

INTEGRATED TRANSIT AND MULTIMODAL STUDY

July 2025

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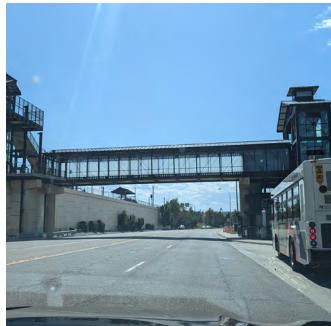
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INTRODUCTION



Introduction

This Douglas County Integrated Transit and Multimodal Study builds on previous planning efforts and provides recommendations for enhancements to the transit and multimodal transportation network throughout the northern portion of the county. The study area includes the urban and suburban locales of Castle Pines, Castle Rock, Highlands Ranch, Lone Tree, and Parker, as seen in **Figure 1**. Other parts of the county are more rural in nature and have lower population and destination densities that may not support the same level of transit and multimodal transportation service in the near-term.

The study:

- Collaborates with municipal partners, organizational partners, and the public,
- Documents existing gaps in the transit and multimodal transportation network,
- Recommends physical and operational improvements,
- Identifies pilot projects to implement, and
- Develops a framework for the sustained enhancement and expansion of transit and multimodal transportation options.

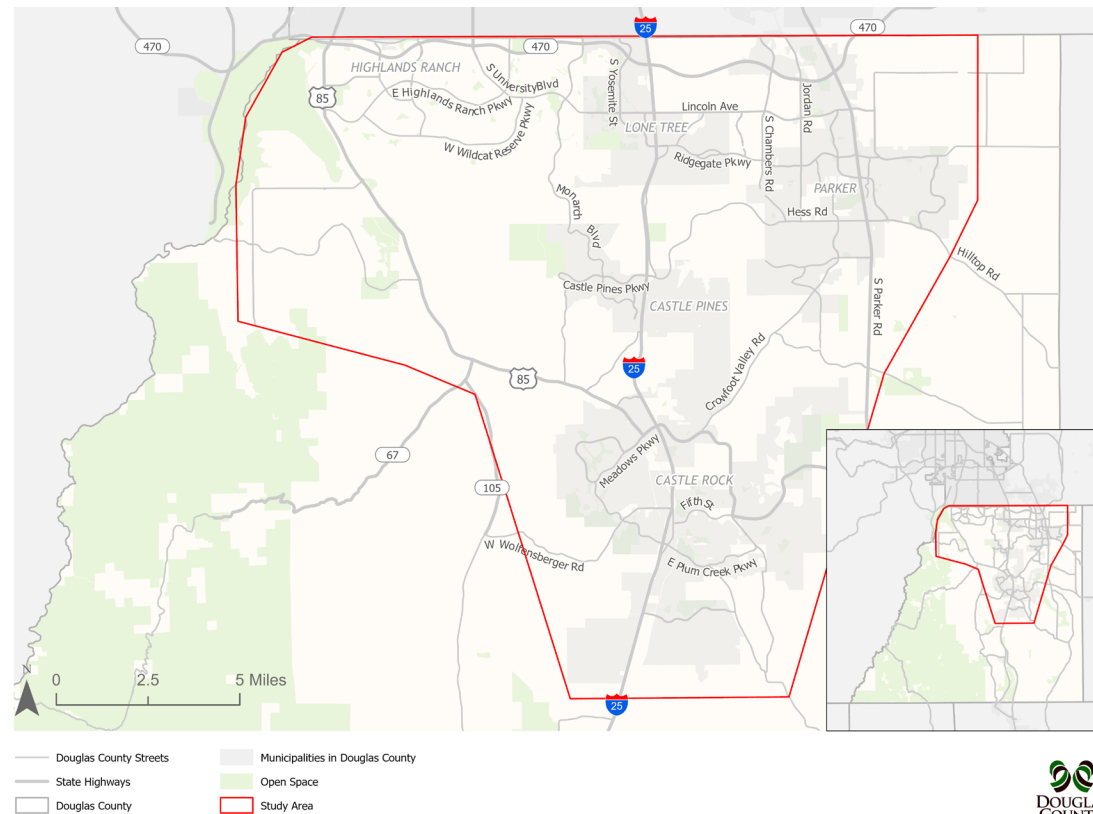


Figure 1: Integrated Transit and Multimodal Study Area

History of Transit Planning in Douglas County

Douglas County is committed to providing “a transportation network comprised of diverse types of transportation facilities, that supports improved access and mobility” per the *2040 Transportation Master Plan*. As part of this vision, Douglas County supports the enhancement of public transit through the coordination and support of existing and future transportation services, and by creating multimodal transportation options. Through its planning work and partnerships with service providers, Douglas County has enabled its residents, visitors, and employees to take advantage of the existing transit services. Transportation needs continue to evolve as the county’s demographic makeup and land-use patterns change, which necessitates the need for new transit services.

Study Process

This study included multiple phases of technical work and community engagement. This process is summarized in **Figure 2**.

Community Benefits of Transit

Transit systems can provide many qualitative benefits for communities and their surrounding areas, and Douglas County is no exception. By improving access to essential services and key destinations such as medical offices, grocery stores, employment areas, parks, recreation centers, and existing transit centers, the community’s quality of life is improved when more mobility options are available. This is especially true for those without access to reliable transportation, such as youth, older adults, and people with limited mobility or mobility assistance devices. There are also community health benefits with increased transit use, including decreased emissions and improved air quality. Transit systems can also enhance the local economy by attracting businesses, stimulating investment near transit centers, giving more commute options, and increasing access to key destinations for residents, employees, and visitors. By focusing the transit opportunities for Douglas County on community needs and quality of life, the resulting benefits go beyond the simple movement of people and vehicles.

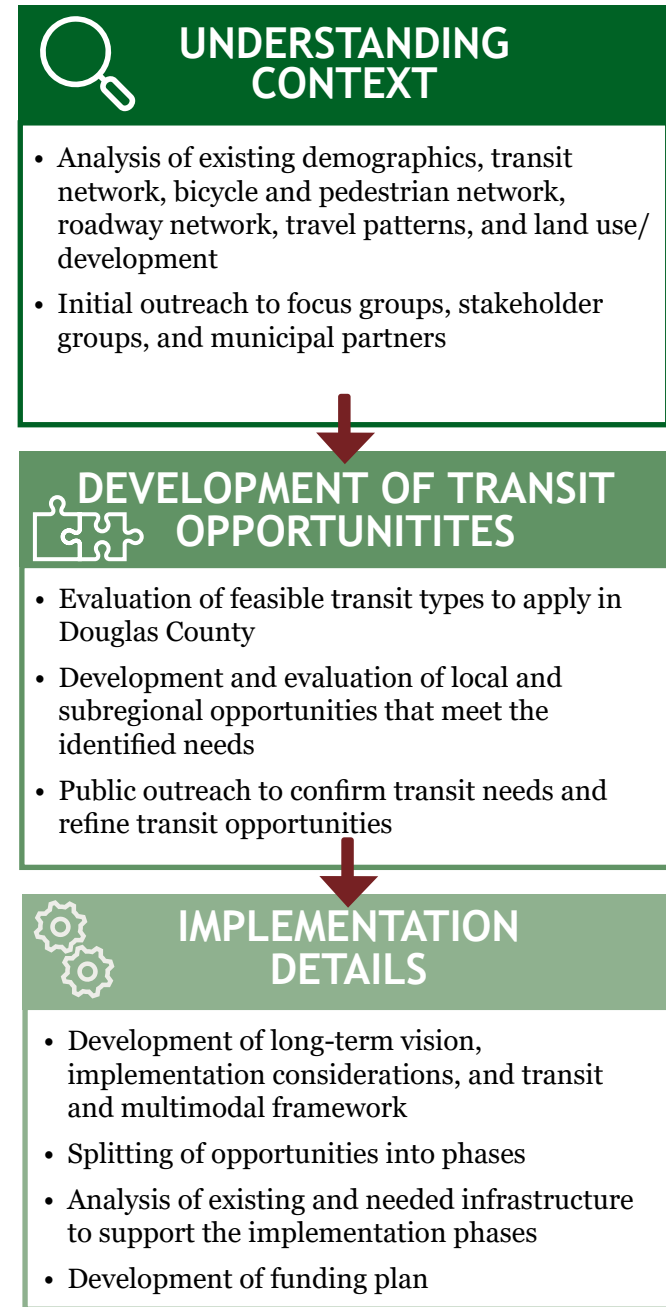


Figure 2: Study Process

Long-Term Vision

In collaboration with its municipalities and partner organizations, transit in Douglas County...

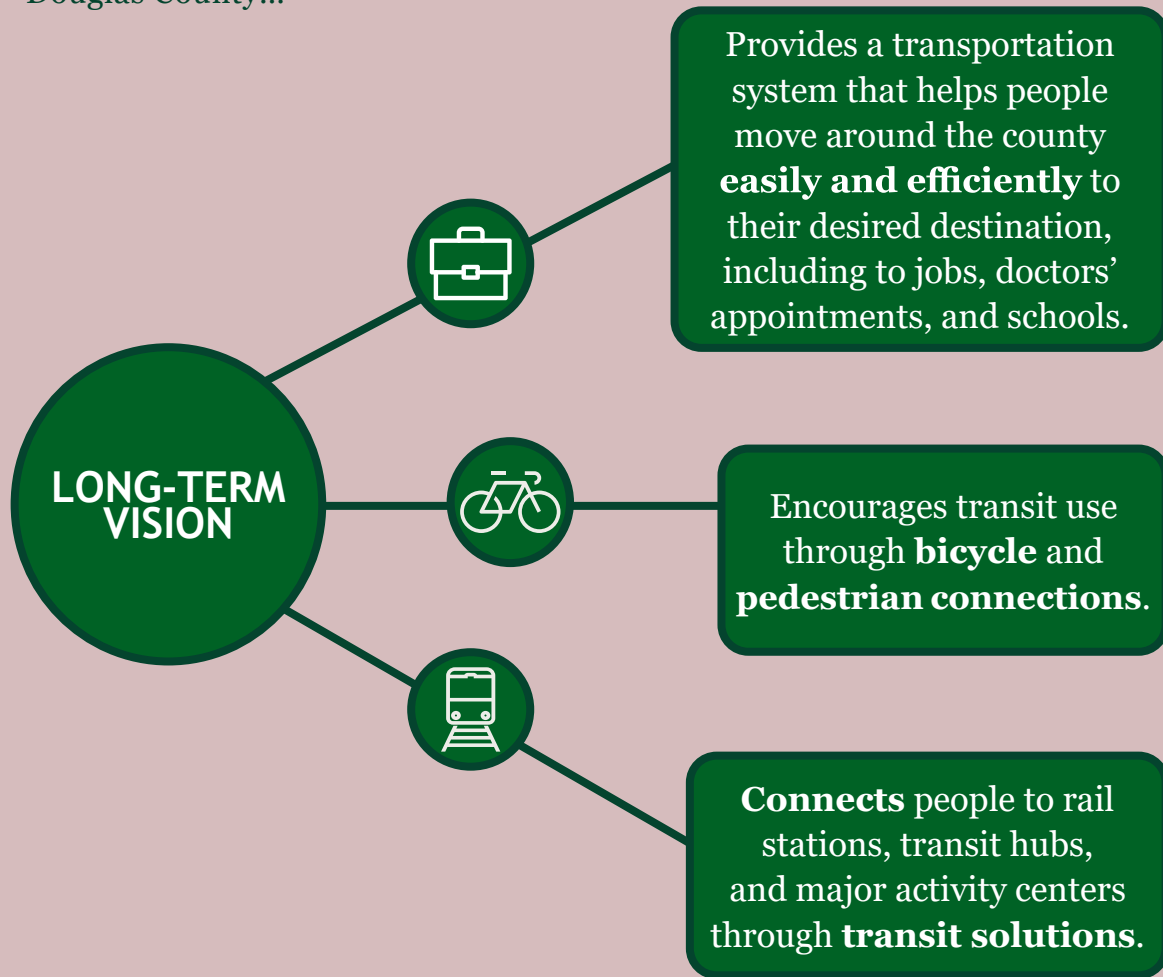
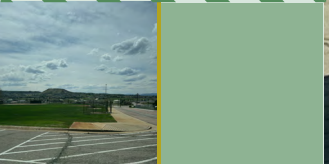
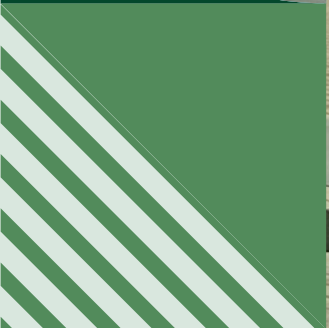
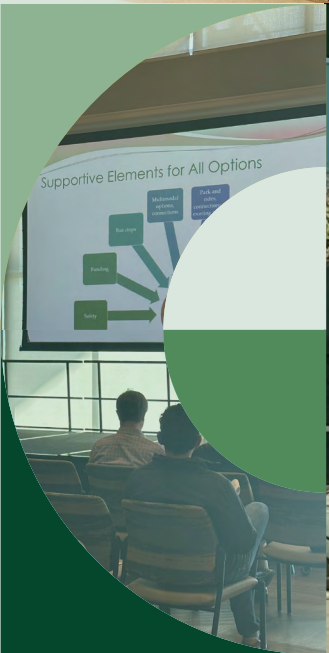


Figure 3: Long-Term Vision



CURRENT CONTEXT & TRAVEL NEEDS



Current Context and Travel Needs

Douglas County's existing transit network includes services provided by the Regional Transportation District (RTD), Link On Demand, and older adult transportation services. Together, these services provide connections throughout Douglas County and beyond. However, there are several gaps in the transit and multimodal network that can be enhanced and improved to better serve the needs of Douglas County's residents, employees, and visitors.

Existing Conditions Technical Analysis

The Existing Conditions Technical Memorandum (**Appendix A**) provides a comprehensive review of previous plans, land use and development trends, demographics, travel patterns, and existing transit, bicycle, pedestrian, and driving networks. Below are the key takeaways from the existing conditions technical analysis.



RTD Light Rail Train. Source: Douglas County

Plan Review

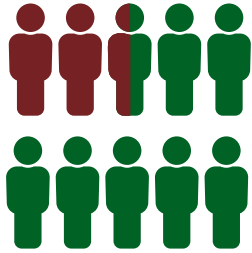
Between Douglas County, the incorporated municipalities, and other regional organizations, a total of 24 relevant plans have been previously developed.

- Comprehensive Transportation Plans (7 plans reviewed) takeaway: Develop long-term multimodal transportation systems for regional connectivity, sustainable growth, and evolving community needs.
- Transit-Specific Plans (4 plans reviewed) takeaway: Enhance transit services through route adjustments, new transit options, and regional integration to improve accessibility and reduce single-occupancy vehicle reliance.
- Bicycle and Pedestrian Plans (4 plans reviewed) takeaway: Create safe, connected networks for cyclists and pedestrians, focusing on accessibility to key destinations and integration with other transit modes.
- Open Space and Greenways Plans (2 plans reviewed) takeaway: Preserve natural areas, develop recreational trails, and establish green corridors to improve residents' quality of life with accessible green spaces.
- Corridor and Area-Specific Plans (4 plans reviewed) takeaway: Address transportation challenges within specific areas to create efficient, multimodal networks supporting economic vibrancy and sustainable development.
- First and Last Mile Connectivity Plans (3 plans reviewed) takeaway: Improve multimodal transportation and connectivity to transit services, focusing on increasing ridership and ensuring seamless travel for commuters.

Demographic Review

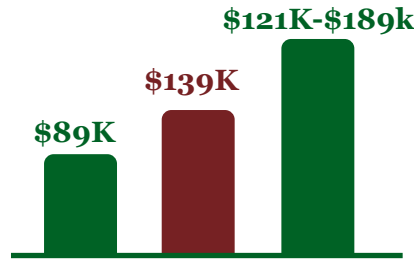
The population within the study area at the time of the 2020 Census was 260,116 or a little more than 70% of the population of Douglas County. Highlights of the demographic review are below; more demographic data can be found in **Appendix B**.

RACE AND ETHNICITY (Non-White Population)



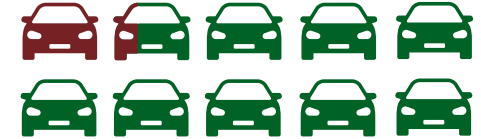
Douglas County Average: 26%
 Study Area Range: 23-31%
 Colorado Average: 34%

MEDIAN HOUSEHOLD INCOME



Douglas County Average: \$139K
 Study Area Range: \$121k-189k
 Colorado Average: \$89k

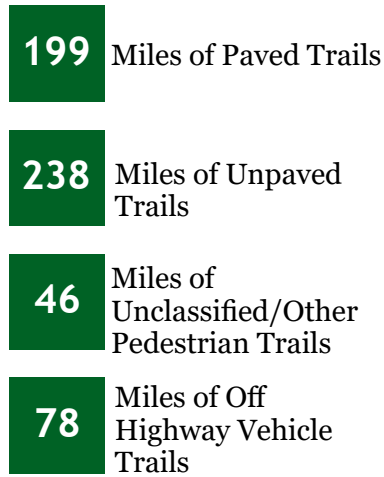
LIMITED VEHICLE AVAILABILITY (One or No Vehicle Households)



Douglas County Average: 13%
 Study Area Range: 9-26%
 Colorado Average: 20%

Pedestrian and Bike Network

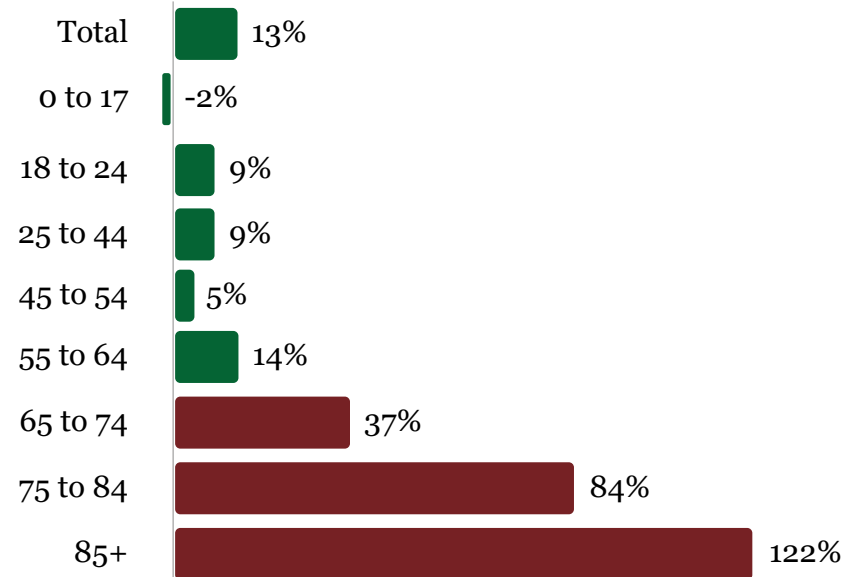
PEDESTRIAN AND MULTIUSE TRAILS



BIKE NETWORK



POPULATION GROWTH BY AGE (2022 - 2032)



Bus Routes and Stops in Study Area

2 Light Rail Routes (E & R)
5 Stations

37K Link on Demand Rides in 2023
28% Increase from 2022

5 Bus Routes

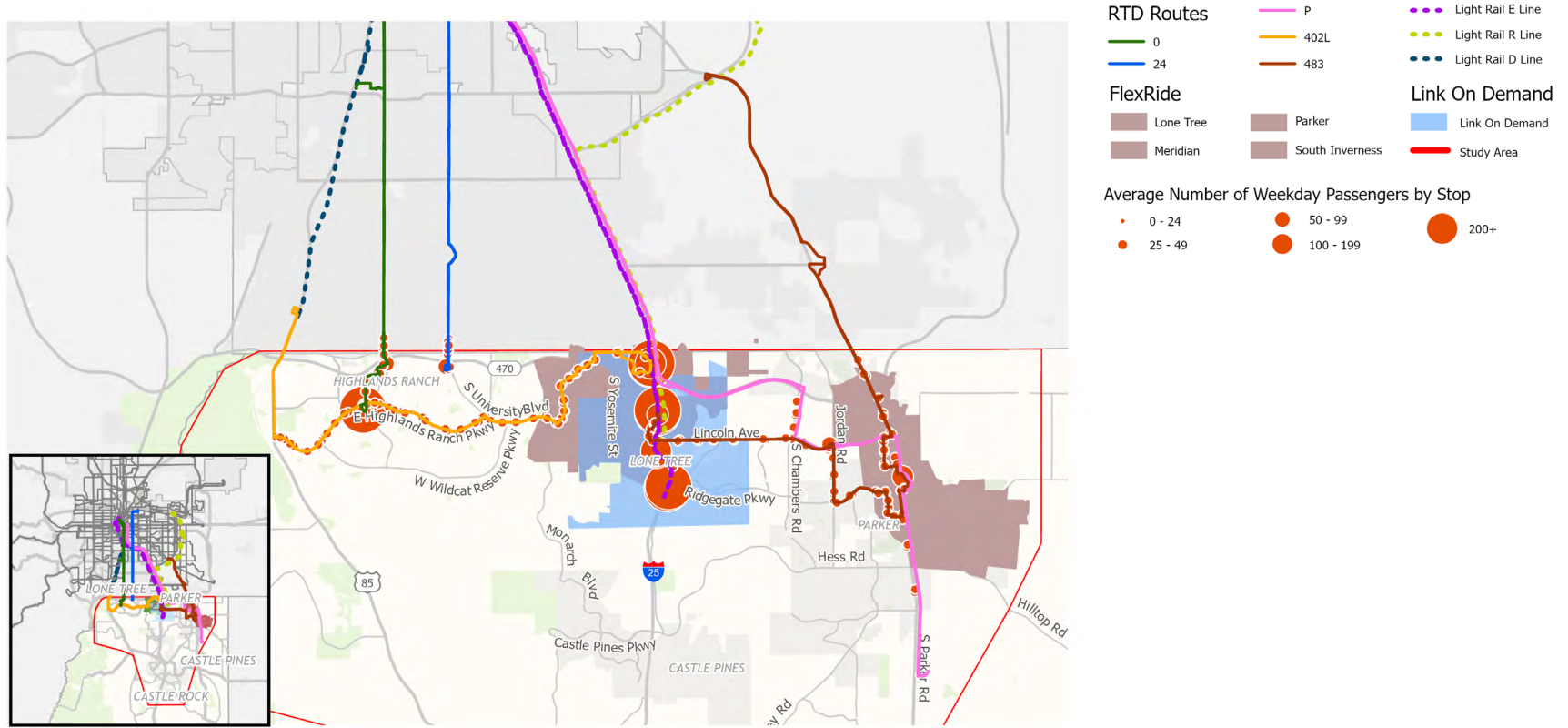
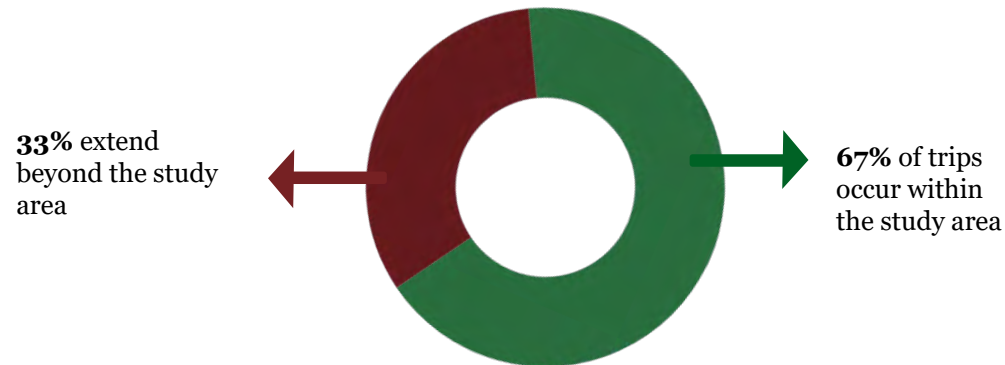


Figure 4: Bus Routes and Stops in Study Area

- The study area includes RTD, Link On Demand, and older adult transportation services.
- Two light-rail routes, E and R, have stops in Douglas County, with key stations including Lincoln Station, RidgeGate Parkway Station, and County Line Station. The D Line stops just outside of the study area at the Littleton/Mineral Station, which likely also serves Douglas County residents and visitors
- Five bus routes, 0, 24, 402L, 483, P, have stops in Douglas County, with key stops including Highlands Ranch Town Center Park-n-Ride Gate B, Park Meadows Pedestrian Bridge, C-470 & University Park-n-Ride Gate B.
- The county through its jurisdictions supports microtransit services like FlexRide and Link On Demand with dedicated funding and resource allocation.
- The Link On Demand service experienced a 28% increase in rides from 2022 to 2023, showing growing demand for the service.

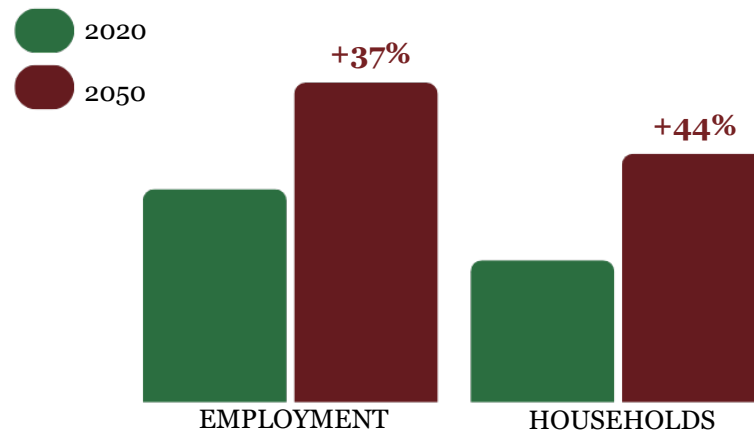
Travel Patterns

- 67% of vehicle trips occur within the study area, whereas 33% of trips extend beyond the study area.
- When looking at trips with destinations outside of the study area, approximately 40,500 have destinations in Centennial, 35,000 have destinations in East Douglas County, and 30,000 have destinations in Denver.



Land Use and Development

- Based on forecasts from the DRCOG model, employment in the study area is projected to grow by 37% between 2020 and 2050, and total households are projected to grow by 44% between 2020 and 2050.



Travel Markets

Primary transit travel markets are groups with common demographic characteristics and trip types who may benefit the most from an enhanced transit system.

- Key travel markets to reach in Douglas County include older adults, young users, individuals and families with lower incomes, people with limited access to a vehicle, people with limited mobility or mobility assistance devices, commuters and service workers, and the work from home population.
- Trip types to accommodate include regional travel, school-related trips, first/last mile access, and short community-based trips.

Initial Public and Stakeholder Outreach

At the beginning of the study, the project team developed a Communications and Engagement Plan that outlined a process to involve and engage with stakeholders and the public to meet the study’s goals and objectives. Inclusive, effective, and sequenced public and stakeholder engagement were a priority for the study and a consideration in all project activities.

This section summarizes the tactics and outcomes of the study’s initial public engagement efforts that helped inform the alternatives and final outcomes. Further details about each engagement effort can be found in **Appendix C**.

Stakeholder Engagement

Three key stakeholder groups were convened throughout the project to receive updates and provide input to the project team, as detailed in **Table 1**.

Table 1: Stakeholder Engagement Groups and Meetings

Group	Members	Meetings
Project Management Team	Douglas County, City of Castle Pines, Town of Castle Rock, Highlands Ranch Metro District, City of Lone Tree, and Town of Parker	Met monthly
Stakeholder Engagement Team	PMT members and Arapahoe County, Front Range Passenger Rail District, DRCOG, CDOT, and RTD	Four meetings throughout the project
Douglas County Transportation Forum	Convened by DRCOG with jurisdictions, key transit providers, and community groups	Six presentations throughout the project

Focus Groups

The project team held four focus groups in October 2024 to gather input from representatives of organizations serving people who may benefit from new transit projects. The discussion themes informed service planning.

The focus groups (**Figure 5**) addressed the specific needs of vulnerable populations, older adults, youth, and commuters and business interests. Participants expressed excitement about the initial opportunities identified to help fill the transit gaps in Douglas County. Additional transit options were viewed positively for improving the quality of life for people in Douglas County and allowing them to access critical services, commute to their jobs, and better connect them to where they need to go. Participants emphasized that while different needs exist for different populations, all the transit options need to be safe, reliable, convenient, and comfortable. Projects should be free or low-cost to incentivize ridership.



Figure 5: Focus Group Structure. Source: Kearns & West

Stakeholders

Additionally, the project team conducted stakeholder interviews with municipal partners, who expressed community needs for a transit system which is:

- Responsive to demand
- Connected to all modes
- Targeted and smaller than RTD
- Branded and marketed in a way that embodies the local community
- Incentivized to build ridership
- Free, accessible, and reliable
- Helpful in addressing roadway congestion
- Supportive of trips to regional destinations

Fact Sheets

Two fact sheets (**Appendix D**) were developed to clearly communicate key aspects of the study with the public, stakeholders, and decisionmakers. The first fact sheet provided an overview of the study's purpose, goals, and timeline; engagement opportunities; project website information; and ways for the public to stay updated.

The second fact sheet summarized current transit conditions and demographic data in Douglas County. The existing conditions highlighted on this fact sheet include current bus routes, pedestrian trails, and the county's bicycle network. The fact sheet also provided an overview of population growth, changes in land use, commuting patterns, and general travel patterns throughout the county.

TRANSIT TYPES



LOCAL TRANSIT SOLUTIONS: Microtransit

Microtransit offers a dynamic, on-demand, door-to-door (or corner-to-corner) service where passengers can request trips through an app or phone call to a dispatch center to travel between any two points within a designated zone. Response times (also known as trip fulfillment time or wait time from when a trip request is made to when a passenger is picked up) range from 10 to 30 minutes or less, providing a convenient and responsive option for local transportation needs. Microtransit ideally combines trips dynamically in real time with multiple passengers in the same vehicle – this can result in longer travel times than a comparable trip by private auto. Trip distances are typically two to four miles one-way.

Microtransit typically uses small passenger vans, SUVs, or minivans, as shown in **Figure 6**. A portion of the fleet is accessible to individuals in wheelchairs or those using mobility devices. This service is particularly effective for short local trips and serves as an ideal first- and last-mile connection. One example of microtransit is the City of Lone Tree's Link On Demand service, with the service area pictured in **Figure 7**.



Figure 6: Link On Demand Microtransit Service Vehicle



ADVANTAGES

- ✓ Highly convenient and responsive to riders
- ✓ Offers flexibility for different trip purposes and connections
- ✓ Zones are adaptable and changeable over time
- ✓ More cost-effective for serving low- to mid-density, dispersed areas connecting to mid-density commercial areas
- ✓ Can attract new riders who do not ride fixed route transit service but are willing to try on-demand services



DISADVANTAGES

- ✗ Operating costs are higher than fixed route transit services on a cost per passenger basis
- ✗ As ridership goes up, more vehicles or larger vehicles may be required to serve the same area
- ✗ Not necessarily a tool to reduce traffic or greenhouse gas emissions
- ✗ As trip distances go up, performance and effectiveness go down
- ✗ Microtransit typically can only serve 2.5 to 5 passengers per vehicle service hour (productivity)
- ✗ Not well suited to peak periods of demand when passenger demand can exceed the capacity of the system
- ✗ When trying to combine trips to improve effectiveness of service, travel times for riders go up

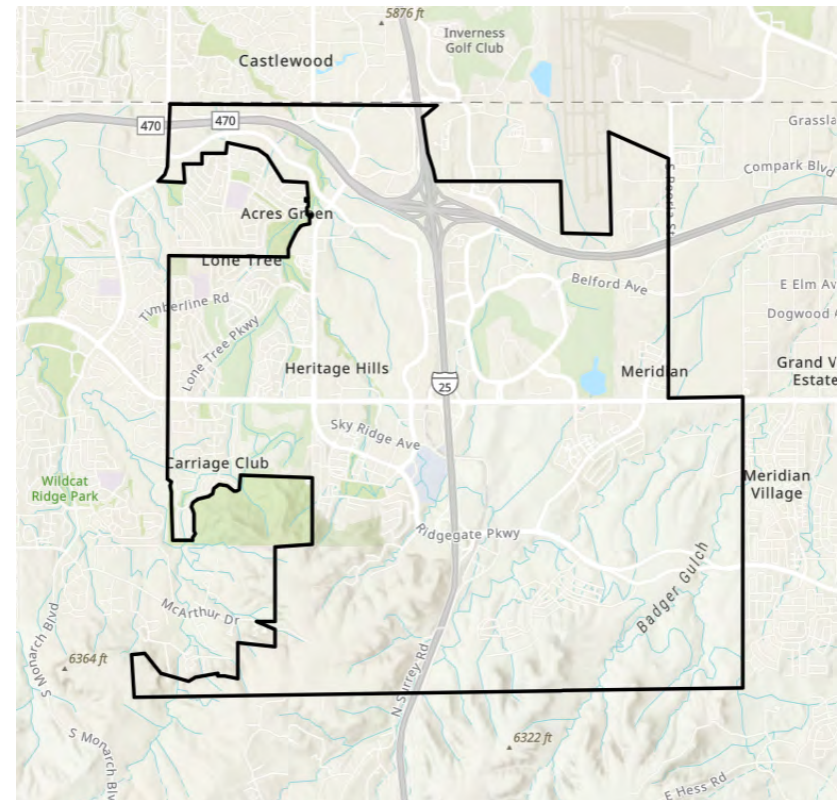


Figure 7: Link On Demand Service Area

SUBREGIONAL TRANSIT SOLUTION: Subregional Fixed Route

Subregional fixed route services offer simple, direct routes that connect key destinations across longer distances (typically five or more miles one-way), providing connections between different communities. The frequency of service can be adjusted based on the time of day or day of the week, offering flexibility to meet demand. These services can also be tailored to specific groups, such as commuters, medical patients, or shoppers. Often paired with park-n-ride facilities, subregional fixed routes aim to provide travel times that are competitive with driving a private vehicle. This type of service is ideal for regional trips where time is a critical factor, such as getting to work, school, or medical appointments. One example of a subregional fixed route is Greeley Evans Transit's Poudre Express service, which connects Greeley, Windsor, and Fort Collins, as seen in **Figure 10** and **Figure 11**.



Figure 10: Greeley Evans Transit Poudre Express Subregional Fixed Route Service

ADVANTAGES

- ✓ Typically provides frequent service during peak times
- ✓ Faster travel times with limited stops and direct connections
- ✓ Consistent on-time performance
- ✓ Does not typically require additional expense of complementary paratransit
- ✓ Only needs to run when demand is highest
- ✓ Vehicles are typically larger buses that can accommodate up to 25 or more passengers

DISADVANTAGES

- ✗ With limited stops, passengers must walk, bike, or drive to a stop
- ✗ Typically provides lower frequencies (or no service at all) during off-peak times
- ✗ Requires a trade-off between providing service to outlying areas and increasing frequency of service to major destinations
- ✗ Often requires a transfer to/from other transportation modes to make connections to final destinations
- ✗ Requires establishment of transit stops and associated passenger amenities, which can be costly

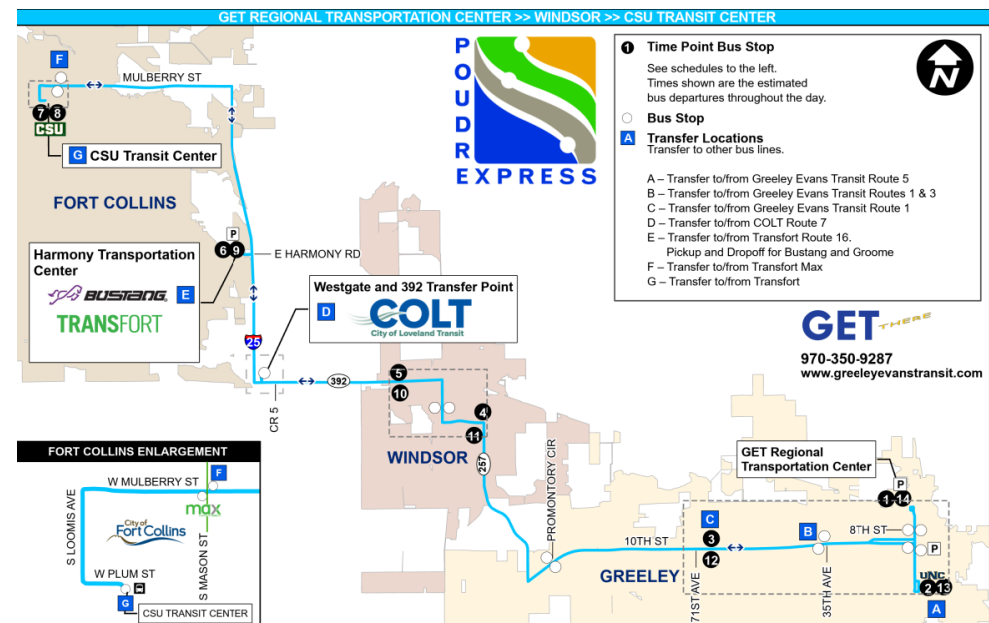
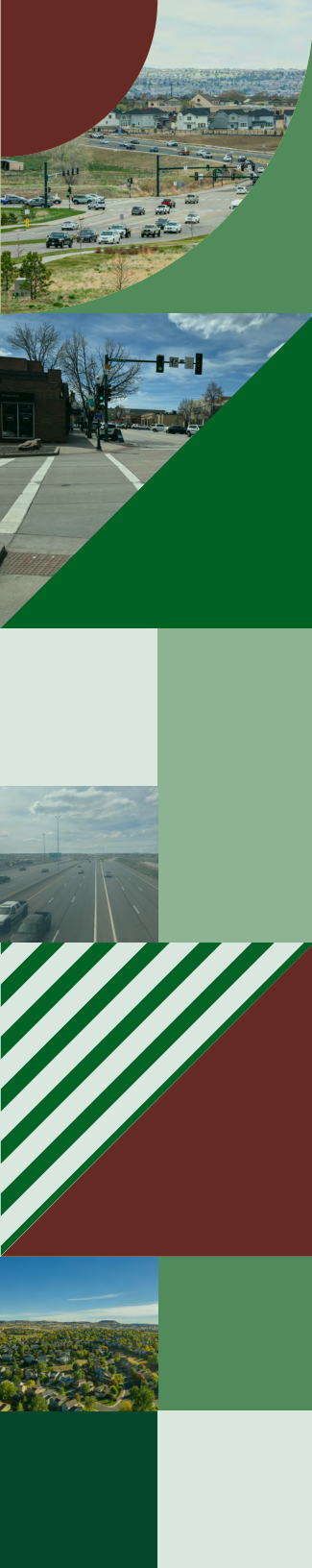


Figure 11: Map of Poudre Express Route

TRANSIT OPPORTUNITIES



Transit Types for Douglas County

Knowing that local transit solutions include microtransit and local circulators, and the subregional transit solutions include subregional fixed routes, the project team identified the areas and routes for these solutions as displayed in **Table 2**. Once they were identified, these opportunities were refined and solidified through technical analysis and input from the public and stakeholders. Five opportunities, marked by an asterisk in the table, were identified as opportunities for the long-term or that already exist, so they were not as fully developed compared to other opportunities. This section details the opportunities that the study fully analyzed. Service characteristics (such as frequency, response times, service hours and days) were created to align to the study goals and input received from stakeholders about what would make a transit system successful. The resulting vehicle needs, costs, and ridership estimates were based on peer transit services throughout the Denver region.

Table 2: Transit Opportunity Areas and Connections

Local Transit (Microtransit or Local Circulator) Opportunity Areas	Subregional Transit Opportunity Connections
City of Castle Pines*	Lone Tree to Castle Rock via Parker
Town of Castle Rock	Lone Tree to Castle Rock via Castle Pines
Highlands Ranch Metro District	Highlands Ranch to Parker via Lone Tree
City of Lone Tree*	Highlands Ranch to Castle Rock via Sedalia*
Town of Parker	Highlands Ranch to Sterling Ranch*
Sterling Ranch Community*	

Local Transit Opportunity Areas

Local transit options were considered in detail for Highlands Ranch, the Town of Parker, and the Town of Castle Rock. For some of the transit options, there were multiple iterations with various levels of coverage and routing. These iterations can be found in **Appendix E**, while this section details the evaluated transit opportunities.

HIGHLANDS RANCH MICROTRANSIT

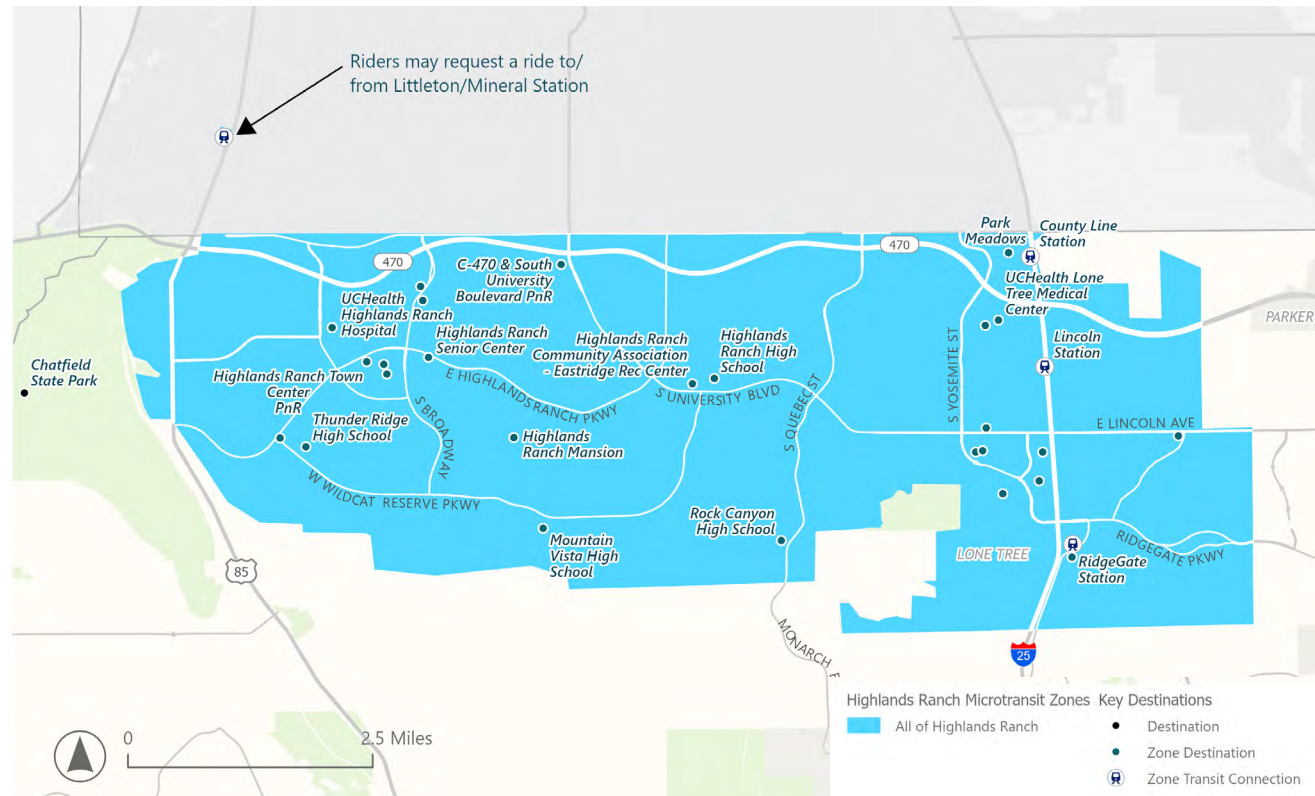


Figure 12: Entirety of Highlands Ranch Microtransit Zone

Service Characteristics

- 20- to 30-minute response time
- Service hours and days
 - Monday - Thursday 7AM to 7PM
 - Friday 7AM to 10PM
 - Saturday 10AM to 10PM
- \$2.1M to \$2.4M per year (free to the rider)
- 130 to 280 rides per day
- 24 square miles
- 6 vehicles at peak hours

Key Destinations

- 4 high schools
- 4 RTD transit stations/park-n-rides
- 5 recreation centers
- 2 major medical facilities
- 1 senior center

Description

The study investigated a variety of microtransit zone configurations to balance coverage, travel needs, and operating costs within Highlands Ranch, which has the largest concentration of the County’s population.

Through technical analyses and discussions with the public and elected officials, microtransit was identified as the best service type to serve Highlands Ranch as it can connect with existing services, including Link On Demand and FlexRide, and it can enhance connectivity and integrate the overall transit experience through the county.

Although the study considered various zone configurations, **Figure 12** displays the one that was evaluated against all other transit options. This microtransit zone configuration encompasses the entirety of Highlands Ranch and Acres Green, providing service to both the Littleton/Mineral Light Rail Station and the County Line Road Light Rail Station. Riders would be able to request a ride from any zone to either light rail station.

Note: This proposed microtransit zone evolved into the May 2025 expansion of Link On Demand which provides service between Highlands Ranch, Acres Green, Lone Tree, and Meridian.

PARKER MICROTRANSIT AND LOCAL CIRCULATOR: Microtransit

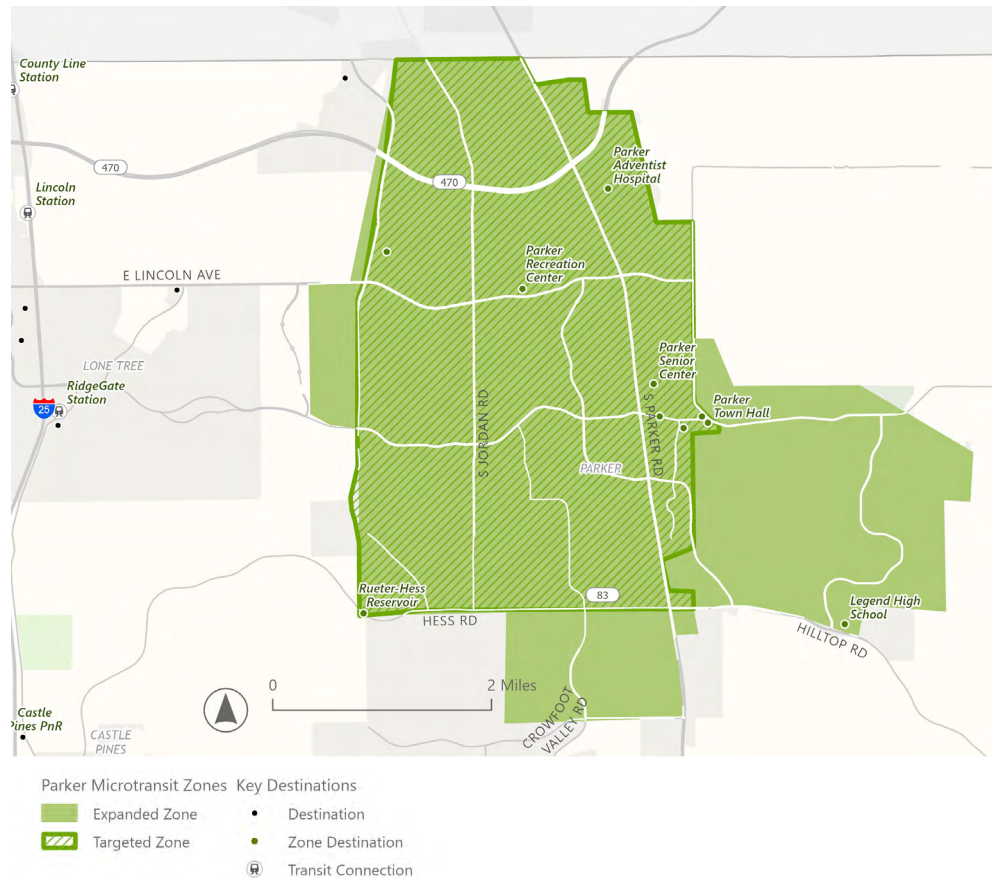


Figure 13: Parker Microtransit Zones

Description

There is an opportunity to serve the transit need for enhanced local transit services within the Town of Parker. There are two versions for the Parker microtransit with a targeted zone and an expanded zone, as shown in **Figure 13**. Depending on implementation factors, both are viable options, but there are tradeoffs between coverage, efficiency, and cost between the two options.

Key Destinations

- 2 high schools
- 2 RTD transit stations/park-n-rides
- 1 major medical facility
- 1 recreation center
- 1 senior center

Service Characteristics

Service Characteristics	Targeted Zone	Expanded Zone
Response Time	20- to 30-minutes	20- to 30-minutes
Service Hours and Days	Monday through Thursday 7AM to 7PM Friday 7AM to 10PM Saturday 10AM to 10PM	Monday through Thursday 7AM to 7PM Friday 7AM to 10PM Saturday 10AM to 10PM
Cost	\$1.1M to \$1.3M per year (free or low cost to rider)	\$2.1M to \$2.3M per year (free or low cost to rider)
Ridership	130 to 180 rides per day	150 to 325 rides per day
Square Mileage	14 square miles	21 square miles
Number of Vehicles at Peak Hours	3	6

PARKER MICROTRANSIT AND LOCAL CIRCULATOR: Local Circulator

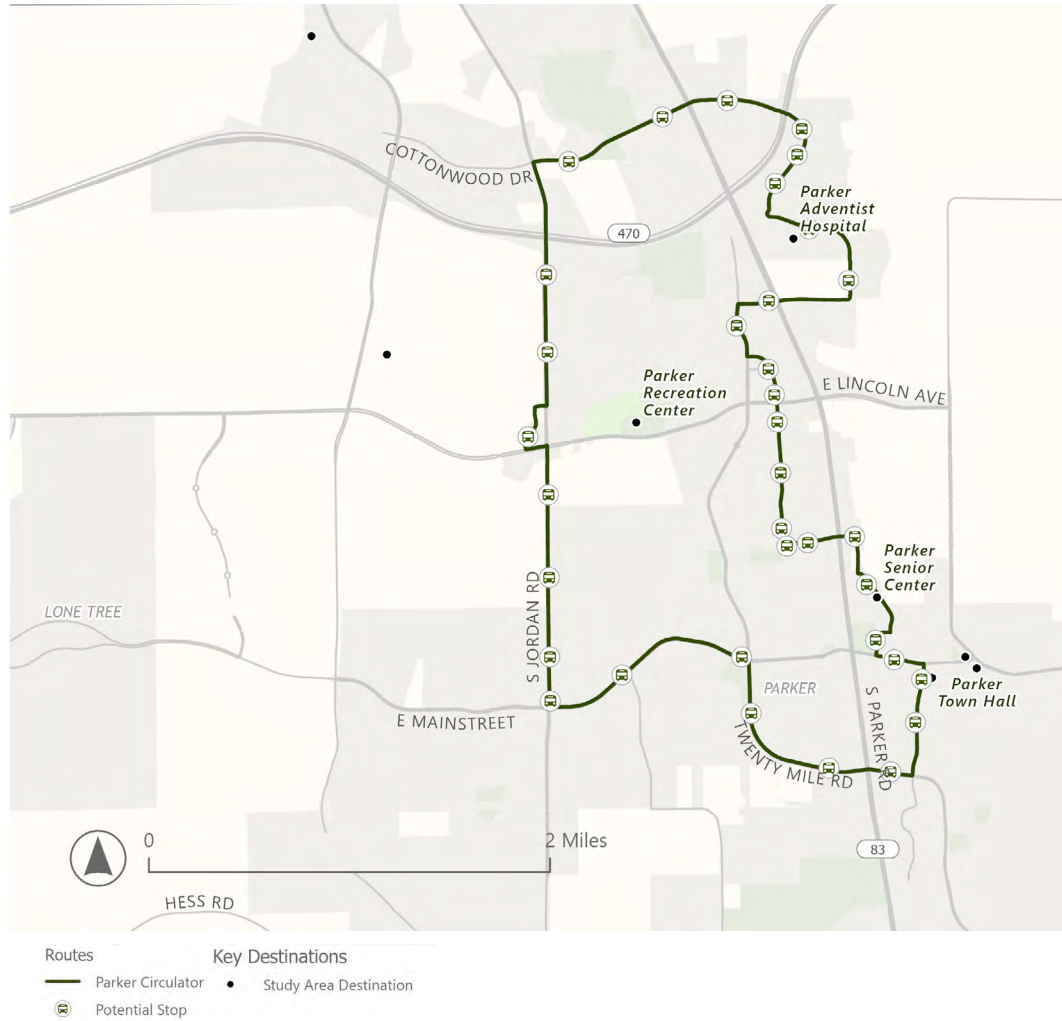


Figure 14: Parker Local Circulator

Description

Shown in **Figure 14**, Parker could also explore a local circulator. The routing shown is the outcome of an iterative process with the town staff where options to provide more or less service to other parts of Parker were considered. This routing emphasizes connection throughout the core areas of Parker with a mix of residential, commercial, medical, and recreational destinations. This circulator will likely need additional ADA service, however, most of Parker is currently covered by RTD's Access a Ride, which could mean the additional cost is minimal.

Service Characteristics

- 30-minute frequencies for peak service and 60-minute frequencies for off-peak
- Approximately 14 hours of service per day for 6 days per week
- \$900K - \$1.1M per year (free or low cost to rider)
- 160 to 240 rides per day
- 2 vehicles at peak hours and 1 vehicle at off-peak hours
- Would likely need additional ADA service at an additional annual cost.

Key Destinations

- 2 RTD transit stations/park-n-rides
- 1 major medical facility
- 1 senior center

CASTLE ROCK MICROTRANSIT AND LOCAL CIRCULATOR: Microtransit

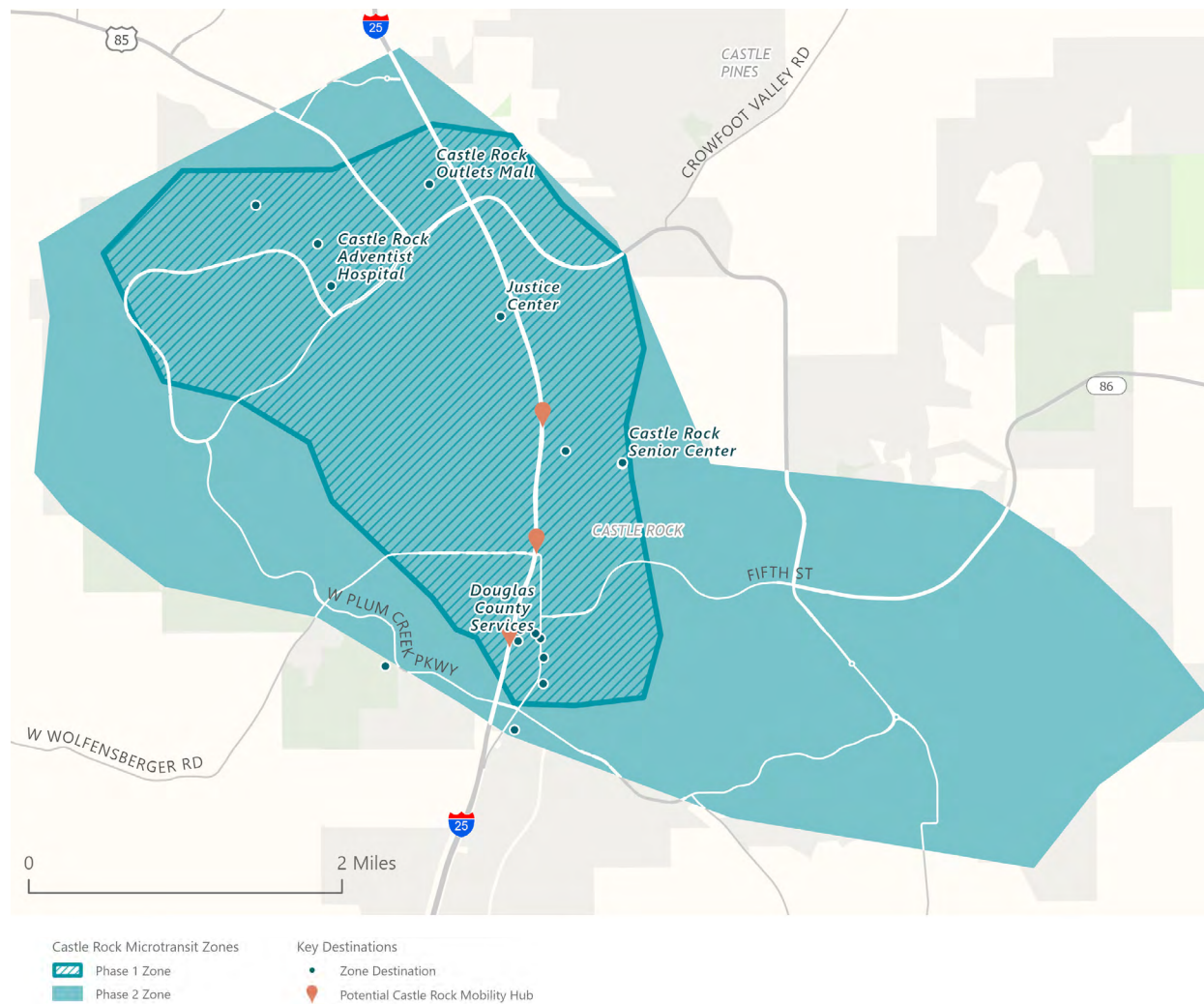


Figure 15: Castle Rock Microtransit Zones

Description

The microtransit zones, Phase 1 and Phase 2, were identified in the 2020 Castle Rock Transit Feasibility Study, and are shown in **Figure 15**. Like with the Parker microtransit options, there are tradeoffs with pursuing the different configurations.

Service Characteristics (for Phase 2 Zone)

- 20- to 30-minute response time
- Approximately 14 hours of service per day for 6 days per week
- \$2.1M - \$2.3M per year (free or low cost to rider)
- 100 to 230 rides per day
- 20 square miles
- 5 vehicles at peak hours

Key Destinations

- 1 major medical facility
- 3 high schools/colleges
- 1 recreation center
- 1 senior center
- 1 county services building
- 3 proposed mobility hubs

CASTLE ROCK MICROTRANSIT AND LOCAL CIRCULATOR: Local Circulator

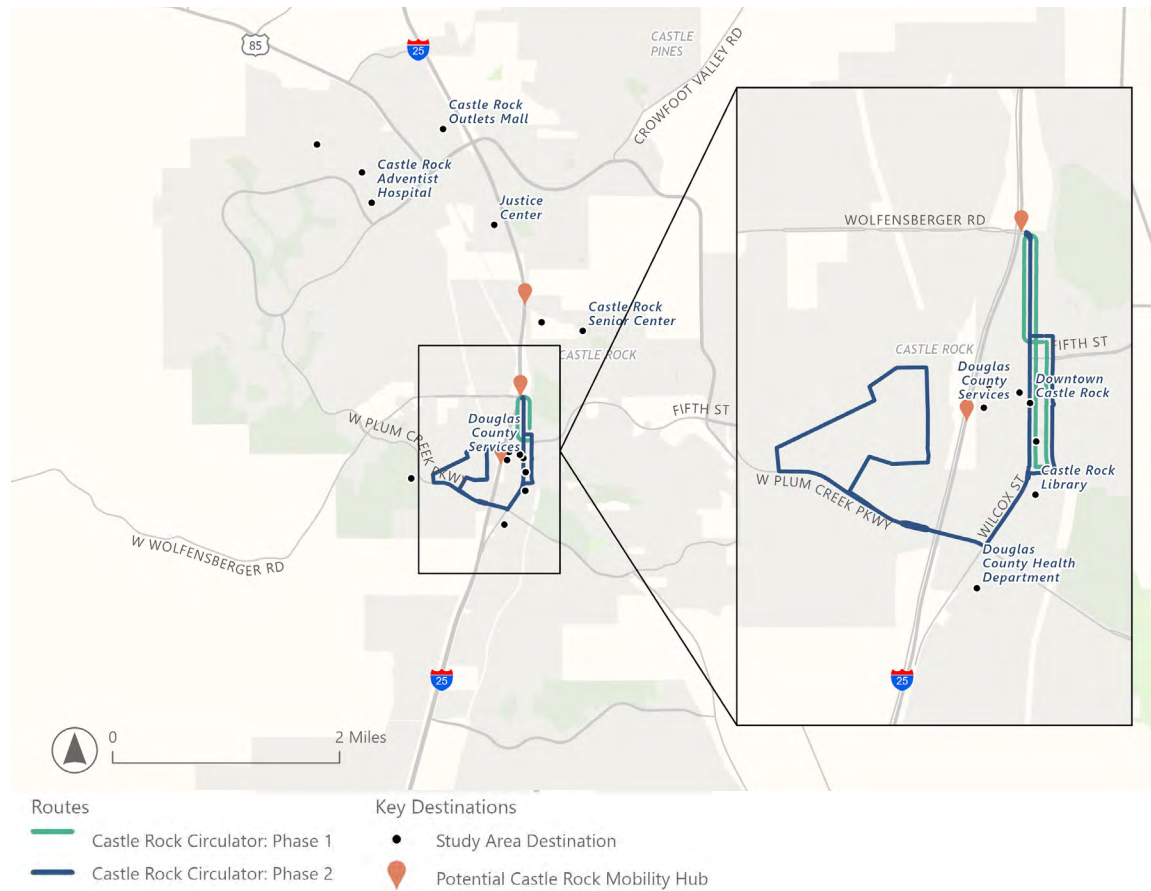


Figure 16: Castle Rock Local Circulator

Description

The design for this circulator, pictured in **Figure 16** was planned for the 2019 Castle Rock Downtown Mobility Plan, split into Phase 1 and Phase 2 service deployment. The second phase would be dependent on the development occurring on the western side of town.

Service Characteristics (for Phase 2 Route)

- 15-minute frequencies for peak service and 30-minute frequencies for off-peak
- Approximately 14 hours of service per day for 6 days per week
- \$900K - \$1.1M per year (free or low cost to rider)
- 160 to 240 rides per day
- 2 vehicles at peak hours and 1 vehicle at off-peak hours
- Would likely need additional ADA service at an additional annual cost.

Key Destinations

- 1 county services building
- Downtown Castle Rock destinations

Subregional Transit Opportunity Connections

Subregional transit options were considered in detail in connecting the study area through three different routes, connecting Highlands Ranch, Lone Tree, Parker, Castle Pines, and Castle Rock.

HIGHLANDS RANCH TO PARKER VIA LONE TREE SUBREGIONAL FIXED ROUTE

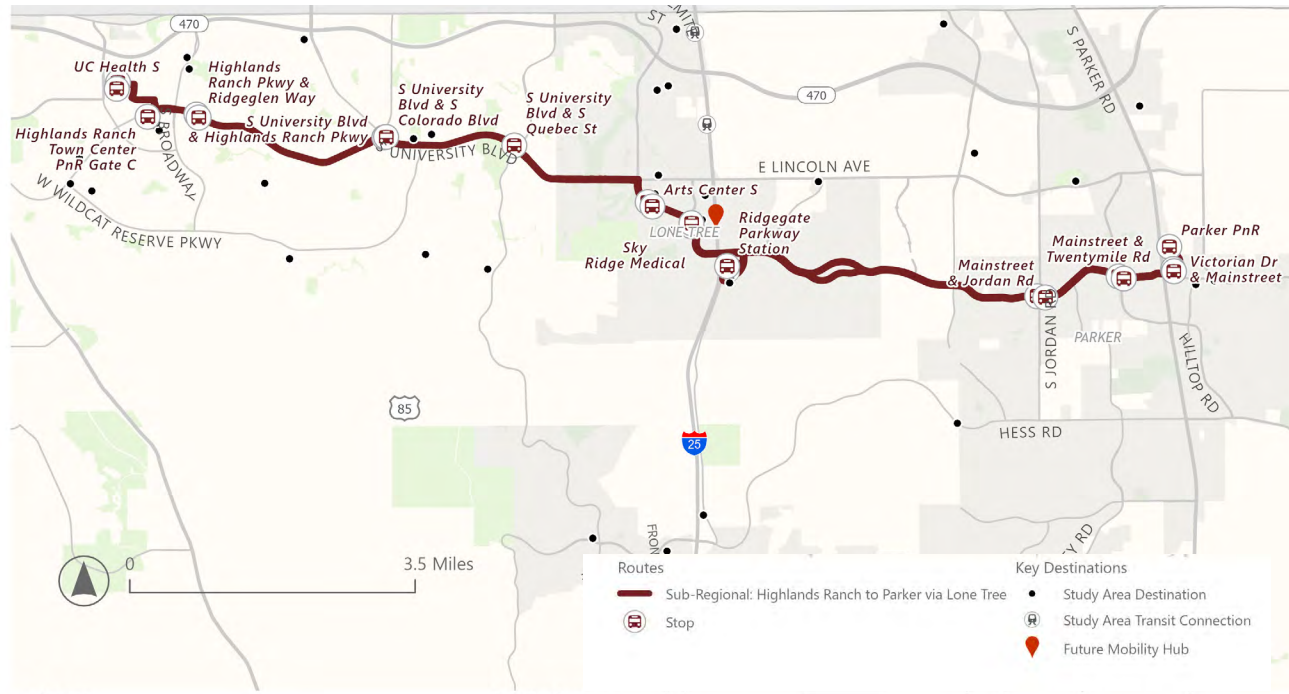


Figure 17: Highlands Ranch to Parker via Lone Tree Subregional Route

Description

Shown in **Figure 17**, this east-west route serves the higher density areas of Highlands Ranch, Lone Tree, and Parker. The route’s main roads include travel along Highlands Ranch Parkway and Ridgegate Parkway. Routing can be adjusted in the future to connect to the mobility hub in Lone Tree once it is constructed.

Service Characteristics

- 30-minute frequencies for peak service and 60-minute frequencies for off-peak
- Approximately 14 hours of service per day for 6 days per week
- \$1.8M - \$2.3M per year (free or low cost to rider)
- 280 to 400 rides per day
- 4 vehicles at peak hours
- Travel time
 - 30 minutes Highlands Ranch to Lone Tree (Compare to 19 minutes driving)
 - 20 minutes Lone Tree to Parker (Compare to 14 minutes driving)

Key Destinations

- 2 RTD transit stations/park-n-rides
- 2 major medical facilities
- 2 senior centers
- 1 recreation center

LONE TREE TO CASTLE ROCK VIA CASTLE PINES SUBREGIONAL FIXED ROUTE

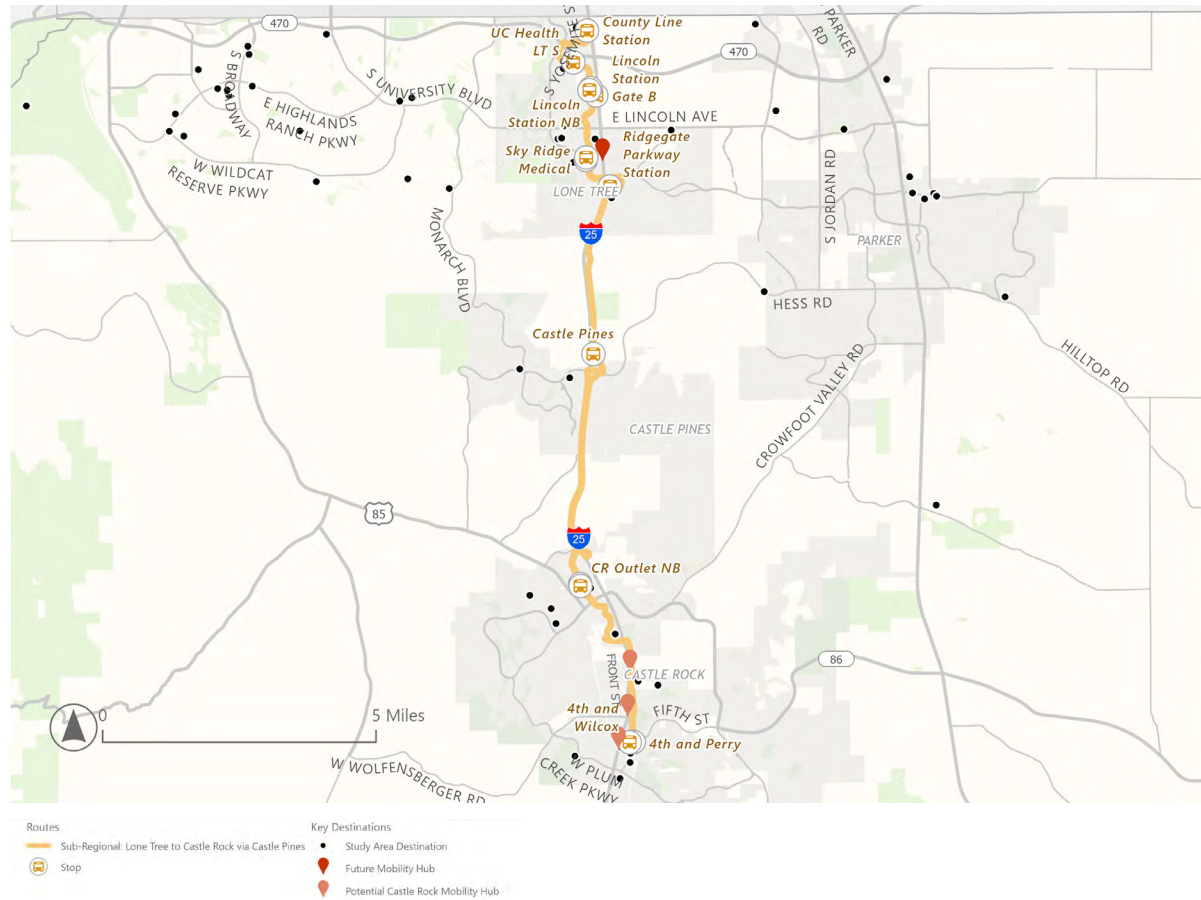


Figure 18: Lone Tree to Castle Rock via Castle Pines Subregional Route

Description

This route would provide service between Lone Tree and Castle Rock with a stop at the Castle Pines carpool lot (**Figure 18**). Bustang, a statewide bus service operated by CDOT, also travels along this section of I-25 on its route between Denver and Colorado Springs. Once a mobility hub is built in Lone Tree and another is built in Castle Rock, Bustang will stop at these locations. While this route looks similar to the Bustang service, this subregional fixed route would provide more frequent service than Bustang and more direct connections to key destinations within Castle Rock, Castle Pines, and Lone Tree. This route has flexibility over time, meaning that it can be changed to better serve future mobility hubs in Lone Tree and Castle Rock to connect existing and future transit services. This route can also be implemented sooner than the construction timeline for mobility hubs, providing connectivity sooner.

Service Characteristics

- 30-minute frequencies for peak service and 60-minute frequencies for off-peak
- Approximately 14 hours of service per day for 6 days per week
- \$1.8M - \$2.3M per year (free or low cost to rider)
- 280 to 400 rides per day
- 4 vehicles at peak hours
- Travel time
 - 25 minutes Lone Tree to Castle Pines (Compare to 17 minutes driving)
 - 25 minutes Castle Pines to Castle Rock (Compare to 18 minutes driving)

Key Destinations

- 4 RTD transit stations/park-n-rides
- 2 major medical centers
- 2 county services buildings

LONE TREE TO CASTLE ROCK VIA PARKER SUBREGIONAL FIXED ROUTE

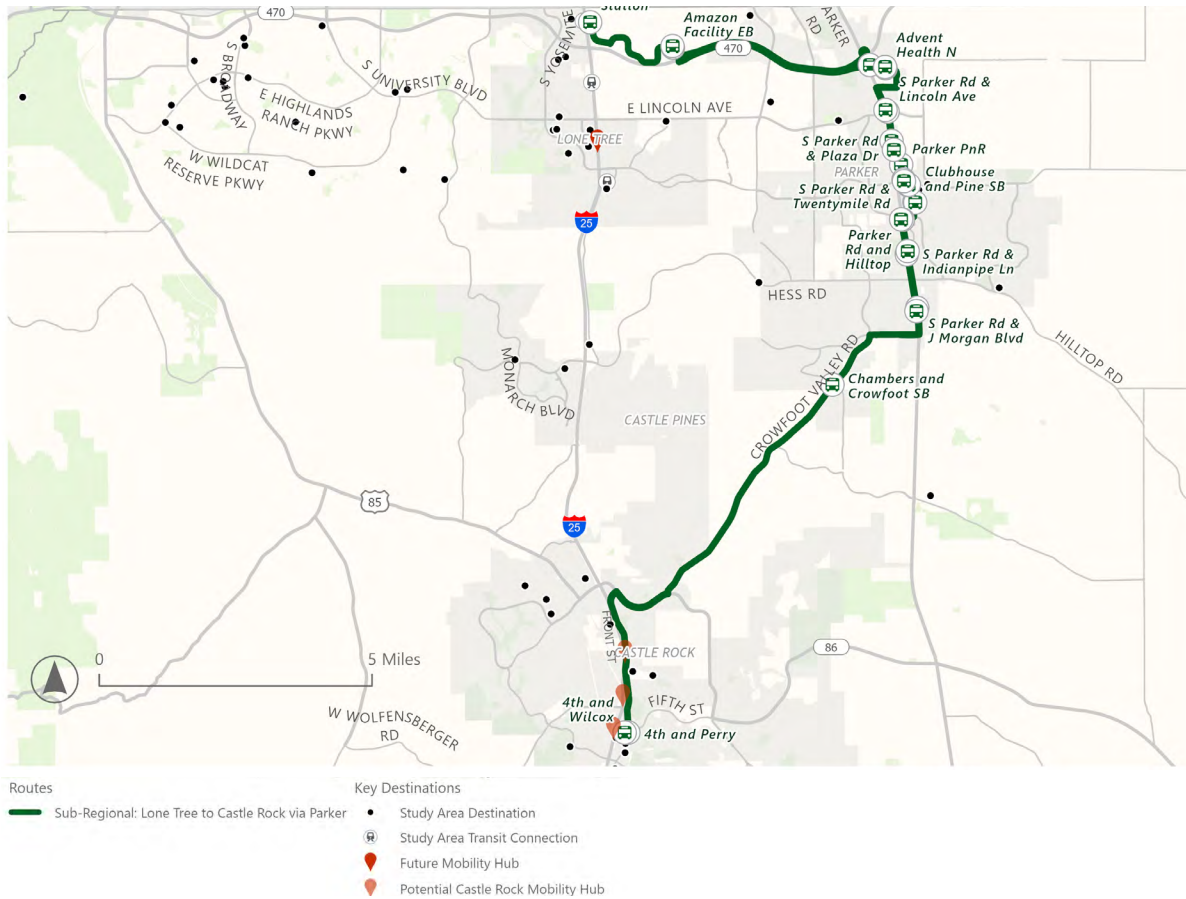


Figure 19: Lone Tree to Castle Rock via Parker Subregional Route

Description

Similar to the route along I-25, this route connects Lone Tree, Parker, and Castle Rock (**Figure 19**). This route's main roads include E-470, Parker Road, Crowfoot Valley Road, and Front Street. As the project team developed this route and coordinated with various stakeholders, it became clear that this route is not designed for people to travel between Lone Tree and Castle Rock, as that is the purpose of the Lone Tree to Castle Rock via Castle Pines route. Instead, this route would likely have two key trip pairs: Lone Tree to/from Parker and Parker to/from Castle Rock.

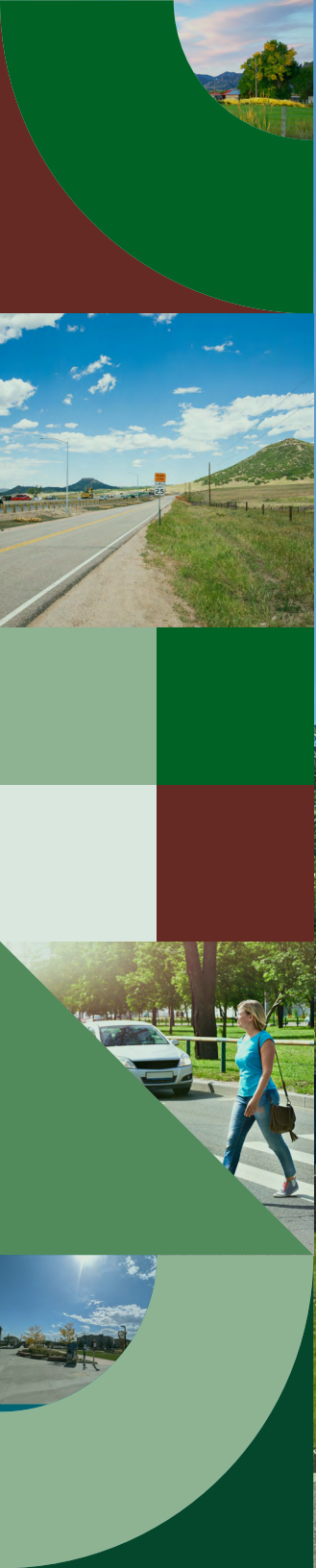
Service Characteristics

- 30-minute frequencies for peak service and 50-minute frequencies for off-peak
- Approximately 14 hours of service per day for 6 days per week
- \$2.5M - \$3.2M per year (free or low cost to rider)
- 270 to 430 rides per day
- 5 vehicles at peak hours
- Travel time
 - 25 minutes Lone Tree to Parker (Compare to 18 minutes driving)
 - 35 minutes Castle Pines to Castle Rock (Compare to 24 minutes driving)

Key Destinations

- 1 RTD transit station
- 2 major medical centers
- 1 high school
- 1 senior center
- 2 county services buildings

EVALUATION ANALYSIS



Evaluation Analysis

To effectively evaluate the proposed transit options, a list of evaluation criteria was developed, with metrics across five main categories, as shown in **Table 3**. These evaluation criteria are a useful way to help understand the tradeoffs of various transit solutions through qualitative and quantitative metrics.

Using the developed evaluation criteria, each transit option was evaluated and each metric categorized as high feasibility (dark red), medium feasibility (light red), or low feasibility (white). Results from this evaluation are summarized in **Table 4**.

Table 3: Evaluation Criteria

Categories	Criteria	Metric
Ridership Performance	Potential ridership	Estimated total daily ridership and number of riders per vehicle hour
Cost	Ongoing operating cost	Annual estimated operating cost
Markets / People Served	Key destinations and demographics served	Number of key destinations served and the average demographic index score
Implementation	Ease of implementation	Qualitative assessment of the following: Are there transit stop needs? Are there staffing needs? Are there marketing needs? How flexible is the opportunity for changing / expanding service? Are there grants and/or funding partners who would be willing to fund the service?
Connections	Connection to existing transit and multimodal network	Number of existing RTD bus / rail routes the alternative connects to



Table 4: Final Evaluation Metrics

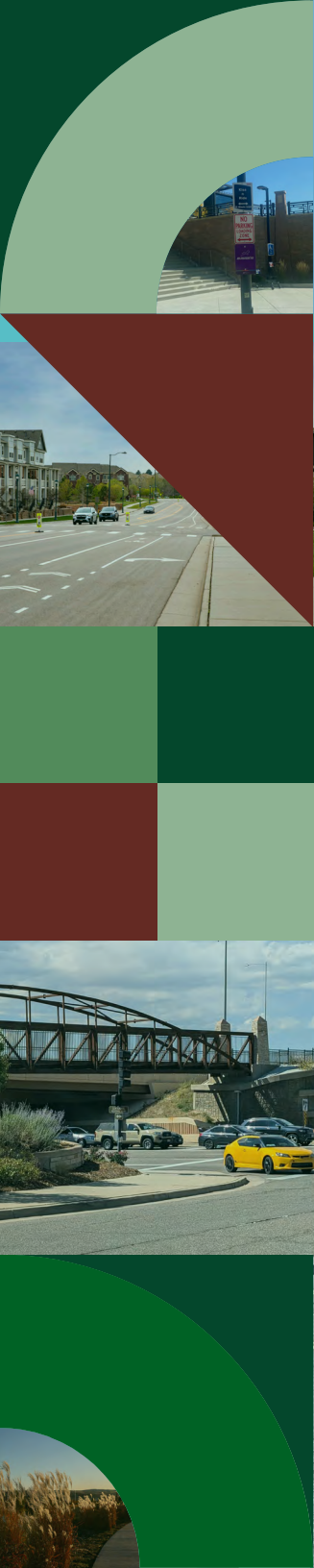
<i>Metric</i>	Local Options					Subregional Fixed Route Options		
	Highlands Ranch Microtransit*	Parker Microtransit*	Parker Circulator	Castle Rock Microtransit*	Castle Rock Circulator	Lone Tree - Parker - Castle Rock	Highlands Ranch - Lone Tree - Parker	Lone Tree - Castle Pines - Castle Rock
Potential Ridership (Daily)	130-280	150-325	160-240	100-230	160-240	270-430	280-400	280-400
Cost Efficiency (Yearly operating cost)	\$2.1M-\$2.4M	\$2.1M-\$2.3M	\$900K - \$1.1M	\$2.1M-\$2.3M	\$900K - \$1.1M	\$2.5M - \$3.2M	\$1.8M - \$2.3M	\$1.8M - \$2.3M
People Served (Demographic index score and number of key destinations)	18.78 Index, 16 Destinations	19.35 Index, 10 Destinations	19.95 Index, 6 Destinations	19 Index, 16 Destinations	22 Index, 16 Destinations	20.32 Index, 13 Destinations	19.63 Index, 18 Destinations	21.52 Index, 11 Destinations
Implementation (transit stop needs, flexibility, funding availability)	Easy	Easy	Medium	Easy	Medium	Hard	Hard	Hard
Connections (to existing transit)	5 Routes/Lines	2 Routes/Lines	2 Routes/Lines	0 Routes/Lines	0 Routes/Lines	4 Routes/Lines	6 Routes/Lines	4 Routes/Lines



Key findings of the evaluation analysis are summarized below by option:

- **Parker Microtransit** – This option evaluates metrics for the Extended Microtransit Zone for Parker, tied for the lowest feasibility score of any of the transit options. This route scores high in ease of implementation, but low in connectivity to existing transit routes with only two connections to existing transit provided. This option has the second lowest destinations served at 10 but the highest potential daily ridership of any of the local options.
- **Parker Circulator** – This option is tied for the lowest feasibility score. With only six key destinations served, it is the lowest number of destinations of any of the options. Connections to existing transit has a low feasibility score with only two connections to existing routes/lines. This project is tied with the Castle Rock Circulator for the lowest annual operating cost, so it scores higher for cost efficiency. It also scores “medium” on implementation due to being easier to implement transit stops and flexibility than a subregional fixed route but not as flexible as a microtransit zone would be.
- **Castle Rock Microtransit** – While this option scores high in cost efficiency, people served, and implementation, it has low scores in potential daily ridership and connections. This microtransit zone has the lowest potential daily ridership of any of the options and the least amount of connections to existing transit routes and lines with zero connections offered. While the demographic index score is on the low side compared to the other options, it serves 16 destinations, which is tied for second for key destinations.
- **Castle Rock Circulator** – This circulator is generally tied with the Castle Rock Microtransit for feasibility, with high feasibility scores in cost efficiency and people served. This option has the highest demographic index score of any of the alternatives at 22, and a high number of key destinations served at 16. This circulator is tied with the Parker Circulator for the lowest annual operating cost. This option requires slightly more implementation than the microtransit zone, but its higher demographic score demonstrates a gap that the alternative could step in and fill.
- **Lone Tree to Castle Rock via Parker Subregional Fixed Route** – This option tied for the lowest feasibility scores of any of the potential transit options. While it scored high in people served and estimated daily ridership, this route has low feasibility of cost efficiency due to the high annual operating cost, and low feasibility for implementation, largely related to the large distance and number of stops the route would cover.
- **Highlands Ranch to Parker via Lone Tree Subregional Fixed Route** – This option tied for the most “high” scores across the evaluation criteria. Specifically, this alternative scored high for potential daily ridership, and connections to existing transit services with connections to six routes available. While this route has the lowest people served score on the demographic index of the three subregional fixed routes, it has the highest number of key destinations at 18. This alternative has a low score for implementation, due to the need for transit stop construction and lower flexibility of the route. Overall, this route scored the best of any of the options, but it would also be in an area that is already served by existing east-west RTD transit connections.
- **Lone Tree to Castle Rock via Castle Pines Subregional Fixed Route** – This route has a high potential daily ridership, and the second highest demographic index score of any of the options. It has the lowest number of key destinations of the subregional fixed route options but still has connections to four existing transit routes/lines. Implementation has low feasibility due to the needs regarding transit stop planning and construction and the flexibility of the route.
- **Highlands Ranch Microtransit** – Although there were various zonal options for microtransit in Highlands Ranch, this evaluation looks at the fifth option which covers all of Highlands Ranch. This local option tied for the highest feasibility score across the options. Implementation and connections have a high score due to the ease of deploying microtransit and connections to five existing transit routes/lines. The remaining three metrics, potential daily ridership, cost efficiency, and people served, received medium scores. With 16 destinations served, this option still serves more than many of the other alternatives, but it has the lowest demographic index score. This option has the second highest potential daily ridership of the five local options.

STAKEHOLDER AND PUBLIC INPUT



Stakeholder and Public Input

Once the transit types and transit opportunities were determined, the project team turned to the public and stakeholders for input that informed the transit and multimodal framework and the final recommendations.

Community Survey

In February 2025, the project team conducted a survey for the public with an opportunity to give input on the proposed transit options. The survey included background information and 28 questions about transit opportunities, including quantitative and open-ended questions. The survey remained open for six weeks and received 549 responses. Survey themes are summarized below.

- Seventeen percent of respondents said they currently use transit within northern Douglas County, about half of whom use RTD light rail line and a quarter use RTD bus routes.
 - Respondents shared how they view the three potential subregional fixed routing options. The Lone Tree to Castle Rock via Castle Pines route received the most “favorable” votes, and the Highlands Ranch to Parker via Lone Tree route received the fewest “unfavorable” votes.
 - Respondents shared their view of local transit options in Highlands Ranch, Castle Rock, and/or Parker. The local transit options proposed included microtransit and a circulator for Parker and Castle Rock, but only a microtransit option in Highlands Ranch. Local transit in Parker received 72% “favorable” votes, and Highlands Ranch and Castle Rock both received 59% “favorable” votes. More votes were received in favor of a circulator than a microtransit service in Parker and Castle Rock.
 - Survey respondents were asked about their anticipated future transit use based on the scenarios proposed throughout the survey. About half of respondents said they would use transit at least monthly if it served their destinations. The top reasons for using transit were connecting to existing public transit services, running errands, accessing recreation, and social activities.
 - Survey respondents were asked about features that might encourage them to use transit more frequently. The top choices were frequent and reliable service, safety, and affordable fares.
- Survey respondents were asked when they would most likely use transit. The most popular response was weekday afternoons and evenings, with weekday mornings and middays, and weekend afternoon and evenings also being popular. Late nights on weekdays and early mornings on weekends were the least popular timeframes.
 - Many respondents expressed their own needs or their community’s needs that could be met through transit. Transit stops need to be flexible and reliable to make appointments, with high frequency and ease of use. Others would like reliable service to sporting events, schools, and grocery stores; to incentivize transit over cars; to create a community where youth use public transit; and to prioritize linking major service areas like hospitals, medical complexes, and recreation centers.
 - Respondents reflected many perspectives on why, in their opinion, transit in Douglas County may not be needed or effective. Primary concerns are a potential lack of use to justify the cost; schedules that don’t align with needs; safety at stops and on transit; exponentially longer transit travel times; inconvenient, inconsistent, or unreliable service; and the high cost of parking and fares. Others believe that Douglas County has sufficient public transit, and that the community does not desire transit or that new investments in transit. Respondents are concerned that they’ve paid into RTD without seeing enough benefits.

Open Houses

Douglas County hosted two open houses to share information about the transit study and hear from the community on these potential transit options. The materials presented at the public meetings are available at: <https://www.douglas.co.us/public-works/integrated-transit-and-multimodal-study/>, and included in **Appendix C**.

The open houses provided an opportunity for the county to engage with the broader community to update them on the project, share and collect feedback on the draft transit opportunities, and answer questions.

The open houses featured a series of interactive stations, and members of the project team were available at each station to answer questions and discuss the procedural and substantive information that was presented on the boards.






The project team delivered a presentation on the project and answered questions from the public during the open houses.

Attendees asked how the project team identified transit opportunities, how potential transit opportunities would be funded, and for details on the timeline for implementation. Some attendees voiced concerns about potential new transit connections to RTD and what challenges that could bring to the county.

The open house goals were to:

-  Understand the community's needs, barriers, and perceptions about transit to be incorporated into proposed short-and-long term transit and multimodal projects.
-  Foster a transparent and collaborative transportation decision-making process.
-  Create support for the study's goals and outcomes.
-  Get feedback on identified transit opportunities.
-  Be clear about what kind of input is sought and how it will be used.

The open house objectives were to:

-  Raise awareness of the study's process and timeline.
-  Share how existing conditions data are incorporated into the study and development of transit opportunities.
-  Share what was heard through engagement to-date, how it informs the planning, and the schedule for engagement through 2025.
-  Frame this study within the context of other Douglas County transportation projects and broader regional network priorities.
-  Present the three local and three subregional transit opportunities to the community and have attendees review, comment, and consider pros/cons of each transit opportunity.



Public Open House at Highlands Ranch Senior Center. Source: Fehr & Peers

Community Conversations with Staff and Councils/Boards

In conjunction with public outreach, the project team engaged with various levels of staff and their respective elected representatives at public council/board meetings and study sessions of each jurisdiction. Key questions and themes that arose from these discussions included the following:



WHO IS BEING SERVED BY THESE TRANSIT OPTIONS?

There is general support for serving vulnerable populations, such as providing local transit options for seniors.



HOW WILL THESE SERVICES BE FUNDED?

Elected officials expressed a concern regarding use of local taxpayer dollars for future funding, and where transit fits in each jurisdiction's funding priorities.



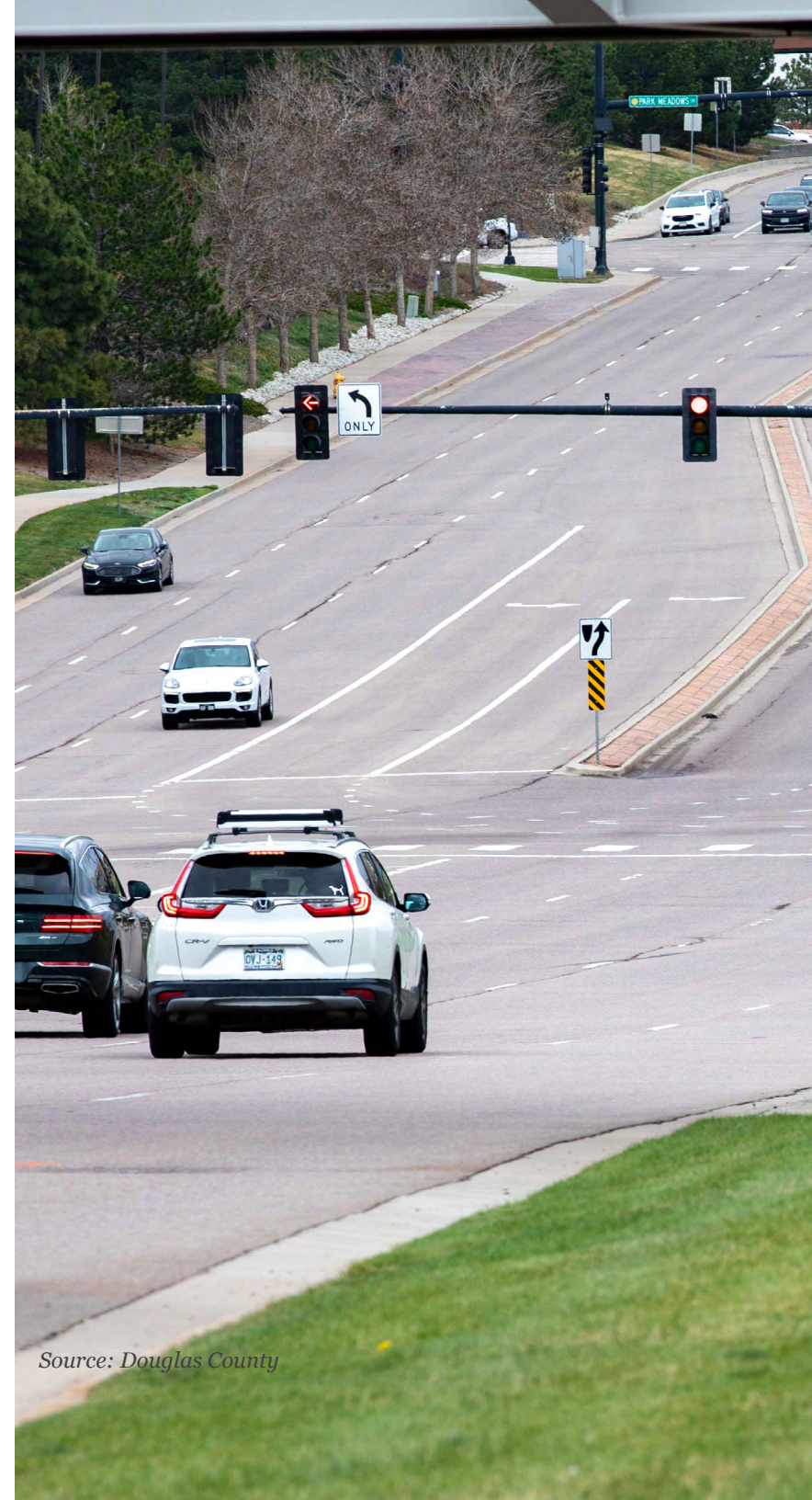
WHAT PARTNERSHIPS MIGHT PLAY A ROLE?

Municipalities encouraged the careful consideration of integration with other transit services such as Bustang and RTD. They specifically emphasized the desire to improve the return on investment in RTD services.



HOW WILL CONNECTIONS BETWEEN THE VARIOUS SERVICES BE MADE?

Both staff and elected officials expressed interest in seamless connections between services, specifically service the first mile – last mile needs through walk and bike access. They additionally encouraged the project to consider existing and future park-n-ride capacities.



Source: Douglas County

TRANSIT AND MULTIMODAL FRAMEWORK



Transit and Multimodal Framework

The transit and multimodal framework described in this section describes what considerations are necessary for implementation and structures the implementation of transit into three major steps. The framework is the result of work during the existing conditions analysis phase; conversations with the project's Project Management Team, Stakeholder Engagement Team, and the Douglas County Transportation Forum (DCTF); analysis of similar communities with transit service; and the identification of top travel markets to be served.

Implementation Considerations

There are several key implementation considerations that inform the framework for the county's transit system and the phased approach for implementation.

Infrastructure Needs

The physical infrastructure needs for implementing the various transit solutions are higher with the subregional transit options and lower with the local transit options. With less transit stops along each subregional route and the nature of the arterials along which these routes will likely travel, subregional options require heavier investments in transit stops with larger infrastructure needs. The transit stop locations, amenities, and municipal coordination require more effort and cost than the infrastructure needs for local circulators or microtransit services. As a result, the subregional routes may be tougher to implement in the near-term and will be included in mid-term to long-term phases.

Funding Availability

As of December 2024, Douglas County was awarded \$2.5M to fund the pilot projects, half of which is planned for FY 2026, and the other half for FY 2027. This funding has been awarded but can change due to the state's budgeting process. Nevertheless, this funding is limited and Douglas County's approach to selecting the pilot projects must be strategic, emphasizing the project(s) that will be the most successful in the near-term, meet the broader study goals and the county's long-term vision. Additionally, it is important to look at the funding availability from a long-term sustainability perspective, pursuing projects in the near-term that can not only prove to be successful during the pilot phase, but also would be competitive to receive additional federal, state, regional, and local funding beyond the pilot phase.

Political Willingness

Through the public and stakeholder outreach conducted throughout the study, it is evident that there are varying levels of political support for the various transit options throughout the study area. This is largely due to the various priorities that each municipal partner is balancing; some municipalities view transit enhancements as larger priorities to their local communities, while other municipalities may have other priorities to which they are allocating their resources. In addition to the other implementation considerations, near-term political willingness to move forward with the transit options also impacts the phasing of the transit opportunities.

STEP 1

Facilitate Local Connections

- Start with microtransit for maximum flexibility.
- Identify potential origins and destinations that may be better served by a local circulator.

STEP 2

Facilitate Subregional Connections

- Connect areas with local transit services by longer-distance routes.
- Integrate multimodal infrastructure elements.

STEP 3

Adapt Consistently to Local and Subregional Needs

- Modify transit solutions to serve areas with most need, expanding or shrinking based on demand and alignment with the long-term vision.
- Integrate and collaborate with regional services like RTD and Bustang.

Transit and Multimodal Framework

The Douglas County Transit and Multimodal Framework is presented in **Figure 20**. This framework guides Douglas County in developing a phased implementation approach that reflects the study's technical work, public and stakeholder engagement, long-term vision, and implementation considerations. The framework splits the development of transit services in Douglas County into three key steps:

- Step 1: Facilitate Local Connections
- Step 2: Facilitate Subregional Connections
- Step 3: Adapt Consistently to Local and Subregional Needs

Figure 20: Douglas County Transit and Multimodal Framework

STEP 1

Facilitate Local Connections

- Start with microtransit for maximum flexibility.
- Identify potential origins and destinations that may be better served by a local circulator.

STEP 2

Facilitate Subregional Connections

- Connect areas with local transit services by longer-distance routes.
- Integrate multimodal infrastructure elements.

STEP 3

Adapt Consistently to Local and Subregional Needs

- Modify transit solutions to serve areas with most need, expanding or shrinking based on demand and alignment with the long-term vision.
- Integrate and collaborate with regional services like RTD and Bustang.

Step 1: Facilitate Local Connections

A key takeaway from the study process, particularly from the public and stakeholder outreach, is the need for local transit solutions that can both serve as first/last mile connections and for local trip purposes within a community. Prioritizing local connections through phased implementation addresses many of the existing travel patterns and the gaps in the transit system.

Serving and connecting users at a local level before focusing on subregional connections also allows local municipalities to focus on the trips that make up a large part of a resident's daily travel needs. Focusing on local transit first allows for a proper foundation to lay the groundwork for subregional transit. By establishing first and last mile connections, through existing bike and pedestrian facilities, and through local transit options, it provides more access for users of all types. These connections are often missing from larger transit systems. If people can get from their origin to the regional transit stop via local transit or other multimodal options, they are more likely to use and interact with that transit option. The lack of such a service can often be a barrier to the residents who need these services most, such as older adults, people with limited mobility, people with limited vehicle availability, people with lower-income, and younger people.

Additionally, establishing local connections that serve a large travel need can set local municipalities and Douglas County up for long-term sustainable funding in the form of subregional and regional partnerships. In other words, successful local transit solutions with enhanced connections or expanded service areas may be more competitive for future funding.

Recommended Service Delivery for Local Options

Microtransit is the preferred service model for deploying local pilot projects in municipalities throughout Douglas

County. Microtransit service can be more flexible and adjustable to the ridership demand, zone area coverage, and the service characteristics, all while providing the convenient door-to-door (or corner-to-corner) connections that many users want. More flexibility means more ability to tailor the microtransit zone to the specific needs of the municipality, area, and its riders. Oftentimes when microtransit is utilized, reoccurring trip patterns emerge. It may be determined that many of these short, local, reoccurring trip patterns could be more efficiently served by a local circulator. This trip pattern data can be used to indicate where local transit may be better served by a future circulator route rather than microtransit. Lastly, it may be easier to transition from a microtransit zone to a circulator route than vice versa, as circulators have higher implementation needs and considerations than microtransit services.

Alternatively, although microtransit may be the preferred service type per the result of this study, a local circulator may be more tangible and cost-effective for local municipalities. In some communities, users may be more familiar with a fixed route service that has designated transit stops and timepoints. Additionally, a few of the municipalities, have considered circulators through previous planning efforts, so it may be a better solution based on community needs.

At the same time, there may be certain municipalities and communities who determine that a hybrid approach to local options is the best way to address the community needs. In other words, a potential service delivery strategy for the local options is to coordinate a relationship between a microtransit zone and a local circulator. This can be done by covering the higher-density areas with a local circulator and the lower-density areas with a microtransit service. This can also be done by providing a frequent local circulator service during the busiest times of day when trip patterns are consistent and providing a microtransit service during slower times of day when trip patterns may be more scattered.

STEP 1

Facilitate Local Connections

- Start with microtransit for maximum flexibility.
- Identify potential origins and destinations that may be better served by a local circulator.

STEP 2

Facilitate Subregional Connections

- Connect areas with local transit services by longer-distance routes.
- Integrate multimodal infrastructure elements.

STEP 3

Adapt Consistently to Local and Subregional Needs

- Modify transit solutions to serve areas with most need, expanding or shrinking based on demand and alignment with the long-term vision.
- Integrate and collaborate with regional services like RTD and Bustang.

Step 2: Facilitate Subregional Connections

Once the local transit services have been established, the county can explore connecting them through a subregional route. These longer-distance routes can provide critical subregional connections for trip purposes that may be outside of the local system's reach. These trip types may primarily include commuting to jobs, accessing specialized medical services and appointments, and connecting to regional transit systems like RTD and Bustang.

As discussed previously, the first and last mile connections for these routes are critical, which is why phasing subregional connections after the local connections can address these needs. Subregional routes typically make stops at locations where multiple modes can interact, often paired with park-n-rides, regional trails, and other transit services. When the connections are already established through the local services, the transit rider is given full end-to-end transit service for their trip, creating a reliable and holistic transit system.

In addition to ensuring these subregional connections are paired with the local transit systems, this is the step at which Douglas County would also pursue integrating the multimodal infrastructure into the system. With subregional routes relying on supportive first and last mile solutions, it is key to ensure that the pedestrian and bicycle network conveniently and safely provides the connections.

STEP 1

Facilitate Local Connections

- Start with microtransit for maximum flexibility.
- Identify potential origins and destinations that may be better served by a local circulator.

STEP 2

Facilitate Subregional Connections

- Connect areas with local transit services by longer-distance routes.
- Integrate multimodal infrastructure elements.

STEP 3

Adapt Consistently to Local and Subregional Needs

- Modify transit solutions to serve areas with most need, expanding or shrinking based on demand and alignment with the long-term vision.
- Integrate and collaborate with regional services like RTD and Bustang.

Step 3: Adapt Consistently to Local and Subregional Needs

This step will likely come iteratively and in conjunction with the other steps, but it emphasizes the need for Douglas County to integrate its transit solutions flexibly and responsively to meet the community's needs.

As described for the local transit solutions, the initial microtransit zone may need to shift in its zonal configuration and in its operational strategy to better meet the demand. It may also become more effective to operate a local circulator in areas that better support point-to-point connections along a fixed route.

Similarly, the subregional routes may need to change the locations of their stops or their routes if it makes more sense to serve an unmet demand in that way. For example, it is anticipated that the subregional routes will need to serve the future CDOT mobility hubs planned along I-25 in Lone Tree and Castle Rock. This will become necessary once the mobility hubs are operational to facilitate regional travel on the Bustang system and potentially the Front Range Passenger Rail system someday.

Local and subregional needs may change beyond the needs analyzed and described through this study's process. Opportunities to advance transit in different ways may present themselves at different times than in the exact order of this framework. As described in the implementation considerations sections, implementation can largely depend on infrastructure needs, funding availability, and political willingness, all of which are susceptible to change as different community needs and priorities are identified. The framework described in this section informs the following phased approach, but it does not require Douglas County to follow the exact steps and phases. Rather, it sets guidelines for implementing transit across the county and encourages flexibility in taking advantage of opportunities that may present themselves with ever-changing social and economic landscapes.

PHASED APPROACH





Phased Approach for Transit Opportunities

The following phased approach represents the outcomes of refining the transit opportunities to match the transit and multimodal framework, informed by input from the public, stakeholders, and the technical analysis and evaluation. The implementation of the transit options is split into three potential phases between 2025 and 2033. The study has also identified transit options to be considered for future phases beyond 2033, as well as other coordinated efforts that would be complimentary to the phases. The dates of these phases are not meant to be prescriptive by year but rather give a sense of how the services could be implemented in approximately three-year phases. It is likely that actual implementation timing will vary from this conceptual framework.

Phase 1 – Pilot Projects (2025-2027)

The first phase to implementation includes two transit opportunities, both of which are microtransit per the transit and multimodal framework. As seen in **Figure 21**, Phase 1 includes Highlands Ranch microtransit and Parker microtransit.

Highlands Ranch Microtransit (funded by Douglas County)

The Board of County Commissioners signed a contract with Via Transportation Inc. (Via) to provide microtransit services beginning in late spring 2025. Microtransit will be provided throughout the entire area of Highlands Ranch, into Lone Tree, and other surrounding unincorporated areas of the county, which is expanded from the version that was analyzed as part of the study. Riders would be able to request a ride to and from the Littleton/Mineral Light Rail Station. As the service begins, Douglas County will partner with Via to analyze the service's performance and to assess where service modifications may be needed.

Parker Microtransit (initial funding in DRCOG TIP)

There is an opportunity to serve the transit need for enhanced local transit services within the Town of Parker. Per the transit and multimodal framework, the recommendation is to start with a microtransit service. Between the existing microtransit service in Lone Tree and the new microtransit service in Highlands Ranch, creating a microtransit service in Parker utilizing the pilot project funding from the DRCOG TIP (Transportation Improvement Program) would fill in the local connection from west to east. This then makes way for a subregional fixed route to connect the three local areas in Phase 2. As described in the funding section of the implementation plan, DRCOG TIP funding is a compilation of federal, state, and local funding where DRCOG is the facilitator of the funding. The Parker microtransit would potentially be phased in with a targeted zone first and an expanded second, which can ease the implementation investment, but at the cost of less coverage. The expanded zone is intended to serve the entire town and some areas of unincorporated Douglas County.

Future Phases

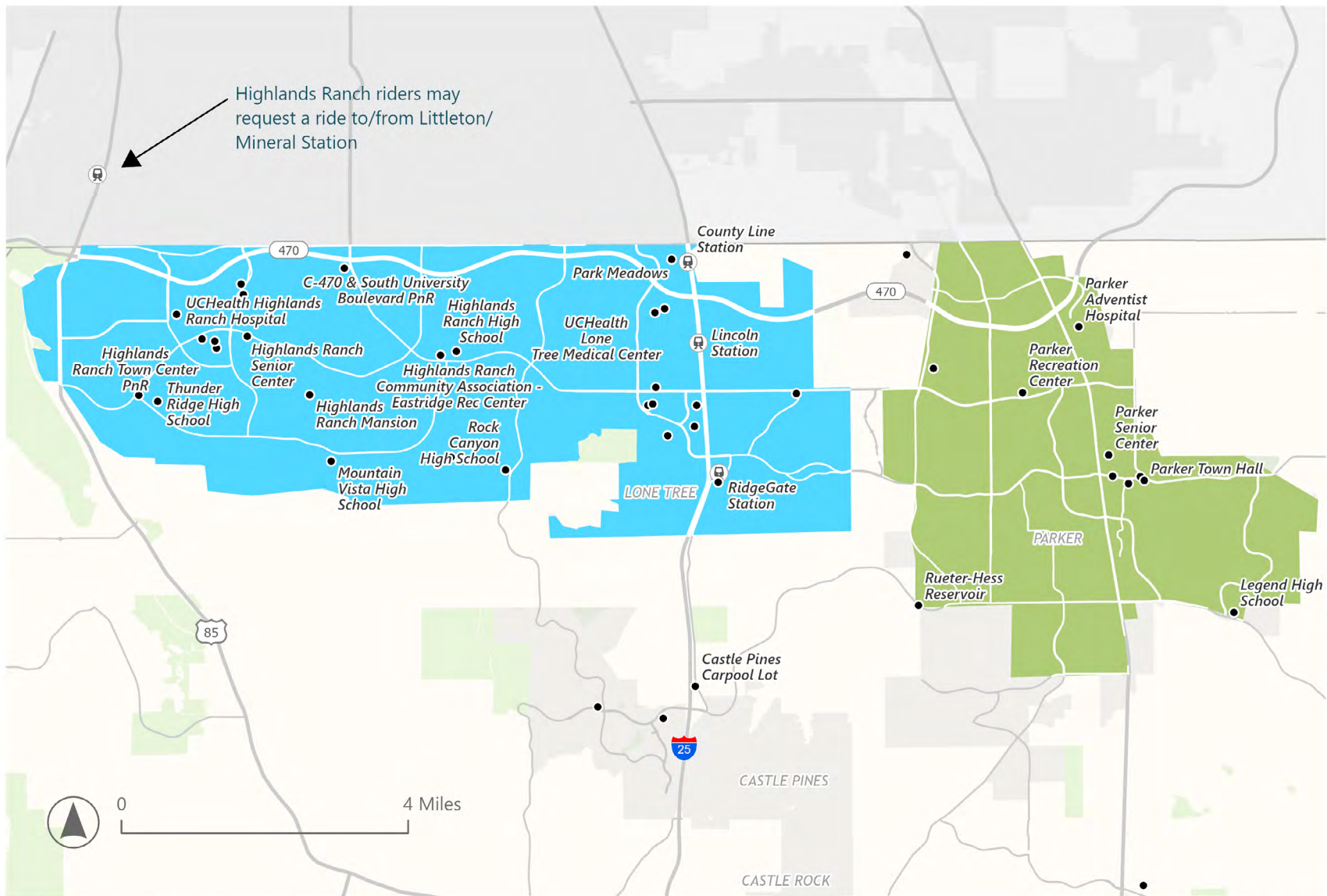
As the microtransit service develops and is refined, certain travel patterns may emerge and could indicate that a local circulator can better serve certain origins and destinations. The study has explored what circulator routing and service characteristics could look like. If a circulator is considered, the dynamic between microtransit services and a local circulator could be reevaluated, seeking opportunities to best serve the demand without having competing trip purposes between the services. This may mean having certain areas of town or times of day be covered by a microtransit zone while others be covered by the circulator.

Key Destinations for Highlands Ranch and Parker Microtransit Served in Phase 1

- 7 high schools/colleges
- 6 RTD transit stations/park-n-rides
- 6 recreation centers
- 4 major medical facilities
- 2 senior centers

Service Characteristics for Highlands Ranch and Parker Microtransit Served in Phase 1

Service Characteristics	Highlands Ranch Microtransit	Parker Microtransit
Response Time	20 to 30-minutes	20 to 30-minutes
Service Hours and Days	Monday through Thursday 7AM to 7PM Friday 7AM to 10PM Saturday 10AM to 10PM	Monday through Thursday 7AM to 7PM Friday 7AM to 10PM Saturday 10AM to 10PM
Cost	\$2.9M per year (no or low cost to rider)	Targeted Zone: \$1.1M to \$1.3M per year Expanded Zone: \$2.1M to \$2.3M per year
Ridership	350 to 400 rides per day	Targeted Zone: 130 to 180 rides per day Expanded Zone: 150 to 325 rides per day
Square Mileage	37 square miles (approx. 24 in Highlands Ranch)	Targeted Zone: 14 square miles Expanded Zone: 21 square miles
Number of Vehicles at Peak Hours	15	Targeted Zone: 3 vehicles Expanded Zone: 6 vehicles



Highlands Ranch riders may request a ride to/from Littleton/Mineral Station

- | | |
|---|---------------------------------|
| Phase 1 Microtransit | Key Destinations |
| Highlands Ranch Zone | • Study Area Destination |
| Parker Zone | 🚆 Study Area Transit Connection |



Figure 21: Phase 1 Transit Services

Phase 2 – 2028-2030

The second phase builds on the accomplishments of the first phase by creating a subregional route to connect the local transit options within Highlands Ranch, Lone Tree, and Parker, as illustrated in **Figure 22**.

Key Destinations Served in Phase 2 (In Addition to Phase 1)

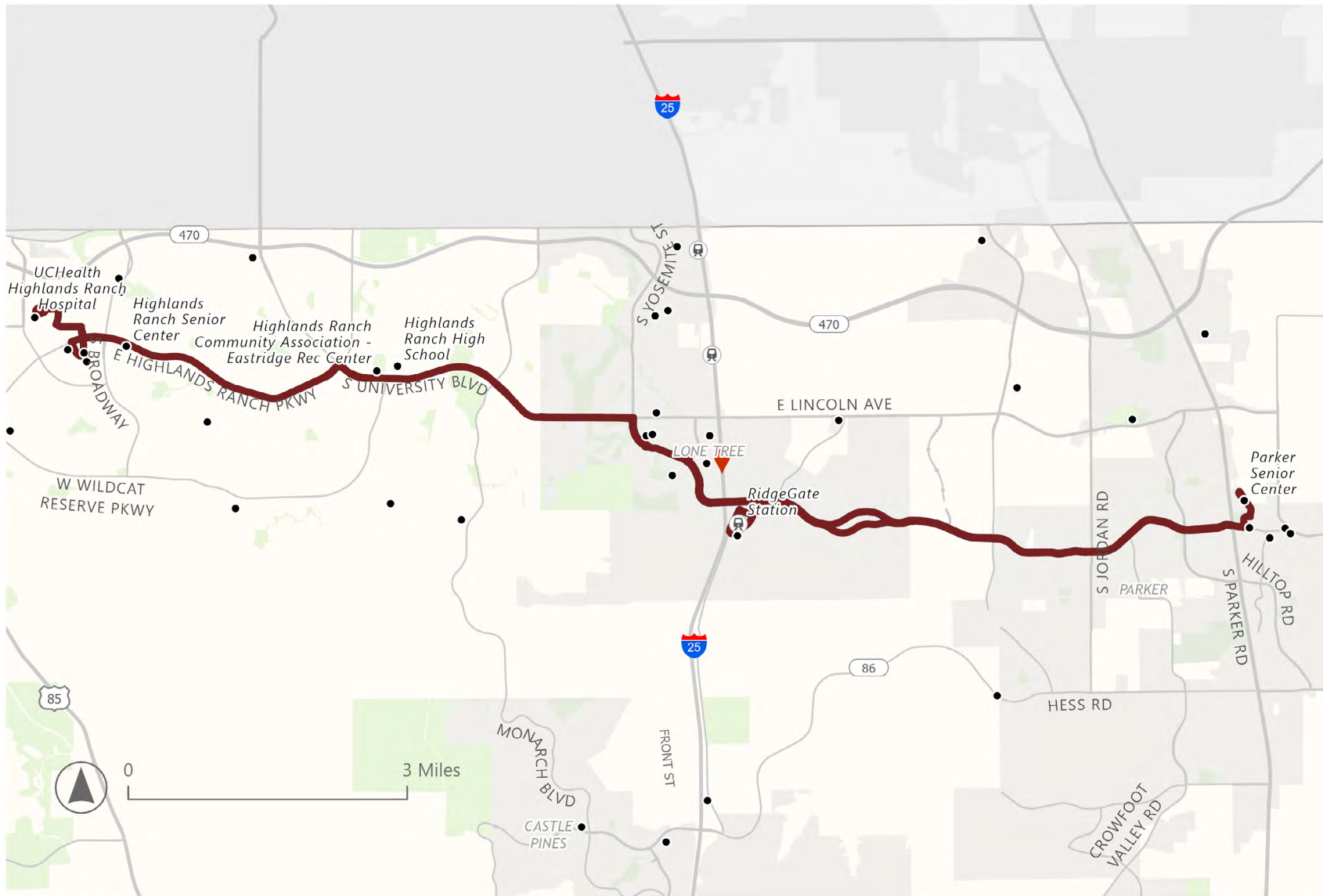
- 2 RTD transit stations/park-n-rides
- 2 major medical facilities
- 2 senior centers
- 1 recreation center

Highlands Ranch to Parker via Lone Tree Subregional Fixed Route

This route represents the second step in the transit and multimodal framework where areas with established local transit services are connected with a subregional route. This route is a key east-west connection and serves the higher density areas of Highlands Ranch, Lone Tree, and Parker.

Service Characteristics Served in Phase 2

Service Characteristics	Highlands Ranch to Parker via Lone Tree Subregional Fixed Route
Frequency	30-minute during peak service and 60-minute during off-peak
Service Hours and Days	Approximately 14 hours of service per day for 6 days per week
Cost	\$1.8M - \$2.3M per year (no or low cost to rider)
Ridership	280 to 400 rides per day
Travel Time	30 minutes Highlands Ranch to Lone Tree (Compare to 19 minutes driving) 20 minutes Lone Tree to Parker (Compare to 14 minutes driving)
Number of Vehicles at Peak Hours	4



Phase 2 Routes

— Sub-Regional: Highlands Ranch to Parker via Lone Tree

Key Destinations

- Study Area Destination
- 🚊 Study Area Transit Connection
- 📍 Future Mobility Hub



Figure 22: Phase 2 Transit Services

Phase 3 – 2031-2033

The key elements of Phase 3 include tying in Castle Rock into the subregional transit system by creating a local option in Castle Rock and then connecting it to the other municipalities through two routes, as shown in **Figure 23**.

Castle Rock Local (Circulator or Microtransit)

Castle Rock has planned for local transit through its 2019 Downtown Mobility Plan and its 2020 Transit Feasibility Study. Largely leaning on the findings of the previous studies, it is recommended that Castle Rock pursue a microtransit or a circulator solution, pending future planning to determine what is most appropriate to meet the demand at the time.

The microtransit zones were identified in the 2020 Castle Rock Transit Feasibility Study and indicated as Phase 1 and Phase 2. The design for the circulator was planned in the 2019 Castle Rock Downtown Mobility Plan, split into Phase 1 and Phase 2 service deployment. The circulator would likely need additional ADA service, which would come at an additional annual cost. *Note: these phases for both microtransit and circulator do not correlate to the phasing being described in this report; rather, these are phases as identified by the Town of Castle Rock. Metrics were estimated for the Phase 2 microtransit zone and the Phase 2 circulator, in addition to those measured in the previous studies.*

Additional Considerations

Additionally, as a result of the 2020 US Census, Castle Rock (and parts of Castle Pines and unincorporated Douglas County) has been designated as a Small Urbanized Area (UZA), which qualifies the area to receive Federal Transit Administration (FTA) 5307 grant funding. Castle Rock has entered into an intergovernmental agreement with Douglas County and Castle Pines to fund a study of the best way to receive the funding. The outcomes of this separate study will determine the best path forward for implementation, which is a key reason why a Castle Rock local transit option is being considered as part of Phase 3 of this plan.

Between the FTA funding opportunities and continued growth in the area, more refinement to these microtransit zones and circulator routes may be needed to best meet the needs of the community at the time of implementation. This may include considering which transit option may

be more suitable or whether it may make sense to have certain areas of town or times of day be covered by a microtransit zone while others be covered by the circulator.

Lone Tree to Castle Rock via Castle Pines Subregional Fixed Route

Once a local transit service is established within Castle Rock, a route between Lone Tree and Castle Rock via Castle Pines can connect the subregion from north to south. This route has flexible service over time, meaning that the route can be changed to better serve future mobility hubs in Lone Tree and Castle Rock for interactions between existing and future transit services. This route can also be implemented sooner than the construction timeline for mobility hubs, providing connectivity sooner. Additionally, although the plan does not recommend local service in Castle Pines ahead of this route's implementation (see Future Phases – 2033 and Beyond), the transit stop at the future Castle Pines park-n-ride will primarily provide access for Castle Pines residents with private vehicles to drive or carpool to the park-n-ride before taking the route to Lone Tree or Castle Rock.

Lone Tree to Castle Rock via Parker Subregional Fixed Route

Similar to the route along I-25, this route connects the future local transit services in Lone Tree, Parker, and Castle Rock, ensuring there is sufficient first- and last-mile access to the subregional routes. This route would likely have two key trip pairs: Lone Tree to/from Parker and Parker to/from Castle Rock. Given these trip pairs, Douglas County may consider implementing the full route either by segments or by two separate routes.

Key Destinations Served in Phase 3 (In Addition to Phases 1 & 2)

- 4 major medical facilities
- 3 high schools/colleges
- 2 recreation centers
- 3 senior centers
- 2 county services buildings
- 3 proposed mobility hubs
- 4 RTD transit stations/park-n-rides

Service Characteristics Served in Phase 3

Service Characteristics	Castle Rock Phase 2 Microtransit	Castle Rock Phase 2 Circulator	Lone Tree to Castle Rock via Castle Pines Subregional Fixed Route	Lone Tree to Castle Rock via Parker Subregional Fixed Route
Response Time/Frequency	20- to 30-minute response time	15-minute frequencies for peak service and 30-minute frequencies for off-peak	30-minute during peak service and 60-minute during off-peak	30-minute during peak service and 50-minute during off-peak
Service Hours and Days	Approximately 14 hours of service per day for 6 days per week	Approximately 14 hours of service per day for 6 days per week	Approximately 14 hours of service per day for 6 days per week	Approximately 14 hours of service per day for 6 days per week
Cost	\$2.1M - \$2.3M per year (no or low cost to rider)	\$900K - \$1.1M per year (no or low cost to rider)	\$1.8M - \$2.3M per year (no or low cost to rider)	\$2.5M - \$3.2M per year (no or low cost to rider)
Ridership	100 to 230 rides per day	160 to 240 rides per day	280 to 400 rides per day	270 to 430 rides per day
Square Mileage	20 square miles	N/A	N/A	N/A
Travel Time	N/A	N/A	25 minutes Lone Tree to Castle Pines (Compare to 17 minutes driving) 25 minutes Castle Pines to Castle Rock (Compare to 18 minutes driving)	25 minutes Lone Tree to Parker (Compare to 18 minutes driving) 35 minutes Castle Pines to Castle Rock (Compare to 24 minutes driving)
Number of Vehicles at Peak Hours	5	2 (1 vehicle at off-peak)	4	5

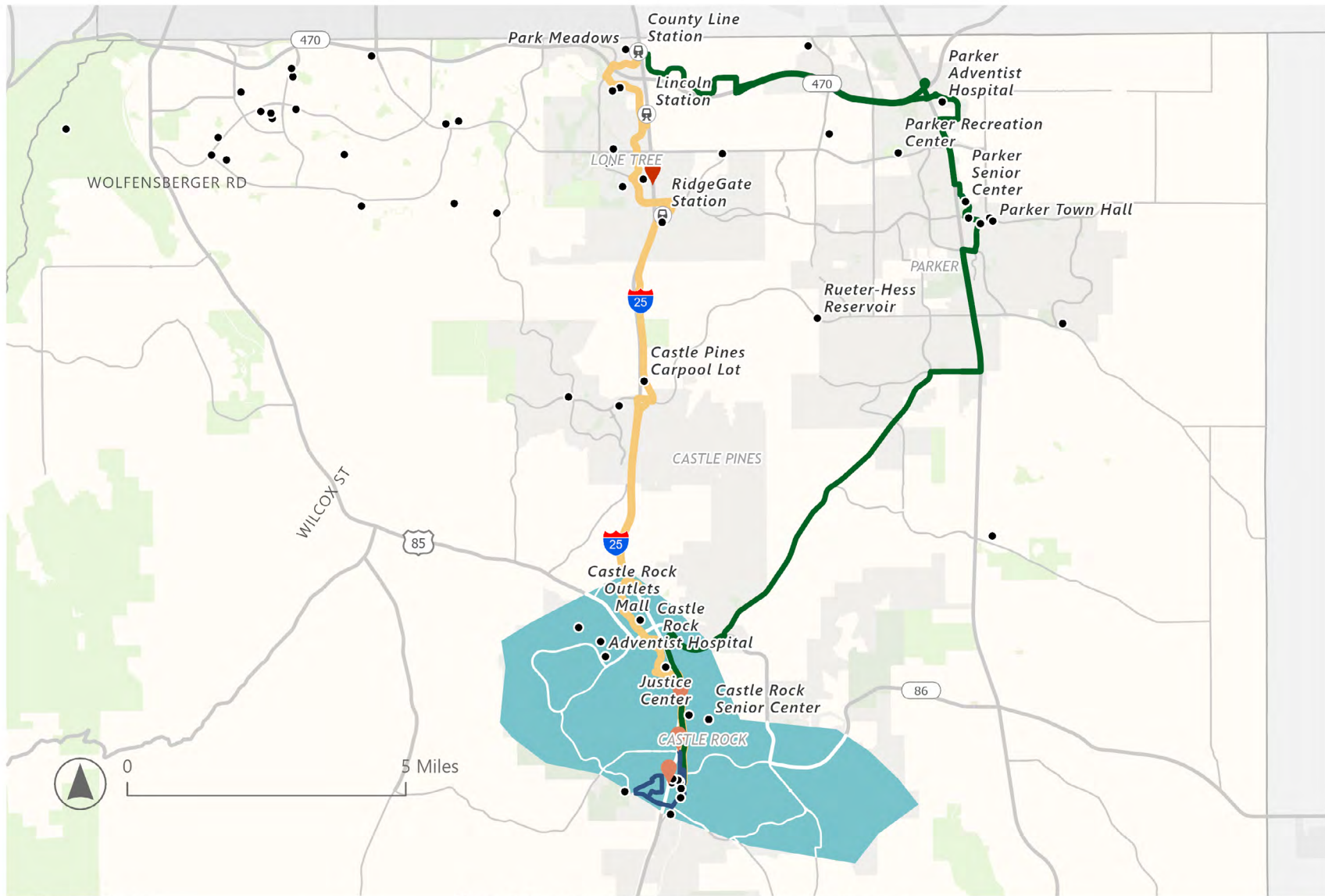


Figure 23: Phase 3 Transit Services



Future Phases – 2033 and Beyond

This phase represents the transit opportunities that were identified as part of the study’s process, but the current state of land use, development, and travel patterns indicates that these transit options may be most successful in the longer term.

Castle Pines Local (Circulator or Microtransit)

Castle Pines is one of Douglas County’s newest communities and is rapidly growing. Most of its land use is made up of residential, low-density areas, and nearly 60% of trips originating in Castle Pines are destined for areas outside of the city. Local destinations are concentrated near the I-25 and Castle Pines Parkway interchange. These land uses and travel patterns indicate unlikely success in the near-term, but as the city develops into more diverse land uses and a more balanced share of local travel, it is recommended that transit connect key origins and destinations through a microtransit service or a local circulator.

Sterling Ranch Local (Circulator or Microtransit)

The Sterling Ranch community is a master-planned community which is actively being developed at the time of this study. It is envisioned to comprise approximately 12,000 homes across nine villages. At the time of the study, it is too early to determine the best local transit options, but microtransit or a local circulator within the community may be well-suited to align with the community’s values once the community is built out and has origin-destination pairs that can be connected through transit.

Highlands Ranch to Sterling Ranch Subregional Fixed Route

As discussed above, Sterling Ranch is expected to grow drastically in the near future. As the area grows, more subregional connections between municipalities will likely be needed, but it is too early to evaluate the exact configuration of the routing and frequency that may be needed to serve the future demand. At the same time, the existing travel patterns show that trips that currently originate in Sterling Ranch are mostly headed to Highlands Ranch when traveling within the study area. It is expected that this trip pair will

continue to be a strong connection, which is why the exploration of a transit route is recommended in future phases.

Highlands Ranch to Castle Rock via Sedalia (US 85) Subregional Fixed Route

Another subregional fixed route to consider in future phases as the county continues to grow is connecting Highlands Ranch to Castle Rock via Sedalia along US 85. Although the current travel patterns do not directly show a large demand for travel between Highlands Ranch and Castle Rock, it is likely that this trip pairing will increasingly become important. This is especially true with the recent establishment of the 23rd Judicial District, which means there will be a larger need for countywide residents to travel to Castle Rock for court-related issues.

Other Concurrent Efforts

It is important to note that there are other efforts to expand transit in Douglas County within this proposed time period.

Continued Refinement of Link On Demand

Lone Tree has provided the Lone Tree Link on Demand for over ten years, with its format changing from a commuter circulator to an expanding microtransit zone over the years (Figure 5). The program is one of the most successful microtransit services in the Denver metro area, with its 2024 ridership increasing by 77%, largely in part due to its expansion into Meridian in January 2024. The service is funded through a partnership of Lone Tree, RTD, Denver South TMA, and Douglas County that includes discussions on the future service configuration to best meet the travel needs of the community. As the Link on Demand expands microtransit service into Highlands Ranch, close coordination between Douglas County and Lone Tree can help identify efficiencies within the Link on Demand program.

Enhancing Countywide Existing Senior/ Specialized Transit Services

Douglas County provides a range of older adult services designed to meet the transportation needs of its older residents. These services



are funded through various sources including the DRCOG Area Agency on Aging (AAA), Enhanced Mobility of Seniors & Individuals with Disabilities (DRCOG Section 5310), and DRCOG Human Services Transportation/Funding Advancements for Surface Transportation and Economic Recovery (HST-FASTER), among others. Douglas County itself does not directly fund these services but contributes by matching staff salaries. Notably, the county no longer receives funding from RTD as of 2024 for these services.

The transportation services are offered by several providers, including Aging Resources of Douglas County (ARDC), Castle Rock Senior Activity Center (CRSAC), and To The Rescue (TTR). These services generally operate from 9 AM to 3 PM, Monday through Friday. They accommodate trips to most destinations within the county, excluding the airport, with scheduling dependent on vehicle and driver availability. Notably, these services often prioritize critical transportation needs such as trips to medical facilities and social services. As a result, these services are limited in providing more widespread services. Although the recommended transit services in this study are designed to complement these specialized services, there is a growing demand for the specialized transportation services. Douglas County should continue to invest in these services to ensure that older adults and people with disabilities are able to efficiently access the destinations they need.

Collaborating with RTD for Route Improvements and FlexRide Restructuring

As the main provider of existing transit services in Douglas County, coordination with RTD provides Douglas County with several opportunities to deliver enhanced transportation services to its residents.

Route Improvements

Between the various bus and rail routes that RTD provides in and near the county, Douglas County should advocate for any changes to the routing or their service characteristics as necessary. For example, if local and subregional transit services (as recommended by this study) see a large portion of trips that connect into the RTD stations and park-n-rides, Douglas County should work with RTD to ensure transfer times, frequencies, first/last mile connections, and other service characteristics are aligned to best serve the transit rider's entire trip.

RTD FlexRide Restructuring

RTD's FlexRide program is like microtransit in that it provides first/last mile access within designated zones of the RTD boundaries. Within Douglas County, RTD operates FlexRide in Lone Tree, Meridian, South Inverness, and Parker, all of which have slightly different operating hours and configurations. However, the RTD FlexRide program has key differences like an advanced reservation system, fares, and a focus on connections to transit facilities. The Lone Tree Link On Demand, along with the recommended microtransit services, significantly overlap the FlexRide boundaries, so there is an opportunity to engage with RTD to consider how the two transit systems can mutually benefit one another rather than directly compete with one another. Potential considerations include restructuring the FlexRide zones to not have overlapping services; or eliminating the FlexRide program and reallocating that funding toward local services.

Coordination with Continued Evolution of Existing and Future Transit Services

Local and Subregional

The transit and multimodal framework's Step 3 depicts the need for consistent adaptability of Douglas County's local and subregional transit services. As all transit agencies have had to do, and most prominently showcased during and after the COVID-19 pandemic, Douglas County should stay nimble to changes. Land uses, travel patterns, and social norms will continue to change. To respond to these changes, Douglas County and its municipal partners must adapt and provide services that meet the community's needs.

RTD

Beyond the coordination of the integration of the local/subregional transit services with the existing RTD routes, Douglas County should stay involved in RTD's service planning, specifically for long-term projects. One key long-term project to stay involved in is the extension of the Southwest Rail Line (D Line), which was originally expected to be extended an additional 2.5 miles into Highlands Ranch.



CDOT

CDOT is another transit provider who serves Douglas County residents, specifically along the I-25 corridor. Its Bustang program provides limited service to Douglas County when connecting between Denver and Colorado Springs. However, the program is growing and CDOT will be constructing the Lone Tree mobility hub starting in Summer 2025, where Bustang will provide access to the regional transit system to Douglas County residents, visitors, and employees. Additionally, CDOT has been coordinating with the Town of Castle Rock on the selection of a location for a mobility hub. As of this report, no decisions have been made about the location of this mobility hub, but it would serve as another connection point between the local/subregional transit system and the statewide transit system. The mobility hubs are also an opportunity to provide enhancements to the overall transportation system by increasing access to multimodal transportation.

Front Range Passenger Rail

A Front Range Passenger Rail service is envisioned to connect communities along the Front Range between Fort Collins and Pueblo, with future connections to Wyoming and New Mexico. While it is in the planning stages, the train is envisioned to make stops in Littleton and in Castle Rock, directly serving Douglas County residents, visitors, and employees. Douglas County’s active participation in these planning efforts is critical to ensuring various transportation options can connect people to and from Douglas County.



RTD Loading Zone. Source: Fehr & Peers

IMPLEMENTATION PLAN



Implementation Plan

The implementation plan details the infrastructure elements necessary for ensuring an integrated multimodal system, operating and infrastructure costs, funding, and supporting programmatic elements that ensure the proper implementation of the proposed transit services over time.

Infrastructure Needs

The implementation of transit service as discussed in the phased approach requires consideration of the extent of infrastructure necessary to deliver a safe, comfortable, convenient and efficient door-to-door journey for transit riders. Infrastructure components to consider include the design and amenities of transit stops, transit vehicle storage, and multimodal connections to ensure a seamless transition for transit riders starting or completing their trip by foot, bike, or car. The infrastructure needs are especially high for the three subregional transit routes (relative to microtransit and circulator transit services) due to their structured service model and increased ridership capacity. As a result, the infrastructure needs associated with the three subregional transit routes are a significant focus of the subsequent sections. Below is the summary of the ultimate recommendations for the infrastructure needed to accomplish the identified transit opportunities within Douglas County. The full Infrastructure Memo can be found in **Appendix F**.

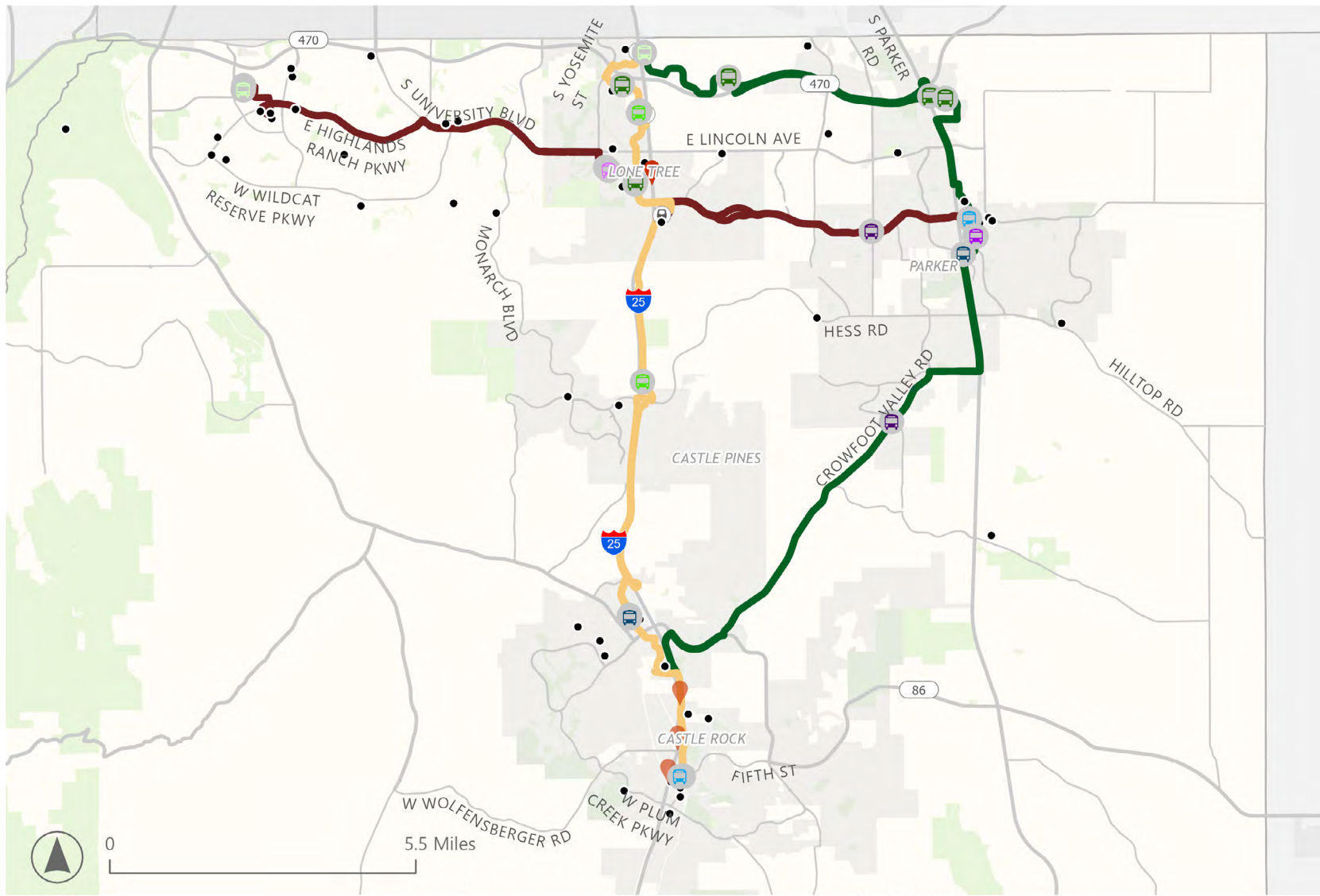
Transit Stops

Starting service for the three proposed subregional transit routes requires the implementation of new transit stops, in addition to leveraging the use of existing RTD stops. While the three proposed subregional routes are anticipated to utilize existing RTD stops, upgrades to the geometric layout and amenities associated with existing RTD stops are not considered within the following assessment. This assumes that maintenance and enhancement of RTD stops remain within the jurisdiction of RTD and their current maintenance agreements.

The study identified a transit stop typology based on three typical land use contexts in which the proposed stops fall within: residential, commercial, and regional. Within each of these, there are three tiers of transit stops with higher tiers having more amenities. Additionally, the study evaluated whether new stops would need to be an in-lane stop (where the transit vehicle stops adjacent to the curb while remaining fully or partially within the travel lane) or a pullout stop (where a dedicated pocket is created for transit vehicles to pull into and stop within).

Selected Transit Stop Infrastructure and Amenities

As each of the proposed subregional routes have similar service characteristics, each of the new subregional stops is assigned a type within the typology based on surrounding land use. It is recommended that the selected type for each stop be revisited following the implementation of safety and accessibility features and when more data regarding utilization and/or typical wait times at each stop are available, with the intent that the amenities installed are appropriate for the ridership and/or expected wait time for riders. **Figure 24** displays the locations of the proposed stops and their proposed typology/tier. The study recommends seven new stops on the Highlands Ranch to Parker via Lone Tree subregional route, eight new stops on the Lone Tree to Castle Rock via Castle Pines subregional route, and eleven new stops on the Lone Tree to Castle Rock via Parker subregional route.



Routes

- Sub-Regional: Lone Tree to Castle Rock via Parker
- Sub-Regional: Lone Tree to Castle Rock via Castle Pines
- Sub-Regional: Highlands Ranch to Parker

Stops

- Commercial Tier 1
- Commercial Tier 2
- Commercial Tier 3
- Regional Tier 1
- Regional Tier 2
- Regional Tier 3
- Residential Tier 1
- Residential Tier 2
- Residential Tier 3

Key Destinations

- Study Area Destination
- Study Area Transit Connection
- Future Mobility Hub
- Potential Castle Rock Mobility Hub



Figure 24: Transit Stops - Subregional Transit Routes by Type

Active Transportation Connections

To facilitate safe, comfortable, and convenient connections at all stages of a transit trip (first-mile, last-mile, and transfers between routes) implementation of the three proposed subregional routes requires a robust active transportation network in the vicinity of each transit stop. In the context of this study active transportation connections include sidewalks, bike lanes, and crosswalks, in addition to supporting safety and accessibility infrastructure such as curb ramps, warning signs, curb extensions, and traffic control devices.

Active Transportation Connections Summary

The proposed active transportation connections, categorized by subregional route is summarized in **Table 5**, and the callout below provides two examples of locations with these proposed connections.

Park-n-Rides

Park-n-ride facilities are strategically designed to enhance the accessibility and convenience of public transportation systems. By providing designated parking areas where transit users can leave their vehicles (or be dropped off) and transfer to transit options, these facilities help reduce traffic congestion and promote sustainable transportation. The development of park-n-ride locations involves careful planning to ensure they meet the needs of diverse user groups while integrating seamlessly with existing transit networks. These facilities represent an upgrade to traditional transit stops, transforming them into comprehensive access points that offer improved amenities and connectivity. By doing so, park-n-ride sites not only facilitate a smoother transition between personal and public transport but also elevate the overall commuting experience, encouraging more people to embrace public transit as a viable and efficient option.

Location Selection and Amenities Development

To select new park-n-ride locations and their amenities, the project team reviewed existing park-n-ride sites and proposed new locations, identified common amenities and characteristics at example sites, and developed a list of possible amenities for the new

Table 5: Proposed Active Transportation Connections by Subregional Transit Route

Subregional Route	New Sidewalk Connection (ft)	New Bike Lane Connection (ft)	New Curb Ramps	New Crosswalks with Markings (Tier 1)	New Crosswalks with Warning Signs (Tier 2)	New Crosswalks with RRFBs (Tier 3)	New Crosswalks with Traffic Signal (Tier 4)
Highlands Ranch to Parker Via Lone Tree	2,700	0	9	5	4	5	1
Lone Tree to Castle Rock via Castle Pines	4,150	1,250	4	1	0	1	0
Lone Tree to Castle Rock via Parker	6,250	0	42	1	1	10	2

Tier 3 and Tier 4 Crossing Improvement Locations

TIER 3 LOCATIONS

- Highlands Ranch Town Center PnR Gate C
- UC Health N and Park Central Dr
- Sky Ridge Medical and Ridgeway Pkwy SB
- UC Health S and Park Central Dr
- Sky Ridge Medical and Ridgeway Pkwy NB
- Advent N and Crown Crest Blvd WB
- UC Health Lone Tree and Park Meadows Dr SB
- Chambers Rd and Crowfoot Valley Rd SB
- Amazon Facility and Liberty Wy WB

TIER 4 LOCATIONS

- S Parker Rd and Mountain Man Dr
- Highlands Ranch Pkwy and Ridgeway Wy
- Parker Rd and Hilltop Rd



Rectangular Rapid Flashing Beacon (RRFB) in Golden, CO. Source: ITE.

locations. This led to the creation of a tiered amenity toolkit that was tailored to the user groups' specific needs and categorized into safety, comfort, mobility, and information. This amenity toolkit was applied to the proposed park-n-ride locations based on current and future transit connections and their headways. As a result, four locations were selected, and each was matched to the appropriate amenities tier to best support the user groups at each site. A summary of all existing and proposed park-n-ride locations is presented graphically in **Figure 25**.

UC HEALTH HIGHLANDS RANCH

The parking facilities at the UC Health Highlands Ranch Hospital would serve as a park-n-ride for the new subregional route from Highlands Ranch to Parker via Lone Tree and additionally provide access to two transit routes at the existing Highlands Ranch Town Center stop, resulting in an average headway of approximately twelve minutes in the peak hour. Due to the proximity to different transit options and the resulting accessibility potential the park-n-ride is proposed to be a Tier 3 lot. Coordination would be required with the Highlands Ranch Metro District and the hospital to understand how many parking spaces can be dedicated to transit purposes.

CASTLE PINES CARPOOL LOT

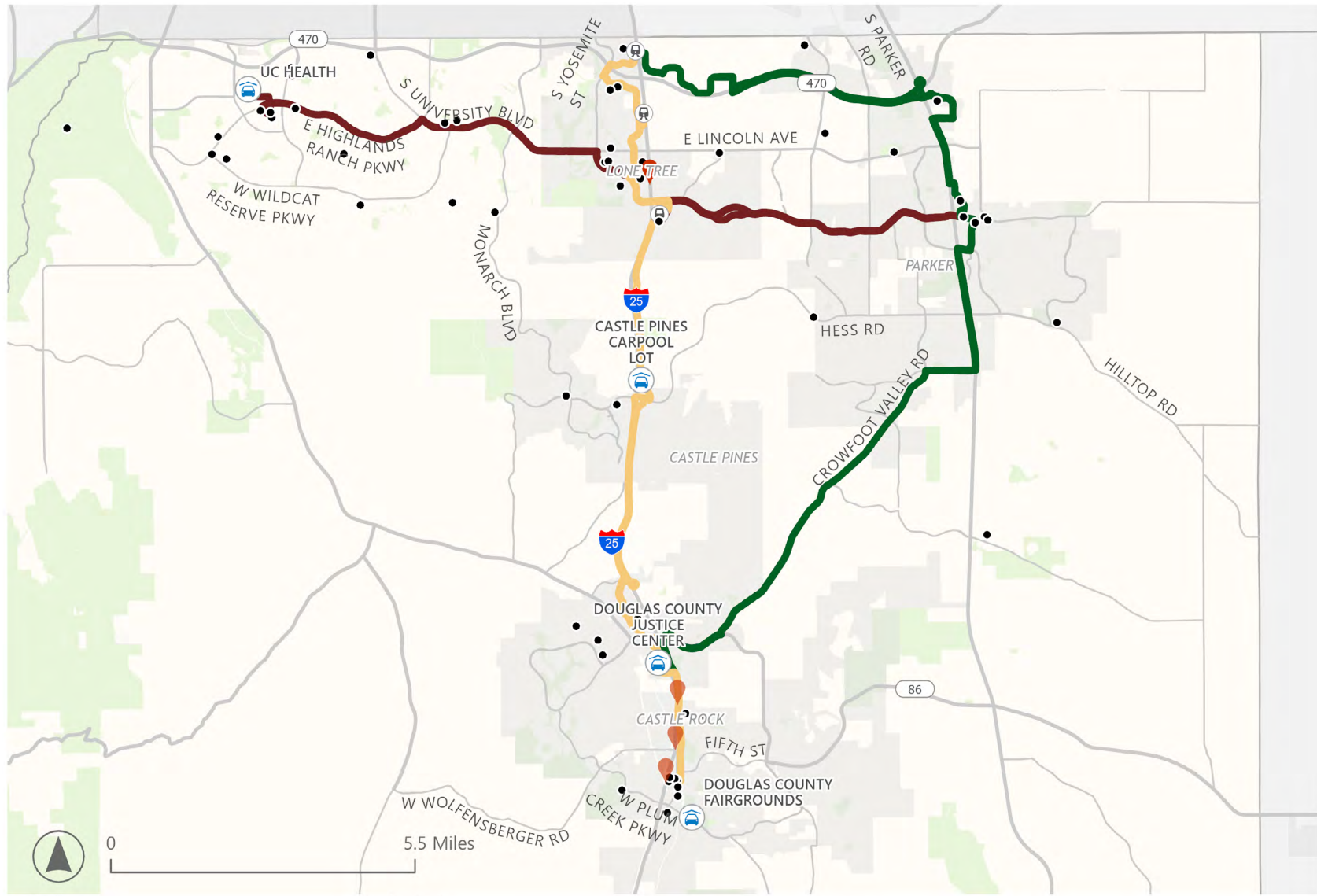
The existing parking lot on Havana Street is currently designated as a carpool facility but could serve as a park-n-ride facility once future transit is provided. With plans to establish a regional Tier 2 transit stop at this location, there is a significant opportunity to enhance the current infrastructure and transform it into a fully functional Tier 2 park-n-ride. The lot currently accommodates 100 cars and includes 5 accessible stalls, making it well-suited to serve the community in and around Castle Pines. Additionally, this facility will support the new subregional line from Lone Tree to Castle Rock via Castle Pines, providing convenient access to regional transit options and improving overall connectivity for commuters. Because this location is owned by Douglas County, no additional coordination would be needed to transform the existing carpool lot into a park-n-ride.

DOUGLAS COUNTY JUSTICE CENTER

Although the current routing of the Lone Tree to Castle Rock via Castle Pines subregional route does not have a designated stop at the Douglas County Justice Center, the route passes by this location and could potentially be a stop on the route in the future. As the lot is already Douglas County property, the process to procure and ultimately transition the parking lot to a park-n-ride can be streamlined when compared to privately owned lots. The lot can currently host about 340 cars, and it is proposed to be turned into a Tier 2 park-n-ride lot, although coordination on how many parking spots can be dedicated for transit purposes will need to be coordinated between the Douglas County Public Works Department and the Douglas County Sheriff's Office.

DOUGLAS COUNTY FAIRGROUNDS

Owned by the Douglas County Board of Commissioners, this potential park-n-ride facility offers a significant opportunity to enhance transit accessibility in the area. Although it would require some diversion from the existing route from Lone Tree to Castle Rock, the location provides ample space, accommodating upwards of 600 cars—far more than can be managed within Downtown Castle Rock. Due to its capacity to serve multiple transit lines and its proximity to local attractions, it is proposed to be a Tier 3 park-n-ride. This facility would serve the subregional lines from Lone Tree to Castle Rock via Parker and via Castle Pines, as well as the Castle Rock microtransit zone. Additionally, it is within walking distance to the Castle Rock circulator, making it a strategic hub for commuters and visitors alike. Coordination on how many parking spots can be dedicated for transit purposes will need to be coordinated between the Douglas County Public Works and Facilities Departments.



- | | |
|---|--------------------------------------|
| Routes | Key Destinations |
| — Sub-Regional: Lone Tree to Castle Rock via Parker | ● Study Area Destination |
| — Sub-Regional: Lone Tree to Castle Rock via Castle Pines | 🚗 Study Area Transit Connection |
| — Sub-Regional: Highlands Ranch to Parker | 📍 Future Mobility Hub |
| Stops | 📍 Potential Castle Rock Mobility Hub |
| 🚗 Transit Stop with Park-n-Ride | |



Proposed Park-n-Ride Locations

Figure 25: Proposed Park-n-Ride Locations

Transit Vehicle Storage for Highlands Ranch Microtransit Service

Under the phased plan, the transit service is expected to be turnkey, with a contractor managing operations and maintenance, including the procurement of required facilities. Nonetheless, to provide the proposed transit services, Douglas County will partner with the transit vendors to provide storage facilities for transit vehicles for its expanded Link On Demand program. As Colorado experiences a wide range of weather conditions, including snow, rain, hail, and strong winds, an enclosed or covered storage facility is recommended to protect the transit fleet and employees during adverse conditions. An example of a covered storage facility is presented in **Figure 26**. Based on the needs of Douglas County, a storage facility ranging in size from 7,000 square feet to 19,000 square feet is estimated to be sufficient for a fleet of five to fifteen vehicles. Note that this footprint estimate does not account for space for transit vehicles to circulate around the facility, which will require consideration when identifying potential sites for the storage facility. In the interim, Douglas County will partner with its internal departments and local municipalities to find locations that are suitable for the fleet and can be shared with existing parking uses. Additionally, as Douglas County's transit services grow, there will likely be a need to coordinate the storage of microtransit/circulator vehicles from various local services and the larger vehicles used on the subregional routes.



Figure 26: Transit Vehicle Storage. Source: GFT Infrastructure Inc.

Infrastructure Programming

The proposed Infrastructure Programming (**Figure 27**) aids in identifying the necessary infrastructure investments to implement the phased approach and improvements to increase the comfort, convenience and the overall passenger experience. This includes the addition of transit stops, active transportation connections, and park-n-ride facilities. Each infrastructure type comes with its own unique typology, amenities, and features that must be considered in the planning and design process. Aligned with the Transit and Multimodal Framework, infrastructure improvements will be implemented in a phased sequence to ensure efficient development. This Infrastructure Programming is also split into three key steps. At the conclusion of step 3, all the infrastructure elements should be built out to their respective recommended tier.

Step 1: Start-Up

The initial phase will focus on establishing the core network, providing the minimum necessary infrastructure required to begin transit service. For transit stops, this phase can include the installation of transit signs and poles. Additionally, the infrastructure elements will be built to ADA compliance, this includes passenger boarding pads and curb ramps, and for park-n-rides, the phase can include the placement of wayfinding and parking lot signage.

Step 2: Foundation

After establishing the basic network, the focus will shift to enhancing safety and accessibility, tailored to the specific infrastructure type under consideration. For transit stops, this phase may involve enhancing passenger boarding areas and enhancing the geometric layout to include vehicle pullouts and bus pads. Where needed sidewalks, and crosswalks, along with necessary traffic control devices, will be installed to ensure connectivity to and at adjacent intersections. For park-n-rides, improvements may include enhanced lighting or security cameras to bolster site safety and accessibility.

Step 3: Amenities

The final phase will concentrate on incorporating amenities that enhance user comfort and experience, such as shelters at transit stops, improved active transportation connections (crosswalks, sidewalks, and bike lanes) within the walkshed/bikeshed of the stop location, bike racks at park-n-ride

facilities, and other features that contribute to a more pleasant transit experience. At the completion of this step, the transit stop(s) will match the categorized transit typologies as described in the transit stops section of the plan. By following this phased approach, the implementation of new transit service can be tailored to the specific needs of the riders and surrounding community.



Figure 27: Infrastructure Programming

CONSIDERATIONS FOR PRIORITIZATION

To prioritize elements within each phase of implementation effectively, applying a mix of both quantitative and qualitative measures is recommended. This comprehensive approach involves understanding how transit stops, active transportation connections, and park-n-ride facilities can integrate to provide a seamless transit experience. Infrastructure improvements can be bundled strategically, such as pairing transit stop upgrades with enhancements to surrounding active transportation connections. Quantitative measures should also be incorporated into prioritization, with possible considerations including ridership and headway for transit stops, traffic volume data, speed metrics, crash statistics for active transportation connections, and parking utilization for park-n-rides.

Costs

In addition to initial capital costs, there are long term operating and maintenance costs to consider. Operating costs are associated with the direct costs (labor, fuel, maintenance, etc.) to operate each transit service, and they assume that Douglas County would contract with third-party transit providers to provide turn-key service. Infrastructure costs are associated with the built environment, often representing one-time costs for physical improvements to transit stops and surrounding facilities like park-n-rides, bicycle infrastructure, and pedestrian infrastructure and annual maintenance cost to keep the infrastructure in a state of good repair.

Operating Costs

The operating costs (in 2025 dollars) by phase to deliver each transit opportunity are displayed in **Table 6**. These costs assume the operating characteristics as described in the phased approach. The costs have been developed based on peer review of transit systems, but these costs may fluctuate with a variety of factors, such as modifications to the service area/routing, frequency/response time, hours/days of operation; chosen contracted operator; and larger economic forces like inflation.

Infrastructure Costs

The cost required to deliver the infrastructure outlined in the implementation plan was estimated using historical price data (2024) published by CDOT, based on data availability. Cost estimates have been developed to a planning-level of detail and do not include the cost of utilities, right-of-way acquisitions, and easements, which would be determined in future engineering phases. To account for the degree of uncertainty within the current estimates, the following multipliers have been applied to scale all cost estimates:

- Contingency – 30% surcharge
- Mobilization – 15% surcharge
- Traffic control – 10% surcharge

A summary of all infrastructure pieces required to implement the proposed transit service is detailed in **Table 7**. Detailed costs for each infrastructure category are described in **Appendix F**.

Table 6: Operating Costs by Phase (in 2025 Dollars, Not Adjusted for Inflation)

Transit Service	Phase 1			Phase 2			Phase 3			Future Phases
	2025	2026	2027	2028	2029	2030	2031	2032	2033	
Highlands Ranch Microtransit	\$2.9M	\$2.9M	\$2.9M	\$2.9M	\$2.9M	\$2.9M	\$2.9M	\$2.9M	\$2.9M	\$2.9M
Parker Microtransit		\$1.1M to \$1.3M	\$1.1M to \$1.3M	\$2.1M to \$2.3M	\$2.1M to \$2.3M	\$2.1M to \$2.3M	\$2.1M to \$2.3M	\$2.1M to \$2.3M	\$2.1M to \$2.3M	\$2.1M to \$2.3M
Highlands Ranch to Parker via Lone Tree				\$1.8M to \$2.3M	\$1.8M to \$2.3M	\$1.8M to \$2.3M	\$1.8M to \$2.3M	\$1.8M to \$2.3M	\$1.8M to \$2.3M	\$1.8M to \$2.3M
Castle Rock Local							\$900K to \$1.1M	\$900K to \$1.1M	\$2.1M to \$2.3M	\$2.1M to \$2.3M
Lone Tree to Castle Rock via Castle Pines								\$1.8M to \$2.3M	\$1.8M to \$2.3M	\$1.8M to \$2.3M
Lone Tree to Castle Rock via Parker									\$2.5M to \$3.2M	\$2.5M to \$3.2M
Castle Pines Local										TBD
Sterling Ranch Local										TBD
Highlands Ranch to Sterling Ranch										TBD
Highlands Ranch to Castle Rock via Sedalia										TBD
Continued Refinement of Link On Demand	\$100K	\$100K	\$100K	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Enhancing Countywide Existing Senior/Specialized Transit Services	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Collaborating with RTD: Route Improvements and FlexRide Restructuring	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Coordination with Continued Evolution of Existing and Future Transit Services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	\$3M	\$4.1M to \$4.3M	\$4.1M to \$4.3M	\$6.8M to \$7.5M	\$6.8M to \$7.5M	\$6.8M to \$7.5M	\$7.7M to \$8.6M	\$9.5M to \$10.9M	\$13.2M to \$15.3M	\$13.2M+ to \$15.3M+

Table 7: Infrastructure Cost Estimate Summary

Route	Category	Cost (excl. multipliers)	Cost (incl. multipliers)
Highlands Ranch to Parker via Lone Tree	<i>New/Upgraded Connections to Stops</i>	\$1,306,000	\$2,025,000
	<i>Modifications to Transit Stop Layouts</i>	\$265,000	\$411,000
	<i>New Transit Stop Amenities</i>	\$169,000	\$262,000
	<i>New Park-n-Rides Upgrades</i>	\$543,000	\$842,000
	Route Subtotal	\$2,283,000	\$3,540,000
Lone Tree to Castle Rock via Castle Pines	<i>New/Upgraded Connections to Stops</i>	\$633,000	\$978,000
	<i>Modifications to Transit Stop Layouts</i>	\$426,000	\$660,000
	<i>New Transit Stop Amenities</i>	\$181,000	\$281,000
	<i>New Park-n-Rides Upgrades*</i>	\$766,000	\$1,187,000
	Route Subtotal	\$2,006,000	\$3,106,000
Lone Tree to Castle Rock via Parker	<i>New/Upgraded Connections to Stops</i>	\$2,210,000	\$3,424,000
	<i>Modifications to Transit Stop Layouts</i>	\$445,000	\$689,000
	<i>New Transit Stop Amenities</i>	\$201,000	\$312,000
	<i>New Park-n-Rides*</i>	\$0	\$0
	Route Subtotal	\$2,856,000	\$4,425,000
Transit Storage	<i>New Transit Storage**</i>	\$2,372,000	\$3,677,000
	Storage Subtotal	\$2,372,000	\$3,677,000
Infrastructure Cost Estimate Total		\$9,517,000	\$14,748,000

* Phase 3 includes three Park-n-Rides, serving both the Lone Tree to Castle Rock via Castle Pines and the Lone Tree to Castle Rock via Parker Route.

** The selected cost for transit storage corresponds to a 19,000 square foot facility (housing approximately 15 transit vehicles).

Funding

While the transit pilot projects have programmed funding for two years, long-term sustainable funding is needed. As of December 2024, Douglas County was awarded \$2.5 million to fund the pilot projects through a DRCOG TIP grant, half of which is planned for FY 2026, and the other half for FY 2027. This funding has been awarded but can change due to the state’s budgeting process. This DRCOG TIP grant is made up of federal funding through the Carbon Reduction Program, state funding through the Multimodal Transportation and Mitigation Options Fund (MMOF), and a local funding match through the Douglas County budget. A variety of possible long-term funding sources are described below.

Local Funding (Cities, Towns, County)

Local funding comes directly from a jurisdiction’s budgeting processes, and it includes methods beyond transit fares. This typically involves the identification of funds in the general fund or department-specific funds that can be used for transit. For example, Douglas County has chosen to allocate funding for the Highlands Ranch microtransit service through the Road Sales and Use Tax Fund. Additionally, local jurisdictions can leverage partnerships with entities like private businesses, local employers, educational institutions, and senior centers to fund transit programs or subsidize transit fares for specific riders.

Regional Funding

Regional funding is typically available through agencies who act as funding facilitators; the funds come from a compilation of funding sources but are not raised by the regional agency directly. Two regional agencies with available funding are DRCOG and RTD.

DRCOG

DRCOG distributes federal, state, and local funds within the Denver region. DRCOG collaborates with local governments in the region to create the TIP, a four-year plan that implements the long-range Regional Transportation Plan’s goals and identifies specific transportation and transit projects for which the region allocates its federal, state and local funds. DRCOG TIP funding is available through two buckets: regional and subregional. To

determine subregional projects, each county holds a subregional forum which is responsible for submitting applications for consideration by the DRCOG Board of Directors; in this case, the Douglas County Transportation Forum (DCTF). DRCOG typically calls for new TIP projects every other TIP cycle, so the next call for projects will likely be in 2027. At that time, Douglas County can determine whether to submit under the regional or subregional share.

Additionally, DRCOG has several categories of set-aside funds that can be used to improve operations of and access to existing transit systems, such as the Regional Transportation Operations and Technology set-aside; the Human Service Transportation set-aside; and the Corridors, Community, Livability, and Innovative Planning set-aside.

RTD

Though some RTD funding comes from state and federal grants, about 70% of funding is from a sales and use tax levied across the transportation district. Beyond providing regional transit services, RTD funds additional local transit through the RTD Partnership Program. Eligibility for funding is based on alignment with the RTD Strategic Plan, local support and ability to meet local needs, and providing service where a current service gap exists. Only agencies that are within the RTD boundary are able to compete for this funding. These mobility services must be operated outside of existing RTD services and may not include infrastructure investments. The maximum project request is \$900,000, and applicants must be able to provide a 20% funding match. Lone Tree Link On Demand is a strong example of how pilot funding from the RTD program can facilitate growth of a robust microtransit system. As Douglas County explores ways to fund the recommended services, this program is a competitive and viable funding source that RTD may continue to improve upon.

State Funding

CDOT is responsible for both managing state-generated funds and awarding federal funds statewide. Some state funds are incorporated into the Statewide Transportation Program, or STIP, which is a federally required four-year program of planned transportation projects, including transit projects. Projects eligible for STIP funding must be included in a regional TIP.

Additionally, CDOT administers state funds through the Multimodal Transportation and Mitigation Options Fund (MMOF), a statewide grant

program that funds multimodal transportation projects, including fixed route and on-demand transit. MMOF funds are distributed by formula among Colorado's 15 Transportation Planning Regions, and projects require a 50% funding match.

CDOT also administers some state funds through the Office of Innovative Mobility (OIM). Microtransit projects may be eligible if the applicant can demonstrate that microtransit fills an essential role in transportation demand management for the locality.

Finally, in 2024, the Colorado State Legislature passed SB24-230, which imparts a new fee on oil and gas production starting July 1, 2025. This will be used to fund local transit by providing roughly \$77 million annually to the local transit operations cash fund which is to be used for expanding local transit service and prioritizing transit improvements in certain communities. It will also allocate roughly \$11 million annually to the local transit grant program cash fund to provide competitive grants for expenses associated with providing ongoing public transportation. As this funding source comes online, Douglas County should investigate the application process.

Federal Funding

Federal funding for transit projects is available through FTA, both through annual formula grants and competitive discretionary funding. While some of these grants are accessible to local governments and transit agencies, many of them are awarded to states, metropolitan planning organizations (MPOs), and transit agencies/operators; thus, partnering with these entities is critical. In Douglas County, this typically means pursuing federal funding through CDOT, DRCOG, or RTD, as they are typically the eligible recipients. The jurisdiction seeking federal funding will need to apply for funds through the appropriate eligible recipient for any given grant.

General transit-focused grants include:

- Better Utilizing Investments to Leverage Development (BUILD) Transportation Grants Program – funds investments in transportation infrastructure, including transit.
- Grants for Buses and Bus Facilities Formula Program (5339) – provides funding to states and transit agencies to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. There is an additional competitive component to this grant through which applicants can receive additional funding.
- Urbanized Area Formula Grants (5307) – provides funding to urban areas for transit capital and operating assistance, including for microtransit.

- Enhanced Mobility of Seniors and Individuals with Disabilities (5310) - provides funding to support transportation for seniors and individuals with disabilities by funding capital, purchased service, and preventative maintenance projects for transportation providers.
- Surface Transportation Block Grant Program – provides funding for states and localities for projects to preserve and improve the conditions and performance of surface transportation, including intercity bus and transit.
- Carbon Reduction Program – provides funds for projects designed to reduce transportation emissions, defined as CO2 emissions from on-road highway sources.

Additional innovation-focused grants are available and include transit. They heavily encourage partnerships between municipalities/transit agencies and shared use mobility providers/technology system suppliers to develop innovative, integrated technologies for delivering improved mobility. These include:

- Mobility on Demand Sandbox Program
- Integrated Mobility Innovation
- Enhancing Mobility Innovation
- Accelerating Innovative Mobility

Federal funding is also available through Congressionally Directed Spending (CDS). CDS is funding that members of US Congress allocate to projects or organizations within their home states/districts on a yearly basis through annual appropriations bills. State and local governments, MPOs, and transit agencies are all eligible to apply for CDS. Accounts that are appropriate for transit and microtransit project funding include Transit Infrastructure Grants through the Department of Transportation (DOT) and Economic Development Initiatives through Housing and Urban Development (HUD).

Private Sponsorship Financing

Douglas County and its partners can also pursue funding through private sponsorships. Business advertising is a viable means of generating revenue and offsetting operating costs on transit. This can include advertising on the outside and inside of vehicles; digital advertising on ride-hailing apps; or ads at transit stops.

Another viable source of revenue is through partnerships with employers who provide transit as a benefit to their employees. When Link On Demand first started in Lone Tree, part of its funding came from partnering with major employers who benefited from the new transit service.

Private partnerships can also be useful tools for funding the construction and maintenance of the physical infrastructure. Partnerships with community organizations, business improvement districts, or other entities can help build and maintain the amenities at and around transit stops.

A note of caution with private sponsorship opportunities is the long-term sustainability of this funding, as business advertising and private partnerships can ebb and flow with business conditions and priorities.

Local Examples

Several jurisdictions within the DRCOG area offer microtransit programs. A summary of project funding is shown in **Table 8** (note: this table may not include all funding sources as not all funding sources are publicly available).

Beyond funding, coordination between local municipalities, the county, and third-party transit providers will be necessary for long-term success.

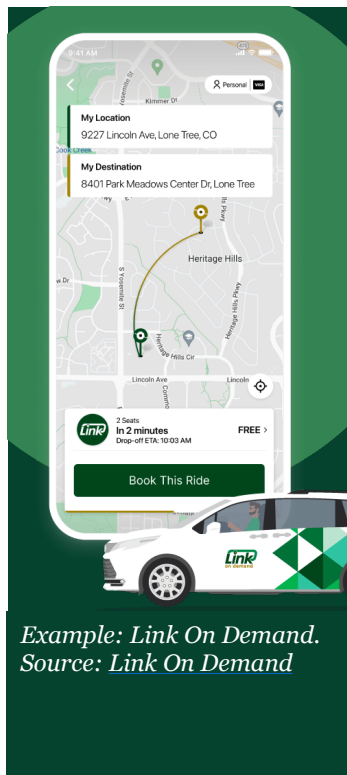
Table 8: Examples of Microtransit Funding in DRCOG Region

Jurisdiction	Service	Implementation Year	Funding Source(s)	Contract Operator
Lone Tree	Link On Demand	2014	<ul style="list-style-type: none"> • RTD Partnership Program • City of Lone Tree • SPIMD (Denver South) • Douglas County 	Via Transportation
Denver	Denver Connector – Globeville/Elyria-Swansea and Montbello Microtransit	2021	<ul style="list-style-type: none"> • RTD Partnership Program • City and County of Denver 	Downtowner
Denver	Denver Connector - West Denver Microtransit	2024	<ul style="list-style-type: none"> • RTD Partnership Program • City and County of Denver 	Downtowner
Boulder County	Ride Free Lafayette	2020	<ul style="list-style-type: none"> • Boulder County Transportation Sales Tax • DRCOG Human Service Transportation Set-Aside 	Via Mobility Services of Boulder County
Longmont	RIDE Longmont	2024	<ul style="list-style-type: none"> • RTD Partnership Program • Congressionally Directed Spending (Congressman Joe Neguse) 	Via Transportation

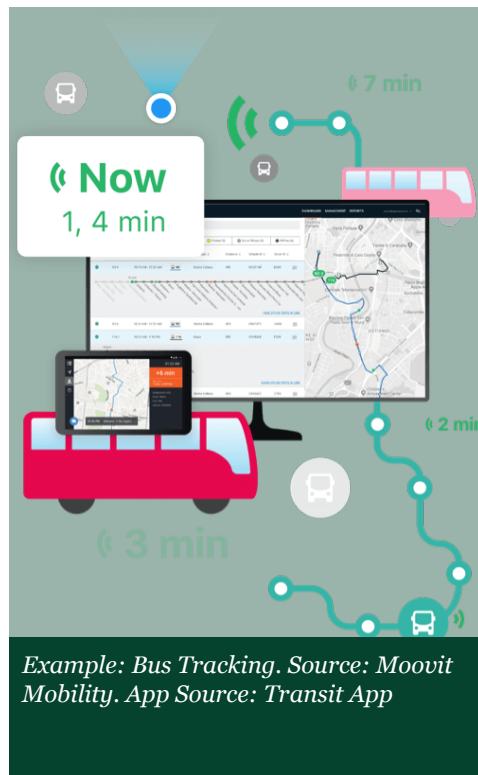
Supporting Strategies

Technology and Trip Planning

Trip planning technology makes it safer and easier for riders to plan and enjoy their trip. Most of these tools come as smartphone apps, website resources, dispatch phone numbers, and digital signage at transit stops that help riders plan their trip from A to B, get updates on wait times with real-time tracking of vehicle location, pay for fares, communicate any individual or group needs like ADA accessibility, and allow the rider to give feedback or highlight concerns to the operators. For the microtransit options, a smartphone app and call-in option provide for trip requests in real time or scheduling pickup and drop-offs in advance. The technology in this space continues to improve, and many vendors are working on providing insights that are cross-agency. Douglas County should develop relationships with these vendors to pursue transit technology for ease of use and efficiency for riders.



Example: Link On Demand. Source: Link On Demand



Example: Bus Tracking. Source: Moovit Mobility. App Source: Transit App

Safety

Safety planning is inherent in all transit options and a top priority for the Douglas County transit system. Within the transit options presented, on-board safety includes considerations for extensive driver training and vetting, policies for passenger exclusion due to misuse or violations, use of security cameras onboard vehicles, and prompt resolution of any passenger/driver issues or safety concerns. Transit operators should be required to provide vehicles that are no more than four years old and are outfitted with vehicle location tracking and recording. At key stops, safety also includes security cameras, emergency phones, and intentional design of transit infrastructure. These infrastructure designs include well-lit, wide sidewalks, crossings to access transit stops, and places to securely store bikes, both on the transit vehicle and at select stops.



Example camera on bus. Source: Adobe Stock Image

Branding and Marketing

A critical aspect of successfully implementing transit is a robust marketing and outreach effort. An awareness building campaign paired with the service rollout ensures that community members and visitors learn of the new service, understand how to request trips, and become aware of the service area and transit stops. While traditional advertising will be important, additional community-specific outreach strategies should also be pursued. These can include engaging local stakeholders who have existing community ties to serve as ambassadors for the new service and establishing educational

messaging highlighting the benefits of the new service that is open to all. Community outreach events such as town halls can be used to educate the public on how to use the system, including setting them up with an account, explanation of rules and policies of the service, and step-by-step guidance as to how to book a ride and use the app.

Overall Marketing Strategy

For the transit services to be successful, Douglas County and its municipal partners should pursue a broad outreach approach. All marketing efforts should focus on educating community members about the service itself and conveying key messages:

1. New transit services in Douglas County have been designed to provide transportation options that help people move around the county easily and efficiently to their desired destinations.
2. The county will continuously seek opportunities to provide free or low-cost transit services that offer competitive travel times..
3. The county will work to always ensure rider safety and comfort.
4. The county will continuously seek rider feedback to learn how the new services can be optimized to best meet local and subregional travel needs.

The county and municipalities can partner with local businesses, schools, community centers, senior centers, special events, and other key destinations to post information about the new services. Beyond physical advertisements, social media and local media can broaden awareness. The county can also partner with RTD and other community partners like Denver South who may be willing to promote the services.

Additionally, Douglas County should work with the selected vendor(s) to develop a robust brand identity for the services. To ensure the marketing campaign has an effective reach, Douglas County can monitor who is utilizing the services through rider surveys and target marketing efforts to community groups who have not yet tried the new service. Having a dynamic marketing campaign that tailors messaging to the various audiences within Douglas County will help ensure that all efforts to raise awareness target both people who are likely to ride, like existing transit users, and those who are not currently transit users but may benefit from the new service.

Branding

Applying a logo and uniform color scheme on vehicles and on all marketing

collateral helps establish a uniform brand. Brand awareness is critical to developing an understanding that the new transit services are distinctive from RTD and new. The selected vendor will likely have prior experience with service branding and can advise on the parameters for applying branding to their fleet. Developing a distinctive visual style for the system will help community members readily identify the transit vehicles.

Some local municipalities may choose to brand their local transit services (microtransit or circulators) in their local colors. Douglas County should work with its municipal partners to raise awareness that these services are in partnership with Douglas County but have unique, local elements. This could mean calling the services by the same name but branding in colors and style that match local branding.

Signage

Signage describing the new service and featuring the branding should be posted in all locations where it is likely community members will start or end rides. Although the near-term microtransit operations would be zonal, where riders could make trips between any two points within the zone boundaries, these signs can serve to designate pick-up and drop-off locations, which would make the system easier to use. Furthermore, having a signed, dedicated curb space at the RTD light rail stations and park-n-rides could also help identify the new service and educate potential riders on how to use it. High quality, visually compelling signs can be targeted to key market groups such as youth, seniors, and commuters.



Example transit stop. Source: RTC



Operating Model

The transit services described in the phased approach can be operated through a turn-key contract (third-party service provider) or agency-operated, whereby the county would fully manage and operate the service. Turn-key contracts involve delivering a service plan directly to a service provider and relying on that provider to implement the service. The vendor is typically experienced in delivering fixed route and on-demand transit service and would manage all aspects of the service. Based on the logistical advantages and disadvantages displayed below, it is recommended that the transit services be initially operated through a turn-key contract. Certain details may need to be worked out in coordination through the terms of the turn-key contract such as vehicle type preference (gas, electric, hybrid), vehicle storage, maintenance, washing, etc. Often, the more the county/municipality offers a vendor in-kind, the less costly the turn-key contract with the operator will be.

Advantages

- ✓ Quick deployment
- ✓ Does not require Douglas County or its municipal partners to have experience operating a transit service
- ✓ Does not require hiring of additional Douglas County or municipal personnel (e.g. vehicle operators, administrative staff, maintenance teams)
- ✓ Vendor is responsible for service quality and compliance
- ✓ Vehicle capital costs are included in the contract, which minimizes the capital assets that Douglas County must acquire
- ✓ Allows Douglas County to take advantage of the vendor's existing scale and experience

Disadvantages

- × Requires oversight by Douglas County
- × Flexibility, responsiveness, and adaptability are constrained to the terms of the contract and to the capacity of the vendor
- × Less control of service quality, customer experience, and operational procedures
- × Can become more costly in the long-term than being agency-operated

Roles and Responsibilities

It is important to establish and understand the roles and responsibilities of implementing transit services through turn-key contracts. It is envisioned that the contracts with vendors will be held either by Douglas County and/or by individual municipalities, depending on each transit service and its service area(s). **Table 10** displays the different responsibilities of both the county/municipal staff and the transit vendor when operating either the on-demand or fixed route service. In general, a turn-key contract allows the county/municipalities to have minimal staff managing the transit services as discussed previously. Especially with the initial transit options in the first phase, the staff resource need will be approximately 0.25 FTE (full-time equivalent) and can be incorporated into an existing role. As the services grow and as more transit services across the county are introduced, staff commitment will rise. Although this guidance generally assumes that each transit service will be contracted through the most appropriate jurisdiction, it may make sense for Douglas County and its jurisdictions to partner in having a single contract-holder. In other words, as more transit services develop across the county, there may be some efficiencies in placing all transit services under a single entity, coordinated between the various jurisdictions.

Table 9: Turn-Key Roles and Responsibilities

County/Municipal Staff	Transit Vendor
Oversee vendor contract	Operate the service day-to-day according to the service plan and per the contract
Manage marketing, branding, and community outreach	Ensure quality of service and compliance with contract
Interpret performance metrics	Be accountable to specific performance metrics and provide excellent customer service; report on performance metrics
Update boards and councils on service performance and anticipated service adjustments	Resolve all customer complaints
Coordinate with surrounding jurisdictions for partnerships on potential cross-jurisdictional services	Provide necessary vehicles, drivers, insurance, dispatch, supervisors, vehicle storage, fuel, maintenance, and ride request/transit tracking technology
Develop community partnerships to support awareness and build ridership	Make suggestions on service improvements, based on operations knowledge
Develop local funding for long-term sustainability	
Review and resolve program-wide customer complaints and issues	
Oversee contracts for maintenance of infrastructure (transit stops, park-n-rides, storage facilities, etc.)	

Service Reporting, Monitoring, and Adjustments

Throughout the implementation of the new transit services, certain characteristics may need to be adjusted periodically to better serve local and subregional needs. Measurable and attainable goals help evaluate the success of the services and inform needed adjustments. The county and municipalities should work with the selected transit operator to ensure they can report on service performance. Metrics will vary depending on whether the service is microtransit or a fixed route, as described in **Table 11**.

Potential Adjustments

When transit services are not meeting their goals set through the metrics, Douglas County and/or the municipalities may choose to make service adjustments to better serve the demand and improve the success of the system. Some of these adjustments by each service type are described in **Table 12**.

Table 10: Performance Metrics by Service Type

Category	Microtransit Metrics	Fixed Route Metrics
Ridership	<ul style="list-style-type: none"> • Total Rides Requested • Total Rides Given • Wheelchair Rides • No Shows • Average Percent of Shared Rides • Ridership per Vehicle Revenue Hour 	<ul style="list-style-type: none"> • Total Ridership • Ridership per Vehicle Revenue Hour • Ridership by Time of Day, Day of Week • Wheelchair Rides
Destinations	<ul style="list-style-type: none"> • Top Destinations • Average Trip Distance • Vehicle Revenue Miles 	<ul style="list-style-type: none"> • Average Speed by Segment • Ridership by Stop
Time	<ul style="list-style-type: none"> • Average Wait Time • Average Ride Time • Total Vehicle Hours • Vehicle Revenue Hours 	<ul style="list-style-type: none"> • On-Time Performance • Scheduled Transfers • Vehicle Revenue Hours • Deadhead Hours
User Experience	<ul style="list-style-type: none"> • Average Experience Rating • Complaints Followed Up On 	<ul style="list-style-type: none"> • Average Experience Rating • Complaints Followed Up On
Financials	<ul style="list-style-type: none"> • Total Cost • Operating Expenses per Passenger Trip • Operating Expenses per Mile • Vehicle Uptime 	<ul style="list-style-type: none"> • Total Cost • Operating Expenses per Passenger Trip • Operating Expenses per Mile • Vehicle Uptime
Vehicles and Safety	<ul style="list-style-type: none"> • Preventable Accidents • Revenue Miles Between Road Calls 	<ul style="list-style-type: none"> • Preventable Accidents • Revenue Miles Between Road Calls



Table 11: Potential Adjustments by Service Type

Category	Microtransit Adjustments	Fixed Route Adjustments
<i>Ridership and Destinations</i>	Service area expansion, reduction, or reconfiguration to include desired origins and destinations	Transit stop relocation to serve desired origins and destinations
<i>Time</i>	<ul style="list-style-type: none"> • Service hours expansion into later evening service, Sunday service • If average wait times are longer than 30 minutes, consider: <ul style="list-style-type: none"> ○ limiting trips to greater than one mile ○ establishing a fare ○ formalizing pickup points ○ limiting number of monthly trips per user ○ add vehicles ○ limiting service during certain time periods to certain locations 	<ul style="list-style-type: none"> • Service hours expansion into later evening service, Sunday service • If average on-time performance is less than 85%, consider: <ul style="list-style-type: none"> ○ Adjusting the schedule ○ Consolidating stops to be less frequent ○ Splitting longer routes into two
<i>User Experience</i>	<ul style="list-style-type: none"> • Increase marketing efforts • Based on customer feedback trends, review operator contracts for personnel issues 	<ul style="list-style-type: none"> • Increase marketing efforts • Based on customer feedback trends, review operator contracts for personnel issues
<i>Financials</i>	Pursue grant opportunities and explore creative partnerships	Pursue grant opportunities and explore creative partnerships
<i>Vehicles</i>	Evaluate fleet structure and agreements	Evaluate fleet structure and agreements



Figure 28: Typical Transit Implementation Timeline

Typical Implementation Timelines

This section describes the typical timeline associated with implementing microtransit and fixed route services. The timeline displayed in **Figure 28** reflects the fact that Douglas County and its municipal partners have thoroughly and strategically worked through this transit study and previous efforts for multiple years. As such, it is possible to accelerate implementation, although there are some additional considerations for implementing the subregional fixed routes compared to microtransit services.

Considerations for Implementing Subregional Routes


A key reason why the subregional routes and local circulators are being implemented as part of later phases is due to the longer implementation timelines that are required for the associated operational and infrastructure elements. In the typical timeline, this is reflected by the “12+ months before launch” category, but actual timing will depend on a variety of factors.

Vehicle and Facility Needs

Although this is a consideration for microtransit too, for the subregional routes, the vehicles are likely to be larger. This means that the storage and facility needs are slightly different than for microtransit. Although the turn-key contracts will likely require the vendor to be responsible for vehicle storage and maintenance, it can be beneficial for Douglas County and its partners to determine where the vehicles will be stored and maintained. With increased space likely required for the subregional fixed route vehicles, this may require more coordination on the public sector side.

ADA Paratransit Requirements

Per the USDOT regulations, fixed route services are required to provide complementary ADA paratransit services. Generally, this means providing service to origins and destinations within three-fourths of a mile on each side of each fixed route. Services that are classified as commuter routes or demand responsive (microtransit) are not required to provide these services. However, Douglas County may either choose to provide additional service to address the ADA requirement or design the subregional fixed routes to fit the definition of commuter routes. Commuter routes have different operational characteristics such as limited hours, limited origins and destinations, and limited travel purposes.




It should be noted that because parts of Douglas County are within the boundaries of RTD, there are some segments of the proposed subregional routes that would be covered within the RTD Access-A-Ride service boundaries. The exact details of how the paratransit requirement would be met for the Douglas County services, if any at all, would need to be determined prior to launching the service.

Transit Stops and Park-n-Rides


As detailed in the infrastructure section of the plan, there are many physical considerations for the transit stops and park-n-rides on the subregional routes. The impacts to the implementation timeline include precise site selection, coordination of easements and right-of-way, engineering and designing the stops, and the actual construction process. As a general rule-of-thumb, Douglas County and its partners should plan for a 12-18 month process from when transit stop and park-n-ride locations are selected to when they are in place.

Recommended Request for Information (RFI) to Fixed Route Operators/Vendors



As described above, operating a subregional fixed route requires elements that are in addition to microtransit operations and require some additional coordination and planning. To best understand how the vendor space can accurately plan for the implementation timing, Douglas County should coordinate a Request for Information (RFI) targeted to fixed route transit vendors. This RFI should request information on typical vehicle and facility needs, addressing ADA paratransit requirements, transit stop/park-n-ride construction considerations, as well as technology and services that may be unique to the operation of subregional fixed routes.

Managing Implementation Hurdles and Unknown Factors



To implement the various transit services recommended through the phased approach, Douglas County will need to strategically partner with its municipal and organizational partners. When assessing the factors that may pose challenges to implement transit improvements, the following issues are most likely to impact the process:

Inflation

In recent years, inflation has increased and remained high and the future is uncertain. As noted in the operating and financial plans, the estimated costs displayed are based on 2025 prices. Should inflation continue to increase, the cost estimates may be too low.

Political Priorities

Additionally, as the federal, state, and local governments evolve and reevaluate goals and funding priorities, the various funding sources described in the plan may change. This may result in more limited funding availability for transit improvements under budgets that prioritize other transportation modes (or non-transportation issues). This may also result with increased funding availability, which would mean that there may be opportunities for more enhanced services.

Driver Shortages

Although it is envisioned that Douglas County and its municipalities would operate the transit services through turn-key contracts where the hiring of drivers would be the responsibility of the vendor, it is important that Douglas County be aware that many transit providers across the nation, including RTD, have struggled to hire and retain transit operators for existing services. This challenge is typically more difficult to overcome with fixed route transit due to a variety of factors, including federal employment requirements, commercial vehicle training requirements, and workload. One strategy some agencies are experimenting with to overcome this barrier is operating transit service at time intervals that are more attractive to drivers, such as eliminating split shifts during daytime hours.

Strategies for Managing Implementation Hurdles

There are a few strategies to manage the potential implementation hurdles that have been described. For example, delaying implementation and adjusting service levels to ease the stress on human and capital resources may be beneficial to addressing issues with cost, driver shortages, or even alignment with the changing political priorities.

Building on Existing Success

While any implementation plan may have struggles, it is important to note the success of existing projects in Douglas County, specifically Link On Demand. What began as a fixed route service on Park Meadows Drive connecting adjacent businesses to light rail, then changing to a small service zone covering Lone Tree, has expanded to encompass Meridan North and South (February 2024), and now Highlands Ranch (June 2025), bringing the total service area to 36 square miles. Key takeaways from the service are summarized below:

- Link On Demand completed 58,063 rides in 2024, and in August 2024 hit the record monthly ridership with more than 6,200 completed rides.
- The number of active riders has continued to grow steadily from 2020 through 2024.
- The average rating (stars) has stayed consistent between 4.9 and 5 stars, including a 97.5% 5-star rating in the last three months.
- For the first time since the pandemic, in 2024 Link On Demand completed more rides than in 2019 (pre-pandemic).

The top locations within Lone Tree continue to illustrate a strong correlation between commercial land uses and multi-family developments. Top locations within Lone Tree include:

- E Lincoln + Yosemite shopping center (Safeway and Target)
- Park Meadows + Yosemite commercial center
- Camden Lincoln Station Apartments and Park-n-Ride
- Costco

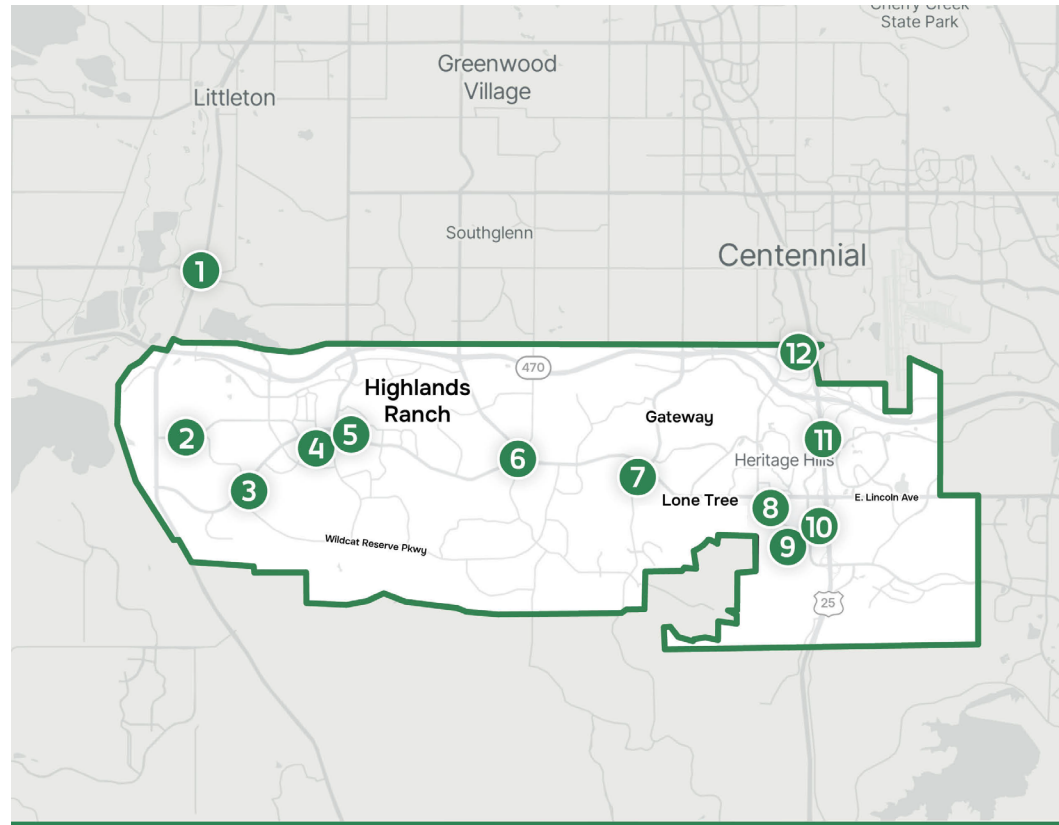
The expansion into Meridan North and South generated substantial ridership to employment and medical institutions in the region. Top destination in Meridan include:

- Baxter Corporation
- Lincoln Medical Center
- Apex Meridan South

Within the first month of operating Link On Demand in Highlands Ranch, the number of rides already rivals that of the existing service in Lone Tree.

- 4,943 completed rides in June 2025
- Average rider rating of 4.9
- Nearly 60% of trips are connecting Highlands Ranch to Lone Tree or vice versa

Figure 29 shows the Link On Demand service area and calls out the most popular destinations.



Popular destinations.

- | | |
|--|----------------------------|
| ① Littleton/Mineral Station | ⑦ Highland Heritage Park |
| ② Redstone Park | ⑧ Lone Tree Arts Center |
| ③ Wildcat Shopping Center | ⑨ Lone Tree Rec Center |
| ④ Civic Green Park/
Highlands Ranch Library | ⑩ Sky Ridge Medical Center |
| ⑤ Highlands Ranch
Senior Center | ⑪ Lincoln Station |
| ⑥ Village Center West | ⑫ Park Meadows |

Figure 29: Link On Demand Service Map and Popular Destinations. Source: Link On Demand.

Path Forward

This ***Integrated Transit and Multimodal Study*** has been developed in partnership with local agencies in Douglas County. The commitment from staff and elected officials has provided invaluable input into the process. The robust stakeholder and public outreach ensured that feedback has been incorporated into the plan for those that may benefit the most from improved transit and multimodal travel opportunities.

Understanding the context and travel needs within the County, focusing on transit types that could be most effective, and prioritizing those transit opportunities through a detailed evaluation analysis led to a framework, phased approach, and implementation plan that can be used to guide transit and multimodal investment into the future.

Despite receiving broad support from the Stakeholder Engagement Team and agency leadership through the Douglas County Transportation Forum, work continues to refine, prioritize, identify funding, define partnerships, and build the political willingness needed to expand and enhance transit and multimodal travel in the County.

Starting with microtransit allows for the greatest flexibility and using the ridership, operation, and key destination data will be useful in informing future investment decisions. Funding availability and prioritization have been and will continue to be a challenge to enhancing and implementing new transit services and multimodal enhancements.

There are varying levels of political support for the transit options throughout the study area because of uncertainty with the viability of transit long term, budget constraints, existing priorities, and all other considerations that each municipal partner must balance. Only through on-going partnership, building of political will, and identification of necessary funding can the full vision identified in this document be realized. Douglas County is committed to continuing transparent and productive collaboration with all of those that contributed to the success of this study as we collectively move forward.

Acknowledgements

Study Lead

Douglas County

Municipal Partners

City of Castle Pines

Town of Castle Rock

Highlands Ranch Metro District

City of Lone Tree

Town of Parker

Stakeholder Engagement Team

The following stakeholders were involved in addition to staff representatives from various departments of each Douglas County municipal partner.

Aging Resources of Douglas County (ARDC)

Arapahoe County

Colorado Department of Transportation (CDOT)

Castle Rock Senior Activity Center (CRSAC)

Denver Regional Council of Governments (DRCOG)

Denver South Transportation Management Association (DSTMA)

Front Range Passenger Rail (FRPR)

Northwest Douglas County Chamber and Economic Development Corporation (EDC)

Regional Transportation District (RTD)

Project Leadership Team

Douglas County Transportation Forum (DCTF)

Focus Group Participants

AdventHealth Parker

Aging Resources of Douglas County

Arapahoe Community College

Arapahoe/Douglas Works

Arc of Douglas and Arapahoe

Backpack Society Highlands Ranch

Castle Rock Chamber of Commerce

Castle Rock Economic Development

Castle Rock Senior Activity Center

Community of Care Network

Continuum of Colorado

Denver Regional Mobility and Access Council

Denver South Transportation Management Association

Developmental Pathways

Douglas County Economic Development Corp

Douglas County Healthy Youth Coalition

Douglas County Housing Partnership

Douglas County School District

Douglas County Youth Initiative

DRCOG Area Agency on Aging

Help & Hope Center

Highlands Ranch Senior Center

JD-23

Lone Tree Economic Development

Manna Resource Center

Parker Chamber of Commerce

Parker Economic Development

Parker Senior Center

Parker Task Force

Parker Youth Commission

SECOR Cares

Sky Ridge Medical Center

To the Rescue

Wellspring Community

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