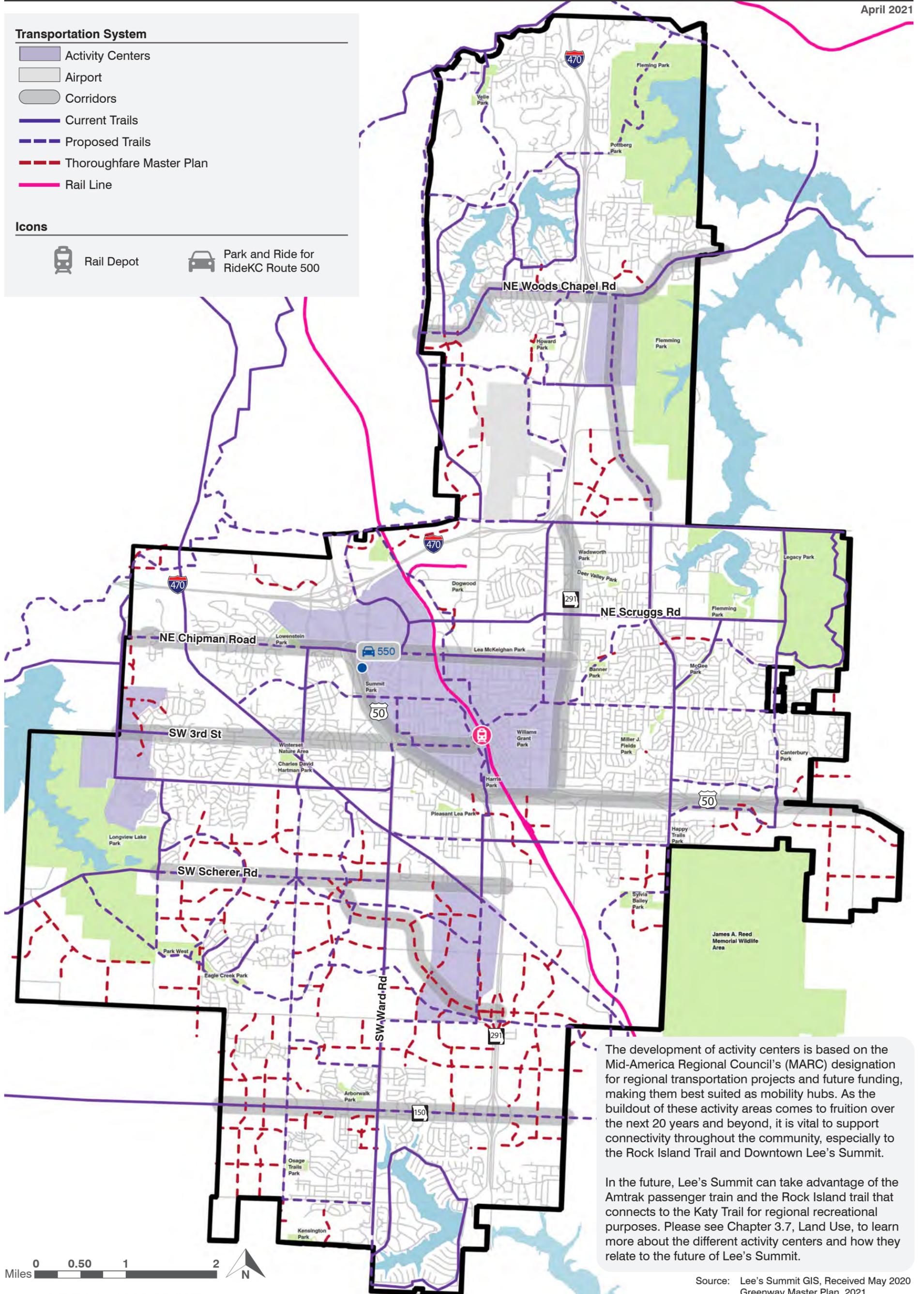
- Continue to apply emerging and adaptive technology to improve traffic flow and safety.
- Continue to build, develop and utilize technology in traffic operational management and response to improve traffic flow and safety (e.g., Traffic Operations Center or the Data Management Center described above).

Transportation System

- Activity Centers
- Airport
- Corridors
- Current Trails
- Proposed Trails
- Thoroughfare Master Plan
- Rail Line

Icons

- Rail Depot
- Park and Ride for RideKC Route 500



The development of activity centers is based on the Mid-America Regional Council's (MARC) designation for regional transportation projects and future funding, making them best suited as mobility hubs. As the buildout of these activity areas comes to fruition over the next 20 years and beyond, it is vital to support connectivity throughout the community, especially to the Rock Island Trail and Downtown Lee's Summit.

In the future, Lee's Summit can take advantage of the Amtrak passenger train and the Rock Island trail that connects to the Katy Trail for regional recreational purposes. Please see Chapter 3.7, Land Use, to learn more about the different activity centers and how they relate to the future of Lee's Summit.

Source: Lee's Summit GIS, Received May 2020
 Greenway Master Plan, 2021
 Thoroughfare Master Plan, 2021
 Ride KC, 2021 05/17/2021

Vision Statement

A vibrant community ensuring the finest quality of life for all generations.

Chapter 5: Infrastructure

Safe, efficient and reliable infrastructure supports a community's ability to grow and prosper. Smart, innovative infrastructure that is safe, secure, sustainable and resilient to disruption will:

- a. Protect our high quality of life
- b. Optimize accessibility
- c. Increase community vitality
- d. Address community needs
- e. Provide services effectively to residents, both today and well into the future

Goal 5. Plan and build City services and infrastructure to promote quality growth and resiliency.

Objective 5.B.1. Develop and plan for purposeful growth.

Context

As one of the fastest-growing communities in the region for many years, this demonstrates the resiliency and foresight of community leaders. The water utility needs to achieve a critical balance, not only in managing the existing infrastructure but also planning for continued growth. Water and sewer services must be extended and updated using sustainable, cost-effective strategies to support continued growth and anticipate future demand.

| <i>Growth by Decade</i> | | | |
|-------------------------|------------|-------------------|---------------------|
| Year | Population | Land Area (Acres) | Population per Acre |
| 1950 | 2,554 | 10,646 | 0.24 |
| 1960 | 8,267 | 35,004 | 0.24 |
| 1970 | 16,230 | 36,973 | 0.44 |
| 1980 | 28,742 | 37,536 | 0.77 |
| 1990 | 46,486 | 37,808 | 1.23 |
| 2000 | 70,700 | 40,190 | 1.76 |
| 2010 | 87,027 | 40,528 | 2.15 |
| 2018 (estimate) | 96,325 | 40,528 | 2.38 |

While fast-paced growth provides new opportunities, experiences and amenities for residents, such as additional restaurants, shopping and parks, it presents a difficult task for the City to plan appropriately and balance the needs for future and existing customers. Lee's Summit creates infrastructure with the future in mind to enable appropriate infrastructure size. The cost to extend services to sites is generally carried by the developer, however, there are times they can connect directly to the existing systems due to the City's forethought.

Investing in future development is a tough balance. Presently the City partners with organizations and developers on infrastructure that anticipates future capacity when budgets and planning allow. In the past, development fees and connection fees

allowed the City to successfully fund growth amid capacity concerns for the water system, and the sewer system would benefit from a similar model.

It's been said many times that "the easy properties have been developed," and remaining properties in the City limits are more difficult to serve. Therefore, Lee's Summit should explore new funding mechanisms for such efforts. One such example is the downtown area, where the age and condition of existing infrastructure are a concern about long-term sustainability and costs associated with operations and maintenance. Added development impacts capacity and sometimes it impacts downstream infrastructure. While the city is still growing, a new model addressing these concerns is needed to support continued growth in the remaining areas.

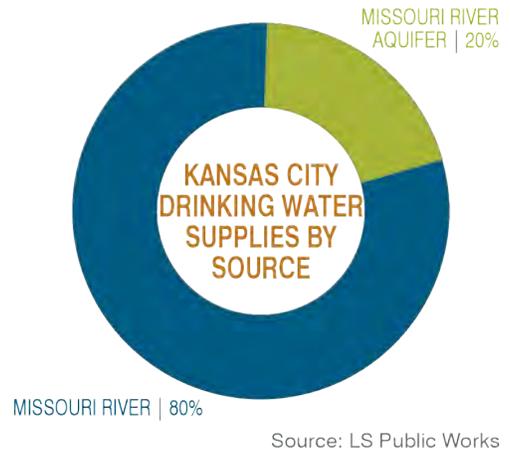
Aging Infrastructure

Every three years, the American Society of Civil Engineers develops a grade card for infrastructure in Missouri as part of a national effort to raise awareness about conditions of the State's infrastructure and needs for reinvestment. The grade card recently released gave Missouri infrastructure an overall grade of C-, which is less than mediocre and demonstrated a need for greater attention. The good news is that it surpasses the national average, a D+. The bad news is that Missouri's grade hasn't improved over the last several rating cycles—in some categories it has even declined.

Lee's Summit continues to replace its aging infrastructure with aggressive programs aimed to meet the industry's best practices. Work is continuously being done on the water and wastewater systems to ensure reliability in the future. Lee's Summit has much better infrastructure reviews than the state's, shown by City customer satisfaction surveys.

Map 5.X shows street and bridge conditions

Water



CITIZEN SATISFACTION SURVEY



Source: LS Citizen Satisfaction Report, 2019

Insight

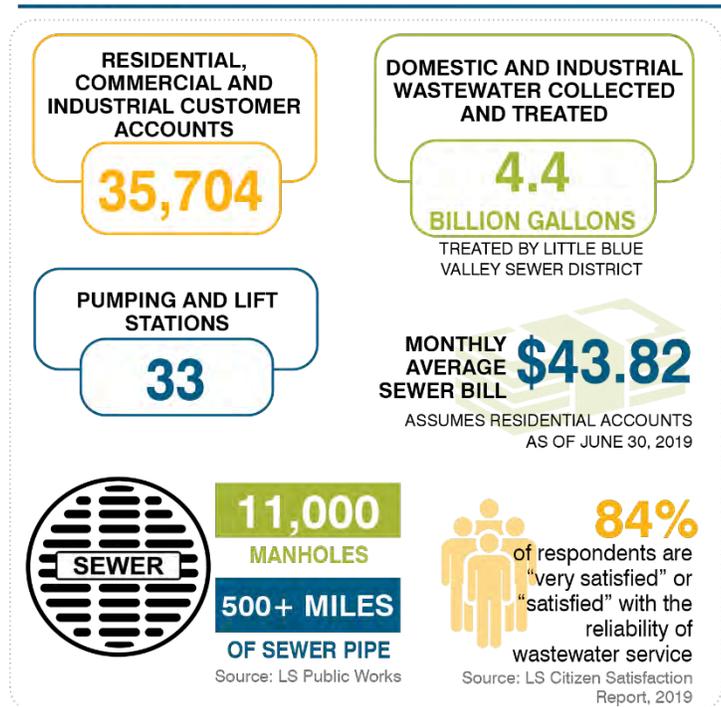
System Overview

The City services nearly 37,000 customer accounts, more than 600 miles of water mains and over 500 miles of sewer mains—plus nine water towers and storage tanks, 33 pump stations, nearly 5,000 fire hydrants and much more associated water and sewer infrastructure assets.

Treatment Suppliers

The Little Blue Valley Sewer District (LBVSD) provides treatment for wastewater to the entire region. The City does not provide treatment for water or sewer, while the cities of Independence and Kansas City supply treated drinking water and are working toward emergency interconnection with the Tri-County Water Authority to provide back-up water supplies in case of emergencies. With the capacity to supply 32.5 million gallons per day, and additional water in emergencies, the Water Utilities Department is positioned to meet Lee's Summit's anticipated water needs currently and is undergoing a Water Master Plan to determine the water supply needed for the next several decades.

Wastewater



These contracts and relationships are vital to costs and services' impact on the entire community. City staff regularly attends planning and budget meetings for these providers.

Map 5.X shows the wastewater system and pump stations

Planning Efforts

Historically, the City utilized Master plans, Comprehensive Plans, Capital Improvement Plans and Strategic Plans to plan for future infrastructure scenarios. Each plan provides a unique perspective and purpose. Master plans for water and wastewater were updated in 2006–2007 and are in the process of undergoing updates to plan for the

next 20 years. The specific details of those master plans should coincide with the comprehensive plan update.

Trends & Foresight

Increase in Energy Consumption and Water Demand

As the climate continues to change, it's predicted the Kansas City region could experience an increase in electricity demand of 8-20 percent by the end of the century. This is the highest energy cost increase of any metro area in the Midwest. Droughts are predicted to increase while rain events will likely become more intense, impacting water and sewer systems.

Concerning Trends:

- 1) Increased rain intensity and drought periods
 - a. Averaging of water use may not provide the necessary capacity for water supply and demand, as it is calculated today.
 - b. More intense rainfall means more flash flooding for the storm sewer system, but also impacts the sanitary sewer system via inflow and infiltration (I&I).
- 2) Staffing numbers
 - a. Lee's Summit Water manages a very lean operation by most accepted standards. The projected growth for the city in the coming years will require a similar growth in staffing to continue to provide the same high level of service which is currently provided.
- 3) Staffing availability
 - a. Lee's Summit has sufficient licensed operators. Licensure is minimal without treatment in the City's systems.
- 4) Water/Sewer Rates/Affordability
 - a. It is known that the City of Kansas City, Missouri has incurred significant costs for improving its water and sewer systems, resulting in higher rates for users. While Lee's Summit is a wholesale customer who pays a lower rate than retail consumers, increased infrastructure costs for Kansas City present a concern about future water costs. Significant investments have been made in the last 20 years to partner with Kansas City for water supply.
 - b. Water Utilities recently renewed its contract with Independence, which will continue to provide a steady source of water to the City of Lee's Summit for decades to come.
 - c. LBVSD provides sewer treatment for many communities in the Kansas City area. Lee's Summit is a member of the sewer district and is involved in the decision-making and rate setting for the district.
 - d. The Strategic Plan and Master Plans for water and sewer support rate increases. No entity likes to raise rates, but costs for sustaining the infrastructure are not going down, and regulations for maintaining water and sewer systems are becoming more stringent to provide better water

quality and reduce environmental impacts, requiring additional planning and investments.

5) COVID-19 impacts

- a. The pandemic period has not drastically impacted overall revenue for the utility. Commercial water use dropped 3 percent during the first six months, while residential revenue increased 12 percent.
- b. Continued changes to the way of life impacted by COVID-19 provide additional challenges for the utility. Many more people will likely work from home, a change that could impact staffing and response times.

Objective 5.B.2. Ensure City services and infrastructure support quality of life.

Context

The City of Lee’s Summit successfully manages sewer back-ups and water main breaks, exceeding most industry standards and benchmarks for these issues. The City provides a wide variety of high-quality services to residents and businesses and receives positive responses in resident satisfaction surveys. The *2019 Lee’s Summit Citizen Satisfaction Report* confirmed a high level of satisfaction, with 85 percent of respondents reporting satisfaction with the quality of services provided by the local water utility. This is a huge success and should be utilized as a positive tool and message in public education.

Map 5.X shows the water system, towers, tanks and pumps

Insight

Technology & Security

Lee’s Summit uses the latest technology to improve operations and City services, as noted in Chapter 5.A of this report. Changes in transportation needs, driverless cars, Internet of Things (IoT) and many more advances are changing how we deliver services or are on the horizon. These items may not directly impact water utilities, but it does impact overall system integration and management. As more and more devices are used to measure, monitor and identify assets, the importance of security increases.

As water utility system components age or fail they are replaced with more advanced systems, such as pumps with temperature sensors and other ways to measure adequate temperature levels and balance. These systems can’t replace personnel who perform the maintenance activities but can provide efficiencies to help personnel make decisions and prioritize needs. These developments contribute to Lee’s Summit’s transformation into a SMART City. Smart water meter systems identify leaks within minutes or hours, rather than waiting for water leaks to show up on bills at the end of the month.

CITIZEN SATISFACTION SURVEY

59%

QUALITY OF CITY STREETS

77% Cleanliness of public areas and streets

87% Maintenance and Preservation of Downtown Lee’s Summit

5% increase from 2013

25% above national average, which is 62%

Source: LS Citizen Satisfaction Report, 2019

As the City's network systems become more complex, security is an increasing concern—along with the ability to manage and access data. Lee's Summit is currently working to implement an Enterprise Content Management System to reduce the amount of physical space needed for document storage.

Regulations are quickly changing for managing the security of water and sewer systems. They will become increasingly stringent as more services are provided online and systems are more widely integrated with the internet, cell systems and more. Several City departments offer the option to conduct business transactions and access services online, practice improves customer experience by providing expanded access to conduct City business remotely and outside of normal business hours. This added convenience has become a necessity as a result of required COVID-19 social distancing.

Interdepartmental Opportunities

City departments typically work independently of each other, managing separate budgets, staff, and software systems. Technology improvements provide more efficient ways to share resources, including strategies that allow the City to cost share across departments for mutual benefits. Supervisory control and data acquisition (SCADA) systems, video capability, networks that provide data about usage, outages, temperature and much more can be integrated with ways that enhance security, safety, and overall customer satisfaction.

Trends & Foresight

The Internet of Things/Big Data/Smart City

- Adopting the IoT and new data management are forward-thinking strategies that support the efficient operation of a SMART City. While these advancements require significant investments, there are private partnerships and other financing mechanisms available to help build the next generation of infrastructure.

Weather Changes and Increase in Energy Consumption and Water Demand

- Understanding peak capacity needs is critical for planning future supply contracts. Using smart meters and other data systems to monitor demand cycles and changes will provide the information needed to identify demand and capacity concerns.
- Coordination with suppliers will also be necessary to update contracts and provide data that validates changes.

Affordability

- Affordability is critical and a high priority based on citizen survey results. New regulations require better technology and more efficient ways to deliver services. This coincides with a cleaner and healthier environment by managing our water resources more effectively. Public education is critical to the success of any changes made to rates, rate calculations and infrastructure upgrades.

Objective 5.B.3. Reduce maintenance costs while enhancing infrastructure performance and sustainability.

Critical Questions

- What technologies should be planned for and implemented to enhance infrastructure performance and sustainability?

Context

As noted earlier, the need for infrastructure upgrades and replacement is a serious problem across the U.S. While infrastructure in Lee's Summit is in better condition than many communities across the region, replacement of the City's aging infrastructure and locating the resources to make necessary improvements is still a concern for Lee's Summit.

Downtown Lee's Summit developed in the early 1900s when modes of transportation and technology were very different. Those currently traveling through this area no longer drive cars from that era, yet the underground infrastructure built for that earlier era does not meet present needs. This is a foundational concept to consider and explore when planning for the area's future.

Manufacturing technologies and materials have also significantly changed. The original cast-iron pipes are prone to deterioration and corrosion which leads to leaks and wasted water. Fortunately, there are more efficient materials available now, such as PVC, HDPE and pipes designed for specific needs. The percentage of water loss from aging pipes has reduced significantly during the past 50 years, and improvements can be performed in a variety of ways that lessen the impact on businesses or residents while also minimizing upgrade costs.

The City presently utilizes technologies to evaluate, repair or replace pipes such as pipe-bursting, slip-lining, cast-in-place-pipe lining, directional drilling and more. The water utility successfully manages annual programs designed to perform rehabilitation and/or replacement processes.

Insight

The availability of clean drinking water is a global concern. The amount of water used, its availability, quality, taste and other issues are all critical. The World Bank estimates that repairs to leaking water mains cost \$14 billion each year. Lee's Summit successfully keeps water loss at a minimum, but it strives to develop an even more efficient and sustainable system management. This includes using advanced technology to evaluate infrastructure and plan the best strategies to address maintenance and upgrade needs for the current system.

Trends & Foresight

- Data/People trends.
 - Overall, water use across the U.S. has dropped per customer, per year for the past 10 years. In Lee's Summit water also dropped, but not as significantly. More efficient faucets, showers and toilets help to reduce typical water use, but this is often counteracted by the use of lawn sprinkler systems.
- Industry trends.
 - The City predominantly used ductile iron pipe (DIP) for water mains in the past, but it started using plastic pipe during the past 15 years to prevent leaks caused by corrosive soil. PVC and HDPE pipes are becoming the most predominant materials in the industry and are continuing to take more market share.
 - Meter systems that provide usage statistics and leak detection are becoming mainstream.
- What does the future hold for this topic?
 - Asset management, technology and Smart applications are all critical topics to consider going forward. Interdepartmental coordination becomes increasingly important as more technology and citizens are involved.

- As weather patterns change, the City must plan accordingly. In previous years, design criteria for water and sewer systems were based on historic rainfall and weather pattern data. Pipe capacity is typically designed for peak demands and balanced with larger pipe sizes and storage capacity to shave off-peak demand. As we gain a firmer understanding of climate change patterns, design criteria for demand, capacity and storage could change to accommodate impacts to infrastructure. The amount of I&I that gets into the sewer system is typically a function of the intensity of rainfall and the length of storms. If rain events continue to grow in intensity and frequency, the system's capacity will become a serious issue. The City continues to address I&I through its past, current and future I&I mitigation projects. System renewal and integrity are an essential part of Lee's Summit water work.

The City currently leases fiber from the R-VII School District and is working to build a City-owned fiber network to improve connectivity, reduce costs and expand its bandwidth. City staff is evaluating the creation of a mesh network as co-mingled infrastructure with street light and traffic signal projects. Network infrastructure upgrades were part of a recent bond issue approved by voters in early 2020.

Recommendations

Assessment

Quality of life and growth does not happen without critical services such as water and sewer and the daily utilities utilized across the community. The City is currently updating master plans for water and wastewater systems. These plans will provide specific details for projects and funding to allow the community to protect a high quality of life while allowing growth to continue. Lee's Summit does not provide treatment services to the water or wastewater systems. This means the contracts and relationships of the treatment providers are critical to maintaining the city's quality of life and desired growth.

Staffing and affordability are critical foundations of the system and are items of concern.

As technology use increases to benefit the public, staff education and experience must also increase. The result is a more difficult task to acquire the right personnel while competing for comparable pay and benefits, which is a cost that impacts the affordability of the rate structure.

Master plans, strategic plans and existing data support the need for rate increases to maintain the quality of service to existing customers while expanding services for new customers.

Goal 5.B.: Plan and build City services and infrastructure to promote quality growth and resiliency.

Objective 5.B.1.: Develop and plan for purposeful growth.

Critical Questions

- How do we maintain the quality of life regarding infrastructure? What is needed to support the community's vision of the future?

Strategic Direction

- Maintain high-quality service for existing and future customers.

Strategies

Education and Outreach

- Continue educating the public about the cost of providing high-quality services and supporting the community's vision for the future.
- Provide data and analytics to City Council to support the need for improvements.

- Coordinate development of the system demands and requirements through water and wastewater master plans.
- Utilize the master plans and recommendations to develop regional planning perspectives that are communicated with the regional suppliers.

Practice Improvements

- Review the user fees that supports sewer system maintenance and renewal.
- Support the master plans and rate studies used to develop system details and plans.
- Continue to prioritize renewal and replacement by allocating dedicated revenue for infrastructure rehabilitation projects.

Plan Development

- Work with the PRI property owner to develop a master plan for this area.
- Coordinate with regional suppliers to anticipate and prepare for changing demands due to growth and changes in weather patterns.
- Adjust design standards for water systems as changing weather patterns impact the intensity or frequency of storms. Discuss with suppliers from a regional perspective.

Partnerships and Collaboration

- Consider public/private partnerships for managing growth and technology.
- Coordinate regular meetings with suppliers to discuss regional perspectives, the impacts of weather pattern changes and subsequent impacts to the demands of the region.
- Provide thought leadership for regional decision-making and maintain leadership positions with suppliers such as Kansas City, Independence, Tri-County and Little Blue Valley Sewer District.
- Continue participation in KC metro APWA and MARC.

Programs or Services

- Provide staffing levels to meet current service demands and recognized standards.
- Provide educational resources for staffing to evolve with technology changes.

Facilities or Infrastructure Improvements

- Continue water main replacement program.
- Continue the use of technology to reduce construction costs while considering new technologies as they arise.
- Consider smart meters and technology that offers data to citizens without significant staff effort.

Assessment

The Internet of Things (IoT)/Big Data/Smart City

- Using the IoT and managing data are ways to make a SMART City function efficiently. While it comes with a price tag, there are private partnerships and other tools and private investments available to help build the infrastructure.

Weather Changes and Increase in Energy Consumption & Water Demand

- Understanding peak capacity needs is critical for future supply contracts. Using smart meters and other data systems to monitor demand cycles and changes will provide critical documentation to identify demand and capacity concerns.
- Coordination with suppliers will be necessary to update contracts and provide data to validate changes.

Affordability

- Affordability is critical and one important finding from the citizen survey results. No one likes to raise water or sewer rates, but we all pay a lot more for cable tv and cell phones than water. New regulations require better technology and more efficient ways to deliver services. This coincides with a cleaner and healthier environment by managing our water resources more effectively. Public education is important to the success of implementing necessary changes for adjusting rates, revising rate calculations and upgrading infrastructure.



Goal 5.B.: Plan and build City services and infrastructure to promote quality growth and resiliency.

Objective 5.B.2.: Ensure City services and infrastructure to support quality of life.

Critical Question

- What technologies should be planned for and implemented to enhance quality of life?

Strategic Direction

- Leverage technology to maintain infrastructure and enhance security for the public.
- Maintain safe and reliable water and sewer systems in accordance with industry standards.

Strategies

Education and Outreach

- Work with other departments to create an outreach/education coordinator position.
- Responsibilities of the coordinator to include water quality public education, required maintenance and assessing comparisons to other communities.
- Consider promoting “Fix-a-Leak” Week, as suggested by the EPA.

Partnerships and Collaboration

- Coordinate with neighboring communities to share concerns and lessons learned that help protect the security of the systems.
- Consider private partnerships that support funding, system integration or management.
- Continue participation in committees for the regional service providers.
- Continue participation in industry organizations such as APWA, AWWA and WEF.
- Investigate opportunities to partner with other communities for cost-sharing/cost saving of materials, supplies or staffing.

Inventory, Assessment, or Survey

- Continue improving system security for existing data.
- Evaluate the need for enhanced security for equipment and SCADA systems.
- Consider smart meters and additional technology that provides data to customers and helps operations staff identify issues before they become emergencies.
- Continue leveraging GIS data and mapping for leaks, breaks, back-ups, SSOs and all relevant data that supports maintenance activities.
- Consider GIS capabilities for enhanced management of smart systems.
- Align the master planning and strategic planning efforts to coincide with the comprehensive plan.

Facilities or Infrastructure Improvements

- Continue developing fiber network to enhance connectivity and reliability of the network.
- Consider an integrated system for cross-departmental use.
- Develop performance measurements and trends of usage that can be correlated with GIS data for mapping and management enhancements.
- Continue developing fiber network
- Obtain a recognized utility certification to meet or exceed industry best practices.

Plan Development

- Develop a plan to implement the program over time. The plan will identify funding and staffing needs and implementation strategies. Research examples/best practices from other cities to develop program procedures.

Programs or Services

- Identify staffing needs and seek funding through City's annual budget process. Compare staffing numbers to other communities.
- Implement a program that provides citizens a way to get service lines replaced.

Assessment

Maintenance costs are a huge part of every budget. As infrastructure ages costs increase to a point where it is more effective to replace or rehabilitate the asset. Lee's Summit implements this strategy to manage maintenance costs. The utility is a business that must be operated and maintained as such. Reducing costs while maintaining the level of service in Lee's Summit is a difficult task. New materials, new technologies and planning for future growth are all part of the process. Infrastructure installed in the last 15 years is predominantly plastic pipe, which leaks less and breaks more than other materials. Other ways to reduce maintenance costs include using new methods to rehabilitate, rather than replace pipes. The City must balance the cost-benefit ratio to provide the most efficient method for maintaining existing infrastructure. As materials and technology change, City standards should also change.

Goal 5.B. Plan and build City services and infrastructure to promote quality growth and resiliency.

Objective 5.B.3. Reduce maintenance costs while enhancing infrastructure performance and sustainability.

Critical Questions

- What technologies should be planned for and implemented to enhance infrastructure performance and sustainability?

Strategy #1

Enhance maintenance and longevity of infrastructure.

Strategies

Education and Outreach

- Coordinate with other departments for use of an outreach/education coordinator staff position.
- Assign the coordinator to public education responsibilities focused on service lines, leaks, cost of water, etc.

Plan Development

- Meet with internal departments to plan a holistic approach to maintenance.
- Develop a holistic approach that minimizes interruption to consumers and maximizes funds used for maintenance of all infrastructure.

Policy and Code Adjustment

- Consider holistic approach and how it may impact budgeting processes.

Partnerships and Collaboration

- Partner with manufacturers and suppliers to educate staff.

- Consider partnering with other communities for cost-sharing equipment that is not regularly used.
- Consider contracting services for maintenance activities that require specialized equipment or staff.

Programs or Services

- Continue the small water main replacement program.
- Continue the I&I reduction program.
- Develop a program for customers to replace their service lines.
- Continue use of pipe bursting and other technologies that minimize construction impacts.

Bridge Sufficiency Rating

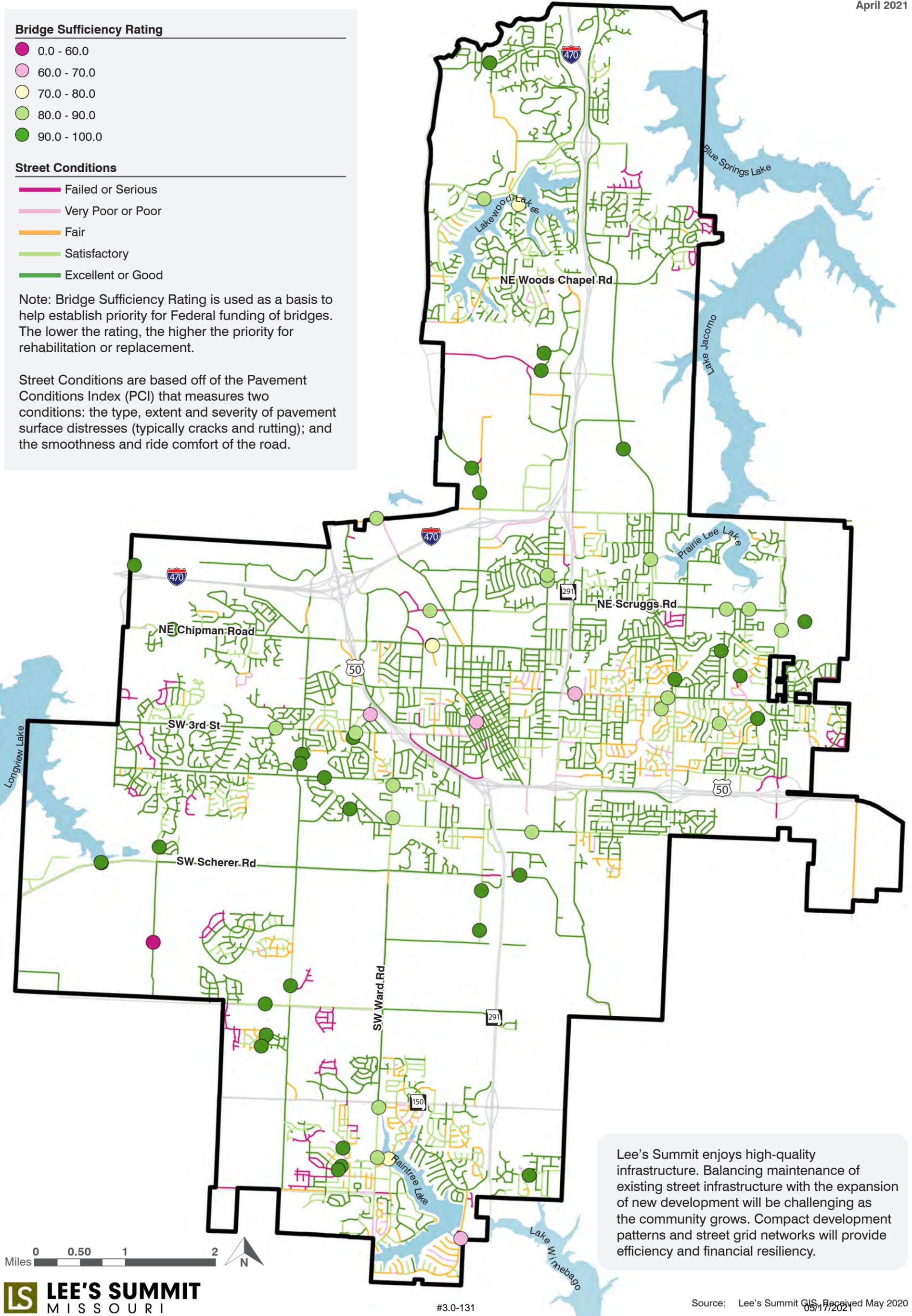
- 0.0 - 60.0
- 60.0 - 70.0
- 70.0 - 80.0
- 80.0 - 90.0
- 90.0 - 100.0

Street Conditions

- Failed or Serious
- Very Poor or Poor
- Fair
- Satisfactory
- Excellent or Good

Note: Bridge Sufficiency Rating is used as a basis to help establish priority for Federal funding of bridges. The lower the rating, the higher the priority for rehabilitation or replacement.

Street Conditions are based off of the Pavement Conditions Index (PCI) that measures two conditions: the type, extent and severity of pavement surface distresses (typically cracks and rutting); and the smoothness and ride comfort of the road.



Lee's Summit enjoys high-quality infrastructure. Balancing maintenance of existing street infrastructure with the expansion of new development will be challenging as the community grows. Compact development patterns and street grid networks will provide efficiency and financial resiliency.



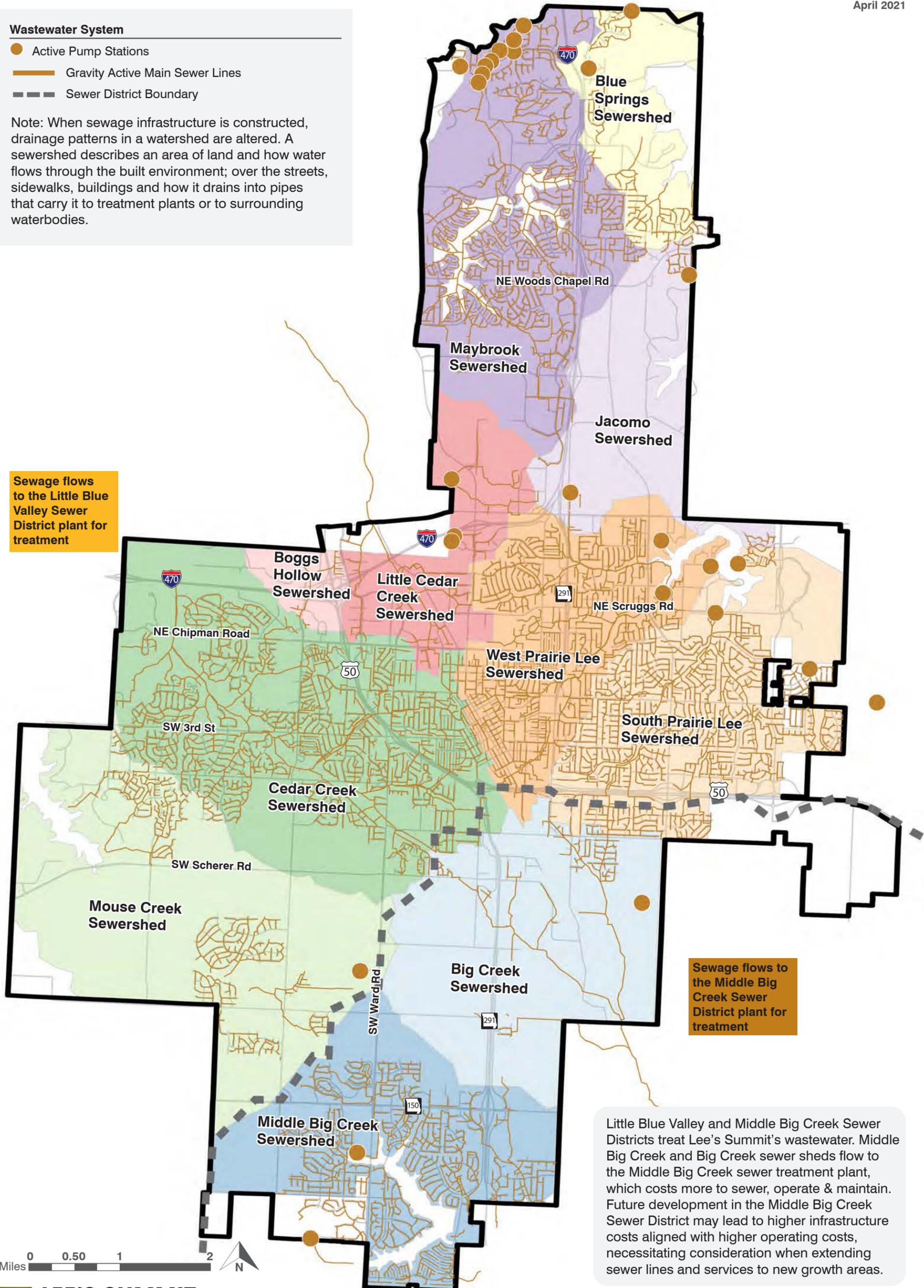
Wastewater System

- Active Pump Stations
- Gravity Active Main Sewer Lines
- Sewer District Boundary

Note: When sewage infrastructure is constructed, drainage patterns in a watershed are altered. A sewershed describes an area of land and how water flows through the built environment; over the streets, sidewalks, buildings and how it drains into pipes that carry it to treatment plants or to surrounding waterbodies.

Sewage flows to the Little Blue Valley Sewer District plant for treatment

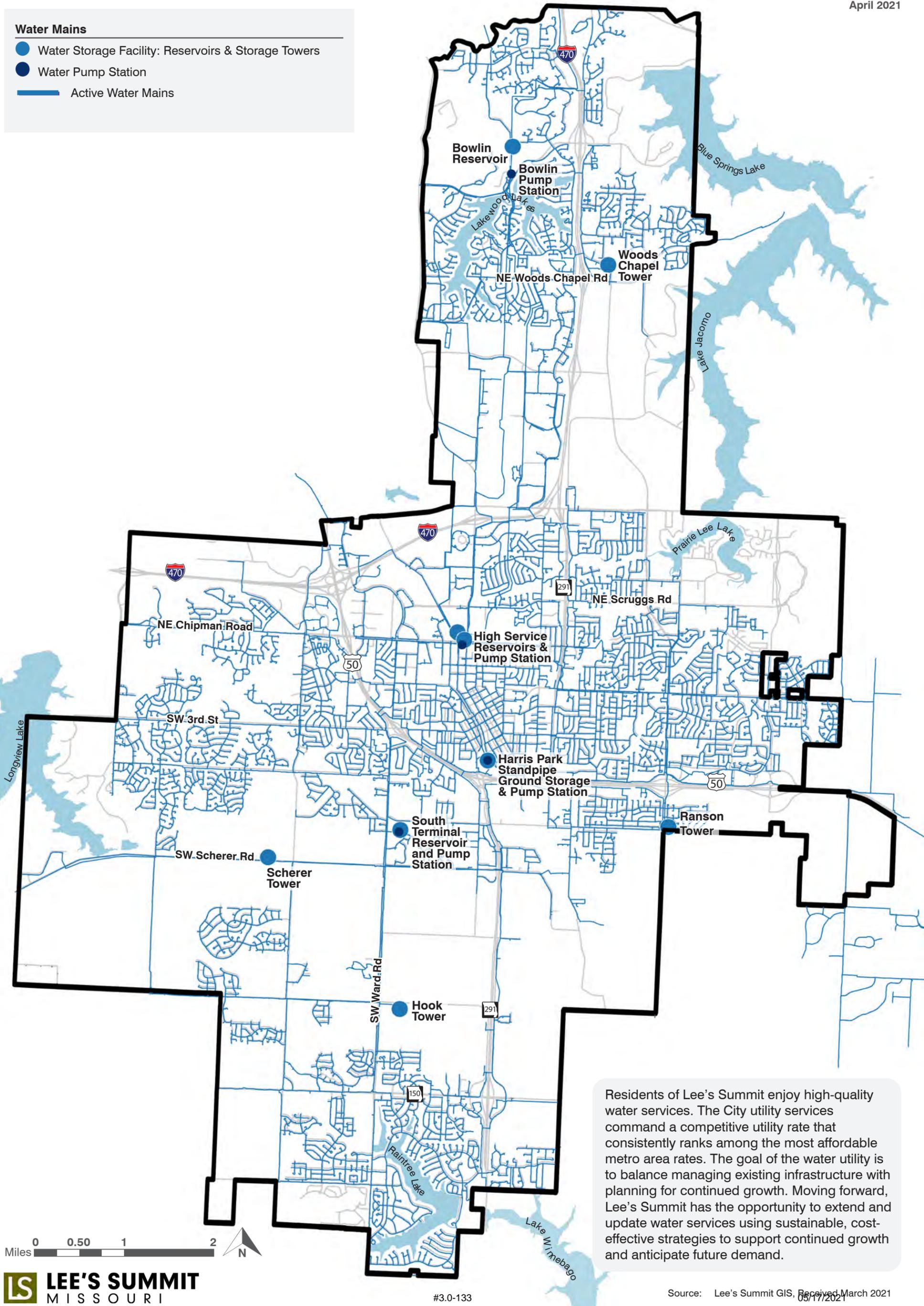
Sewage flows to the Middle Big Creek Sewer District plant for treatment



Little Blue Valley and Middle Big Creek Sewer Districts treat Lee's Summit's wastewater. Middle Big Creek and Big Creek sewer sheds flow to the Middle Big Creek sewer treatment plant, which costs more to sewer, operate & maintain. Future development in the Middle Big Creek Sewer District may lead to higher infrastructure costs aligned with higher operating costs, necessitating consideration when extending sewer lines and services to new growth areas.

Water Mains

- Water Storage Facility: Reservoirs & Storage Towers
- Water Pump Station
- Active Water Mains



Residents of Lee's Summit enjoy high-quality water services. The City utility services command a competitive utility rate that consistently ranks among the most affordable metro area rates. The goal of the water utility is to balance managing existing infrastructure with planning for continued growth. Moving forward, Lee's Summit has the opportunity to extend and update water services using sustainable, cost-effective strategies to support continued growth and anticipate future demand.

Chapter 3.5: Public Facilities

Public facilities allow for a community to grow and prosper in a sustainable direction. To continue providing the high quality of services our citizens have come to expect, we need to improve the resilience of our current and future facilities.

Goal 3.5.A. Sustain and enhance City services and facilities to protect a high quality of life.

Context

Public Facilities Support Quality of Life

The City of Lee's Summit provides a variety of high-quality services to residents and businesses. The 2019 Lee's Summit Citizen Survey confirms a high level of satisfaction with all city services and departments, with 78 percent of respondents indicating they are satisfied with the quality of services.



Source: LS Citizen Satisfaction Report, 2019

Facilities play a major role in citizen satisfaction. Facilities must be accessible, comfortable, and convenient to the public. Quality facilities are a factor in employee recruitment, retention and efficient service-delivery. An understanding of the life cycle, cost of design, construction and maintenance of public facilities can save communities substantial resources. Thriving communities efficiently and effectively operate and maintain existing facilities and plan for new facilities that meet the community's changing needs.

Public facilities are buildings, property, services and technologies that benefit the public. Public facilities owned and operated by community partners such as school districts, public higher education, library district, and counties are not the responsibility of the City. Communication and joint planning will ensure public facilities support community quality of life as Lee's Summit grows and changes over the next 20 years.

Historically, each of the City of Lee's Summit's departments managed the long-range planning for the public facilities. The City's 2005 Comprehensive Plan marked the first time the Lee's Summit Departments jointly planned for its facilities. This collaborative practice continues

through the Capital Improvement Plan and this document. The purpose of this element is to describe needs for city facilities over the next 20 years.

Insight & Foresight

Aging Facilities

In Lee's Summit, most City buildings are 15–20 years old, approaching the halfway point for their life expectancy, assuming a 50-year life cycle. The oldest City facility is the Fire Department headquarters, built in the mid-1970s, and renovated in the early 2000s.

Technology

Lee's Summit uses technology to improve operations and City services. The City is working to identify more intelligent asset management such as Building Information Modeling (B.I.M). Technological advances will impact the amount of public space needed for future facilities.

- Fewer people will need to access public facilities as more services become available online.
- Many City employees worked remotely during the coronavirus pandemic. If remote work and socially distanced work areas become long-term standard operating situations, space needs will change.
- Cyberattacks require data protection and systems security.
- Physical security enhancements may require building modifications.
- To improve the ability to manage and readily access data requires an Enterprise Content Management System to reduce the physical space required for document storage.
- Technological advancements change how facilities are managed and maintained. Digitation, wireless communication and sensors make it possible to monitor nearly every component of a facility.
- A constant flow of data on virtually any component of a facility, means cities use real-time, data-driven actions to predict when maintenance is needed.
- Artificial intelligence and robotics will replace and augment humans in the workplace over the next 20 years. This will impact space needs and technology required in city facilities.



Accessible, Healthy and Safe Facilities

People expect accessible, healthy and safe city facilities. The Americans with Disabilities Act requires accessible public facilities. As our population ages, the need for fully accessible public facilities grows.

Public demand for safety features and designs that promote and protect public health is expected to continue following the COVID-19 pandemic. Healthy buildings have a high rate of replacing inside air with air from the outside (using HVAC air return processes) and filtration systems that remove potentially dangerous particles from the inside environment. Touchless technologies will replace processes or actions that traditionally required physical contact. These trends will require future modifications to existing facilities in addition to taking this design approach in new facilities.

Resilient & Efficient Facilities

Energy efficiency and public sheltering facilities are becoming increasingly important as climate changes and weather patterns shift. Lee's Summit uses technology to leverage cost savings and improve energy efficiency and reduce dependency on fossil fuels. For example, plans are in place for solar panels at 12 public facilities. The City also uses sustainable building and maintenance practices to reduce energy and maintenance costs, such as LED lightbulbs and polished concrete floors. Facilities that rely on more diverse power sources are more resilient and can operate when one source is out of service.



Life Cycle Costs

Using a life cycle cost model encourages cities and developers to make higher initial capital investments in sustainable materials, place a higher value on environmental building practices and innovate to reduce long-term operations and maintenance costs. Evaluating projects from a whole-life perspective helps cities anticipate ongoing facility operations, maintenance and decommissioning costs.

Objective 5.A.1. Reduce facility costs while enhancing performance and sustainability.

Strategies

- Implement smart, innovative facility designs, construction methods and maintenance practices to reduce life cycle costs.
- Remodel existing facilities when needed improving accessibility, incorporating energy and resource-efficiencies, enhancing indoor air quality, reducing pollution and minimizing the overall environmental impact and cost.

Actions

Practice Improvement

- Evaluate facility projects from a whole-life cost perspective and consider the funding needs for ongoing operations, maintenance and decommissioning public assets.
- Make higher initial capital investments in sustainable materials, placing a higher value on environmental building practices to reduce long-term operations and maintenance costs.
- Implement an asset management system for City facilities that will monitor factors such as facility age and maintenance cost, while informing decisions about facility renovation, replacement and operations.
 - Increase energy efficiency and reduce maintenance costs of public facilities.
 - Implement a preventive facility maintenance program to extend the life of facilities and helps avoid larger, more expensive repairs.
 - Continue monitoring performance measures (calls for service, crime data, response times, traffic incidents, etc.) to assess agency operations' impact on facilities.
- Whenever possible, integrate major systems (HVAC, security cameras, keycard entry systems) throughout all City owned buildings, making sure they are

consistent/compatible with each other when existing buildings are renovated, or new buildings are constructed.

- Continuously monitor the strength of the City’s network security infrastructure to ensure the security of customer (businesses and residents) data.
- Continue to make accessibility improvements to facilities.

Partnerships

- Design and construct facilities working with those who will use the space to improve quality, performance and sustainability.
- Collaborate with other departments, agencies and community partners to identify where there are overlapping customers and services, or redundancies in systems to collocate facilities.

Facilities or Infrastructure Improvements

- Install electric vehicle charging stations at Public Works maintenance facility.
- Update the Traffic Signal Communication Master Plan.
- Evaluate the need to update the Traffic / Emergency Operations center.

Objective 5.A.2. Develop and plan facilities for purposeful growth.

Insight & Foresight

City Hall: City Hall was built in 2006 and will undergo a space analysis to evaluate best practices and strategies for retrofitting and renovating the building. The Water Utilities Department relocated to a new facility, freeing up space.

Parking

The City's 2016 Downtown Parking Study identified locations for two new parking structures in Downtown. One structure, located at 4th and Main Street, and another between 2nd street and 3rd Street along the west side of market Street. The City has identified funding for one of the two structures as a part of a 15-year CIP sales tax approved in 2017. The City has used a portion of these funds to purchase property at 4th and Main Street along with the construction of a surface parking lot at that location. Additional property at 4th and Main Street would be necessary to support a parking structure at that location. No funds have been identified for the City to build a second public parking structure in Downtown.

COMMUNITY SATISFACTION SURVEY

OVERALL FEELING OF SAFETY IN THEIR NEIGHBORHOOD DURING THE DAY

97%

"VERY SAFE" or "SAFE"

OVERALL FEELING OF SAFETY IN LEE'S SUMMIT

93%

"VERY SAFE" or "SAFE"

OVERALL PROFESSIONALISM OF POLICE EMPLOYEES

84%

"VERY SATISFIED" or "SATISFIED"

HOW QUICKLY THE POLICE DEPARTMENT RESPONDS

82%

"VERY SATISFIED" or "SATISFIED"

QUALITY OF POLICE SERVICES

87%

"VERY SATISFIED" or "SATISFIED"

VISIBILITY OF POLICE IN NEIGHBORHOODS

75%

"VERY SATISFIED" or "SATISFIED"

Source: LS Citizen Satisfaction Report, 2019

Driverless vehicles are projected to be in widespread use within ten years. Parking may not be needed at today’s demand level. New parking structure(s) being constructed should be designed as flexible buildings that can be converted to another use when the demand drops.

Public Safety Facilities Underway

On August 6, 2019, voters approved a \$19,475,000 no-tax-increase general obligation bond to fund public safety initiatives, including:

- Police Headquarters and Court facility renovations
- Police in-car video systems and body cameras
- New Fire Station No. 4 and fire apparatus
- New Fire Station No. 5
- Network infrastructure

Renovation of the Police Headquarters and Courts Facility is underway, and a substation to serve the southern portion of Lee's Summit is under consideration as the city continues to grow. The need for this facility is not immediate, but proactive planning and programming will ensure the City is ready to move forward when necessary.

Police: The Lee's Summit Police Department provides programs and services to residents and businesses intended to prevent crime and develop partnerships with residents and businesses. There are 10 police districts that help Lee's Summit be a safe place to live, work and raise a family. In the 2019 Lee's Summit Citizen Survey, 82 percent of respondents indicated they are satisfied or very satisfied with how quickly the police responds and 75 percent are satisfied or very satisfied with police visibility in neighborhoods. Technologies such as the growing use of public and private security and surveillance equipment and real-time crime alerts are preventing crime, improving response and helping officers solve crimes. To maintain and improve these satisfaction numbers and maintain response times, additional public facilities and technology will be needed to as the community grows. A new public safety communications system is needed. The Lee's Summit Police Department manages a variety of successful programs and services that support crime prevention and a culture of cooperation and partnership. As policing becomes more community-focused, facility needs may be met through colocation and partnerships with other departments and agencies.

Fire and EMS: The Fire Department offers a variety of services to residents and businesses including emergency medical services (EMS), fire suppression and fire investigation, community risk reduction, domestic preparedness planning and response and public fire and life safety education. In the 2019 Lee's Summit Citizen Survey, 83 percent of respondents indicated they are satisfied or very satisfied the fire department's response time. The Insurance Services Office (ISO) rating is 2, one of the highest scores in Missouri. This rating describes how well-equipped a fire department is to put out fires and is on a scale of 1 to 10 with 1 being the best. This rating translates to lower insurance rates for residents and businesses served. The Fire Department is a Commission on Fire Accreditation International (CFAI) agency. CFAI awards this status to fire departments demonstrating a standard of excellence for service delivery and performance.

RESPONSIBLE FOR
PROTECTING
72.41 SQ.
MILES
SERVICE TO
103,723
CITIZENS OF
LEE'S SUMMIT
GREENWOOD
UNITY VILLAGE

Source: LS Annual Fire Report, 2018

There are seven (7) fire stations in Lee's Summit, and the Fire Department provides emergency services to more than 100,000 people across 72.42 square miles, including Lee's Summit residents and



Source: LS Annual Fire Report, 2018

COMMUNITY SATISFACTION SURVEY



Source: LS Citizen Satisfaction Report, 2019

residents in the neighboring municipalities of Greenwood and Unity Village. The Lee's Summit Fire Department responds to over 10,000 calls for service each year. The Lee's Summit airport also offers an air ambulance service. As the community grows calls for service will increase. As the elderly population grows, calls for emergency medical services are predicted to increase. Additional strategically located facilities will be needed to maintain service levels, the ISO rating and satisfaction levels.

The City will replace two existing fire stations (Stations 4 & 5) with plans to start construction in the next two to three years. Plans are also developed for two new fire stations. Station 8 will be in the southern part of town, while Station 9 will be constructed in the northern area. The City will continue to assess the need for new fire stations as the community grows.

Map 3.5.A.1 displays existing Fire Stations.

Emergency Facilities

Safe communities prepare for extreme storm events with shelters and alert systems. Emergency management is a Fire Department program, and the fire chief serves as the emergency management director. The Department is responsible for the coordination of City services during a declared emergency in accordance with the City's adopted Local Emergency Operations Plan (LEOP). The Department also collaborates with regional, state and federal agencies to plan, prepare, mitigate, respond and recover from natural and man-made hazards that threaten Lee's Summit. While no City facility serves as a community-wide tornado shelter, there are 16 emergency shelters located in Lee's Summit.

The Lee's Summit Fire Department Headquarters houses the City's Emergency Operations Center (EOC). During declared emergencies or significant events, the EOC is the coordination point for City departments to plan and mitigate situations that could affect City services and residents' safety.

Increased frequency of extreme weather events causes risks to property, infrastructure and human safety. Identifying and planning for adverse weather events, is critical for ensuring a community's long-term quality of life.

Map 3.5.A.2 displays the warning system facilities and emergency shelters.

Solid Waste

After 37 years of operation, the Lee's Summit landfill officially reached maximum capacity and closed on April 13, 2019. The Lee's Summit Resource Recovery Park continues to offer residents convenient public disposal, hazardous materials and recycling drop-off. Residents and businesses contract with private haulers for solid waste and recycling who haul outside the city to regional landfills. Contracting individually for trash with multiple haulers increases the wear and tear on city streets and air pollution due to an increase in number of trash trucks and trips. By ordinance, haulers are required to provide recycling and yard waste composting with trash service which means three trucks from one hauler are using the same street. Hauling longer distance and fewer landfill options increase costs that are passed along to the customer in monthly fees. The City is looking at converting the closed landfill to a new land use.

Shared Spaces

Cities are designing new public facilities where agencies, departments and services share facilities to stretch lean budgets and meet community needs. Sharing with other government and non-governmental agencies maximizes the use of community buildings and spaces. Cities, school districts and libraries often manage buildings and outdoor spaces that are under-utilized. Innovative facilities designed (or retrofitted) with shared spaces can address agency needs while also meeting the community's need for social, recreational and civic areas. Cities are also incorporating community gathering spaces and amenities near municipal buildings, such as fire stations, to increase the public benefit of city-owned facilities.

Strategies

- Provide public facilities and services to accommodate new growth and redevelopment. Secure land ahead of development for facilities needed.
- Co-locate facilities to save money and provide more innovative ways to deliver services.
- Program and fund public facilities in the Capital Improvement Plan.

Actions

Policies

- Ensure that future land development and public facilities and services are mutually supportive.
- Enforce development standards that ensure adequate accessibility for emergency equipment.
- Build new facilities that are energy and resource-efficient, provides improved indoor air quality, reduces pollution, and minimizes the overall environmental impact.

Partnerships

- Collaborate with the school districts and other agencies responsible for public facilities so they are upgraded and built where they can be integrated into neighborhoods and can be efficiently served by public infrastructure.
- Communicate with the Red Cross to ensure an understanding of emergency response plans.

Plans & Facilities

Study the need, initiate planning, programming and build new public safety facilities to accommodate development and redevelopment.

- Replace two (2) existing fire stations (stations 4 & 5).
- Build Fire Station 9 in northern portion of the City near the Municipal Airport.
- Build Fire Station 8 in southern portion of town.
- Build Police Training Facility.
- New police substation in the southern part of Lee's Summit. This could be an opportunity to collocate facilities.
- Enhance Fire Department training facilities to ensure ability to deliver safe and comprehensive training activities for all core programs, and to allow members to develop and demonstrate competencies for service delivery.
- Plan for adverse weather events with new facilities, upgrades to existing facilities and partnerships with other communities, agencies and organizations.
- Update and expand the City's Emergency Warning and Management System to meet the needs of new development and redevelopment. Utilize mass communications and targeted emergency notification systems.

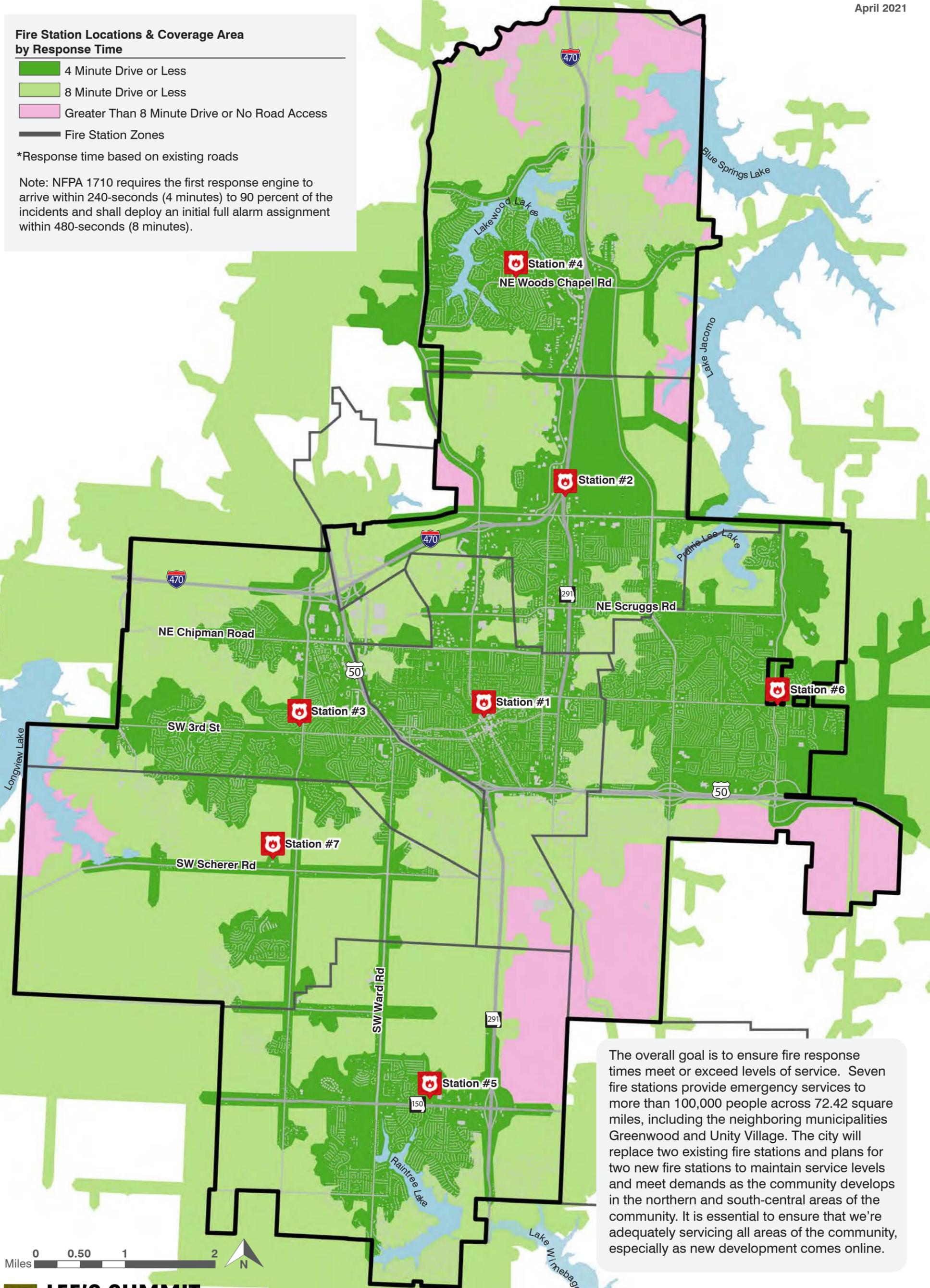
- Provide adequate shelter from extreme weather events for the community's under sheltered population.
- Continue to use community centers as emergency response shelters for heat. Existing facilities serve the eastern, western, and downtown areas of Lee's Summit. City staff has identified the need for a new community center facility to serve the southern part of the city (facility would also serve as an emergency response center for heat).
- Seek funding assistance through FEMA/SEMA for tornado shelters. Currently, there are no facilities serving as community-wide tornado shelters. Most businesses and residents in the Downtown area lack basements to shelter in during tornados.
- Partner with Longview College to share a FEMA shelter.
- Determine whether the approved but not yet constructed downtown parking structure could serve as a tornado shelter for downtown.

Fire Station Locations & Coverage Area by Response Time

- 4 Minute Drive or Less
- 8 Minute Drive or Less
- Greater Than 8 Minute Drive or No Road Access
- Fire Station Zones

*Response time based on existing roads

Note: NFPA 1710 requires the first response engine to arrive within 240-seconds (4 minutes) to 90 percent of the incidents and shall deploy an initial full alarm assignment within 480-seconds (8 minutes).



The overall goal is to ensure fire response times meet or exceed levels of service. Seven fire stations provide emergency services to more than 100,000 people across 72.42 square miles, including the neighboring municipalities Greenwood and Unity Village. The city will replace two existing fire stations and plans for two new fire stations to maintain service levels and meet demands as the community develops in the northern and south-central areas of the community. It is essential to ensure that we're adequately servicing all areas of the community, especially as new development comes online.

Chapter 3.5 Resiliency

Goal 3.5.B. Increase disaster resiliency.

Objective 3.5.B.1 Reduce flood risk and damage to property.

Context

Extreme Weather and Climate Change

Extreme weather increases other risks to societies around the world. The high frequency of extreme weather events causes risks to property, infrastructure and human safety. Extreme weather events can increase biodiversity loss, create water supply issues, impact population migration and economic loss. Resiliency planning and planning for adverse weather events is becoming more critical for ensuring a community's long-term quality of life.

Climate trends indicate a future increase of flood events in Lee's Summit. According to the Fourth National Climate Assessment, increases to the intensity and frequency of extreme rainfall events in the Midwest Region, where Lee's Summit resides, are expected to result in increased flood events under both lower (RCP4.5) and higher (RCP8.5) emissions scenarios. Under the higher emissions scenario, winter and spring precipitation is expected to increase 10-20 percent in Missouri by late this century (2071–99) relative to 1971-2005, while changes in summer and fall are not expected to exceed natural variations. Moreover, the frequency of the Midwest's current daily, 20-year extreme rainfall event is projected to increase by 20 percent by the end of the century.¹

More Development Means More Stormwater Runoff

Increases in development, and therefore impervious surfaces, may increase the potential for flooding caused by stormwater runoff. When land becomes developed with buildings, roads and other hard surfaces, rainfall cannot infiltrate into the ground. When stormwater infrastructure cannot convey runoff volumes, localized flooding often results. Currently, 71 percent of the City is developed, and more growth is expected.

Insight

Flooding

Flooding is one of the most widespread natural hazards experienced by communities in the United States and can have devastating consequences on a community including direct physical damage, indirect economic damage (e.g., closed businesses and economic disruptions), psychological trauma, injuries or fatalities. Flooding can also result in public

¹ Easterling, D.R., et al (2017). Precipitation change in the United States. In: *Climate Science Special Report: Fourth National Climate Assessment, Volume I* [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 207-230, doi: [10.7930/J0H993CC](https://doi.org/10.7930/J0H993CC).

health concerns as flooded structures may mold, complicating recovery and rebuilding efforts. It can also limit access (impeded roadways) which creates numerous issues including emergency response complexities. Lastly, flooding can widen the equality gap, as properties prone to flooding can be in lower-income areas and recovery from flood impacts is more challenging with limited disposable income. Similarly, low-income households may be less able to purchase flood insurance, hindering their ability to recover from flood damages.

Types of flooding include riverine flooding, flash flooding, levee failure and dam failure. The Kansas City region's 2020 Mid-America Regional Council (MARC) Hazard Mitigation Plan, which includes Lee's Summit, designates flood and dam failure as priority hazards (two out of five), indicating Lee's Summit has the potential to experience each of these types of flooding.

Flash flooding is the most frequent type of flooding in Lee's Summit. Flash flooding occurs when heavy rainfall events cause localized, short-duration flooding. Repetitive flash flooding has caused minor damage along Cedar Creek and the East Fork of the Little Blue River. Repetitive flash flooding at 3rd Street and Topaz Drive resulted in the city buying two properties. Flash flooding impacts in the City include basement flooding and occasional roadway flooding.

While less common, Lee's Summit experiences riverine flooding when rivers and streams rise out of their banks. In recent years, a flood along the Little Blue River damaged several properties. The FEMA National Flood Insurance Program (NFIP) develops Flood Insurance Rate Maps (FIRMs) to determine flood hazard areas. FIRMs depict special flood hazard areas, which have been determined to have an annual chance of 0.1 percent of flooding. This is considered the regulatory floodplain, meaning that flood insurance is typically required for structures within these areas, and it is used for floodplain management. Specifically, development decisions must adhere to determine regulations set forth by FEMA, state, and local policy. The most recent FIRMs for Lee's Summit became effective in 2017.² The City has 386 buildings in FEMA 0.1 percent annual chance flood areas. Further, Lee's Summit is currently in the process of joining FEMA's Community Rating System (CRS), a program that provides discounts for homeowner NFIP insurance premiums as the city implements certain flood risk reduction measures.

Lastly, 14 dams are located within Lee's Summit, meaning the City has the potential to experience flooding from dam failure. With no previous occurrences of dam failure reported in the City, it is considered a low-probability event.

Given these trends, implementing actions to reduce future flood risk and potential damages in Lee's Summit is essential.

Map **3.5.B.1 entitled Stormwater Management** shows natural features watersheds, stream headwaters, floodplains, and water bodies.

² FEMA Map Service Center. 2020. Retrieved from <https://msc.fema.gov/portal/advanceSearch#searchresultsanchor>

Strategies

- Approach stormwater management on a regional, watershed and subshed approach.
- Secure available funding sources for public and private flood mitigation, response, and recovery measures.
- Support efforts to reduce flooding while preserving or enhancing the community's natural environment and outdoor leisure opportunities.
- Enhance the City's flood information and data resources to support informed decision-making.

Actions

Education and Outreach

- Promote the benefits of flood insurance, especially for property owners in the floodplain, or a projected flood hazard area.
- Provide homeowners in risk areas information about how to reduce flooding impacts including elevating items from basements, landscaping and deploying temporary flood barriers.
- Develop a public outreach strategy to educate homeowners on the value of green infrastructure and ways to install and maintain green infrastructure on private property to minimize impacts of localized flooding.

Practice Improvements

- Join the National Flood Insurance Program (NFIP) Community Rating System, which incentivizes floodplain management by offering discounts on flood insurance premiums for floodplain management activities.
- Set NFIP Community Rating System targets (e.g., reach a Class 5 by 2025) to continue enhancing floodplain management efforts.
- Explore where the community can turn water into a positive amenity, such as a multipurpose lake, pond, river, stream or wetland area that also serves the community's need for open space, recreation and outdoor leisure.
- Restore wetlands and reconnect floodplains to increase flood storage capacity while increasing wildlife habitat and natural areas.
- Daylight piped and channelized streams to lower water flow and increase infiltration.

Plan Development

- Develop a Stormwater Management and Master Plan.
 - Identify hazard mitigation & resiliency strategies.
 - Determine localized climate projections and impacts for Lee's Summit under different scenarios, including maps of future flood areas based on climate change and projected future development. This data can be used to design infrastructure that serves future, rather than current, conditions.
 - Develop a risk communication plan with special focus topics to educate the public on areas of flood risk and flood management.

Policy and Code Adjustment

- Develop new or amended ordinances to further restrict development in the FEMA regulatory floodplain (e.g., freeboard higher than FEMA minimum requirement; manage

future condition projections; cluster development; offer density bonuses; and transfer of development rights).

- Increase the riparian buffer required along waterways for new development.
- Explore enhancing the APWA 5600 peak discharge criteria to improve flood peak attenuation for new developments.

Inventory, Assessment or Survey

- Conduct a study to better understand areas subject to urbanization and future flood risks.

Programs or Services

- Develop a stormwater utility to administer and collect stormwater impact fees and fund a floodprone property buy-out plan.
- Develop a monitoring mechanism to track stormwater diverted due to green infrastructure.
- planning, operations, maintenance and capital stormwater projects.
- Develop a local grant program to help homeowners, or homes associations mitigate flooding.
- Explore creative funding options to develop “resiliency districts.”
- Work with homeowners to store rainwater on properties and slow its entry into storm water systems through installation of distributed green infrastructure, such as rain gardens, cisterns, green roofs and rain barrels.
- Create a local buy-out program to convert repetitive flood loss properties into natural areas for flood storage.
- Develop a program for citizens to report flooding, and track incidents to better diagnose problem areas.

Partnerships and Collaboration

- Partner with volunteer groups to maintain green infrastructure throughout the City.

Enforcement and Incentives

- Incentivize green infrastructure measures in development and transportation projects (e.g., reimburse proportion of project cost, waive stormwater impact fee)

Objective 3.5.C.2 Mitigate impacts from natural disasters.

Context

Like flood, natural hazards pose risks to the community in terms of economic, social, and environmental impacts. Natural hazards can damage and destroy buildings, roads and infrastructure, and in the process can cause injuries and fatalities. Natural hazards can also cause school and office closures or business interruptions. Extreme temperatures and infectious diseases can have public health consequences, including heatstroke, hypothermia and illness, with the potential for loss of life. Severe winter weather increases vehicular crashes and incidents of burst pipes due to freezing. Infectious diseases may overwhelm local healthcare systems and have widespread economic consequences, as witnessed during the COVID-19 pandemic. Vulnerable populations, such as the elderly, very young, or economically distressed, may be disproportionately affected by these hazards.

Insight

The community has already taken steps to mitigate the impact of natural hazards—most buildings have basements to shelter against tornadoes, Longview College has a FEMA tornado shelter, and the City designated two heating and cooling centers to provide relief from extreme temperatures. Further, the City has emergency management procedures in place and is well-coordinated with regional entities to prepare, respond and recover from emergency incidents.

In addition to flooding, tornadoes, severe thunderstorms, heat/drought and severe winter weather are listed as priority natural hazards in the regional hazard mitigation plan. According to the plan, in the last five years, Lee's Summit has experienced three tornadoes and 24 severe thunderstorms.³ Tornadoes are rated on wind speed using the Enhanced Fujita (EF) Scale, where an EF-0 tornado has winds of at least 65mph, and an EF-5 has winds greater than 200mph. An EF-1 tornado struck Lee's Summit in 2015, causing structural damages and prompting a federal disaster declaration for the county. Severe thunderstorms, which commonly include wind, hail, heavy rainfall, and lightning, have also caused damages in Lee's Summit.

While no specific severe winter weather or heat events were reported in the regional hazard mitigation plan for Lee's Summit, these two hazards are seasonal occurrences for the City. Weather station data indicates that average daily snowfall in Lee's Summit can be up to two inches in the winter months, and that maximum daily snowfall can be as much as 11 inches.⁴ Snow removal is the largest line item in the City's Public Works budget. Further, temperature data shows extreme and record minimum temperatures in the negative teens and 20s. Conversely, Lee's Summit experiences extreme heat in summer months, with maximum temperatures averaging in the upper 80s, and record temperatures reaching well over 100°F.

³ Severe thunderstorms contain one or more of the following: hail one inch in diameter or greater, winds gusts over 57.5 mph (50 knots), or a tornado.

⁴ Western Regional Climate Center. Lee's Summit Reed Wr, Missouri and Blue Springs, Missouri Daily Snowfall Average and Extremes. Retrieved from <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?mo4850> and <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?mo0760>.

In addition, Jackson County has recorded 13 drought occurrences in the last 20 years.⁵ Due to the regional nature of drought, it is assumed these drought events also impacted the City.

While the hazards described above are the priority in Lee's Summit, other natural hazards have the potential to impact the city. Lee's Summit is in the earthquake impact area for the New Madrid Seismic Zone. The city is unlikely to experience catastrophic losses from an earthquake but could experience significant shaking and an influx of evacuees from the eastern part of the state and Tennessee.

Public health hazards, such as infectious disease, can also impact Lee's Summit. For instance, the 2020 COVID-19 pandemic impacted the life of way in Lee's Summit as social distancing measures closed many businesses, offices and institutions.

Trends & Foresight

Current and future trends vary widely based on the natural hazard in question. Climate trends show an increase in average temperatures over the last century, and project an uptick in future extreme heat and drought events as temperatures in the Midwest continue to rise. In the planning area, the average temperature is projected to increase by 8-10°F by the end of the century compared to the current baseline (1976-2005). The coldest day of the year temperatures are projected to increase by 9.4°F in this timeframe, and the warmest day of the year temperatures are projected to increase by 7°F.⁶ Increased heat events will likely increase the number of fire department calls and the number of traffic signal brownouts. In the winter, warming may cause more snow to fall as rain.

In addition to warming, trends in tornado reports indicate an increase in the number of tornado outbreaks (days with large numbers of tornadoes) and an extension in the season during which high tornado activity occurs.⁷ A Northern Illinois University study also identified significant increasing trends of tornado reports and tornado environments in portions of Missouri, along with other states in the Midwest and Southeast.

In terms of earthquake trends, the New Madrid Seismic Zone is one of the most seismically active areas east of the Rocky Mountains. While small earthquakes occur regularly, major earthquakes are estimated to occur every 200 to 300 years, with the last major events (magnitude 7 and 8), occurring in 1811 and 1812.⁸ These earthquakes caused so much shift in the earth that the Mississippi River flowed backward. Such an event could cause significant shaking and regional flooding. Since buildings in the City are generally not designed with significant seismic engineering, even moderate shaking could damage buildings, and timely inspections of hundreds of buildings could prove challenging. Jackson County conducted an

⁵ 2020 Regional Hazard Mitigation Plan, Table 4.6. Retrieved from <https://www.marc.org/Emergency-Services-9-1-1/pdf/Chapter-4-Hazard-Profile-Overview.aspx>.

⁶ Vose, R.S., et al (2017). Temperature changes in the United States. In: *Climate Science Special Report: Fourth National Climate Assessment, Volume I*. U.S. Global Change Research Program, Washington, DC, USA, pp. 185-206, doi: [10.7930/J0N29V45](https://doi.org/10.7930/J0N29V45).

⁷ Kossin, J.P. et al (2017). Extreme storms. In: *Climate Science Special Report: Fourth National Climate Assessment, Volume I*. U.S. Global Change Research Program, Washington, DC, USA, pp. 257-276, doi: [10.7930/J07S7KXX](https://doi.org/10.7930/J07S7KXX).

⁸ Earthquake Threat. Jackson County. Retrieved from <https://www.jacksongov.org/249/Earthquake-Threat>.

exercise of a New Madrid event in 2016, including evacuee reception centers, shelters, feeding and refueling sites and points of distribution.⁹

In the midst of the 2020 COVID-19 pandemic, infectious disease has proven capable of rendering tremendous influence on the daily lives of people worldwide, Lee's Summit included. These impacts are likely to influence cities for years to come. Trends are centered around social distancing and self-isolation measures, including increased teleworking, online shopping and outdoor recreation. Brick-and-mortar businesses have seen a downturn in economic activity, including heightened unemployment rates. Future City projects will likely reflect these trends, including investments in outdoor spaces and public washing stations. Moreover, social distancing presents challenges for responding to other natural disasters, such as sheltering, staffing emergency operations centers, and reviewing insurance claims.

Other trends include expanding the City's ability to respond to natural disasters, with plans for a police substation to service the southern portion of the City, as well as replacing existing and constructing new fire stations throughout Lee's Summit.

Strategies

- Leverage funding resources to mitigate, prepare for, respond to, and recover from natural hazards.
- Enhance existing codes and ordinances to protect against natural disasters.
- Expand and update emergency warning systems, procedures, and practices.
- Invest in training, shelters, and other mechanisms to enhance resiliency during natural disasters.
- Conduct public outreach campaigns to educate the public about hazard risk and mitigation options.

Actions

Education and Outreach

- Increase City staff capability and capacity for grants management through resources such as the FEMA Emergency Management Institute and independent study courses.
- Conduct outreach with the public, developers, and local officials to emphasize the importance of enhanced codes to mitigate future disaster impacts.
- Conduct an outreach campaign to register residents and increase usage of Nixle, the City's emergency warning program.
- Leverage information about hazard mitigation opportunities into existing public education efforts focused on preparedness.
- Develop a public outreach campaign focused on individual and household resiliency.

Practice Improvements

- Create a position or designate an existing position to serve as a grant manager to pursue and oversee federal and state grants for hazard mitigation and resiliency.

⁹ Show-Me Exercise: New Madrid Seismic Event (2016). Jackson County. Retrieved from <https://www.jacksongov.org/786/Show-Me-Exercise-New-Madrid-Seismic-Even>.

- Consider creating a standalone position for a Chief Resilience Officer (CRO) to manage mitigation efforts, spearhead resiliency initiatives, and oversee grant funding applications and programs.
- Track disaster impacts, including details of damage to facilities with cost, loss of service, and photographs or videos to optimize grant opportunities.
- Continue to form new and maintain existing MOUs.
- Continue to participate in local and regional training exercises, especially for high likelihood events.
- Synchronize risk communication efforts across departments to provide information before, during, and after events.
- Present risk and hazard mitigation information at the beginning of civic meetings.

Partnerships and Collaboration

- Partner with local nonprofits, banks, or community development finance entities to provide low-interest loan to support home mitigation and retrofits for disasters.

Enforcement and Incentives

- Create a local or regional grant funding source or revolving loan program to help support home mitigation, retrofits, and resiliency initiatives.
- Incentivize development that incorporates above code or resiliency measures.

Facilities or Infrastructure Improvements

- Seek federal funding to retrofit public facilities to include safe rooms.
- Install public handwashing stations in strategic areas of the City, including parks, outdoor spaces, and downtown to combat the spread of infectious disease.
- Upgrade existing and build new emergency facilities as needed, included community centers, police stations, and fire stations.

Policy and Code Adjustment

- Adopt seismic building codes or engineering requirements that align with potential impacts from an event on the New Madrid Fault.
- Adopt the current edition of the model building code to address structural and architectural issues related to tornadoes and high winds.¹⁰
- Codify “resilience by design” by implementing a resiliency quotient requirement for development codes. Strategies would include resiliency measures such as floodproofing, freeboard, floodplain preservation, tornado safe rooms or basements, native or drought resistant landscaping, or reflective building materials and more.
- Require that all new non-residential construction include tornado safe rooms. Alternatively, set a minimum occupancy threshold to determine safe room criteria.
- Require amenities such as parks and plazas and street trees in new development plans. Increasing green spaces and the urban tree canopy can reduce impacts of heat, provide flood storage, and provide recreation areas when infectious disease prevents indoor activities.

¹⁰ Included from the 2020 Regional Hazard Mitigation Plan Mitigation Strategy for Lee’s Summit.

Inventory, Assessment, or Survey

- Assess existing public structures to determine needs for retrofitting to prevent future losses to priority hazards.
- Perform an assessment to determine if a community tornado shelter is needed for homeless populations and downtown, as most businesses do not have basements.

Programs or Services

- Update Nixle, which sends texts alerts to residents with reverse 911-like functionality.
- In addition to Nixle, use social media to send emergency warning notifications.
- Repair or replace broken or outdated emergency outdoor warning sirens.

Plan Development

- Develop a comprehensive and actionable risk communication plan.

Objective 3.5.C.3 Mitigate impacts from man-made disasters.

Context

Man-made disasters include those that are not caused by a natural disaster and cover a wide range of events. Man-made disasters are often unpredictable but following local and national trends can help the City more closely understand the potential risk. Nationally, man-made disasters such as cyber-attacks and public mass shootings are on the rise, as are events of civil unrest. Given upticks in man-made disasters nationally, as well as the unpredictable nature of these events, it is important for the City to prepare and optimize expedient response and recovery efforts.

Insight

Manmade disasters can result in property damage and loss of life, as well as a loss of public confidence in government agencies and institutions that support them. While manmade disasters are difficult to predict, those such as cyber-attacks, mass shootings and civil disorder have risen in the U.S. in recent years.

Hazardous materials incidents are most likely to occur along major transportation routes or at facilities storing hazardous materials. In Lee's Summit, Interstate 470 runs through the northern and western portions of the City, and US Highway 50 runs through the central part. Furthermore, a railway bisects Lee's Summit from the northeast to the southwest, which includes passenger rail (Amtrak) and freight. Kansas City is ranked first in U.S. freight volume by tonnage and is considered the second largest rail center in the country.¹¹ Lee's Summit is within a Kansas City Regional Freight Zone for rail and truck transport, and it is listed in the

¹¹ 2015 Regional Hazard Mitigation Plan. Retrieved from https://www.marc.org/Emergency-Services-9-1-1/pdf/2015HMPdocs/HMP2015_Sec4-HAZ-HazardousMaterials.aspx.

national freight corridor.¹² In the period 2009–15, Jackson County experienced 62 hazardous materials spills on highways and 115 on railroads. Hazardous materials incidents can also occur at fixed sites. Federal and state community right-to-know regulations require facilities that meet certain criteria for hazardous materials on-site to report these materials to local emergency management agencies. The EPA's toxic release inventory program (TRI) tracks these facilities, which indicates five TRI sites within Lee's Summit.

Incidents involving mass shootings, terrorism, and civic disorder are most likely to occur in busy, populated areas, or at high-risk targets. In Lee's Summit, the downtown area, Legacy Park Amphitheater and Longview College may be considered higher risks, especially during festivals, concerts, and special events. Other high-risk targets may include police stations and schools. Similarly, cyber-attacks are likely to target public agencies and institutions, especially those that may store sensitive personal information or serve critical functions, such as higher education, banks, police, schools, and public utilities.

Like natural hazard events, a man-made disaster can result in environmental, social, and economic losses. Man-made events may be localized and easily contained (such as liquid hazmat spill) or widespread and catastrophic (such as a toxic chemical air release). Man-made events, especially hazardous materials spills, can have detrimental impacts on ecosystems and the environment. Further, man-made disasters can result in property damages and loss of life, as well as a loss of public confidence in government agencies and the institutions that support them. Similarly, civil disorder may arise from a lack of confidence in public institutions.

Cities can develop microgrids to increase the resiliency of a facility's power source. This is a compressed version of larger electrical grids that power the entire country; it consists of multiple energy sources, such as solar, battery/generator, wind turbine and conventional utilities. Facilities that rely on more than one power source are more resilient and continue to operate when other sources are not available.

Strategies

- Gather information regarding potential manmade disasters in Lee's Summit and plan accordingly.
- Educate City employees and residents about how to mitigate and respond to manmade disasters.
- Enhance emergency services, programs, and resources.

Actions

Plan Development

- Develop a Threat Hazard Identification and Risk Assessment (THIRA) specific to Lee's Summit in coordination with regional partners.
- Developed a prioritized plan to bolster physical and cyber security for high-risk targets.

¹² Freight Directory (2009). Retrieved from https://www.marc.org/Transportation/Plans-Studies/Transportation-Plans-and-Studies/Special-studies-and-projects/special-studies-pdfs/freightoutlook/KCRFO_FreightDirectory_sm.aspx.

Inventory, Assessment, or Survey

- Identify and inventory high-risk sites and potential targets for manmade disasters.
- Assess the security of high-risk sites.
- Identify potential weak spots in the City's IT systems to protect against cyber-attacks.

Programs or Services

- Provide cyber security training for municipal employees.
- Conduct active shooter and shelter-in-place training exercises. Shelter-in-place warnings can be used for a range of manmade disasters, including active shooter incidents, civil disorder, terrorism, and hazardous materials releases.

Education and Outreach

- Initiate a City "See Something, Say Something" campaign to mitigate against active shooter events, terrorism, and other man-made disasters.
- Expand opportunities for community members to interface with law enforcement and emergency responders under non-emergency conditions (e.g., the "Coffee with a Cop" program).

Practice Improvements

- Deploy mental health co-responders (such as social workers) in collaboration with emergency responders. Involve all department and staff in emergency-related training.

Facilities or Infrastructure Improvements

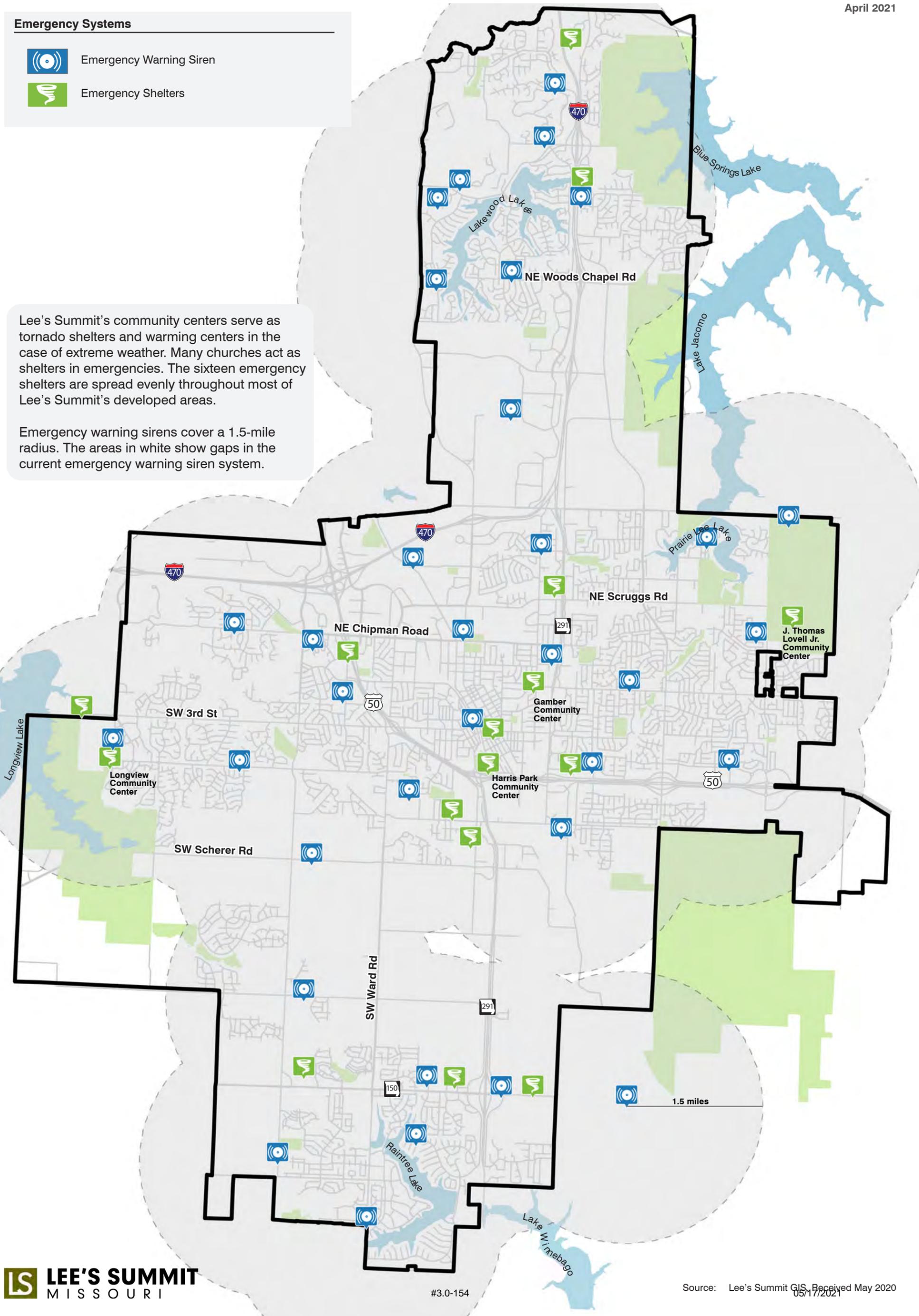
- Assess departmental technology and equipment needs for mitigating and responding to manmade disasters and invest in resources accordingly.
- Retrofit or construct tornado safe rooms to double as active shooter safe rooms when possible.

Emergency Systems

-  Emergency Warning Siren
-  Emergency Shelters

Lee's Summit's community centers serve as tornado shelters and warming centers in the case of extreme weather. Many churches act as shelters in emergencies. The sixteen emergency shelters are spread evenly throughout most of Lee's Summit's developed areas.

Emergency warning sirens cover a 1.5-mile radius. The areas in white show gaps in the current emergency warning siren system.



Chapter 3.6 Sustainable Environment

Goal 3.6.A. Appreciate, protect and enhance the natural environment to meet the community's needs today without compromising the ability of future generations to live and prosper.

Objective 3.6.A.1 Minimize the impacts of climate change.

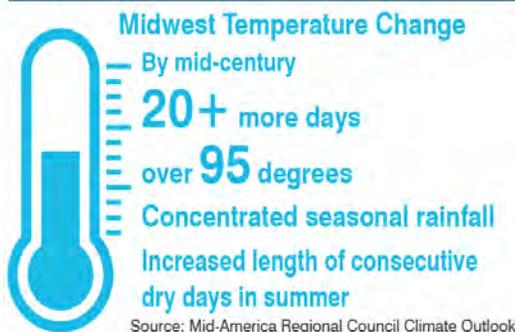
Context

Climate change refers to the long-term shift in global or regional climate patterns. Currently, our climate is changing due to human activities such as burning fossil fuels, natural gas, oil and coal that is increasing the level of greenhouse gases in the atmosphere. The impacts of climate change are causing an increase in global temperatures, sea levels, glaciers melting, and severe weather.

Weather Channel report ranks Kansas City Region 5th in the Top 25 list of U.S. cities to be most impacted by Climate Change

Source: The Weather Channel Climate Distribution Index

Climate Outlook



The Weather Channel's [weather.com Climate Disruption Index](#) report ranks Kansas City fifth in the list of 25 U.S. cities that will face the greatest challenges from climate change. According to the report, Kansas City will experience disruptions in the form of hotter temperatures due to the Urban Heat Island effect, extreme drought, and increased average rainfall. Heat islands can develop due to buildings, roads and a lack of open land or vegetation. However, more trees and parks, white roofs and alternative materials for urban infrastructure can help reduce the effects of urban heat islands.

Insight

Understanding and managing a changing climate is necessary to a safe and sustainable community. There are numerous related-planning initiatives including:

| Metro KC Climate Action Plan (2020) | KC Climate Action Playbook (2019) |
|--|--|
| Will support an inventory of greenhouse gas emissions in the Kansas City region and help coalition members | Builds on locally demonstrated successes and contains additional climate solutions that can be |

| | |
|---|---|
| formulate <i>Metro KC Climate Action Plan</i> . | implemented by cities, counties and school districts. |
|---|---|

Trends & Foresight

Increased frequency of extreme weather events threatens infrastructure, human safety, biodiversity, water supply and economic viability. Climate change impacts are shown to affect vulnerable populations typically disproportionately. Parallel to changing weather patterns are changing energy use patterns.

By the end of the century, the Kansas City metro area could see an increase of 8-19% in electricity demand (with a 1-in-20 chance of an increase over 23%), even when combined with lower heating demand as winters become warmer. This translates into a likely increase of 14%-38% in energy costs, the highest energy cost increase of any Midwest metro area. Energy increases may lead to the degradation of local air quality and adversely impact human health.

Strategies

- Promote community participation in energy efficient programs.
- Integrate energy efficient practices into all new development to reduce climate change impacts (increasing heat, increasing precipitation) and conserve energy such as more trees, white roofs, energy use monitoring technology and building positioning to optimize natural light and temperature controls.

Actions

Education & Outreach

Create an education and outreach program to inform residents on the benefits of participating in a renewable energy program with their energy provider.

- Provide residents with information on the benefits of energy conservation for both household and public facilities.
- Provide residents, developers and local elected officials with information on the near and long-term benefits (environmental, financial, and social) of green building codes and climate change mitigation measures.
- Research, identify, and address how vulnerable populations are disproportionately impacted by climate change in Lee's Summit and how to reduce their risks.
- Create and implement an outreach and capability building program for vulnerable communities to better understand the ways in which they may mitigate impacts of climate change.
- Educate the community in how vulnerable populations are more impacted by climate change and the importance of ensuring the safety and health of our vulnerable populations.

Practice Improvements

- Encourage residents to participate in improving energy practices in their homes such as installing LED lightbulbs in homes, upgrading to energy efficient appliances, integrating

energy use monitoring technical (e.g., smart thermostats) to improve energy efficiency in homes.

- Include household energy use information with comparison to average use in utility bills.
- Include development approval criteria to integrate climate combatting actions.
- Review new buildings against green building standards, such as Leadership in Energy and Environmental Design (LEED), to assess if the building satisfied specific green building criteria.

Plan Development

- Update and adopt Lee's Summit Sustainability Plan to reflect new strategy to encourage residents to participate in energy efficient programs.
- Update and adopt Lee's Summit Sustainability Plan to reflect a commitment to energy reduction practices.
- Develop a Strategic Plan to address climate change impacts that vulnerable populations currently experience or may experience in the future to reduce risk.

Policy and Code Adjustment

- Adopt an energy code to promote net-zero or net positive goals to improve energy efficiency in commercial and residential buildings.
- Adopt an energy code to promote net-zero or net positive goals to improve energy efficiency in all new development.
- Adopt climate change actions to reduce risks to vulnerable populations such as planting more vegetation in areas that experience urban heat island effects.
- Include vulnerable population representation in all existing plans and in future planning efforts.

Partnerships and Collaboration

- Partner with local energy providers to support residents in participating in their renewable energy or energy efficiency programs.
- Partner with social and climate-focused organizations and community leaders to bridge communications with vulnerable communities in order to conduct a Vulnerability Assessment and develop a Strategic Plan to address their risks.

Inventory, Assessment, or Survey

- Provide residents with free home energy reports to understand their home's energy efficiency or inefficiency and provide solutions.
- Conduct research to understand Lee's Summit specific energy use and greenhouse gas emission to set a baseline and future targets for reduction. Conduct a vulnerability assessment to assess where vulnerable populations reside and how vulnerable populations are impacted or could be disproportionately impacted by climate change events based on range of factors including but not limited to socioeconomic factors (age, education, income, gender, race or ethnic composition, language, social capital), access to information (internet access, electronic devices) and physical infrastructure (facilities and transportation) to better understand where climate change reduction efforts can be focused.

Enforcement and Incentives

- Provide financial incentives for residents opting into or joining an existing renewable energy programs such as tax rebates, cover solar installation costs, and providing free home energy reports.
- Incentive development that includes measures to reduce climate change impacts and energy use.

Programs or Services

- Partner with a volunteer organization to offer energy efficient services for low-income community members such as assessing home for ways to determine where energy consumption can be improved, installing solar energy systems and smart thermometers and improving home insulation.
- Create a program or committee that identifies, assesses, and implements strategies to reduce the risk from climate change impacts of vulnerable communities.

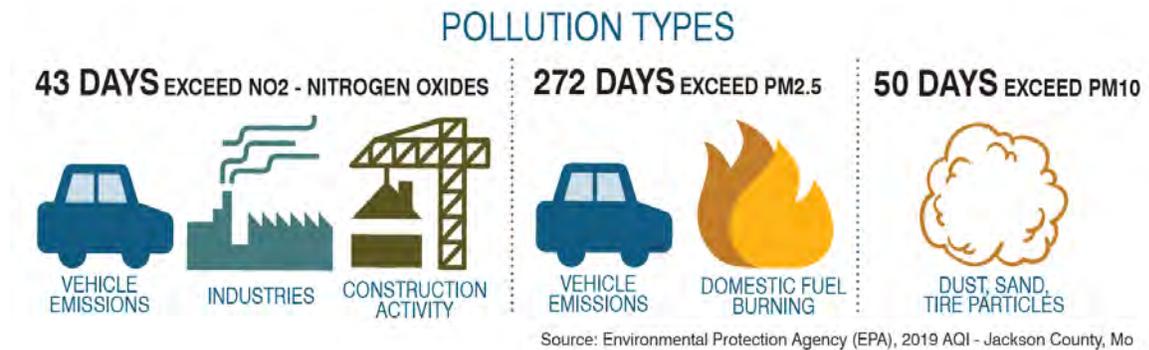
Facilities or Infrastructure Improvements

- Assess feasibility energy efficient retrofits on existing development including a phased completion plan.

Objective 3.6.A.2. Protect air quality.

Context

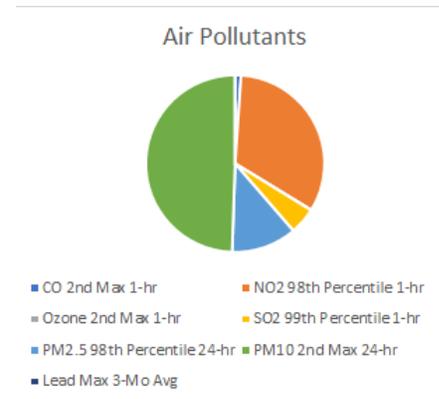
Managing air quality in the Kansas City Region is important to the health of residents, the economy and the environment. Federal and State regulatory agencies set how much of each type of air pollutant is allowed in the air based upon human health impacts and environmental studies. Air monitors are in each region to measure the concentration of pollutants in the air.



What is polluting the air?

Air pollution comes from many different sources including natural, area, stationary, and mobile sources. Some sources are natural such as windblown dust and smoke from wildfires. Other sources are human-made such as emissions from automobiles, factories, power plants, construction equipment, small businesses and open burning. These air pollutants can be solids, liquids, or gases and are found all over the United States. Air pollutants include particulate matter, carbon monoxide, ground-level ozone, sulfur oxides, nitrogen dioxides and lead. These pollutants can harm human health, animal health, the environment, and infrastructure. Of these six criteria pollutants, particulate matter and ground-level ozone are the most widespread health threats. In Lee's Summit, particulate matter is the highest source of pollutants.

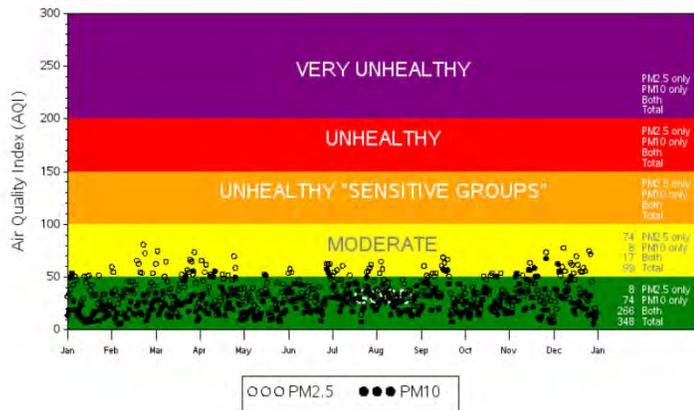
Source: <http://www.usa.com/lees-summit-mo-air-quality.htm>



Particulate Matter (PM) or Particle Pollution includes smoke, soot, dust and dirt particles. Particulate matter is an airborne mixture of liquid droplets and solid particles made up of organic chemicals, metals, acids or dust particles. There are two groups of PM that matter the most since they can be easily inhaled. PM10 are particulate matter smaller than 10 micrometers and are frequently found near roadways and dust-creating industries. PM2.5 are 2.5 micrometers and smaller. PM2.5 hangs in smoke coming from burning oil, coal, wood or residential waste; smog, haze, and vehicle exhaust. In addition to size distinction, these smaller particles may have a different chemical composition than larger particles.

Ground-level ozone is a pollutant that forms when emissions from human-made sources such as cars, lawnmowers and industry react with heat and sunlight. Ground-level ozone is invisible, so high concentrations can occur even when the air appears clear. For health reasons, the U.S. Environmental Protection Agency (EPA) sets a limit on how much ozone our air can contain. Areas that do not meet these standards must develop and carry out plans to reduce the amount of ground-level ozone in their air, which often means reducing emissions. The current national standard for ground-level ozone is not to exceed 75 parts per billion (ppb) over an average 8-hour period.

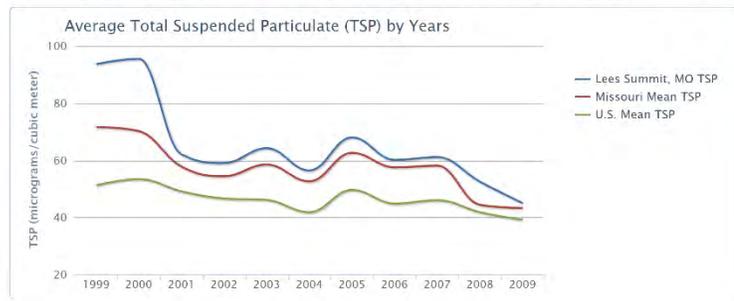
Daily PM 2.5 & PM 10 for Jackson County, MO



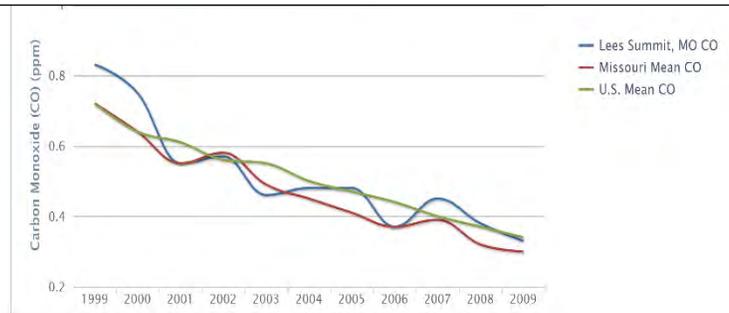
Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>
Generated: March 9, 2020

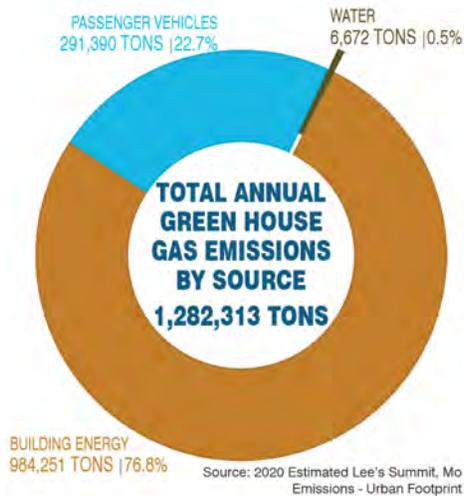
Total Suspended Particulate (TSP)

Tiny airborne particles or aerosols that are less than 100 micrometers are collectively referred to as total suspended particulate matter (TSP).



<http://www.usa.com/lees-summit-mo-air-quality.htm>





Greenhouse gases are substances that absorb the sun's UV rays and reemit them as infrared rays. The resulting infrared heat is trapped in the atmosphere and causes a warming effect like the glass in a greenhouse or a parked automobile. The most prevalent greenhouse gases are water vapor, carbon dioxide (CO₂) and methane. In one regard, this heat-trapping is responsible for moderating global temperatures and making the earth's surface habitable. However, in high concentrations, these gases exacerbate climate impacts. The EPA recently began regulating greenhouse gas emissions under the Clean Air Act.

Insight

Air quality is not a major concern in Lee's Summit, but a growing population is likely to increase emissions. For years, Greater Kansas City has been at risk of violating the EPA's ozone standard though the trend is generally improving. In addition to public health impacts, a designation of noncompliance with the ozone standard would trigger increased regulations that could harm the regional economy. Increased regulations could limit the types of businesses able to move into the region or place restrictions on existing businesses.

Air quality is measured using an index developed by EPA's Air Quality Index (AQI) which tracks ground-level ozone and particle pollution. The graphic shows the mean Air Quality Index for the Kansas City Region for the years 1999 to 2009, compared to both the Missouri and U.S. mean for the same timeframe. "Good" air days are in the 0-50 range on the chart. The lower the number, the better the air quality. As AQI increases, a greater percentage of the population will experience severe health effects. The Kansas City Region Average AQI generally follows the Missouri average and the U.S. mean.



Air Quality Index

Lee's Summit Missouri Mean vs. Missouri and US Mean, 1999-

Air Quality Index (AQI), #439



Air quality indices (AQI) are numbers used by government agencies to characterize the quality of the air at a given location. As the AQI increases, an increasingly large percentage of the population is likely to experience increasingly severe adverse health effects. Air quality index values are divided into ranges, and each range is assigned a descriptor and a color code. Standardized public health advisories are associated with each AQI range. The United States Environmental Protection Agency (EPA) uses the following AQI:

| Air Quality Index (AQI) Values | Levels of Health Concern | Colors |
|--------------------------------|--------------------------------|--------|
| 0 to 50 | Good | Green |
| 51 to 100 | Moderate | Yellow |
| 101 to 150 | Unhealthy for Sensitive Groups | Orange |
| 151 to 200 | Unhealthy | Red |
| 201 to 300 | Very Unhealthy | Purple |
| 301 to 500 | Hazardous | Maroon |

2009.

<http://www.usa.com/lees-summit-mo-air-quality.htm>

Trends & Foresight

As the region grows, meeting air quality standards will become more challenging. Air quality regulations change frequently, often with new federal administrations. As discussed in Objective 6.A.1 climate change will bring hotter weather, increasing the challenge to meet air quality standards in the summer months. In the event the region goes into nonattainment of Air Quality Standards, there could be serious economic impacts as well as increased public health impacts. While business and industry contribute to poor air quality, more than half of all ozone pollution comes from emissions caused by day-to-day activities like driving, mowing, fueling vehicles. Therefore, the whole community must partake in reducing emissions. Communities can promote healthy air quality by planting urban vegetation to reduce temperatures, air pollutants, and emissions in the atmosphere.

Strategy

- Maintain and enhance air quality throughout the city.

Actions

Education and Outreach

- Educate residents on the benefits of using public transportation, carpooling, and maximizing single trip outings in order to reduce greenhouse gas emissions from vehicles.
- Educate residents on the emissions levels created by everyday activities and provide alternative suggestions such as converting to electric lawn equipment.
- Provide ongoing information transparency in air quality levels such as posting on the city website.
- Develop air quality goals for the city to meet.

Practice Improvements

- Encourage city government employees or large employers in the city to lead as example and use public transportation or other modes to get to work like biking, walking, or carpooling.
- Promote specific days where residents actively work to reduce emissions through various activities.

Partnerships and Collaboration

- Consider partnering with RIDEKC and OATS to expand services to increase the amount ride frequency.
- Collaborate with community partners to provide free or reduce cost to transit rides to low-income riders.
- Work with local media to provide daily air quality level with weather reports.

Enforcement and Incentives

- Provide reduced or free rides to increase ridership and decrease single-occupancy cars producing less greenhouse emissions and air pollution. Incentives may benefit college students, the elderly, non-abled persons, and large employers.
- Incentivize use of low and no emission activities such as designating free parking with electric charging stations and tax rebates for purchase of electric vehicles or lawn equipment.

Objective 3.6.A.3 Protect water quality.

Context

Our region's water resources are a tremendous asset for residents and a draw for tourists who desire clear and clean lakes for recreation. Protecting water quality is essential for drinking water, commercial uses, recreation (boating, fishing, hiking, wading), economic stability and growth, and quality of life. The Missouri Department of Natural Resources (MDNR) establishes which waterways are protected, the beneficial uses of each waterway and the corresponding water quality criteria to protect those uses. Water quality is particularly important to the environmental and economic health of Lee's Summit and the surrounding communities. Longview Lake, Prairie Lake, and Jacomo Lake, just outside of the city, are the important lakes used for recreation, tourism, and wildlife.

Watersheds

Lee's Summit is located at the top of the Little Blue River and Big creek watersheds. The north, west and southwest portions of Lee's Summit drain into the Little Blue River watershed.

Watersheds are more than drainage areas, they not only support plants and animals but provide recreation opportunities. The protection of watersheds is essential to a healthy ecosystem.

Groundwater

Potable groundwater in the West-Central

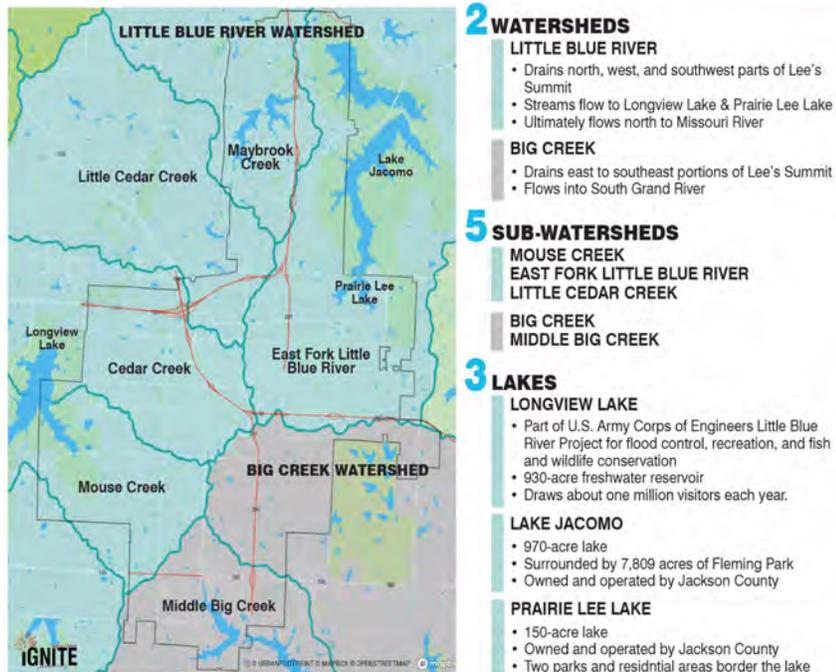
Missouri groundwater province is typically difficult to obtain and is impractical to develop a suitable groundwater source in Lee's Summit. This province contains about 0.24 percent of the state's resources.

What is the quality of our water resources?

Any body of water may reasonably be expected to contain some contaminants. The types of contaminants depend on many factors and can originate from a wide range of sources; point discharges from industrial land uses and wastewater treatment facilities and non-point sources such as natural stream erosion, recreational activities on or near the water, failing septic systems, leaky sewer pipes and stormwater runoff from urbanization and agricultural land uses. Contaminants can also include, bacteria, nutrients (nitrogen and phosphorous), toxins, increased sediment, trash and bank erosion.

Water quality is measured by a set of criteria established under the Clean Water Act (CWA) regulations, which are enforced by the state of Missouri. The state's water quality criteria established by the Missouri Department of Natural Resources (MDNR) includes chemical, physical, and biological properties that are necessary to protect the beneficial uses of a water body. Waterways not meeting the water quality criteria are deemed 'impaired' by MDNR. Big Creek is the only stream within Lee's Summit on the impaired waters list of MDNR.

Water Resources



Impaired Water Bodies

| WATER BODY | YEAR | SIZE | IMPAIRED WATER USE | POLLUTANT | SOURCE | TMDL PRIORITY; SCHEDULE |
|-------------------|-----------------|-----------|---------------------------------------|-----------------|----------------------------|-------------------------|
| LONGVIEW LAKE | 2002 | 953 ACRES | HUMAN HEALTH PROTECTION | MERCURY IN FISH | ATMOSPHERIC DEPOSITION | LOW; > 10 YEARS |
| RAINTREE LAKE | 2020 (PROPOSED) | 248 ACRES | PROTECTION OF WARM WATER AQUATIC LIFE | CHLOROPHYLL A | NONPOINT SOURCE | LOW; > 10 YEARS |
| JOHN KNOX LAKE | 2016 | 3 ACRES | HUMAN HEALTH PROTECTION | MERCURY IN FISH | ATMOSPHERIC DEPOSITION | LOW; > 10 YEARS |
| LITTLE BLUE RIVER | 2018 | 35 MILES | SECONDARY CONTACT RECREATION | E. COLI | URBAN RUNOFF/ STORM SEWERS | HIGH; 2004 |

Big Creek was assigned a Total Maximum Daily Load (TMDL) of pollutants by the MDNR who ruled in 2017 that "No Additional Controls Demonstration" was needed.

Exotic zebra mussels are invasive in lakes, rivers, and streams

Source: Missouri Department of Natural Resources

Insight

The City Lee's Summit's water quality management is regulated through its National Pollutant Discharge Elimination System (NPDES) MS4 permit issued by MDNR. As a requirement of that permit, the City developed a Stormwater Management Plan that addresses potential water quality concerns within the City because of both City operations and private activities. Currently, the City is not experiencing any significant water quality issues, though sediment is an ongoing concern.

Trends & Foresight

Lee's Summit faces several water quality challenges including continued development and management options. As Lee's Summit continues to grow, the development will increase causing the increase of impervious surfaces and a corresponding increase in the quantity of stormwater runoff to receiving waterways. Further, construction can also negatively impact water quality. When construction sites are poorly managed or lack well-maintained erosion controls, litter and sediment from the site can be washed away by rain, clogging storm inlets and polluting waterways. Compounding the matter, climate change is projected to increase the intensity and frequency of storms, exacerbating the impacts of stormwater runoff and increasing the amount of toxic blue-green algal blooms in our lakes.

Stormwater quantity controls and water quality facilities, such as retention facilities, detention ponds, wetlands, rain gardens, and swales, can reduce the impacts of stormwater runoff quantities and water quality. However, long-term maintenance is challenging given resource constraints and siting of some on private property, thus reducing their effectiveness to reduce pollutants. A Stormwater Master Plan is underway. The absence of a city stormwater utility to guide the long-term system, maintenance, and improvements, including water quality facilities, creates a continuous challenge for stormwater management and overall water quality (see Stormwater Section xx). Additionally, the city may seek to increase regional participation in water quality management efforts as many waterways overlap or adjacent to neighboring jurisdictions.

Strategic Direction

- Manage stormwater at the local and regional levels.
- Create a stormwater utility to help fund stormwater management system improvements.

- Address water quality management in the Stormwater Utility Study.
- Incorporate Stormwater Infrastructure Maintenance into the 2021 Stormwater Utility Study
- Include Enhanced Public Stormwater Education Measures in 2021 Stormwater Utility Study

Strategies

Education and Outreach

- Inform and educate residents on the importance of keeping our waterway clean by reducing hazardous runoff through individual and community efforts.
- Conduct outreach to private and public partners to highlight the benefits and return on investment, in qualitative and quantitative terms, of having a storm water utility.
- Add a city public educator position to enhance community involvement and participation in stormwater education and make connections in the school district for expanded education opportunities.

Practice Improvements

- Update current practices in the Stormwater Management Program to include regional management and oversight.
- Incorporate green water quality facilities and Low Impact Development LID requirements into the City's Design & Construction Manual.
- Revise practices to account for an increase in population, development, and extreme weather events in Lee's Summit and surrounding municipalities.
- Continue to meet State water quality regulations.
- Bring more water quality considerations into the stormwater design standards.
- Advocate for cleaner bodies of water that are fishable and swimmable.
- Focus water quality efforts to minimize lake siltation.

Plan Development

- Develop a stormwater management plan inclusive of neighboring jurisdictions for managing stormwater at the watershed level.
- Update the city's Stormwater Master Plan before pursuing a stormwater utility to set a future vision.
- Reduce the number of flood-impacted properties while utilizing natural topography and vegetation to capture, store, and soak up runoff.
- Master Plan each watershed to address water quality.

Partnerships and Collaboration

- Create partnerships with other local governments and agencies responsible for stormwater management and water quality within the watershed to collaborate on development of a stormwater management plan and identification of potential funding strategies.
- Collaborate with entities which have a vested interest in water quality to help support the stormwater utility.
- Work with homes associations to maintain detention basins.

Inventory, Assessment, or Survey

- Conduct research to determine which water quality measure provide the greatest stormwater management and water quality benefits.
- Conduct a fee study to determine the projected fee schedule.
- Conduct a study on the feasibility of creating a stormwater utility including public opinions on willingness to pay.
- Explore enhancing the APWA 5600 peak discharge criteria to improve flood peak attenuation for new developments.

Enforcement and Incentives

- Provide stormwater fee reductions for actions resulting in positive water quality improvements, such as homeowner completed and reported BMP maintenance.

Programs or Services

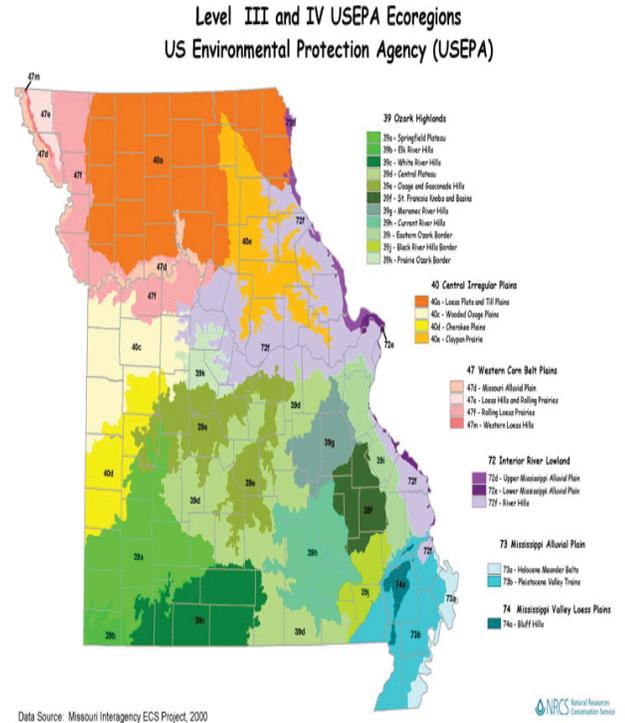
- Work with other jurisdictions to take a watershed approach to water quality and quantity management.
- Pursue an annual CCTV pipe and manhole inspection program to assess and evaluate potential infrastructure improvement projects. This would minimize the cost of unplanned emergency repairs.

Objective 3.6.A.4 Preserve natural resources.

Context

The preservation and management of natural resources are closely tied to all aspects of a community's environmental, social and economic wellbeing. Located in west-central Missouri, the Kansas City Region enjoys a diversity of natural resources due to Missouri's location in the center of the continental United States, two major river systems (Mississippi and Missouri), and geologic history with inland seas and glaciers. The state is divided into four major ecological regions which denote areas of general similarity in ecosystems and the type, quality, and quantity of environmental resources. Lee's Summit is in the Osage Plains ecoregion. Missouri's ecoregions are depicted on this map.

The U.S. Environmental Protection Agency (EPA) and U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) further divides Missouri's ecological regions, placing Lee's Summit in the Central Irregular Plains, Osage Wooded Plains.



LEE'S SUMMIT IS LOCATED IN THE OSAGE PLAINS ECOREGION

Includes the Central Irregular Plains & Osage Wooded Plains is largely flat with a few hills; historic habitat was tallgrass prairie



Lakes and Streams

The streams, lakes and riparian corridors are a natural resource asset for the Lee's Summit community providing habitat for wildlife (plants and animals) and economic benefit. The City's Design Construction Manual (DCM) includes provisions for stream buffers along streams with a drainage area larger than 40 acres. The stream buffer requirement is a valuable tool to protect this resource. Waivers to this requirement are rarely given for development projects.

Forest/Woodland Resources

The woodland resources in Lee's Summit are found primarily in the suburban tree canopy of residential neighborhoods, parks, and riparian corridors of streams and lakes.

Tree cover in Lee's Summit is approximately 13,683 acres or 33% of city area. Lee's Summit actively pursues TRIM grants through the Missouri Department of Natural Resources to support

its tree preservation and management efforts and was awarded a TRIM 2018 to complete a tree inventory. With this grant, the City recorded the location, health, size and species of 2,000 trees located in maintained areas within Lee's Summit parks. The inventory was completed in April 2019 and will support the City's efforts to improve tree management within its parks system. Lee's Summit has also invested in pollinator habitats with wildflower and native species plantings throughout the community and parks. These activities are supported in the Parks Master Plan and Ignite Strategic Plan.

Wildlife Resources

Biodiversity in plant and animal life is a measure of healthy habitats and ecosystems. The Missouri Department of Conservation (MDC) works with communities and property owners, educating and advising on state Species of Concern, Threatened and Endangered species regulated by U.S. Fish & Wildlife and invasive and exotic species causing habitat damage. Habitat values are important since the Kansas City metropolitan region is part of the Midwest flyway for migratory songbirds (e.g., orioles and warblers) and monarch butterflies. The streams, lakes and riparian corridors support woodlands, wetlands and other habitats needed by these species.

Farmland Resources

Current open spaces or undeveloped land is either designated park space or used for agriculture. The historic grasslands of the Lee's Summit area make the land valuable for agriculture, pasture and hay production. Agriculture makes up 242 acres (0.65%) of the City's land use.

Lee's Summit soil is identified as the Macksburg-Sharpsburg-Sampsel association. The soils are used for cultivated crops such as corn, soybeans, grain sorghum, and wheat. Erosion and wetness are the main agriculture hazards.

The current land use map for Lee's Summit does not include areas for farming and agriculture. Areas of the city used for agriculture purposes are identified for future development or parks and recreation facilities. A more detailed discussion of how land resources are used in Lee's Summit is described in Chapter 6.



Insight

The State of Missouri is home to more than 400 species of native bees including the bumblebee, carpenter, sweat, and leafcutter bees. Over the past couple of years, in alignment with the national trend, the bee population has declined likely due to the use of harmful insecticides and certain beekeeping practices. According to the USDA, bees are responsible for pollinating nearly 75% of all fruits, nuts and vegetables grown in the United States. Fortunately, planting more vegetation, like colorful native plants, can attract more bees and increase the bee population. It is essential to maintain a healthy bee population to sustain vegetation, food production, and many flora species.



Trends & Foresight

Climate change has the potential to stress the natural resources within Lee's Summit but also provides opportunities to temper local impacts. As our climate warms, plant and animal species native to regions south of Missouri will migrate north. The presence of armadillos in southern and central Missouri is a prime example. Plant species intolerable of cold winters will be able to survive in Lee's Summit, both native plants and imported exotic species.

Trees and native vegetation are important resources as climate shifts. Not only can vegetation regulate temperatures and urban heat island effects, but it also promotes biodiversity in flora and fauna. Vegetation also captures and stores carbon dioxide, reducing emission impacts.

Map 3.6.A.3 shows Lee's Summit Natural Resources

Strategies

- Identify and protect natural resources and habitats in Lee's Summit.
- Prepare for changing flora and fauna that is likely to occur in Lee's Summit future decades due to changing climates.

Actions

Education and Outreach

- Develop or share existing (if available through conservation agencies like MDC and NRCS) educational materials with property owners regarding the need for and benefits of protecting wildlife habitat for local endangered and native species.
- Assist homeowners in understanding how changing climate conditions will change native flora and fauna in Lee's Summit.

Partnerships and Collaboration

- Work with Missouri Department of Conservation (MDC) and USDA's Natural Resource Conservation Service (NRCS) to identify habitat restoration opportunities in Lee's Summit.

- Work with MDC and NRCS to secure cost-share opportunities for land management improvement that help wildlife habitat, including the Regional Conservation Partnership Program (RCPP), MDC's Landowner Assistance Program funds or other funding sources.
- Partner with are universities and extension programs to help prepare for and manage changing biodiversity.
- Collaborate with southern jurisdictions to understand when they are beginning to see changes in flora or fauna.

Inventory, Assessment, or Survey

- Identify and assess the current and future needs of high-quality natural resources and natural habitats and develop projects to promote a healthy ecosystem.
- Conduct research to determine what species of flora and fauna may migrate to Lee's Summit.

Programs or Services

- Create work parties for the community to participate to protect the natural resources and wildlife in Lee Summit, for example, removing invasive species in high-risk areas cleaning up wildlife areas.
- Work with volunteer organizations to clear invasive species which may flourish in changing conditions.

Practice Improvements

- Implement a monitoring system or process to track changes in flora and fauna.

Policy and Code Adjustment

- Review landscaping plans to address future changes in flora and fauna.
- Implement conservation design principles in Unified Development Code to protect and preserve Lee's Summit's high value natural resources where practical.

Objective 3.6.A.5. Reduce resource consumption & increase waste diversion.

Context

Lee's Summit closed its landfill in February 2016. Before the closure, the revenue from the City's landfill funded diversion and recycling programs and the cost of the transfer station. Because of its closure, there are little funds left to finance diversion and recycling programs. Currently, 10 haulers provide trash service and recycling services in Lee's Summit. Residents are responsible for choosing a trash collector and scheduling pick up times. Residents are also responsible for dropping off Household Hazardous Waste (HHW), certain recyclable materials, and yard waste at the Resource Recovery Park.

The City recognizes having many different trash collectors can create additional wear on streets and adversely impacts air quality and is considering streamlining residential trash service. The Mid America Regional Council (MARC) lead an initiative to create a public landfill

to serve the southeast metro region but it was not successful. The City is currently looking into other options for a private business to build and operate a new transfer station within or closer to the city. Lee's Summit is considering converting the former landfill site into park space; however, this is in the early planning and research stage.

In efforts to increase waste diversion, the City hosts a diversion and recycling event once a year. RecycleFEST is a free community-wide event providing Lee's Summit residents an opportunity to properly dispose of a variety of materials, including those that would otherwise be difficult to recycle.

Insight

Reducing the consumption of materials such as single-use products and increasing the diversion of waste to recycling and composting can significantly reduce greenhouse gas emissions in the air and reduce the strain on landfills. Over the past couple of years, participation in recycling and composting programs have increased and more materials are properly being disposed of that would otherwise end up in a landfill. However, due to the increase of recyclable materials, many recycling facilities are running out of space and have resorted to transporting recyclable materials to landfills. Many countries like China, who used to accept recyclable materials from the United States, have recently banned such actions, creating difficulties for recycling facilities and waste management programs.

Trends & Foresight

The emissions from landfills are exacerbating the levels of greenhouse gas emissions in our atmosphere and therefore accelerating the impacts of climate change. On average, each person in the United States produces over 1,500 pounds of waste per year. The EPA reports that most of the landfill waste comes from food waste that could have been composted. Food waste that decomposes in landfills produces high levels of methane due to anaerobic conditions while producing no methane gases while being composted. Without a coordinated approach to waste management and diversion, the City and residents face rising costs to haul away waste, which increases wear and tear on roads and contributes to air pollution.

Strategies

- Consolidate waste and recycling hauling operations.
- Expand existing public recycling program into commercial areas, with recycling bins co-located with public trash cans.
- Promote participation in food composting recycling opportunities.
- Set a waste reduction goal.
- Expand efforts to eliminate waste at its source.

Actions

Education and Outreach

- Educate the public and business on the need to consolidate waste/recycling hauling services based on economic and environmental gains.
- Educate commercial businesses on the expansion of services provided by trash collectors.

- Develop a public outreach program to educate residents and businesses on which materials are compostable and the associated benefits such as waste diverted from landfills, gardening soil and reduced methane emissions.
- Encourage residents to compost their food waste at their home adhering to codes and ordinances, or to leverage existing composting services in the Kansas City area.
- Encourage business to compost food waste including bins in restaurant kitchens.
- Educate the community on the alternatives to throwing materials away and to shift focus on other disposal sources such as reusing, recycling, reducing, and composting.
- Engage the community by encouraging residents to participate in the waste-reduction program and meet the goal.
Facilitate discussion on by hosting events to inform and exchange best practices and ideas to reduce waste.
- Educate the community on the importance of re-using items and decreasing waste by, for example, using reusable bags instead of plastic at the grocery store, and eliminate the amount of waste materials used.
- Enhance outreach and education to local businesses about the waste incorporated in products and packaging.
- Educate the public on local reuse and repair businesses and promote exchange events -- residents exchange materials and goods.

Practice Improvements

- Coordinate with haulers to synchronize pick-up schedules with neighborhoods to minimize multiple haulers traversing the same roadways.
- Set food waste diversion goals for the city to achieve.
- Work with public and private partners to discuss and find solutions to reduce waste in schools, work, businesses, and within the city's waste management department.
- Businesses should attempt to reduce packaging and find solutions to promote the practice of re-using materials.

Partnerships and Collaboration

- Collaborate with the local trash collectors that provide service in the city to find an agreeable solution.
- Lee's Summit will need to collaborate with the many trash collectors that provide service in the city and discuss if they can pick up commercial recyclable materials along with trash.
- Collaborate with the Mid-America Regional Council to assist in supporting, marketing, and communicating food waste diversion programs.
- Partner with local composting organizations such as Compost Collective KC and URBAVORE Urban Farm to aid in education and management.
- Partner with local government, and organizations, businesses, and resident to participate in reducing their own waste to reach the waste reduction goal.
- Partner with businesses to encourage efforts in reducing their packing to reduce waste.

Inventory, Assessment, or Survey

- Conduct a study to understand the long-term benefits and costs of not consolidating waste management services.
- Lee's Summit will need to assess who is paying for the recycle bins and if services fees will increase for commercial businesses.
- Assess and track the progress of the program to inform future policies, plans, or programs to improve the waste management program in the city, reduce waste, and land pollution.

Facilities or Infrastructure Improvements

- Identify a location for a closer transfer station to reduce transfer fees that are passed on to residents.
- Lee's Summit's waste management infrastructure will improve as a whole and decrease the amount of waste being transported to the landfill. Work with trash collectors providing service in the city to find solutions on improving their current waste management processes.

Programs or Services

- The service provided by the trash collectors will need to expand to provide commercial recycling services.
- Create a food composting pick up service for restaurants.
- Develop a program to focus on waste-reduction in the Lee's Summit.

Enforcement and Incentives

- Provide free home composting kits to residents or other financial incentives to use services from Compost Collective KC and URBAVORE Urban Farm to collect food waste.
- Create a challenge across the community on reducing waste based on who meets the goal first or how much waste they reduced.
- Encourage local businesses to provide a discount or incentive for individuals that use a reusable bag.
- Promote and incentivize the use of reuse and repair businesses in Lee's Summit.

Plan Development

- Explore the feasibility of creating a waste reduction plan to promote the practice of reusing, exchanging, or donating excess products or materials to eliminate waste.

Policy and Code Adjustment

- Institute a ban on single-use plastic bags and set a fee on paper shopping bags at retail location to encourage the use of reusable bags.

Objective 6.A.6. Reduce land pollution.

Context

Land Pollution is the deterioration of the Earth's land surface. Human activities and the misuse of land whether directly or indirectly, polluting the land due to the improper use of the following five materials: chemicals, petroleum products, heavy metals, trash and litter, and wastewater.

Chemicals in Industrial and household waste includes many chemicals such as surfactants, lubricants, solvents, glues and acids and bases. These chemicals can be used in many households, including cleaning solutions and are often disposed of improperly. Petroleum products such as gasoline, diesel fuels, oil and lubricants can leak or spill in the environment due to accidents, mishandling or from our vehicles. Heavy metals, like lining on our car brakes, can tear down road surface and be transported through our waterways via stormwater runoff which can pollute our land. Trash and litter from businesses and households can litter our land, highways, cities, and country. The improper use and disposal of fertilizers and pesticides on agricultural land and failing septic tanks can result in the pollution of wastewater systems, soils, streams, lakes, and groundwater. The improper use or disposal of any of the five land pollution sources can pollute our land.

Historically, a variety of materials were used in manufacturing and products that later were found to be hazardous to human health and the environment. Asbestos-containing materials (fireproofing, insulation, roof and siding tiles, soundproofing) and lead based paint are two of the most common. Old dump sites were often selected based on topography in low areas or at old mining sites. These disposal sites were used before state and local regulations were in place, often resulting in leaching of chemicals and land contamination.

In Lee's Summit, industrial and household waste was disposed of in the same landfill. During this time, the City's landfill accepted domestic and industrial wastes from the region, and mixing wastes was standard practice. Currently, there are two active hazardous waste sites in Lee's Summit. One is an Underground Storage Tank (UST) removal and cleanup at Blue Parkway Used Car Dealership, 1029 S.W. Blue Parkway.

The second area of concern is the former Rock Island rail corridor, south parcel, where historically chemicals were used to keep vegetation out of the rail corridor. It is currently listed as a Brownfield site. A hike-bike trail is proposed in the abandoned corridor to connect the Katy Trail with the Kansas City region.

The former ATT facility in the industrial park, northeast corner of Highway 50 and Chipman Road, is a federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA superfund) site. It was remediated with the property's use limited to industrial purposes.

The Missouri Department of Natural Resources keeps a database of historic and active hazardous material sites. The Environmental Remediation Program at MDNR regulates hazardous material sites and oversees their cleanup. <https://dnr.mo.gov/ESTART/>

Insight

Environmental protection and economic development are often seen as opposite goals in communities, but they go together as the management of all our natural resources are

interconnected. Quality of life is associated with clean air, water, and land as well as recreational and open spaces because people want to live, work, and play in communities that have a balance of natural and human amenities. Reducing and mitigating land pollution improves our communities.

Trends & Foresight

Through many environmental movements, more people are understanding the impacts of land pollution on our Earth and are practicing better behaviors to mitigate or reduce land pollution and its impacts. However, we still face many challenges in improving current practices. Identifying the pollutants, locations and sources of land contamination can be a long and extensive process, sometimes taking several years. Finding new landfills and hazardous waste facilities are especially difficult to site and permit because of local opposition (“Not in My Backyard”). Shipping waste to other communities or disposal facilities is expensive and generally adds to the cost of environmentally sound waste disposal. Finally, identifying solutions to land pollution requires communication and coordination from the whole community, including support from local, state, and federal government.

In Lee’s Summit, the City hosts several community-wide events each year to mitigate impacts of littering and illegal dumping, including its Stream Team, Storm Drain Stenciling, Adopt-a-Street, and Adopt-a-Stream events. Some properties with soil contamination were remediated by the responsible party. The remediated properties have been repurposed. Properties of concern remain in the older industrial districts and former mining areas.

Strategy

- Promote practices that limit land pollution.

Action Plan

Education and Outreach

- Educate the community on the importance of preventing land pollution to preserve Lee’s Summit’s quality of life.

Practice Improvements

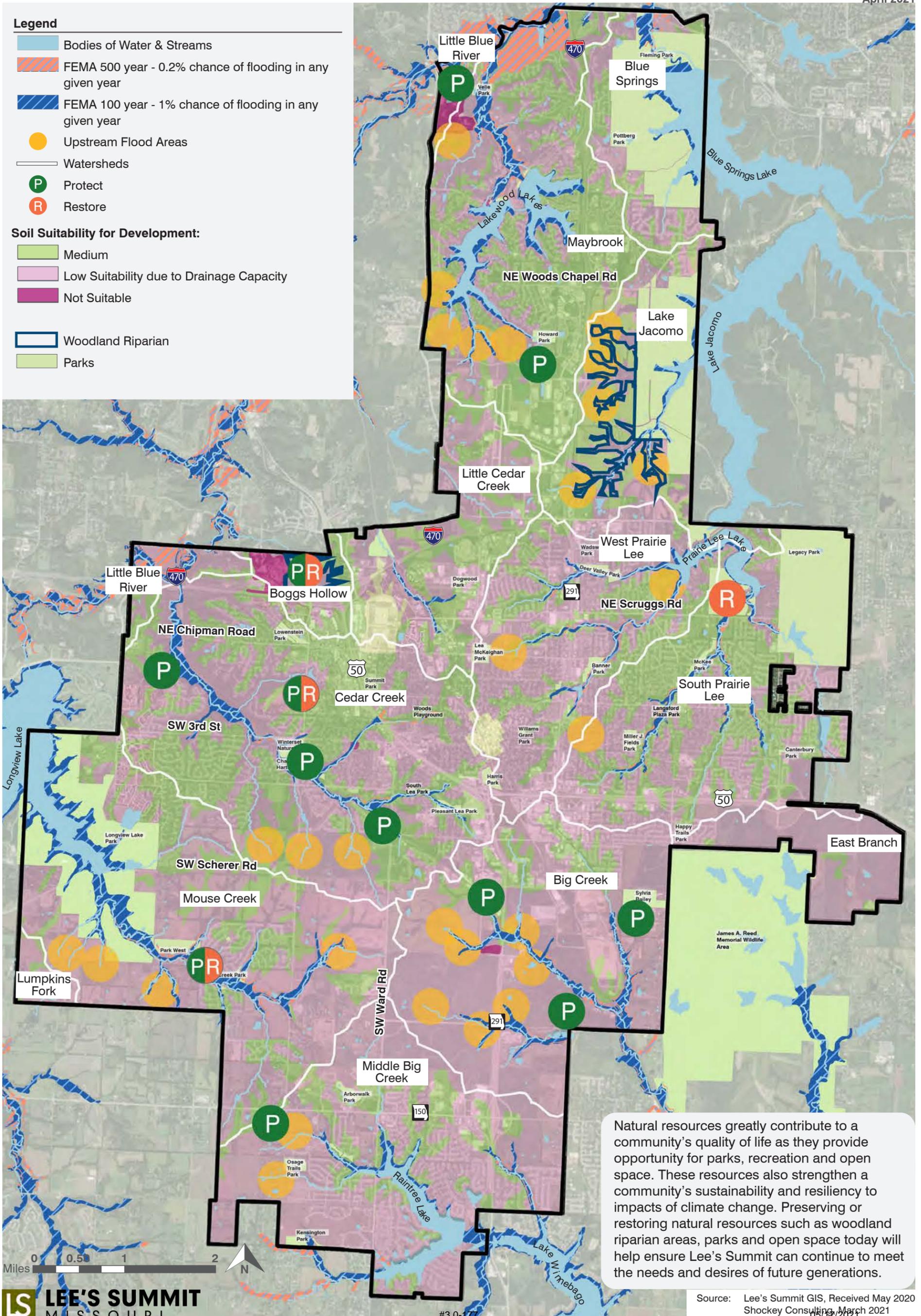
- Continue to deter business activity that could result in land pollution.

Enforcement and Incentives

- Develop regular monitoring practices for industry that could result in land pollution.

Legend

-  Bodies of Water & Streams
 -  FEMA 500 year - 0.2% chance of flooding in any given year
 -  FEMA 100 year - 1% chance of flooding in any given year
 -  Upstream Flood Areas
 -  Watersheds
 -  Protect
 -  Restore
- Soil Suitability for Development:**
-  Medium
 -  Low Suitability due to Drainage Capacity
 -  Not Suitable
-  Woodland Riparian
 -  Parks



Natural resources greatly contribute to a community's quality of life as they provide opportunity for parks, recreation and open space. These resources also strengthen a community's sustainability and resiliency to impacts of climate change. Preserving or restoring natural resources such as woodland riparian areas, parks and open space today will help ensure Lee's Summit can continue to meet the needs and desires of future generations.

Chapter 3.7: Land Use & Community Design

Goal 3.7.A.: Promote sustainable land use to meet the needs of the future.

Objective 3.7.A.1: Plan for purposeful growth, revitalization and redevelopment.

Objective 3.7.A.2: Protect the environment and meet the needs of the future.

Assessment

New development in Lee's Summit over the next decade—and future decades— will be focused on greenfield development and infill within areas considered already developed. While infill sites represent a relatively small percentage of the overall land in the City, they represent a range of opportunities to redevelop under-utilized sites to better maximize existing infrastructure, services and amenities. Where possible, this Plan will guide redevelopment to ensure that it takes the form of walkable, mixed-use and mixed-income centers and neighborhoods that support the community's vision and goals.

The land use goal for Lee's Summit is to promote sustainable land use that meets the needs of the future, with an objective to plan for purposeful growth, revitalization, and redevelopment. The #2.0 Plan Framework defines future opportunities was developed as a guide for directing land use recommendations throughout the community. The framework seeks to maintain and preserve existing land uses, such as open space and neighborhoods, while proposing infill development or redevelopment for portions of the community with existing infrastructure and likelihood for growth.

LOCAL LAND USE ACTIONS

The following actions will assist Lee's Summit with prioritizing decisions and investments to achieve the stated land use goal, objectives, and framework strategy.

Education and Outreach:

- The development community and city staff should be apprised of the new land use framework approach to ensure a multidisciplinary understanding of the Activity Centers, place types, and design principles.

Plan Development: The implementation of the framework is largely tied to the future development or redevelopment of the Activity Centers.

- To further assess the potential of the Activity Centers, a master planning approach is recommended to identify infrastructural needs and more specifically associate the market analysis with proposed densities in each of the Activity Centers. Illustrative master plan alternatives and test case scenarios will provide prototypical development alternatives based on the place types and allow the city to determine future needs for realizing full build out of the Activity Centers.
- A strategy for corridor redevelopment along Highways 50 and 291 is recommended to determine the location, amount, and type of new development that is appropriate for the next 20 years. The strategy should focus on physical improvements and community development activities that create an urban design framework that is more pedestrian-friendly with connections to neighborhoods and adjacent community services.

Inventory, Assessment, or Survey:

- The recommendation for a housing survey in Chapter 2 should integrate future development opportunities in the Activity Centers and provide for a wider range of housing options that fit with the market analysis projections.

Practice Improvements:

- The fiscal model should be used to analyze the impact of future land use decisions to support overall financial sustainability.

Policy and Code Adjustment: Regulatory changes that reflect the land use recommendations of the plan should be implemented in the zoning ordinance and other regulatory devices.

- An overlay district approach that addresses the unique challenges of redevelopment should be considered for the corridors. Corridor place types and design principles (see Appendix) should be used as the basis of design guidance. The overlay district should address building density/height/massing, parking, specific land uses mix, environmental aspects, and connectivity.
- As Downtown Lee's Summit continues to grow with anticipated redevelopment activities, the design guidelines should be evaluated and updated based on the land use framework and place types. Future guidelines should reflect, maintain, and enhance downtown Lee's Summit as the community's business center and main activity hub of the community.
- Policy and code adjustments should be based on design principles for the Activity Centers and corridors that address mobility, open space, and building & site development principles. From this basis, more specific and place-based guidelines can be developed in future regulatory changes.