



Southwest Johnson County Transit Plan

Mid-America Regional Council & RideKC | January 2018

RideKC  **BUS**

Southwest Johnson County Transit Plan

Prepared for:



January 2018

Prepared by:



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CHAPTER I | INTRODUCTION

The Mid-America Regional Council (MARC), in partnership with the region's four transit agencies – Kansas City Area Transportation Authority (KCATA), Johnson County Transit, Unified Government Transit, and IndeBus – are currently updating the RideKC Regional Transit Plan through the SmartMoves 3.0 initiative. The initiative seeks to improve job access and connect more residents to opportunities by doubling the number of jobs accessible by public transit in the next ten years.

Plan Purpose

A major component of the SmartMoves 3.0 initiative is connecting areas with limited existing transit service but a growing need for access to jobs and activity centers. Southwest Johnson County, specifically the City of Gardner and City of Edgerton, are expanding suburban communities with substantial growth potential due to the BNSF Railway Intermodal facility and Logistics Park Kansas City. Southwest Johnson County will require innovative approaches to transit service to meet the current and future needs of residents and employees.

Study Area

The study area includes Southwest Johnson County with a specific focus on the City of Gardner and City of Edgerton and New Century. The study area is generally bounded by 151st Street, Woodland Road, 215th Street (county line), and 2400th Road (county line). The study area is displayed in Figure I-1.

Existing Transit Service

There is limited existing service to Southwest Johnson County, particularly the Gardner-Edgerton area. Route 595 Gardner-Overland Park Express operates during peak hours Monday to Friday between Edgerton and downtown Kansas City, Missouri as displayed in Figure I-2. Additionally, there are two other express routes between Kansas City, Missouri and 151st Street that reach the northern extent of the study area. There is also limited vanpool service within Southwest Johnson County.

Document Review

Relevant documents were reviewed to serve as the basis for identifying potential strategies and tools while also considering the context of the study area. The following plans and policies, as well as other local reports, were reviewed:

- Transportation Outlook 2040, *Mid-America Regional Council*
- SmartMoves 3.0, *Mid-America Regional Council*
- Transit Oriented Development Policy, *Kansas City Area Transportation Authority*
- Complete Streets Handbook, *Mid-America Regional Council*
- Coordinated Public Transit-Human Services Transportation Plan, *Mid-America Regional Council*
- Five-County Regional Transportation Study, *Kansas Department of Transportation*
- Southwest Johnson County Area Plan, *Kansas Department of Transportation*
- Johnson County Transit Strategic Plan, *Johnson County Transit*
- City of Gardner Comprehensive Plan, *City of Gardner*

Common themes among the documents were identified to ensure the potential strategies and recommendations align with the overall vision and goals of the Kansas City region as well as each respective community. In the past decade, there has been an emphasis on Kansas City transportation as a regional issue rather than a separate issue for each community. Many of the current studies adopt a regional approach to transit planning and a local area then links their proposed projects to recommendations in the regional plans.

Transportation Outlook 2040 and the *Five-County Regional Transportation Study* provide the greatest insight to past and current transit strategies in the study area, including:

- Preserve the existing transportation system by focusing investments on the maintenance of existing services and facilities and expand public transit by considering various transportation strategies
- Create quality places that support a range of lifestyle and transportation choices, foster a Complete Streets approach, promote increased density through mixed-use development, and use a centers-and-corridors strategy in planning efforts
- Promote and encourage context-sensitive solutions in transportation planning, project development, and project selection
- Decrease the use of fossil fuels and improve air quality by reducing travel demand

The *Five-County Regional Transportation Study* specifically recommends addressing transportation needs by reducing the number of vehicles during peak travel periods. This initiative is supported by 27 potential transit projects in the five-county study area (Douglas, Johnson, Leavenworth, Miami, and Wyandotte counties). Most of the transit projects focus on express routes and park-and-ride construction.

The *Johnson County Transit Strategic Plan* primarily focuses on the northern half of the county with no specific recommendations for Southwest Johnson County. However, as a general recommendation, the Plan outlines that transit routes should travel in both directions and have multiple rounds trips per day in order to provide passengers with a variety of transportation options.

The recommended transit projects from these studies are displayed in Figure I-3.

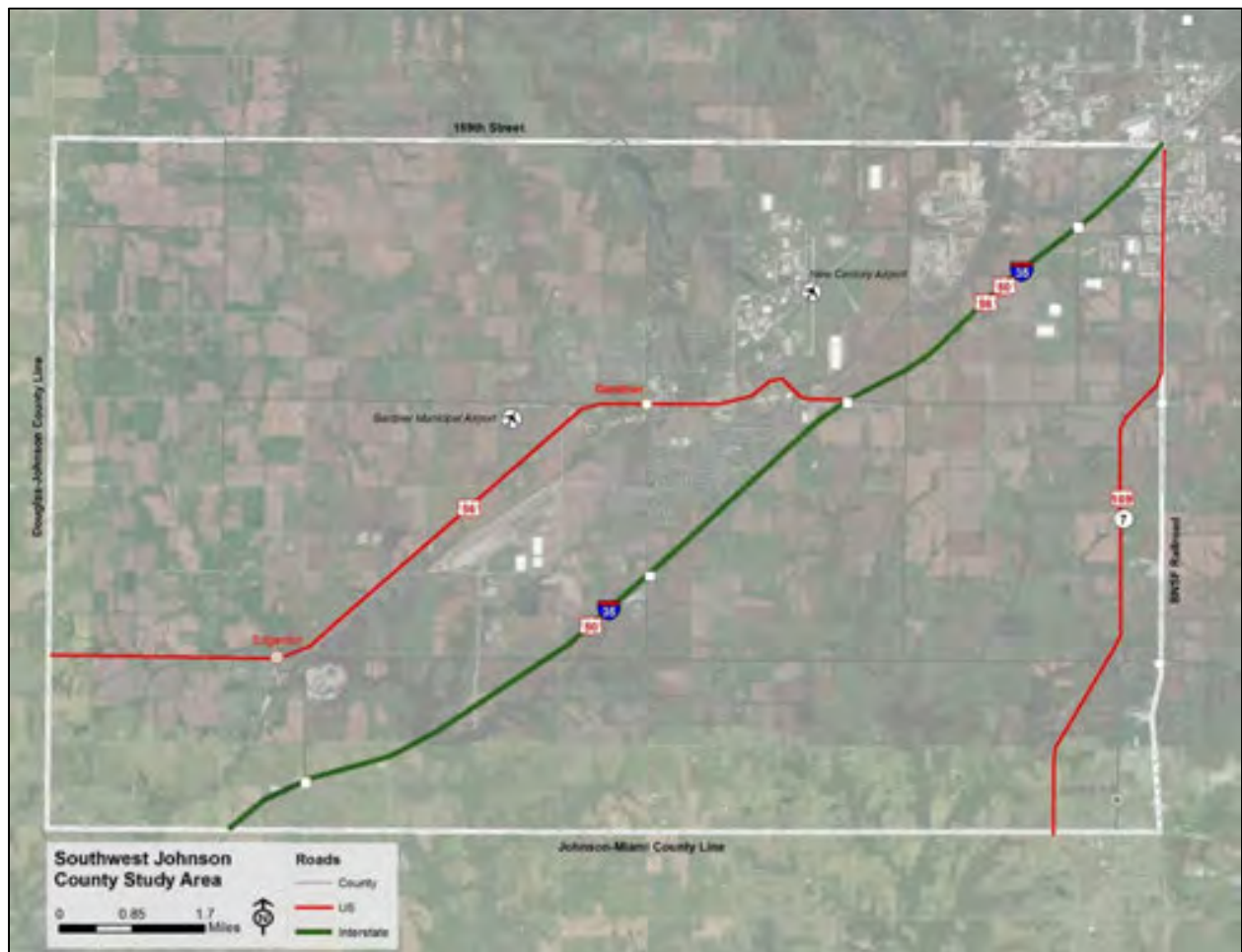
The *KCATA Transit Oriented Development Policy* and the *MARC Complete Streets Handbook* focus on the design and land use aspects related to transit development. The transit-oriented policies are only applicable along Bus Rapid Transit (BRT) or fixed guideways (i.e. rail), which are currently not relevant to Southwest Johnson County. In contrast, the Complete Streets guidelines are relevant to the study area. Complete Streets are roadways, highways, bridges, and facilities that are planned, designed, operated, and maintained for the needs and safety of all users along and across the entire public right-of-way. This includes people of all ages and abilities regardless of their mode of transportation. Complete Streets also integrate contextually-appropriate green infrastructure techniques. The corridor that would be most appropriate for a Complete Streets approach with integrated transit would be US-56, in Gardner. The *Southwest Johnson County Area Plan* also identifies similar land use policies that may have an impact on future transit planning. The Plan recommends concentrating major industrial employment within a compact area with excellent interstate access and providing opportunities for business parks with high employment densities. Additionally, a long-term goal of the Plan recommends a major mixed-use center at the Gardner Road interchange that is designed to integrate future transit service.

The *City of Gardner Comprehensive Plan* also has many transit recommendations, including:

- Coordinate with local industries to assess the viability and implementation of local employer-subsidized transit circulation that would provide a transportation alternative for employees
- Coordinate with Johnson County Transit to implement special transit services for the Johnson County Fair and other events that may attract visitors from other portions of the region
- Coordinate with senior housing facilities to implement resident shuttle services to provide access to local goods and services, community facilities, and special events
- Encourage major commercial and employment centers to provide designated shuttle drop-off and loading areas that could be used in the interim as landscaped areas, plazas, or other amenities

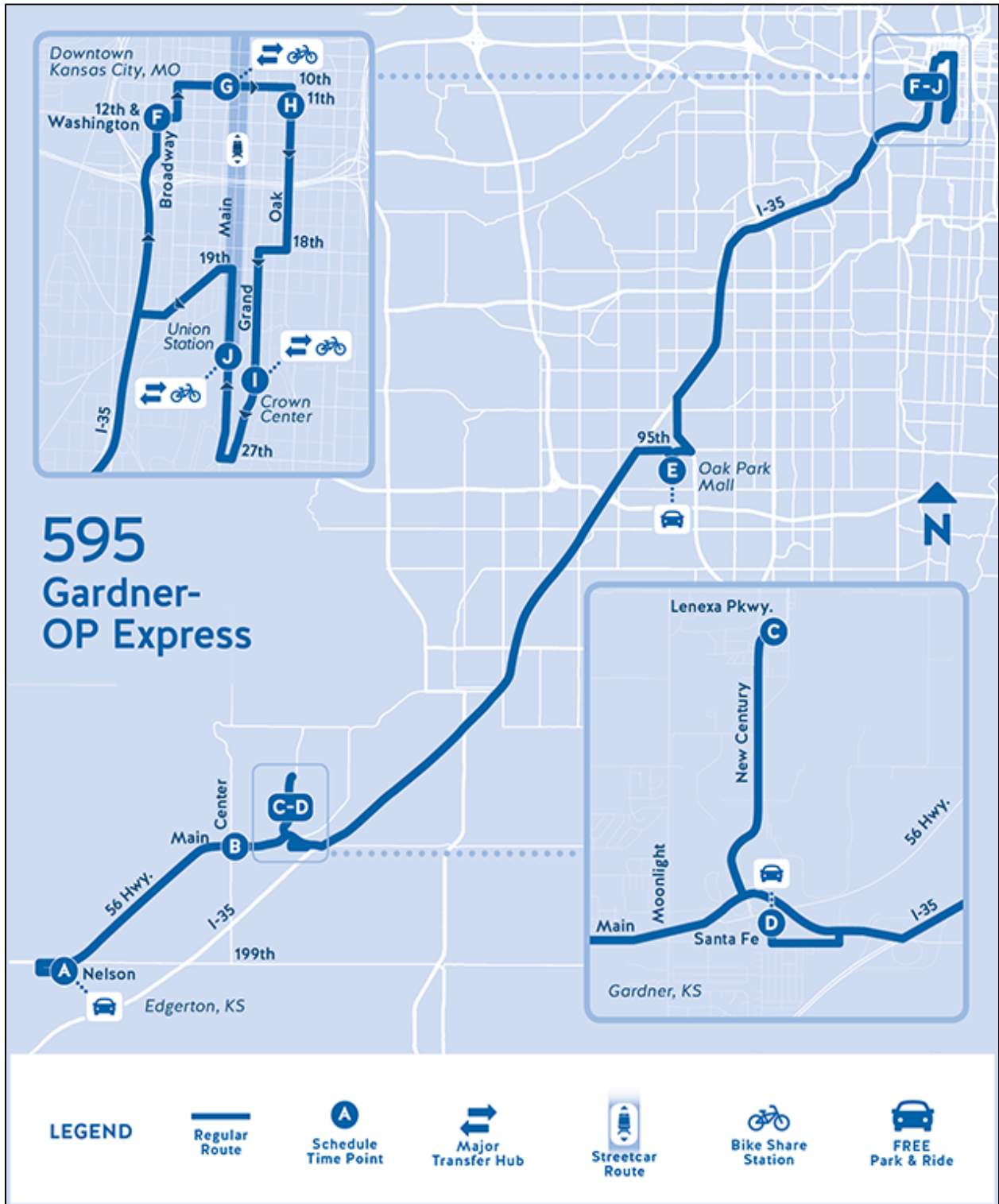
Consistent among these documents is the focus on express routes and park-and-rides facilities, rather than local buses, to serve transit needs. There is discussion on whether the demand should be focused on employment trips to Kansas City, Missouri or to Overland Park, Kansas. Land use policies recommend designing multimodal corridors with sidewalks and bicycle facilities. However, this may not be particularly applicable to many of the transit recommendations as they are envisioned to be on high-speed arterials and interstate highways within Southwest Johnson County.

Figure I-1: Study Area



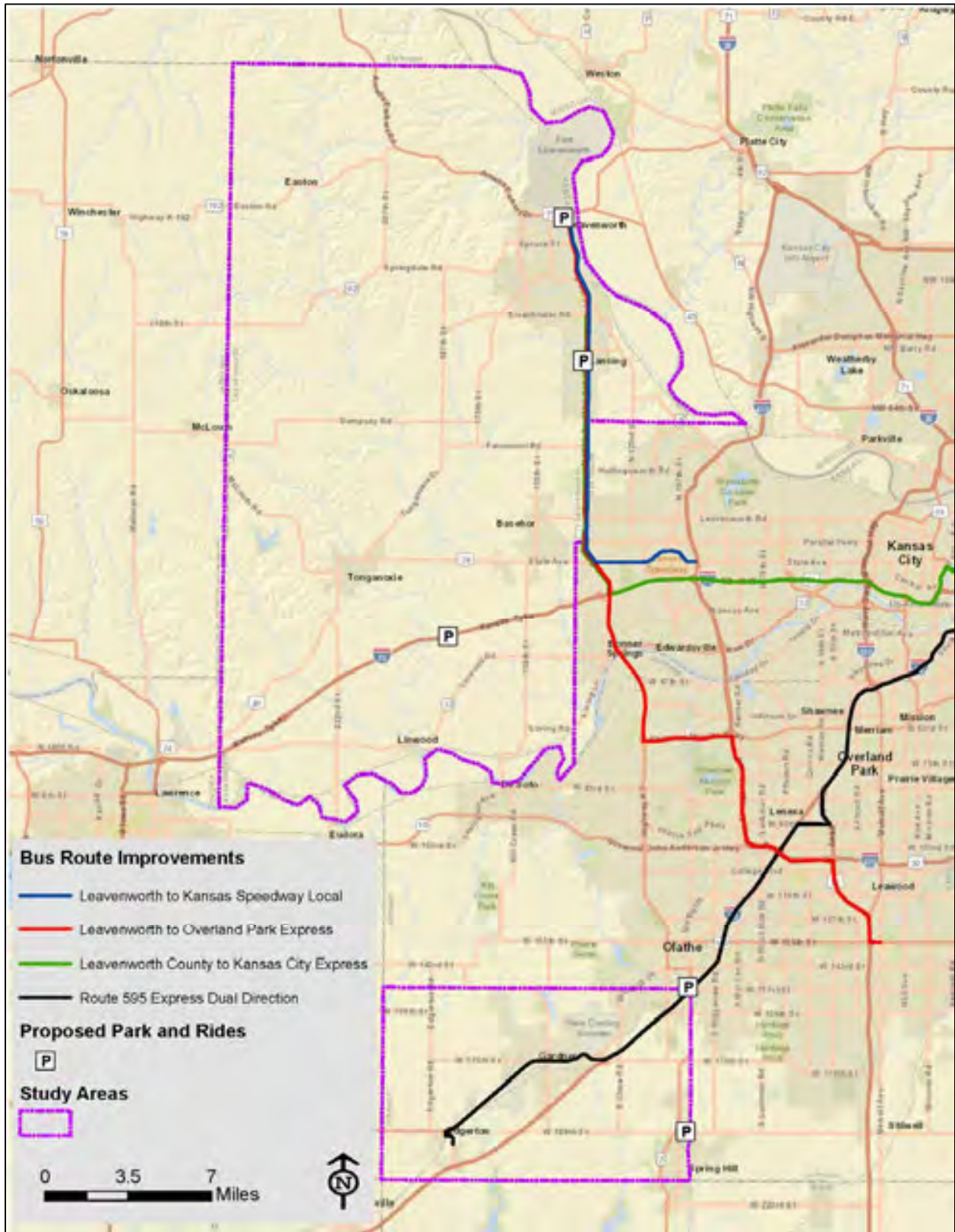
Source: TranSystems, 2017

Figure I-2: Existing Transit Service



Source: Kansas City Area Transportation Authority, 2017

Figure I-3: Recommended Transit Service



Sources: Transportation Outlook 2040, Five-County Regional Transportation Study, 2013 and Johnson County Strategic Transit Plan, 2011

CHAPTER 2 | NEEDS ASSESSMENT

A GIS-based demographic analysis utilizing the most recent U.S. Census Bureau data was conducted as a first step in the assessment of transportation needs. The needs assessment includes a review of transportation disadvantaged populations, local and regional employment, and travel patterns.

Employment and Travel Pattern Analysis

The study area was evaluated based on the characteristics that attract ridership from communities for a variety of reasons including employment and retail opportunities. For Southwest Johnson County, emphasis was placed on the communities within Johnson County and growing employment centers such as the BNSF Railway Intermodal facility and Logistics Park Kansas City. The data displayed on Figures 2-1 through 2-4 is from 2015 and reflects the most current data available. Recent development has occurred within the region which would likely impact future employment and travel pattern analysis.

Residents within Gardner-Edgerton Area

As displayed in Figure 2-1, the highest concentration of residents live within Gardner with a cluster of residents near downtown Edgerton. Of the residents within this study area, approximately 10,400 individuals travel outside the Gardner-Edgerton area for employment. While the employment locations are dispersed throughout the region, a significant number of residents travel to Olathe and Overland Park for work. Lenexa and Kansas City, Missouri are also common employment destinations. Figure 2-2 displays the locations where residents within the Gardner-Edgerton area travel for employment.

Employees within Gardner-Edgerton Area

As displayed in Figure 2-3, the highest concentration of employees are located within the core of Gardner with growing concentrations in northern Edgerton near the BNSF Railway Intermodal facility and Logistics Park Kansas City. Of the employees within this area, approximately 4,100 individuals are non-residents that travel to the Gardner-Edgerton area for employment. Significant numbers of employees travel from Olathe, Overland Park, and Kansas City, Missouri to their jobs within the study area. Shawnee, Lenexa, and Kansas City, Kansas are also common residences for employees. Figure 2-4 displays the locations where employees within the Gardner-Edgerton area travel from for employment.

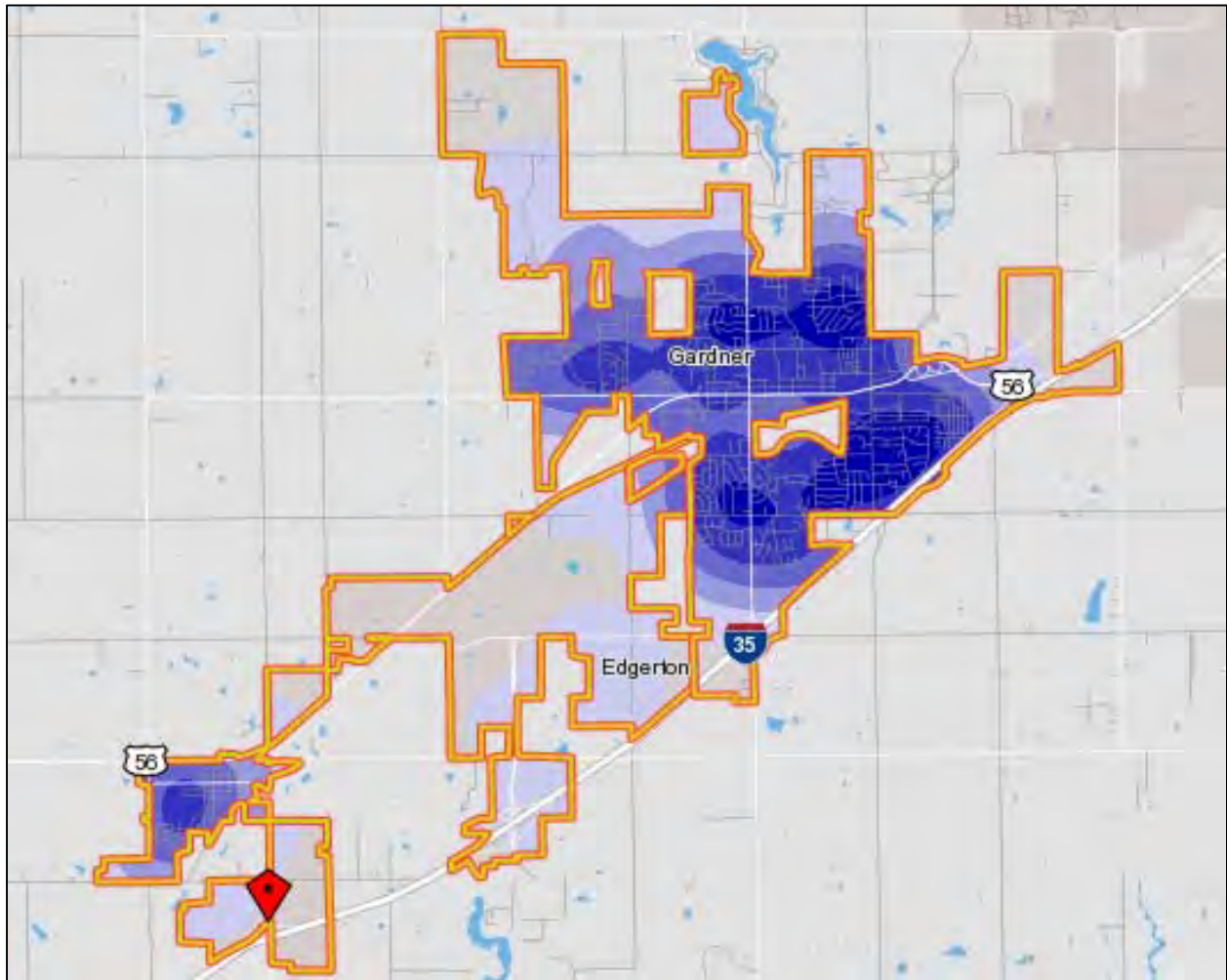
Additional input regarding travel patterns within the Southwest Johnson County area was collected from area employers via the Logistics Park Kansas City's Human Resources Roundtable. The collected information regarding employees and shift times is outlined in Table 2-1. The need for transit service among these employees was generally rated moderate to very high.

Table 2-1: Gardner-Edgerton Shift Times

| Firm | Employees | Transit Need | Shift Times |
|--------|---------------|---------------|--|
| Firm 1 | Not Available | Not Available | Tue-Sat 6:00 AM to 2:30 PM Tue-Sat 2:00 PM to 10:30 PM Mon-Fri 10:00 PM to 6:30 AM |
| Firm 2 | 200 | Very High | Mon-Fri 6:00 AM to 2:30 PM Mon-Fri 7:00 AM to 3:30 PM Mon-Fri 3:30 PM to 12:00 AM Sun-Thu 10:30 PM to 7:00 AM |
| Firm 3 | 500 | Very High | 5:00 AM to 3:30 PM 7:00 AM to 3:30 PM 8:00 AM to 4:30 PM 4:00 PM to 2:30 AM |
| Firm 4 | 250 | Moderate | 6:00 AM to 2:30 PM 2:30 PM to 10:30 PM 12:00 AM to 8:30 AM |
| Firm 5 | 1,000 | High | Sun-Sat 7:00 AM to 5:30 PM Sun-Sat 6:00 PM to 4:30 AM |

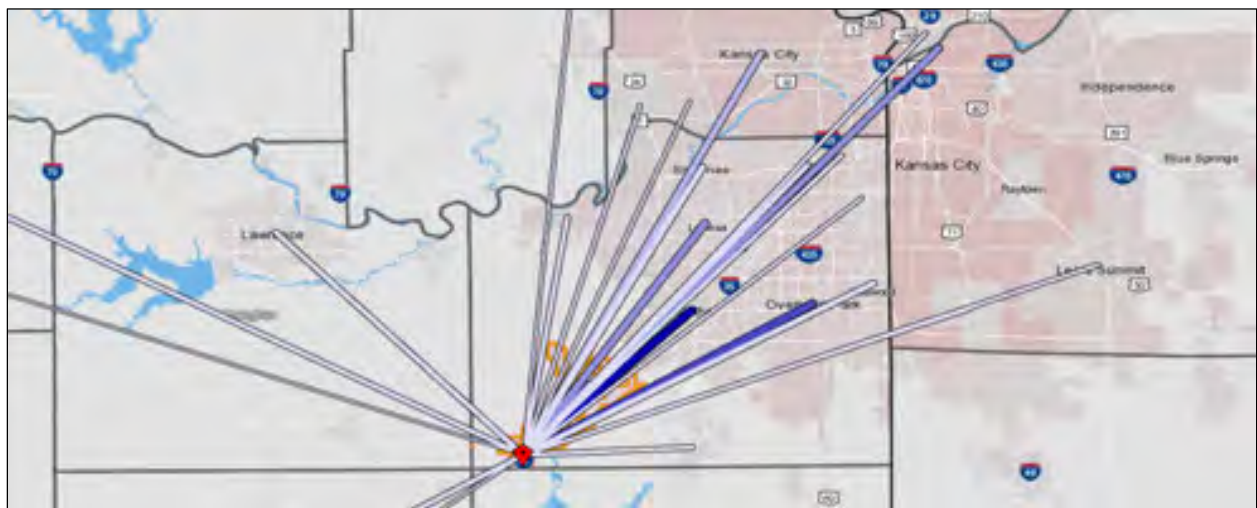
Source: Logistics Park Kansas City's Human Resources Roundtable, 2017

Figure 2-1: Location of Residents within Gardner-Edgerton Area



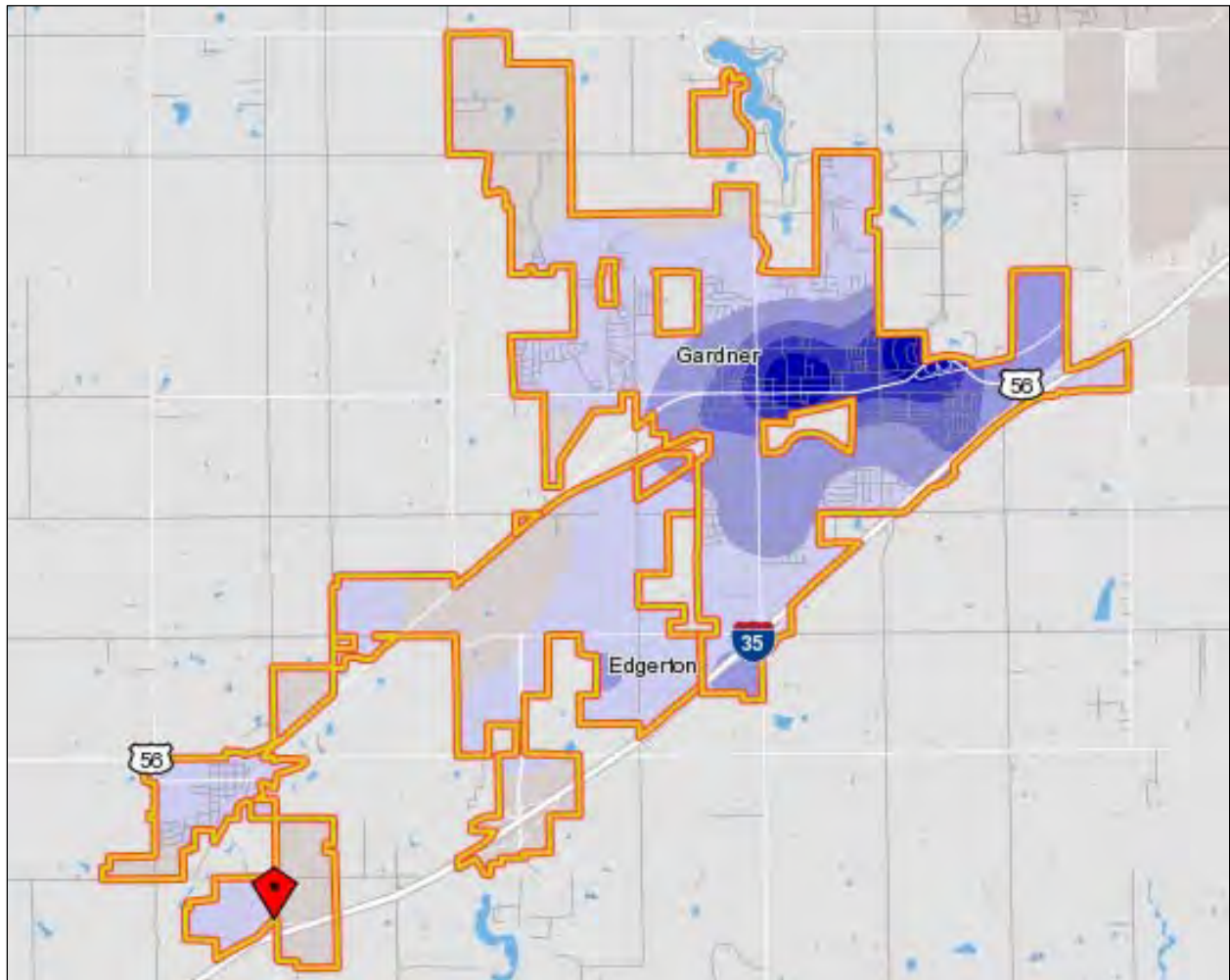
Source: U.S. Census Bureau Longitudinal Employer-Households Dynamics, 2015

Figure 2-2: Employment Locations of Gardner-Edgerton Area Residents by City



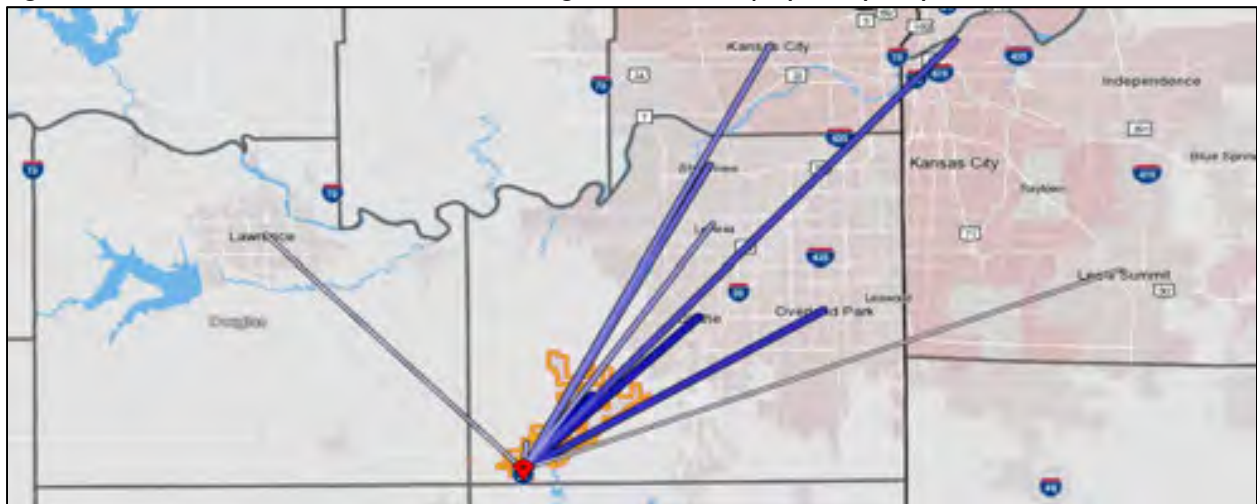
Source: U.S. Census Bureau Longitudinal Employer-Households Dynamics, 2015

Figure 2-3: Location of Employees within Gardner-Edgerton Area



Source: U.S. Census Bureau Longitudinal Employer-Households Dynamics, 2015

Figure 2-4: Residence Locations of Gardner-Edgerton Area Employees by City



Source: U.S. Census Bureau Longitudinal Employer-Households Dynamics, 2015

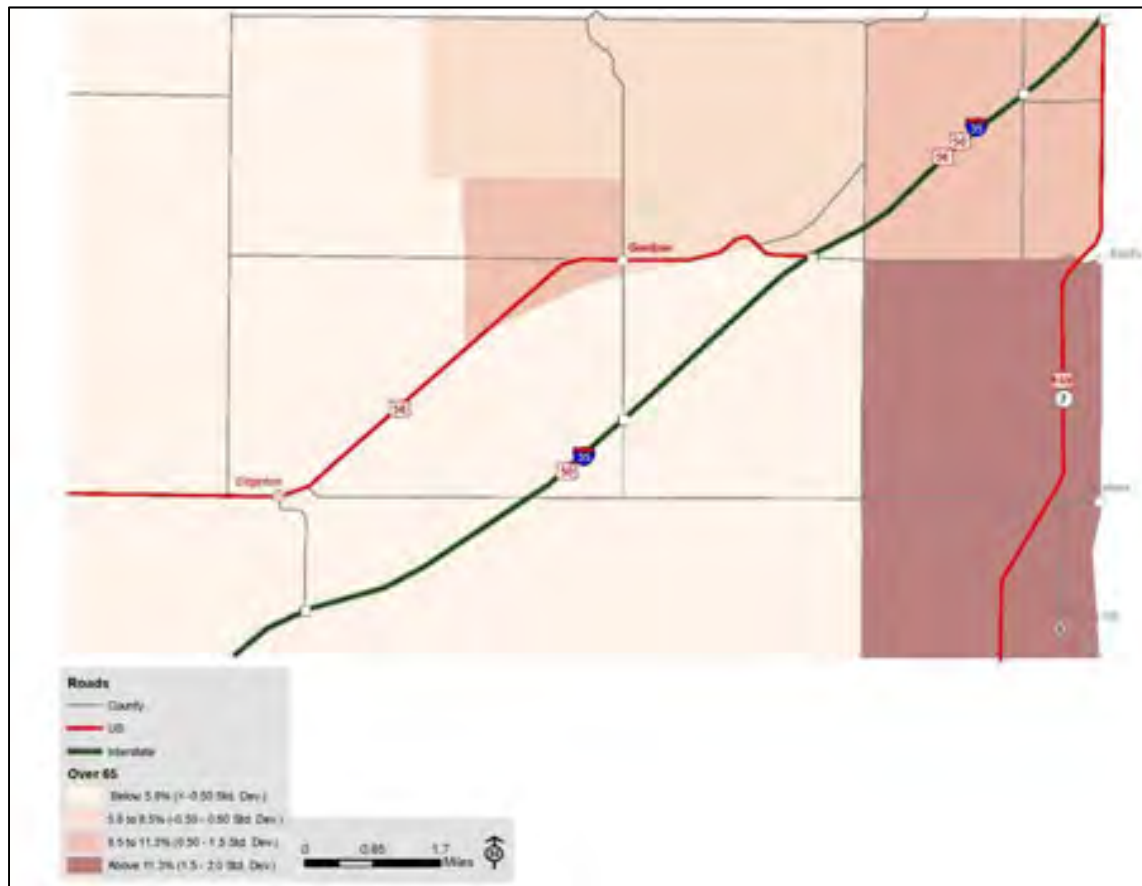
Transportation Disadvantaged Population Analysis

Older adults, persons with disabilities, low-income households, zero vehicle households, and veterans often have the most difficulty accessing transportation services. In Southwest Johnson County, challenges may be that services are unavailable (i.e. lack of service in a specific area or at a specific time), insufficient (i.e. low service frequency), and/or inappropriate (i.e. limited access to wheelchair-accessible vehicles). The following analysis evaluates service gaps and needs of transportation disadvantaged populations.

Older Adults

Older adults are individuals who are 65 years or older. There are approximately 3,017 older adults residing in Southwest Johnson County, which is approximately 7.8 percent of the total population in the study area. The density of older adults within the study area is displayed in Figure 2-5. Higher concentrations of older adults are located along US-169 in the eastern portion of the study area.

Figure 2-5: Older Adults



Source: U.S. Census Bureau American Community Survey, 2015

Persons with Disabilities

The Americans with Disabilities Act of 1990 states that a person with a disability is an individual who has a mental or physical impairment that limits a major life activity, has a history of such an impairment, or is perceived by others as having such an impairment. There are an approximately 3,661 persons with disabilities residing in Southwest Johnson County, which is approximately 9.5 percent of the total population in the study area. The density of persons with disabilities (5 years or older) within the study area is displayed in Figure 2-6. Higher concentrations of persons with disabilities are located in Gardner and southwestern Olathe.

Figure 2-6: Persons with Disabilities

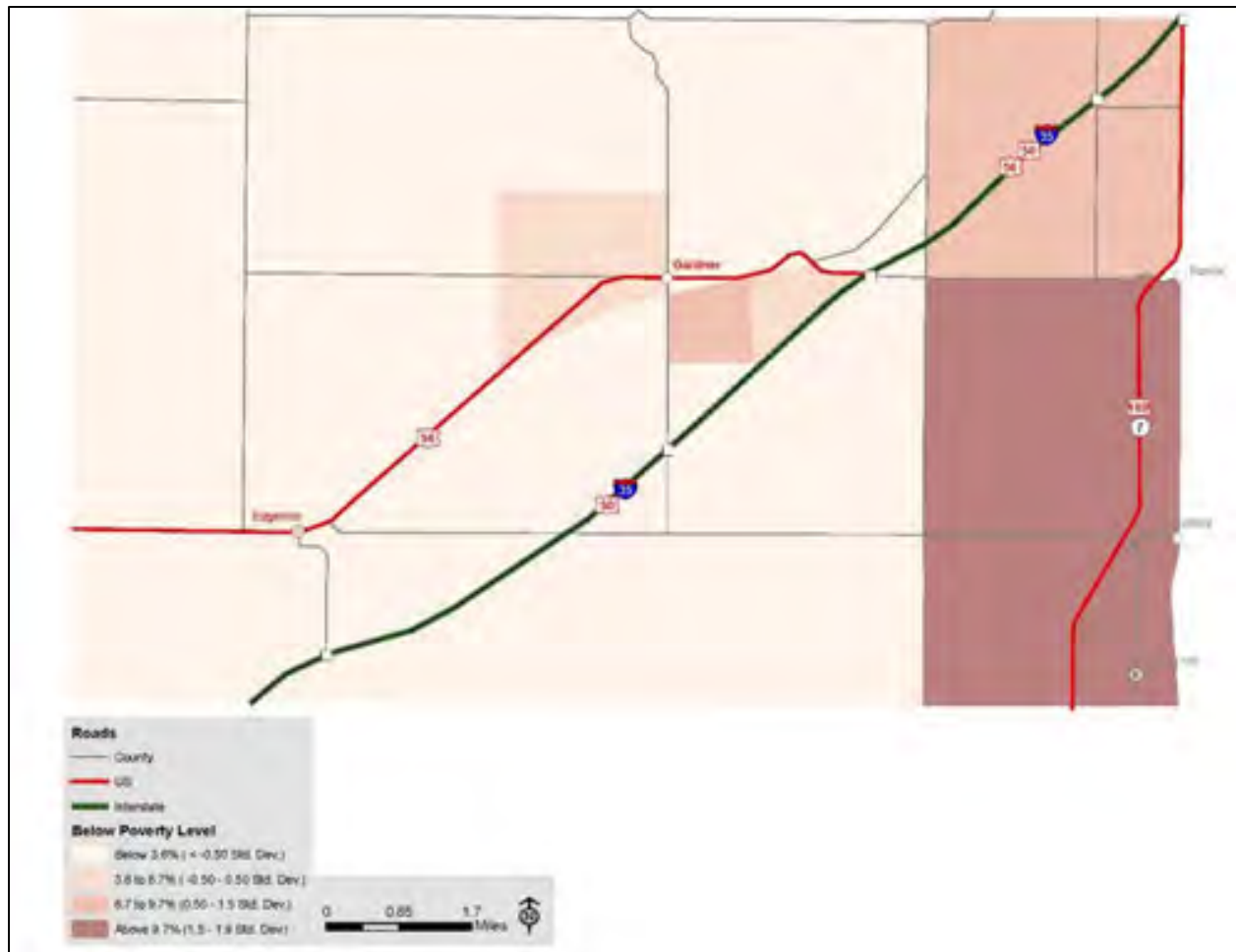


Source: U.S. Census Bureau American Community Survey, 2015

Persons with Low Income

Persons with low income are individuals that have a household income at or below the poverty threshold set annually by the Department of Health and Human Services. For example, if a family of four living in the same household has an annual income below the poverty threshold, all four individuals would be classified as persons with low income. There are an approximately 2,130 persons with low income residing in Southwest Johnson County, which is approximately 5.5 percent of the total population in the study area. The density of persons with low income within the study area is displayed in Figure 2-7. Higher concentrations of persons with low income are located along the US-169 corridor in the eastern portion of the study area as well as some concentration within Gardner.

Figure 2-7: Persons with Low Income

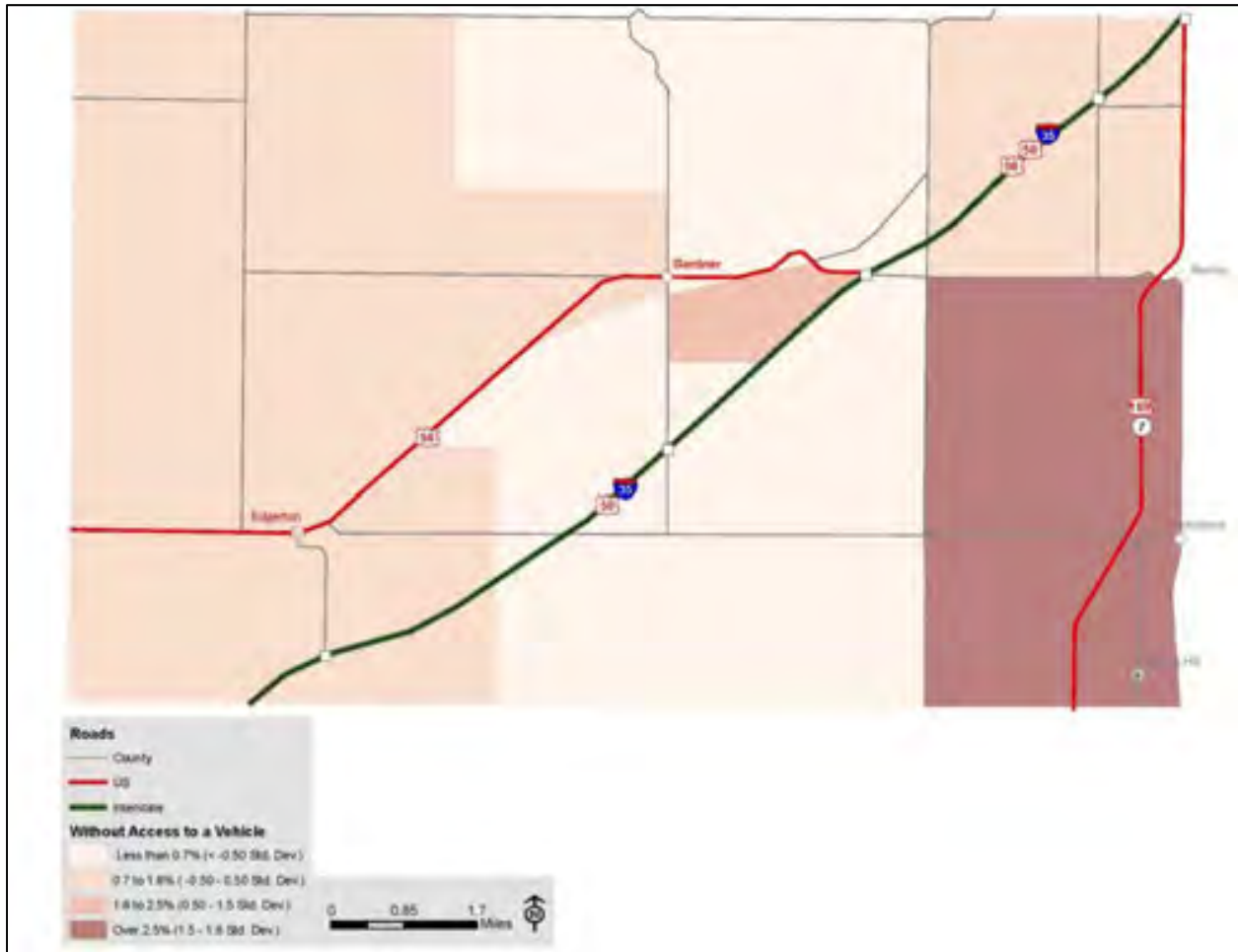


Source: U.S. Census Bureau American Community Survey, 2015

Zero Vehicle Households

Zero vehicle households are individuals that do not have access to a personal vehicle. There are approximately 350 zero vehicle households residing in Southwest Johnson County, which is approximately 2.6 percent of the total population in the study area. The density of zero vehicle households within the study area is displayed in Figure 2-8. Higher concentrations of zero vehicle households are located along southern portions of US-169 with other smaller concentrations near Gardner and the greater Edgerton area.

Figure 2-8: Zero Vehicle Households



Source: U.S. Census Bureau American Community Survey, 2015

Veterans

A military veteran is a person who has served or is serving in the armed forces. Veterans may face transportation challenges caused by health-related disabilities or financial hardship. There are approximately 2,599 veterans residing in Southwest Johnson County, which is approximately 9.4 percent of the total population in the study area. The density of veterans within the study area is displayed in Figure 2-9. In comparison to other transportation disadvantaged populations, veterans are relatively widespread throughout the study area, particularly the northern, eastern, and western portions of the study area.

Figure 2-9: Veterans



Source: U.S. Census Bureau American Community Survey, 2015

CHAPTER 3 | PUBLIC AND STAKEHOLDER ENGAGEMENT

Transit planning is essential for improving connections to employment centers and other key destinations in Southwest Johnson County. Opportunities and challenges to be leveraged for transit improvements were discovered as the planning team worked together with a wide range of participants, including a Stakeholder Advisory Committee (SAC), community members, planning staff, and many others during Summer and Fall 2017.

During the process, participants provided comments on the area's growing jobs base, explored transit options, and helped the planning team develop recommendations for new approaches to improving access to jobs in Southwest Johnson County. Innovative transit approaches, such as mobility hubs, on-demand services, vanpools, and ride hailing were also explained and explored.

Engagement occurred during three phases: planning kick-off, development of alternatives, and recommendations. Over 200 people responded to the print and online opinion survey, nearly 370 shared comments in person, and over 12,000 people were reached through social media. Detailed public and stakeholder engagement materials are available in Appendix A.

Phase I: Planning Kick-Off

Stakeholder Advisory Committee Meeting #1

The first of three Stakeholder Advisory Committee meetings was held on October 4, 2017 at Edgerton City Hall. Eighteen advisory committee members listened to a brief presentation on existing conditions and transit plans for the community. Then, they began sharing their vision for future transit service in Southwest Johnson County, saying that it should be connected, convenient, affordable, flexible, rapid, efficient, accessible, reliable, and connected to growth. Attendees said that the need for transit service in Southwest Johnson County was high and rated it a "10" on a 1 (lowest) to 10 (greatest) scale. They also commented that transit experiences in other communities were comfortable, stress-free, convenient, timely, safe, offered internet connectivity, and much more. Ideally, future transit service in the Southwest Johnson County would provide some of the same experiences.

Committee members said that offering transit service would provide a wide range of benefits to the community, such as reduced highway congestion, increased economic development, and jobs access and also begin to address the needs of single-vehicle households. Since transit service in the area was limited, the group said that improved service might draw older adults, young people without vehicles, persons with disabilities, single-vehicle households, and others to the area. They commented that employees, older adults, and persons with disabilities should be included among priority riders.

Later during the meeting, when organized into small groups, committee members discussed future service times and types, transit convenience, and other transit-related ideas. Then, each small group shared the results of their discussions with the larger group. Overall, they commented that future service should provide access to employment centers, such as Logistics Park Kansas City (with nearly 20 tenants), New Century AirCenter (with over 60 companies and organizations), Olathe Medical Center, and other key locations. Service spans should relate to employee shift times and schedules, recognizing that employers have peak periods and their needs can change with the seasons.

Committee members expressed a desire for highway express transit service with call-a-ride, vanpool/carpool, and car- and bike-share options. Attendees shared that transit services should help meet immediate needs and be focused on employees. Long-term options might involve connections to Lawrence, Kansas, other park-and-ride locations, and rail-based transit service. With these ideas in mind, the committee asked the planning team to explore a central pick-up or hub concept.

Public Opinion Survey

The planning team leveraged the feedback gathered from the Stakeholder Advisory Committee to develop a public opinion survey about future transit service. The survey was available in print and digital formats (swjocotransit.digicate.com) from approximately August to December 2017. Survey availability was announced via press releases and the survey was also shared on the project Facebook page and the web pages of local jurisdictions. Additionally, Stakeholder Advisory Committee members and others shared the survey with their respective networks. The public opinion survey yielded 217 respondents who generated 4,503 responses. The results included:

- *Need, Vision, and Benefits:* The survey highlighted a high need for service. Future service should be accessible, available, and convenient. Responses expressed some concern that future service will not exist or be very limited.
- *Benefits:* Potential benefits are wide ranging, such as the provision of an affordable transportation option, connecting workers from other areas to jobs in Southwest Johnson County, economic growth and development, and less traffic on roads and highways.
- *Top Potential Riders:* The top three potential types of riders included employees, individuals with limited incomes, and older adults.
- *Top Areas to Serve:* The top three areas to serve included employment areas, medical services, and education facilities and schools.
- *Service Times:* The survey responses suggested a 6:00 AM to 6:00 PM service span with an interest in evening service from approximately 6:00 PM to 9:00 PM.
- *Service Types:* The top three service types included Monday to Friday service, buses that travel on local streets, and buses that travel between cities.
- *Convenient Service:* Responses indicated that “convenient” service would involve direct routes, bus shelters, real-time information, and Wi-Fi connectivity
- *Types of Survey Respondents:* The top three survey respondents included residents, employees, and transit advocates.

Phase 2: Development of Alternatives

Stakeholder Advisory Committee Meeting #2

The second of three Stakeholder Advisory Committee meetings was held on November 20, 2017 at Edgerton City Hall. During the meeting, the planning team provided an overview of the plan purpose, summarized analysis to date, and presented primary and secondary transit improvement concepts for the community. The primary concept for Southwest Johnson County transit improvements involved bi-directional express service between Gardner and downtown Kansas City, Missouri with access points along the route and circulator services encompassing portions of Gardner and Edgerton. The secondary

concept involved vanpools/carpools for employment trips, micro-transit (based on demand) for off-hour services to employment locations, and on-demand service options targeted to populations such as older adults and persons with disabilities within the greater Gardner-Edgerton area. Ten committee members attended the meeting and their comments generally related to:

- Ridership potential
- Potential mobility hub locations (i.e. Johnson County Transit building, New Century AirCenter, and 175th Street and Lone Elm Road intersection)
- The circulator route, its stops, and relation to the mobility hub
- Employer receptivity to the idea of improved transit service
- Expanded service (potentially done in partnership with employers)
- Existing service to downtown Kansas City, Missouri and the reverse commute
- Cost estimates and funding options

Human Resources Roundtable and Employer Pop-Up Meetings

In addition to the Stakeholder Advisory Committee meeting, the planning team worked with stakeholders to gather feedback from employers and the economic development community. The planning team attended Logistics Park Kansas City's Human Resources Roundtable on November 14, 2017 to gather shift time information and other data from participants. Then, the planning team coordinated with human resources representatives and Stakeholder Advisory Committee members to schedule three "pop-up" meetings to specifically target shift workers and residents at busy locations in the community. During the pop-up meetings, the planning team shared maps, fact sheets, and the public opinion survey as they discussed future service types, times, and more with participants. Pop-up meeting results included:

- *Gardner Price Chopper*: 100 people on November 18 from 11:00 AM to 1:00 PM
- *Amazon Fulfillment Center*: 95 people on November 29 from 11:30 AM to 1:30 PM and 5:30 to 6:30 PM
- *Jet Fulfillment Center*: 48 people on November 29 from 11:30 AM to 1:30 PM and 5:30 to 6:30 PM

Phase 3: Recommendation

Stakeholder Advisory Committee Meeting #3

The final Stakeholder Advisory Committee meeting was held on December 13, 2017 at Edgerton City Hall. During the meeting, the planning team presented a draft recommendation for transit service in Southwest Johnson County. The recommendation involved expanding the existing Route 595 Gardner-Overland Park Express with Kansas City, Kansas trips, providing secondary service via vanpool/micro-transit, employer vanpool/micro-transit, rideshare via cost-share, and guaranteed ride-home programs. The potential for a future mobility hub was also included. Fifteen committee members attended the meeting and their comments generally related to:

- Ridership and routes, specifically potential impacts to existing transit corridors such as 95th Street
- Convenience elements such as ride length, availability of afternoon or mid-day service, and weekend service
- Implementation steps (focused on a circulator and mobility hub), keeping in mind that a flexible and soft roll-out is best, potential messaging options, and marketing opportunities

CHAPTER 4 | DEVELOPMENT OF ALTERNATIVES

The development and analysis of transit service alternatives is based on the review of existing conditions, the needs assessment, and public and stakeholder engagement. Short-term alternatives for improving transit operations were developed and evaluated. From these alternatives, a preferred strategy was identified to meet the needs of the study area in the most cost-effective manner.

Criteria for the development of the service alternatives, as identified during earlier phases of the study, included:

- Provide transit options that offer access to employment in the Gardner-Edgerton area
- Service implementation possible within a year or less
- Maximum number of work shift start times in the Gardner-Edgerton area served
- Net annual service cost of approximately \$300,000 or less

Given these criteria, four service alternatives were developed and are described in further detail below.

Alternative 1: Expansion of Existing Route 595

Route 595 (Gardner-Overland Park Express) currently operates between downtown Kansas City, Missouri and southern Johnson County. The route offers five morning trips with two originating in Edgerton and two originating in Gardner, and five evening trips with two terminating in Edgerton and three terminating in Gardner. Alternative 1 would expand the route to include six morning and six evening trips all operating along I-35 between downtown Kansas City, Missouri and Edgerton. The intent would be to maintain the service from southern Johnson County to downtown Kansas City, Missouri, including the existing stop at Oak Park Mall, while providing expanded opportunities for access to employment in the Gardner-Edgerton area. Along with offering more daily morning and evening trips south to the Gardner-Edgerton area, this alternative includes a revised alignment through the area to provide access to all major employment sites. The proposed route would exit I-35 at Old 56 Highway to circulate through the Gardner-Edgerton area. This alternative is displayed in Figure 4-1.

Estimated annual cost for Alternative 1 for weekday service is approximately \$650,000 per year. After accounting for the annual cost of existing service (approximately \$345,000) an additional \$305,000 in funding (before passenger fare revenue net) would be required to implement Alternative 1. An example schedule is outlined in Table 4-1.

Benefits of this alternative include:

- Builds on existing service
- Provides circulation through the Gardner-Edgerton area
- Easy to understand and market to potential users
- Maintains existing stops along existing route

Drawbacks of this alternative include:

- On-board time could be as much as 1.5 hours one-way depending on boarding locations
- Shift times beginning before 7:00 AM are not served
- Service is not provided on weekends

Figure 4-1: Alternative I Alignment

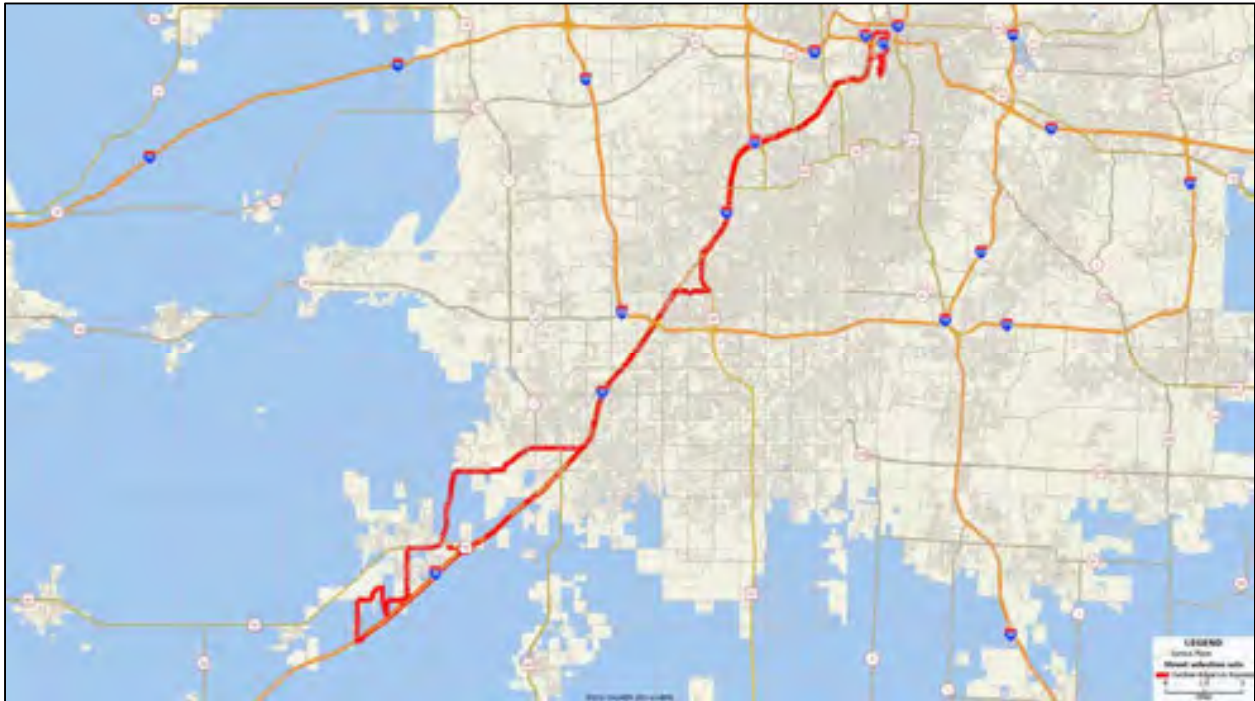


Table 4-1: Alternative 1 Schedule

| AM Inbound | | | AM Outbound | | |
|-------------------|-----------------------------|----------------------|----------------------|-----------------------------|-------------------|
| 199th & Homestead | Oak Park Mall Park-and-Ride | Union Station (KCMO) | Union Station (KCMO) | Oak Park Mall Park-and-Ride | 199th & Homestead |
| 5:00 | 5:45 | 6:30 | 5:00 | 5:45 | 6:30 |
| 5:30 | 6:15 | 7:00 | 5:30 | 6:15 | 7:00 |
| 6:00 | 6:45 | 7:30 | 6:00 | 6:45 | 7:30 |
| 6:30 | 7:15 | 8:00 | 6:30 | 7:15 | 8:00 |
| 7:00 | 7:45 | 8:30 | 7:00 | 7:45 | 8:30 |
| 7:30 | 8:15 | 9:00 | 7:30 | 8:15 | 9:00 |
| PM Inbound | | | PM Outbound | | |
| 199th & Homestead | Oak Park Mall Park-and-Ride | Union Station (KCMO) | Union Station (KCMO) | Oak Park Mall Park-and-Ride | 199th & Homestead |
| 3:30 | 4:15 | 5:00 | 3:30 | 4:15 | 5:00 |
| 4:00 | 4:45 | 5:30 | 4:00 | 4:45 | 5:30 |
| 4:30 | 5:15 | 6:00 | 4:30 | 5:15 | 6:00 |
| 5:00 | 5:45 | 6:30 | 5:00 | 5:45 | 6:30 |
| 5:30 | 6:15 | 7:00 | 5:30 | 6:15 | 7:00 |
| 6:00 | 6:45 | 7:30 | 6:00 | 6:45 | 7:30 |

Alternative 2: Expansion of Existing Route 595 to Kansas City, Kansas

Alternative 2 is a variation of Alternative 1 that alternates Route 595 outbound trips to Gardner-Edgerton between downtown Kansas City, Missouri and downtown Kansas City, Kansas. As with Alternative 1, this concept includes the same revised alignment through the Gardner-Edgerton area to provide access to all major employment sites. This alternative is displayed in Figure 4-2.

Estimated annual cost for Alternative 2 for weekday service is approximately \$683,000 per year. After accounting for the annual cost of existing service (approximately \$345,000), an additional \$338,000 in funding (before passenger fare revenue net) would be required to implement Alternative 2. An example schedule is outlined in Table 4-2.

Benefits of this alternative include:

- Builds on existing service
- Provides circulation through the Gardner-Edgerton area
- Easy to understand and market to potential users
- Maintains existing stops along existing route
- Provides more direct access to service from Wyandotte County

Drawbacks of this alternative include:

- On-board time could be as much as 1.5 hours one-way depending on boarding locations
- Shift times beginning before 7:00 AM are not served
- Service is not provided on weekends
- Number of reverse commute trips in downtown Kansas City, Missouri is reduced
- Annual cost is slightly higher than Alternative 1 due to additional deadhead miles/hours

Figure 4-2: Alternative 2 Alignment

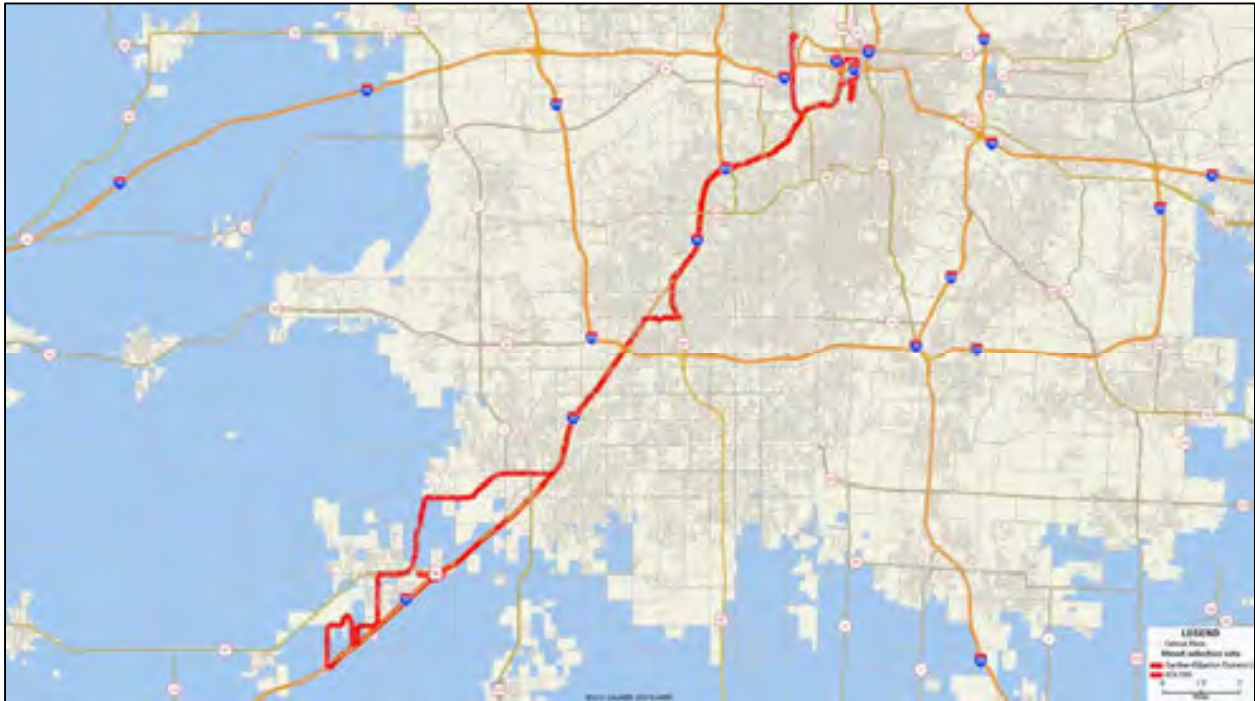


Table 4-2: Alternative 2 Schedule

| AM Inbound | | | | AM Outbound | | | |
|-------------------|-----------------------------|-----------------------|----------------------|----------------------|-----------------------|-----------------------------|-------------------|
| 199th & Homestead | Oak Park Mall Park-and-Ride | 7th & Minnesota (KCK) | Union Station (KCMO) | Union Station (KCMO) | 7th & Minnesota (KCK) | Oak Park Mall Park-and-Ride | 199th & Homestead |
| 5:00 | 5:45 | - | 6:30 | 5:00 | - | 5:45 | 6:30 |
| 5:30 | 6:15 | - | 7:00 | - | 5:30 | 6:15 | 7:00 |
| 6:00 | 6:45 | 7:30 | - | 6:00 | - | 6:45 | 7:30 |
| 6:30 | 7:15 | - | 8:00 | - | 6:30 | 7:15 | 8:00 |
| 7:00 | 7:45 | - | 8:30 | 7:00 | - | 7:45 | 8:30 |
| 7:30 | 8:15 | - | 9:00 | - | 7:30 | 8:15 | 9:00 |
| PM Inbound | | | | PM Outbound | | | |
| 199th & Homestead | Oak Park Mall Park-and-Ride | 7th & Minnesota (KCK) | Union Station (KCMO) | Union Station (KCMO) | 7th & Minnesota (KCK) | Oak Park Mall Park-and-Ride | 199th & Homestead |
| 3:30 | 4:15 | 5:00 | - | 3:30 | - | 4:15 | 5:00 |
| 4:00 | 4:45 | - | 5:30 | 4:00 | - | 4:45 | 5:30 |
| 4:30 | 5:15 | 6:00 | - | - | 4:30 | 5:15 | 6:00 |
| 5:00 | 5:45 | - | 6:30 | 5:00 | - | 5:45 | 6:30 |
| 5:30 | 6:15 | 7:00 | - | 5:30 | - | 6:15 | 7:00 |
| 6:00 | 6:45 | - | 7:30 | 6:00 | - | 6:45 | 7:30 |

Alternative 3: Expansion of Existing Route 519 with Local Circulator

Route 519 Olathe Express currently operates between downtown Kansas City, Missouri and Olathe. Alternative 3 would expand the route to include eight morning and eight evening trips along I-35 between downtown Kansas City, Missouri and Olathe. The intent would be to maintain the existing service while providing expanded opportunities for access to employment in the Gardner-Edgerton area through the introduction of a Gardner-Edgerton circulator route. The local circulator route would connect to Route 519 at the Olathe Medical Center. This alternative would allow for the elimination of the existing Route 595 Gardner-Overland Park Express, which would effectively eliminate the current Oak Park Mall stop. This alternative is displayed in Figure 4-3.

Estimated annual cost for Alternative 3 for weekday service is approximately \$650,000 per year for expanded Route 519 and approximately \$310,000 per year for the local circulator route. After accounting for the annual cost of existing service (approximately \$370,000 for Route 519 and \$345,000 for Route 595), an additional \$245,000 in funding (before passenger fare revenue net) would be required to implement Alternative 3. An example schedule is outlined in Table 4-3.

Benefits of this alternative include:

- Builds on existing service and eliminates some service redundancy
- Maintains all existing stops along the existing Route 519 (Olathe Express)
- Provides circulation throughout the Gardner-Edgerton area
- Easy to understand and market to potential users

Drawbacks of this alternative include:

- On-board time could be as much as 1.5 hours one-way depending on boarding locations
- Requires a transfer for any travel to or from the Gardner-Edgerton area
- Eliminates stop at Oak Park Mall (currently provided by Route 595)
- Service is not provided on weekends
- Eliminates 595 Gardner-Overland Park Express
- Relies on transfers from highway based route

Figure 4-3: Alternative 3 Alignment

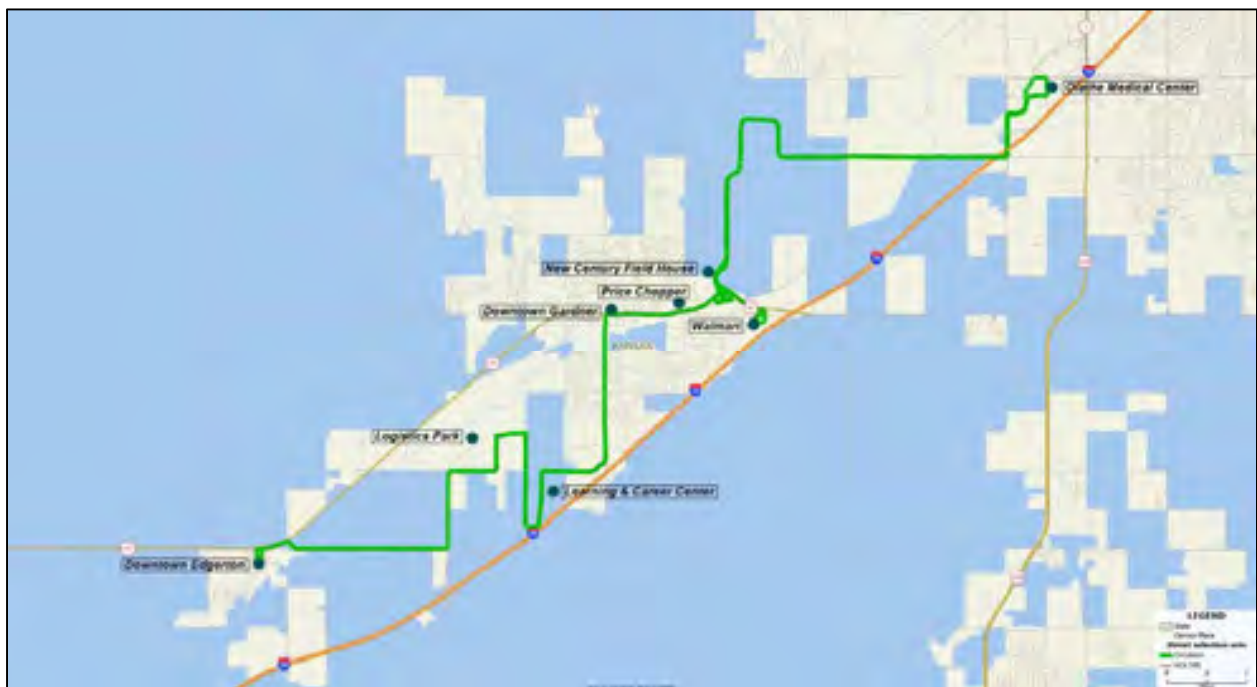
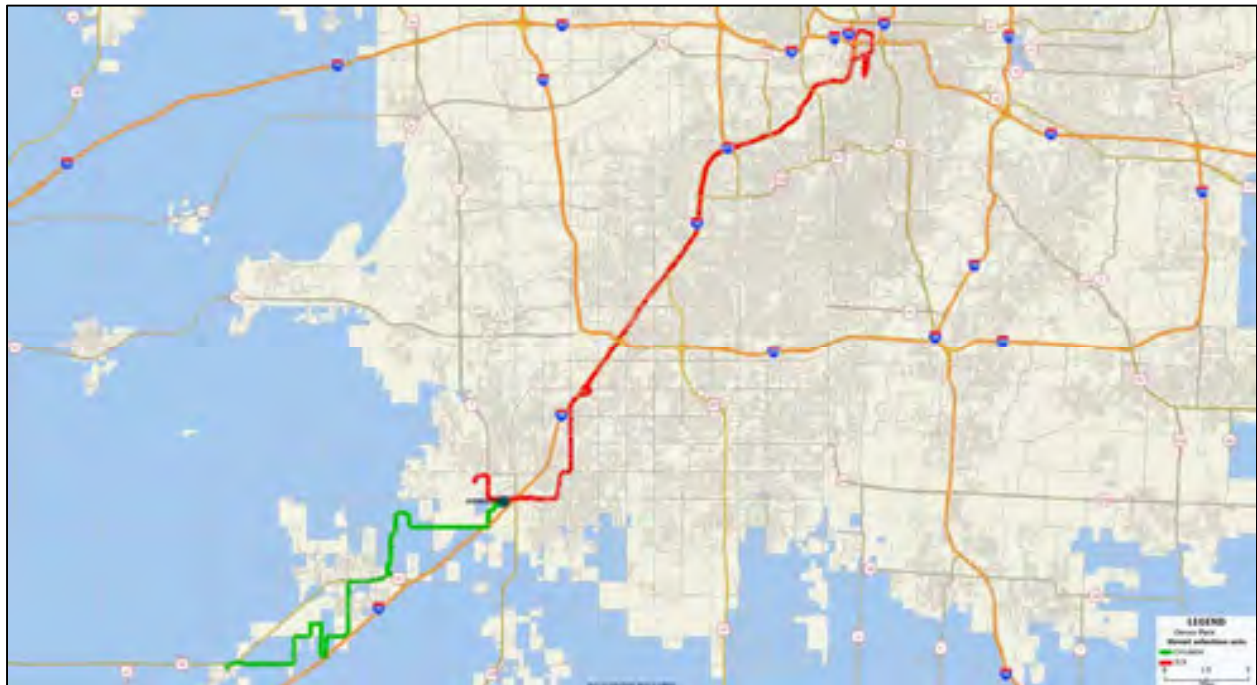


Table 4-3: Alternative 3 Schedule

| Route 519: AM Inbound | | | Route 519: AM Outbound | | |
|---------------------------|-----------------------|----------------------|------------------------|-----------------------|---------------------------|
| Old 56 Highway & Robinson | Olathe Medical Center | Union Station (KCMO) | Union Station (KCMO) | Olathe Medical Center | Old 56 Highway & Robinson |
| 5:00 | 5:05 | 6:15 | 5:00 | 6:10 | 6:15 |
| 5:25 | 5:30 | 6:40 | 5:25 | 6:35 | 6:40 |
| 5:50 | 5:55 | 7:05 | 5:50 | 7:00 | 7:05 |
| 6:15 | 6:20 | 7:30 | 6:15 | 7:25 | 7:30 |
| 6:40 | 6:45 | 7:55 | 6:40 | 7:50 | 7:55 |
| 7:05 | 7:10 | 8:20 | 7:05 | 8:15 | 8:20 |
| 7:30 | 7:35 | 8:45 | 7:30 | 7:40 | 8:45 |
| 7:55 | 8:00 | 9:10 | 7:55 | 9:05 | 9:10 |
| Route 519: PM Inbound | | | Route 519: PM Outbound | | |
| Old 56 Highway & Robinson | Olathe Medical Center | Union Station (KCMO) | Union Station (KCMO) | Olathe Medical Center | Old 56 Highway & Robinson |
| 3:00 | 3:05 | 4:15 | 3:00 | 4:10 | 4:15 |
| 3:25 | 3:30 | 4:40 | 3:25 | 4:35 | 4:40 |
| 3:50 | 3:55 | 5:05 | 3:50 | 5:00 | 5:05 |
| 4:15 | 4:20 | 5:30 | 4:15 | 5:25 | 5:30 |
| 4:40 | 4:45 | 5:55 | 4:40 | 5:50 | 5:55 |
| 5:05 | 5:10 | 6:20 | 5:05 | 6:15 | 6:20 |
| 5:30 | 5:35 | 6:45 | 5:30 | 6:40 | 6:45 |
| 5:55 | 6:00 | 7:10 | 5:55 | 7:05 | 7:10 |

| Gardner-Edgerton Circulator: AM Inbound | | Gardner-Edgerton Circulator: PM Outbound | |
|---|-----------------------|--|-------------------|
| Downtown Edgerton | Olathe Medical Center | Olathe Medical Center | Downtown Edgerton |
| 5:15 | 6:15 | 6:15 | 7:15 |
| 6:05 | 7:05 | 7:05 | 8:05 |
| 6:55 | 7:55 | 7:55 | 8:55 |
| Gardner-Edgerton Circulator: PM Inbound | | Gardner-Edgerton Circulator: PM Outbound | |
| Downtown Edgerton | Olathe Medical Center | Olathe Medical Center | Downtown Edgerton |
| 2:50 | 3:50 | 3:50 | 4:50 |
| 4:05 | 5:05 | 5:05 | 6:05 |
| 4:55 | 5:55 | 5:55 | 6:55 |

Alternative 4: Reverse Commute Service from Multiple Locations

Alternative 4 introduces dedicated reverse commute service targeted to the Gardner-Edgerton area with three trip origin points around the region: downtown Kansas City, Missouri, 47th Street and State Avenue in Kansas City, Kansas, and Bannister Road and Blue Ridge Boulevard in south Kansas City, Missouri. Each of the reverse commute routes would exit I-35 at 151st Street to connect to a circulator route serving the Gardner-Edgerton area at the Olathe Medical Center. Alternative 4 would require the elimination of existing Route 595 (Gardner-Overland Park Express). This alternative is displayed in Figure 4-4.

Estimated annual cost for Alternative 4 for weekday service is approximately \$683,000 per year. After accounting for the annual cost of existing service (approximately \$345,000), an additional \$338,000 in funding (before passenger fare revenue net) would be required to implement Alternative 4. An example schedule is outlined in Table 4-4.

Benefits of this alternative include:

- Provides regional service to multiple areas
- Provides circulation throughout the Gardner-Edgerton area
- Easy to understand and market to potential users
- Provides more direct access to service from Wyandotte County and south Kansas City

Drawbacks of this alternative include:

- Number of trips to Gardner-Edgerton from each location would be limited to three trips in the morning and three trips in the evening
- Elimination of existing Route 595 could adversely affect current users
- Shifts times ending after 5:30 PM are not served
- Service is not provided on weekends
- Relies on highway service for transfers

Figure 4-4: Alternative 4 Alignment

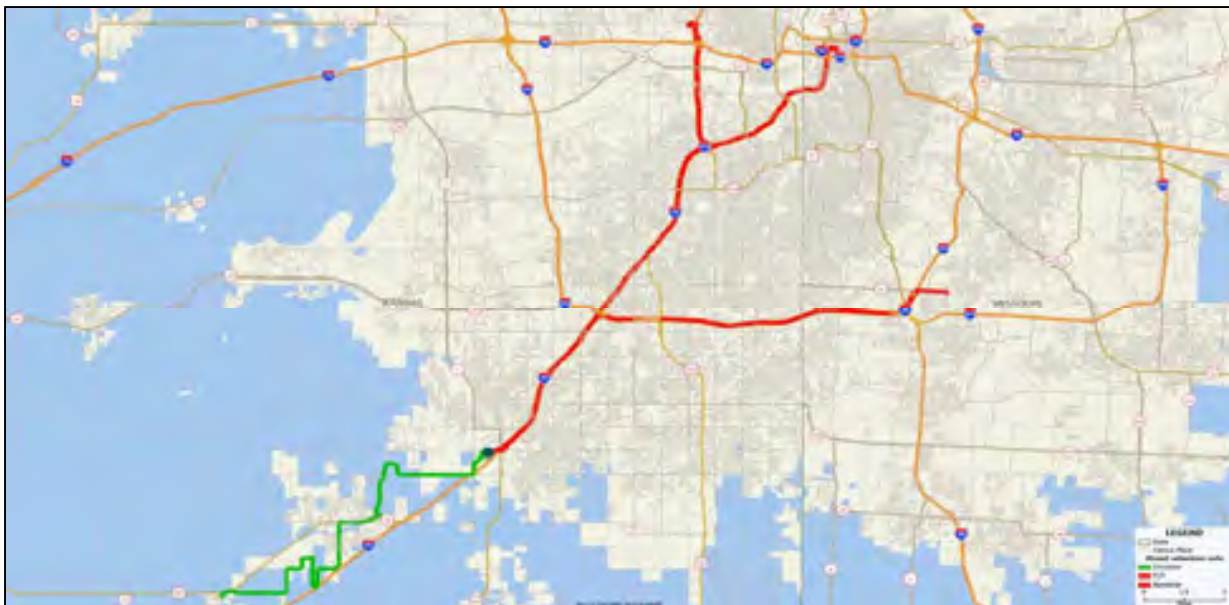




Table 4-4: Alternative 4 Schedule

| Gardner-Edgerton Circulator: AM Inbound | | Gardner-Edgerton Circulator: AM Outbound | |
|--|-----------------------|---|-------------------|
| Downtown Edgerton | Olathe Medical Center | Olathe Medical Center | Downtown Edgerton |
| 6:10 | 7:10 | 5:10 | 6:10 |
| 6:50 | 7:50 | 5:50 | 6:50 |
| 7:30 | 8:30 | 6:30 | 7:30 |
| 8:10 | 9:10 | 7:10 | 8:10 |
| 8:50 | 9:50 | 7:50 | 8:50 |
| Gardner-Edgerton Circulator: PM Inbound | | Gardner-Edgerton Circulator: AM Outbound | |
| Downtown Edgerton | Olathe Medical Center | Olathe Medical Center | Downtown Edgerton |
| 3:00 | 4:00 | 2:00 | 3:00 |
| 3:40 | 4:40 | 2:40 | 3:40 |
| 4:20 | 5:20 | 3:20 | 4:20 |
| 5:00 | 6:00 | 4:00 | 5:00 |
| 5:40 | 6:40 | 4:40 | 5:40 |

| Kansas City, Missouri: AM Outbound | | Kansas City, Missouri: AM Inbound | |
|---|-----------------------|--|--------------------|
| 10th & Main (KCMO) | Olathe Medical Center | Olathe Medical Center | 10th & Main (KCMO) |
| 4:30 | 5:10 | 5:10 | 5:50 |
| 5:10 | 5:50 | - | - |
| 5:50 | 6:30 | - | - |
| 6:30 | 7:50 | - | - |
| Kansas City, Missouri: PM Outbound | | Kansas City, Missouri: PM Inbound | |
| 10th & Main (KCMO) | Olathe Medical Center | Olathe Medical Center | 10th & Main (KCMO) |
| - | - | 4:40 | 5:20 |
| - | - | 5:20 | 6:00 |
| 5:20 | 6:00 | 6:00 | 6:40 |

| Kansas City, Kansas: AM Outbound | | Kansas City, Kansas: AM Inbound | |
|---|-----------------------|--|--------------------|
| 47th & State (KCK) | Olathe Medical Center | Olathe Medical Center | 47th & State (KCK) |
| 4:30 | 5:10 | 5:10 | 5:50 |
| 5:10 | 5:50 | - | - |
| 5:50 | 6:30 | - | - |
| Kansas City, Kansas: PM Outbound | | Kansas City, Kansas: PM Inbound | |
| 47th & State (KCK) | Olathe Medical Center | Olathe Medical Center | 47th & State (KCK) |
| - | - | 4:40 | 5:20 |
| - | - | 5:20 | 6:00 |
| 5:20 | 6:00 | 6:00 | 6:40 |

| South Kansas City: AM Outbound | | South Kansas City: AM Inbound | |
|---------------------------------------|-----------------------|--------------------------------------|-------------------|
| 95th & Blue Ridge | Olathe Medical Center | Olathe Medical Center | 95th & Blue Ridge |
| 4:30 | 5:10 | 5:10 | 5:50 |
| 5:10 | 5:50 | - | - |
| 5:50 | 6:30 | - | - |
| South Kansas City: PM Outbound | | South Kansas City: PM Inbound | |
| 95th & Blue Ridge | Olathe Medical Center | Olathe Medical Center | 95th & Blue Ridge |
| - | - | 4:40 | 5:20 |
| - | - | 5:20 | 6:00 |
| 5:20 | 6:00 | 6:00 | 6:40 |

Comparison of Alternatives

A comparative summary of the four alternatives is presented in Table 4-5. The comparison indicates that Alternatives 1 and 2 provide the highest number of trips to the Gardner-Edgerton area in both the morning and evening commute periods compared to Alternatives 3 and 4. Alternatives 1 and 2 would provide direct access to the Gardner-Edgerton area without the need for a transfer between a highway express route and a circulator route. Alternatives 3 and 4 both involve the development and operation of a circulator route within the Gardner-Edgerton area that would connect to the highway express service(s) in order to provide access to/from other areas within the Kansas City region.

In order for Alternatives 3 and 4 to be feasible from a financial perspective, existing Route 595, which includes a stop to the Oak Park Mall park-and-ride, would need to be eliminated. This could significantly impact the ability of some current Route 595 users to access transit service for commuting into downtown Kansas City, Missouri. For Alternatives 1 and 2, the existing service remains relatively unchanged from the perspective of current users.

Johnson County has budgeted approximately \$300,000 annually for expansion of transit service to the Gardner-Edgerton area. Each of the four alternatives would fall within these cost parameters after accounting for fare revenue.

Table 4-5: Comparison of Alternatives

| Comparison Criteria | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 |
|-------------------------------------|---------------------------------|--|---|---|
| | Expansion of Existing Route 595 | Expansion of Existing Route 595 to Kansas City, Kansas | Expansion of Existing Route 519 with Local Circulator | Reverse Commute Service from Multiple Locations |
| Number of Gardner-Edgerton AM Trips | 6 | 6 | 3 | 3 |
| Number of Gardner-Edgerton PM Trips | 6 | 6 | 3 | 5 |
| Transfers Required | No | No | Yes | Yes |
| Impact to Current Users | Low | Low | High | High |
| Estimated Net Annual Cost | \$305,000 | \$338,000 | \$245,000 | \$338,000 |

CHAPTER 5 | RECOMMENDATIONS

After evaluation and consultation with the project stakeholders, Johnson County officials, and KCATA planning and operations staff it was determined that Alternative 2 represented the most promising strategy for addressing near-term public transit service needs in the Gardner-Edgerton area. Therefore, the following section refines Alternative 2 as the primary service recommendation and offers an additional service recommendation to south Kansas City that was derived from Alternative 4.

Service Recommendations

Primary Service Recommendation

Alternative 2 best addresses the criteria established during the study for transit service. However, this alternative has shortcomings that limit its effectiveness at meeting the needs of potential users, including the inability to provide access to work shift start times earlier than 7:00 AM and the absence of service on weekends. Serving a shift time that begins at 6:00 AM with the proposed alignment and schedule would require the trip to depart downtown Kansas City, Missouri no later than 4:30 AM. Since there are no routes in the current regional transit system that arrive in downtown Kansas City, Missouri by 4:30 AM, this earlier trip would be inaccessible to most potential users.

To address this deficiency, an “express” alignment departing downtown Kansas City, Missouri was developed and added to the route. This trip would operate on a shortened alignment, which would eliminate much of the circulation that the other trips that make up the route provide from downtown Kansas City, Missouri to Crown Center. It would also eliminate the stop at the Oak Park Mall that the rest of the trips would make. This modification to the alignment would allow this express trip to leave downtown Kansas City, Missouri at 5:00 AM and arrive at its end-point at 199th Street and Homestead Lane in 60 minutes, which would provide service for 6:00 AM work start times.

A review of work shift schedules for employers in the Gardner-Edgerton area revealed that some employers operate on a Tuesday through Saturday schedule. Alternative 2, as proposed, would not operate on Saturday and would therefore not effectively serve this work schedule. Simply extending Alternative 2 service to Saturday would not be a particularly effective solution as the proposed service involves expansion of existing Route 595, which provides commute service from southern Johnson County to downtown Kansas City, Missouri on weekdays and would, with the proposed service expansion, serve the dual purpose of providing commute service in both directions Monday to Friday. Extending this service into Saturday would result in excessive service levels as the volume of workers commuting into downtown Kansas City, Missouri on Saturdays is too small to support a public investment in transit. The solution developed for providing transit access to work shifts that occur on Saturday in the Gardner-Edgerton area is to add three morning and three afternoon trips operating the same route alignment that was developed for the early morning weekday trip with no stop at Oak Park Mall. The alignment of this early weekday/Saturday trip is illustrated in Figure 5-1.

To evaluate the effectiveness at serving current work schedules in the Gardner-Edgerton area, an example service schedule was developed that incorporates both the proposed trips described in the initial Alternative 2 concept as well as the early weekday/Saturday trips. This example schedule is outlined in Table 5-1.

Figure 5-1: Modified Alternative 2 Alignment for Early A.M. and Saturday Trips



Table 5-1: Modified Alternative 2 Schedule

| Weekday: AM Inbound | | | | Weekday: AM Outbound | | | |
|---------------------|------------------------|-----------------------|----------------------|----------------------|-----------------------|------------------------|-------------------|
| 199th & Homestead | Oak Park Park-and-Ride | 7th & Minnesota (KCK) | Union Station (KCMO) | Union Station (KCMO) | 7th & Minnesota (KCK) | Oak Park Park-and-Ride | 199th & Homestead |
| 5:00 | 5:45 | - | 6:30 | 5:00 | - | - | 6:00 |
| 5:30 | 6:15 | - | 7:00 | - | 5:30 | 6:15 | 7:00 |
| 6:00 | 6:45 | 7:30 | - | 6:00 | - | 6:45 | 7:30 |
| 6:30 | 7:15 | - | 8:00 | - | 6:30 | 7:15 | 8:00 |
| 7:00 | 7:45 | - | 8:30 | 7:00 | - | 7:45 | 8:30 |
| 7:30 | 8:15 | - | 9:00 | - | 7:30 | 8:15 | 9:00 |
| Weekday: PM Inbound | | | | Weekday: PM Outbound | | | |
| 199th & Homestead | Oak Park Park-and-Ride | 7th & Minnesota (KCK) | Union Station (KCMO) | Union Station (KCMO) | 7th & Minnesota (KCK) | Oak Park Park-and-Ride | 199th & Homestead |
| 3:00 | - | - | 4:00 | - | - | - | - |
| 3:30 | 4:15 | 5:00 | - | 3:30 | - | 4:15 | 5:00 |
| 4:00 | 4:45 | - | 5:30 | 4:00 | - | 4:45 | 5:30 |
| 4:30 | 5:15 | 6:00 | - | - | 4:30 | 5:15 | 6:00 |
| 5:00 | 5:45 | - | 6:30 | 5:00 | - | 5:45 | 6:30 |
| 5:30 | 6:15 | 7:00 | - | 5:30 | - | 6:15 | 7:00 |
| 6:00 | 6:45 | - | 7:30 | 6:00 | - | 6:45 | 7:30 |

| Saturday: AM Inbound | | | | Saturday: AM Outbound | | | |
|----------------------|------------------------|----------------------|-----------------------|-----------------------|----------------------|------------------------|-------------------|
| 199th & Homestead | Oak Park Park-and-Ride | Union Station (KCMO) | 7th & Minnesota (KCK) | 7th & Minnesota (KCK) | Union Station (KCMO) | Oak Park Park-and-Ride | 199th & Homestead |
| - | - | - | - | - | 5:00 | - | 6:00 |
| 6:00 | - | 7:00 | - | 6:00 | - | - | 7:00 |
| - | - | - | - | - | 7:00 | - | 8:00 |
| Saturday: PM Inbound | | | | Saturday: PM Outbound | | | |
| 199th & Homestead | Oak Park Park-and-Ride | Union Station (KCMO) | 7th & Minnesota (KCK) | 7th & Minnesota (KCK) | Union Station (KCMO) | Oak Park Park-and-Ride | 199th & Homestead |
| 3:00 | - | - | 4:00 | - | - | - | - |
| 4:00 | - | 5:00 | - | 4:00 | - | - | 5:00 |
| 5:00 | - | - | 6:00 | - | - | - | - |

A comparison of this service schedule to the work shift times that were identified earlier in the study demonstrate that the modified Alternative 2 service proposal would be effective at serving most of the morning and evening peak period work shifts. As outlined in Table 5-2, shifts in bold red are served at both shift start and shift end times. Shifts in bold black are served at either the shift start or end time.

Table 5-2: Gardner-Edgerton Shift Times

| Firm | Employees | Transit Need | Shift Times |
|--------|---------------|---------------|--|
| Firm 1 | Not Available | Not Available | Tue-Sat 6:00 AM to 2:30 PM Tue-Sat 2:00 PM to 10:30 PM Mon-Fri 10:00 PM to 6:30 AM |
| Firm 2 | 200 | Very High | Mon-Fri 6:00 AM to 2:30 PM Mon-Fri 7:00 AM to 3:30 PM Mon-Fri 3:30 PM to 12:00 AM Sun-Thu 10:30 PM to 7:00 AM |
| Firm 3 | 500 | Very High | 5:00 AM to 3:30 PM 7:00 AM to 3:30 PM 8:00 AM to 4:30 PM 4:00 PM to 2:30 AM |
| Firm 4 | 250 | Moderate | 6:00 AM to 2:30 PM 2:30 PM to 10:30 PM 12:00 AM to 8:30 AM |
| Firm 5 | 1,000 | High | Sun-Sat 7:00 AM to 5:30 PM Sun-Sat 6:00 PM to 4:30 AM |

Source: Logistics Park Kansas City's Human Resources Roundtable, 2017

Shifts in **bold red** are served at both shift start and shift end times.

Shifts in **bold black** are served at either the shift start or end time.

Estimated annual cost for modified Alternative 2 for weekday service is approximately \$726,000 per year. Additional Saturday service would cost approximately \$38,000 per year. After accounting for the annual cost of existing service (approximately \$345,000), an additional \$419,000 in funding (before passenger fare revenue net) would be required to implement modified Alternative 2. This amount does not net out passenger fare revenue that would be received as part of the operation of the service. Conservatively, the fare revenue should cover at least fifteen percent of the total operating cost, or approximately \$63,000. This would leave a net amount of approximately \$356,000 to be funded.

Additional Service Recommendation

While the modified Alternative 2 service proposal has been identified as the preferred alternative for providing transit access to employment opportunities in the Gardner-Edgerton area, an additional service element derived from Alternative 4 has been developed and included as part of an overall near-term preferred alternative strategy. This additional service element involves more direct transit access to Gardner-Edgerton from Blue Ridge Boulevard and Bannister Road in the southern portion of Kansas City, Missouri. A route that would provide this service was identified as part of the package of routes in Alternative 4. However, the route described in Alternative 4 was designed to operate in conjunction with a separate circulator route operating in the Gardner-Edgerton area. In order to develop this

additional service element as part of the overall preferred strategy, this route was redesigned to operate as a stand-alone service providing circulation through the Gardner-Edgerton area. The route alignment is illustrated in Figure 5-2.

The service is designed to provide trips from south Kansas City to Gardner-Edgerton in the morning peak period and trips from Gardner-Edgerton to south Kansas City in the evening peak period only. It is not intended to serve trips in the opposite directions. As such, it would not be cost effective to operate more than three morning peak trips to Gardner-Edgerton and three evening peak trips back to south Kansas City. A service schedule was developed in order to evaluate the effectiveness of the route in serving the current shift times of the Gardner-Edgerton employers. The example schedule is outlined in Table 5-3. As illustrated in the service schedule example, this route would provide access to 6:00, 7:00, and 8:00 AM shift start times and 3:00, 4:00, and 5:00 PM shift end times.

Estimated annual cost for the south Kansas City to Gardner-Edgerton route for weekday service is approximately \$175,000 per year. Additional Saturday service would cost approximately \$35,000 per year. Overall, an additional \$210,000 in funding (before passenger fare revenue net) is required to implement the south Kansas City to Gardner-Edgerton route. Passenger fare revenue should cover at least fifteen percent of the total cost, or approximately \$32,000. This would leave a net amount of approximately \$178,000 to be funded.

Figure 5-2: Modified Alternative 4 Alignment

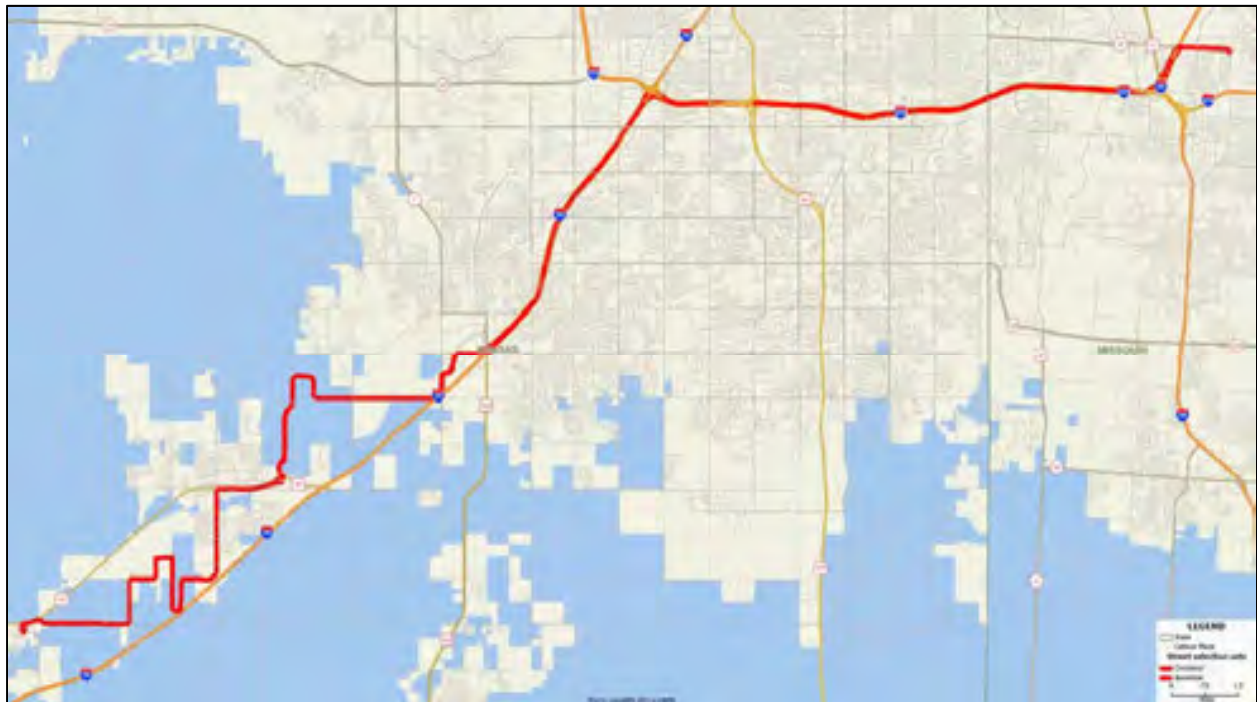


Table 5-3: Modified Alternative 4 Schedule

| AM Inbound | | | AM Outbound | | |
|------------------------|-----------------------|-------------------|-------------------|-----------------------|------------------------|
| Bannister & Blue Ridge | Olathe Medical Center | Downtown Edgerton | Downtown Edgerton | Olathe Medical Center | Bannister & Blue Ridge |
| 4:30 | 5:00 | 5:30 | 5:30 | 6:00 | 6:30 |
| 5:30 | 6:00 | 6:30 | - | - | - |
| 6:30 | 7:00 | 7:30 | - | - | - |
| PM Inbound | | | PM Outbound | | |
| Bannister & Blue Ridge | Olathe Medical Center | Downtown Edgerton | Downtown Edgerton | Olathe Medical Center | Bannister & Blue Ridge |
| - | - | - | 3:00 | 3:30 | 4:00 |
| - | - | - | 4:00 | 4:30 | 5:00 |
| 4:00 | 4:30 | 5:00 | 5:00 | 5:30 | 6:00 |

Summary

The Plan focuses on creating a tailored response to the information gathered through the needs assessment, public and stakeholder engagement, and analysis of transit service alternatives. The primary recommended service alternative involves an expansion of existing Route 595 to include:

- Additional outbound trips alternating from downtown Kansas City, Missouri and downtown Kansas City, Kansas to the Gardner-Edgerton area with a stop at the Oak Park Mall
- A more direct trip from downtown Kansas City, Missouri at 5:00 AM without the circulation through the downtown-Crown Center area and without a stop at Oak Park Mall
- Three additional Saturday trips operating the same alignment as the 5:00 AM weekday trip with two of the trips originating in downtown Kansas City, Missouri and one trip originating in downtown Kansas City, Kansas

Example schedules developed for this service alternative indicate that access to weekday work shifts in the Gardner-Edgerton area beginning at 6:00, 7:00, and 8:00 AM, and ending at 3:00, 4:00, 5:00, and 6:00 PM, and Saturday shift times beginning at 6:00, 7:00, and 8:00 AM and ending at 3:00, 4:00, and 5:00 PM can be effectively served. The total annual cost of this service alternative, including the early weekday trip and the Saturday trips is estimated to be \$726,000. Subtracting the \$345,000 annual cost of existing Route 595 service from the total annual cost of the recommended service alternative yields an annual additional cost over current cost of \$419,000. Assuming a passenger fare cost recovery percentage of fifteen percent, the annual net cost to be funded for the alternative is approximately \$356,000.

An added service element to the near-term service strategy involves the introduction of a new route operating between Bannister Road and Blue Ridge Boulevard in south Kansas City, Missouri and the Gardner-Edgerton area. An example schedule developed for this service alternative indicates that access to Monday through Saturday work shifts in the Gardner-Edgerton area beginning at 6:00, 7:00, and 8:00 AM, and ending at 3:00, 4:00, and 5:00 PM can be effectively served. The total annual cost of this added service element is estimated to be \$210,000. Assuming a passenger fare cost recovery percentage of fifteen percent, the annual net cost to be funded for the alternative is approximately \$178,000.

APPENDIX A | STAKEHOLDER LIST

APPENDIX B | PUBLIC ENGAGEMENT MATERIALS

STAKEHOLDER ADVISORY COMMITTEE MEETING #I

STAKEHOLDER ADVISORY COMMITTEE MEETING #2

STAKEHOLDER ADVISORY COMMITTEE MEETING #3

POP-UP MEETINGS

APPENDIX C | SOCIAL MEDIA COMMENTS

**APPENDIX D | RECOMMENDED ALTERNATIVE ROUTE
ALIGNMENT DETAIL**