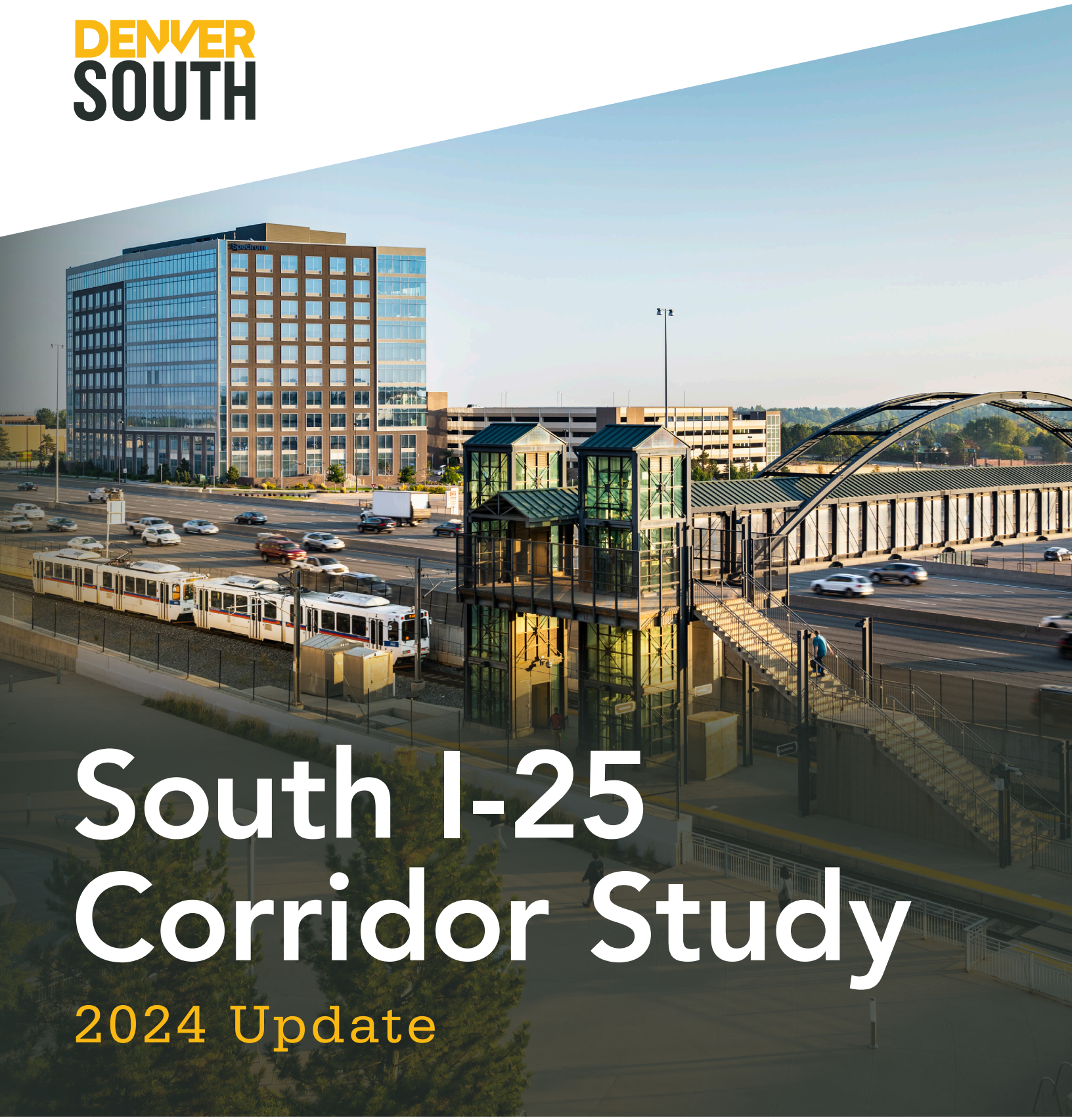
DENVER SOUTH



South I-25 Corridor Study

2024 Update

February 29, 2024 EPS #223081

EPS

FELSBURG HOLT & ULLEVIG

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1. Introduction

Denver South is an organization of community and business leaders along the South I-25 highway and rail corridor working to create an environment where businesses and workers thrive. This is done by collaborating with regional partners to foster quality job growth and efficient transportation solutions.

In 2016, Denver South retained Economic & Planning Systems (EPS) with Felsburg Holt & Ullevig (FHU) to complete the South I-25 Corridor Study. This study evaluated economic, real estate, and transportation conditions in the Corridor, forecasted future growth over a 20-year forecast period (2015-2035), and recommended strategies, actions, and investments to capture the projected growth and to address impacts on the Corridor's transportation facilities and infrastructure. In 2023, Denver South retained EPS and FHU to complete a new study for the South I-25 Corridor. Much of the data in the original study dates from 2013; thus, this 2023 Corridor Study updates Corridor conditions and trends, and forecasts expectations for growth over the next 20 years.

The South I-25 Corridor remains the most successful business district outside of downtown in the Denver metropolitan area—adding 18,500 jobs since 2013 to reach over 152,500 employees and 62 million square feet of commercial space. Transit oriented development (TOD) has intensified around the existing light rail stations, with the Southeast Corridor light rail extension completed in 2019. Since 2006, over 5 million square feet of office space or 83 percent of the total development has been located within a ½ mile of the Corridor's light rail stations.

The development mix in the Corridor has also diversified with housing growing faster than commercial development with a total of 8,700 new housing units or an average of 870 units per year built from 2013 to 2022, contributing to a more mixed-use and higher density environment in the area's previously single purpose office parks. Several important transportation projects were completed as well, including the Lone Tree and Belleview mobility hubs and smart system ramp metering at major I-25 interchanges. Additionally, substantial progress has been made on completing north-south regional bike lanes east and west of I-25.

More recently, coming out of the COVID-19 pandemic, employment conditions have changed, with many employees working remotely and employers embracing a remote or at least hybrid office model that is affecting office space usage, future office space needs, and transportation commuting patterns.

In this report, the EPS Team evaluates employment growth, office, retail, and residential development levels and trends, and changes in transportation mobility patterns, with a focus on what has changed over the last 10 years. We then estimate how these trends will impact expectations for growth and development over the next 20 years.

In light of these changes, the objectives for this South I-25 Corridor Study are to determine:

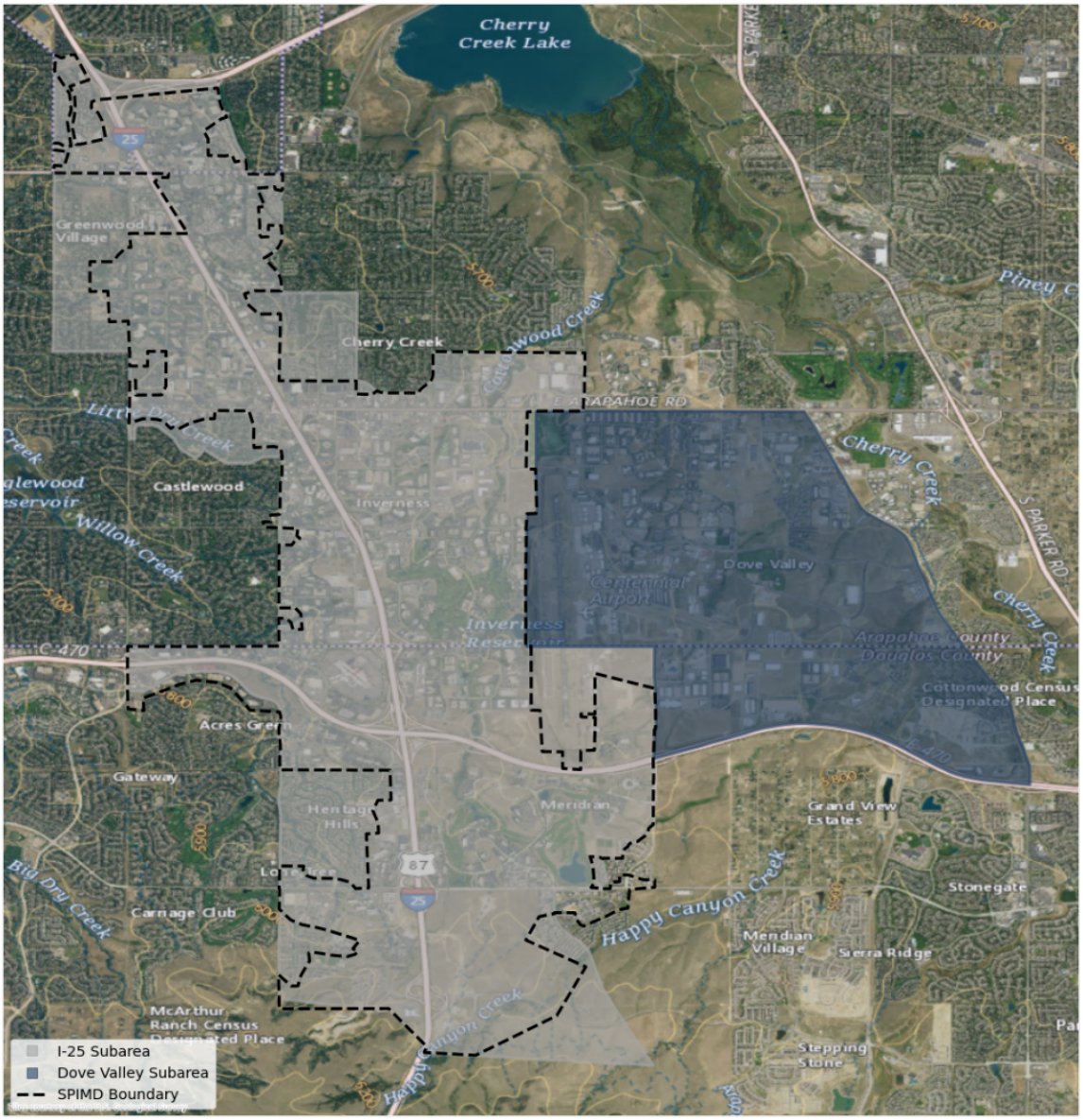
- How the area can remain the premier employment location in the region,
- Potential for additional commercial and residential growth over the next 20 years,
- How the area's business community, area jurisdictions, and Denver South might work together to maintain and enhance the viability and quality of the Corridor as a place to work, and also to live, and
- How the Corridor can best manage the associated increases in travel demand in a feasible and fiscally sustainable way.

Study Area

The South I-25 Corridor Study Area extends from I-225 and the Denver Tech Center on the north approximately eight miles to RidgeGate in Lone Tree on the south as shown in **Figure 1**. The Study Area, also used in the previous report, closely approximates the Southeast Public Improvement Metropolitan District (SPIMD) boundary that is also shown. The SPIMD district is a funding source for public improvements implemented through Denver South.

This Study also defines a new Dove Valley subarea that lies to the east of the primary South I-25 Corridor Area that includes Centennial Airport and a growing area of industrial development to its east and south. This Study documents trends in the Dove Valley subarea separately in order to track changes that have occurred in the primary study area boundary used in the 2016 South I-25 Corridor Study report.

Figure 1. South I-25 Corridor Study Area and Dove Valley Subarea



Study Outline

The South I-25 Corridor Study report is organized in five sections following this Introduction as summarized below:

- **Existing Corridor Conditions** – This section provides a review of existing development conditions and historical trends including data on office, residential, industrial, retail, and hotel land uses. Also included is a comprehensive inventory of transportation infrastructure projects and plans including roads, transit, bike and pedestrian, micromobility, and mobility hub facilities as well as data on current usage and commuting patterns.
- **National Real Estate Development Trends** – This section reviews emerging trends in real estate impacting suburban office business corridors including the growth of mixed use and housing development in previously single use office and business parks; impacts of remote working and hybrid works schedules on employment space; and a comparative evaluation of office growth and conditions in peer city markets.
- **Corridor Forecasts and Needs** – This section provides forecasts of development potentials for the Corridor over a 20-year forecast period along with an assessment of how the form and location of development is expected to evolve. Based on projected increase in growth, transportation impacts and potential transportation facility and management improvements are identified.
- **South I-25 Corridor Strategy** –This section of the report outlines potential goals and strategies that may be considered by Denver South and its regional stakeholders in the implementation of improvements and investments within the South I-25 Corridor. This effort builds on recommendations that were developed for the 2016 Denver South Corridor Study.

Data Collection, Research, and Analysis Methods

Collection dates and analysis periods for quantitative data provided in this document vary based on source availability. Generally, data sources are referenced and/or cross-referenced throughout the text with citations included in corresponding tables and figures.

Qualitative data, input, and feedback was gathered throughout 2023 through a series of meetings with Denver South staff, leadership, partners, businesses, and other stakeholders including the following:

- Business leaders and executives from over 20 Corridor employers, (representing nearly 17,684 employees) through individual outreach meetings led by the EPS & FHU Team;
- Members of Denver South's Business Coalition, representing primary employers in the Corridor;
- Members of the Southeast Public Improvement Metropolitan District (SPIMD) Board of Directors;
- The Denver South Board of Directors, including officials from (alphabetically):
    - Arapahoe County
    - Centennial Airport
    - City of Centennial
    - City and County of Denver
    - City of Greenwood Village
    - City of Lone Tree
    - Coventry Development
    - Douglas County
    - Koelbel & Company
    - Merrick & Company
    - Shea Properties
    - United Launch Alliance
    - Wells Fargo

Members of the Denver South Technical Committee, including Public Works, Planning, Engineering, Community Development, Economic Development, and Parks, Recreation, and Open Space staff from Denver South partner cities and counties, including (alphabetically);

    - Arapahoe County
    - City of Centennial
    - City and County of Denver
    - Douglas County
    - City of Greenwood Village
    - City of Lone Tree

- Members of Denver South and SPIMD partner/member Special and Metropolitan Districts;
- Members of Denver South's various other regional partners CDOT, DRCOG, RTD, and Transportation Solutions of Arapahoe County;
- Direct input from over 1,320 individual Corridor employees through Denver South's 2023 Annual Commuter Survey; and,
- Members of Denver South staff.

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2. Existing Corridor Conditions

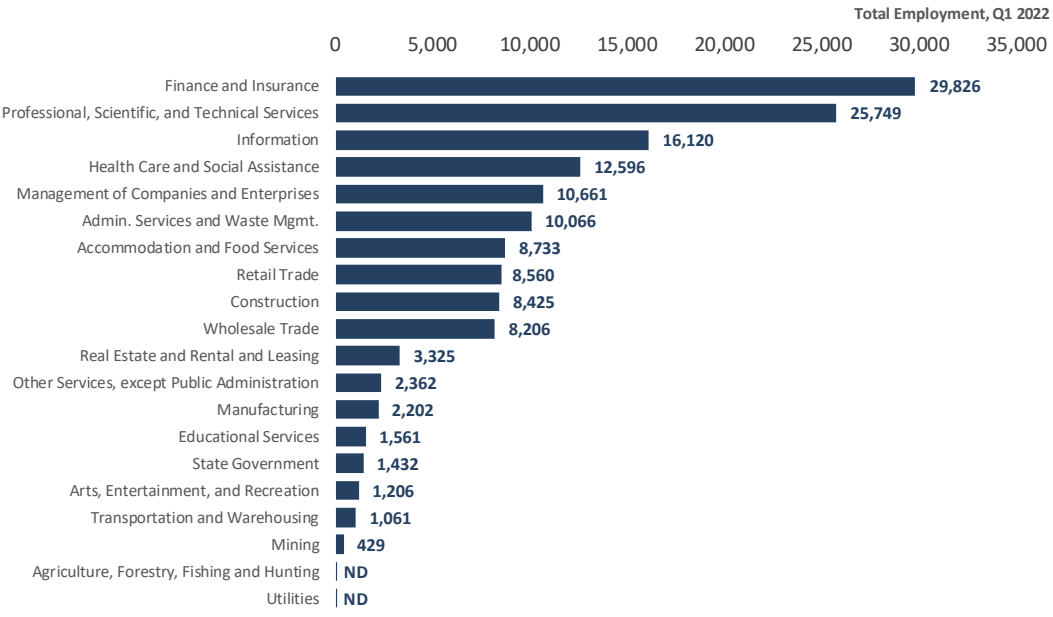
The South I-25 Corridor has evolved significantly over the past half century, growing from a series of individual office parks to a major destination for all uses (office, residential, retail, and hotels) as reflected in the analysis of economic and demographic characteristics illustrating the types of people, housing, and businesses located in the Corridor. Real estate and development conditions and trends are summarized including data on the total amount of development by type, absorption trends and capture rates, and shifts in development patterns due to the introduction of rail, changing business practices, and demographic shifts. Existing transportation facilities and travel patterns are then inventoried including roads and highways, transit systems, bike and pedestrian systems, micromobility access, and mobility hubs.

Economic and Demographic Conditions

Employment Trends

The Corridor had a total of 152,562 jobs as of the first quarter of 2022. Total employment by industry is shown in **Figure 2** categorized by industry using the North American Industry Classification System (NAICS). The top four industries by two-digit NAICS were Finance and Insurance with 29,826 jobs, Professional, Scientific, and Technical Services with 25,749 jobs, Information with 16,120 jobs, and Health Care with 12,596 jobs.

Figure 2. South I-25 Corridor Total Employment by Industry, 2022

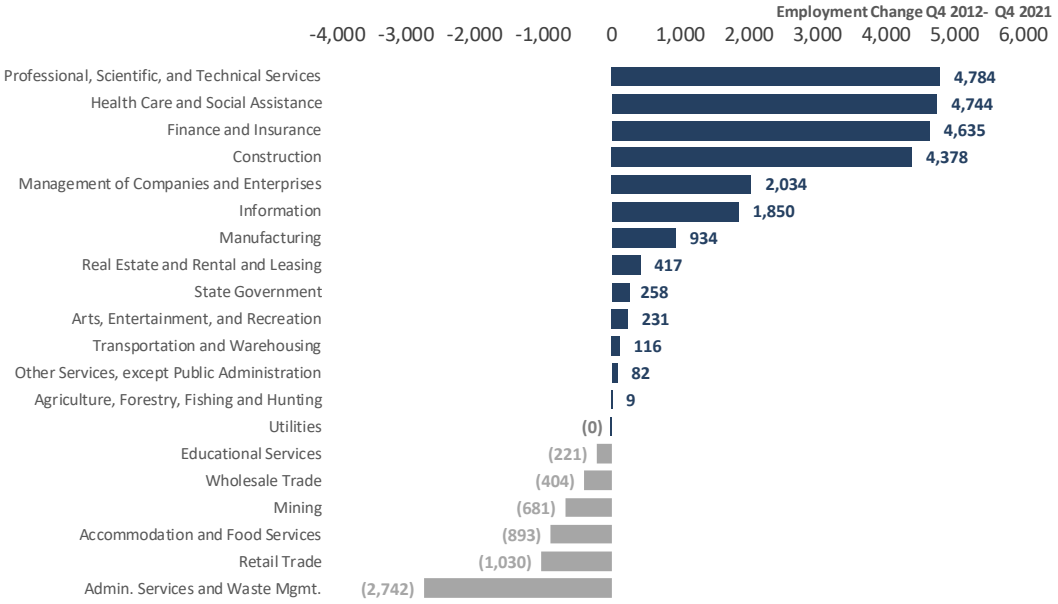


Note: A value of "ND" indicates total employment is too low to disclose.

Source: Quarterly Census of Employment and Wages; Economic & Planning Systems

From 2013-2022, the South I-25 Corridor grew by 18,500 jobs, which is 2,055 jobs per year or an annual rate of growth of 1.6 percent. The industries with the most significant job increases were Professional, Scientific, and Technical Services, Health Care, Finance and Insurance, and Construction as shown in **Figure 3**. The Corridor lost employees in the following industries: Admin. Services and Waste Management, Retail Trade, Accommodation and Food Services, Mining, Wholesale Trade, and Educational Services.

Figure 3. South I-25 Corridor Employment Change by Industry, 2013–2022



Source: Quarterly Census of Employment and Wages; Economic & Planning Systems

DENVER SOUTH TARGET INDUSTRIES ANALYSIS

Denver South focuses on six target industry clusters as part of its job growth and job retention initiatives. As shown in **Table 1**, Financial Services, Healthcare and Life Sciences and IT Software and Electronics jobs comprise most of the jobs in the target industries. These three clusters account for over 45 percent of all jobs in the South I-25 Corridor. Aviation and Aerospace is the smallest of the target industries in terms of total jobs but is an emerging area of growth for the Corridor.

Table 1. Denver South Industry Clusters, 2021

Description	# of Jobs	# of Firms	% of Job Market	% of Firms
Cluster Definition				
Aviation & Aerospace	2,917	82	3.3%	2.5%
Broadband & Digital Communications	9,721	124	11.1%	3.8%
Engineering Services	5,497	175	6.3%	5.4%
Financial Services	33,099	1,293	37.8%	40.1%
Healthcare & Life Sciences	14,046	610	16.1%	18.9%
IT-Software & Electronics	22,185	943	25.4%	29.2%
Total	**87,465**	**3,227**	**100.0%**	**100.0%**

Source: U.S. Census Bureau Quarterly Census of Employment & Wages; Economic & Planning Systems

As shown in **Table 2**, most clusters have experienced steady growth over the 2015-2021 period except for Engineering Services, which lost 118 jobs. Employment growth in the six targeted industry clusters totaled 21,529 from 2015-2021, while job losses in all non-target industries were 5,971 jobs (most significantly in Administrative and Support Services and Retail Trade).

Table 2. Denver South Industry Cluster Job Trends, 2015-2021

Cluster	Q1, 2015 # of Jobs	% of Job Market	Q4, 2021 # of Jobs	% of Job Market	2015-2021 Total	2015-2021 Ann. #	2015-2021 Ann. %
Aviation & Aerospace	1,410	2.1%	2,917	3.3%	1,507	215	10.9%
Broadband & Digital Communications	3,163	4.8%	9,721	11.1%	6,558	937	17.4%
Engineering Services	5,615	8.5%	5,497	6.3%	-118	-17	-0.3%
Financial Services	27,923	42.3%	33,099	37.8%	5,176	739	2.5%
Healthcare & Life Sciences	10,247	15.5%	14,046	16.1%	3,799	543	4.6%
IT-Software & Electronics	17,579	26.7%	22,185	25.4%	4,607	658	3.4%
Total	**65,936**	**100.0%**	**87,465**	**100.0%**	**21,529**	**3,076**	**4.1%**

Source: U.S. Census Bureau Quarterly Census of Employment & Wages; Economic & Planning Systems

Population and Households

SOUTH I-25 CORRIDOR

The population of the South I-25 Corridor has been growing at a significant rate over the past 12 years. The Corridor added 1,493 new residents annually since 2010, growing by 17,910, as shown in **Table 3**.

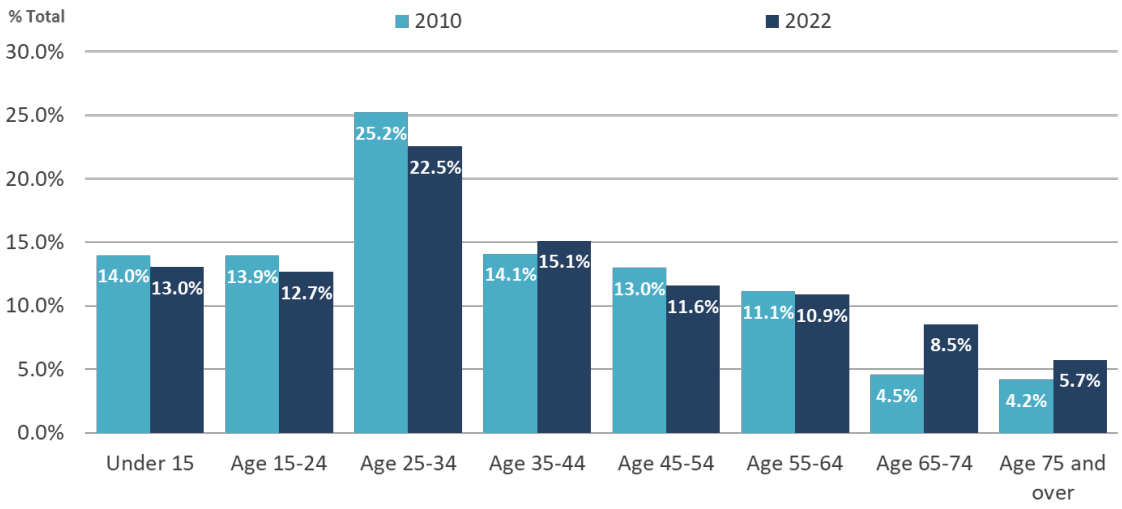
Table 3. South I-25 Corridor Population and Households, 2010-2022

Description	2010	2014	2022	2010-2022 Total	2010-2022 Ann. #	2010-2022 Ann. %	2014-2022 Total	2014-2022 Ann. #	2014-2022 Ann. %
Population	21,158	23,397	39,068	17,910	1,493	5.2%	15,671	1,959	6.6%
Households	11,332	12,511	20,242	8,910	743	5.0%	7,731	966	6.2%
Persons per HH	1.87	1.87	1.93	0.06	0.01	0.3%	0.06	0.01	0.4%

Source: ESRI; US Census Bureau; Economic & Planning Systems

The median age of residents in the Corridor is 36 years old, which is younger than the Denver metro area average. Residents aged 25 to 34 years old account for the greatest percent of residents in the Corridor (22.5 percent) followed by 35- to 44-year-olds as the second largest (15.1 percent), as shown in **Figure 4**. Over the past decade, Corridor residents have become older on average, as the median age increased from 33 years in 2010.

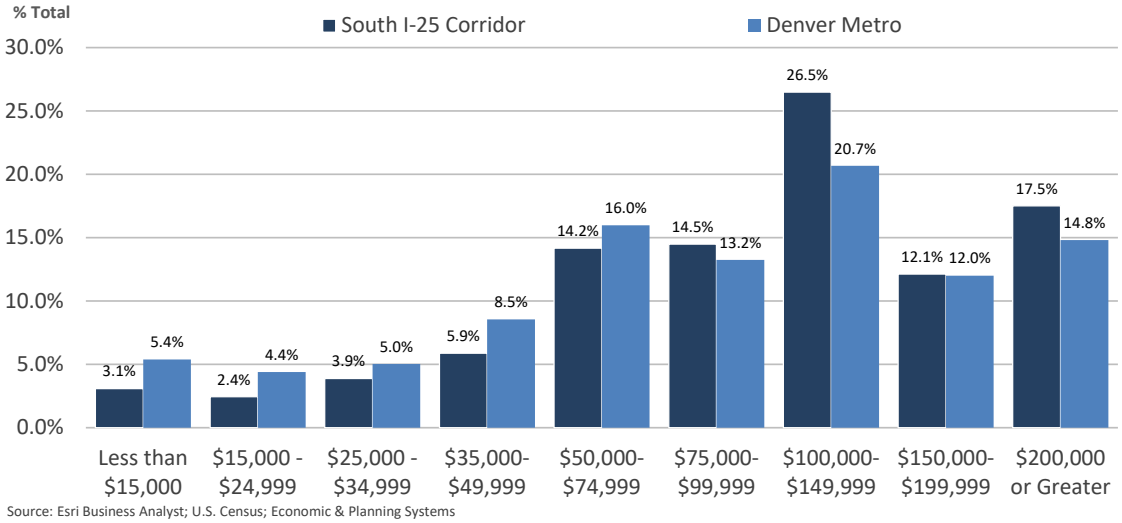
Figure 4. South I-25 Corridor Percent Residents by Age, 2022



Source: Esri Business Analyst; U.S. Census; Economic & Planning Systems

Households in the Corridor have higher incomes than the metro area average. The average household income along the Corridor is $147,455 compared to the metro area average of $129,680. The presence of lower income households (households earning less than $50,000) is less than the metro area average, which is reflective of the higher cost of living along the Corridor, as shown in **Figure 5**.

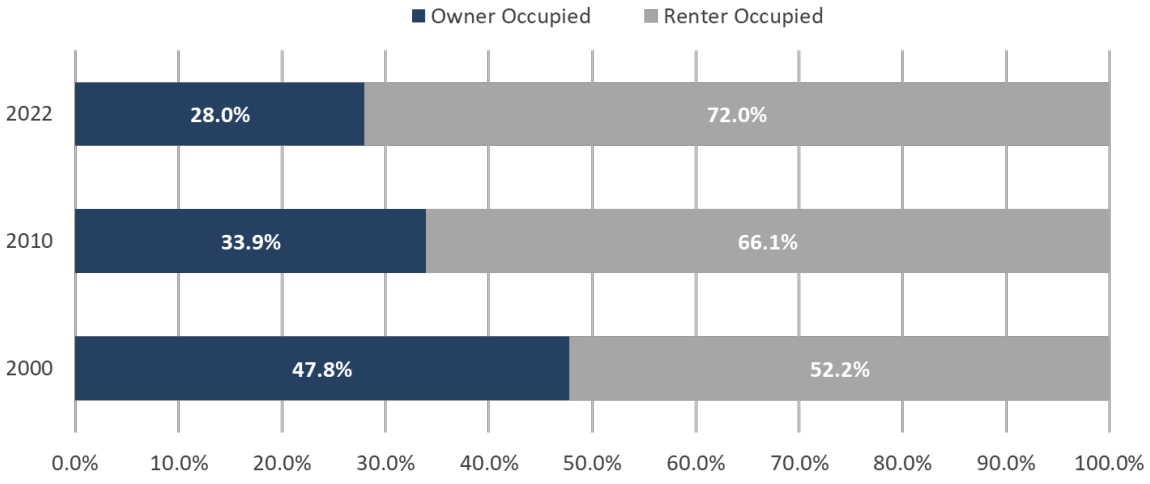
Figure 5. South I-25 Corridor Household Income Distribution, 2022



Source: Esri Business Analyst; U.S. Census; Economic & Planning Systems

Housing tenure refers to the mix of housing unit by unit occupancy (renters vs. owners). Seventy-two percent of the households in the Corridor are renter households, as shown in **Figure 6**. The presence of renter households has grown significantly since 2000, as most new units added to the Corridor have been for-rent apartments in multifamily buildings.

Figure 6. South I-25 Corridor Housing Tenure (Renters vs. Owners) 2000-2022



Source: Esri Business Analyst; Economic & Planning Systems

DOVE VALLEY SUBAREA

The Dove Valley subarea has a relatively small residential base with a population of nearly 8,000 residents as of 2022, as shown in **Table 4**. The area has increased its population by 5,641 residents or an average of 256 per year since 2000. The rate of growth has slowed since 2010 to an average of 174 residents per year as shown.

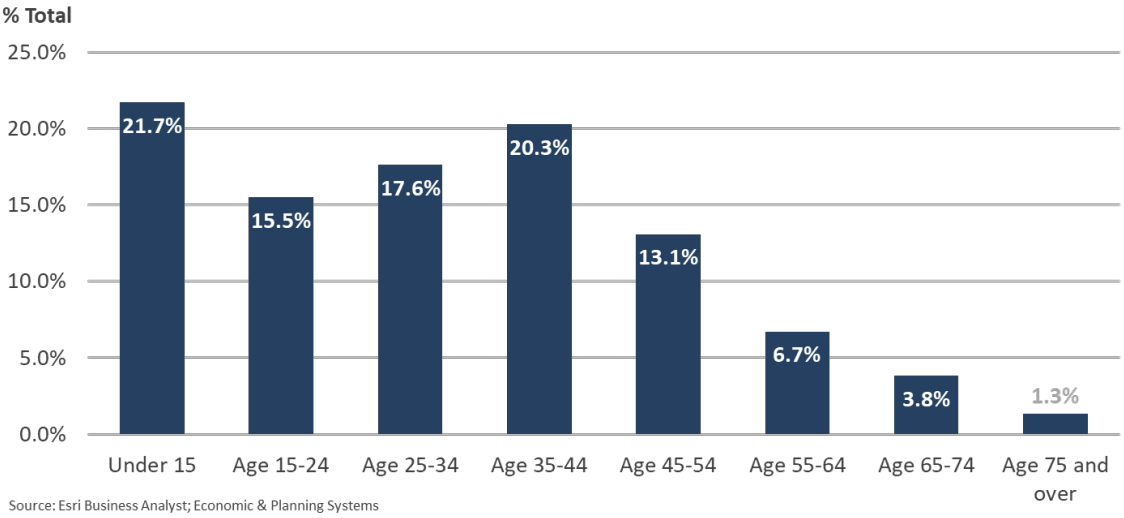
Table 4. Dove Valley Population and Households, 2000-2022

Description	2000	2010	2022	2010-2022 Total	2010-2022 Ann. #	2010-2022 Ann. %	2000-2022 Total	2000-2022 Ann. #	2000-2022 Ann. %
Population	2,357	5,911	7,998	2,087	174	2.6%	5,641	256	5.7%
Households	463	1,916	2,791	875	73	3.2%	2,328	106	8.5%
Persons per HH	5.09	3.09	2.87						
Housing Units	469	2,027	2,914	887	74	3.1%	2,445	111	8.7%

Source: ESRI; US Census Bureau; Economic & Planning Systems

Dove Valley residents are younger on average than the South I-25 Corridor and the metro area at large, with a greater presence of young families. The median age of the population is 32 years old. The area has a greater presence of children (under 15 years old) and has a relatively low presence of older residents (55 years and older).

Figure 7. Dove Valley Percent Residents by Age, 2022



Source: Esri Business Analyst; Economic & Planning Systems

The average annual household income in the Dove Valley subarea is $112,251, as shown in **Table 5**. Thirty-one percent of the households in the subarea earn less than $50,000 annually, which is a much greater presence of lower income households than found in the South I-25 Corridor.

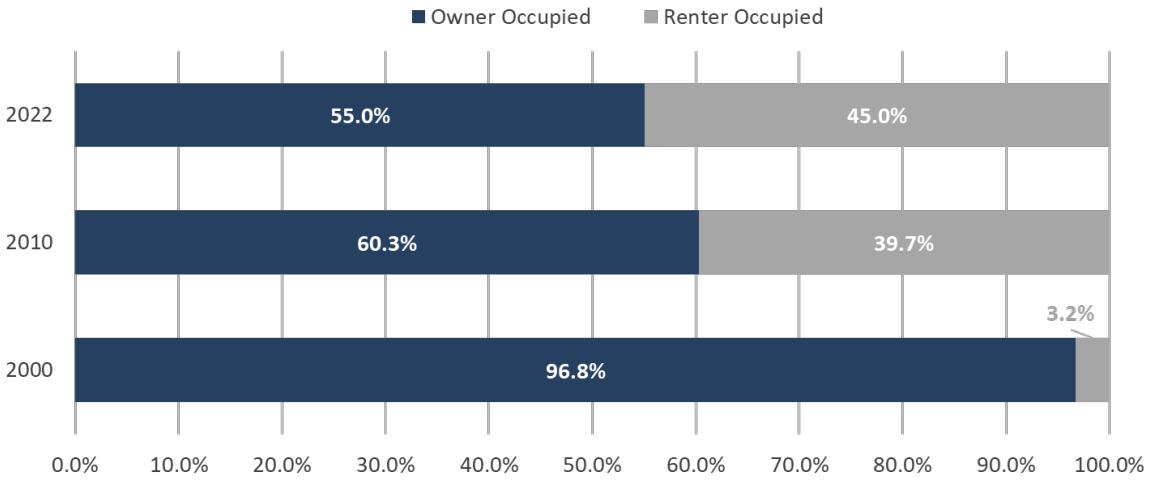
Table 5. Dove Valley Household Income Distribution, 2022

Description	Dove Valley	% Total	Denver Metro	% Total
Less than $15,000	174	6.2%	64,857	5.4%
$15,000 - $24,999	149	5.3%	52,940	4.4%
$25,000 - $34,999	328	11.8%	60,573	5.0%
$35,000-$49,999	229	8.2%	102,853	8.5%
$50,000-$74,999	286	10.2%	192,325	16.0%
$75,000-$99,999	431	15.4%	159,505	13.2%
$100,000-$149,999	525	18.8%	249,068	20.7%
$150,000-$199,999	365	13.1%	144,561	12.0%
$200,000 or Greater	304	10.9%	178,346	14.8%
Average Household Income	$112,251	--	$129,680	
Median Household Income	$86,454	--	$94,098	

Source: Esri Business Analyst; U.S. Census; Economic & Planning Systems

Dove Valley has a greater presence of owner-occupied households (55 percent) than renter occupied households, as shown in **Figure 8**. The presence of renter occupied households has increased significantly since 2000 when the percentage of renter occupied households was 3 percent. The increase of renter occupied households is partially due to the development of multifamily apartments that occurred mostly in the early 2000s.

Figure 8. Dove Valley Housing Tenure (Renters vs. Owners) 2000-2022



Source: Esri Business Analyst; Economic & Planning Systems

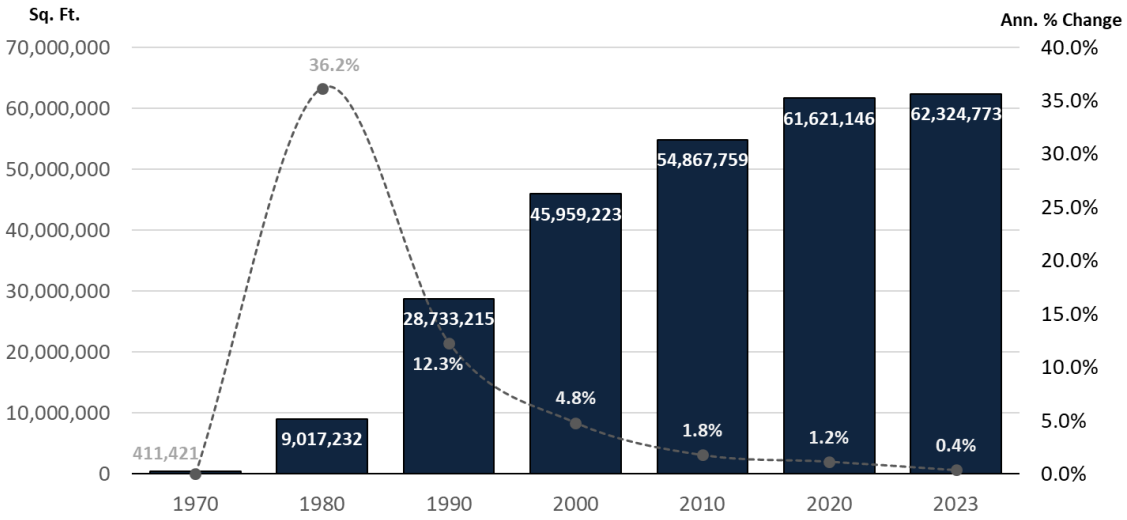
Commercial Development Trends

This section summarizes commercial and residential development conditions and trends by land use category, including office, retail, hotel, and industrial space, and residential housing by unit type.

SOUTH I-25 CORRIDOR

The South I-25 Corridor has a total of 62.3 million square feet of commercial space as shown in **Figure 9**. Development began in earnest in the 1970s with initial development in DTC, as well as in Greenwood Village, adding 8.6 million square feet between 1970 and 1980. Development momentum continued for the next four decades with 19.7 million square feet added in the 1980s, 17.2 million in the 1990s, 8.9 million in the 2000s, and 6.8 million in the 2010s. Over the last three years, from 2020-2023, there has been less than one million square feet of new space added.

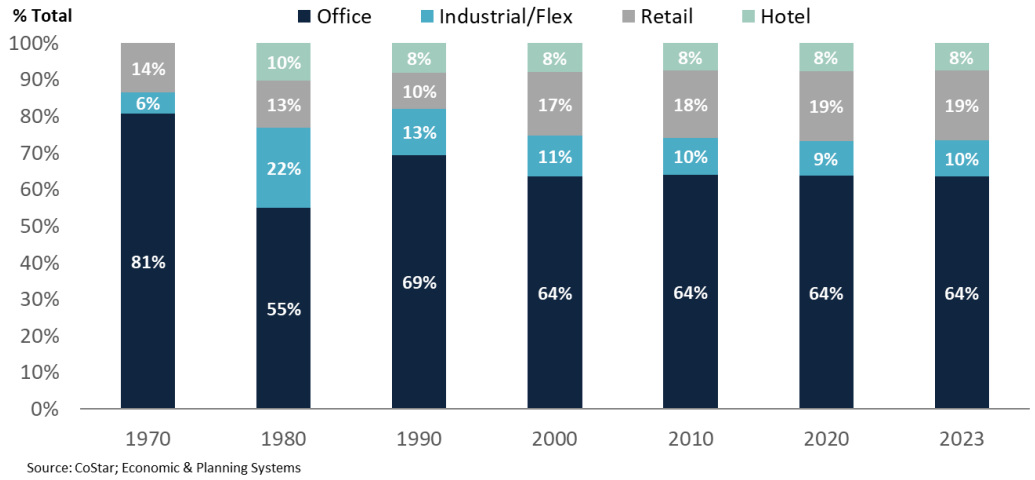
Figure 9. South I-25 Corridor Total Commercial Square Feet, 1970-2023



Source: CoStar; Economic & Planning Systems

The distribution of space by type of space is shown by decade in **Figure 10**. The 1970s saw primarily office development followed by an increase of industrial development in the 1980s, which has dissipated in recent decades due largely to increases in land values. The mix of space has remained relatively consistent since 2000 with office space accounting for 64 percent of the total, retail space accounting for approximately 19 percent of the commercial floor area, while industrial/flex and hotel space contributed 10 and 8 percent, respectively.

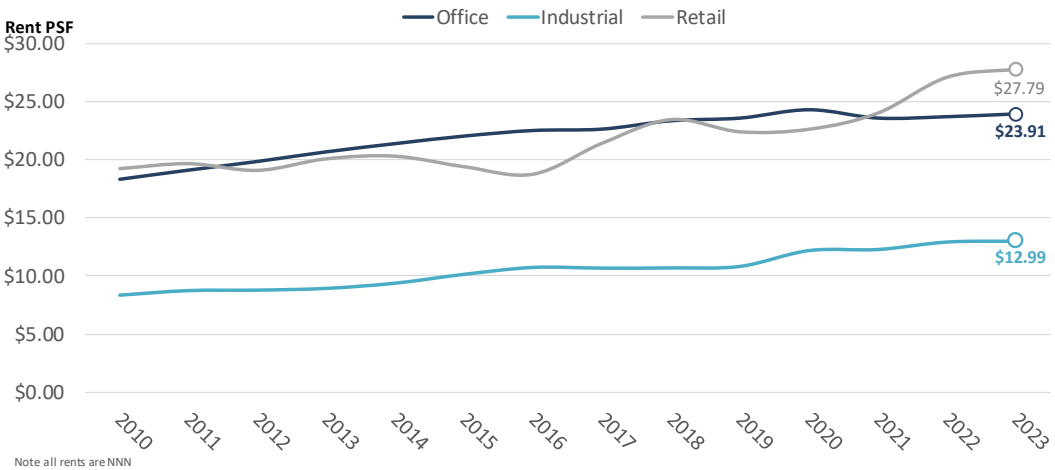
Figure 10. South I-25 Corridor Percent of Commercial Sq. Ft. by Type, 1970-2023



Source: CoStar; Economic & Planning Systems

Commercial lease rates from 2010-2023 are shown in **Figure 11**. In 2023, the average office rate reached $23.91 per square foot, which is slightly lower than the metro area average of $24.30. The average triple net rate for retail space was $27.79 per square foot, which is significantly higher than the metro average of $19.86. Industrial rental rates are also higher than the metro average, as the corridor average is $12.99 per square foot while the metro average is $9.52.

Figure 11. South I-25 Corridor Lease Rates per Sq. Ft., 2010-2023

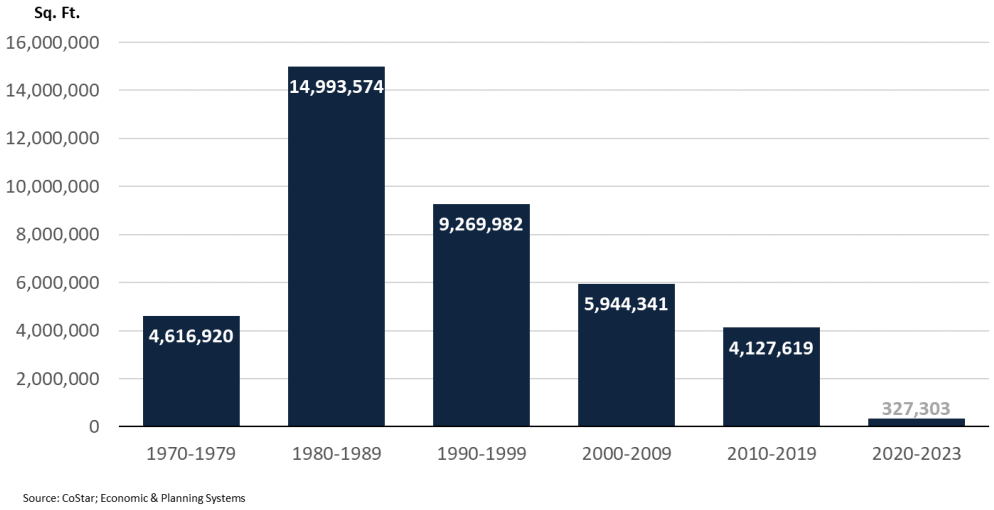


Note all rents are NNN
Source: CoStar; Economic & Planning Systems

Office Trends

The Corridor's emergence as a prominent employment hub in the Denver metropolitan area began in the 1980s, when the Corridor added approximately 15.0 million square feet of office space, as shown in **Figure 12**. This initial surge in office space development was succeeded by more modest gains from 1990 to 1999, during which 9.3 million square feet of office space was added. Since then, construction of new office space has slowed with the Corridor adding 10.4 million square feet since 2000, including 327,000 square feet since 2020. Since 2000, the South I-25 Corridor capture of new office space has steadily decreased. From 2000 to 2009, the South I-25 Corridor captured 35 percent of all new office space in the metro region. From 2010 to 2019, the corridor captured 20.3 percent. From 2020 to 2023, the corridor captured 14.8 percent.

Figure 12. South I-25 Corridor Office Space by Year Built, 1970-2023



Source: CoStar; Economic & Planning Systems

The distribution of office development by location is shown by decade in **Figure 13**. The pattern of development has shifted from dispersed greenfield development in the 1980s and 1990s to greater density and concentration of development proximate to I-25 at key interchanges and light rail station locations including Belleview, Arapahoe Road, and RidgeGate.

Figure 13. New Office Development by Decade, South I-25 Corridor

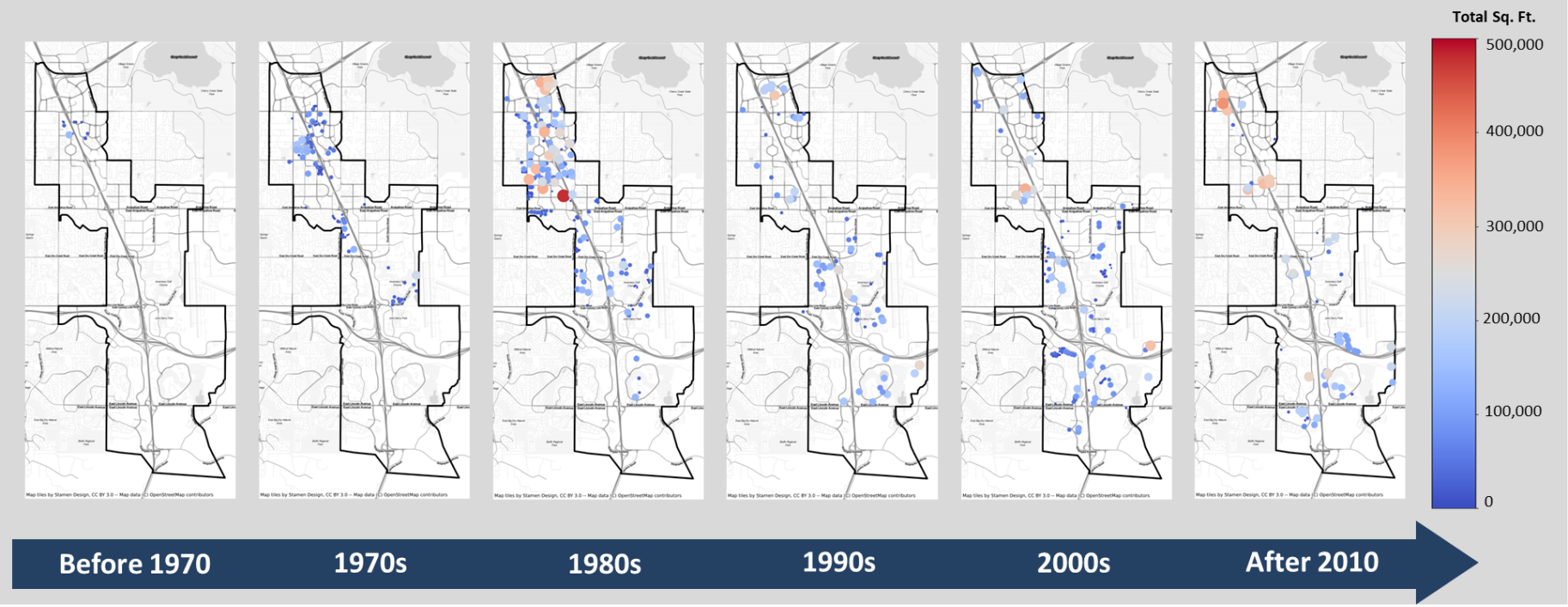
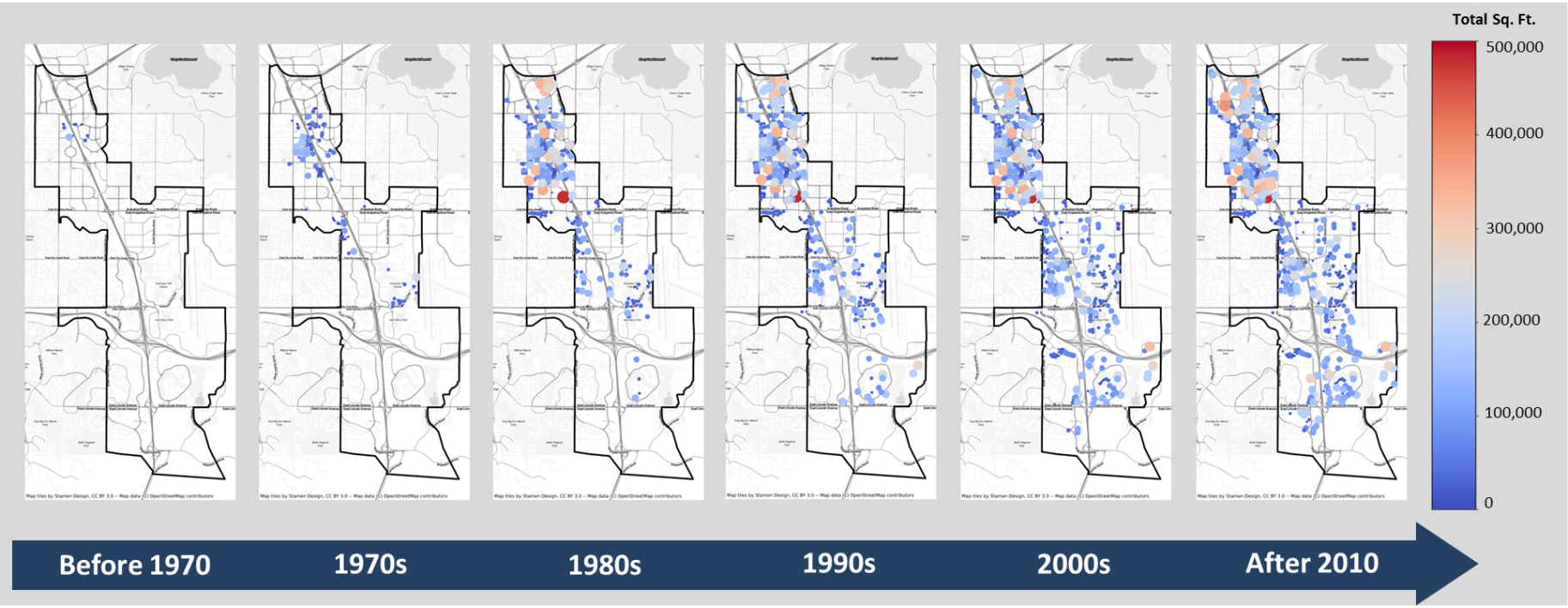
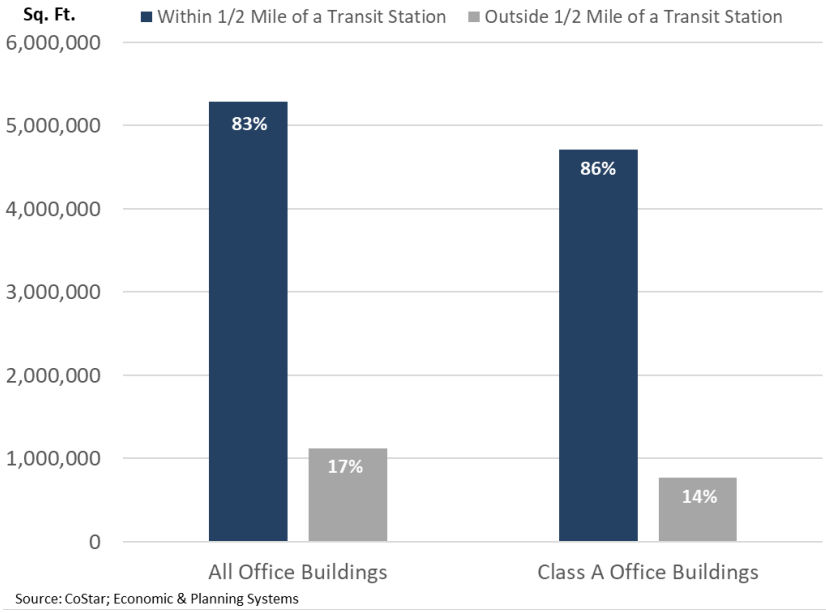


Figure 14. Cumulative Office Development by Decade, South I-25 Corridor



One of the most notable trends along the Corridor has been the strategic positioning of office development near transit stations. Since the T-Rex project was completed in 2006, 83 percent of the newly constructed office space in the Corridor was constructed within a ½-mile radius of a transit station, as shown in **Figure 15**. When considering Class A buildings specifically, approximately 86 percent of space has been developed within a ½ mile of a station. These trends have remained consistent over the 2014 to 2023 time period with 83 percent of all office space and 85 percent of Class A space within the ½-mile TOD influence area.

Figure 15. South I-25 Corridor New Office Space by Transit Proximity, 2006-2023

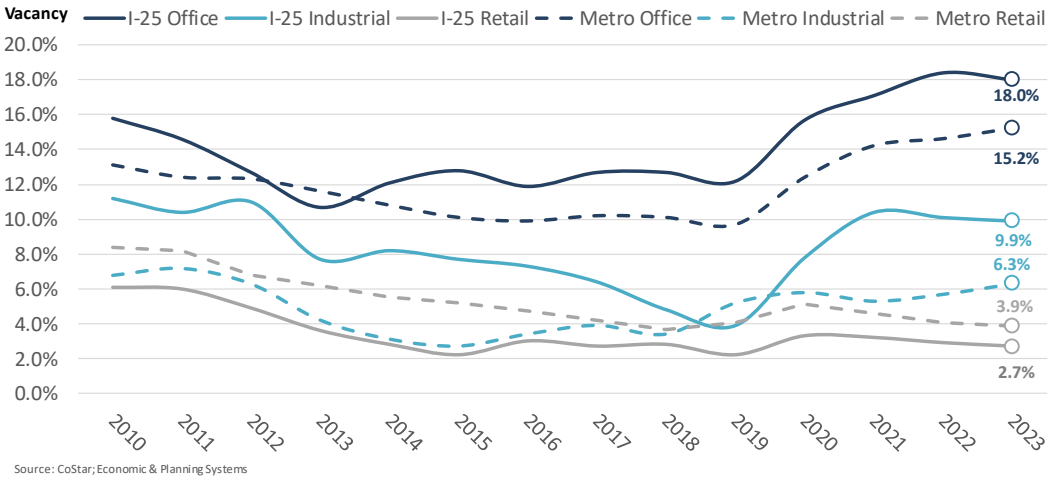


Source: CoStar; Economic & Planning Systems

Commercial Vacancy Trends

Corridor vacancy rates for office, retail, and industrial space for 2010-2023 are shown in **Figure 16** below and are also compared to the overall metro area average for each asset class. The Corridor office vacancy rate grew from 15.8 percent in 2010 to 18.0 percent in 2023. Since 2015, the Corridor vacancy rate has stayed approximately 2 percent higher than the metro average, which was 15.2 percent in 2023. By contrast, the Corridor industrial vacancy rate dropped from 11.0 percent in 2010 to 9.9 percent in 2023 and has stayed generally higher than the metro average, which sits at 6.3 percent. In terms of vacancies, the Corridor retail sector has the lowest vacancy rate, sitting at 2.7 percent, which is down from 6.4 percent in 2010. These changes in vacancy rates signify a change in market demand, with retail and industrial sectors displaying increased demand for space, and the office space sector displaying softening conditions, largely due to post-pandemic changes in office demand as further discussed in the next section.

Figure 16. South I-25 Corridor Vacancy Rate, 2010-2023



Source: CoStar; Economic & Planning Systems

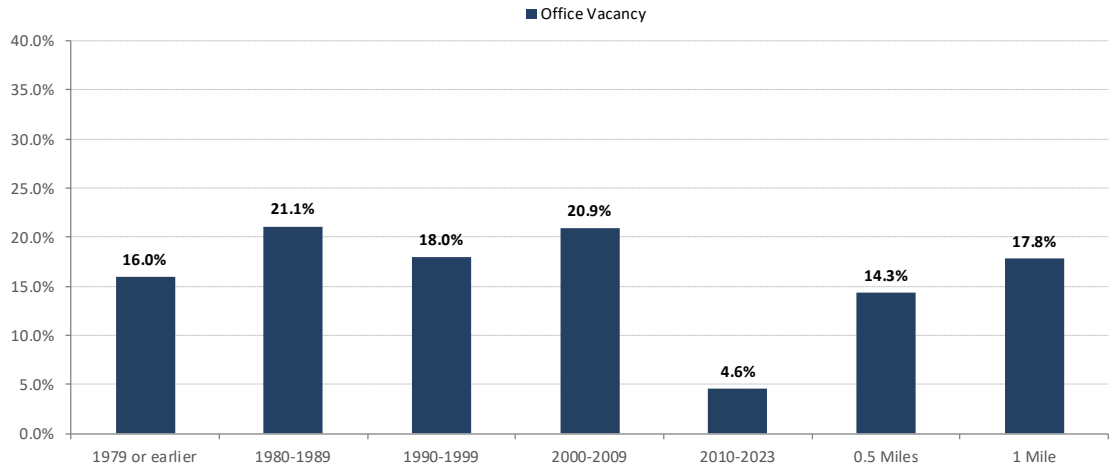
When looking at office vacancy rates office classes, there is little difference between classes. Class A buildings have a slightly lower vacancy rate (17.8%) than Class B buildings (19.3%), which shows the recent contraction in office demand is affecting all office buildings. Variation in office vacancy rates were however identified based on building age and proximity to transit. The office vacancy rate for buildings built since 2010 is 4.6 percent, as shown in **Table 6** and in **Figure 17**. This low vacancy rate indicates a greater demand for a new office product but may also be attributed to the presence of existing leases signed before the pandemic. The vacancy rate for office buildings within ½ mile of transit station is 14.3 percent, which is also lower than the Corridor average and is an indication of greater demand for these locations. The transit proximate buildings are most often in areas with a mixture of uses and presence of worker amenities (retail goods and services, walkable built environment) and are also the location of newer buildings (on average). Overall, these variations in vacancy rate indicate there is a "flight to quality" in terms of office demand, as the best located, and newer buildings have seen lower vacancy rates.

Table 6. South I-25 Corridor Office Vacancy by Age and Location, Q2 2023

Vacancy Rate	2010	2015	2023 Q2
Year Built			
1979 or earlier	15.6%	11.4%	16.0%
1980-1989	17.8%	14.8%	21.1%
1990-1999	14.7%	11.0%	18.0%
2000-2009	13.0%	8.5%	20.9%
2010-2023	---	1.6%	4.6%
Proximity to Transit Station			
0.5 Miles	14.2%	12.7%	14.3%
1 Mile	16.1%	11.8%	17.8%
All Office	**15.8%**	**11.9%**	**18.1%**

Source: CoStar; Economic & Planning Systems

Figure 17. South I-25 Corridor Office Vacancy by Decade of Construction

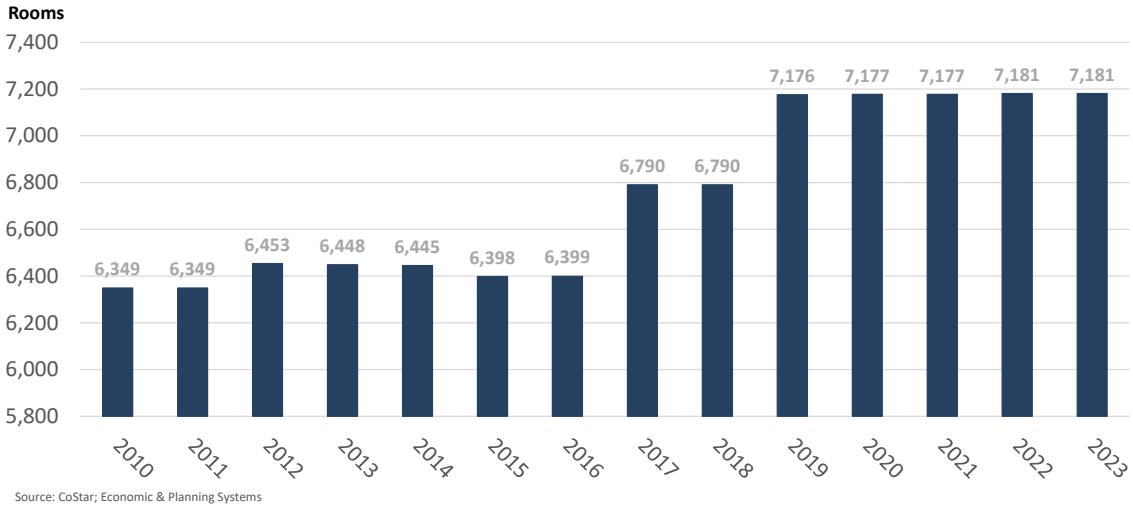


Source: CoStar; Economic & Planning Systems

Hotel Trends

In 2023, there were approximately 7,181 hotel rooms in the Corridor, as shown in **Figure 18**. There has been a modest expansion since 2010, with a total increase of approximately 832 rooms. This represents an average annual growth rate of 1.0 percent. Although no new hotel rooms have been added to the Corridor since 2019, a new Kimpton Hotel is expected to open in 2024 at Belleview Station and will include 190 guest rooms, a restaurant and bar on the ground floor, and a 19th floor rooftop bar and lounge, among other amenities.

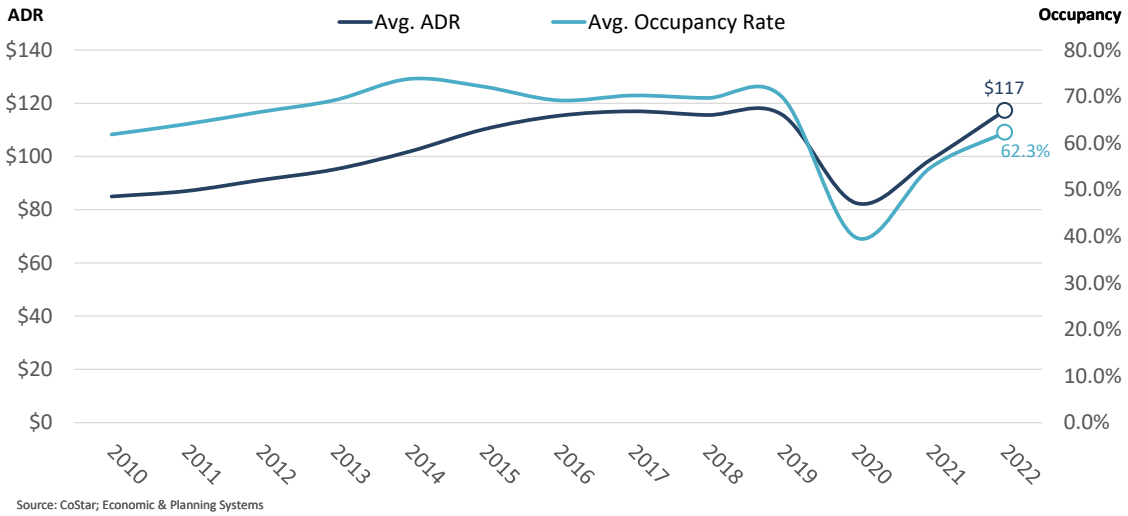
Figure 18. South I-25 Corridor Hotel Room Inventory, 2010-2023



Source: CoStar; Economic & Planning Systems

Hotel occupancy rates dipped to approximately 45 percent in 2020 during the pandemic and recovered to 62.3 percent in 2022 as shown in **Figure 19**. The metro area average has rebounded even more and was at 72 percent in 1st quarter of 2023. Corridor occupancy rates are still below the pre-pandemic levels of 70 percent and greater, which were in place from 2012-2019 after recovery from the Great Recession. Average daily room rates (ADRs) are currently at $117 which is slightly below the pre-pandemic levels as shown and less than the metro area average of $151.

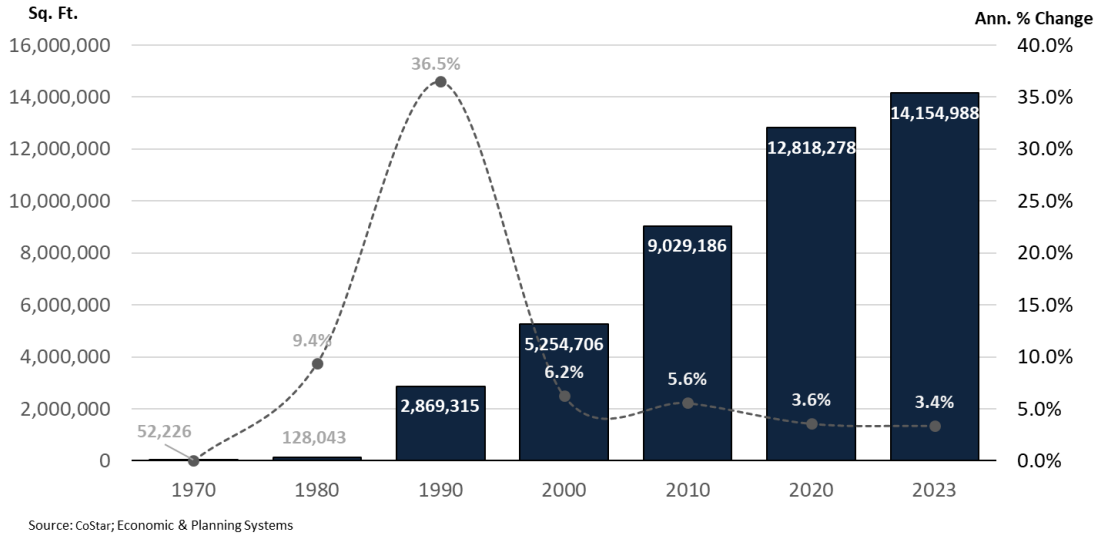
Figure 19. South I-25 Corridor Hotel Average Daily Rate and Occupancy Rate, 2010-2022



DOVE VALLEY SUBAREA

Dove Valley was added as a separate subarea to track the growth of commercial and industrial development adjacent to the primary South I-25 Corridor. The area had a total of 14.2 million square feet of commercial space in 2023 , as shown in **Figure 20**. In contrast to the South I-25 Corridor, the most significant period of growth was the 1980s, increasing from 128,043 square feet to 2.8 million square feet over the decade. The momentum of development has remained steady since then, with the addition of 11.3 million square feet of commercial space since 1990. Recently, Dove Valley has sustained its strong growth, adding 1.3 million square feet since 2020, which equates to an annual growth rate of 3.4 percent.

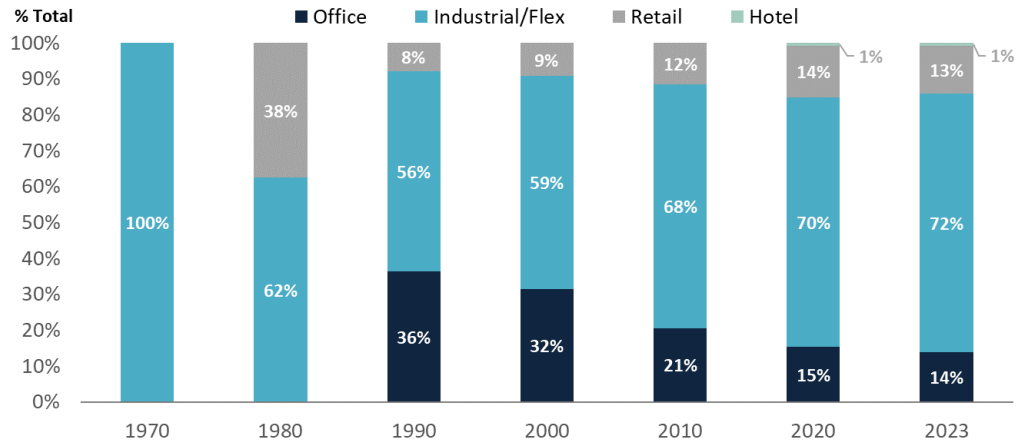
Figure 20. Dove Valley Total Nonresidential Square Feet, 1970-2023



Source: CoStar; Economic & Planning Systems

The composition of space in the Dove Valley subarea is predominately industrial and flex, accounting for approximately 72 percent of total space in 2023, as illustrated in **Figure 21**. Office and retail space represent the second and third largest segments, collectively constituting 27 percent of the commercial floor area, with 14 percent allotted to office and 13 percent to retail. Hotels account for the lowest percentage of commercial floor area, equating to 1 percent of the total space.

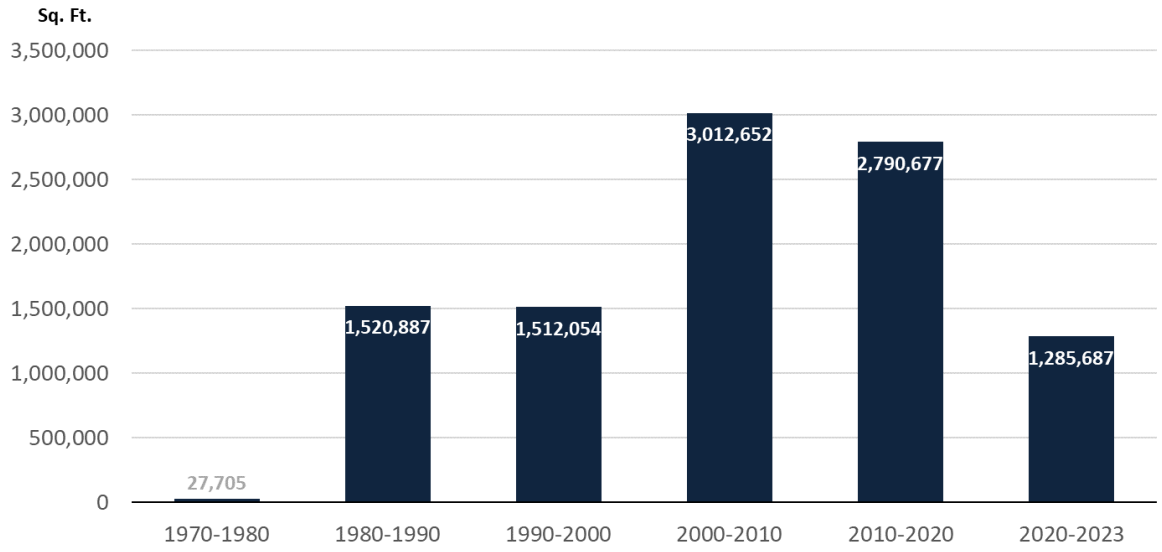
Figure 21. Dove Valley Percent Nonresidential Square Feet by Use, 1970-2023



Source: CoStar; Economic & Planning Systems

The subarea emerged as an industrial area in the 1980s when approximately 1.5 million square feet of industrial/flex space was added, as shown in **Figure 22**. The industrial space inventory continues to grow, adding 10.1 million square feet between 1990 and 2023.

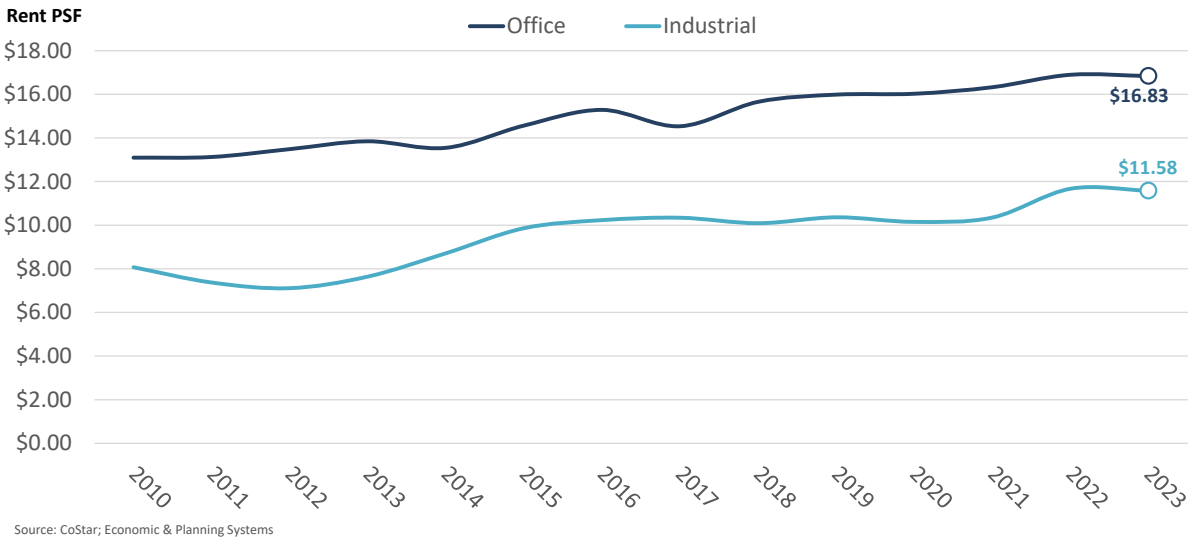
Figure 22. Dove Valley Industrial Space by Year Built, 1970-2023



Source: CoStar; Economic & Planning Systems

Shown in **Figure 23**, industrial/flex rental rates in the Dove Valley area ranged from $8.00 in 2010 to $11.58 in 2023, higher than the metro average. Rental rates for the office sector underwent the same level of growth, increasing from $13.09 in 2010 to $16.83 in 2023, which are lower than the metro average. Data was not available for the retail sector.

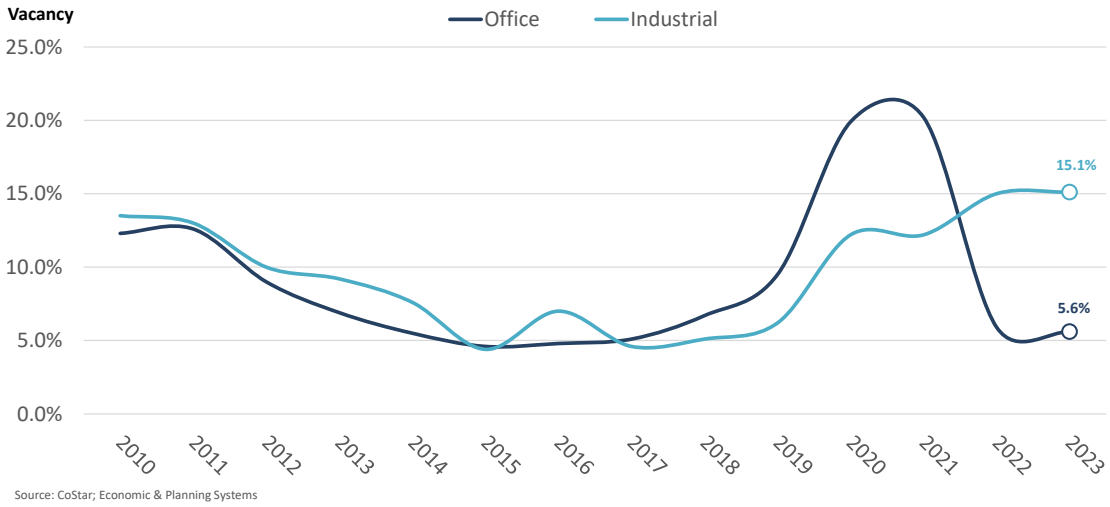
Figure 23. Dove Valley Office and Industrial Lease Rates per Sq. Ft., 2010-2023



Source: CoStar; Economic & Planning Systems

The vacancy rate for industrial/flex space was 13.5 percent in 2010, continually declining to a low of 4.6 percent in 2015 before increasing to 15.1 percent in 2023, as shown in **Figure 24**. The increase can likely be attributed to the large number of new deliveries in the subarea. For office space, the vacancy rate started at 12.3 percent in 2010, increasing to a high of 20.2 percent during the early years of the pandemic, before stabilizing at 5.6 percent in 2023, which is the level experienced from 2014-2017.

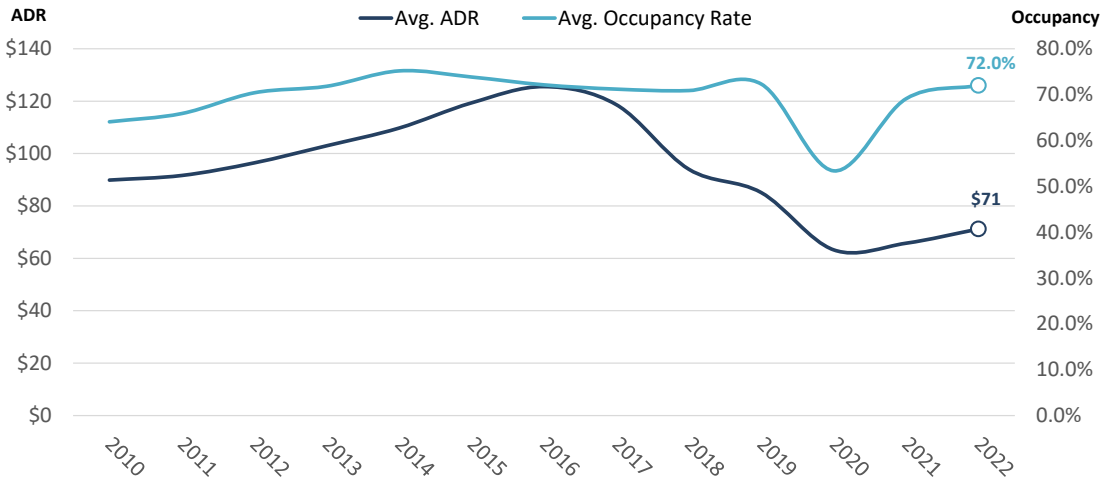
Figure 24. Dove Valley Office and Industrial Vacancy Rates, 2010-2023



Source: CoStar; Economic & Planning Systems

The Dove Valley subarea has a small inventory of hotel rooms with 373 including 120 rooms added between 2016 and 2019. The occupancy rate for hotels in the subarea has been strong despite a dip related to the pandemic. The occupancy rate is 72 percent, which is the same as the metro area and indicates strong demand. However, the average daily rate achieved by the hotels in the subarea has dropped significantly since 2016. The average daily rate was over $120 in 2016 but now is only $71, less than half of the metro area average. This low of ADR does not indicate strong demand in the subarea for hotels despite the high occupancy rate.

Figure 25. Dove Valley Hotel ADR and Occupancy Rates, 2010-2022



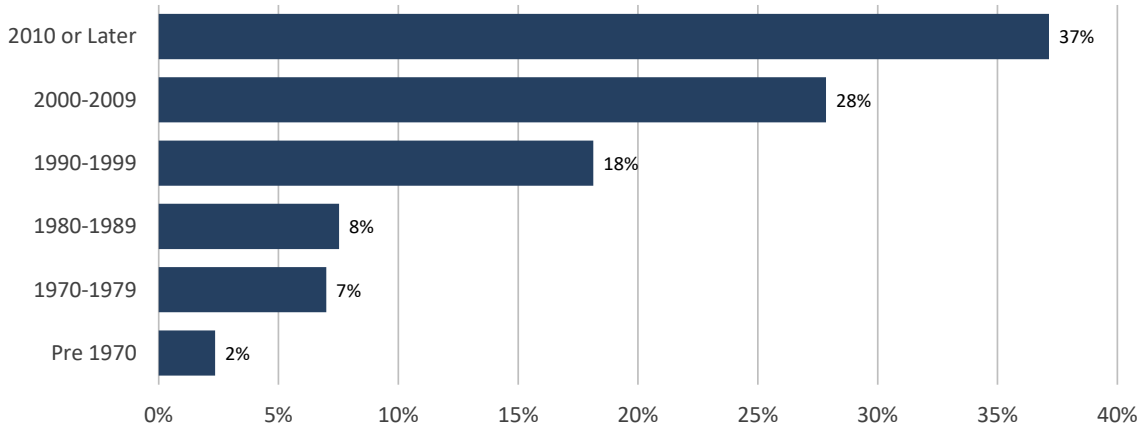
Source: CoStar; Economic & Planning Systems

Housing Development Trends

SOUTH I-25 CORRIDOR

The number of housing units built in the Corridor has increased in each decade. The Corridor experienced the largest increase in housing since 2010 when nearly 40 percent of housing units have been built, as shown in **Figure 26**. The Corridor has quickly transitioned from primarily an office employment location to a more mixed-use environment with the addition of these housing units.

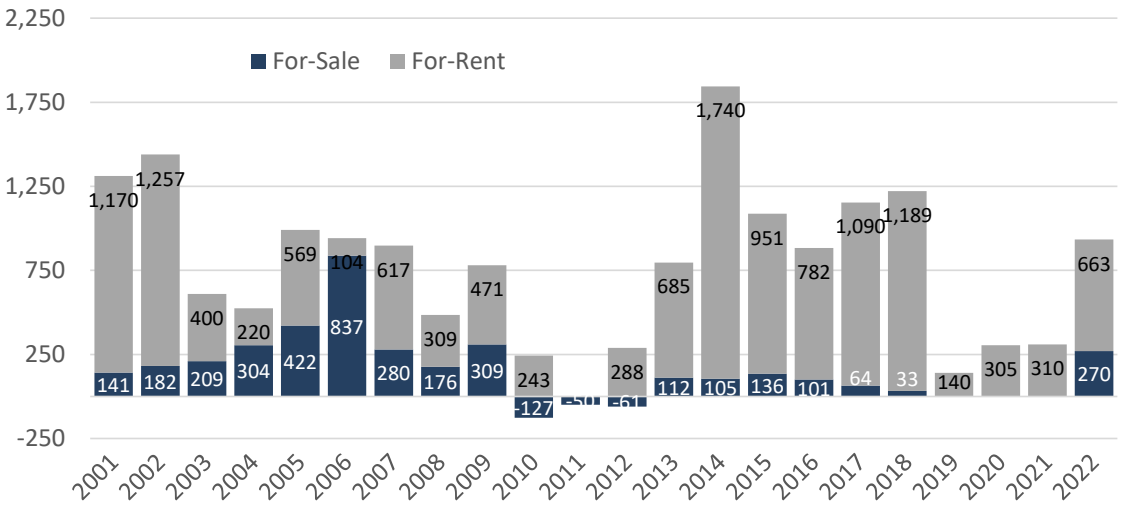
Figure 26. South I-25 Corridor Percent Housing Units by Decade Built



Source: Esri Business Analyst; U.S. Census; Economic & Planning Systems

The Corridor has attracted the development of 770 new units per year since 2001, as shown in **Figure 27** and **Table 7**. Over this period, for-rent multifamily apartment units have accounted for 80 percent of the new units added to the Corridor. For-rent apartments have been the predominant housing type added, particularly since 2010.

Figure 27. South I-25 Corridor New Housing Units by Tenure, 2001-2022



Note: Negative for-sale units in 2010, 2011, and 2012 indicate housing starts that were abandonded

Table 7. South I-25 Corridor New Housing Units by Type, 2001-2022

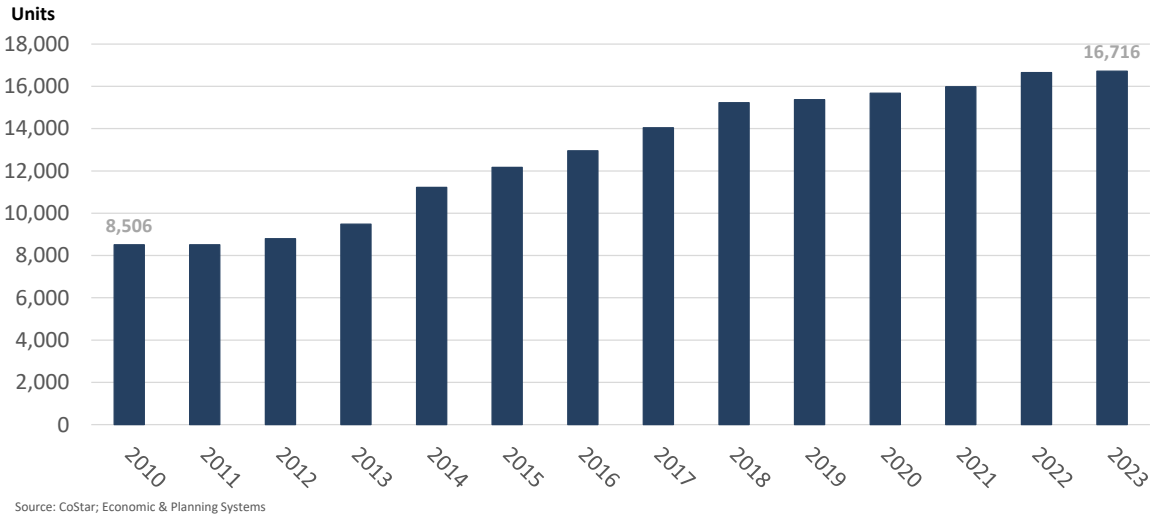
Description	2001-2012			2012-2022			2001-2022		
	Total	Ann. #	Ann. %	Total	Ann. #	Ann. %	Total	Ann. #	Ann. %
For-Sale									
Single Family Detached	693	58	8%	567	57	7%	1,260	57	7%
Attached - Townhomes/Plex	678	57	8%	225	23	3%	903	41	5%
Attached - Condo	1,251	104	15%	29	3	0%	1,280	58	8%
Total	**2,622**	**219**	**32%**	**821**	**82**	**9%**	**3,443**	**157**	**20%**
For-Rent									
Multifamily Apartments	5,648	471	68%	7,855	786	91%	13,503	614	80%
Total Housing Units	**8,270**	**689**	**100%**	**8,676**	**868**	**100%**	**16,946**	**770**	**100%**

Source: Zonda, CoStar, Economic & Planning Systems

Prior to the downturn in housing development caused by the Great Recession in 2008 and 2009, the Corridor was attracting a greater share of for-sale housing. For-sale condo units accounted for 15 percent of the housing units developed from 2001-2012, while attached townhomes accounted for 8 percent. Since the Great Recession and recovery, which has coincided with the emergence of construction defect litigation activity against condominium developers, condo development has largely disappeared in the Corridor and the amount of townhome development has decreased significantly. There have been only a handful of new condo units built in the Corridor and only 225 townhome units built since 2012.

Since 2010, there has been a consistent growth in the total number of apartment units in the Corridor. Starting at 8,506 units, the inventory has increased to a total of 16,716 units in 2023, as shown in **Figure 28**.

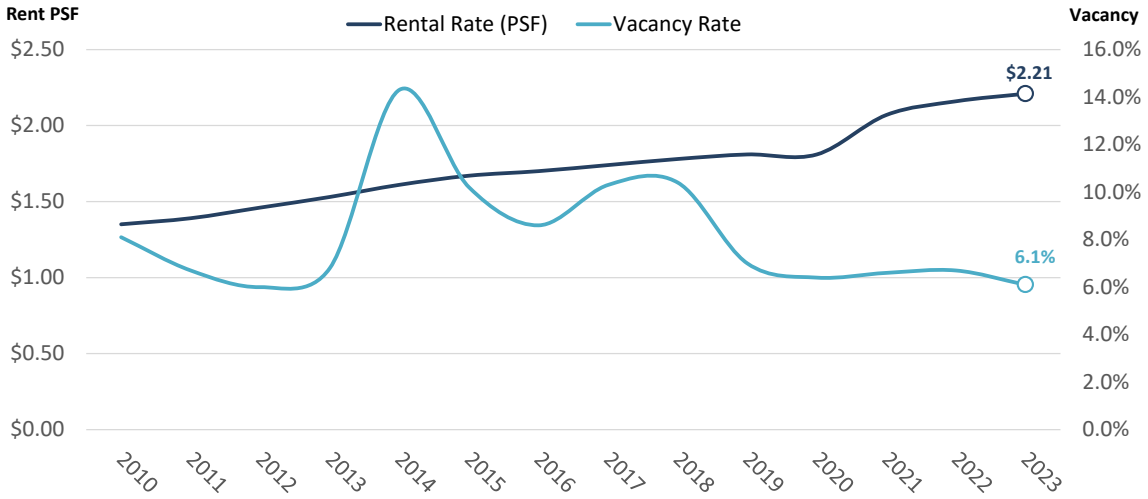
Figure 28. South I-25 Corridor Total Apartment Units, 2010-2023



Source: CoStar; Economic & Planning Systems

In addition to strong deliveries, rental rates have increased from $1.35 per square foot in 2005 to $2.21 per square foot in 2023, an increase of 3.9 percent per year, as shown in **Figure 29**. By comparison, the metro area average is $2.12 per square foot. Over the same period, vacancy rates have decreased from 8.1 to 6.1 percent, lower than the metro area average. Both metrics, combined with strong deliveries, demonstrate strong market fundamentals, indicating growth is likely to continue in the near term.

Figure 29. South I-25 Corridor Apartment Rental and Vacancy Rates, 2010-2023

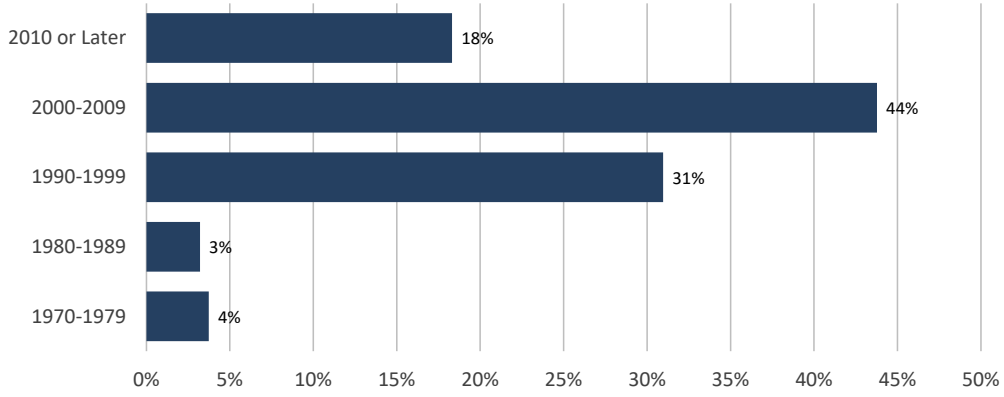


Source: CoStar; Economic & Planning Systems

DOVE VALLEY SUBAREA

The Dove Valley subarea experienced the majority of its housing development in the late 1990s and early 2000s, as shown in **Figure 30**. Forty-four percent of units were built in the 2000's including a significant portion of the apartment inventory.

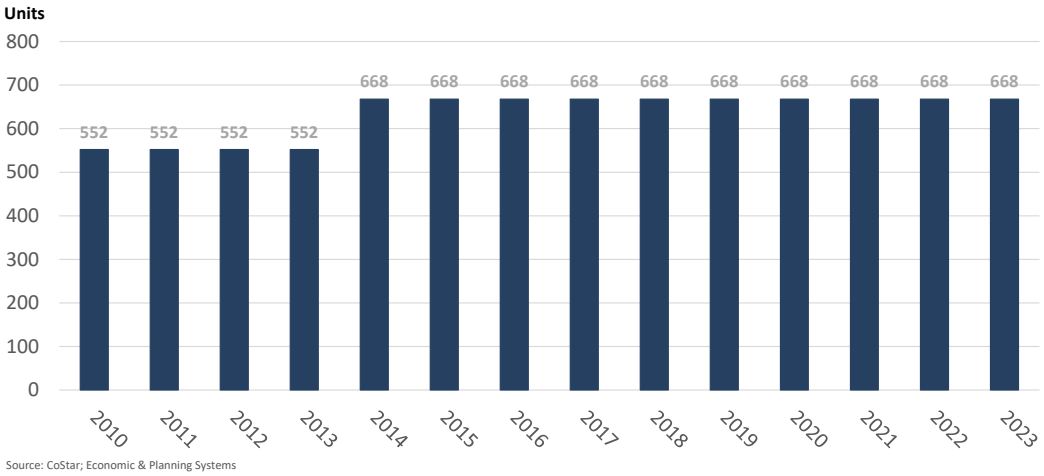
Figure 30. Dove Valley Percent Housing Units by Decade Built



Source: Esri Business Analyst; U.S. Census; Economic & Planning Systems

The apartment development in the subarea has been limited since 2015, with the addition of only one new project in 2014. The total inventory of apartments is 668 units, as shown in **Figure 31**. The number of renter-occupied households is much greater than the number of apartments, which is an indication that traditionally owner-occupied housing in the subarea has transitioned to renter-occupied housing.

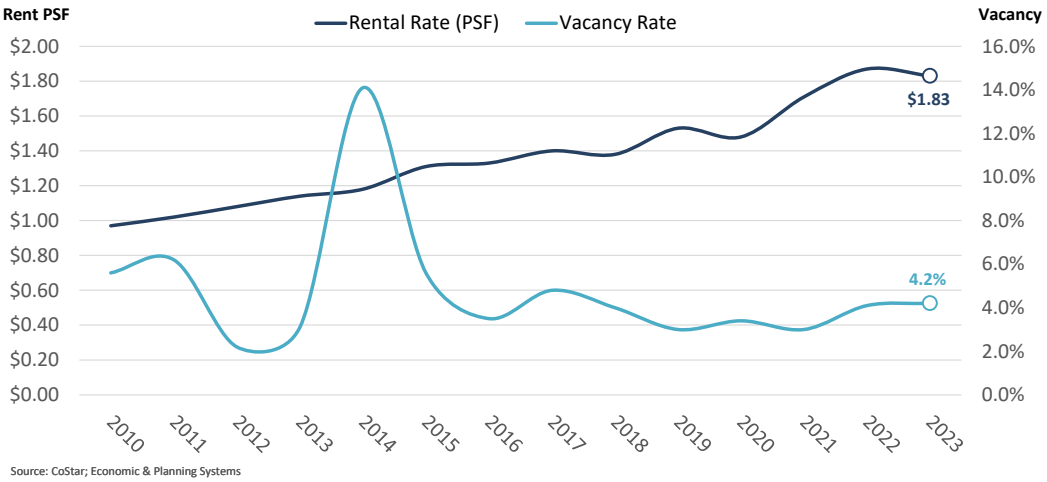
Figure 31. Dove Valley Multifamily Total Units, 2010-2023



Source: CoStar; Economic & Planning Systems

Despite the limited increase in new apartment units in the subarea, the rental rate per square foot has increased steadily over the past decade from $0.97 in 2010 to $1.83 in 2023, as shown in **Figure 32**. The average rental rate is lower than the metro area average. The vacancy rate is 4.2 percent and has remained under 5 percent since 2015, which is an indication of demand.

Figure 32. Dove Valley Multifamily Rental and Vacancy Rates, 2010-2023



Source: CoStar; Economic & Planning Systems

Existing Transportation Inventory

The Role of Denver South TMA

The Denver South TMA is a nonprofit organization that aims to improve transportation and mobility in the Denver South region. The Denver South TMA works with businesses, local governments, and transportation agencies to promote Transportation Demand Management (TDM) strategies such as carpooling, vanpooling, transit, biking, walking, and teleworking. The TMA also supports infrastructure improvements, transit service enhancements, and multimodal transportation planning.

The Denver South TMA provides a variety of services and programs to its members, including:

WRK Denver South

WRK Denver South is a program to support employers and employees as they evaluate how to do hybrid work; from returning to the office, to flexible schedules. WRK Denver South assists and supports organizations with formalizing and customizing plans for hybrid work, including policy documentation, commuting benefits, technology needs, employee eligibility, talent retention, and additional expenses.

- **Commuter Services:** The TMA provides resources and support for employers to offer commuting alternatives to their employees, including carpooling and vanpooling programs, hybrid work programs, transit subsidies, and bicycle programs.
- **Transportation Planning:** The TMA works with local governments and transportation agencies to advocate for transportation infrastructure improvements, transit service enhancements, and multimodal transportation planning.
- **Outreach and Education:** The TMA provides outreach and education to businesses, employees, and residents on the benefits of TDM strategies and sustainable transportation options.
- **Data and Analysis:** The TMA conducts transportation surveys, collects data on transportation patterns, and analyzes transportation trends to inform transportation planning and decision-making.

Relevant Plan Summary

Between Denver South and its city, county, and other jurisdictional partners, nearly two dozen transportation and mobility plans and studies have been completed since the completion of the 2016 Denver South Corridor Study; many completed within just the last five years. A relevant plan inventory was conducted, and each plan was summarized to understand the transportation planning efforts in the region to be considered for the Denver South I-25 Corridor Study and to inform recommendations. The plan summary in the appendix contains detailed summaries of each plan with key graphics from the plans and lists the priority projects that emerged from each. High level themes that emerged from the relevant plan summaries include:

- Establishing regional mobility hubs at the Belleview, Arapahoe at Village Center, and Dry Creek stations
- Planning for future BRT corridors along Quebec Street (DTC Parkway to Belleview Station) and Arapahoe Road
- Examining increased microtransit connections – such as the Link on Demand – in the Denver South area to assist transit usage (both fixed routes and demand-response zones)
- Continuing the program of building sidewalks and closing sidewalk gaps
- Adding bike lanes on more streets and bike trails in specific corridors
- Widening specific major arterials and expressways, especially on Arapahoe Road, E-470, and Lincoln Avenue on the east side of the Denver South area
- Implementing new signal technologies at intersections and increasing pedestrian safety at intersections and interchanges

Transportation Demand Management

Transportation Demand Management (TDM) is a set of strategies and policies aimed at reducing traffic congestion, improving transportation efficiency, and promoting sustainable transportation modes such as public transit, biking, walking, and carpooling. Over time, TDM has expanded to apply more broadly to policies and programs designed to support and incentivize choice and healthier, more environmentally sustainable transportation behaviors.

This shift toward a more expansive definition of TDM has paralleled an expansion in the transportation industry from the initial focus on minimizing congestion for personal autos to a broader focus on improving transportation access for people, irrespective of transportation mode. Overall, a range of organizations and individuals can undertake TDM strategies and policies; from local, state, and federal governments' policies and programs to TMAs, employers or individuals, with specific targeted programs and incentives.

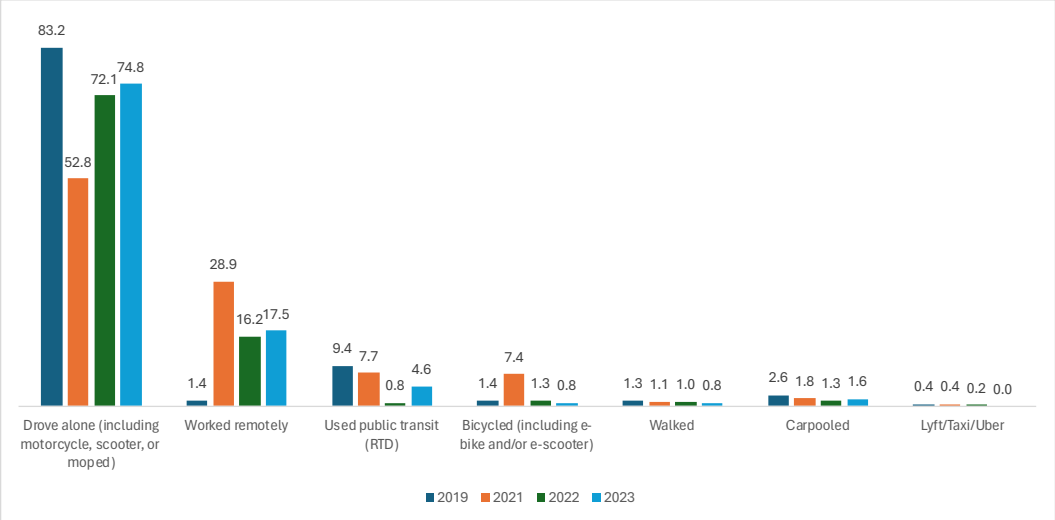
Employee Survey

Denver South TMA conducts an annual survey to understand commute behaviors and challenges related to movement to and from the region. The survey is conducted virtually and typically has a response rate of approximately 2,500 employees in the region. Findings inform much of the work the TMA does in the region and are reported back to jurisdictional partners to identify other initiatives that may help improve mobility in the region.

DENVER SOUTH COMMUTER SURVEY TRENDS

The general survey results saw a notable return in commuting to the office in 2022. Employees had an average one-way commute of 15 miles. As shown on **Figure 33**, commuters return to the office was mostly seen in driving alone, where employees driving alone represented 71.7 percent of all commuters in 2022, compared to 51.4 percent in 2021. Concurrently, remote work decreased from 28.9 percent in 2021 to 16.2 percent in 2022. The average remote workdays decreased to 2.2 days per week, from a high of 3.38 days in 2020 and 3.06 days in 2021.

Figure 33. Employee Survey Commuter Mode Share



Source: Denver South TMA 2019, 2021, and 2022 Commuter Surveys

Commuting patterns have undergone significant changes compared to pre-pandemic levels. Before the pandemic (in 2019), driving alone constituted 82.6 percent of all commuters, while remote work accounted for only 1.4 percent. Although there has been a recovery in travel patterns resembling pre-pandemic levels, not all patterns have fully reverted to their previous states.

Uncertainty remains about whether pre-pandemic travel patterns will ever fully return, with remote work likely to continue as a prominent alternative in the workforce. Public transit's mode share has remained stable at approximately 8 percent from 2021 but likely decreased when compared to pre-pandemic travel trends. The percentage of commuters traveling by bike decreased significantly to 1.3 percent in 2022 from 7.4 percent in 2021. Other transportation options stayed relatively the same, with a share of 0 to 2 percent of all trips.

COMMUTER BENEFITS

The most valued commuter benefit was flexible/remote work options, with 86 percent of respondents selecting it as a commuter benefit. Similarly parking space, transit passes, and covered/secure parking were considered important benefits and were selected by 75, 66, and 41 percent of all respondents, respectively.

COMMUTING BY TRANSIT

For employees taking transit, the top three preferred methods for completing their journey included:

- Walking – 38.8 percent
- Free shuttle service – 23.5 percent
- Bike (personal bike/e-bike/ e-scooter or shared system).

Some employers offer EcoPasses to their employees. Of the employers that offer this benefit, 41.8 percent of employees use their employer-provided Regional Transportation District (RTD) pass to commute to work an average of 1.78 days per week as of 2022.

Interestingly, 68.5 percent of all respondents mentioned using their employer-provided transit passes for non-work/personal trips, such as taking the train or express bus to Denver International Airport or using it to attend a sporting event downtown.

Encouraging Alternative Modes

Denver South TMA promotes alternative transportation options for businesses in the region. Two programs currently being promoted are RTD transit passes (EcoPass) and a new refundable tax credit from the State of Colorado.

EcoPass

An employer-sponsored transit pass, EcoPass provides enrolled employees unlimited rides on RTD buses and trains. EcoPasses are acquired in bulk, provide good value in cost, and can be employer-paid, employee-paid or cost shared. Denver South TMA helps with enrollment and provides guidance and information for joining this RTD program in the Denver South region.

Alternative Transportation Tax Credit

The State of Colorado passed the Alternative Transportation Options Tax Credit (HB 22-2016), providing a refundable tax credit for years 2023 and 2024 for employer expenses related to providing alternative transportation options to employees. Organizations can claim a credit on 50 percent of their spending, up to a limit of $250,000 per year, or $2,000 per year per employee. Qualifying expenses include any expense related to programs or infrastructure to support anything other than driving alone, such as transit subsidies, biking facilities, micromobility programs, shuttle services, ridesharing arrangements (carpool, vanpool), administrative expenses, guaranteed rides home, cash outs,

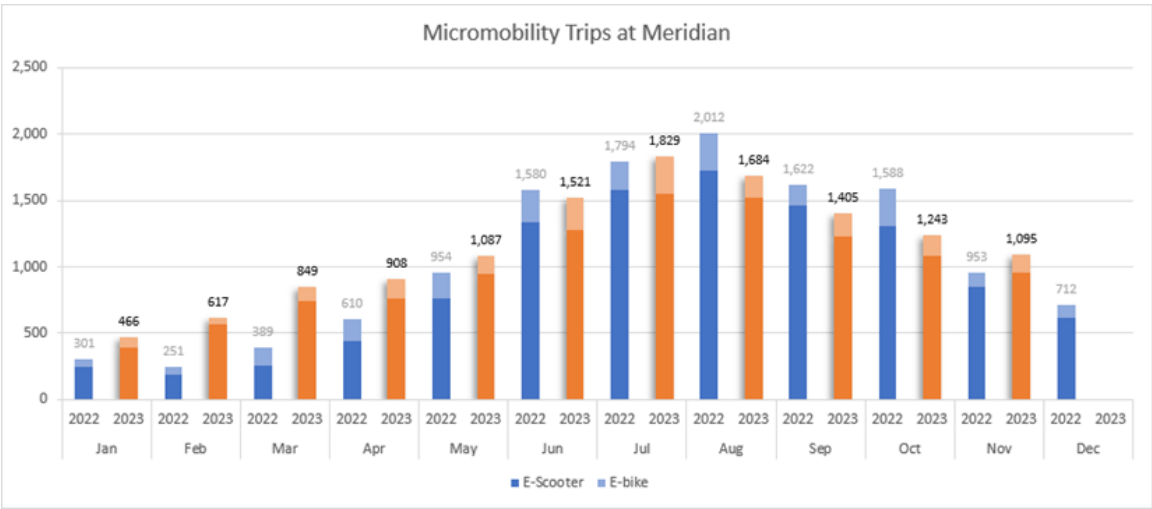
Micromobility

As defined by the U.S. Department of Transportation, *micromobility* refers to small, low-speed vehicles intended for personal use and includes station-based bikeshare systems, dockless bikeshare systems, electric-assist bikeshare, and electric scooters. The Meridian Metropolitan District, located within the Denver South TMA, subsidizes a micromobility program.

SPIN, a private micromobility provider, manages the system and operates within the boundaries of the district. RTD's Lincoln Station is considered a significant connection for first and last mile service in the area, where people can access e-bikes and e-scooters. The program has 12 stations where devices are deployed and includes a fleet of 80 dockless e-scooters and 20 dockless e-bikes. To use the system, riders pay a flat fee of $1 per trip, with the District subsidizing other trip costs.

Since the inception of SPIN micromobility services (November 2021), people have taken on average 34 trips per day, a number that varies seasonally and peaked in August 2022. During that time, there were on average 70 total trips per day. **Figure 34** shows 2022 month-to-month ridership with 2023 data available through November 2023, with a year-over-year upward trend in 2023. Ridership has remained steady with overall growth of 5.5 percent growth from 2022 to 2023. Since SPIN's inception in the area, 85.5 percent of trips (22,500) have been taken by e-scooters and 14.5 percent (3,828) by e-bikes. Riders have traveled on average 1.69 miles per e-scooter trip and 1.44 miles per e-bike trip.

Figure 34. Micromobility Trips at Meridian

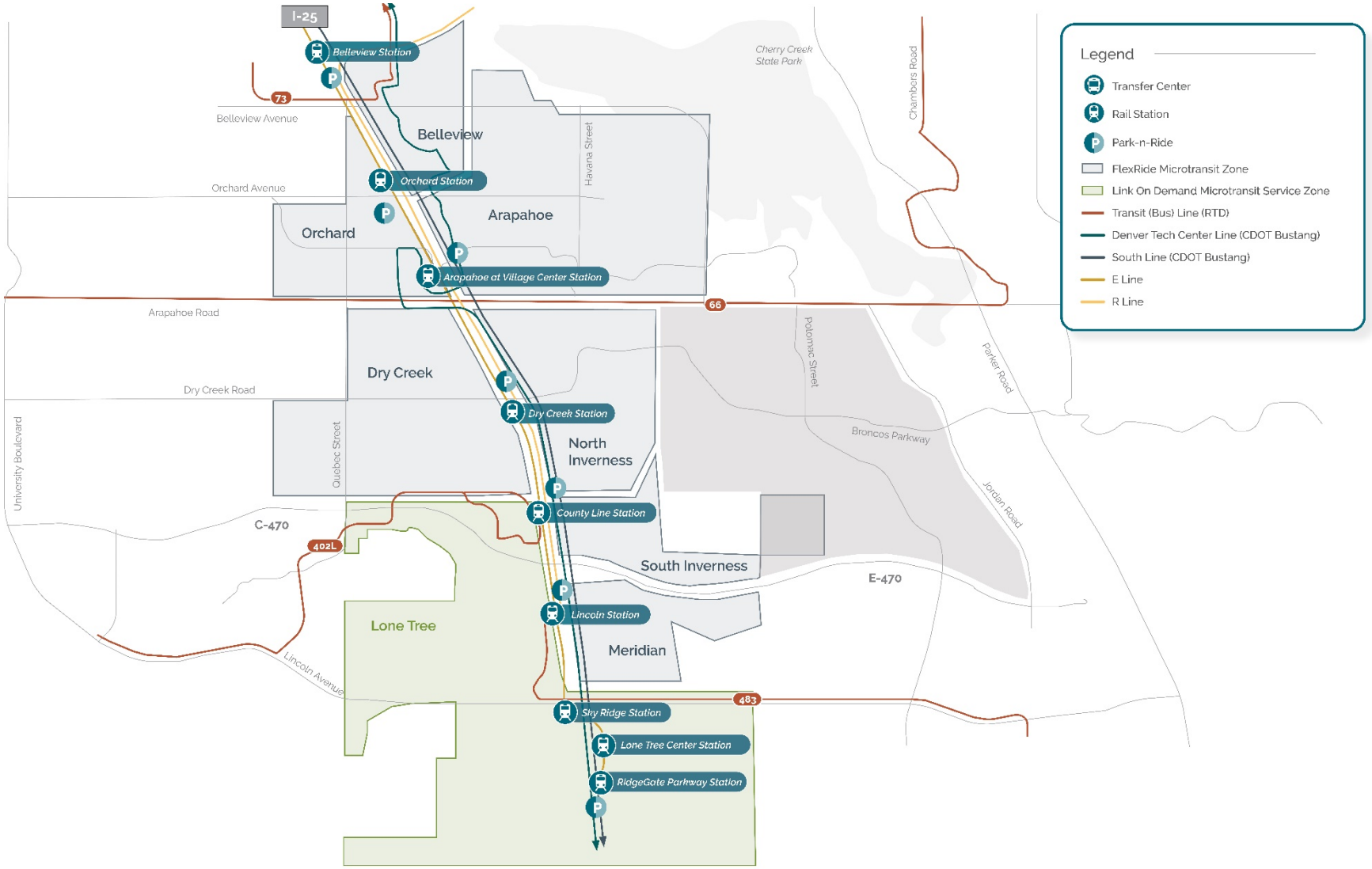


Source: SPIN Micromobility (2023 data only available for January-November 2023)

Transit Network

Multiple transit modes serve the varying mobility needs of people in the Denver South area including local, regional, intercity, and international destinations. The area includes a combination of local fixed-route bus service, microtransit, and demand response FlexRide zones provided by RTD. The local service is augmented by a light rail corridor that parallels I-25 on the west with service on the E Line (between Denver Union Station and RidgeGate Station) and the R Line (between Peoria Station and Lincoln Station). Both light rail lines provide a connection with the A Line commuter rail service to Denver International Airport via transfer at the northern end of the R Line and at Denver Union Station. **Figure 35** shows the existing transit services in the Denver South region.

Figure 35. Existing Transit Service



LIGHT RAIL SERVICE

The E and R Lines provide light rail service parallel to I-25 and run every 15 to 30 minutes most of the day. The South I-25 Corridor has nine light rail stations with the opening of the Southeast Rail Extension in May 2019. Most stations have parking except for Sky Ridge and Lone Tree City Center. The F Line, another service between downtown and Lone Tree, was suspended in 2020 due to the pandemic and officially eliminated in 2023.

The Arapahoe Station currently has the highest ridership at 917 average weekday passenger boardings, based on ridership data collected in fall 2022. Before the pandemic, the RidgeGate Station had the highest activity at 2,105 average weekday passenger boardings, based on RTD ridership data collected in fall 2019. Lincoln Station and RidgeGate Station are traditionally "commuter" stations, located in places where most riders drive to and from the stations on weekdays and ride during the morning and afternoon peak periods. Like the region as a whole, transit ridership has declined significantly due to COVID, although ridership was slightly higher in 2022 than in 2021, suggesting somewhat of a return to pre-pandemic numbers. Transit reliability and safety concerns continue to present an issue for passengers coming back.

Table 8 shows the average Weekday boardings by station for 2019 and 2022 and the percentage of boardings in 2022 compared to 2019. Ridership at all stations dropped sharply as a result of the pandemic. The stations that retained the highest amount of ridership between 2019 and 2022 are County Line (65 percent) and Lincoln (55 percent), although Lincoln Station could be slightly inflated due to passenger transfers between the E and R Lines.

Table 8. Light Rail Boardings by Station

Light Rail Station	2019 Weekday Boardings	2022 Weekday Boardings	2022 as a Percent of 2019
Belleview	1,469	716	49%
Orchard	847	304	36%
Arapahoe at Village Center	1,950	917	47%
Dry Creek	1,175	504	43%
County Line	799	518	65%
Lincoln	1,598	877	55%
Sky Ridge	316	181	57%
Lone Tree City Center	146	19	13%
RidgeGate	2,105	767	36%

Source: RTD 2019 and 2022 Ridership Data

Parking use at the rail station Park-n-Ride facilities has not been collected since 2019, and no data exists for RidgeGate Station, so a comparison cannot be made between 2019 and 2022.

Similar to rail station activity, ridership by line has changed since the pandemic and revealed some new trends. Rail ridership in the Denver South area in 2022 was less than half of what it was in 2019 (46 percent). The R Line has retained more ridership than the E Line, which is due to it being less of a peak commuter route. **Table 9** shows the average Weekday light rail ridership in the Denver South area by line for fall 2019 compared to fall 2022. In March 2020, the F Line was temporarily discontinued and permanently discontinued in January 2023.

Table 9. Ridership by Light Rail Line

Light Rail Line	2019 Weekday Ridership	2022 Weekday Ridership	2022 as a Percent of 2019
E and F Line or E Line	8,504	3,824	45%
R Line	1,901	979	52%
Total Rail	**10,405**	**4,803**	**46%**

Source: RTD 2019 and 2022 Ridership Data

LOCAL BUS SERVICE

The RTD bus service provides a skeletal network in the Denver South area that crosses and complements the light rail lines, mainly providing east-west connections, with three routes that enter the Denver Technological Center from the north (Routes 66, 73). Route 66 (along Arapahoe Road) and 402L (connecting County Line Station, Park Meadows, and Highlands Ranch to the west) provides hourly service through most of the day, every day of the week. Route 73, connecting Belleview Station, the Ulster and Tufts Transfer Center, and Denver to the north, provides 30-minute service through most of the day, every day of the week.

Table 10 shows the average Weekday bus ridership in the Denver South area by route for fall 2019 compared to fall 2022. Routes 65 and 105 are not included as they have a very small role in the area, terminating at the Ulster and Tufts Transfer Center. Similarly, Routes 153 and 169 are also not included. Since the pandemic, bus ridership has come back stronger than rail ridership, especially Route 73 at 84 percent of what it was in 2019. This trend may, at least partially, be explained by riders who depend on bus services for essential trips.

Table 10. Ridership by Bus Route

Bus Route	2019 Weekday Ridership	2022 Weekday Ridership	2022 as a Percent of 2019
Route 66	157	104	66%
Route 73	235	197	84%
Route 402L	154	95	62%

Source: RTD 2019 and 2022 Ridership Data

FLEXRIDE SERVICE

RTD's on demand transit service is called FlexRide and service is provided in fixed areas that have connections to light rail stations. There are eight FlexRide zones in the Denver South area:

- Arapahoe
- Belleview
- Dry Creek
- Lone Tree
- Meridian
- Orchard
- North Inverness
- South Inverness

Trip reservations for FlexRide are booked by either using the app (mobile or online) or calling RTD and may be made up to 30 days in advance. FlexRide vehicles are scheduled to leave the light rail station every hour starting at 6:00 AM, with the last vehicle leaving at 5:00 PM and arriving back to the station at 5:55 PM. Boarding at the stations does not require a reservation.

Ridership over the last three years has declined sharply as indicated in **Table 11**, with the Meridian, North Inverness, and South Inverness FlexRides having the largest decreases between 13 and 16 percent of 2022 ridership.

Table 11. Ridership by FlexRide Zone

FlexRide Zone	2019 Weekday Ridership	2022 Weekday Ridership	2022 as a Percent of 2019
Arapahoe	48	13	27%
Belleview	48	15	31%
Denver Tech Center	Not Operating	23	N/A
Dry Creek	53	21	40%
Lone Tree	34	19	56%
Meridian	120	21	18%
Orchard	60	14	23%
North Inverness	160	21	13%
South Inverness	71	11	16%

Source: RTD 2019 and 2022 Ridership Data

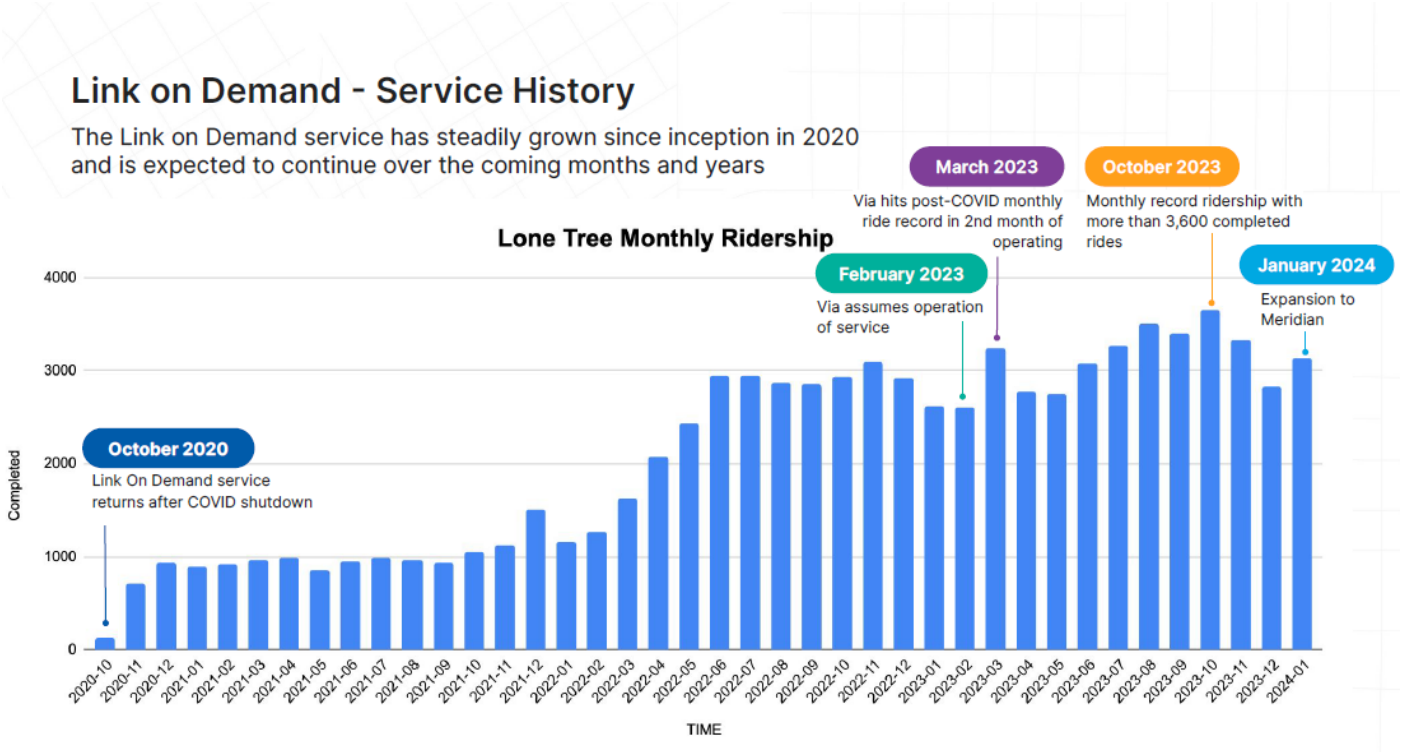
LINK ON DEMAND

The Lone Tree Link, which began service in September 2014, is a flexible, on demand public transportation (microtransit) service operating in the City of Lone Tree, Colorado, now operating as Link On Demand. The service provides residents and visitors with a convenient and reliable way to get around the city. The service was originally created to serve as a first and last mile connection until the Southeast Light Rail construction was complete.

In August 2017, Link On Demand, provided by Uber, was launched as part of Google's Sidewalk Labs. The service transitioned to being operated by Via starting in February 2019 (when the Southeast Light Rail extension opened). The City of Lone Tree manages Link On Demand, which operates on an app-based platform that allows users to request a ride from anywhere within the city limits. Once a ride is requested, a shuttle vehicle will pick up a passenger and take them to their desired destination, which can be another location within the city or a connection to a regional transit hub. Link On Demand is fare free and is available during the day on Weekdays and Saturdays. Approximately 70 percent of trips are internal within the city and 30 percent of trips are commuting to and from the RTD system.

In 2024, the City of Lone Tree, Douglas County, RTD, and Denver South will be expanding the Link On Demand east to the Meridian Business Park. The project partners are also exploring a fixed-route shuttle to focus on major retail and commercial centers, as well as the potential expansion of Link On Demand service in the future. The service area most recently expanded in 2019 to serve RidgeGate East and the City Center. **Figure 36** highlights Link on Demand's history and ridership trends.

Figure 36. Link on Demand Service Summary



In 2024, the City of Lone Tree, Douglas County, RTD, and Denver South expanded Link On Demand east to the Meridian Business Park. The project partners are also exploring a fixed-route shuttle to focus on major retail and commercial centers, as well as the potential expansion of Link on Demand service in the future across the Denver South region.

INTERCITY BUS SERVICE

Colorado Department of Transportation (CDOT) Bustang provides intercity bus service to the Denver South area with two routes: the South Line between Colorado Springs and Denver Union Station and the Denver Technological Center route with service between Colorado Springs and Belleview Station. On the South Line, there are 8 trips in each direction on Weekdays and 2 trips in each direction on Weekends and Holidays. The buses on the South Line serve the SkyRidge Station in each direction, providing connections to the E Line light rail. The Denver Technological Center route has many stops starting at Arapahoe Road and north to Belleview Station and serves this area with one northbound and one southbound trip on Weekdays.

TRANSIT TRAVEL SHEDS

Understanding travel opportunities by transit is important in understanding where improvements to support first and final mile travel may be most valuable. Using Remix travel data for the 5:00 PM hour, an analysis was completed to understand how far people could travel when combining transit and walking from each of the Denver South light rail stations. As shown in **Figure 37** the distance one can travel varies by the availability of transit service and pedestrian infrastructure at or near a light rail station.

Figure 37. Travel Sheds at Transit Stations

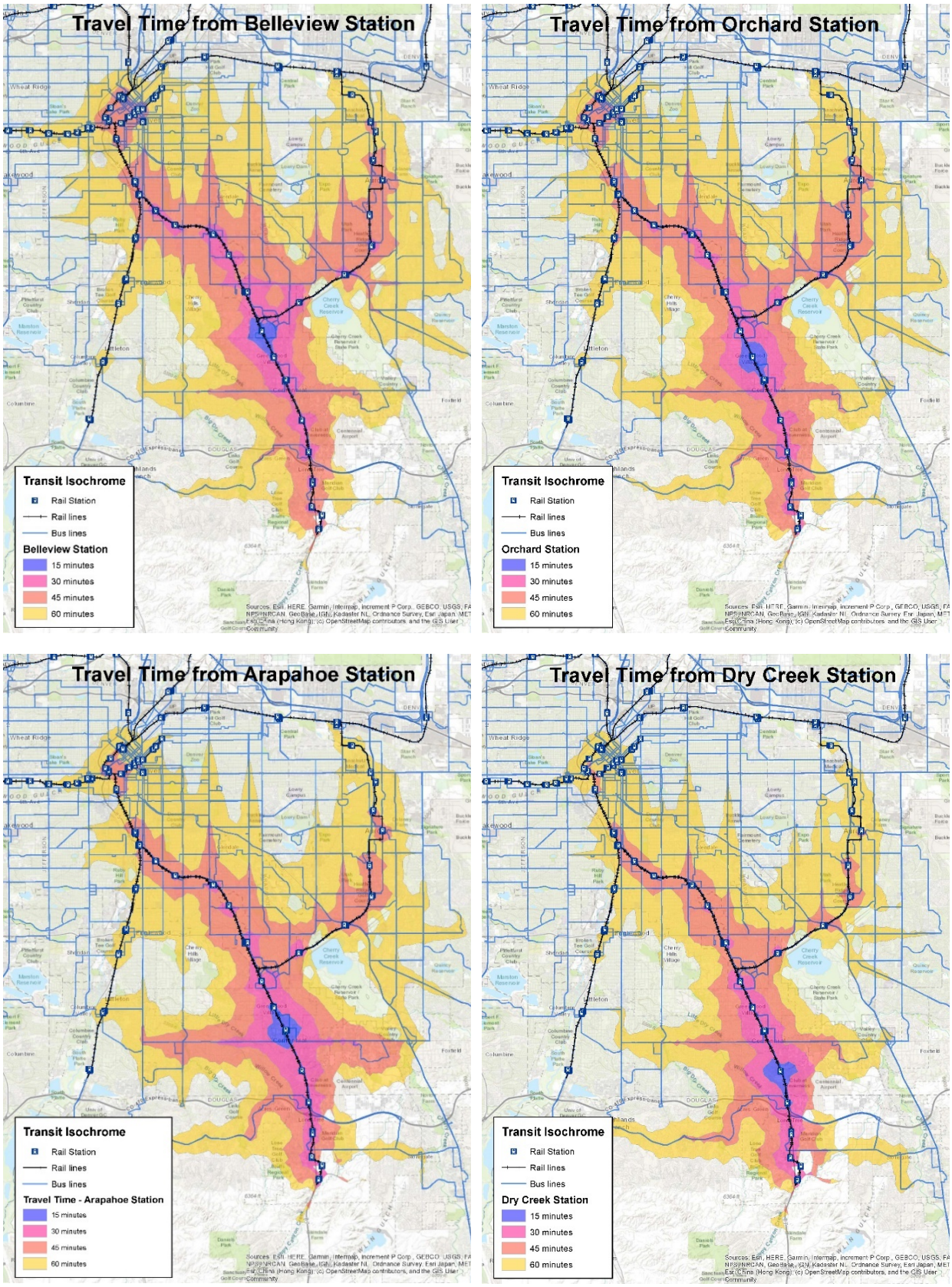
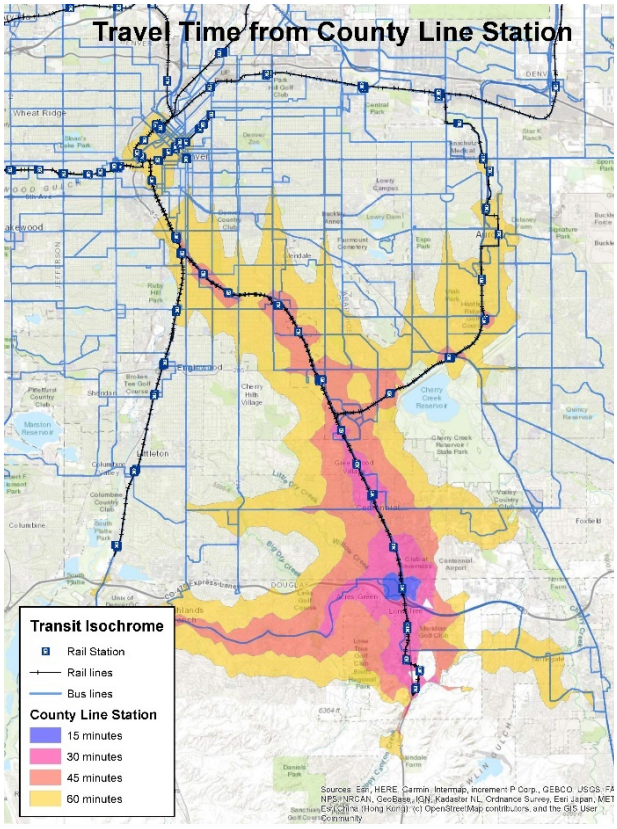
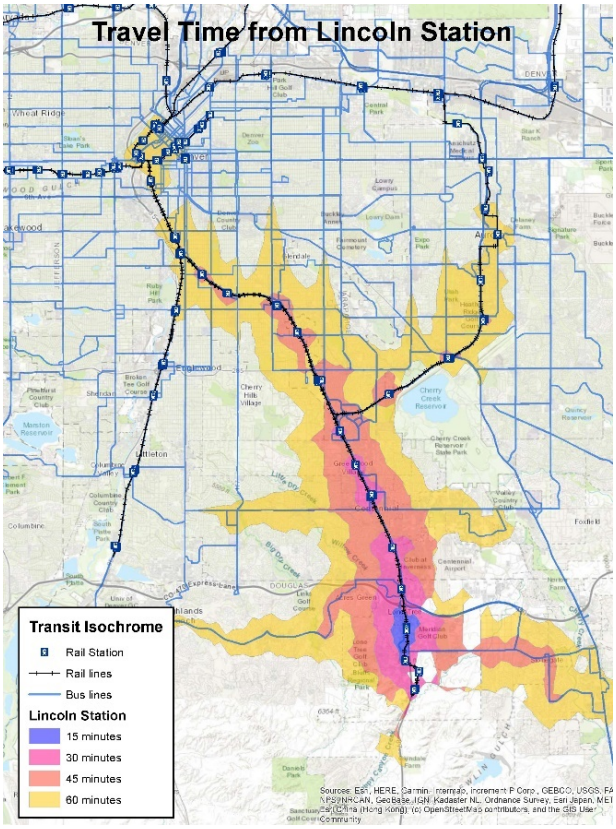
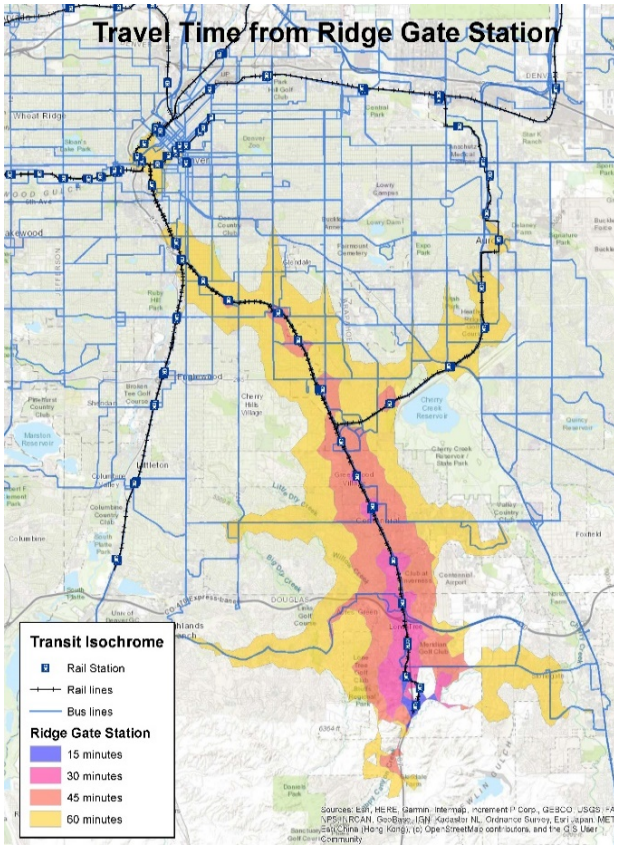


Figure 37. Travel Sheds at Transit Stations (cont.)







First/Last Mile Connections

MOBILITY HUBS

CDOT and jurisdictions across the Denver South region are conceptualizing the "Mobility Hub" concept to re-envision the traditional park-and-ride, transit stops, and multimodal hubs. Mobility hubs are transportation centers at select locations that emphasize multimodal options, seamless mode-to-mode transitions, real-time passenger information, passenger convenience, and opportunities to create transit-friendly development in surrounding areas. Previous plans have identified a network of tiered mobility hubs to provide greater connectivity across the Denver South TMA study area. The Centennial and Arapahoe County transportation master plans outline a proposed network of mobility hubs that vary in size and programming and respond to location-specific factors such as existing transit, land use characteristics, and population and employment densities. The complete mobility hub network, along with existing and planned mobility improvements in the Denver South area, is illustrated on **Figure 38**.

Sky Ridge Station, which will become the Lone Tree Mobility Hub once built, is planned as the first mobility hub in Denver South. The Belleview, Arapahoe at Village Center, and Dry Creek stations are recommended to be converted from existing rail stations to mobility hubs in the future. Further, several strategic locations along existing transit routes, proposed bike corridors, and growing areas of Denver South were identified as other possible locations for both mobility and micromobility hubs.

BICYCLE NETWORK

The Denver South area has varied types of bike facilities and trails that help connect recreational and commuter bicyclists to destinations in the area. East-west connectivity is provided through the C-470 trail, a shared-use sidewalk along Belleview Avenue, and a bike lane along Orchard Avenue. However, there are minimal north-south connections in the study area. A proposed north-south bike trail, first identified in the Denver South TMA North-South Regional Bicycle Corridors Study, would provide a corridor-wide solution to this issue. Arapahoe County and the City of Centennial are currently advancing portions of the north-south bicycle corridor based on the Denver South TMA plan.

Other recommended improvements to the bicycle network include connections that would link existing facilities along Broncos Parkway and Orchard Avenue and larger scale improvements near major arterials like Parker Road.

PEDESTRIAN NETWORK

Currently, the pedestrian network in the Denver South TMA study area is largely segmented. Previous TMPs completed by neighboring municipalities have identified areas where sidewalk connectivity could be improved, particularly areas near light rail stations, residential side streets, and linkages to key destinations. Notable potential pedestrian enhancements in the study area include the Centennial Link Trail, an east-west connection that will span across the city of Centennial.

ZERO EMISSION VEHICLES

Cities, counties, and towns across Colorado and the United States are leaning into zero emission transportation. In the 2019 legislative session, Colorado passed House Bill (HB) 19-1261, the Climate Action Plan to Reduce Pollution, which includes targets of reducing greenhouse gas emissions (GHG) 26 percent by 2025, 50 percent by 2030, and 90 percent by 2050 from 2005 levels. Given that transportation contributes over 20 percent of GHG emissions in Colorado, agencies are considering how they can reduce GHG emissions through transportation improvements.

Arapahoe County is developing a Regional Electric Vehicle Action Plan in partnership with Xcel Energy and community partners to create a shared and cohesive vision for supporting plug-in electric vehicles with planned completion in late 2023. The Cities of Centennial and Lone Tree are also partnering with Xcel Energy through the “Partners in Energy” program. Through this program, Xcel works with local agencies to develop energy plans and provides assistance in implementing the plan. Centennial developed its first EV Action Plan in 2020, which sets a goal of increasing the number of EVs in Centennial zip codes to 18,000 by 2030 from a baseline of 2,000 in 2020. Lone Tree also has an Electric Vehicle Action Plan and created a construction design guide to support plan implementation in 2022. Additionally, Denver, Greenwood Village, Arapahoe and Douglas Counties are integrating electrification planning and implementation into new construction and long-range planning efforts. Denver South is working with community partners on their alternative fuel projects and is considering opportunities for strategies and projects as recommendations advance.

Air Travel

Denver South - as an Economic Development Partnership and Transportation Management Association – does not consider the operations, evaluation, or analysis of air travel or airports core competencies, and therefore the focus on air travel in this study is limited. However, one of the key regional advantages and differentiators for the South I-25 Corridor and greater Denver Metro Region is its proximity to two major airports and the global connections they provide. Centennial Airport (APA) and Denver International Airport (DEN) serve as the region's global gateways, providing world class amenities and international connections for executive, private, commercial, and scheduled passenger air traffic.

CENTENNIAL AIRPORT

Founded in 1968 as Arapahoe County Airport and renamed in 1984, Centennial Airport is a public use airport located in Dove Valley owned by the Arapahoe County Public Airport Authority. Located roughly midway between the northern and southern ends of the Corridor, approximately 1.5 miles east of I-25, and flanked on the north by Arapahoe Road (a primary arterial) and on the south by E-470 (a major tolled freeway), Centennial Airport provides direct and efficient local access to executives and private air travelers. Given the Corridor's large and expanding presence of primary employers, Centennial Airport continues to be an important local and regional asset.

With over 330,000 operations in 2017, Centennial Airport is the largest general aviation airport in Colorado and one of the busiest general aviation airports in the United States. The Federal Aviation Administration (FAA) defines general aviation airports as public use airports that do not have scheduled service or have scheduled service with less than 2,500 passenger boardings per year.

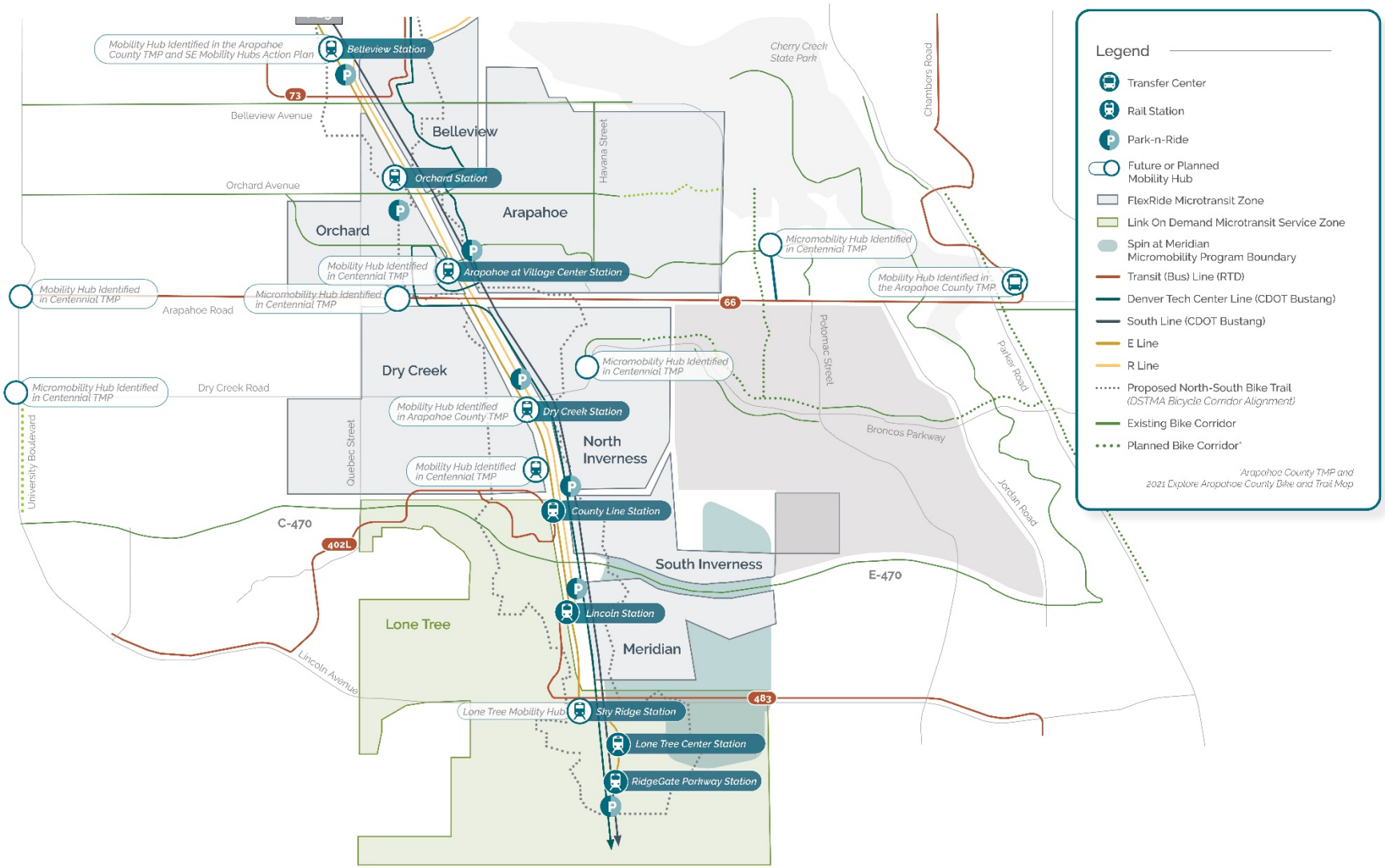
Centennial Airport released its most recent Master Plan in January 2021 to help guide the current and future growth and development of the airport. Similar to the South I-25 Urban Corridor Study's aims of determining existing conditions and forecasting into the future, the Centennial Airport Master Plan sets the airport's short-term and long-term goals based on current conditions and the aviation demand forecast for the next 20 years. The Centennial Airport Master Plan and its attachments and exhibits may be accessed at centennialairport.com/master-plan.

DENVER INTERNATIONAL AIRPORT (DIA)

Located roughly 30 driving miles northeast of the South I-25 Corridor, DIA serves the greater Front Range Urban Corridor from Southern Wyoming to Southern Colorado. At 33,531 acres, it is the largest airport in the Western Hemisphere by land area and the second largest in the world. DIA serves 25 different airlines and is a major hub for United Airlines and primary operating base for Frontier and Southwest. In total, DIA's operators offer nonstop service to over 200 destinations throughout the Americas, Europe, and Asia. With over 69 million passengers traveling through in 2022, DIA is now ranked as the third busiest airport in the world. Of the 10 busiest airports in 2022, DIA was one of only two to surpass 2019 passenger traffic volumes.

In addition to DIA's continued growth and expansive service offerings, its proximity to the South I-25 Corridor via automobile, bus, and rail makes it easily accessible for commercial and scheduled passenger services. By automobile, DIA is nearly directly accessed from the Corridor via I-225 and C-470. RTD's SkyRide bus offers hourly service from 6 AM to 9 PM (most days) between DIA and the Arapahoe at Village Center Station, with each one-way trip taking approximately 45 minutes. Connections to RTD's A Line ("the Train to the Plane") may be made via the E Line through Denver Union Station or via the R Line through Peoria Station.

Figure 38. Existing and Planned Mobility Network



3. National Real Estate Development Trends

This section of the report tracks how national conditions in suburban business districts have evolved pre-and post-pandemic, and how these trends will impact real estate development, specifically office demand, in the South I-25 Corridor going forward. The initial section focuses on the evolution of business parks for single use office developments to incorporate a greater mix of land uses. This is followed by an evaluation of the impact of the pandemic on office space utilization and future demand both nationally and specific to the South I-25 Corridor. The last section compares employment and office space conditions in the Denver South Corridor to similar corridor/submarkets in peer cities elsewhere in the U.S.

Office and Business Park Evolution

Suburban business parks date from the late 1950s, developed as master planned developments in suburban settings with clusters of firms in a campus setting that were generally auto-oriented, single use, and separated from surrounding residential and commercial uses. One of the earliest and largest parks was Research Triangle Park (RTP) in North Carolina with a total of over 300 companies and national labs and 55,000 employees currently. Over the last half of the 20th century, these business parks in suburban locations proliferated in all the major cities of the country. Denver was very much at the forefront of the suburban office/ business park movement with the founding of the Denver Tech Center (DTC) in 1962, followed by the development of other planned business parks in the South
I-25 Corridor including Greenwood Plaza, Inverness, Meridian, and RidgeGate.

The previous South I-25 Corridor Study noted the evolution and transformation of these suburban business parks over the last 20 years. At least at some locations, business parks that began over 50 years ago, are showing their age with buildings declining from Class A and B to Class C properties with higher vacancies and lower rents. Also, employees are seeking different work environments, both internal to the company in the form of more space for collaboration, and external in the form of nearby housing and retail shopping, facilitating opportunities to live and work in close proximity. Industry experts, including the Urban Land Institute, noted the opportunity to transform suburban business districts into more integrated live-work-shop places by diversifying the mix of uses, increasing development densities, improving pedestrian connections between buildings, and improving transit.

Prior to the pandemic, a number of suburban business parks had responded to these market forces and invested in new plans and developments that are breathing renewed life and energy into these locations. The following trends are found in existing suburban parks across the country.

- **More mixed use –** The most significant change was the introduction of a greater mix of land uses including residential, retail, hospitality, and entertainment development. The introduction of housing within previously single use office parks is clearly the most notable land use change taking place.
- **More density –** Suburban office developments with surface parking are planning and developing town centers and other commercial nodes, with vertical mixed uses and structured parking, often at transit supported locations.
- **More specialization –** Many suburban business parks have pursued opportunities to develop innovation, medical, or other specialized districts to capitalize on nearby academic and research facilities and nurture technology transfer and other entrepreneurial business growth.

The following case studies are examples of the transformation of these single use business parks and districts that have taken place over the last 10 years.

Research Triangle Park – RTP in Durham, NC is one of the oldest and largest business parks in the country, and was also one of the first to plan for its evolution to a more mixed-use environment. RTP commissioned a new master plan in 2012 that recognized the opportunity to diversify its business model. A key element to the master plan was the creation of a mixed-use research center at a central location near a planned commuter rail station supported by retail, multifamily residential, hotel/conference facilities, and other education and cultural amenities.

Hub RTP - Horseshoe
Photo courtesy: Research Triangle Park

The plan spurred the development of Hub RTP—a 100-acre, $1.5 billion mixed use development beginning in 2020 that will include 2.0 million square feet of office, residential, retail, and hotel space. The first phase under construction includes Horseshoe, a trio of office over retail mixed use buildings with 124,600 of office space and 32,800 square feet of food, beverage and experiential retail space, and 406 housing units.

Ballantyne Corporate Park – BCP is an existing 535-acre suburban corporate campus in south suburban Charlotte, NC at I-485 and US-521. Starting in the 1990s, this highly successful development contains 4.5 million square feet of office space and four hotels with over 600 rooms. The park, developed by local landowners, was sold to Northwood Investors in 2017 for $1.2 billion. Northwood is transforming the corporate campus into a more urban, dense, and active destination with a wide range of employment, residential, retail, arts and entertainment, food and beverage, and recreational uses. Phase 1 includes the development of 25 acres of a former golf course for an anchor site with 1,200 multifamily units and 300,000 square feet of retail, restaurant, and entertainment uses, along with a 4,000-seat outdoor amphitheater, main street plaza, and active park. A second phase is planned for an additional 1,000 multifamily units, 300 townhouses, and 400,000 square feet of office space.

Ballantyne Corporate Park Mixed-Use Master Plan
Photo courtesy: Sasaki Associates, Inc.

Connell Corporate Park – This 185-acre corporate office campus is located in Berkeley Heights, New Jersey, about 25 miles west of Manhattan on I-78. The existing park started development in 1981 and contains five major office buildings with a total of 1.5 million square feet of space and home to a number of national corporate tenants. Starting in 2017, Connell Development, the long-term owner of the park, created a plan to reposition the project as The Park at Berkeley Heights, a $400 million redevelopment that would reconfigure a number of existing office buildings for a smaller and more diversified tenant mix rather than the former large corporate tenants, as well as to add new retail, housing, and entertainment uses. The first of these new uses added was a Life Time Fitness center and a 176-room Embassy Suites Hotel. The first of the five office buildings on site were renovated in 2019 to replace cubicle-cut office suites with more flexible and shared work areas. In 2023, a

The Park at Berkeley Heights
Photo courtesy: The Connell Company – www.theparkatnj.com

second office building is planned for renovation and 100,000 square feet of retail and 350 multifamily housing units are planned for construction.

Bishop Ranch – Bishop Ranch is a 585-acre business park established in 1978 in San Ramon, California, 34 miles east of San Francisco. The Park contains over 10 million square feet of development and 550 tenants. As the office market matured, the project's developer, Sunset Development, engaged in an effort to make Bishop Ranch a more central "downtown of San Ramon, which lost its original commercial core to the construction of I-680 in the 1950s. In 2018, Sunset built a two-story pedestrian-oriented town center with 300,000 square feet of space including a mix of national and regional retail and dining tenants. Facing an increasingly uncertain suburban office market, Sunset is now pursuing the inclusion of residential development. The 2019 CityWalk master plan projects the construction of up to 4,500 homes within the park.

Bishop Ranch - San Ramon, California
Photo courtesy: CoStar

Post Pandemic Impacts

There is not a lot of hard data currently available on how the pandemic has impacted the development plans of these and other business park renovation, redevelopment, and repositioning projects across the country. The developer for the Connell Corporate Park, profiled above, indicated the pandemic has not altered their plans and has in fact reinforced the need to reposition the project. The pandemic has nevertheless resulted in—or at least contributed to—a slowdown in development originally planned for 2021, delaying the time schedule for development. The developer of Bishop Ranch indicated the pandemic's impact on office demand has reinforced the commitment to developing a residential component. The next section delves into the impacts of the pandemic on office space utilization and demand in greater detail.

COVID-19 Pandemic Office Impacts

There is more data emerging on the impact of the pandemic on office utilization and demand at the national level including survey data compiled by McKinsey Global Institute, Stanford University, and government data from the Bureau of Labor Statistics (BLS).

A recent report released by McKinsey & Company in April of 2023 on the pandemic's impact on real estate in nine major global cities (including New York City, Houston, and San Francisco in the U.S. and other major European and Asian markets) makes the case that remote working has been institutionalized in hybrid work schedules for office-based employment in most industries. This report, *Empty Spaces and Hybrid Places, The Pandemic's Lasting Impact on Real Estate*, released in July 2023, states that daily office attendance has stabilized at 30 percent below pre-pandemic levels, and that "the hybrid work schedule is here to stay." Data for the major global cities shows that office workers are coming into the office an average of 3.5 days per week across all industries. The average varies by industry with Professional Services the lowest at 3.0 days per week on average, followed by Information at 3.2 days per week, and other industries ranging from 3.4 to 3.7 days a week as shown in **Table 12**. The data also indicates that the largest firms have the fewest days in the office with companies with over 25,000 employees reporting an average of 3.1 days per week; firms with 1,000 to 25,000 employees averaging 3.3 days per week; and smaller firms ranging from 3.5 to 3.8 days per week on average (data is not shown in the table).

Table 12. Average Days in Office by Industry

Industry	Avg. Days In Office
Professional Services	3.0
Information	3.2
Finance	3.4
Management	3.4
Health Care	3.4
Arts and Accommodations	3.5
Utilities	3.5
Real Estate	3.5
Manufacturing	3.6
Education	3.6
Construction	3.6
Government	3.6
Transportation	3.7
Average	3.5

Source: McKinsey & Company, 2023

The study indicates the data has been relatively stable since mid-2022. It also forecasts that office demand is expected to be 13 percent lower in 2030 than at pre-pandemic levels in 2019.

National BLS employment data on teleworking by industry largely aligns with the McKinsey survey data. The BLS survey compares the percentage of workers by industry who are able to telecommute before the pandemic in February 2020 with the percentage of workers who are able to telecommute in August 2022. The increase across all sectors was 18 percent as shown in **Table 13**.

Table 13. Remote Telework by Industry, Pre and Post COVID-19 Pandemic

Description	Pre Covid	Current			% Change
		Part-Time	Full-Time	Total	
Total Establishments					
Natural resources and mining	7.4%	2.1%	5.9%	8.0%	8.1%
Utilities	20.6%	8.0%	21.0%	29.0%	40.8%
Construction	9.8%	2.1%	8.4%	10.5%	7.1%
Manufacturing	20.4%	5.8%	18.3%	24.1%	18.1%
Wholesale trade	37.2%	17.2%	21.8%	39.0%	4.8%
Retail trade	8.3%	2.1%	8.9%	11.0%	32.5%
Transportation and warehousing	13.2%	4.4%	9.2%	13.6%	3.0%
Information	58.7%	42.2%	25.2%	67.4%	14.8%
Financial activities	28.7%	11.2%	22.0%	33.2%	15.7%
Professional and business services	41.1%	25.0%	24.0%	49.0%	19.2%
Educational services	38.5%	19.7%	26.3%	46.0%	19.5%
Health care and social assistance	16.3%	4.4%	18.5%	22.9%	40.5%
Arts, entertainment, and recreation	22.3%	7.9%	15.2%	23.1%	3.6%
Accommodation and food services	2.1%	0.0%	1.8%	1.8%	-13.8%
Other services, except public administration	16.7%	6.6%	13.7%	20.3%	21.6%
Total, U.S. private sector	**23.3%**	**11.1%**	**16.4%**	**27.5%**	**18.0%**

Source: Economic & Planning Systems

Information, Professional and Business Services, and Educational Services have the highest levels of teleworking participation at 67.4 percent, 49.0 percent, and 46.0 percent respectively. Industries with the greatest percent growth in telework participation over the two-year timeframe are Utilities at 40.8 percent and Health Care at 40.5 percent as shown.

Denver South Survey

Much of the national and international research is corroborated by a survey of Denver South companies conducted by EPS regarding their remote work policies and office utilization levels. Nineteen Denver South companies with a total of 17,684 employees based in the Corridor provided confidential information on their office space utilization and remote working policies as shown in **Table 14**.

Table 14. Denver South Office Survey Participation

Industry	Number of Businesses	Total Employment	Local Employment
Aviation and Aerospace	3	505	200
Broadband and Digital Communications	1	99,000	5,600
Engineering Services	4	24,391	1,644
Financial Services	3	44,494	7,249
Healthcare & Life Sciences	5	40,983	2,665
Professional and Business Services	2	141	126
Manufacturing	1	240	200
Total	**19**	**209,754**	**17,684**

Source: Economic & Planning Systems

A total of 18 out of 19 companies indicated they have a flexible work schedule. The average requirement for being present in the office was 3.3 days for the 16 firms with a requirement of at least one day in the office as shown in **Table 15**. Three companies did not require any days in the office on a regular weekly basis. If these three companies are also included, the average number of days per week required drops to 2.7 days. The data is similar to the McKinsey survey that showed an average of 3.5 days overall and 3.3 days for the largest firms with 1,000 to 25,000 employees.

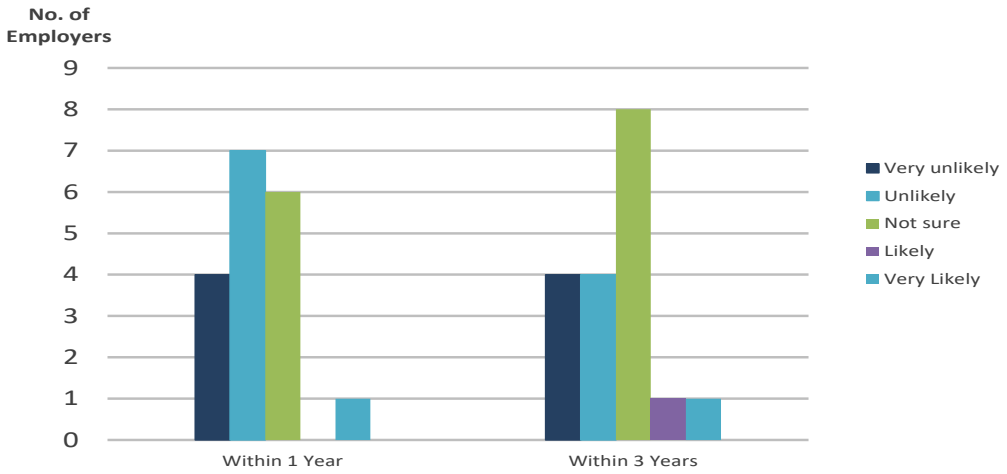
Table 15. Denver South Employer Office Requirements

No. of days	No. of days	No. of Employers	Days in Office
No requirement	0	3	0
One day per week	1	2	2
Two days per week	2	2	4
Three days per week	3	7	21
Four days per week	4	1	4
All days of the work week	5	3	15
More than the work week	6	1	6
Average Days			3.3

Source: Economic & Planning Systems

The survey data also confirms that the flexible work schedule is stable and not likely to change dramatically, at least in the near future. When asked "How likely are you to change the number of days per week required to be in the office?" 16 out of 18 companies indicated they were Very Unlikely or Unlikely to change their policies over the next three years and only two companies out of 18 indicated they were likely to change (**Figure 39**).

Figure 39. "How Likely are You to Change the Number of Days in the Office?" (Denver South)



Source: Economic & Planning Systems

Denver South companies were also asked about their current office space leasing and utilization, as well as their expectations for increasing or decreasing space over the next three years. Currently, the 18 firms responding are currently leasing nearly 7.0 million square feet of space in the Denver South study area as shown in **Table 17**.

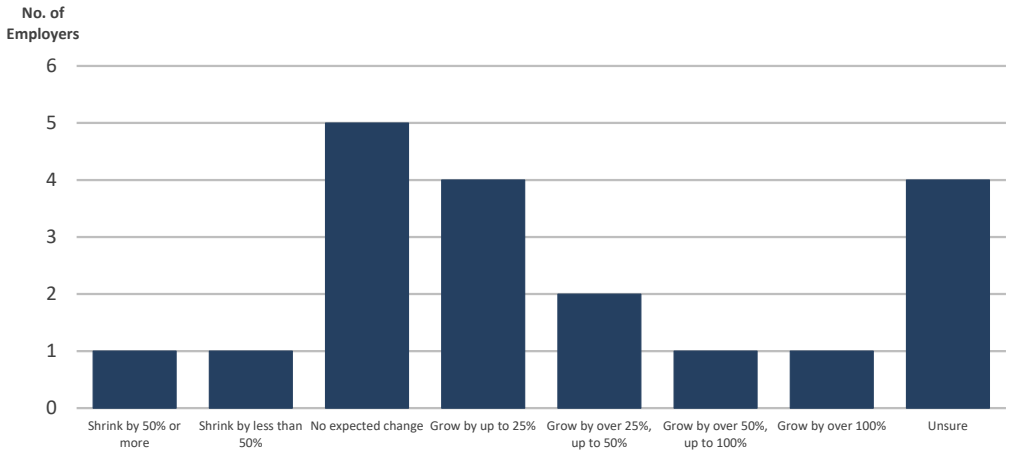
Table 16. Denver South Employer Space Utilization

Employer	Tot. Area in Sq. Ft.	Excess Space in Sq. Ft.	Local Employees	Area per Employee
Aviation and Aerospace	235,000	0	200	1,175
Broadband and Digital Communications	1,300,000	0	5,600	232
Engineering Services	567,100	49,330	1,644	345
Financial Services	1,775,000	45,000	7,249	245
Healthcare & Life Sciences	2,892,674	143,889	2,665	1,085
Professional and Business Services	115,600	13,800	126	917
Manufacturing	112,000	0	200	560
Total	6,997,374	252,019	17,684	396

Source: Economic & Planning Systems

The surveyed firms indicated that a total of 252,019 square feet of space was in excess of current needs, which is 3.6 percent of the total. The outlook for future space needs was decidedly mixed. In response to the question "How do you expect your future space needs to change over the next three years?" only two companies indicated they were likely to decline, eight companies expected to grow by 25 to 100 percent, and eight were either expecting to remain the same or were unsure of their needs.

Figure 40. Office Space Needs Over Next 3 Years



Source: Economic & Planning Systems

Peer Cities Analysis

The South I-25 Corridor was compared against six similar office employment submarkets throughout the U.S. to determine which industry trends are similar or unique to the Denver market. These corridors/submarkets are in Austin, Dallas, Washington D.C., Durham, and Seattle and range from 10 million square feet of office inventory in Austin to 71 million in Far North Dallas.

The largest and fastest growing submarket is Far North Dallas, which has a current inventory of 73.7 million square feet and has added 20.4 million square feet from 2010-2023, an increase of 38 percent as shown in **Table 17**. The comparable submarkets grew between 3.2 and 6.6 million square feet, with these areas increasing in office space by 1.4 percent annually on average.

Table 17. Peer Cities Market Areas Office Inventory, 2010-2023

Description	2010	2015	2020	2023	2010-2023 Total	2010-2023 Ann #	2010-2023 Ann. %
North Domain (Austin)	7,189,003	7,754,497	9,978,365	10,366,716	3,177,713	244,439	2.9%
Las Colinas (Dallas)	32,311,164	32,483,055	34,844,898	34,715,185	2,404,021	184,925	0.6%
Far North Dallas (Dallas)	53,304,841	58,873,176	70,872,154	73,663,574	20,358,733	1,566,056	2.5%
Tysons Corner (Washington D.C.)	28,781,829	28,862,123	30,521,930	30,543,417	1,761,588	135,507	0.5%
Research Triangle Park (Durham)	31,347,212	31,734,205	34,862,649	37,945,725	6,598,513	507,578	1.5%
Bellevue/I-520 Corridor (Seattle)	26,865,108	28,216,675	29,974,624	31,844,382	4,979,274	383,021	1.3%
I-25 Corridor (Denver)	35,474,578	36,822,240	39,349,709	39,677,012	4,202,434	323,264	0.9%
Total	**215,273,735**	**224,745,971**	**250,404,329**	**258,756,011**	**43,482,276**	**3,344,790**	**1.4%**

Source: CoStar; Economic & Planning Systems

Office vacancy rates in the six peer city submarkets are shown in **Table 18**. The lowest vacancy rates are in the Bellevue/I-520 Corridor at 5.8 percent and in RTP at 6.4 percent. The lower vacancy rates in these submarkets are somewhat due to the greater presence of owner-occupied buildings/campuses, which will not have associated vacant space represented in the data. An example of this is the low rate in Bellevue/I-520 corridor which is home Microsoft. The South I-25 Corridor with a vacancy rate of 18.0 percent, is above the current average of 12.4 percent for the peer cities. From 2019-2023, the vacancy rate in the South I-25 Corridor increased by 5.8 percent, which is the second largest increase in vacancy rate. The North Domain (Austin) submarket vacancy rate increased by 6.3 percent from 2019-2023.

Table 18. Peer Cities Office Areas Office Vacancy, 2010-2023

Description	2010	2015	2019	2023	2010-2023 Total	2010-2023 Ann. %
North Domain (Austin)	12.4%	4.5%	5.8%	12.1%	-0.3%	-0.2%
Las Colinas (Dallas)	16.6%	16.3%	15.9%	12.7%	-3.9%	-2.0%
Far North Dallas (Dallas)	16.1%	14.0%	12.7%	12.9%	-3.2%	-1.7%
Tysons Corner (Washington D.C.)	15.3%	17.8%	14.3%	19.1%	3.8%	1.7%
Research Triangle Park (Durham)	11.6%	10.9%	7.1%	6.4%	-5.2%	-4.5%
Bellevue/I-520 Corridor (Seattle)	9.4%	6.6%	3.5%	5.8%	-3.6%	-3.6%
South I-25 Corridor (Denver)	15.8%	12.8%	12.2%	18.0%	2.2%	1.0%
Average	**13.9%**	**11.8%**	**10.2%**	**12.4%**	**-1.5%**	**-1.33%**

Source: CoStar; Economic & Planning Systems

Office job trends in the six peer cities are shown in **Table 19**. Other than the fast-growing office job market of Dallas, the South I-25 Corridor has maintained strong job growth since 2010. While other markets have been characterized by rapid growth periods and periods of inactivity, the South I-25 Corridor has sustained steady growth, adding nearly 32,000 jobs since 2010.

Table 19. Peer Cities Office Areas Jobs 2010-2020

Description	2010	2015	2020	2010-2020 Total	2010-2020 Ann. #	2010-2020 Ann. %
North Domain (Austin)	13,336	21,033	28,159	14,823	1,482	7.8%
Las Colinas (Dallas)	74,173	96,347	103,727	29,554	2,955	3.4%
Far North Dallas (Dallas)	112,632	154,272	194,008	81,376	8,138	5.6%
Tysons Corner (Washington D.C.)	84,109	75,371	89,183	5,074	507	0.6%
Research Triangle Park (Durham)	20,922	22,785	30,067	9,145	915	3.7%
Bellevue/I-520 Corridor (Seattle)	43,113	60,358	72,063	28,950	2,895	5.3%
South I-25 Corridor (Denver)	73,448	92,473	105,426	31,978	3,198	3.7%
Total	**421,733**	**522,639**	**622,633**	**200,900**	**20,090**	**4.3%**

Source: U.S. Census Bureau LEHD; Economic & Planning Systems

A notable trend identified for the South I-25 Corridor was the divergence between the rate of job growth and the rate of office development. This trend indicates that a smaller amount of office space has been required to support the employment base in these office employment corridors. The peer city submarkets were analyzed to see if this trend exists in these areas as well. The average amount of office space per employee in each submarket is shown in **Table 20**. The overall average square footage per employee has dropped from 257 in 2010 to 213 in 2020. All markets, except for Tysons Corner, have experienced a gradual decrease in employees per square foot. The South I-25 Corridor had the largest decrease of office space per employee, from 287 square feet in 2010 to 216 in 2020, a reduction of 71 square feet per employee or 25 percent.

Table 20. Office Areas Square Feet per Employee, 2010-2020

Description	2010	2015	2020
North Domain (Austin)	169	123	134
Las Colinas (Dallas)	280	220	221
Far North Dallas (Dallas)	238	193	194
Tysons Corner (Washington D.C.)	264	290	274
Research Triangle Park (Durham)	252	259	208
Bellevue/I-520 Corridor (Seattle)	307	253	248
South I-25 Corridor (Denver)	287	236	216
Average	**257**	**225**	**213**

Source: U.S. Census Bureau LEHD; Economic & Planning Systems

The analysis of the peer city submarkets resulted in three findings of relevance to future office demand:

- First, the South I-25 Corridor has been experiencing a similar rate of strong employment growth as the peer city submarkets over the past decade.
- Second, the rate of office space development in all the submarkets (except for Tyson's Corner) was lower than the rate of employment growth.
- Lastly, all of the submarkets (except for Tyson's Corner) have experienced the same reduction in office space per employee that the South I-15 Corridor has. The increase in Tyson's Corner is likely due to the higher office vacancy rate and limited amount of new job growth and office development. The decrease appears to be most prevalent in the fastest growing areas.

Corridor Development and Redevelopment Opportunities

This section evaluates existing land and building conditions and values within the South I-25 Corridor to identify potential opportunities for redevelopment and densification of development. As an introduction, the current status of the major planned developments in the Corridor is summarized including information on the amount of development capacity yet to be built. This is followed by an analysis of parcel data to identify properties that may represent opportunities for redevelopment based on current property utilization and valuations.

Existing Major Developments

The South I-25 Corridor has several large master planned development projects with remaining land for greenfield development that will continue to build out over the next 20 years including Meridian, Belleview Station, The District, and RidgeGate. These projects are likely to capture most of the new development in the Corridor, although the mix of development is expected to change as noted.

Meridian – Meridian is a large master planned development located at the confluence of I-25 and E-470 immediately south of Centennial Airport with a total of 1,630 acres including a Jack Nicklaus designed golf course and 30 percent open space (required by zoning) creating a park like setting. The project has 3.5 million square feet of existing office space, nearly 2,600 housing units, and approximately 200,000 square feet of supporting retail space. The project has been developing over several decades, but has approximately 220 acres of undeveloped land in parcel sizes ranging from 2 to 48 acres.

The notable change in development at Meridian has been the diversification of uses away from the single use corporate office buildings in the initial phases of development. The current developer, Shea Properties, has allowed more multifamily residential projects to be built in locations that were previously contemplated for office buildings. The project has also attracted industrial development in certain locations. The shift in development pattern is a positive move aligned with market trends but does present some challenges in terms of utilities and the presence of support amenities for residents, such as access to retail and more active recreational options.

Meridian is an area of interest due to the impacts on office demand driven by the COVID-19 pandemic. The area has large office building campuses that are more spread out and auto oriented than some of the newer office development areas. The project has also had a greater presence of administrative/business support jobs (e.g., customer service call centers). The development has a higher vacancy rate at 23.7 percent than the Corridor as a whole at 18 percent. The vacancy rate in the development increased from 7.3 percent in 2020 to 10.1 percent in 2021 and then to 20.2 in 2022. The vacancies are more prominent in buildings further from I-25 in the project.

Belleview Station – Belleview Station is a 51-acre master planned mixed-use project under development on the west side of I-25 north of Belleview Avenue. The project is one of the first urban density, walkable projects built along the Corridor. The initial phases included two mixed use residential buildings with 650 apartments, a residential assisted living facility, and 71,000 square feet of first level retail space. A third apartment project is under development and will be leased within the next year. Three office buildings have been developed and support over 1,000 employees. The project has three large, undeveloped blocks remaining. Total buildout on the site is estimated to be in the range of 5.0 million square feet of development.

The District – Formerly known as the Jones District, the District is a 36-acre master planned development under development just south of the Dry Creek light rail station on the west side of I-25. The project is planned for 2.5 million square feet of office, 1,800 residential units, and supporting retail and hotel uses. The project currently has three multifamily apartment buildings (one complete and two under construction), with seven development blocks remaining.

RidgeGate – The RidgeGate project is a 3,000-acre master planned community in the City of Lone Tree, south of Lincoln Avenue on both sides of I-25. The 900-acre RidgeGate West is planned for 3,000 total housing units and is home to 10,000 jobs. The project is nearing buildout with a few remaining development projects and vacant parcels. The largest undeveloped portion is the “Mesa Top” home sites that will be developed for only residential uses, primarily single-family homes. The remaining parcels are mostly owned by large employers in the project that will support their expansion including additional land owned by SkyRidge Hospital, 12 acres of land owned by Charles Schwab, and an additional office building site for Kiewit Corporation expansion.

Development of the 2,100-acre RidgeGate East development is just beginning. Initial development activity has been primarily residential with three multifamily buildings and development of single-family home subdivisions. The eastern portions of the project are planned primarily for residential neighborhoods with supporting retail/commercial centers. Buildout of the eastern portions will occur over the next 20 years. On the northwest corner of RidgeGate East, a 400-acre Lone Tree City Center is planned as a dense, mixed-use area anchored by large employers and a permanent city hall for Lone Tree. The developer, Coventry, is seeking a large anchor employer(s) to catalyze the development of the City Center, which has a longer buildout horizon. One potential anchor project is Star Harbor Academy, a proposed large private space training center and space travel employment hub with potential to develop over 1.0 million square feet of space. The proposed project would be unique in its ability to support additional employment activity in the aerospace sector as well as serve as a major visitor attraction.

Redevelopment Planning

Although there remains significant undeveloped land, there is also expected to be interest in the redevelopment of older outmoded and underutilized buildings to higher value development. Cities in the corridor, including Centennial and Lone Tree, have initiated planning activities for the redevelopment of key opportunity sites including the following:

Arapahoe Urban Center District (AUC-4) - As part of the Centennial NEXT comprehensive plan, (AUC-4) was identified as a potential iconic gateway for Centennial on the southwest corner of I-25 and Arapahoe Road. The area is currently occupied by 23 aging commercial properties, limited and functionally obsolete infrastructure, and a lack of coordinated private reinvestment. The AUC-4 area plan sets forth a long-term vision for transforming the area into an economically vibrant, pedestrian-oriented, cohesive mixed-use environment.

Lone Tree Entertainment District – The City of Lone Tree has engaged in a number of planning efforts over the last 10 years to revitalize and densify the city's entertainment district located at South Yosemite and Park Meadows Drive. Built in the 1990s, the district contains a movie theater multiplex, bowling alley, indoor skydiving facility, and multiple restaurants and bars. The roughly 50-acre development also has multiple vacancies and large surface parking lots that prevent this space from becoming a pedestrian oriented entertainment destination. Redevelopment efforts by the city include the new Lone Tree Urban Renewal Authority and the Lone Tree Business Improvement District; the vision is to add infill development including mixed-use opportunities to become a vibrant destination for the city.

Economic Opportunity Score

The are a large number of other areas in the Corridor with older buildings and outmoded uses with the potential for higher value development. EPS evaluated the inventory of existing development parcels to identify properties with the potential for redevelopment. A "soft parcel analysis" was completed as an input to identifying parcels of land with a high likelihood of redevelopment. Soft parcel analysis is an analytical approach that considers several key factors to determine the feasibility of a parcel undergoing redevelopment: ratio of building to land value, building age, and floor area ratio (FAR). By analyzing these factors, the analysis provides an understanding of the redevelopment potential of individual parcels.

- **Building Value to Land Value:** The ratio of building to land value helps assess the financial viability of redevelopment, as lower ratios indicate greater potential development to higher value uses.
- **Building Age:** Building age (the initial year of construction) serves as a proxy for determining the condition of existing structures, offering valuable insights into the likelihood of redevelopment. Older buildings may no longer meet the needs and expectations of the market, making them potential candidates for redevelopment.
- **Floor Area Ratio (FAR):** The FAR (building square footage/land square footage) plays a role in determining the relative intensity of development compared to other properties in the Corridor.

Each parcel is given a score of 0 or 1 for each of the three measures, based on whether the criteria for that metric was met. A score greater than zero indicates a parcel has an increased likelihood of redevelopment based on the given metric. Each parcel's score for the three metrics is totaled to estimate an overall economic opportunity score ranging from 0 to 3, with 0 being a low opportunity for redevelopment and 3 a high opportunity. Each metric scoring was determined using a combination of Denver, Arapahoe, and Douglas County Assessor data. For subareas located within Douglas County (County Line, Lincoln, RidgeGate East, RidgeGate West), a score of 0 was assigned to developed land and a score of 3 was assigned to vacant land.

Building Value to Land Value Ratio - The building to land value metric compares the improvement (building) value to the land value using the county assessor's market (Actual) valuation for each parcel. This metric is used to identify vacant or underutilized land or property where the land value is significantly higher than the value of the structure (often due to the structure's age, size, or condition). A threshold of 0.5 is used, meaning if a property has a building to land value of 0.5 it is valued at half (or 50 percent) of the land value.

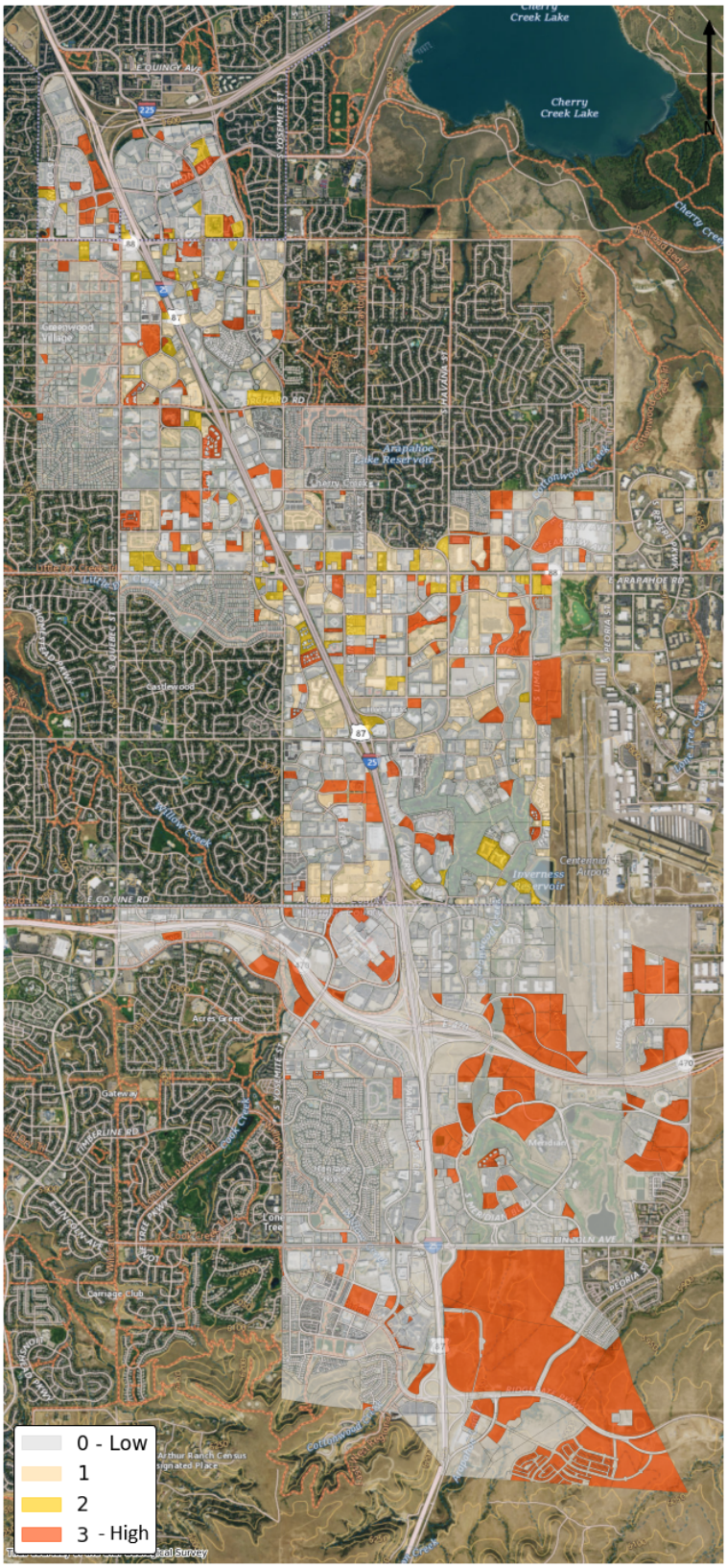
If a parcel has a building to land value ratio below 0.5, it receives a score of 1 indicating a higher likelihood of redevelopment or change. If the building to land value ratio was 0.5 and greater, it received a score of 0, meaning it is less likely to change.

Building Age - The year-built metric uses Assessor data identifying the year the improved structure on a parcel was built. If the data indicates the structure was built prior to 1980, it received a score of 1. If the improved structure was built in 1980 or after it received a score of 0, indicating redevelopment is unlikely based on building age. Similar to the property value metric, vacant parcels were given a score of 1.

Floor Area Ratio (FAR) - FAR metric compares the size of a building to the size of the parcel. To evaluate FAR, Assessor data was used to divide the building area (square feet) by the parcel size (square feet). A relatively low FAR compared to other developments in the Corridor is an indicator of low utilization and the potential capacity to support additional development and density. For this metric, parcels with a FAR less than 0.20 received a score of 1 indicating it is more likely to change and is not being used to its full capacity. Parcels with a FAR of 0.20 and greater received a score of 0 meaning the site is well used.

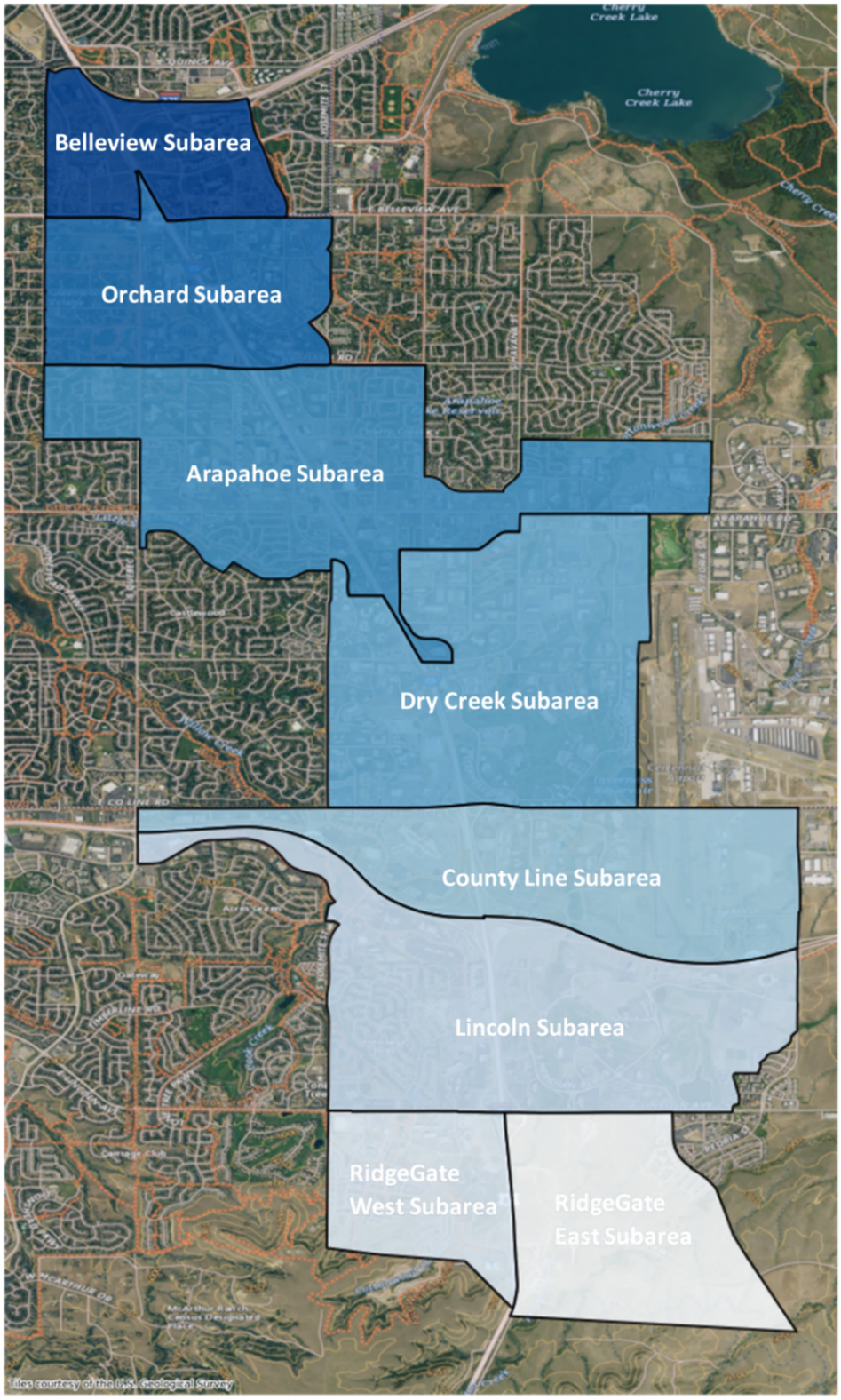
To quantify the overall economic opportunity score for each parcel, the scores for the individual metrics were aggregated, resulting in a score ranging from 0 to 3. A score of 3 denotes high potential for redevelopment, and a score of 0 denotes low potential for redevelopment. Due to a lack of detailed data for parcels located within Douglas County, the scoring process was reflective of whether the parcel was considered vacant land, which received a score of 3. The economic opportunity score by parcel is shown below in **Figure 41**.

Figure 41. Economic Opportunity Score Map



The Economic Opportunity score data was compiled by subareas that are illustrated in **Figure 42**.

Figure 42. Economic Opportunity Subarea



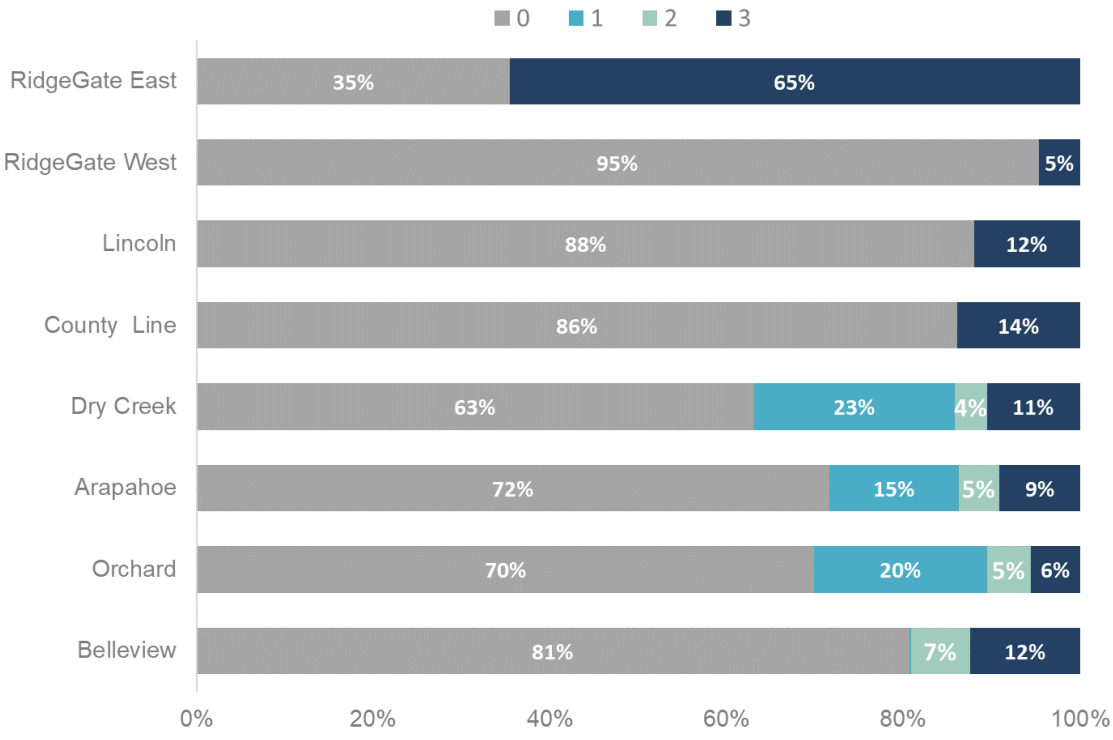
The size of each subarea ranges from a low of 729 acres in the Belleview subarea to a high of 3,321 acres in the Lincoln Subarea, as shown in **Table 21**. The most land available for development exists in the RidgeGate East subarea, which has 1,114 acres of undeveloped vacant land, accounting for approximately 65 percent of the total land in the subarea as shown in **Figure 43** below. Outside of RidgeGate, the most development potential exists in the Arapahoe, Dry Creek, County Line, and Lincoln subareas, all of which have 243 to 398 acres of land with an economic opportunity score equating to 3.

Table 21. Economic Opportunity Score by Subarea

Description	Economic Opportunity Score				
	0	1	2	3	Total
Redevelopment Opportunity (Acres)					
Belleview	588	2	49	91	729
Orchard	948	265	67	76	1,356
Arapahoe	1,891	387	120	243	2,641
Dry Creek	1,719	621	98	288	2,726
County Line	2,016	0	0	327	2,342
Lincoln	2,923	0	0	398	3,321
RidgeGate West	1,018	0	0	50	1,068
RidgeGate East	611	0	0	1,114	1,725
Total	**11,712**	**1,275**	**334**	**2,586**	**15,907**
Redevelopment Opportunity (% of Total)					
Belleview	81%	0%	7%	12%	100%
Orchard	70%	20%	5%	6%	100%
Arapahoe	72%	15%	5%	9%	100%
Dry Creek	63%	23%	4%	11%	100%
County Line	86%	0%	0%	14%	100%
Lincoln	88%	0%	0%	12%	100%
RidgeGate West	95%	0%	0%	5%	100%
RidgeGate East	35%	0%	0%	65%	100%
Total	**74%**	**8%**	**2%**	**16%**	**100%**

Source: Economic & Planning Systems

Figure 43. Economic Opportunity Score by Subarea



Source: Economic and Planning Systems

4. Corridor Forecasts and Needs

This section of the report includes forecasts of employment growth and development potentials and opportunities for the Corridor over a 20-year forecast period (2022-2042). The development forecasts also provide the basis for identifying needed transportation improvements and transportation management solutions to enable the Study Corridor to maintain its position as the premier business location in the Denver metro area. This section also includes forecasts for future traffic volumes and the impact on future travel demand on roadway capacity and travel times/distances.

Employment Growth Forecast

Employment forecasts by industry are shown in **Table 22**. These forecasts are generated using a shift-share analysis methodology. This approach begins with the baseline growth rate of employment by industry in the metropolitan area and adjusts it based on the relative performance differences within each industry observed between the Denver metropolitan area and the South I-25 Corridor over the preceding nine years (from 2013 to 2021). The projections for the Corridor by industry result in a total increase of 50,762 jobs between 2022 and 2042, which equates to an average annual growth rate of 1.4 percent.

Table 22. South I-25 Corridor Employment Forecast, 2022-2042

Description	Growth Rate	2022	2042	2022-2042 Total	2022-2042 Ann. #	2022-2042 Ann. %
Total Employment						
Accommodation and Food Services	1.0%	8,819	10,081	1,262	63	0.7%
Administrative and Waste Services	-2.8%	9,781	6,602	-3,178	-159	-1.9%
Arts, Entertainment, and Recreation	2.9%	1,241	1,844	603	30	2.0%
Construction	6.9%	9,010	22,800	13,790	690	4.8%
Educational Services	-1.7%	1,535	1,217	-318	-16	-1.2%
Finance and Insurance	1.3%	30,216	36,120	5,904	295	0.9%
Health Care and Social Assistance	5.6%	13,301	28,186	14,886	744	3.8%
Information	0.1%	16,138	16,384	246	12	0.1%
Management of Companies and Enterprises	1.5%	10,821	13,264	2,443	122	1.0%
Manufacturing	0.1%	2,205	2,242	37	2	0.1%
Mining	-0.2%	428	414	-14	-1	-0.2%
Other Services, Ex. Public Admin	-0.8%	2,344	2,112	-232	-12	-0.5%
Professional and Technical Services	3.3%	26,601	41,639	15,038	752	2.3%
Public Administration	0.8%	1,443	1,612	169	8	0.6%
Real Estate and Rental and Leasing	-0.4%	3,312	3,139	-174	-9	-0.3%
Retail Trade	0.4%	8,590	9,024	434	22	0.2%
Transportation and Warehousing	-0.9%	1,051	931	-121	-6	-0.6%
Utilities	-1.5%	5	4	-1	0	-1.0%
Wholesale Trade	0.0%	8,205	8,194	-11	-1	0.0%
Other/Miscellaneous	5.4%	15	32	17	1	3.7%
Total Employment		**155,046**	**205,808**	**50,762**	**2,538**	**1.4%**

Source: Bureau of Labor Statistics; Quarterly Census of Employment and Wages; Economic & Planning Systems

Development Forecasts

The employment forecasts by industry were utilized as a basis for estimating the demand for new development. The first step is estimating the percent of jobs by industry using space by type as shown in **Table 23**. For example, 75 percent of Finance and Insurance jobs are estimated to be located in office space (10 percent low rise, 30 percent campus/ mid-rise, and 35 percent high-rise), with 25 percent in retail space. The factors provided below are EPS's estimates. The square feet of space per job for office, retail, industrial or hospitality space were derived using a combination of national industry averages and through aligning the existing building inventory with the existing employment in the South I-25 Corridor.

Table 23. South I-25 Corridor Space Use by Industry Estimates, 2023

Description	R&D/Low-Rise Office *3 or less stories*	Campus/Mid-Rise Office *4-6 stories*	High-Rise Office *over 7 stories*	Industrial/ Flex	Retail	Hotel
Accommodation and Food Services	0%	0%	0%	0%	30%	70%
Administrative and Waste Services	5%	30%	30%	10%	0%	0%
Arts, Entertainment, and Recreation	0%	15%	20%	0%	40%	0%
Construction	5%	20%	15%	30%	0%	0%
Educational Services	10%	45%	30%	0%	15%	0%
Finance and Insurance	10%	30%	35%	0%	25%	0%
Health Care and Social Assistance	5%	25%	25%	0%	25%	0%
Information	10%	35%	40%	0%	15%	0%
Mgmt. of Companies and Enterprises	10%	50%	40%	0%	0%	0%
Manufacturing	10%	30%	20%	40%	0%	0%
Mining	10%	20%	20%	10%	0%	0%
Other Services, Ex. Public Admin	10%	20%	15%	5%	15%	0%
Professional and Technical Services	10%	40%	45%	5%	0%	0%
Public Administration	10%	25%	25%	0%	15%	0%
Real Estate and Rental and Leasing	10%	30%	35%	0%	25%	0%
Retail Trade	0%	0%	0%	0%	90%	10%
Transportation and Warehousing	10%	20%	20%	50%	0%	0%
Unclassified	10%	15%	15%	0%	10%	0%
Utilities	5%	10%	5%	50%	0%	0%
Wholesale Trade	10%	20%	20%	50%	0%	0%

Source: Economic & Planning Systems

The employee per square foot factor ranged from 200 square feet per employee for office space to 1,000 square feet per employee for hotel space, as shown in **Table 24**. Note the estimated employee per square foot factors for office space are estimated to be 200 square feet per employee, which aligns with the averages found in the peer city submarkets and are less than used in the previous study.

In addition to the employment per square foot estimates, a work from home adjustment was included, resulting in a reduction in commercial demand of either 0, 9, or 18 percent, depending on the industry. The work from home adjustment factor was derived from national averages and forecasts of work from home trends by industry.

Table 24. South I-25 Corridor Employees per Sq. Ft. by Space Type, 2023

Description		R&D/Low-Rise Office *3 or less stories*	Campus/Mid-Rise Office *4-6 stories*	High-Rise Office *over 7 stories*	Industrial/ Flex	Retail	Hotel
		200	200	200	600	500	1000
Accommodation and Food Services	0.0%	200	200	200	600	500	1000
Administrative and Waste Services	18.0%	164	164	164	492	410	820
Arts, Entertainment, and Recreation	0.0%	200	200	200	600	500	1000
Construction	9.0%	182	182	182	546	455	910
Educational Services	18.0%	164	164	164	492	410	820
Finance and Insurance	18.0%	164	164	164	492	410	820
Health Care and Social Assistance	18.0%	164	164	164	492	410	820
Information	18.0%	164	164	164	492	410	820
Mgmt. of Companies and Enterprises	18.0%	164	164	164	492	410	820
Manufacturing	18.0%	164	164	164	492	410	820
Mining	9.0%	182	182	182	546	455	910
Other Services, Ex. Public Admin	18.0%	164	164	164	492	410	820
Professional and Technical Services	18.0%	164	164	164	492	410	820
Public Administration	18.0%	164	164	164	492	410	820
Real Estate and Rental and Leasing	18.0%	164	164	164	492	410	820
Retail Trade	18.0%	164	164	164	492	410	820
Transportation and Warehousing	0.0%	200	200	200	600	500	1000
Unclassified	18.0%	164	164	164	492	410	820
Utilities	18.0%	164	164	164	492	410	820
Wholesale Trade	0.0%	200	200	200	600	500	1000

Source: Economic & Planning Systems

Based on the industry specific calculations shown, the total estimated demand for new commercial space is estimated at 12.0 million square feet by 2042, or an average of 571,000 square feet per year over the 20-year timeframe as shown in **Table 25**. The forecast allocation by type is based on existing development patterns in the Corridor. Office development is expected to account for 64.7 percent of the new square feet, which is consistent with its existing share of total space.

Table 25. South I-25 Corridor New Building Forecasts by Type of Space, 2022-2042

Description	2022-2042		
	Total	Ann. #	% of Total
Cumulative Demand for Space			
R&D/Low-Rise Office	852,986	40,618	7.1%
Campus/Mid-Rise Office	3,478,289	165,633	29.0%
High-Rise Office	3,431,307	163,396	28.6%
Industrial/Flex	1,502,691	71,557	12.5%
Retail	1,900,927	90,520	15.9%
Hotel	822,955	39,188	6.9%
Total Sq. Ft.	**11,989,155**	**570,912**	**100.0%**

Source: Economic & Planning Systems

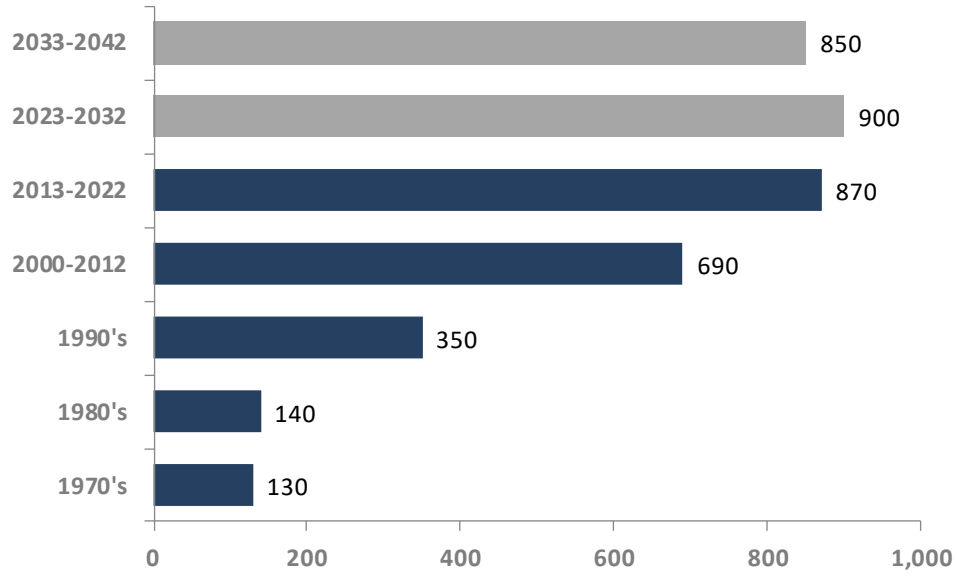
Housing Forecast and Needs

Development Forecast

Housing development in the Corridor has been significant over the past 20 years with nearly 800 units built per year, which includes a major slowdown in development activity that occurred from 2009-2013 due largely to the Great Recession. The Corridor has captured 870 housing units per year since 2013, well above the 20-year average.

There are large housing components of master planned projects planned along the Corridor including both multifamily and single-family homes. These projects indicate that continued growth of housing can be expected. The Corridor has the capacity to support a similar rate of growth over the next 20 years as experienced during the past 20 years. Based on the rate of growth in the past decade and the planned projects along the Corridor, an estimated 900 units per year are forecast to be built over the next 10 years as shown in **Figure 44**. The housing stock in the Corridor is therefore forecast to increase by 17,500 housing units growing from 22,000 to 39,500 units from 2022-2042.

Figure 44. South I-25 Corridor Forecast New Housing Units per Year, 2022-2042



Housing Needs

The growth of housing along the Corridor has been an important component of the Corridor's appeal and vibrancy. A greater presence of housing, compared to jobs, was a major recommendation of the previous study. The importance of housing availability and affordability has been paramount in the last five years as companies have struggled to attract and retain workers. Access to housing that is attractive and affordable to workers is a major driver for employment considerations. Assessing the demand at various price points is needed to help identify the housing strategies that need to be considered by the communities along the Corridor over the next 10 to 20 years.

The South I-25 Corridor employment has grown by over 34,000 jobs from 2010-2021, growing at an annual rate of 2.4 percent. Note this period does not match the period reported earlier in the report but includes growth from 2010 to 2012 when there was substantial employment recovery. Rate of housing growth during this same period in the Corridor has been greater. The Corridor added 16,200 housing units since 2010 and increased at an annual rate of 4.1 percent. This increase in housing has helped to support employment growth. The number of housing units per 10 jobs has increased to 1.44 since 2010. The previous study goal was to reach a 2.0 ratio.

Equally important to support employment growth is the availability of housing outside the Corridor, but within a 20- to 30-minute commute shed. The number of housing units in the 20 and 30-minute commute sheds (as measured from Arapahoe Road and I-25) has increased by 1.2 to 1.5 percent annually since 2010, which is lower than the Corridor employment annual growth rate of 2.4 percent and the metro area annual rate of employment growth of 2.2 percent. These areas in the commute sheds are becoming more built out and strategies to continue to expand housing development near the Corridor will be important.

Table 26. Job vs Housing Growth, 2010-2022

		Since 2010	
	Total	Change	Ann. % Change
Jobs			
South I-25 Corridor	152,600	34,500	2.4%
Housing Units			
South I-25 Corridor	22,000	8,970	4.1%
20 Minute Commute Shed	500,400	73,900	1.2%
30 Minute Commute Shed	878,800	152,700	1.5%
Housing Units per 10 Jobs			
South I-25 Corridor	1.44	0.30	---

Note: Job growth is from 2010 to 2022 and not 2013 to 2022 as shown earlier in the report
Source: BLS QCEW; ESRI Business Analyst; Economic & Planning Systems

The employment by industry was categorized into three wage cohorts to assess housing needs of the Corridor's workforce by price range. The jobs by industry were grouped into high wage workers (jobs in industries with an average annual wage greater than $100,000), medium wage workers (average annual wage between $60,000 and $100,000), and low wage workers (average annual wage less than $60,000). For reference, the Denver Metro average annual wage per occupation is $70,000 and the average annual wage per private job is $76,000.

Over two-thirds of the jobs in the Corridor are in industries that pay an average wage of over $100,000 (68 percent). As a result, the average annual wage for all jobs in the Corridor is $137,000 (2021), as shown in **Table 27**. Jobs in industries with average wages between $60,000 and $100,000 account for 17 percent of jobs and low wage industries account for 13 percent of jobs in the Corridor.

Based on these groupings, the estimated number of households generated by Corridor workers was estimated along with the related estimated average household income and affordable home prices/rents. These estimates are used to gauge the availability of housing at various price points for workers in each of the wage cohorts.

Table 27. Jobs and Estimated Worker Households by Wage Cohort, 2021

Industry	Total Employment (Jobs)	Average Annual Wage	Estimated Households	Estimated Annual HH Income	Estimated Affordable Home Price [1]	Estimated Affordable Rental Rate
Wage Cohort						
High Wage (above $100,000)	98,908	$160,457	72,460	$208,594	$790,600	$5,200
Medium Wage ($60,000 to $100,000)	24,834	$86,215	18,193	$112,079	$417,900	$2,800
Low Wage (Under $60,000)	19,533	$39,461	14,310	$51,299	$182,700	$1,300
Total	**146,053**	**$136,776**	**106,999**	**$182,303**	**$689,300**	**$4,600**

Note: Agriculture, Forestry, Fishing & Hunting, Mining, and Utilities Industries not included due to disclosure
Note 2: Estimated Households calculated assuming 1.05 jobs per employee and 1.3 jobs per household
1 Affordable Home Price assumes 30% of income spent on mortgage. Assumes 30-year mortgage with 6% interest rate.
Source: QCEW; Economic & Planning Systems

The affordable home price and monthly rental rate for an average worker in each wage cohort was estimated to compare to the availability of housing in the Corridor and in the commute sheds. The availability of housing affordable to each wage cohort was estimated using the reported home values for owner-occupied households and gross rent for renter-occupied households, as shown in **Table 28**.

Table 28. South I-25 Corridor Housing Units by Wage Cohort, 2021

Description	Jobs	Estimated Workforce Housing Demand	% of Housing Demand	Study Area: Existing Housing Units by Worker Household	Study Area: % of Housing Units	Study Area: Difference (Supply-Demand)
High Wage (above $100,000)	98,908	72,460	69%	4,619	24%	-67,841
Medium Wage ($60,000 to $100,000)	24,834	18,193	17%	13,460	71%	-4,733
Low Wage (Under $60,000)	19,533	14,310	14%	987	5%	-13,323
Total	**143,275**	**104,963**		**19,066**		

Source: Economic & Planning Systems

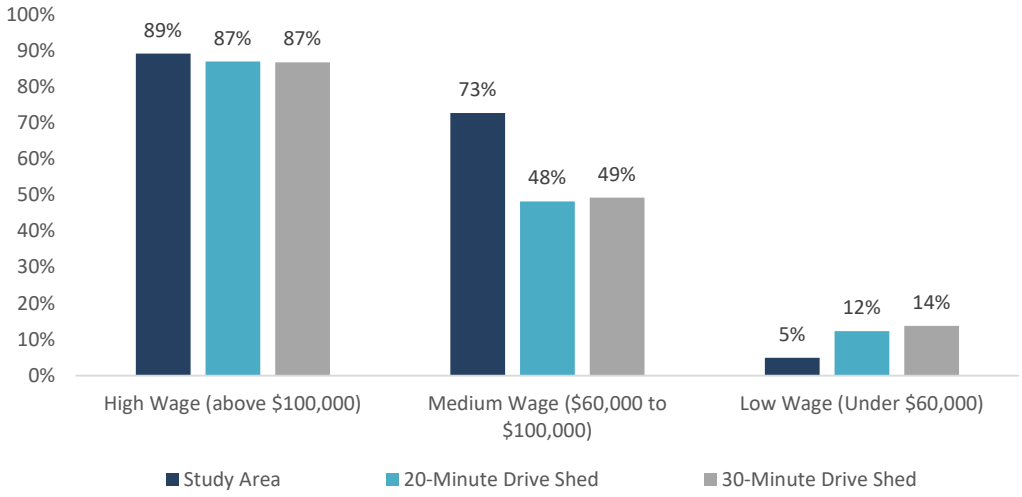
Seventy-one percent of the housing units correspond to the affordability level for medium wage workers ($60,000 to $100,000 per year). Only 5 percent of the housing units are affordable to lower wage workers making less than $60,000 per year. There is a need for approximately 13,000 more housing units in the price range as shown.

The estimated workforce housing demand was compared to the available housing units affordable to each wage cohort. The result is a measurement of the gap between supply and demand. Given the much greater number of jobs in the Corridor versus housing, there is a gap in housing availability for all wage cohorts, but this measure gives an indication where the greatest need exists. The analysis indicates that overall, there is continued demand for all housing types to support the workforce. Additional housing products that are desirable to the high wage cohort are needed, including single family and attached housing products along the Corridor as well as the introduction of luxury condominium units. The other need that is evident is for housing affordable to low wage workers. Currently, only 5 percent of housing units are affordable to this wage cohort and low wage earners represent 14 percent of the total jobs.

Another measure of availability of housing was used to gauge housing needs just outside the Corridor. The percentage of housing units affordable to the average worker in each wage cohort was estimated for the Corridor, and the 20-minute and 30-minute drive sheds. The findings by age cohort are provided below.

- Almost all housing units in the three geographies are affordable to the average worker in the high wage industries, as shown in **Figure 45**.
- There is less availability of affordable options for an average worker in medium wage industries, especially outside of the Corridor. Seventy-three percent of housing units are affordable to the medium wage earner in the Corridor but only 48 to 49 percent affordable in the larger 20- and 30-minute drive sheds. This is likely due to the greater presence of for-rent apartments in the Corridor versus in the drive shed areas which have a much greater presence of single-family, for-sale homes, much of which is outside the affordability of the medium wage worker.
- Lastly, there is a low percentage of housing units in the Corridor affordable to the average low wage industry worker. Only 5 percent of homes are affordable for these workers in the Corridor. The percentage is greater in the drive sheds (12 and 14 percent), but still relatively low. There is an ongoing need for more affordable options for these workers.

Figure 45. Percent of Housing Units Affordable by Wage Cohort, 2021



Lastly, the recently constructed housing options (built since 2015) were summarized by their affordability for an average worker household in each of the wage cohorts. The new housing units built by tenure and by wage cohort are shown in **Table 29**. Most of the new for-sale housing options (69 percent) sold at prices that are affordable to the high wage cohort, and 29 percent sold at prices affordable to the medium wage cohort. Only 2 percent of new homes sold for a price affordable to a low wage earner household.

Most new for-rent units (91 percent) built since 2015 are affordable to the medium wage worker cohort. Five percent of the new apartment units built since 2015 are at rent levels affordable to the low wage worker households; however, these units are within two rent-restricted affordable housing projects. The construction of income restricted to low- and moderate-income housing is therefore an important component of an overall housing development strategy.

Table 29. Recently Built Housing Units by Wage Cohort, 2021

	Project Average Price/Rent	Units Built Since 2015	% of Total
For-Sale			
High Wage	$500,000 and above	409	69%
Medium Wage	$300,000 to $500,000	175	29%
Low Wage	Under $300,000	12	2%
Total		**596**	**100%**
For-Rent			
High Wage	$2,800 and above	276	5%
Medium Wage	$1,400 to $2,800	5,394	91%
Low Wage	Under $1,300	275	5%
Total		**5,945**	**100%**
All			
High Wage		685	10%
Medium Wage		5,569	85%
Low Wage		287	4%
Total		**6,541**	**100%**

Source: Zonda, CoStar, Economic & Planning Systems

Transportation Forecast

The purpose of the traffic capacity assessment is to evaluate the current roadway capacity and the nature of the growth in travel demand for the area, including the regional and local roadway networks, public transit, and bicycle and pedestrian systems.

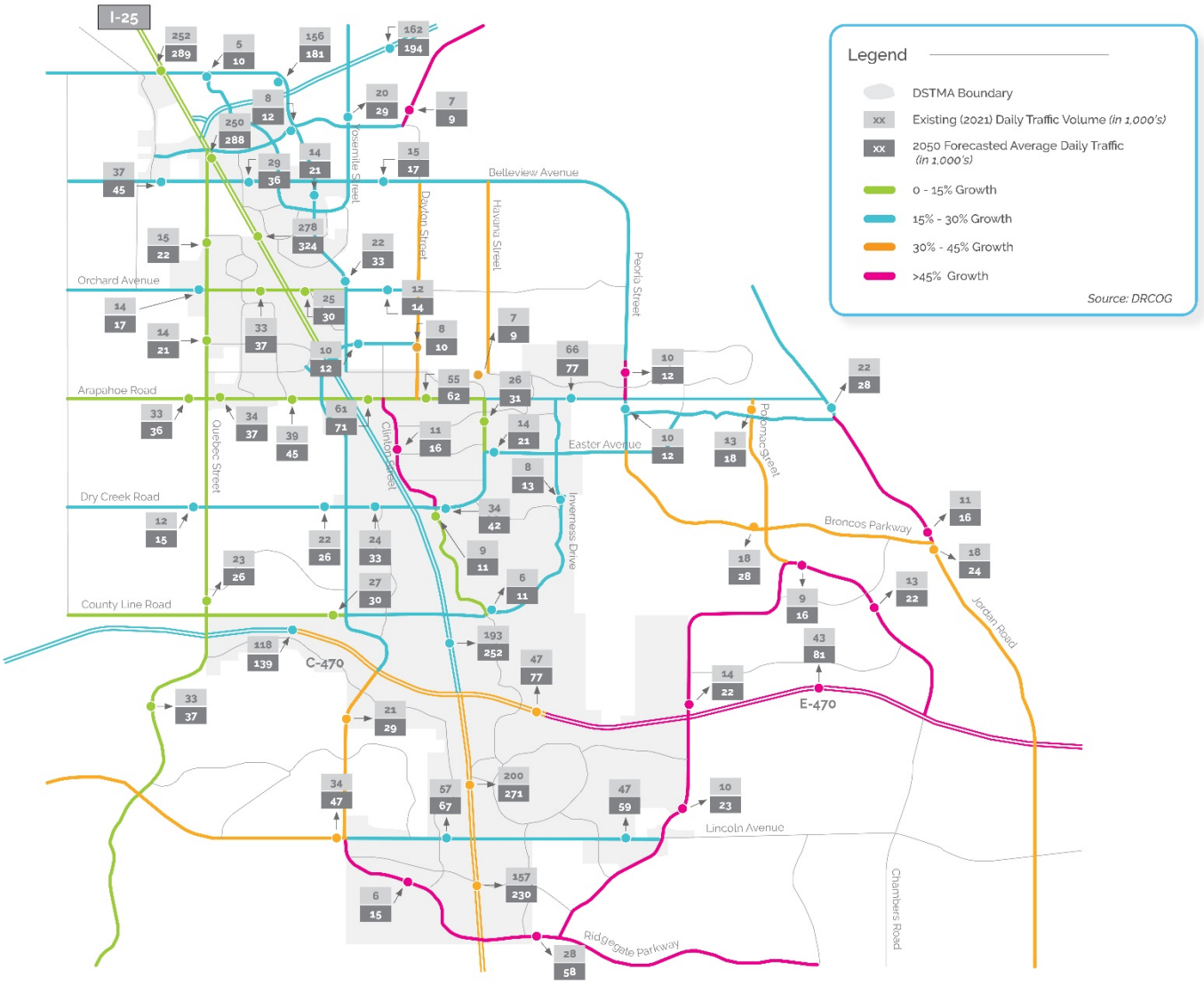
Future Growth

A traffic forecast map was prepared using the Denver Regional Council of Governments (DRCOG) travel demand model and CDOT recent traffic counts (as of 2021). The planning horizon year was established as 2050 based on DRCOG's base forecast year. The primary objective is to understand the long-range travel demands that the area is expected to experience based on forecasted development. **Figure 46** illustrates the expected growth for roads that are collector or above in the area.

These results and growth patterns are valuable for comprehending general trends and estimating how demand could impact road capacity requirements. From the map, it can be concluded that:

- Relatively modest growth of approximately 15 percent is expected on I-25 and cross-streets in the Denver Tech Center area.
- Growth in the 15 percent to 30 percent range is expected on I-25 and cross-streets between Arapahoe Road and C-470/E-470.
- The highest growth rates greater than 30 percent are expected in Douglas County south of C-470/E-470 and in the Dove Valley region southeast of the I-25 Corridor.

Figure 46. Existing (2021) and Forecasted (2050) Traffic Volumes



Roadway Capacity and Traffic Volume Analysis

Existing traffic volumes can also be compared to planning level roadway capacity thresholds to predict levels of congestion and identify the potential need for additional capacity or areas where there is excess capacity. For example, due to the recent pandemic and the resulting changes in work environments, traffic volumes on the existing road network in the region have shifted. **Figure 47** shows the existing (2022) traffic volumes compared to the traffic volumes from the previous plan (2016), as well as compared to the actual roadway capacity.

Figure 48 shows the forecasted 2050 traffic compared to existing (2022). Roadway capacity is defined as the maximum traffic volume that a road can carry at a desired level of service. It presents typical capacity levels and is a tool to identify network needs. Capacities vary by number of lanes and roadway classification. The traffic volume thresholds were developed for this study after considering plans in the area, such as the Arapahoe County 2040 Transportation Master Plan, City of Centennial Transportation Master Plan, together with regional and national values documented in other transportation plans.

Traffic volume thresholds shown in **Table 30** represent approximate daily traffic volumes that can be accommodated on a typical road for each type at the established level of service. A typical level of service can then be translated into capacity levels. Roads beyond capacity will experience congestion, represented on **Figure 47** and **Figure 48** with the color red. Similarly, roads at capacity or approaching capacity are represented as orange or light green, respectively. Finally, roads experiencing free flow most of the time are represented by a darker green. The analysis indicates that traffic is currently most highly congested on segments of I-25 and three intersecting principal arterial roads: Belleview Avenue, Arapahoe Road, and Lincoln Avenue. Smaller roads within Denver South have significant excess capacity and reduced traffic volumes, offering opportunities for repurposing as needed.

It is important to note that these capacity thresholds are generalized and intended to provide planning level evaluations of roadway congestion and needs. When a specific roadway improvement project is being considered and developed, traffic analysis should be performed at a more detailed level, taking into consideration characteristics such as peak hour intersection turning movements, intersection turn lanes, and the mix of vehicle types.

Table 30. Planning Level Daily Traffic Volume Capacity Thresholds (Capacity per Number of Lanes)

Road Class	2-lane	4-lane	6-lane
Interstate	n/a	80,000	120,000
Expressway	n/a	48,000	72,000
Principal Arterial	n/a	30,000	45,000
Minor Arterial	13,000	26,000	39,000
Collectors	10,000	20,000	n/a

Figure 47. Historic (2016) and Existing (2021) Roadway Capacity

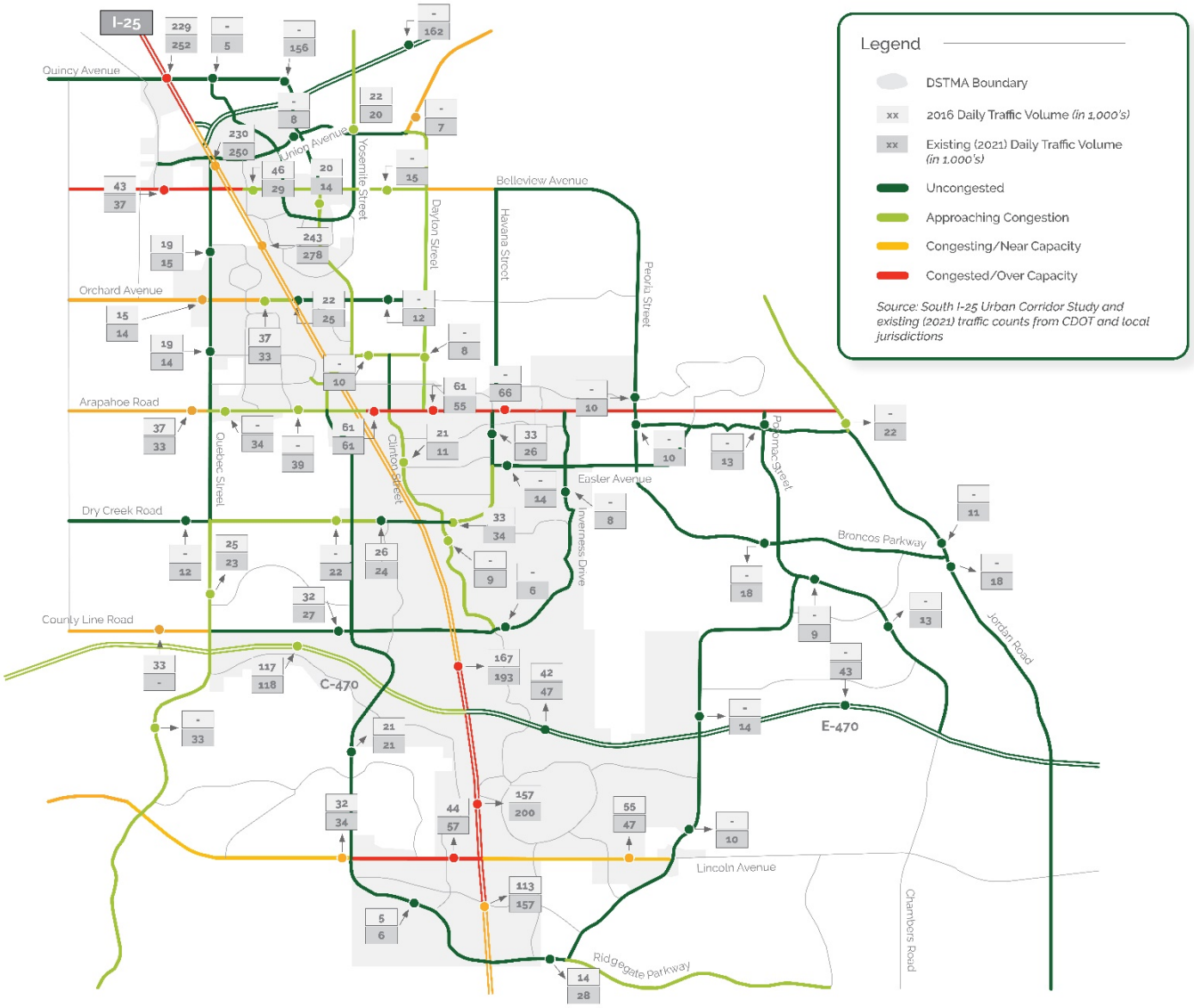
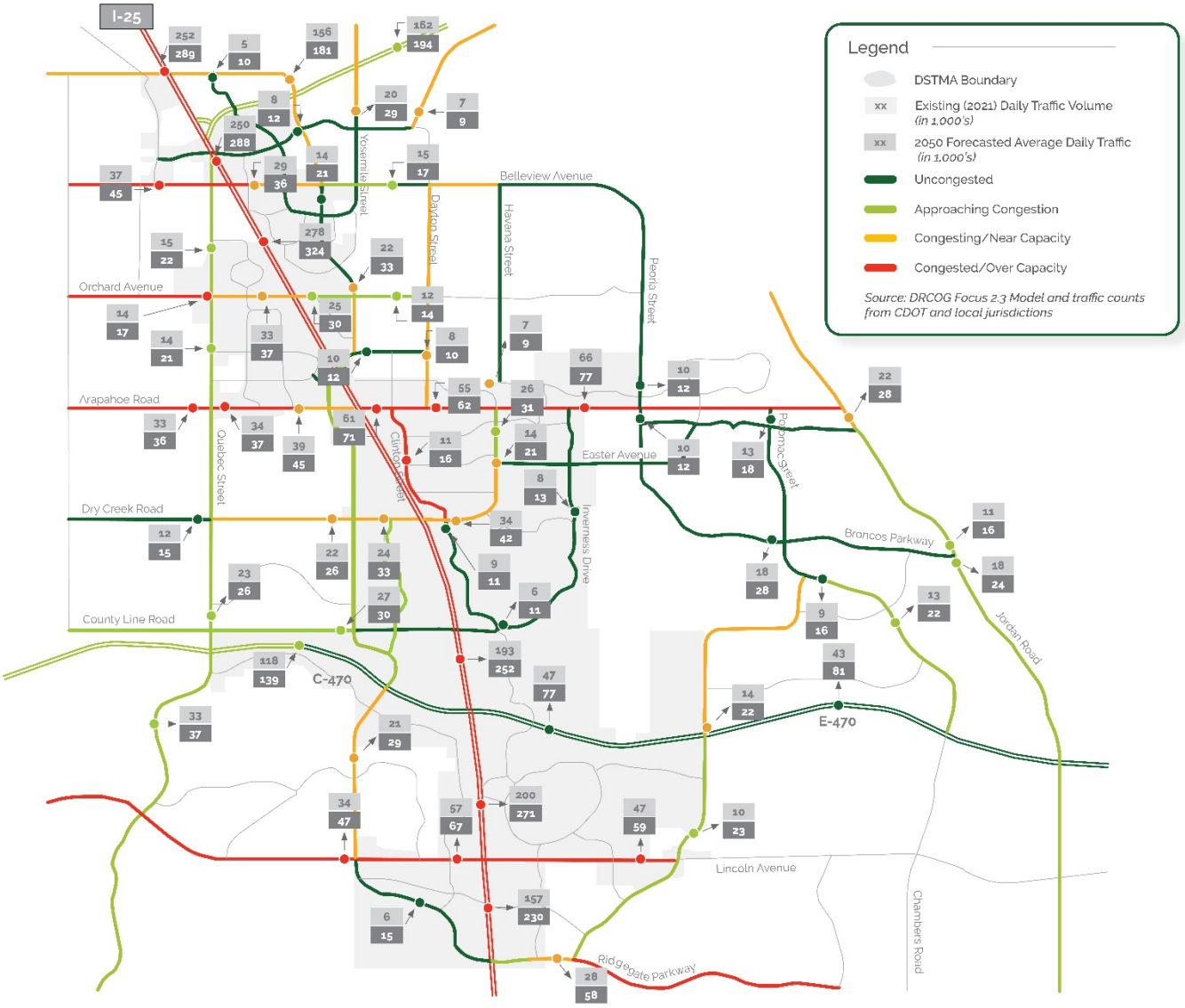


Figure 48. 2050 Traffic Forecast and Roadway Capacity



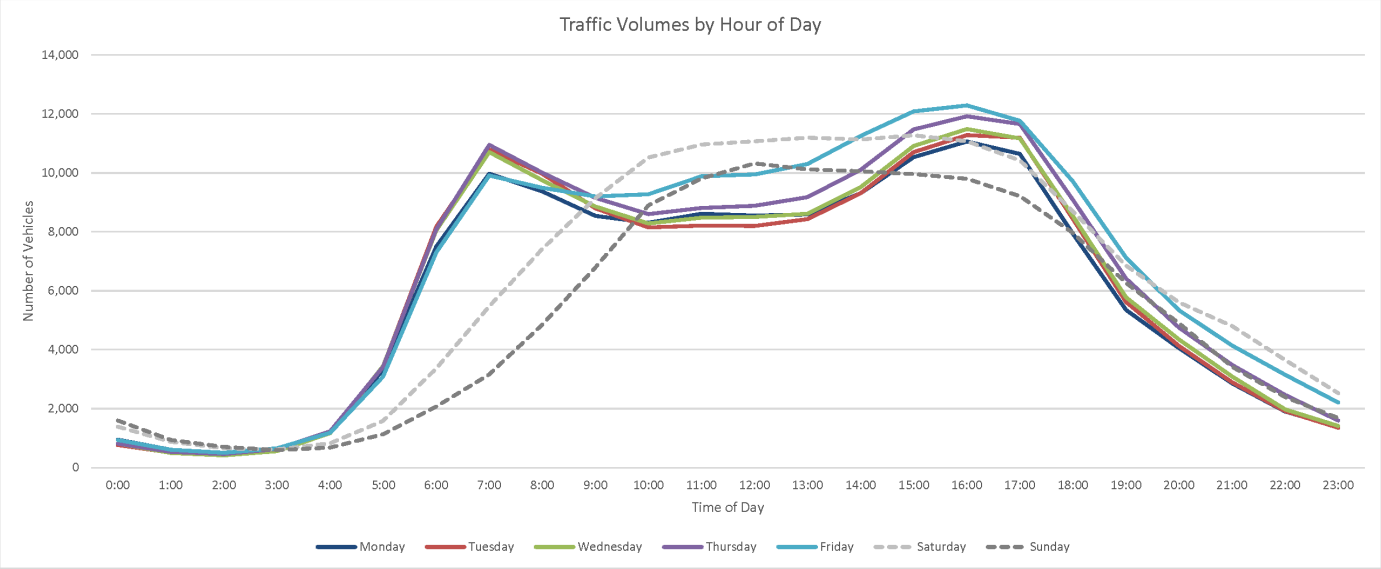
Existing Traffic Patterns

Traffic data from a CDOT continuous count station on I-25 just south of the study Corridor was used to analyze I-25 traffic patterns by time of day and day of the week. **Figure 49** provides a table and graph showing hourly traffic volumes by day of the week. The data shows patterns that reflect the changing travel behavior in recent years, largely resulting from the effects of COVID.

- AM peak hour traffic volumes show that Tuesday, Wednesday, and Thursday all have similar traffic volumes, while Monday and Friday are noticeably lower with more people working at home.
- In the PM peak, when the proportion of commuting traffic is lower and the proportion of other trip purposes (such as shopping and recreation is higher), traffic volumes are more consistent from Monday through Friday.
- On a daily basis, two notable observations that may differ from pre-COVID patterns are that Friday has become the clear highest traffic day and Saturday traffic is higher than Monday, Tuesday, or Wednesday.
- Lower AM peak hour volumes on Monday and Friday (approximately 10 percent) indicate a higher work from home percentage than Tuesday, Wednesday, and Thursdays. However, overall daily traffic on Friday shows a higher number of overall trips for recreation, shopping, and social activities.

Figure 49. Weekly Traffic Volumes by Hour of Day

WEEKDAY*	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
AM Peak Hour	7:00-8:00 am	7:00-8:00 am	7:00-8:00 am	7:00-8:00 am	7:00-8:00 am	3:00-4:00pm	1:00-2:00pm
PM Peak Hour	4:00-5:00 pm	4:00-5:00 pm	4:00-5:00 pm	4:00-5:00 pm	4:00-5:00 pm		
AM Peak Hour Volume	9,966	10,794	10,709	10,950	9,908	11,275	10,122
PM Peak Hour Volume	11,065	11,282	11,487	11,921	12,289		
Total Daily Volume (AADT)	141,656	144,514	146,383	153,724	161,381	151,143	127,322
AM Peak to Daily Percentage	7.04%	7.47%	7.32%	7.12%	6.14%	7.46%	7.95%
PM Peak to Daily Percentage	7.81%	7.81%	7.85%	7.75%	7.62%		



Source: CDOT I-25 Continuous Traffic Count Station south of RidgeGate on I-25

Automobile Travel Sheds

Similarly, to the transit travel sheds provided in the previous section, automobile travel sheds were analyzed for I-25/Belleview, I-25/Orchard, I-25/Arapahoe, I-25/ Dry Creek, I-25/ Lincoln, I-25/RidgeGate, and Jordan Rd/Broncos Pkwy. **Figure 50** through **Figure 57** show the estimated 15-minute travel shed during PM peak hours from these locations based on travel time data from the 2020 and 2050 regional travel models. The maps show that estimated 15-minute travel sheds are generally in the 4- to 7-mile range in each direction in 2020. Each travel shed is projected to shrink by approximately 10 to 20 percent in 2050 as greater congestion reduces the distance that can be traveled during the PM peak hour.

Figure 50. 15-Minute Auto Travel Shed from I-25/Belleview

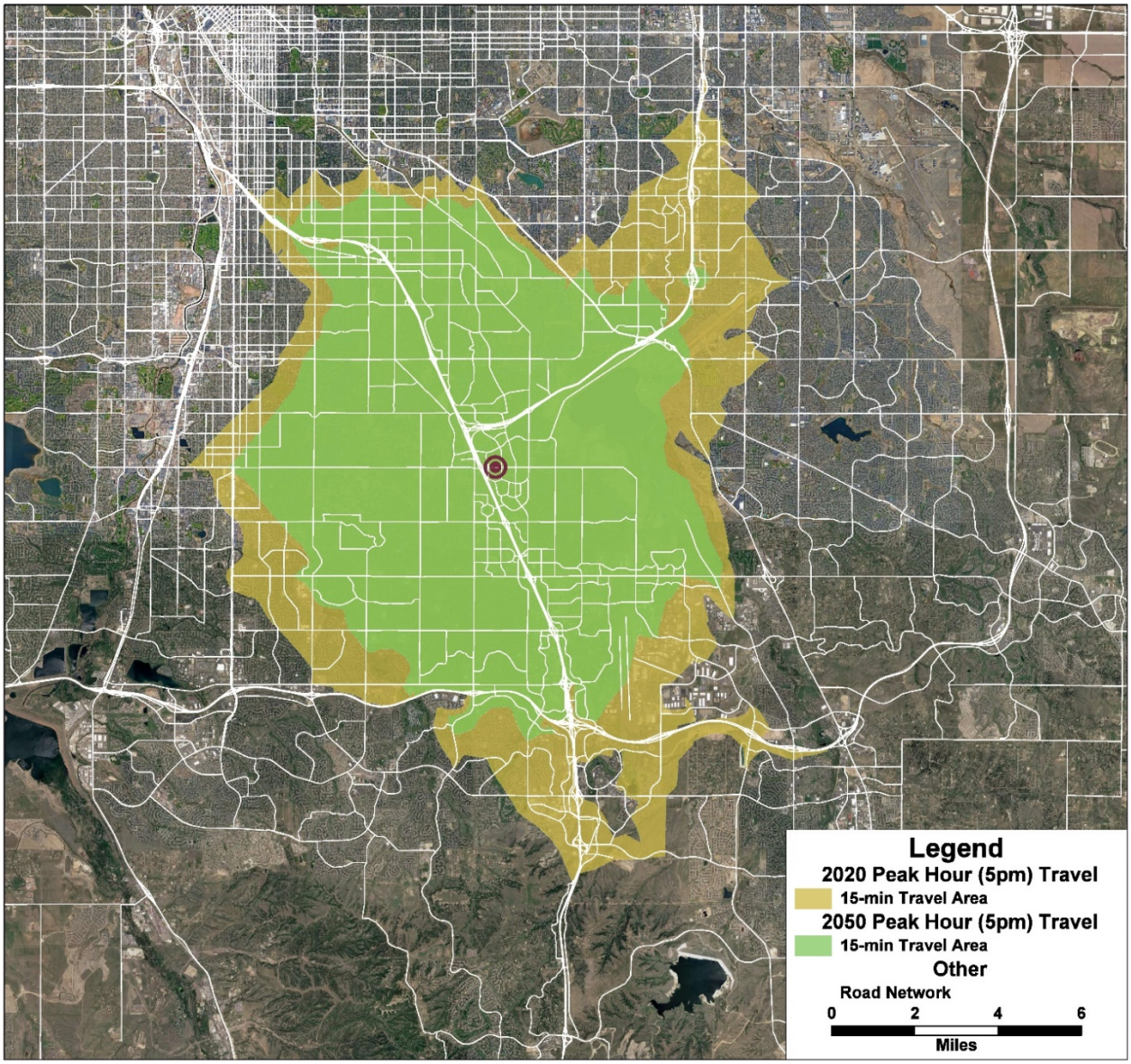


Figure 51. 15-Minute Auto Travel Shed from I-25/Orchard

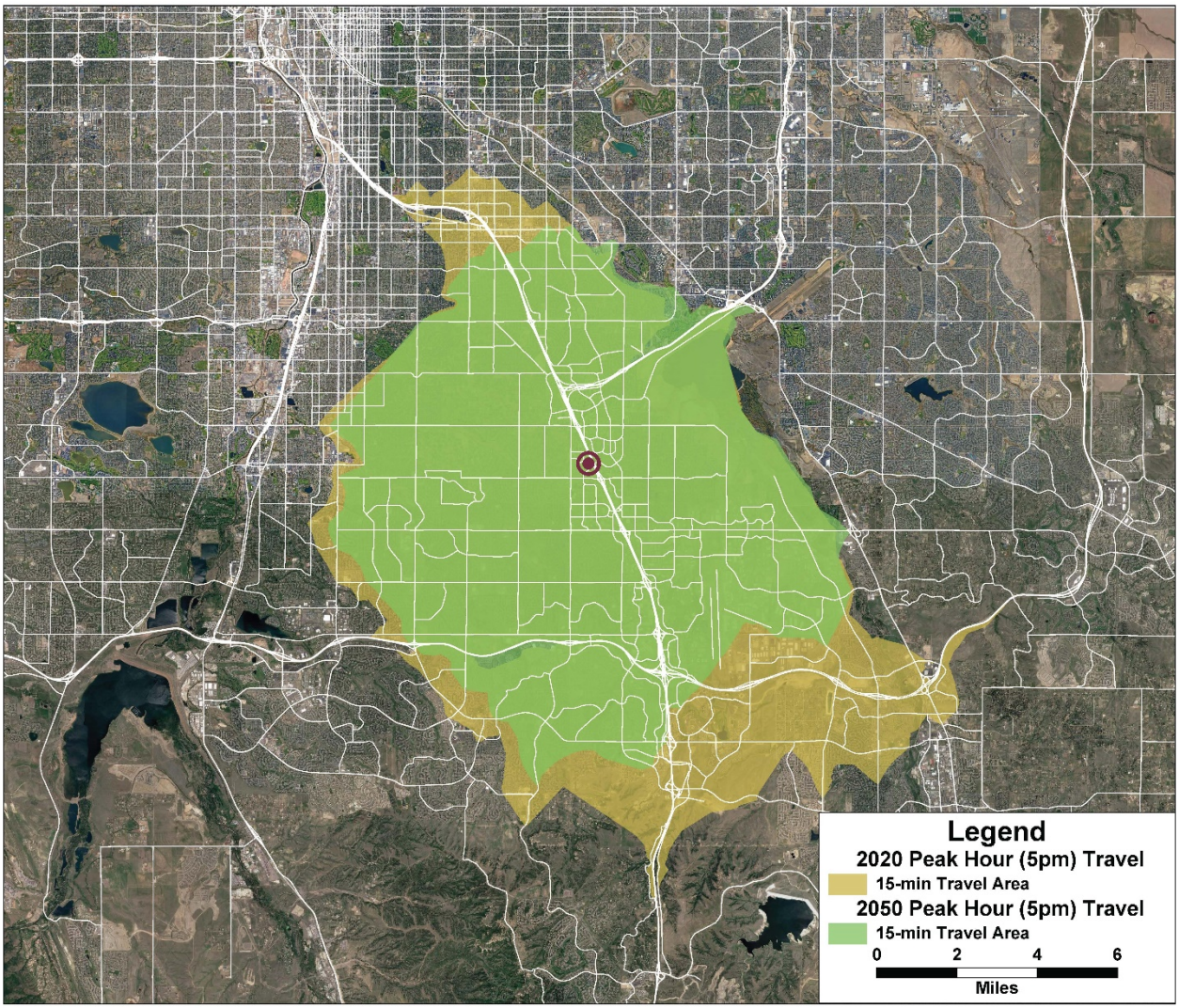


Figure 52. 15-Minute Auto Travel Shed from I-25/Arapahoe

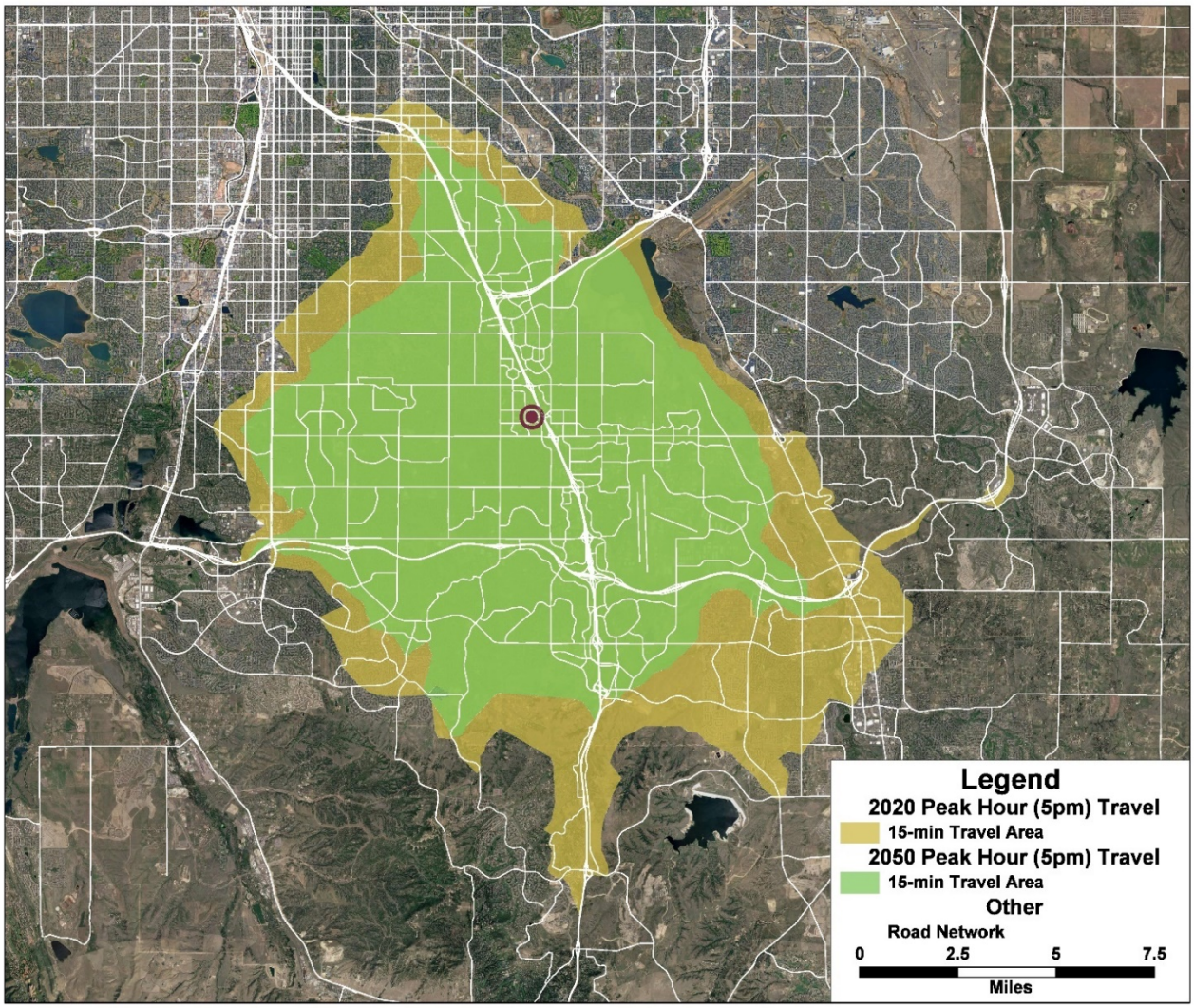


Figure 53. 15-Minute Auto Travel Shed from I-25/Dry Creek

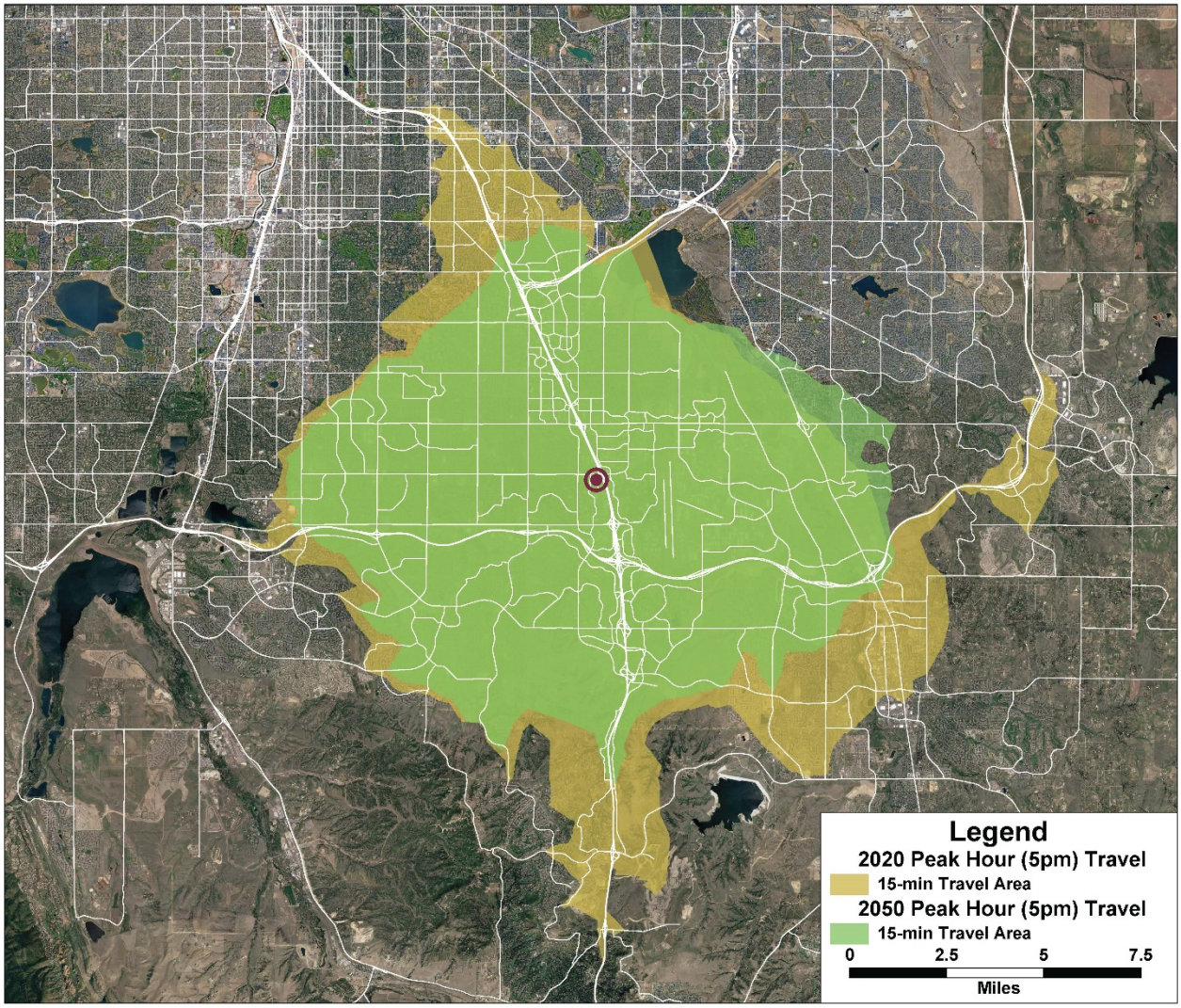


Figure 54. 15-Minute Auto Travel Shed from I-25/County Line

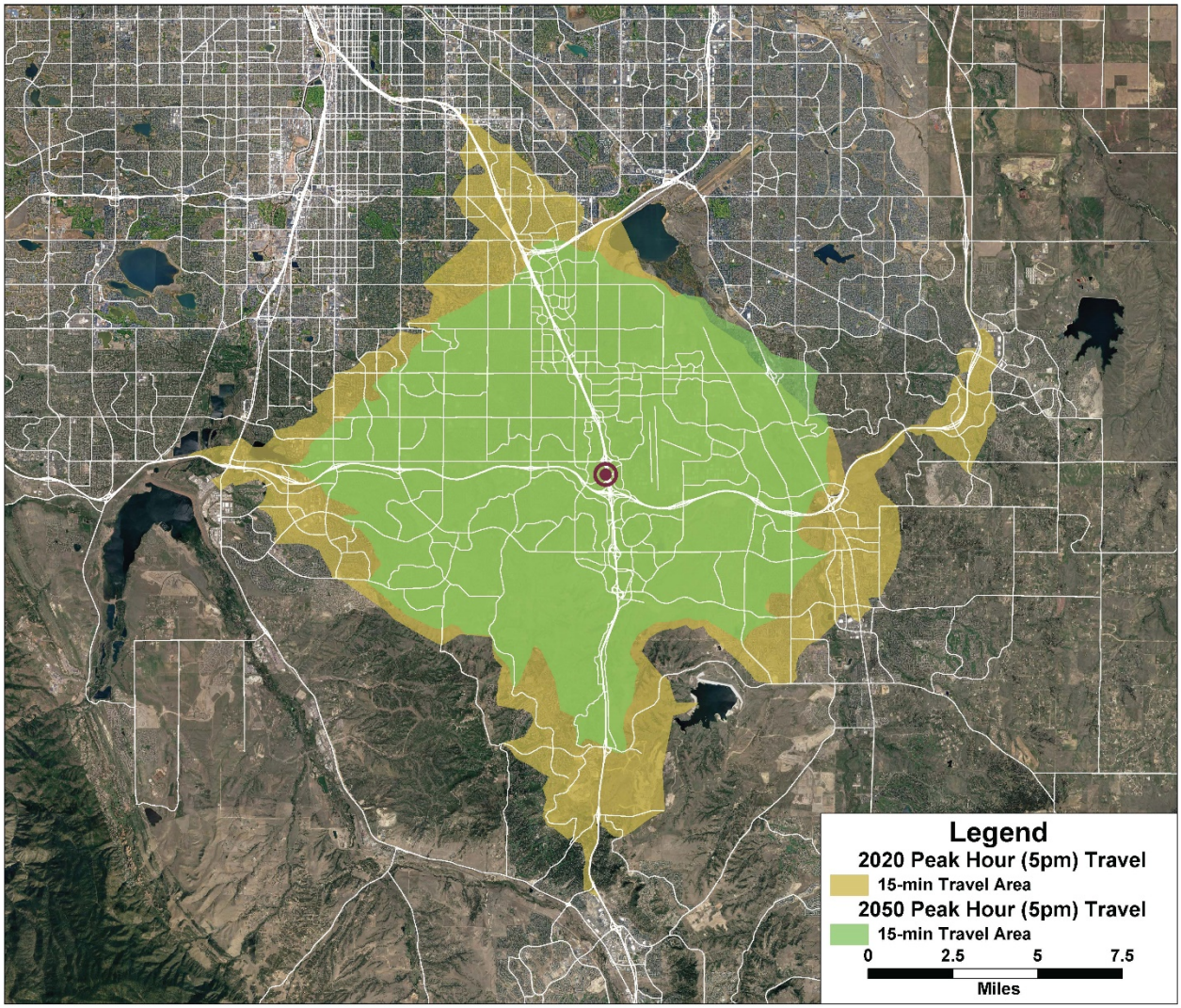


Figure 55. 15-Minute Auto Travel Shed from I-25/Lincoln

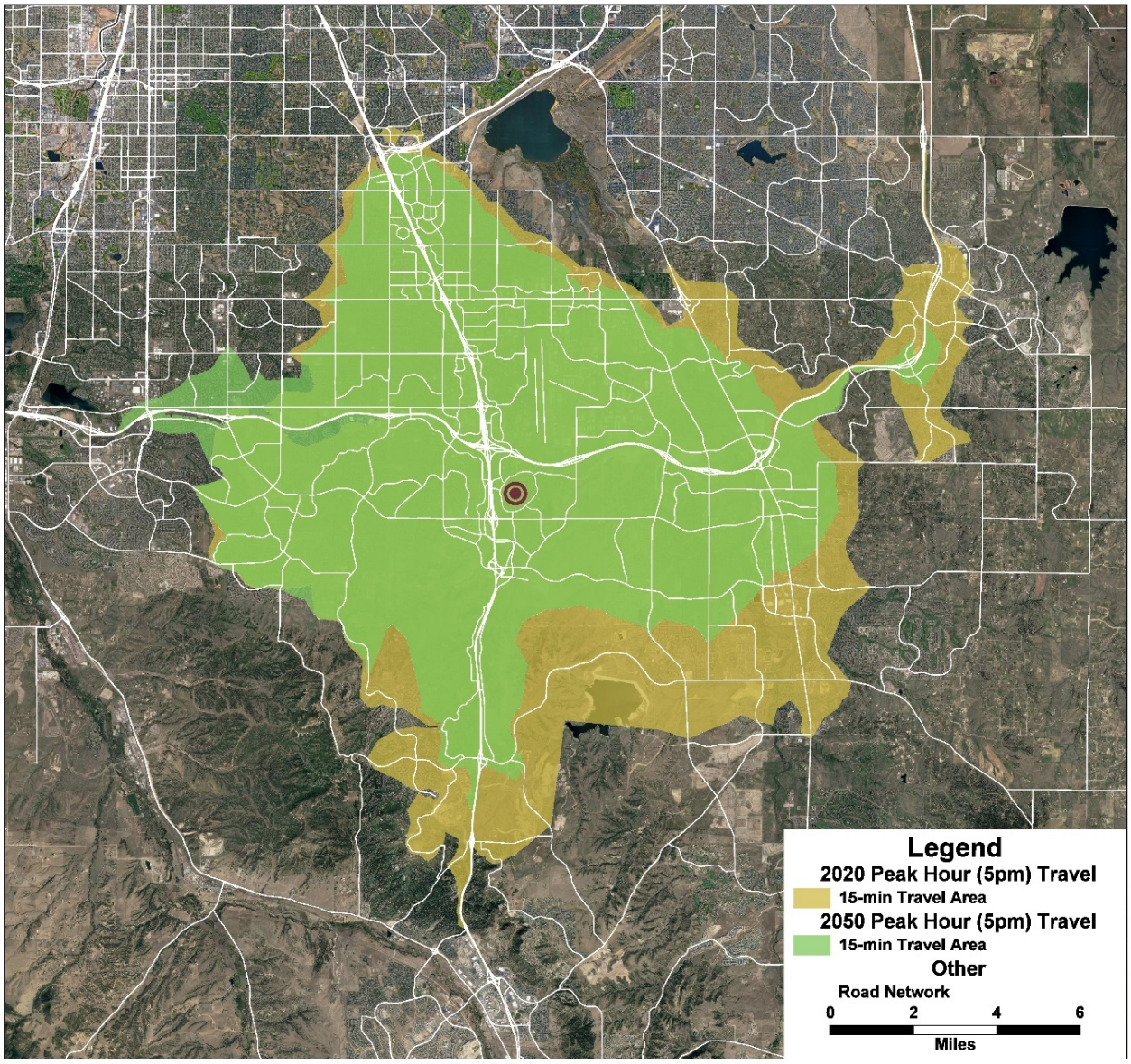


Figure 56. 15-Minute Auto Travel Shed from I-25/RidgeGate

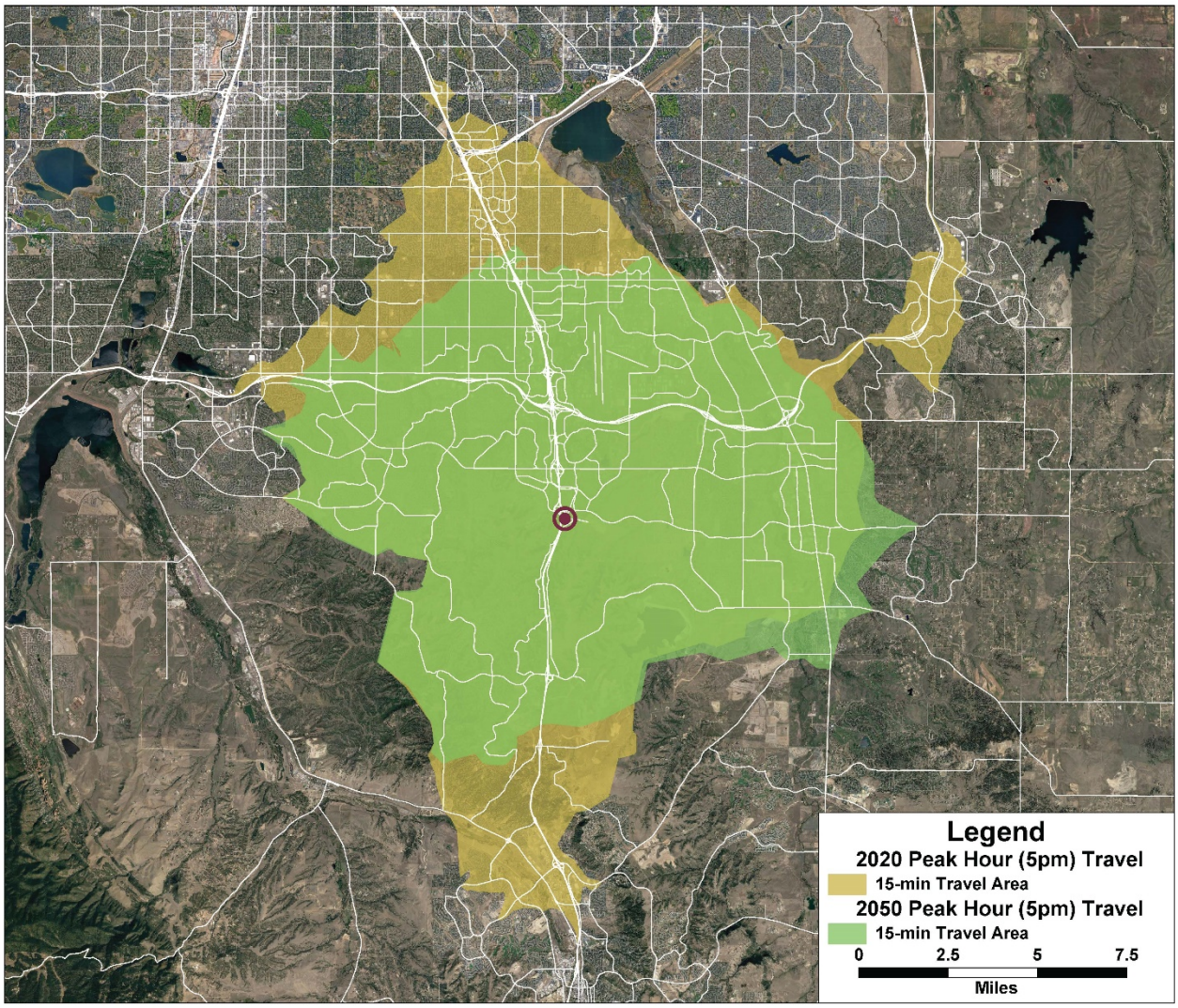
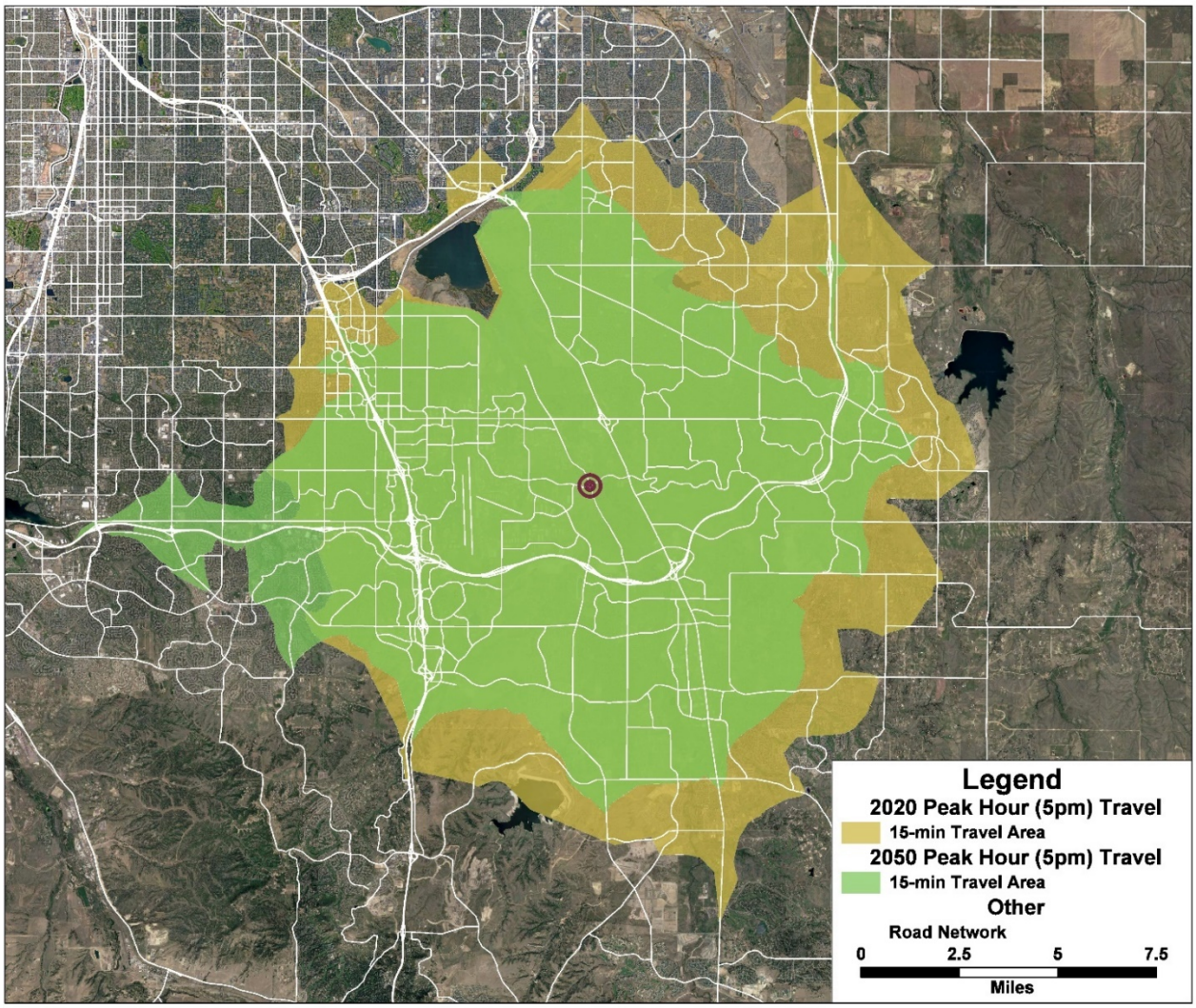


Figure 57. 15-Minute Auto Travel Shed from Jordan Rd/Broncos Pkwy



Needs and Opportunities

Numerous transportation needs and opportunities of a corridor-wide, interjurisdictional nature have been identified for which Denver South can play an important coordinating role. These key concepts were identified through urban corridor study analyses, review of previous plans and studies, and conversations with various stakeholders and committees.

Safety/Security on Transit

A sharp reduction in transit ridership in the Corridor has been noted since the 2016 South I-25 Corridor Study. This ridership reduction is symptomatic of post-COVID travel pattern changes in the Denver South region and is consistent with ridership reduction trends on corridors and routes across the RTD system. Survey data and anecdotal evidence suggest that concerns about personal security and safety issues - both real and perceived - as well as reliability concerns may be significant factors in this trend.

This is an issue for which Denver South is well suited to play an important role. There is an opportunity for the TMA to help engage local jurisdictions with RTD to further gauge the extent that safety and security concerns are impacting transit ridership, to better understand the specific concerns and demographic groups that hold those concerns, and to partner on strategies to address those concerns.

Housing Types and Mobility Options

This issue is one that cuts across both the transportation and economic aspects of the Corridor Study. From a transportation planning point of view, there is an opportunity to explore the tie between housing types, demographics, and propensity to use alternative modes of transit. Housing prices, density, amenities, and owner/renter mix all are prime drivers in the demographics of residents, which, in turn, can be a key driver in the use of alternative modes of travel. The Denver South can play a role in assembling data to understand these relationships and applying them to corridor development plans.

Mobility Hub Planning

The concept of mobility hubs was an emerging concept during the development of the 2016 Denver South I-25 Corridor Study. Since the last study, multiple jurisdictions and CDOT have actively engaged in planning for locations where multimodal options and amenities can support the user to provide travel options and improve first and final mile connectivity. This includes the advancement of design and the construction of the mobility hub in Lone Tree, as well as the identification of priority mobility hub locations and amenities in both the Centennial and Arapahoe County Transportation Master Plans. There is an opportunity for Denver South to serve as a leader in the wholistic development of mobility hubs and typology development in the Denver South region to support planning and design continuity, branding, and wayfinding with regional partners.

North-South Bike Routes

The 2016 I-25 Corridor Study identified the need for an interjurisdictional approach to north-south bike routes for both the east and west sides of I-25. As an action item of the Study, Denver South commissioned the detailed North-South Regional Bicycle Corridors Study to further refine alignments and to develop cost estimates. As a result, several Denver South partner agencies advanced segments of the bicycle corridors, but many segments need funding, design, and construction to complete the full corridors. Denver South may consider monitoring progress, collaborating on corridor-wide bicycle project funding applications, and understanding usage and trends.

Microtransit and Micromobility

Link on Demand is a proven microtransit service that effectively attracts transit ridership – both those who rely on transit and those who choose to use transit to get around the city, to the light rail station, and to other regional connections. Denver South recently submitted an application to RTD for local agency funding to expand microtransit in the Denver South region. This provides a great opportunity for Denver South to look at how to effectively provide microtransit in the Denver South region, including potential merging of FlexRide with a Link on Demand microtransit service. Micromobility, including the SPIN program in Meridian, continues to grow as a mobility option and opportunity to shift short trips away from vehicles. Looking at a comprehensive deployment of micromobility options, in partnership with local agencies and regional mobility hub planning, could be a good opportunity for Denver South.

New Traffic Patterns

Some of the day-of-week and hour-of-day data, obtained and summarized in this report, suggests that temporal travel patterns have changed in recent years. COVID-induced changes in travel behavior are certainly a major factor in these changes. Key findings show increases in travel outside traditional AM and PM weekday commuting periods. Specifically, Friday afternoon/early evening and Saturday travel may be equal to, or in some cases greater than, traditional weekday commuting periods.

In addition, the trend for a broader mix of corridor uses other than office employment can be expected to change travel patterns. The mix of uses will reduce the inbound morning and outbound afternoon commuter peaking.

There may be an opportunity for Denver South to coordinate with CDOT, RTD, and local jurisdictions to study these changing patterns and to evaluate potential adjustments to transportation system attributes such as transit scheduling, I-25 ramp metering, and arterial street signal timing.

Increased corridor housing specifically can be expected to result in increased opportunities for bicycle, walk, and other micromobility travel options, supporting the importance of the many recommended strategies for these modes.

Zero Emission Vehicle Infrastructure

With the continued trend toward EVs and other zero emission vehicle (ZEV) fueling technologies, Denver South is primed to serve as a convenor for larger corridor discussions to ensure the planning and infrastructure aligns across jurisdictional boundaries. This includes coordinating EV plans within municipal plans, as well as Transportation Electrification Plans (TEP) being completed by Xcel Energy with the cities and counties. Coordination and visioning could include a comprehensive public charging infrastructure network, municipal fleet transitions (i.e., white fleets), and transit fleet transitions (e.g., Link on Demand). Colorado's Clean Transit Enterprise, Community Access Enterprise, and Clean Fleet Enterprise provide new funding opportunities to advance ZEV priorities.

Current and Planned Projects

Denver South partner agencies are actively planning, engineering, constructing, and implementing a wide variety of multimodal plans and projects within their own agency and in partnership with neighboring jurisdictions. A project inventory was created to understand the magnitude of projects within the Denver South I-25 Corridor Study area. Project sources include transportation master plans, capital improvement programs, and regional plans. The projects included in the inventory inform the partnerships, regional priorities, and strategic actions for Denver South moving forward.

To provide regional context, the projects were mapped to provide an order of magnitude of the projects in the Denver South Corridor Study area. **Figure 58** to **Figure 60** provide a visual depiction of the projects broken out by bicycle and pedestrian, transit, and operations and safety.

Figure 58. Bicycle and Pedestrian Projects

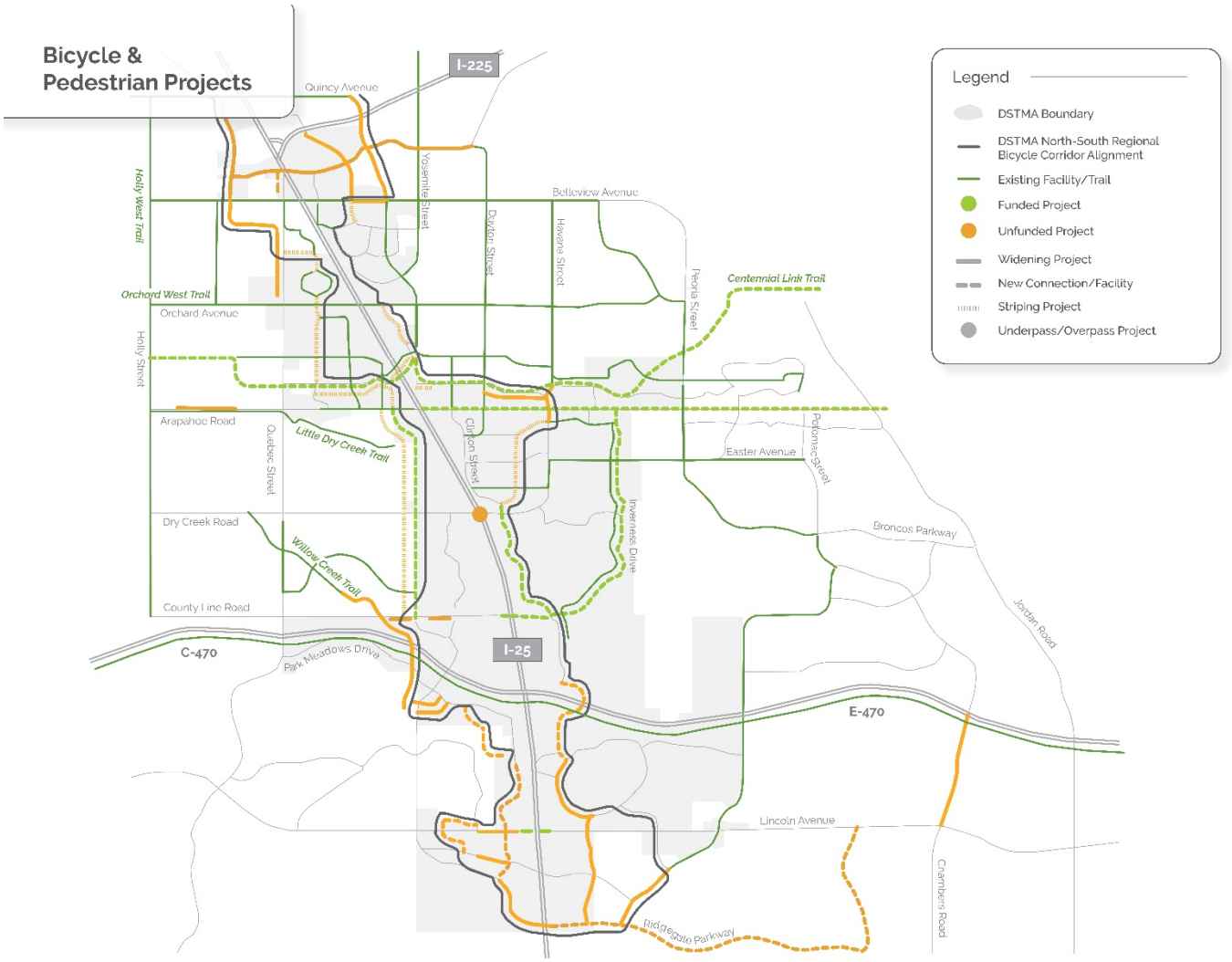


Figure 59. Transit and Mobility Hub Projects

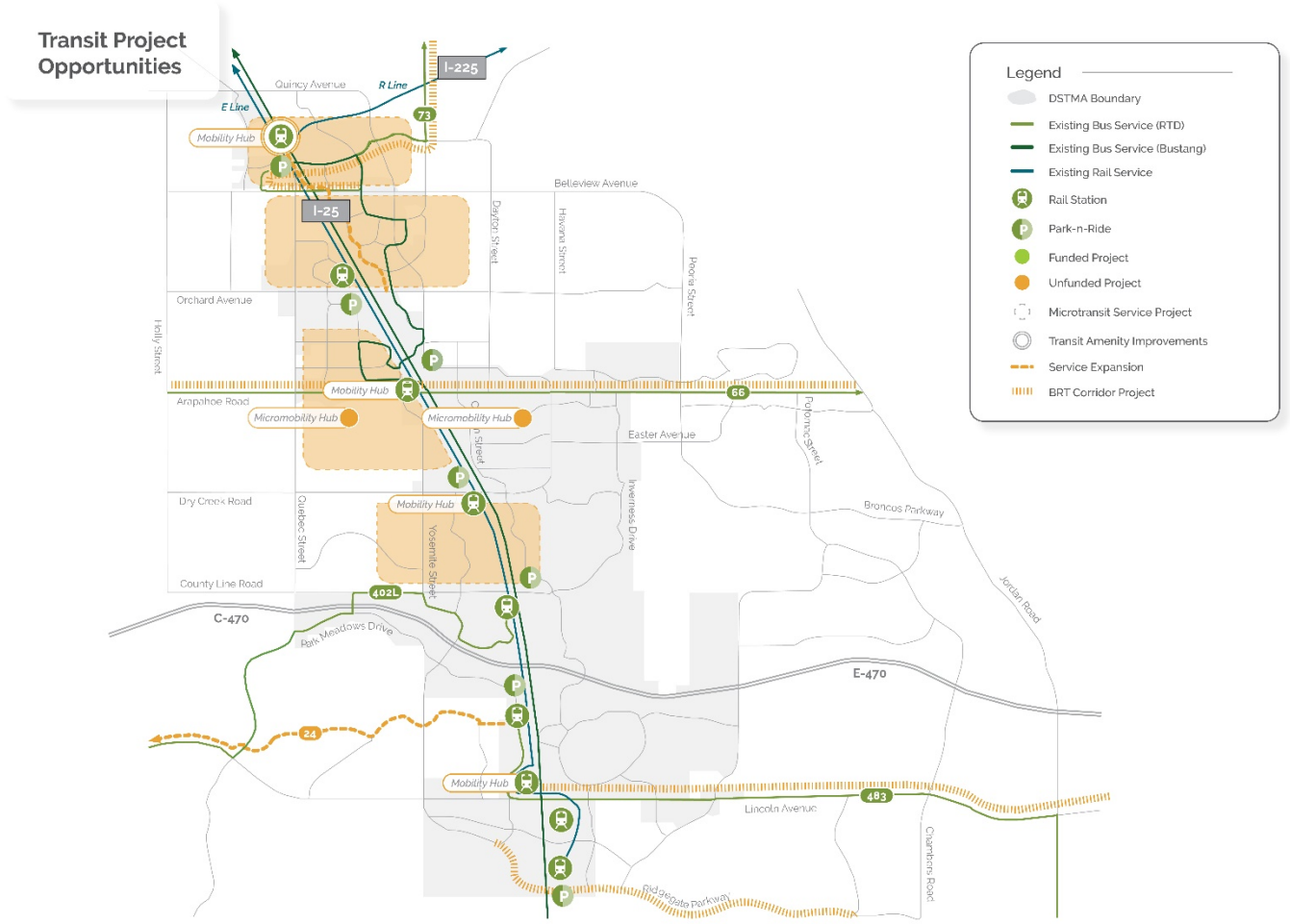
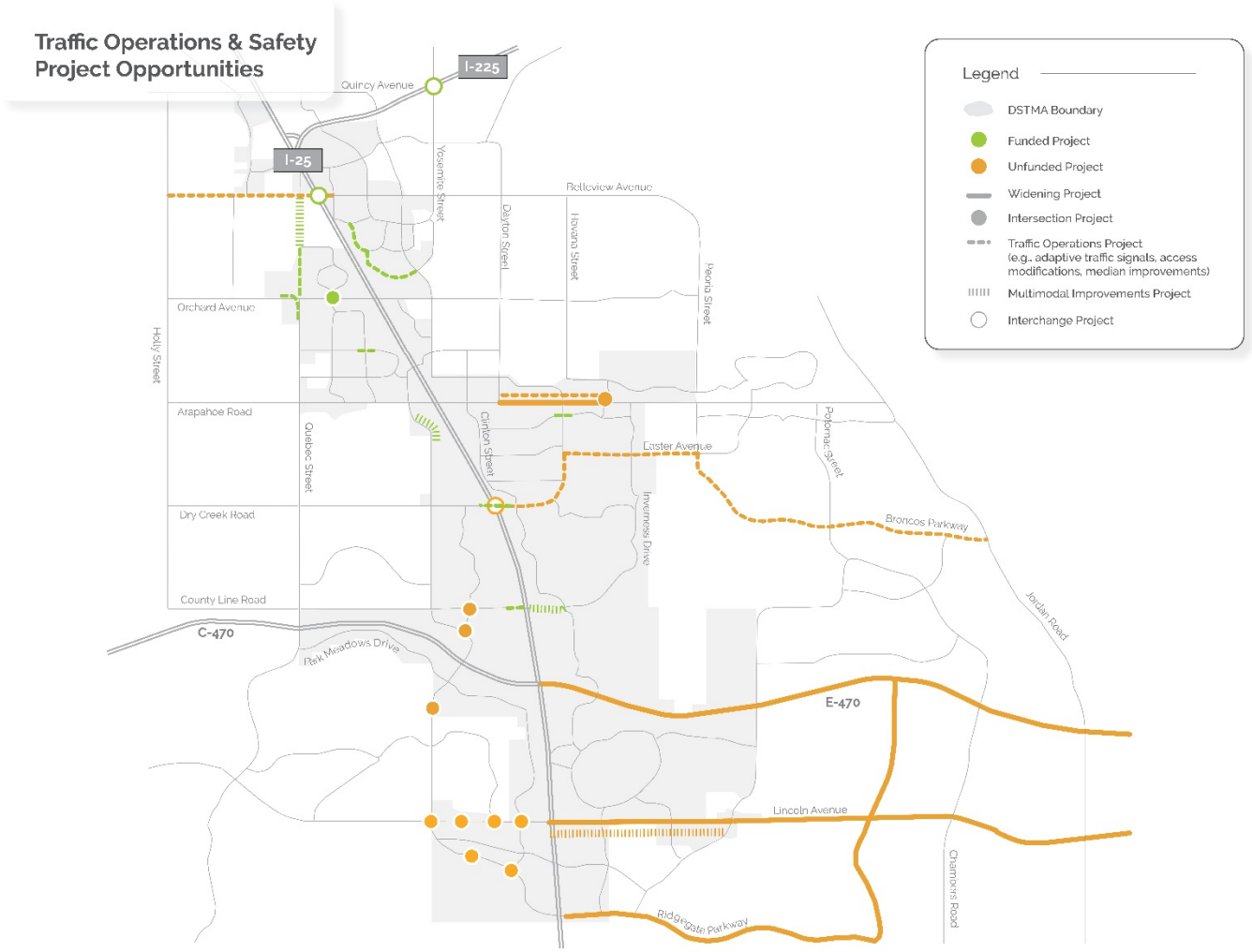


Figure 60. Traffic Operations and Safety Projects



5. South I-25 Corridor Strategy

This section of the report outlines potential goals and strategies that may be considered by Denver South and its regional stakeholders in the implementation of improvements and investments within the South I-25 Corridor. This effort builds on recommendations that were developed for the 2016 Denver South Corridor Study.

The overall goal of the South I-25 Corridor Study is to ensure that it remains the premier business location in the region. To do so will require Denver South and its partner jurisdictions to not be complacent, but rather proactive in marketing and promoting the area for new business and housing, encouraging a development and land use pattern conducive to attracting future growth opportunities, and addressing the transportation and other infrastructure investments required to serve this new growth, as well as shifting travel patterns and mode preferences to accommodate the projected increases in travel demand.

Denver South currently has initiatives focused on business recruitment and retention and is not the subject of this study. Rather, this project is focused on improving the built environment to accommodate and address the anticipated impacts that growth will place on the transportation system and the adjacent communities. For more information regarding Denver South's business recruitment strategy, refer to the 2020 report titled "Development of a Strategy for Optimizing Business Recruitment" Denver South developed with assistance from PM&P.

2016 Corridor Study Recommendations

The previous Study's recommendations were organized around three major goals:

1. Modify the Corridor land use patterns,
2. Increase connectivity to the Corridor, and
3. Increase mobility within the Corridor.

1. Modify the Corridor land use patterns

The original study recommended focusing on 1) diversifying the mix of land uses in the Corridor; 2) maximizing development opportunities near transit stations; and 3) attracting more residential development to house the growing workforce.

- **Diversifying the land use mix** – The land use mix along the Corridor has continued to diversify over the past 10 years. The growth of the health care industry has been a major part of this diversification. Employment in the health care industry increased by 3,400 jobs over the past decade (2013-2021), which was the fourth largest increase for industries in the Corridor. Although the 2016 Corridor Study recommended the attraction of a higher education institutional anchor as part of the organization's innovation strategy, the Corridor has been unsuccessful in permanently attracting a major research institution to develop a significant branch campus. CU Denver briefly occupied the former Wildlife Experience building located at 10035 S Peoria Street in Lone Tree that now serves as the Douglas County School District Legacy Campus. Regis University attempted to maintain a presence along the Corridor through two different Greenwood Village campuses but was not able to sustain those locations over the long term.
- Though institutional anchors have successfully focused federal and state research dollars towards several of Corridor's peer regions, it seems this strategy may not be fruitful for Denver South over the long term. However, the northern boundary of the Corridor at Belleview Station and the North DTC is located only 10 minutes south of the University of Denver and 20 minutes south of CU Denver, Metropolitan State University, and the Community College of Denver by car or light rail.
- **Maximizing development opportunities near transit stations** – The completion of the T-Rex Project including the I-25 light rail line through the Corridor in 2006, and the Southeast extension of the rail line into RidgeGate/ Lone Tree in 2019, were major investments that support the economic health and vitality of the Corridor. The real estate market reacted strongly to the presence of transit and the transit stations have been the major focal point of new development, as 86 percent of all office space built in the Corridor has been within a ½ mile of a transit station.
- **Attract more residential development to house growing workforce** – Housing development has continued at a strong rate since the original study. The original study forecasted growth of 675 new units per year from 2015-2035. The Corridor has grown faster, by an average of 870 new units per year since 2013, outpacing the forecast. The goal in the previous study was to double the ratio of housings units per job in the Corridor, and the Corridor is on pace to reach this goal prior to 2035.

2. Increase connectivity to the Corridor

The 2016 Study goals for increasing connectivity to the Corridor focused on 1) doubling alternate mode commuting by 20 percent (by 2025), 2) better connecting transit to the Corridor, 3) increasing east-west connectivity and capacity, and 4) increasing connectivity for active modes. Significant transportation and mobility changes have occurred in the South I-25 Corridor since the original study was completed in 2016. This includes the addition of new transportation solutions such as expanded car share programs, micromobility (i.e., e-scooters and e-bikes), microtransit (on demand service such as the Link on Demand), and electric vehicles. COVID-19 had a significant impact on transit ridership, which is still not at pre-pandemic levels.

- **Doubling alternate mode commuting by 20 percent** – COVID-19 had a significant impact on commuter travel behavior. The 2019, 2021, and 2022 employee travel survey conducted by Denver South shows that driving alone to work has decreased in the Corridor since 2019 (82.6 percent in 2019 and 71.7 percent in 2022). This is largely due to the post-pandemic work from home trend that is particularly prevalent based on the high number of professional workers in the South I-25 Corridor. Mode share for active modes is also down, again likely due to shifting travel and working patterns. Transit ridership continues to be down in the South I-25 Corridor, but this is true across the entire RTD transit network and nationally as well. Overall, as congestion levels are back to pre-pandemic levels, alternative mode options are expanding, and Corridor housing increases, there continues to be an opportunity to increase the use of alternative modes for commuting to Corridor jobs.
- **Better connecting transit to the Corridor** – The successful opening of the Southeast Light Rail Extension in 2019 expanded access to rail transit in the southernmost part of the South I-25 Corridor and added three new light rail stations: Sky Ridge, Lone Tree City Center, and RidgeGate Parkway. The COVID-19 pandemic, accompanied by RTD's operator shortage and limited funding, has not allowed for expansion of fixed-route bus service in the Corridor. However, RTD transitioned its Call-n-Ride service to the FlexRide service, and the City of Lone Tree's Link on Demand continues to evolve and grow as a successful demonstration of microtransit service. Denver South was an active partner on a number of transit and transportation planning projects throughout the Corridor that continue to promote transit, active modes, and increased access and connectivity.
- **Increasing east-west connectivity and capacity** – Several transportation studies were undertaken since the 2016 Corridor Study that focus on capacity improvements and east-west connectivity, including the Dry Creek Road/I-25 Operations Study, Belleview Corridor Multimodal Transportation Plan as well as several current efforts including the I-25 & Belleview Avenue Interchange Improvement Study, County Line Operational Improvements, and Advancing Lincoln Avenue. Denver South continues to serve as an active partner in general transportation planning and capital improvement projects throughout the Corridor to advocate for transportation infrastructure to support projected population and employment growth. I-25 capacity projects were also advanced, including ramp metering to optimize operations, CDOT's incident management program, and expanded ITS programs.

- **Increasing connectivity for active modes** – DRCOG completed the Active Transportation Plan and Arapahoe County developed its first ever Bicycle/Pedestrian Master Plan, both of which identify gaps, needs, and improvement opportunities. This includes connections of the on-street and off-street (shared use paths and regional trails). Additionally, as a follow up effort to the 2016 Study, Denver South advanced the North-South Regional Bicycle Corridors Study, which resulted in refined bicycle corridors on the east and west sides of I-25 as well as cost estimates. Several segments of the bike corridor have advanced, including new signing and striping in Centennial and completion of final design by Arapahoe County for on-street bicycle facilities on Inverness Drive West.

3. Increase Mobility within the Corridor

The third goal in the 2016 Study was increasing mobility within the Corridor, with an emphasis on 1) improving bike and pedestrian mobility, 2) enhancing internal transit mobility, and 3) becoming a leader in TDM programming.

- **Improving bike and pedestrian mobility** – There continues to be an opportunity to consider east-west bicycle connections in the South I-25 Corridor. Recommendations from the 2016 Study suggested evaluating the feasibility of connections at ½-mile locations between major arterials including Berry, Costilla/Easter, and Sky Ridge. The Lone Tree Mobility Hub envisions a bicycle and pedestrian bridge over I-25 to connect the Sky Ridge area to the future Lone Tree City Center. Denver South should also consider the integration of additional east-west crossings in relation to the North-South Regional Bicycle Corridors Study recommendations and Arapahoe County Bicycle/Pedestrian Master Plan.
- **Enhancing internal transit mobility** – The Denver South TMA actively participated in RTD's Regional BRT Feasibility Study as well as Reimagine RTD. A key outcome of Reimagine RTD was the creation of a local agency grants program; Denver South applied for funding from this program to enhance the delivery of microtransit in the South I-25 Corridor, a key recommendation in the 2016 Study. This builds on the work of the City of Lone Tree and the implementation and evolution of the Link on Demand transit program. Mobility hubs were also an important strategy in the 2016 Study. Many of the Transportation Master Plans completed by local jurisdictions identify locations for mobility hubs and Lone Tree, in partnership with CDOT, is advancing the Lone Tree Mobility Hub. The Corridor continues to be ripe for advancing mobility hubs and proactively expanding and integrating micromobility, car share programs, wayfinding and traveler information, and supporting infrastructure to improve access and connectivity across modes.
- **Becoming a leader in TDM programming** – The Denver South TMA continues to evolve in its creation and deployment of TDM programs in the South I-25 Corridor. COVID-19, while extremely challenging, resulted in an acceleration in the rate of adoption of remote work, which in turn has resulted in new work patterns as employees adopt more flexible work schedules. Denver South played a significant role in educating employers and employees about remote work solutions and subsequently alternative modes of transportation to support commuters.

There continues to be opportunity for policy changes and development requirements that integrate TDM strategies such as parking maximums, inclusion of micromobility, and ensuring adequate bicycle and pedestrian infrastructure access to transit, mobility hubs, and other key destinations in the Corridor.

2024 Goals and Strategies

The three high level goals are still relevant today and consistent with the recommended direction for the Corridor. However, the major shifts in working schedules, travel patterns, and economic conditions over the last 10 years documented in this report provide direction for a refinement of these strategies and more nuanced approach to addressing emerging opportunities and challenges.

Land Use Diversification Strategies

OVERALL DEVELOPMENT STRATEGIES

Denver South remains an important business location and employment is forecast to continue to grow and diversify over the next 20 years. However, the land use pattern should continue to evolve in order to address emerging trends including the emergence of remote work and hybrid work schedules; employers seeking higher quality and more efficient use of space; and an even greater premium on locations with access to a mixture of uses and amenities to support and attract workforce. The following real estate development strategies may be considered.

1. Support investments that increase the attractiveness of employment areas.

The most desirable office locations will be ones that are 1) close to highway interchanges and transit stations due to their superior access, and 2) areas that provide a diversity of uses and amenities that are desirable to the workforce. Encouraging the development of locations that have these attributes will allow the Corridor to remain competitive as an office employment location.

- Leverage transportation funding sources to enhance multimodal connections to areas that can become high-density, mixed-use development nodes in the Corridor.
- Broaden the purview of Vision 2035 funding to include more quality of life and recreation projects—such as parks, trails, and open spaces—that increase the attractiveness of the area and are more supportive of a mixture of uses including housing.

2. Support efforts to facilitate reinvestment and redevelopment of older, underutilized areas and buildings.

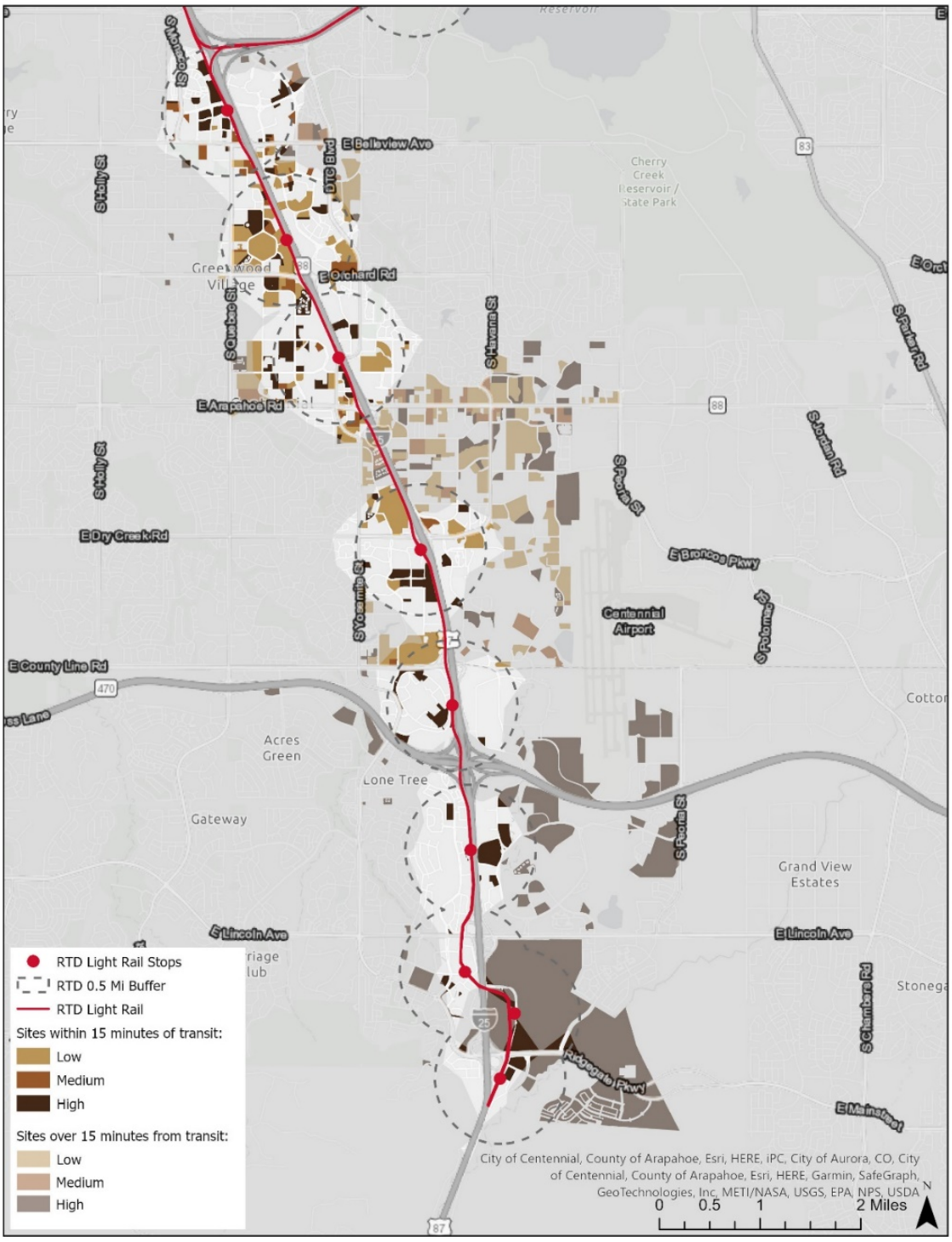
There is an anticipated reduction in the demand for office space relative to employment growth (an estimated 20 percent over the 2022-2042 timeframe) meaning that office building space demand will be less than perhaps previous expected, and create a premium on the most desirable locations. As a result, developers of projects in less premium locations may look to other land uses to build out their projects. Also, in some older areas, the existing building stock—including office buildings, retail centers, and lower-density multifamily complexes—may be outmoded or undesirable for future users.

Fortunately, real estate pressures for more walkable retail, housing options, and destination uses are consistent with employees' desires for a more diverse and vibrant live-work environment. Supporting reinvestment and redevelopment will reduce the potential for these areas to become blighted.

- Support redevelopment of opportunity sites identified in the Economic Opportunity Score Analysis, much of which is expected to develop to higher density housing.
- Seek the attraction of additional retail, hospitality, and entertainment uses to improve the attractiveness of the Corridor to both residents and visitors.
- Identify ways to support reinvestment and/or redevelopment of older, less desirable buildings including more flexible zoning and development regulations to allow for nontraditional office and employment uses in traditional office locations.
- Invest in infrastructure improvements that facilitate new uses (including ancillary retail, housing, and parks and trails) being developed in historically traditional single-use office parks.

Based on the Economic Opportunity Score Analysis, **Figure 61** provides high-level direction for the areas that could be the areas of focus for new development and/or investment in infrastructure and services. The map shows sites that have potential development or redevelopment opportunities ranked from low to high (shown in brown shades). These sites may be the most likely to capture new development over the next 10 to 20 years. Overlaid on these sites are areas that are within or outside of a 15-minute transit commute shed, shown in white. Areas outside of the 15-minute access shed are shaded in light gray, while areas within the shed are not shaded. Development sites outside of the transit shed represent areas where expansion of mobility options and access can improve the quantity of more desirable development opportunity sites.

Figure 61. South I-25 Corridor Land Use Strategy Diagram



3. Support growth of manufacturing, research and development, and other value add industrial uses in areas not attractive for office uses in the Corridor and in the Dove Valley subarea.

Industrial development has been occurring at an increasing rate in the Dove Valley subarea as the area is well suited for distribution uses. The area is also attractive for manufacturing and research and development uses, especially given the superior transportation access, workforce shed, and proximity to office uses. Industrial developments that can attract new and expanding businesses to the Corridor and Dove Valley subarea should be a focus of efforts, especially when tied to the Corridor's target industries.

- Support reinvestment and evolution of existing light industrial areas along the Corridor that are not desirable locations for office and mixed-use development.
- Encourage hybrid office and light industrial developments in areas near Centennial Airport including Inverness, Meridian, and the Dove Valley subarea.

NEW USE/USER ATTRACTION

The Corridor is successfully growing across a broad segment of industry types and the current economic development focus has been successful in diversifying the employment mix. The above analysis of employment and real estate growth opportunities suggests a few specific uses can be added to the existing business recruitment and retention strategy.

4. Continue efforts to grow the Corridor's target industries.

Denver South has six target industry clusters that are inclusive of a significant portion of employment in the Corridor with 87,500 jobs, which comprise 57 percent of total Corridor jobs and an even higher percentage of office-based jobs. In terms of growth, Aviation and Aerospace and Broadband and Digital have been the fastest growing industries in percentage terms since 2015. In terms of total job change, Broadband has added the most jobs followed by Financial Services, IT Software, and Healthcare.

- Continue to focus on targeted industries as part of business recruitment and retention strategies, in particular, Aviation and Aerospace and Healthcare and Life Sciences, as these industries often have research and development opportunities and demand for related support businesses.
- Explore opportunities to attract Department of Defense related research and development given the growing emergence of Aviation and Aerospace activities in the Corridor. Capturing government facilities or private employers with a diversity of building and space needs will require a mixture of development sites.
- Work with developers and landowners to ensure that the Corridor has a diversity of development sites and areas that can fit a wide variety of needs from prospective employers and institutions.
- Continue collaborative work with statewide and regional partners, including Arapahoe Douglas Works! Workforce Center, Cherry Creek School District, Douglas County School District, and Littleton Public Schools, to support workforce and career pathway development to ensure a pipeline of talent exists within targeted industries.

5. Recruit destination businesses that attract visitors from outside the Corridor.

Regional retail, leisure and hospitality, and entertainment attractions are the types of destination uses that can serve area residents but also attract visitors and tourists from outside the Corridor. Park Meadows is the largest existing destination attraction in the Corridor; the 1.5 million square foot regional shopping center draws shoppers from a wide region and has also attracted more than double the amount of related retail store space in the surrounding area.

Other entertainment or institutional anchors that can attract a wider customer base as well as additional businesses that can further diversify the employment inventory may be considered as part of regional recruitment initiatives.

- The proposed Star Harbor Academy is an example of this type of destination attraction. It is both an educational and visitor-oriented center, as well as related to the growing Aerospace cluster, and would be an anchor for the RidgeGate East Town Center, potentially attracting additional commercial and lodging businesses. Continued support for the attraction of this use and similar uses that can catalyze the Town Center project is needed.
- Given the diversity of destinations attracting visitors to the Corridor (e.g., Fiddler's Green, Park Meadows Shopping Resort, SkyRidge Hospital, etc.) there is potential to increase the number of hotels in the Corridor and to add luxury and destination hotels to the existing hotel stock that is largely oriented to business travelers.
- Consider attracting additional destination recreation and entertainment businesses (e.g., Top Golf, Punch Bowl Social) that increase the visitation to the Corridor and work to ensure there are suitable locations for these types of uses to locate.
- The Corridor may focus on attracting major new to market retailers (e.g., IKEA) to build upon and expand the draw of the Park Meadows destination. Continue to build on and promote the brand of Park Meadows in the Corridor and region.
- Encourage continued attraction of community serving retail and service businesses to serve the needs of area residents and daytime populations, including grocery, childcare services, and restaurants.

Housing Development Strategies

Housing development is expected to continue to be a significant element of the future growth of the Corridor, contributing to its diversification and attractiveness as a place to work, as well as providing real estate development opportunities for area landowners and developers. The analysis of housing needs in the Corridor and the larger commute sheds lead to recommendation of the following housing development strategies.

1. Support housing development in the Corridor.

Denver South and regional stakeholders may consider continued support for the development of a variety of housing options within the Corridor. The purpose of the housing to jobs ratio is to achieve a greater balance of land uses, giving a portion of the workforce opportunities to live close to work and reduce commuting. The 2016 strategy was to increase the amount of housing in the Corridor to two housing units per 10 jobs by 2035. Based on the 2023 housing forecast, the Corridor has the potential to add over 19,000 housing units by 2042. This forecast in additional housing would result in increasing the of 1.44 units per 10 jobs to 1.92 units per 10 jobs by 2042—nearly reaching previous 20-year goal.

- To implement this goal, municipalities, counties, and developers/ landowners may consider formation of collaborations that continue to integrate housing development into existing office/business parks and underperforming retail areas.
- Denver South may also consider the expanded eligibility of TMA resources for parks, trails, recreation, and open space investments tied to mobility efforts to support residents and aid in transition of office parks into mixed use places.

2. Support the development of more for-sale housing in the Corridor.

Denver South has developed only 224 for-sale units of multifamily housing since 2010, which is 3 percent of total construction, and the units built have been primarily higher priced luxury housing. Historically, for-sale townhouses and condominiums priced below single-family detached housing have been an important component of the entry level housing market, which in today's prices are below $700,000. However, since construction defects litigation became a market issue in the early 2000s, and in spite of some legislative remedies put in place, the multifamily for sale market has not returned to former levels.

The 20-year forecast goal is for 15 percent of the housing built along the Corridor to be for-sale attached or multifamily units. This would require Corridor jurisdictions in increase its production from 3 percent of total housing units over the last decade to half of the 30 percent share achieved from 2001 to 2010. To achieve this goal, regional stakeholders and the development community should support current efforts at the state legislature to further reduce the barriers to condominium development.

- Continue to work with the building and development community to address remaining impediments to the construction of for-sale multifamily housing.
- Consider financial incentives specifically for the development of multifamily townhouses, condos and other denser housing products.

3. Ensure access to housing for full spectrum of workers in the Corridor.

There is currently a need for additional housing that is affordable for low-wage workers in the Corridor. Currently, jobs in low wage industries represent 14 percent of jobs but only 5 percent of the housing stock is affordable to an average worker. Given current land values and housing prices, it may be difficult for housing projects to support rents or sale prices affordable to low wage workers. Expanding housing development and encouraging local communities to provide for higher density housing, may help to mitigate the growth of rental rates; however, financial support tools may also be considered to help finance projects aimed at low wage workers including use of federal low-income housing tax credits and state funding provided through State Proposition 123 and other emerging funding and support tools.

- At the local level, cities and counties may consider modifying land use codes to allow for a greater diversity of housing products and higher densities.
- When feasible, encourage local communities to continue identifying opportunities to for affordable housing for low wage workers within the Corridor.

Transportation Strategies

Given the continued challenge of congestion levels returning to pre-pandemic levels, and traffic levels forecasted to increase through the planning horizon of 2050, the Corridor is ripe for continued investment in transportation infrastructure projects and alternative mobility solutions. In combination with continued employment growth, development and redevelopment, and expanded housing options, Denver South has an opportunity to build on its rich history of partnership and collaboration to align mobility, land use, and economic development in the region. The following strategies synthesize planning and existing projects and programs and identify new creative initiatives developed by the project team, Denver South, and its jurisdictional partners. These strategies provide areas for the Denver South region to focus on in the coming years to strategically advance regional mobility and land use integration goals.

1. Continue efforts to advance roadway, safety, and operations projects along the Corridor.

INTERCHANGE IMPROVEMENT PROJECTS

- Support finalization of *I-25 Belleview Avenue Interchange Improvement Study* and advance recommendations.
- Participate in *Advancing Lincoln Avenue Study* and support advancement of recommendations.
- Develop internal capacity to contribute to future CDOT 1601 interchange approval processes by providing TDM planning and implementation support.

INTELLIGENT TRANSPORTATION SYSTEMS

- Consider integration of Corridor-wide camera and detection systems to enable coordinated operational view of Corridor conditions. Potential arterials for consideration deployment and/or system expansion consideration could include Arapahoe Rd, Belleview Ave, Lincoln Ave, and the Yosemite St Corridor.
- Continue to assist jurisdictions with interjurisdictional opportunities for multiagency signal/timing/systems coordination (as requested by partner agencies.)
- Determine next steps for state and regional initiatives such as the Smart I-25 ramp metering program and potential impacts on the South I-25 Corridor.

PARKING INVENTORY AND ANALYSIS

- Complete Corridor-wide parking inventory and study to optimize land use and mobility integration. Based on daytime and nighttime populations, it is estimated there may be greater than 300,000 parking spaces throughout the Corridor. Understanding and evaluating the potential for repurposing or redeveloping even a portion of this real estate could hold significant implications as the Corridor continues to develop and redevelop.

2. Support access and connectivity through first and final mile options along the Corridor.

BICYCLE CONNECTIVITY

- Monitor progress of completion of North-South Regional Bicycle Corridors and support interjurisdictional cooperation as needed.
- Coordinate with regional partners to apply for funding to complete the buildout of the North-South Regional Bicycle Corridors.
- Coordinate with jurisdictions and partner agencies to develop a bicycle plan that identifies safe and comfortable routes and facilities to connect the region to parks and recreation amenities.
- Coordinate with jurisdictions and partner agencies to improve bicycle accommodations at existing or new I-25 crossings.
- Coordinate with jurisdictions and partner agencies to identify street configuration opportunities to incorporate improved on-street and off-street bicycle facilities.

MICROMOBILITY

- Coordinate with SPIN to understand growth and expansion opportunities for the service beyond Meridian (e.g., expansion into Inverness).
- Identify opportunities and partnership for micromobility users to “own” UL-Certified vehicles. This could include leasing opportunities, financial incentives, and employer supported programs.
- Determine viability of a funding partnership that leverages the Colorado eBike rebate for low-income employees to provide access to high-quality, UL-certified e-bikes.

CONNECTIVITY

- Partner with developers/jurisdictions for new and infill development; advocate for bicycle and pedestrian infrastructure improvements to improve access and connectivity to light rail, bus stops, and mobility hubs.
- Use transit isochrone travel data in coordination with development to identify areas of opportunity for bicycle and pedestrian infrastructure improvements to improve connectivity to transit.

SIGNAGE AND WAYFINDING

- Partner with local agencies to create a comprehensive signage and wayfinding program to improve multimodal access and connectivity and to enhance the Denver South brand.

MULTIMODAL PLANNING SUPPORT

- Based on input, coordination, and agreement with the Denver South Technical Committee, Denver South Board of Directors, and other local and regional jurisdictional stakeholders, work to develop cross-jurisdictional strategies to allow users to seamlessly connect between different modes. Presented as a set of recommendations for consideration by the individual jurisdictions, these standards could assist Denver South's partners with their respective planning processes to consider cross-jurisdictional impacts, potential externalities, and regional consensus building efforts.
- In addition to continued focus on North/South connectivity, work with partners within and outside the Corridor to identify opportunities for better East/West roadway and alternative mode connectivity.

3. Expand transit options and increase attractiveness of transit to expand mobility options to travel to, from, and within Denver South.

TRANSIT

- Facilitate coordination and planning of Link on Demand microtransit service expansion throughout the Denver South Corridor in partnership with RTD and local agencies.
- Leverage RTD's local agency grant program to expand transit service in the Denver South region.
- Continue partnering with RTD and create a Denver South safety and security committee to identify opportunities for improved comfort for passengers traveling via transit and at bus and rail stations in the Corridor.
- Continue to participate in RTD planning efforts to advocate for transit service improvements in the Denver South region particularly related to the System Optimization Plan and potential BRT Corridors (i.e., Arapahoe Road and Lincoln Avenue).

- Work with RTD to leverage transit infrastructure investment at bus and light rail stations to enhance first and final mile connectivity to transit.
- Coordinate with RTD and CDOT on the Connected Colorado initiative to advance and integrate mobility applications that are streamlined, easy to use, and integrate different transit services and other mobility solutions.

TRANSIT AND MICROTRANSIT PLANNING SUPPORT

- Participate in Arapahoe County Transit and Micromobility Study development; advocate for improvements and integration of modes in I-25 Corridor to support land use and transportation goals.
- Participate in Douglas County Integrated Transit and Multimodal Feasibility Study development; advocate for improvements and integration of modes in I-25 Corridor to support land use and transportation goals.
- Participate in the City of Lone Tree's update to the Walk & Wheel Study to expand access and connectivity of the transportation system via active modes.

MOBILITY HUBS AND MULTIMODAL INFRASTRUCTURE PLACEMAKING

- Participate in the planning and design of the SkyRidge Mobility Hub in Lone Tree; support coordination of Bustang service provision with CDOT. Consider partnering with CDOT, City of Lone Tree, Douglas County, and other stakeholders to identify potential design criteria (e.g., public art, sculpture, light art, branding, and additional placemaking enhancements) for the mobility hub and accompanying pedestrian bridge.
- Create a comprehensive approach for mobility hubs in the South I-25 Corridor; integrate plans from jurisdictional Transportation Master Plans and develop Corridor-wide typology framework. Implement mobility hub framework in partnership with local and regional agencies.
- Likewise, create a comprehensive set of design criteria for future expansion of public art, sculpture, light art, branding, and additional placemaking enhancements for Corridor pedestrian bridges, crossings, and other potentially high visibility/impactful right-of-way opportunities.

4. Continue to promote alternative modes of transportation through growth and expansion of Denver South's TDM program.

ALTERNATIVE TRANSPORTATION OPTIONS TAX CREDIT

- Develop and implement a strategic outreach plan to inform businesses about the Alternative Transportation Options Tax Credit opportunity.

MOBILITY-AS-A-BENEFIT PROGRAM

- Advance implementation of MaaB program with Fleet and monitor progress.

SPECIAL EVENTS TRANSIT TICKETING

- Work with RTD and local sports teams, arenas, concert venues, forums, theaters, and other cultural and institutional anchors to develop an integrated transit ticketing feature with purchase of event tickets. Examples throughout the country such as Seattle's Climate Pledge Arena could provide models for implementation.

EMPLOYER AND EMPLOYEE OUTREACH

- Continue the expansion of RTD EcoPass program to allow wider access and adoption by Corridor employers and employees.
- Continue to promote traditional TDM options such as vanpooling, carpooling, and school pooling.
- Partner with successful existing and expanding programs, such as the Lone Tree Link on Demand and the Spin Meridian Micromobility program, to support employer/employee outreach.

5. Monitor and advance new and emerging mobility strategies and trends along the Corridor.

ZERO EMISSION VEHICLE TRANSITION

- Coordinate with local agencies and energy providers to develop and advance Corridor-wide public charging infrastructure.
- Work with local agencies to determine opportunities for advancing fleet transitions for cities and counties.
- Support agencies with identifying and applying for clean fuel funding (e.g., Community Access Enterprise, Clean Fleet Enterprise, Clean Transit Enterprise).

EMERGING TECHNOLOGIES

- Identify potential partnerships with autonomous and connected vehicle companies to pilot and test new technologies; promote Denver South as an Innovation Hub for mobility solutions.

Appendix A
Relevant Plan Summary Plans

Economic &
Planning Systems, Inc.

FELSBURG
HOLT &
ULLEVIG

Appendix A. Relevant Plan Summary Plans

Numerous plans involving mobility completed since the last DSTMA Urban Corridor Study, most of which have been completed within the last five years. This section contains detailed summaries of each plan with key graphics from the plans and lists the priority projects of each plan.

County and Municipal Plans

Local and regional transportation plans provide specific insight on future goals and recommended improvements to implement at the jurisdictional level. These plans usually provide guidance by focusing on key projects to complete in the short-term and identifying longer-term goals. Since local agencies and municipalities cover very specific areas in Denver South, there may be overlapping projects and agencies will need to work together to accomplish transportation goals, especially for larger projects and corridors that cross jurisdictional boundaries.

Arapahoe County Transportation Master Plan (2021)

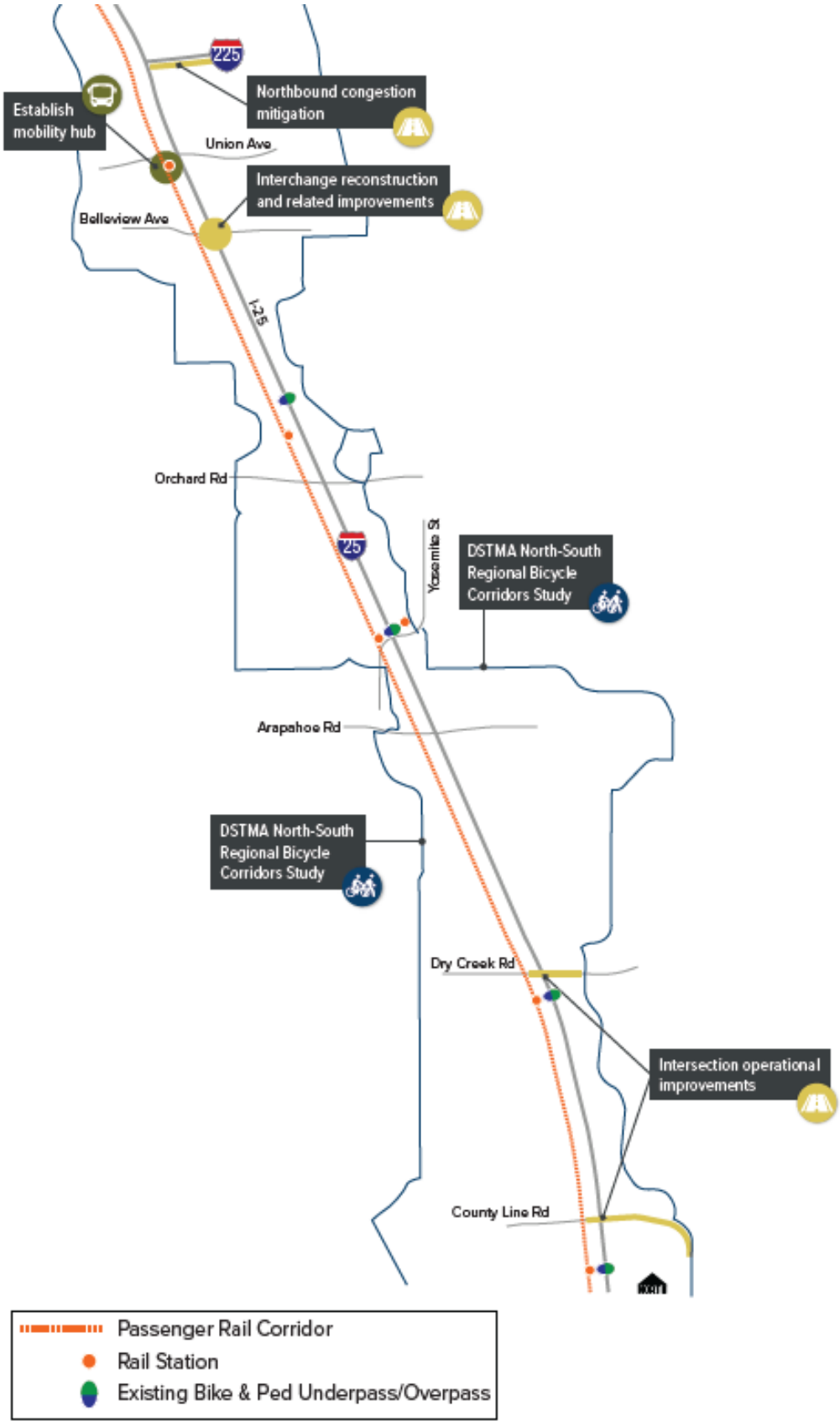
The purpose of the 2040 Transportation Master Plan (TMP), adopted by the Board of County Commissioners on December 14, 2021, is to provide a long-range transportation vision for Arapahoe County. The TMP serves as a guiding document for the improvements to roadways and multimodal transportation networks in the entire County. The TMP has specific recommended improvements by key corridors, an overall roadway plan, bicycle and pedestrian plan, transit plan, and subarea plans, in addition to considering emerging technologies and future trends and implementation recommendations to meet plan goals.

The TMP focused on 24 key transportation corridors serving the County and municipalities. Following are summaries of assessments and recommendations for the I-25 corridor and east-west corridors that cross the I-25 corridor.

I-25 Corridor

The I-25 corridor through Arapahoe County is one of the busiest travel corridors in Colorado, with operation of the freeway and the light rail line under the jurisdiction of the Colorado Department of Transportation (CDOT) and Regional Transportation District (RTD), respectively. Arapahoe County, Greenwood Village, Centennial, and the Denver South TMA coordinate efforts with CDOT, RTD, Denver, and Douglas County to plan mobility enhancements in the corridor such as interchange improvements; parallel trails, bike and pedestrian crossings; and multimodal first and last mile solutions for the light rail stations. CDOT is testing adaptive traffic signals between Holly Street and I-25 for potential permanent implementation. CDOT plans to study northbound I-225 improvements between I-25 and Yosemite Street to follow recent improvements on southbound I-225. The Metro Vision Regional Transportation Plan and the County and Greenwood Village Capital Improvement Program (CIP) plans include funding to implement study recommendations. Arapahoe County is implementing operational improvements at intersections along Inverness Parkway, Dry Creek Road, and County Line Road. RTD is conducting a pilot with Flex Rides in the area south of Belleview Station on the east side of I-25 offered mid-day. The plan states a goal to establish a mobility hub at the Belleview Station. A map of corridor improvements is shown on **Figure 1**.

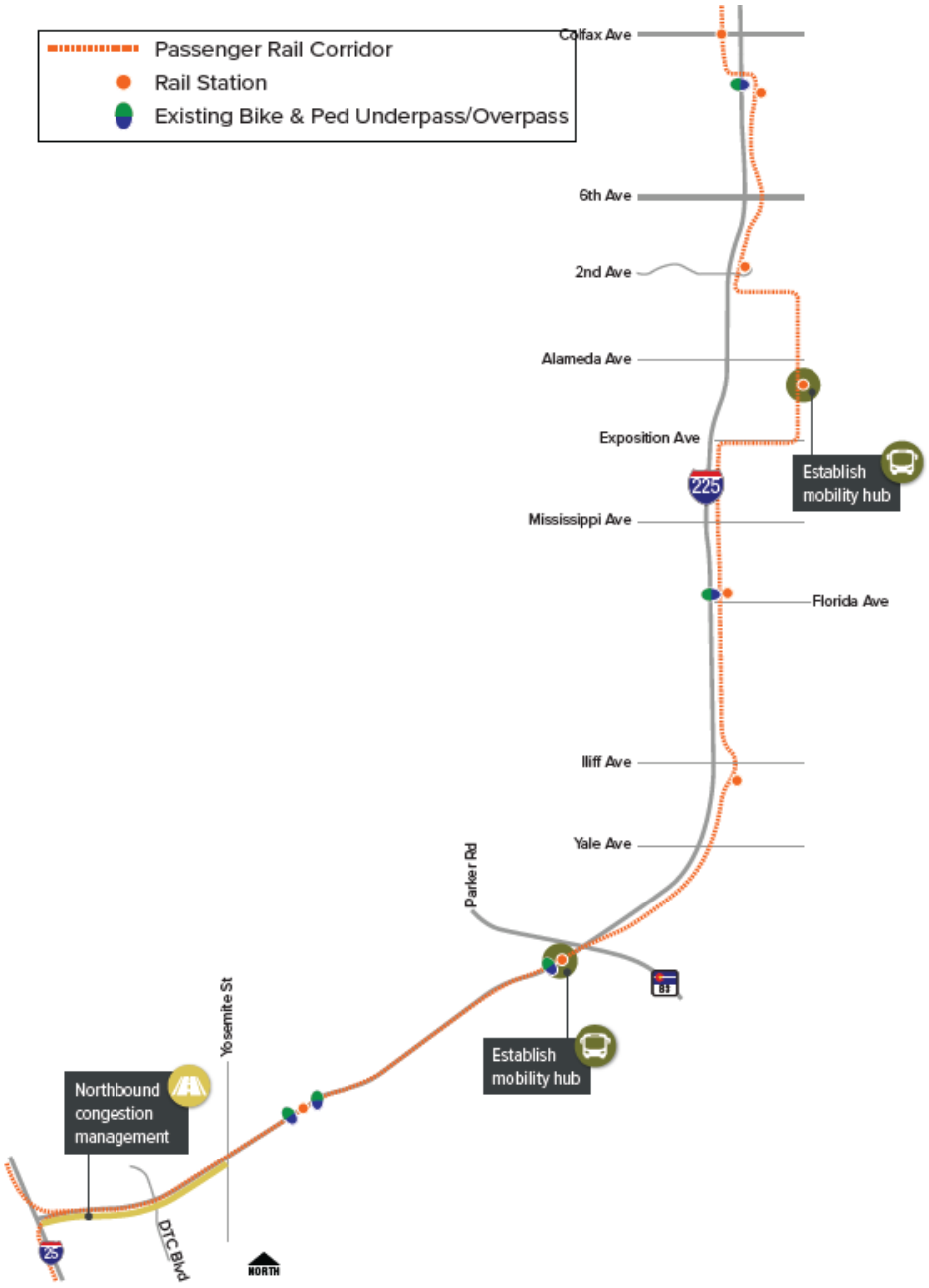
Figure 1: I-25 Corridor Improvements



I-225 Corridor

The I-225 highway and light rail corridor is the busiest travel corridor in the Denver metro area that does not connect to central Denver. It provides vital connections to major regional destinations such as Denver International Airport, Anschutz and Sky Ridge medical centers, and Denver Technological Center. Since much of the highway corridor has reached capacity and has adjacent right-of-way constraints precluding future widening, the light rail corridor will need to absorb much of the anticipated growth in corridor travel demand. Aurora's Comprehensive Plan identified establishment of a TMA along the R Line corridor. Aurora will coordinate with RTD on R and H Line light rail service planning, including restoration of service hours and frequency that existed before 2020. A map of the improvements in the corridor is shown on **Figure 2**.

Figure 2: I-225 Corridor Improvements



Arapahoe Road Corridor

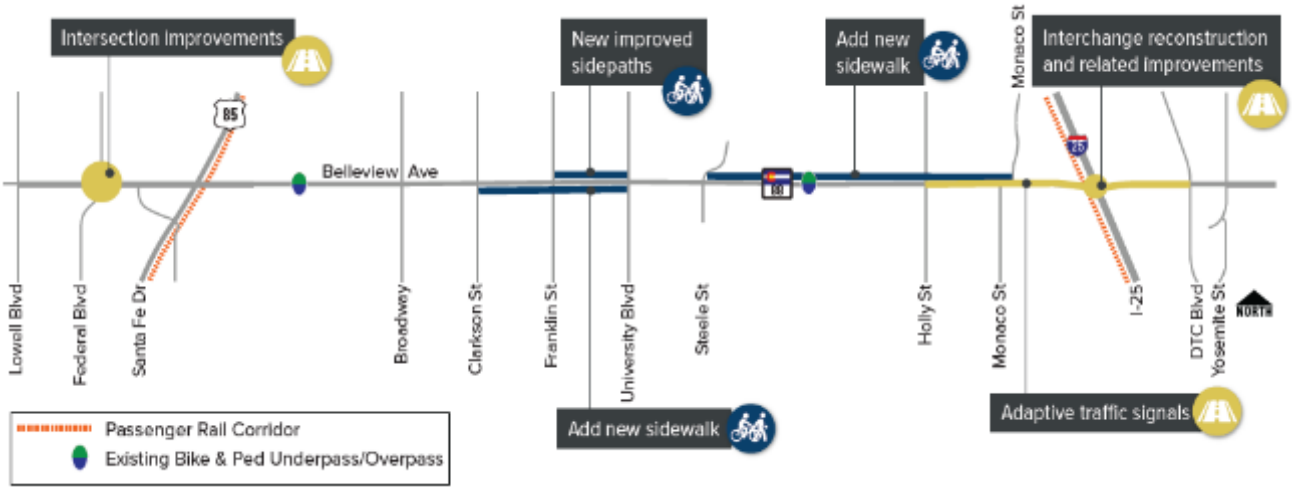
Arapahoe Road will continue to serve as the preeminent east-west travel corridor in the southern part of Arapahoe County. The plan calls for long-range bus rapid transit (BRT) enhancements throughout the corridor. The CO 88 section between I-25 and Parker Road in the middle of the corridor will need continued roadway, intersection, traffic operational and potential grade-separated interchange improvements to safely handle the high travel demand in this expressway section. Quality sidewalks and crossing treatments for pedestrians and bicyclists are important to serve this vital Centennial, Greenwood Village, and Aurora commercial corridor. East-west bike movements in this section will focus on parallel corridors. A map of improvements is shown on **Figure 3**.

Figure 3: Arapahoe Road Improvements

Belleview Avenue Corridor

The Belleview Corridor is a major east-west arterial corridor, serving as CO 88 west of I-25 and providing access to the Denver Technological Center and the rapidly growing transit-oriented Belleview Station development. Recommendations include exploring Flex Ride and shared mobility options to enhance access to the Belleview LRT station and within the DTC area. A map of improvements is shown on **Figure 4**.

Figure 4: I-225: Belleview Avenue Improvements

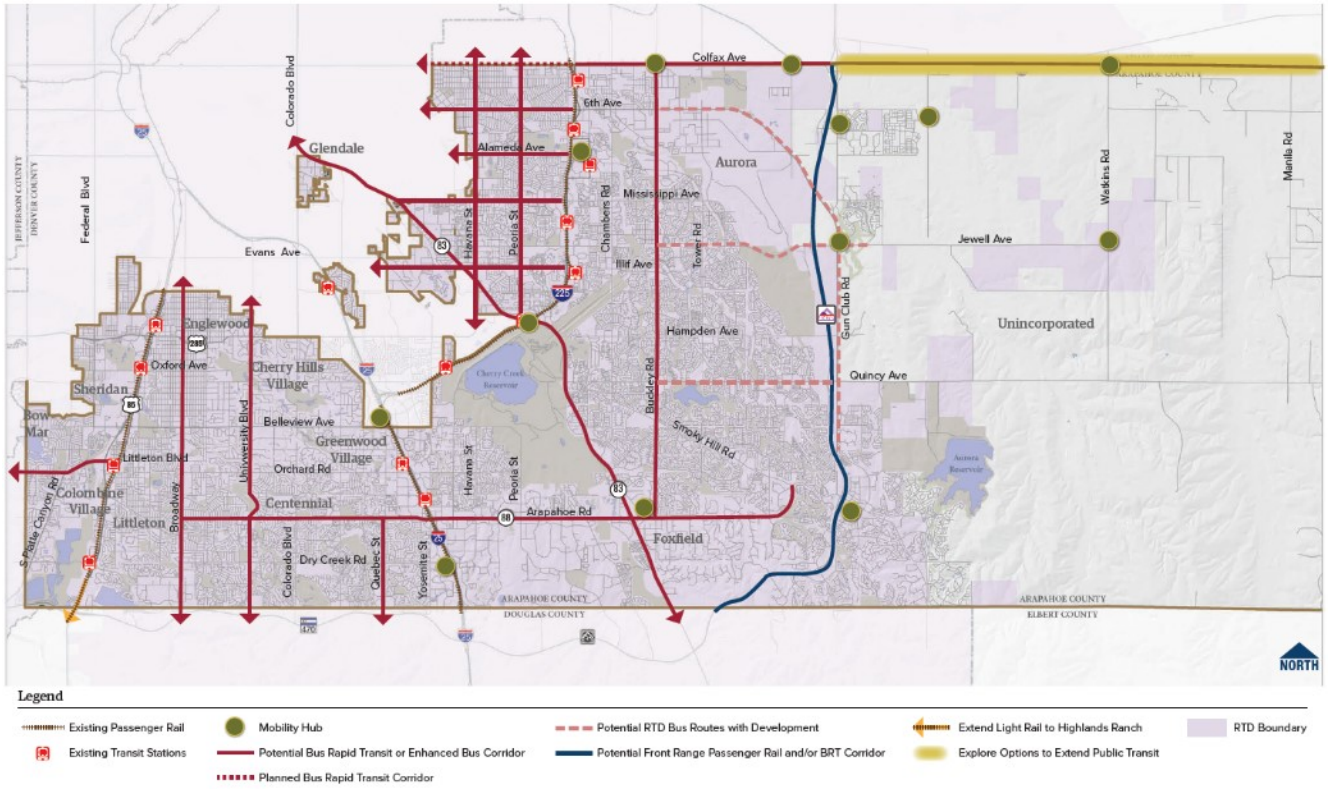


Transit Improvements and Recommendations

Arapahoe County recommendations for transit include coordination with RTD to focus on the restoration of service affected by COVID and to envision future transit initiatives and innovations. Other recommendations include participating and engaging with RTD for future adaptations to service planning based on the recent RTD Accountability Committee Recommendations Report, which recommended Service Councils to better coordinate the provision of services throughout the district. Another option is to explore future bus route expansion to provide service to areas such as the CO 30/Gun Club corridor and the eastern Jewell Avenue and Quincy Avenue corridors as they develop with transit supportive land uses and densities.

Mobility hubs are locations developed to create a seamless connection between a variety of travel modes. Mobility hubs can be established at major transit stations or other activity centers and should include placemaking and first and last mile strategies that support those centers. Aurora, Centennial, and Greenwood Village have identified Belleview Station and Dry Creek Station as prime candidates for establishment of mobility hubs; however, any of the transit stations indicated on **Figure 5** are also locations where many mobility hub elements have been or can be located. Features at mobility hubs can include excellent bike and pedestrian accessibility, ride hailing, microtransit (shuttles), ridesharing, bike sharing, and other shared micromobility.

Figure 5: Arapahoe County Mobility Hubs and Transit Corridors



The County can promote and support the development of these mobility hubs in several ways:

- Prioritize projects that improve connectivity to existing or planned mobility hubs, particularly projects with non-motorized connections
- Promote land use growth on corridors that connect to existing or planned mobility hubs
- Offer grants to the development of mobility hubs with varying funding levels depending on the mobility hub type, scale, and location

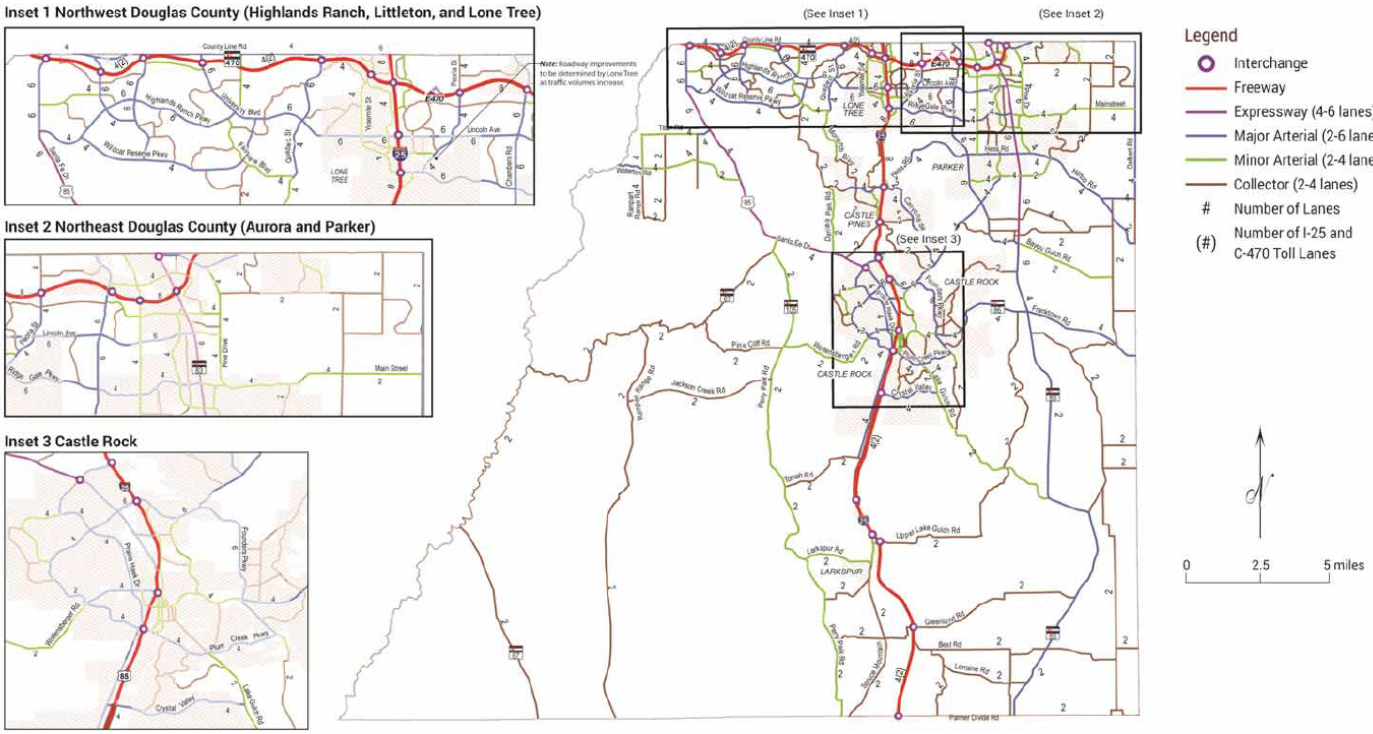
Electric vehicles (EVs) have the potential to create significant air quality benefits (when accompanied by carbon-free or low-carbon electricity generation). Barriers to EV adoption continue to include lack of public charging infrastructure, lack of product diversity and range anxiety. The plan recommends expanding EV public charging infrastructure in the area.

2040 Douglas County Transportation Master Plan (2019)

The primary purpose of the 2040 TMP is to define a long-range vision for a multimodal transportation system that offers more choices in how people travel in Douglas County. The County's goal is to keep the traveling public safe, the traveling public and goods moving, and the economy growing. The TMP implements these goals through a comprehensive evaluation of the existing status of the road network, including congestion levels and physical condition, projections for future demands, and integration of recent transportation planning efforts. The study includes an analysis of existing conditions, travel demand development, and a recommended transportation system plan with implementation.

For the Denver South area, the roadway network remains the same, with continued monitoring and evaluation for meeting travel demand standards and widening E-470 from six to eight lanes between I-25 and Parker Road by 2040. Specific bicycle and pedestrian improvements are planned. Sidewalk and trail improvements are currently being made for Chambers Road between E-470 and Lincoln Avenue and for Inverness Parkway between County Line Road and the Liberty Boulevard/Jamaica Street intersection. Two bicycle and pedestrian bridges are currently being constructed for the C-470 Trail over Yosemite Street and over the C-470 westbound on-ramp. For the 2021–2030 horizon, bicycle and pedestrian improvement are planned for Havana Street between RidgeGate Parkway and Lincoln Avenue and for Inverness Parkway between the Liberty Boulevard/Jamaica Street intersection and Lincoln Avenue. **Figure 6** shows the roadway network planned for 2040.

Figure 6: Douglas County 2040 Roadway Network



Specific transit improvements are not mentioned beyond continuing to work with agencies to expand the transit system, which could include Light Rail, BRT, Bustang Interregional Express Bus Service, connector systems between communities, as well as local circulating routes.

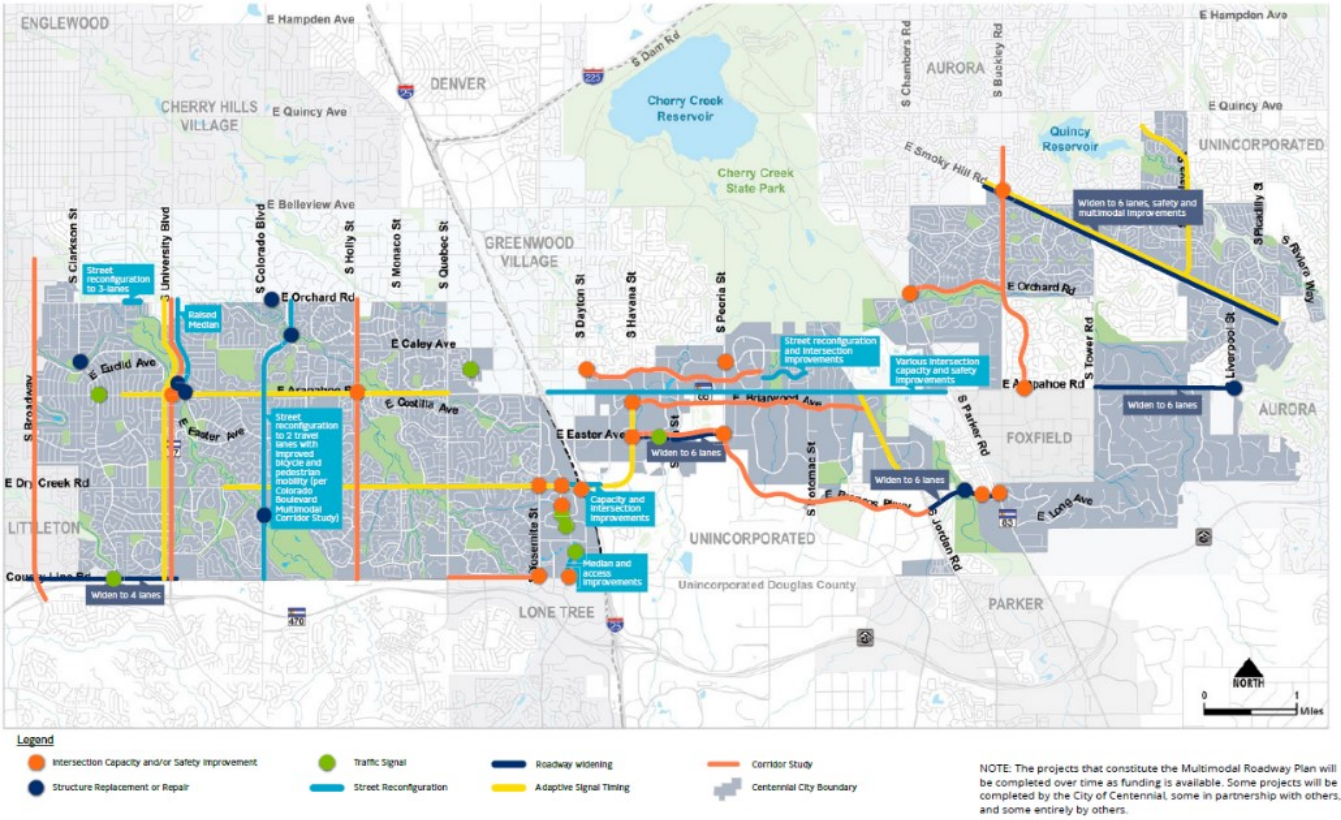
Douglas County plans to roll out a system on certain corridors to begin improving signal information to vehicles and implement advanced features to the signal system, such as adaptive signal control and enhanced signal performance measure features.

Centennial Transportation Master Plan (2022)

The Centennial TMP sets a vision for what transportation should look like in the years to come and guides the City's investments over the next 20 years. The TMP aids City staff and elected officials to make informed decisions about future transportation for the city. It also provides guidance on advancing regional improvements that require partnerships and federal funding and informs the City's Capital Improvement Program.

The roadway plan calls for adaptive signal timing along Dry Creek Road and Havana Street to Arapahoe Road, including intersection capacity and safety improvements at intersections on Dry Creek Road at I-25 and just west of I-25 and on Havana Street at Easter Avenue and Briarwood Avenue. **Figure 7** shows a map of multimodal transportation improvements.

Figure 7: Centennial Multimodal Improvements



The bicycle plan identifies an on-street bike network that connects to the trail network and provides safer and low-stress bicycle commuting and recreational opportunities. This plan depicts a comprehensive system of off-street and on-street facilities to safely connect neighborhoods and destinations and encourage bicycle travel. Specific items in the bicycle plan include completing the Centennial Link Trail, the addition of bike lanes and buffered bike lanes, and a multimodal corridor study for Yosemite Street between Arapahoe Road and County Line Road.

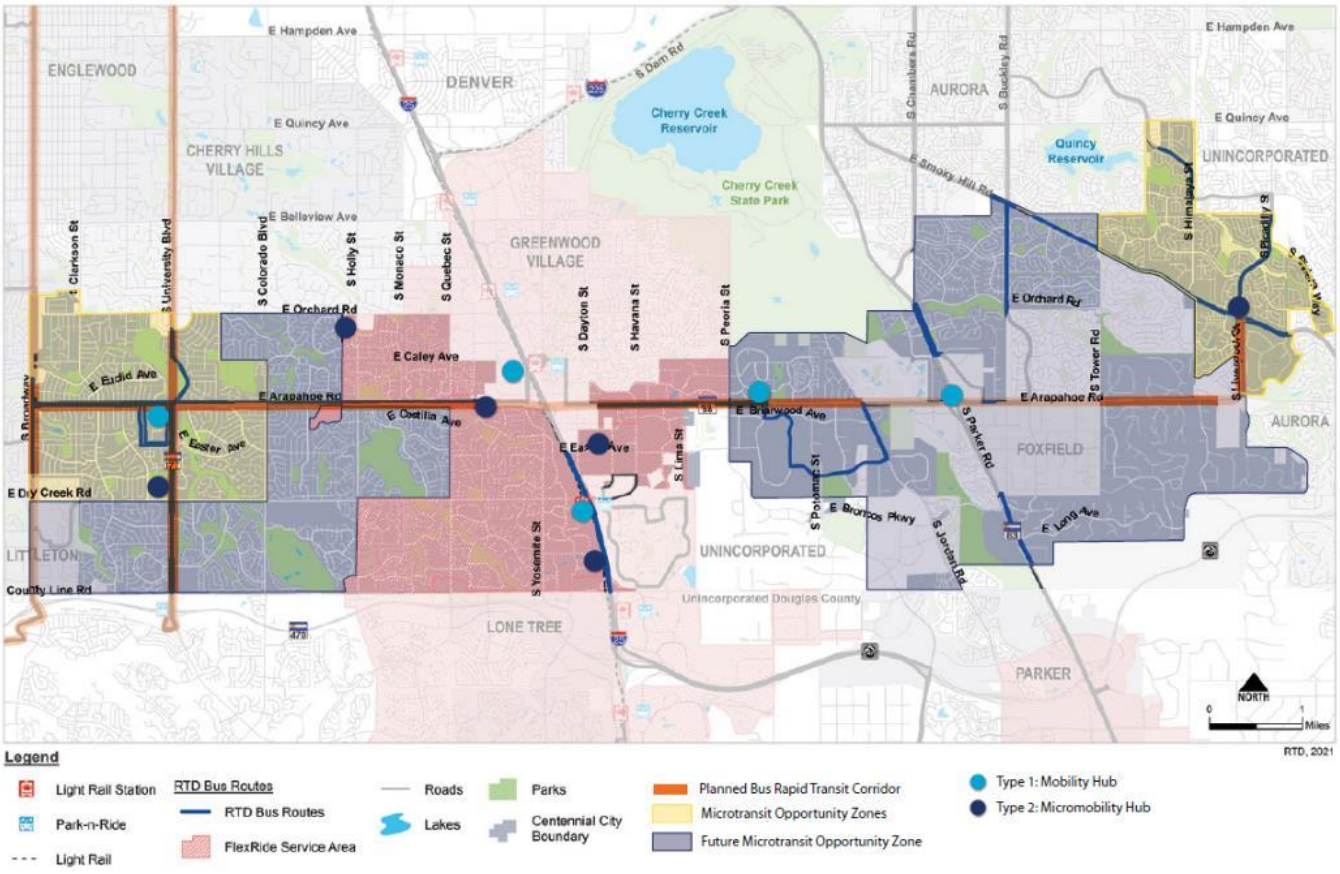
The pedestrian plan supports redundancy in the sidewalk and trail network to maximize safety, connect to adjacent land uses, and provide people of all abilities with a choice in travel mode, as well as pleasant environments for recreation. In the Denver South study area, the pedestrian plan is focused on neighborhood sidewalk gap projects and proposed bicycle/pedestrian underpass/overpass projects. These improvements are shown on **Figure 8**.

Figure 8: Centennial Bicycle and Pedestrian Planned Improvements

Key transit recommendations include taking a lead role in conducting a BRT corridor study for Arapahoe Road in collaboration with other agencies and partnering with the Denver South TMA to conduct a comprehensive transit needs assessment for the Denver South area to inform priorities and key corridors for service prioritization. A map of transit and mobility hubs is shown on **Figure 9**.

Mobility hubs are planned for the Arapahoe at Village Center Station, Dry Creek Station, Easter Avenue and Dayton Street, Arapahoe Road and Syracuse Way, and Dayton Street and Otero Avenue. Mobility hubs are community focal points that seamlessly integrate various transportation modes, provide supportive multimodal infrastructure, and serve as a placemaking strategy to activate activity centers. Mobility hubs can vary in size, programming, and design to respond to the context and function of each location.

Figure 9: Centennial Planned Transit and Mobility Hubs

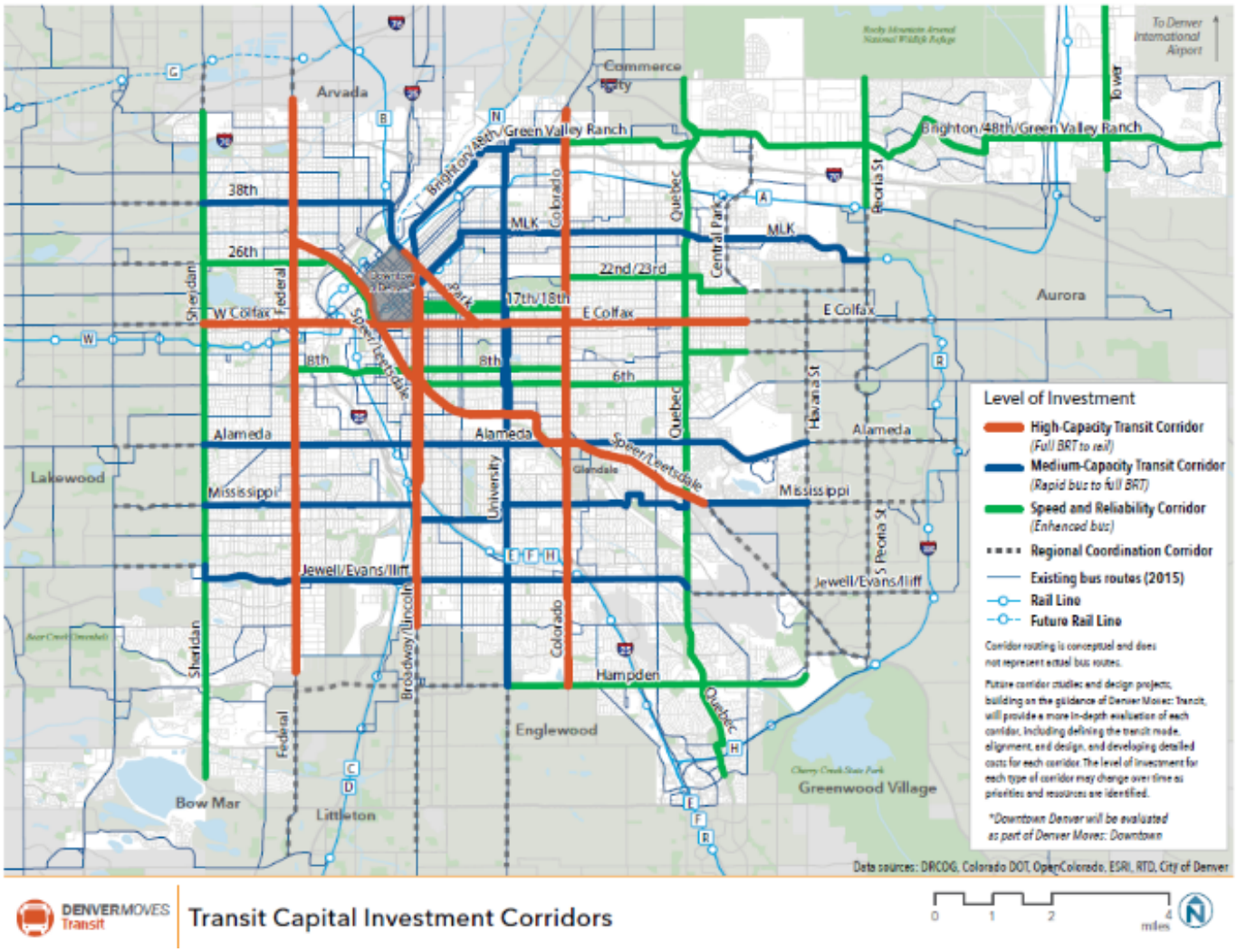


Denver Moves Transportation Plans (2019)

DENVERMOVES Transit

The Denver Moves transportation plans are divided into two areas, transit and pedestrians and trails, and each has defined plans. The first phase of the Denver Moves: Transit Plan, completed in 2019, includes goals to enhance, simplify, connect, thrive, and sustain the transit service in the City and County of Denver. For the Denver South area, the DTC Boulevard corridor (Quebec Street further north, connecting via Tamarac and Quincy) is listed as a speed and reliability corridor for enhanced bus, which is primarily the route of the existing Route 73. The suggested frequency of the route is 15 minutes throughout the day, seven days a week. Route 73 currently has a frequency of 30 minutes. The second phase of the Denver Moves: Transit Plan is to develop implementation scenarios for the vision from the first phase and coordinate with a community Task Force and Technical Working Group. A map of high frequency transit is shown on **Figure 10**.

Figure 10: Denver High Frequency Transit



In 2018, the City and RTD developed a Speed and Reliability and Stop/Station Improvements implementation process. Broadway/Lincoln, 18th/19th, and Federal are examples of speed and reliability corridors already underway. By 2040, the goal is to implement ten Speed and Reliability Corridors.

Denver Moves: Pedestrians & Trails is a long-term, community-developed, and financially unconstrained plan for achieving a vision for walking and trails in Denver. This plan was developed through the Denverites process and was coordinated with other relevant already established and developing plans. Significant effort was made through Denver Moves: Pedestrians & Trails development to ensure a high degree of integration among pedestrian, bicycle, trails and transit networks. Denver Moves: Pedestrians & Trails identifies priorities for projects, policies, and programs so that elements of the community-developed vision can be achieved as quickly and efficiently as possible.

City of Lone Tree Transportation Plan (2019)

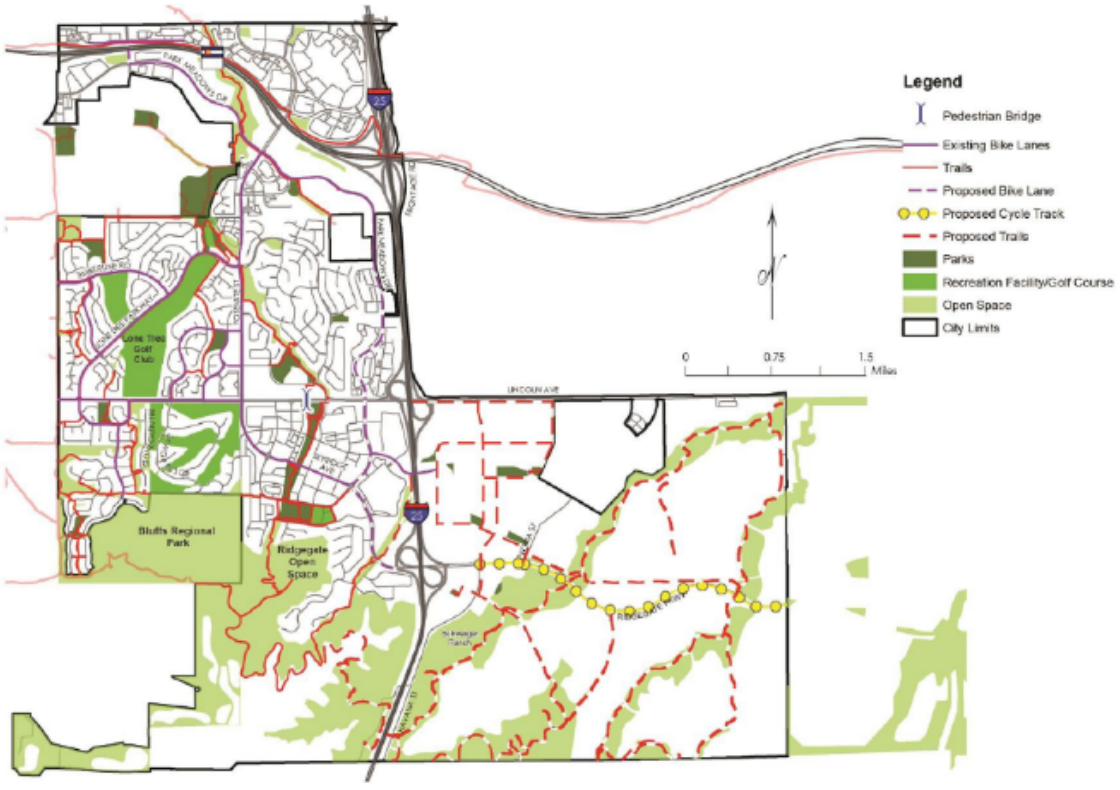
CITY OF LONE TREE
2040 TRANSPORTATION PLAN

The recently adopted City of Lone Tree Comprehensive Plan provides a blueprint to guide the city's growth and infrastructure development based on community needs and opportunities. The transportation goal was developed as part of the Comprehensive Plan, while Lone Tree developed and provided the supporting objectives and strategies to provide the framework and guidance as the city continues to improve its multimodal transportation system.

The 2040 Transportation Plan (TP) provides a framework to guide the continued development and enhancement of the transportation network. It considers a wide range of transportation network improvements necessary to continue the development of a complete transportation system that integrates all travel modes. It also details the plan to implement transportation goals to enhance mobility for everyone in the city. Historically the city has been included with the Douglas County Master Transportation Plans, but the TP is the first standalone document to focus on the short, medium and long-range transportation needs of the City of Lone Tree.

The TP details objectives, policies, and implementation strategies for multimodal transportation, transit, roadway, transportation demand management (TDM), and sidewalks, trails, and bike lanes. Roadway improvements planned for the RidgeGate east area confirm the current long-range plans to reasonably accommodate the 2040 traffic demand. Roadway improvements include widening RidgeGate Parkway east of I-25 (currently underway), with intersection improvements on Yosemite Street (Chester Street to Kimmer Drive), Lincoln Avenue (Yosemite Street to Park Meadows Drive), and RidgeGate Parkway (Commons Street to Park Meadows Drive). Proposed bike and trail improvements include the addition of bike lanes on Park Meadows Drive from the Lincoln Station parking garage entrance to RidgeGate Parkway and then to I-25. A cycle track is proposed along RidgeGate Parkway east of I-25 to the city limits. **Figure 11** presents proposed improvements.

Figure 11: Lone Tree Pedestrian & Bicycle Planned Improvements



City of Greenwood Village Transportation Plan (1998)

The 1998 Transportation Plan is the most recent comprehensive transportation plan conducted for Greenwood Village and has limited relevance as a result of most of the objectives being completed. The plan encompasses all travel modes, including automobile, bus, passenger rail, bicycle, and pedestrian transportation. The plan focuses on light rail stations and light rail service and widening I-25 and C-470, as part of the 2020 regional transportation system improvements for transportation corridors, which have been completed.

South and Regional Plans

Located in an area with strong regional corridor connections, Denver South is part of many regional transportation plans. There have been recent plans by RTD and the Denver Regional Council of Governments (DRCOG) that cover the entire Denver metropolitan region, as well more specific regional plans.

2050 Metro Vision Regional Transportation Plan (2022)

2050 METRO VISION REGIONAL TRANSPORTATION PLAN

The Metro Vision Regional Transportation Plan (MVRTP) is the long-range transportation plan for the Denver region. As the federally designated metropolitan planning organization (MPO) for the Denver region, DRCOG developed the MVRTP to guide the region's future multimodal transportation system. The MVRTP is closely integrated with Metro Vision and highlights opportunities and challenges across all modes of transportation.

DRCOG staff and partners developed the 2050 MVRTP to improve mobility for all users of the Denver region's multimodal transportation system. The 2050 MVRTP identifies specific project and program investments to address the region's transportation planning priorities identified in the DRCOG Metro Vision plan and through the 2050 MVRTP planning process.

The MVRTP focuses on the portion of the multimodal transportation vision that can be implemented by 2050 based on reasonably anticipated revenues. DRCOG coordinated with agencies throughout the region to select individual projects to include in the fiscally constrained project list, which may be amended in the future due to changing circumstances.

Specific projects that impact the Denver South area, along with their anticipated budget and timeframe for implementation, include:

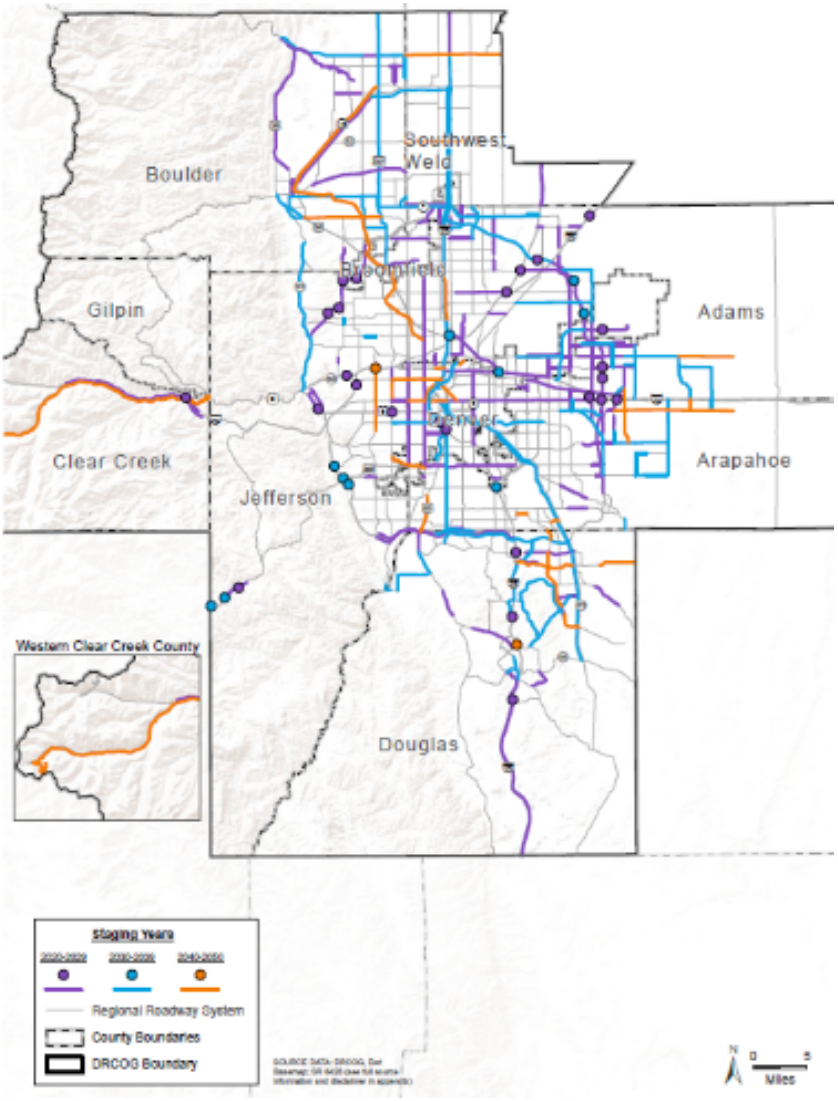
- I-25 and Belleview interchange reconstruction and pedestrian connections, $112 million, 2030–2039 timeframe.
- I-225/Yosemite (DTC Boulevard to I-25 on-ramp) interchange and ramp reconstruction, $60 million, 2020–2029 timeframe.
- Base system and FasTracks operations and maintenance, ongoing and preventative maintenance for transit vehicles and facilities, $27.29 million, 2020–2050 timeframe.
- Regional mobility hubs, $200 million, 2020-2050 timeframe.
- RidgeGate Parkway transit mobility corridor, Mainstreet in Parker to Lone Tree City Center Station, $100 million, 2040–2050 timeframe.

The fiscally constrained project list also includes various locally funded projects, including:

- Widening E-470 east of I-25
- Widening projects for Arapahoe Road and Lincoln Avenue

The Quebec Street corridor to DTC Parkway and the Belleview Station is listed for potential additional BRT and busway. **Figure 12** shows the fiscally constrained transportation improvements.

Figure 12: DRCOG Transportation Improvements



DRCOG Regional Active Transportation Plan (2019)

In 2017, DRCOG initiated the development of the Denver region's first active transportation plan. The plan established a common vision for bicycling and walking in the region and provided inspiration and tools for local agencies to implement projects in their respective jurisdictions.

The Denver Regional Active Transportation Plan (ATP) supports DRCOG's Metro Vision plan and fosters collaboration among local agencies across boundaries. DRCOG worked with partners throughout the region to develop a regional active transportation vision, tools and products to support the development of a robust active transportation network in the Denver region. The ATP envisions a safe, comfortable and connected network and highlights opportunities and implementation strategies to improve active transportation across the Denver region.

The plan shows the existing regional active transportation network, presents best practices for future implementation, and shows emerging trends and recommended design guidelines for local implementation.

Reimagine RTD (2022)

Reimagine RTD was a multi-year effort to evaluate and forecast the changing mobility needs of our region, better position the Regional Transportation District to meet them, and collaborate with agency partners to build a cohesive vision for regional mobility. Its undertaking was a response to challenges facing the agency. Stagnant ridership, increasing costs, staffing shortages, debt obligations, and other issues are making it difficult for RTD to meet the growing demands placed on the agency by local partners and the community. The COVID-19 pandemic, which began early on in the planning process, only exacerbated the challenges. There was a need for a different, more ambitious vision of what transit in the Denver region could and should be, and that is what Reimagine RTD delivered.

RTD, in partnership with various agencies and stakeholders, carried out the Reimagine process over several years between August 2019 and December 2022. The onset of the COVID-19 pandemic in March 2020 – and its substantial impacts on transit usage and travel behavior – necessitated a pause in late 2020 to recalibrate and shift the focus. Reimagine was led by RTD staff and guided in part by two stakeholder groups: a Technical Working Group, composed of transportation staff from partner agencies, and an Advisory Committee, composed of partner agency leaders and RTD Board members. The RTD Board was involved throughout and acted as the final decision-making authority. Public engagement was a major component as well, with many in-person and virtual opportunities over the course of the project for community members to provide input. Extensive analysis, collaboration, and outreach culminated in two primary components to guide the near- and long-term decision making of the agency: a System Optimization Plan (SOP) and a Mobility Plan for the Future.

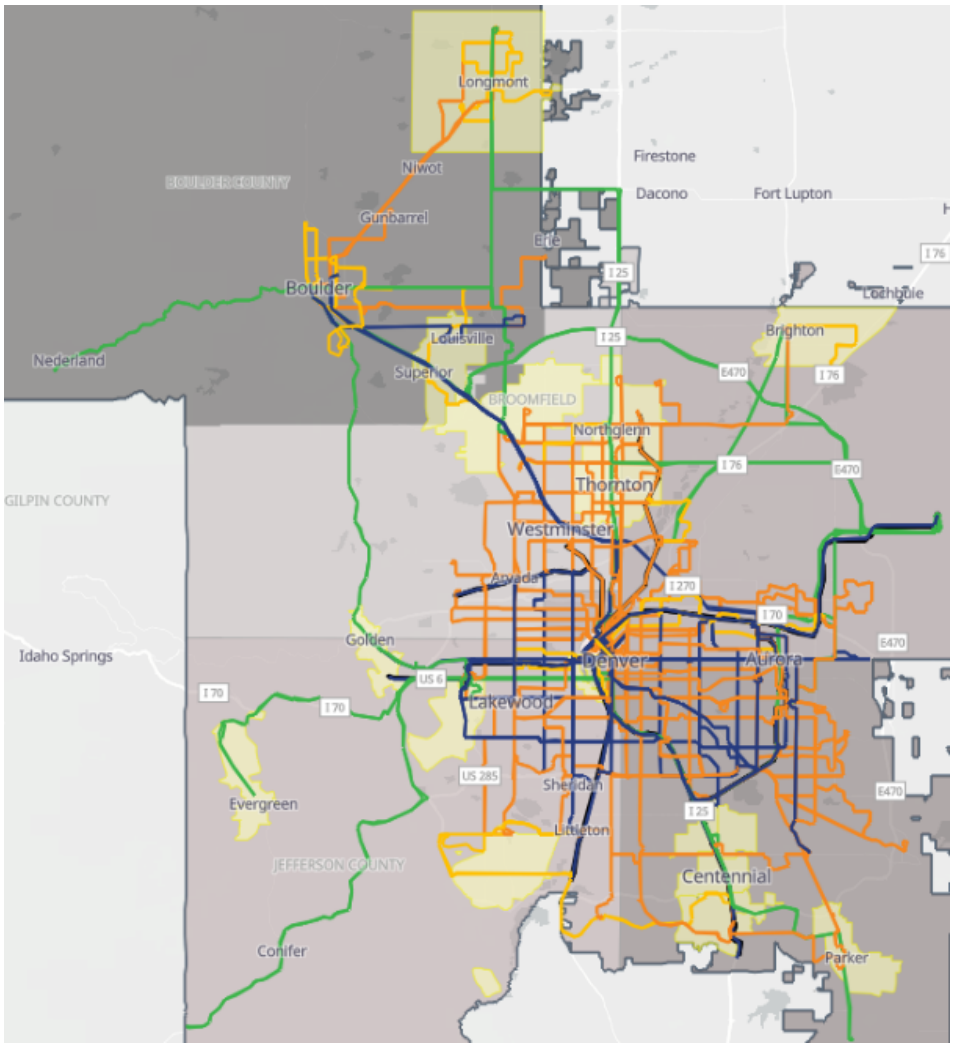
The SOP creates a new travel-market-based network of services that has the potential to better meet the mobility needs of equity population groups, increase overall ridership, and can be implemented within RTD financial resources.

The new travel-market based service categories are the foundation of the SOP. These categories help define RTD's core services (backbone of services), the supporting services and regional connections, and those services that focus on local community-based needs. The SOP is shown on a map in **Figure 13**. On the map, black lines represent rail routes, dark blue lines represent core routes (15-minute peak frequency every day), orange lines represent connect routes (local bus routes with a minimum 14-hour span of service), green lines represent commute routes (regional routes with limited stop), and yellow lines represent community routes (focused to meet local needs).

For the Denver South area, the proposed transit service in the SOP is largely the same as what is currently operating, except for the proposed extension of Route 24 from the University and C-470 Park-n-Ride to Lincoln Station via Sky Ridge, which covers the former service of Route 403 that has not been running since March 2020.

Reimagine RTD's Mobility Plan for the Future (MPFF) is a comprehensive, forward-thinking plan that identifies strategies to address the future mobility needs of the region. Ongoing industry advancements and societal shifts are substantially altering how and when people travel, how cities function, and how mobility options are factored into broader visions and goals. Transit agencies must evolve and adapt to remain a relevant part of the mobility equation. The intent of the MPFF is to help guide long-term decision making.

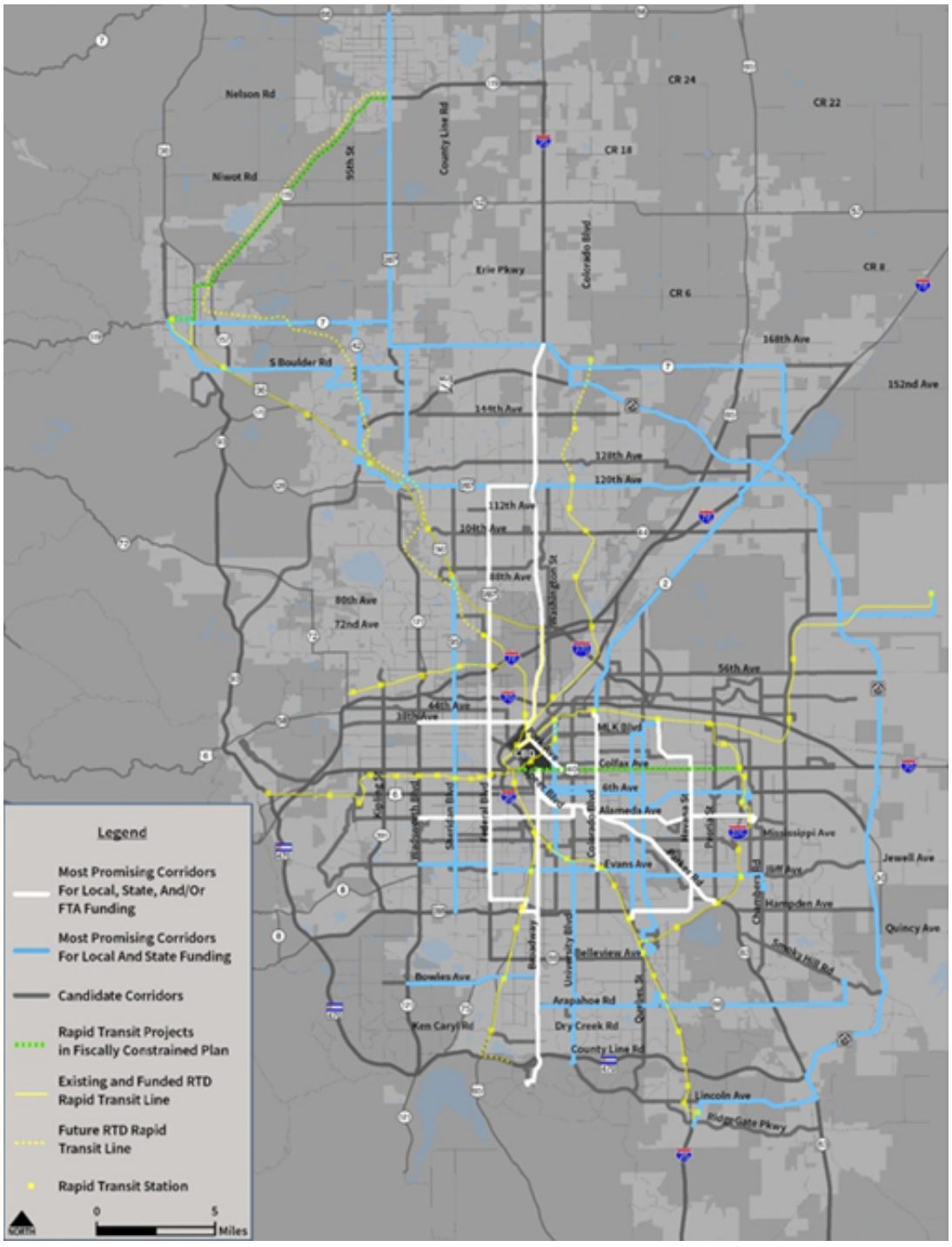
Figure 13: RTD System Optimization Plan Routes



The MPFF is a culmination of major planning efforts conducted by RTD and other regional partners over the past several years. Reimagine RTD itself has consisted of much more than what is documented in this report – a comprehensive assessment of RTD's current services and policies, a nationwide peer review, and development of a 2027 SOP all occurred prior to and informed development of this plan.

Aspects of the MPFF that impact the Denver South area include the Quebec corridor BRT (DTC Parkway to Belleview Station), Arapahoe Road BRT, and a suggested BRT corridor from the RidgeGate Parkway Station north to Lincoln Avenue and then east to Parker Road and north on E-470. **Figure 14** shows the future transit corridors to invest in for additional service.

Figure 14: Future Transit Investment Corridors



RTD Regional Bus Rapid Transit Feasibility Study (2020)

RTD completed the Regional BRT Feasibility Study to evaluate the feasibility and benefits of adding BRT or other bus corridor enhancements in various major transportation corridors in the RTD area.

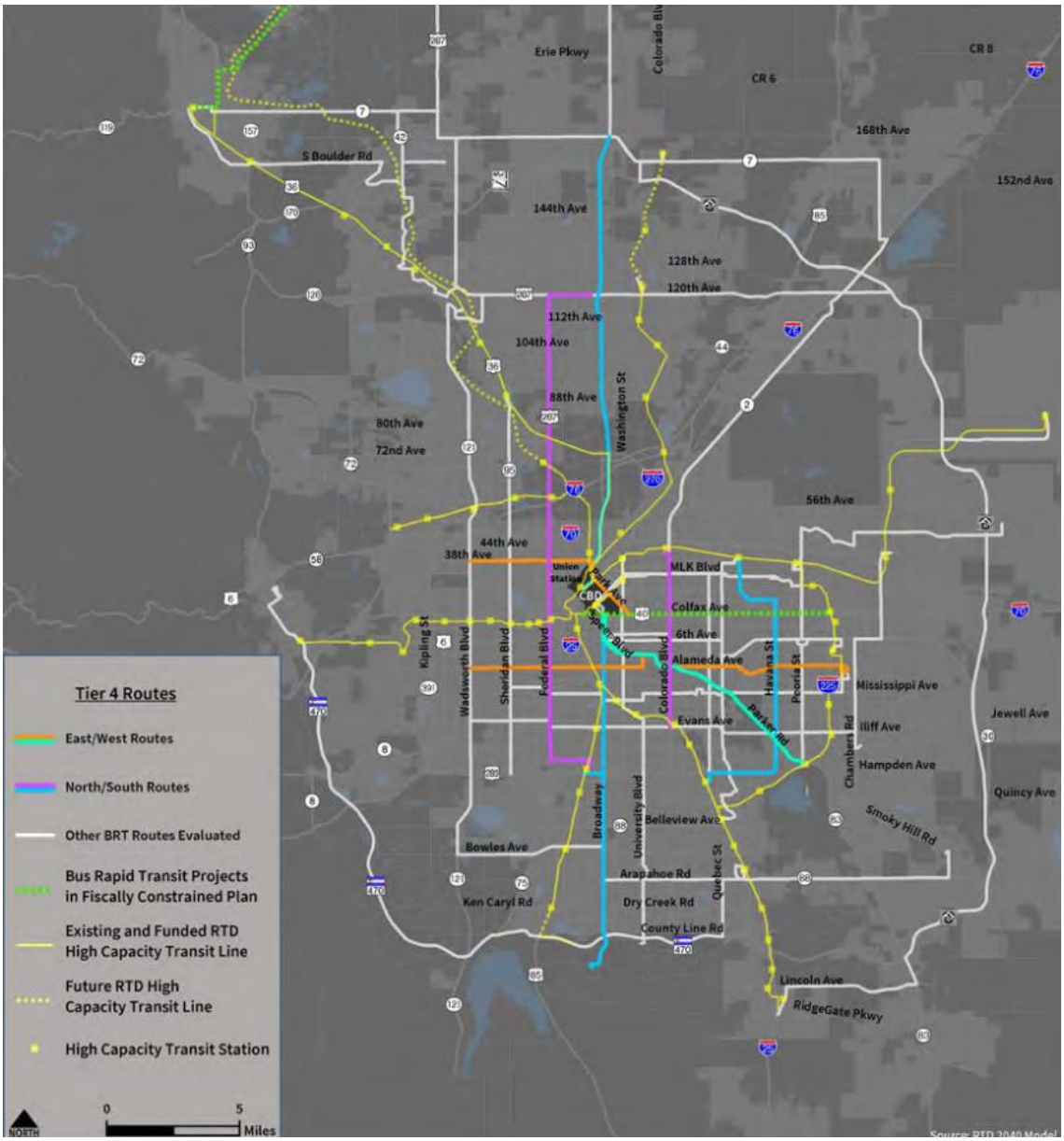
The study developed and followed a data-driven evaluation process that combined the desire to develop an integrated network of BRT routes for the region with a specific objective to identify opportunities for pursuing federal funds. Those routes identified as most likely to compete for Federal Transit Administration (FTA) Small Starts funding were further evaluated using performance metrics provided in the Small Starts funding to understand the strengths and opportunities of each one.

The study included a data-driven, four-tier decision-making process that identified high-priority corridors for Small Starts funding. The plan process developed and evaluated 30 potential BRT routes throughout the Denver metropolitan area.

The final study contained a recommended regional BRT network to support mobility demand throughout the district, including eight BRT corridors competitive for FTA Small Starts funding. Consensus gained during the process enabled the recommendations to be included in the DRCOG 2050 MVRTP. **Figure 15** shows the final list of BRT corridors and the other corridors considered.

The Quebec Street, Arapahoe Road, and Lincoln Avenue corridors did not pass the final round of evaluation, and these are listed as potential future BRT corridors in the 2050 MVRTP.

Figure 15: BRT Tier 4 Corridors



Dry Creek Road/I-25 Operations Study (2017)

Arapahoe County, in conjunction with the City of Centennial and the Southeast Public Improvement Metropolitan District, conducted the I-25/Dry Creek Road Interchange and Corridor Study in 2015–2017. The study area included Dry Creek Road from Yosemite Street to Easter Avenue, including the I-25 interchange. The study considered short-term and long-term improvements to address peak period congestion along the corridor. Study goals were to develop a range of improvements to enhance regional access, improve system mobility and reliability, improve congestion and safety, optimize existing infrastructure, leverage past area transportation investments, and consider all modes of transportation.

I-25 & Belleview Avenue Interchange Improvement Study (Present)

The I-25 & Belleview Interchange Improvement Study project partners remain committed to identifying the right combination of improvements for the Belleview and I-25 interchange. Following a robust public involvement effort in late 2020, the project team collaborated with Federal Highway Administration (FHWA), CDOT and other agency stakeholders to review public feedback and discuss options for moving the project forward. In an effort to address all stakeholder interests in project design, the team has identified an additional alternative to be evaluated. The project partners funded additional analysis of this alternative in late 2021. Technical analysis is now underway using the same methodology completed for previously evaluated alternatives, and the results will be compared to the final alternatives resulting from the previous analysis.

County Line Road Operational Improvements (I-25 East Side to Inverness) (Present)

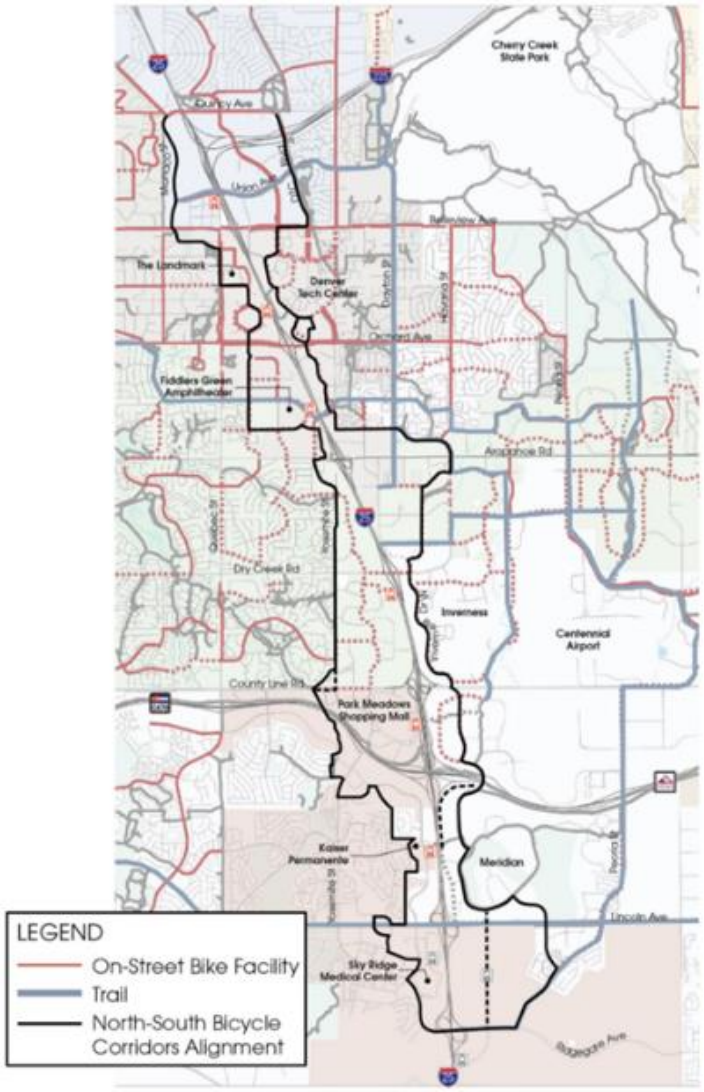
The project involves making multimodal, safety, and traffic operational improvements at the two existing closely spaced intersections and improving the westbound County Line Road to the northbound I-25 on-ramp entrance. Also, as part of this project, new traffic signals will be installed at both existing intersections, and the project includes a mill and overlay of the existing pavement on County Line Road between the I-25 southbound off-ramp and the Inverness Parkway/Inverness Way South intersection.

Denver South TMA North-South Regional Bicycle Corridors Study (2018)

The Denver South TMA completed a Phase I Regional Trail Connections Study in 2016. The Phase I effort was a high-level bicycle corridor study that developed a framework for a regional bicycle network that connects Denver South employers, employees, and residents. Ultimately, the regional bicycle network will allow bicycling as a viable modal choice for commute and utilitarian trips in addition to recreation.

This study involved review and refinement of the previously identified alignments for each route, an inventory of existing conditions, additional route level analysis, planning level cost estimation, and documentation to support future stakeholder collaboration and potential funding requests. There are two north-south regional bicycle corridor alignments, one on either side of I-25, to complement the existing and proposed bicycle facilities and trails. **Figure 16** shows the north-south corridors.

Figure 16: North-South Bike Corridors with Existing and Proposed Bike Routes



Southeast Mobility Hubs Action Plan (2021)

Transportation Solutions Foundation, in cooperation with Denver South, the City and County of Denver, and RTD), conducted the Southeast Mobility Hubs Study to discover strategies for enhancing mobility and sustainability in the areas around Yale, Southmoor, and Belleview Station along the region's southeast transit corridor. The study area included the stations and the surrounding communities within a one-mile buffer. The study primarily took place in Denver but included parts of Arapahoe County as well.

Recommendations specific to Belleview Station include amenities such as a secure bike storage structure, a sound wall between the platform and I-25, a public information display, and a weather shelter on the platform. Other recommendations include evaluating channelized right-turn lanes along Belleview Avenue, installing a bicycle facility along Monaco Parkway, creating connections from the station tunnel through the north property, improving multimodal comfort and safety along Union Avenue, analyzing multimodal improvements in the immediate station area, and adding wayfinding in the area. The plan suggests establishing a connector route shuttle (running from Belleview Station east to Ulster Street and south to the east side of Orchard Station) and a microtransit service area north of Orchard Road, primarily on the east side of I-25.

Belleview Corridor Multimodal Transportation Plan (2019)

The City and County of Denver initiated the Belleview Corridor Multimodal Transportation Plan to understand and address the existing and future multimodal infrastructure needs surrounding the Belleview Station Area. FHWA, CDOT, Greenwood Village, Arapahoe County, and Denver worked collaboratively to identify interchange and corridor improvements to address future 2040 traffic demands that will incorporate multimodal elements. This planning process builds on several previous regional, citywide, and localized planning efforts. Specifically, the goals from the City's Mobility Action Plan and the Mobility Goals established in the 2040 Comprehensive Plan were adopted, as they meet the study needs and ensure the City of Denver is pursuing consistent outcomes with each project and study that is undertaken.

The Belleview Avenue corridor was identified as a barrier for multimodal travel due to long crossing distances, high speed channelized right turn lanes, and inadequate sidewalks in some segments. Additionally, the Belleview and I-25 interchange is considering alternatives to redesign the interchange and improve east/west vehicular capacity. This provides an opportunity to improve multimodal movements through the interchange.

Envisioned as an urban center that will ultimately serve as a destination for surrounding neighborhoods and commercial districts, the station platform area is intended to have a high level of transit access and bicycle and pedestrian activity. Based on proximity to the light rail station and recent development, the walking network is nearly done and will be complete as development continues to move forward. However, Niagara Street and a few other key intersections were identified as a corridor and "hot spots" that need enhancements to better accommodate people accessing the light rail station or simply navigating through the area.

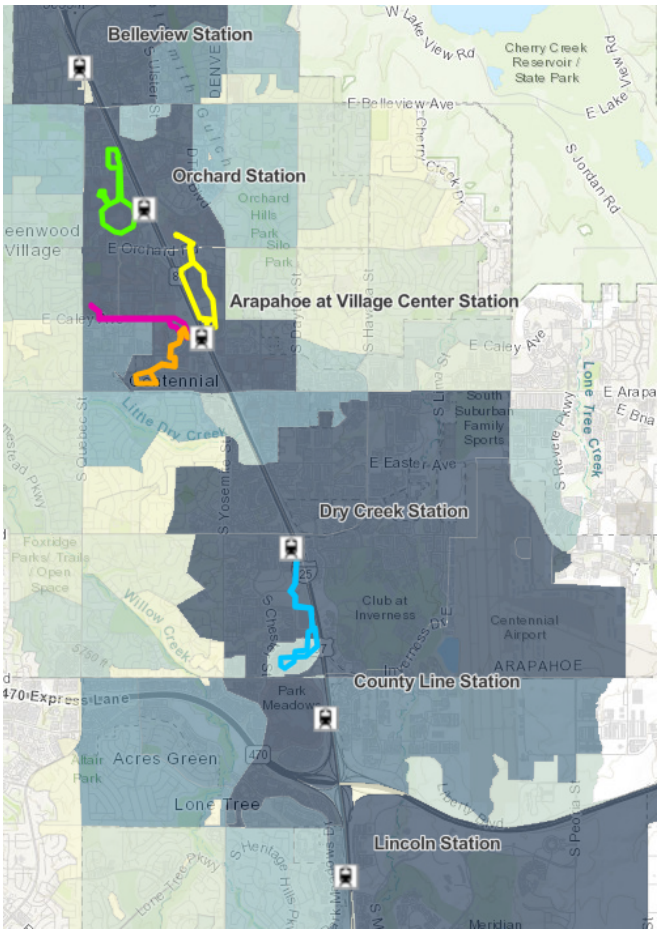
Mobility Evolution Initiative Storymap (2020)

The RTD Southeast Corridor Line provides an alternative transportation option for people who want to travel north and south along the I-25 corridor, but destinations are limited immediately surrounding station areas. In many cases, there are few first and last mile options aside from driving a vehicle to or from the station. As a result of the inconvenience caused by the lack of modal options, most commuters and the traveling public continue to use vehicles over transit options.

The vision for this work is to solve the first and last mile problem at Mobility Evolution Initiative (MEI) Stations (Belleview, Orchard, Arapahoe at Village Center, Dry Creek, County Line, Lincoln, and Sky Ridge) through Smart Mobility improvements that enable newer, safer modal choices. The goals and values of this effort will lead to a solution that embodies and accomplishes project objectives. The solutions will focus on a seamless ridership experience that leverages the application of new technology solutions, including the assessment of electric, connected and automated mobility services. These solutions will include new modes and bridge the gap between transit agencies and users through an integrated platform for service provision and use. Solutions will also be integrated into existing transportation infrastructure and be customer focused so that they are highly utilized by transit users, commuters, regional employers, and residents.

Building off the analysis described previously, the project team coordinated with EZMile to develop microtransit route options, shown on **Figure 17**. To develop the routes, a more granular analysis was conducted on the specific roadways near each station to determine potential routes where an autonomous shuttle would be successful. This more detailed analysis is aimed to find specific routes that use low-speed roadways, connect the stations to major activity centers in the region, and minimize the number of signalized intersections along the route.

Figure 17: Microtransit Route Options



Advancing Lincoln Avenue (I-25 & Lincoln Interchange Study) (Present)

The City of Lone Tree, in partnership with Douglas County and other local agencies, is developing a long-term vision to address safety and mobility needs for Lincoln Avenue from Park Meadows Drive to Oswego Street, including the I-25 interchange. To ultimately construct improvements for this corridor, the local agencies are conducting a robust public outreach process to gather community and stakeholder input to understand existing conditions, future development, and multimodal transportation needs in the corridor. The project team is performing a detailed alternatives screening analysis that includes collecting extensive traffic data, modeling existing traffic conditions, and modeling future operations of project alternatives.

South Denver Framework (2020)

This study develops ways to manage the growth of the next 15 to 20 years while protecting the high quality of life for residents. This assessment provides Denver South and its partners with a solid framework for guiding future development toward smart growth objectives.

Transportation recommendations include placemaking, policy considerations, and applied technology. Specific placemaking goals include capitalizing on investments in transit and commercial arterials, closing the pedestrian gap and ensuring safe crossings, prioritizing first and last mile solutions, completing bike and pedestrian links, targeting desired station areas and arterials in multimodal efforts, and creating walkable districts within some key commercial corridors. Policy considerations include activating public spaces, prioritizing choice in mobility, and connecting first and last miles. Applied technology recommendations involve planning and design, connectivity, and mobility.

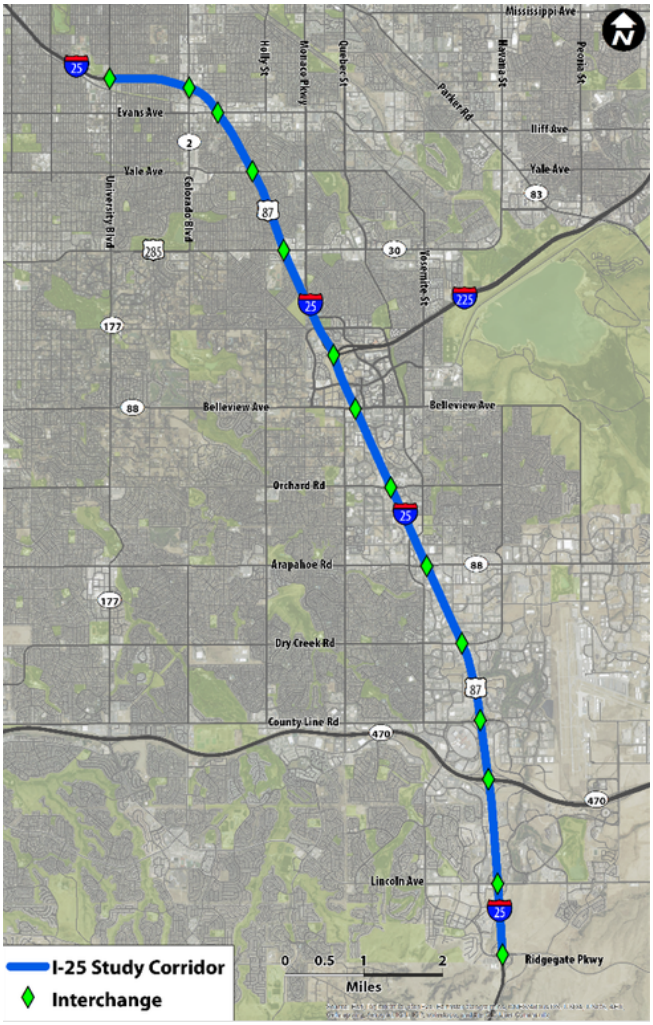
Statewide and Electric Vehicle Plans

CDOT Smart 25 Pilot Project Information (2022)

This pilot project tested a new ramp metering system with the goal of reducing congestion and improving travel times on northbound I-25 between RidgeGate Parkway and University Boulevard. Sensors measure traffic volume on I-25 and along the on-ramps to the highway. Since fall 2021, this information has been gathered for all 18 arterial ramps along the corridor and used to control the timing of the lights that allow vehicles to enter the highway with the intent to reduce stop-and-go traffic. Beginning the week of February 28, 2022, the system activated new ramp meter signals on the southbound I-225, eastbound C-470 and westbound E-470 on-ramps to northbound I-25. **Figure 18** shows the location of the metered ramps.

The pilot project ran until Friday, July 29, 2022. CDOT paused the program to evaluate the data. During the evaluation phase, the ramp metering system operated as it did before the pilot, with the Smart 25 ramp meters turned off at the freeway-to-freeway ramps—the I-225, C-470 and E-470 on-ramps to northbound I-25. Following the analysis, CDOT will determine if permanent deployment is possible with a final report expected in fall 2022.

Figure 18: I-25 Smart Metered Ramp Locations

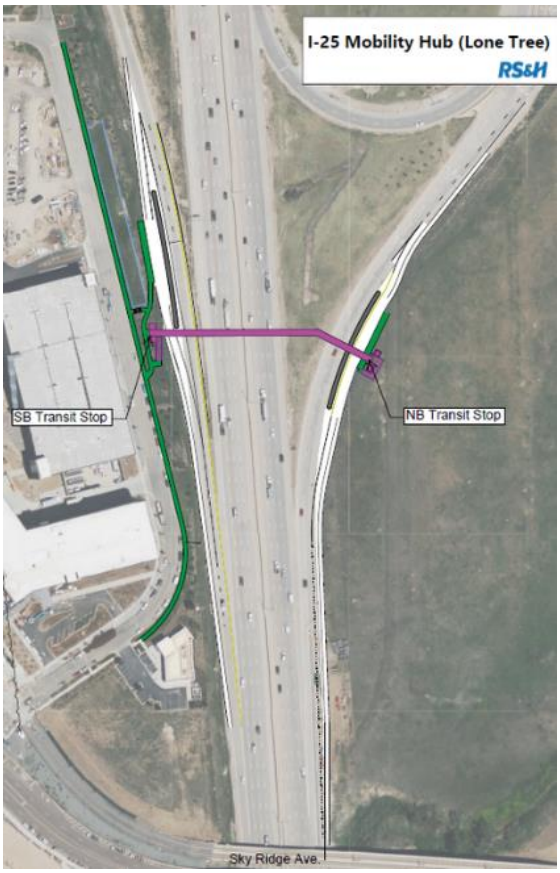


CDOT Mobility Hubs / Lone Tree Mobility Hub (2022)

CDOT is actively completing the design of the Lone Tree Mobility Hub, which includes both the northbound and southbound directional movements and hubs on I-25 in the City of Lone Tree. This transit improvement project consists of constructing slip ramps along the I-25 northbound off-ramp and southbound on-ramp for use by Bustang transit services, a pedestrian bridge connecting the two transit stops, and sidewalks. The plan for the mobility hub is shown on **Figure 19**.

This project is intended to provide northbound and southbound mobility hubs along I-25 in the City of Lone Tree for CDOT's Bustang service, allowing the transit service minimal delay to depart and re-enter I-25. Coordination between the I-25 Mobility Hub (Lone Tree) Project and the ongoing I-25/Lincoln Interchange Project (Advancing Lincoln Avenue) is essential to ensure compatibility between the two improvement projects. Consideration and subsequent collaboration with neighboring developers and stakeholders will be vital to the success of this project as well.

Figure 19: Lone Tree Mobility Hub Plan



Colorado Electric Vehicle Plan (2020)

One of Governor Polis' first executive orders, Executive Order B 2019 002 (Supporting a Transition to Zero Emission Vehicles), includes supporting the acceleration of widespread electrification of cars, buses and trucks and adopting the goal of 940,000 light-duty electric vehicles (EVs) in Colorado by 2030.

In 2018, Colorado released its first EV plan setting forth goals, actions, and strategies to develop EV fast-charging corridors across the state and establishing a target of 940,000 EVs by 2030. In 2020, Colorado updated and released the Colorado EV Plan, which envisions large-scale transition of Colorado's transportation system to zero emission vehicles (ZEVs), with a long-term goal of 100 percent of light-duty vehicles (LDVs) being electric and 100 percent of medium-duty vehicles (MDVs) and heavy-duty vehicles (HDVs) being zero emission.

This goal will be accomplished by taking action to meet five goals:

- Increasing the number of light-duty EVs to 940,000 by 2030
- Developing plans for transitioning MDV, HDV and transit vehicles to ZEVs
- Developing an EV infrastructure goal by undertaking a gap analysis to identify the type and number of charging stations needed across the state to meet 2030 LDV, MDV, and HDV goals
- State government agencies meeting directives and goals related to EVs from the updated Greening State Government Executive Order
- Developing a roadmap to full electrification of the LDV fleet in Colorado

Colorado NEVI Plan (2022)

Established by the Infrastructure Investment and Jobs Act (IIJA), the National Electric Vehicle Infrastructure (NEVI) formula program funding will provide $5 billion over five years for states to deploy EV chargers along highway corridors. This build-out of EV chargers is critical to accelerating the adoption of EVs and enabling Americans to access the economic and air quality benefits of electrified transportation.

Colorado is expected to receive $57 million over the next five years to create an EV charging network across the state. CDOT and the Colorado Energy Office will be working with partners and stakeholders to develop the state's NEVI Implementation Plan. The plan is required to access NEVI formula program funding and were due to FHWA by August 1, 2022. The plan outlines Colorado's strategy for using NEVI funds and will address the establishment and evaluation of build-out goals, the role of contracting with third parties, public engagement, equity for rural and disadvantaged communities, workforce considerations, cybersecurity concerns, and more.

Colorado EV Equity Study (2022)

The Colorado Energy Office undertook an EV equity study to establish an understanding of factors that would prevent areas with greater socioeconomic or transportation need from accessing electric transportation and its benefits. The study also sought to provide tools for the state of Colorado and its partners to design programs that support equitable electrification. This EV equity study report describes the menu of options available to support transportation electrification in an equity-centered approach and provides tools that would immediately support the state of Colorado in implementing these options.

Summary of Findings

The following key themes emerged among many of the recent transportation plans for the Denver South area that pertain to multimodal transportation improvements:

- Establishing regional mobility hubs at the Belleview, Arapahoe at Village Center, and Dry Creek, and Lone Tree Stations
- Planning for future BRT corridors along Quebec Street (DTC Parkway to Belleview Station) and Arapahoe Road
- Examining increased microtransit connections in the Denver South area to assist transit usage (both fixed routes and demand-response zones)
- Continuing the program of building sidewalks and closing sidewalk gaps
- Adding bike lanes on more streets and bike trails in specific corridors
- Widening specific major arterials and expressways, including Arapahoe Road, E-470, and Lincoln Avenue on the east side of the Denver South area
- Implementing new signal technologies at intersections and increasing pedestrian safety at intersections and interchanges

Appendix B
Denver South I-25 Urban Corridor Study Area Project Inventory

Economic &
Planning Systems, Inc.

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Appendix B. Denver South I-25 Urban Corridor Study Area Project Inventory

Corridor	Project Boundaries	Plan/ Study	Project Description
I-25	I-25 Corridor	Arapahoe County 2040 Transportation Master Plan, CDOT Smart 25 Pilot Project Information	Adaptive traffic signals for all entrance ramps.
I-25	at Inverness Parkway	Arapahoe County 2040 Transportation Master Plan	Operational improvements at intersections.
I-25	at Dry Creek Road	Arapahoe County 2040 Transportation Master Plan	Operational improvements at intersections.
I-25	at County Line Road	Arapahoe County 2040 Transportation Master Plan	Operational improvements at intersections.
N/A	Southeast of Belleview Station	Arapahoe County 2040 Transportation Master Plan	Flex Rides/microtransit zones offered throughout the day including midday.
N/A	Belleview Station	Arapahoe County 2040 Transportation Master Plan	Establish mobility hub.
N/A	R Line Corridor	Arapahoe County 2040 Transportation Master Plan	Establish Transportation Management Association for R Line corridor.
Arapahoe Road	Arapahoe Road Corridor	Arapahoe County 2040 Transportation Master Plan, Centennial Transportation Master Plan	Implement BRT enhancements along corridor.
Arapahoe Road	Arapahoe Road Corridor	Arapahoe County 2040 Transportation Master Plan	Sidewalk and crossing treatments for pedestrians and bicyclists.
Arapahoe Road	Arapahoe Road Corridor	Arapahoe County 2040 Transportation Master Plan	Intersection and operation improvements.
Arapahoe Road	between Waco Street and Liverpool	Arapahoe County 2040 Transportation Master Plan	Widen from 4 to 6 lanes.
Arapahoe Road	West of Chambers Way and between Chapparal Circle and Himalaya Street	Arapahoe County 2040 Transportation Master Plan	Fill in missing sidewalks.

Corridor	Project Boundaries	Plan/ Study	Project Description
Arapahoe Road	at Parker Road	Arapahoe County 2040 Transportation Master Plan	Establish mobility hub.
Belleview Avenue	between Holly Street and DTC Blvd	Arapahoe County 2040 Transportation Master Plan	Adaptive traffic signals.
N/A	Southeast of Belleview Station	Arapahoe County 2040 Transportation Master Plan	Flex Rides/microtransit zones offered throughout the day including midday.
N/A	Arapahoe County	Arapahoe County 2040 Transportation Master Plan	Restoration of service and envision future transit initiatives and innovations
N/A	Arapahoe County	Arapahoe County 2040 Transportation Master Plan	Establish Service Council to coordinate service with RTD.
N/A	Arapahoe County	Arapahoe County 2040 Transportation Master Plan	Explore transit expansion to areas such as the CO-30/Gun Club, Jewell Avenue, and Quincy Avenue corridors.
N/A	Arapahoe County	Arapahoe County 2040 Transportation Master Plan	Expand Electric Vehicle charging infrastructure.
N/A	High Plains Trail/Cherry Creek Trail	Arapahoe County 2040 Transportation Master Plan	High Plains Trail/Cherry Creek Trail Connector
Inverness Drive	Inverness Drive	Arapahoe County 2040 Transportation Master Plan	Bicycle and pedestrian facilities
Parker Road	between Mississippi Ave to Hampden Ave	Arapahoe County 2040 Transportation Master Plan	PEL Study
E-470	between I-25 and Parker Road	2040 Douglas County Transportation Master Plan	Widen from 6 to 8 lanes.
Chambers Road	between E-470 and Lincoln Avenue	2040 Douglas County Transportation Master Plan	Sidewalk and trail improvements.
Inverness Parkway	between County Line Road and Liberty Boulevard/Jamaica Street	2040 Douglas County Transportation Master Plan	Sidewalk and trail improvements.

Corridor	Project Boundaries	Plan/ Study	Project Description
Havana Street	between RidgeGate Parkway and Lincoln Avenue	2040 Douglas County Transportation Master Plan	Sidewalk and trail improvements.
N/A	Douglas County	2040 Douglas County Transportation Master Plan	Continue to work with agencies to expand transit system (LRT, BRT, Bustang, Interregional Bus, local circulating routes)
N/A	Douglas County	2040 Douglas County Transportation Master Plan	Improvements to signal information including adaptive signal control and enhanced signal performance measure features
Dry Creek Road	between Havana Street and Arapahoe Road	Centennial Transportation Master Plan	Adaptive signal timing.
Dry Creek Road	at I-25	Centennial Transportation Master Plan	Pedestrian overpass
Havana Street	at Costilla Avenue/ Briarwood Avenue	Centennial Transportation Master Plan	New eastbound to southbound right turn lane
Centennial Link Trail	between Orchard and Arapahoe and between I-25 and Parker Road	Centennial Transportation Master Plan	Complete the Centennial Link Trail
N/A	City of Centennial	Centennial Transportation Master Plan	Add bike lanes and buffered bike lanes in areas to fill in gaps.
Yosemite Street	between Arapahoe Road and County Line Road	Centennial Transportation Master Plan	Complete a multimodal corridor study.
N/A	City of Centennial	Centennial Transportation Master Plan	Neighborhood sidewalk gap projects.
N/A	Denver South area	Centennial Transportation Master Plan	Conduct a comprehensive transit needs assessment along with DSTMA.
	Arapahoe at Village Center Station	Centennial Transportation Master Plan	Establish mobility hub.

Corridor	Project Boundaries	Plan/ Study	Project Description
	Dry Creek Station	Centennial Transportation Master Plan, Arapahoe County Transportation Master Plan	Mobility hub at Dry Creek LRT Station with Level 1 / Level 2 charging
Easter Avenue	at Dayton Street	Centennial Transportation Master Plan	Establish mobility hub.
Arapahoe Road	at Syracuse Way	Centennial Transportation Master Plan	Establish mobility hub.
Dayton Street	at Otero Avenue	Centennial Transportation Master Plan	Establish mobility hub.
County Line Road	at Chester Street	Centennial Transportation Master Plan	Future intersection capacity improvements
County Line Road	Willow Creek Trail to S Chester Street	Centennial Transportation Master Plan	Sidepath
Arapahoe Road	at Uinta Street	Centennial Transportation Master Plan	Micromobility hub at Castlewood Library with DCFC (L3) charging
Arapahoe Road	Krameria Way to Briarwood Circle	Centennial Transportation Master Plan	Widen walk on the north side of Arapahoe Road (Little Dry Creek Trail)
Arapahoe Road	Havana Street to Dayton Street	Centennial Transportation Master Plan	Add fourth westbound lane
Arapahoe Road	Dayton Street to Havana Street	Centennial Transportation Master Plan	Access modifications to reduce driveway access points as redevelopment occurs
Arapahoe Road	at Havana Street	Centennial Transportation Master Plan	Intersection reconstruction with displaced left turn
N/A	Quebec Street to DTC Boulevard to Belleview Station	Denver Moves: Transit	Increase transit speed and reliability (current Route 73), add BRT elements, increase to 15 minute frequency most of the day.
N/A	City and County of Denver	Denver Moves: Transit	Establish a community Task Force and Technical Working Group.
N/A	RidgeGate Parkway east of I-25	City of Lone Tree 2040 Transportation Plan	Widen from 4 to 6 lanes.

Corridor	Project Boundaries	Plan/ Study	Project Description
Yosemite Street	between Chester Street and Kimmer Drive	City of Lone Tree 2040 Transportation Plan	Intersection improvements.
Lincoln Avenue	between Faulkner Lane and Lone Tree boundary	City of Lone Tree 2040 Transportation Plan	Widen from 4 to 6 lanes.
Lincoln Avenue	between Yosemite Street and Park Meadows Drive	City of Lone Tree 2040 Transportation Plan	Intersection improvements.
RidgeGate Parkway	between Commons Street and Park Meadows Drive	City of Lone Tree 2040 Transportation Plan	Intersection improvements.
Park Meadows Drive	between Lincoln Station and RidgeGate Parkway to I-25	City of Lone Tree 2040 Transportation Plan	Add bike lanes.
N/A	RidgeGate Parkway east of I-25	City of Lone Tree 2040 Transportation Plan	Build a cycle track.
I-25	at Belleview Interchange	2050 Metro Vision Regional Transportation Plan	Interchange reconstruction and pedestrian connections.
I-225	I-225/Yosemite (DTC Boulevard to I-25 on-ramp)	2050 Metro Vision Regional Transportation Plan	Interchange and ramp reconstruction.
N/A	Base and FasTracks Rail System	2050 Metro Vision Regional Transportation Plan	Operations and maintenance, on-going and preventive maintenance for transit vehicles and facilities.
N/A	Various regional locations	2050 Metro Vision Regional Transportation Plan	Add mobility hubs.
RidgeGate Parkway	between Mainstreet and Lone Tree City Center	2050 Metro Vision Regional Transportation Plan	Upgrade to transit mobility corridor.
E-470	east of I-25	2050 Metro Vision Regional Transportation Plan	Widening improvements.

Corridor	Project Boundaries	Plan/ Study	Project Description
Arapahoe Road	between Waco Street and Himalaya Street	2050 Metro Vision Regional Transportation Plan	Widening improvements.
Lincoln Avenue	east of I-25	2050 Metro Vision Regional Transportation Plan	Widening improvements.
N/A	University Boulevard/Lincoln Avenue west of Park Meadows Drive	Reimagine RTD	Implement Route 24 extension from University and C-470 Park-n-Ride to Lincoln Station.
N/A	Quebec Street to DTC Boulevard to Belleview Station	Reimagine RTD	Implement BRT service.
N/A	RidgeGate Parkway Station north to Lincoln Avenue, east to Parker Road, north on E-470	Reimagine RTD	Implement BRT service.
Dry Creek Road	between Yosemite Street and Easter Avenue	Dry Creek Road/I-25 Operations Study	Reconfigure interchange to improve access and mobility, reduce congestion.
County Line Road	between I-25 to Inverness Parkway	County Line Road Operational Improvements	Multimodal, safety, and operational improvements and two intersections.
I-25	between Quincy Avenue (north) and RidgeGate Parkway (south)	DSTMA North-South Regional Bicycle Corridors Study	Improve existing trails and build new trails to fill in gaps to complete two north-south bike trail corridors on either side of I-25.
N/A	Belleview Station platform	Southeast Mobility Hubs Action Plan	Add secure bike storage, sound wall between platform and I-25, public information display, and weather shelter.
N/A	Belleview Avenue on either side of I-25	Southeast Mobility Hubs Action Plan	Evaluate channelized right-turn lanes along Belleview Avenue.

Corridor	Project Boundaries	Plan/ Study	Project Description
Belleview Avenue	Belleview Station to North of Union Avenue	Southeast Mobility Hubs Action Plan	Create connections from the station tunnel through the north property.
I-25	at Union Avenue	Southeast Mobility Hubs Action Plan	Improve multimodal comfort and safety along Union Avenue
N/A	Belleview Station area	Southeast Mobility Hubs Action Plan	Analyze multimodal improvements
N/A	Belleview Station area	Southeast Mobility Hubs Action Plan	Establish a connector route shuttle from Belleview Station east to Ulster Street and south to the east side of Orchard Station
N/A	Belleview Station area	Southeast Mobility Hubs Action Plan	Establish a microtransit service area north of Orchard Road and including Belleview Station, primarily serving the east side of I-25
N/A	Belleview Station area	Belleview Corridor Multimodal Station Plan	Improve sidewalks and provide enhancements for access to the station.
N/A	Orchard Station area	Mobility Evolution Initiative Storymap	Add microtransit flex route west and north of Orchard Station.
N/A	Arapahoe at Village Center Station area	Mobility Evolution Initiative Storymap	Add microtransit flex route north, west, and southwest of Arapahoe Station.
N/A	Dry Creek Station area	Mobility Evolution Initiative Storymap	Add microtransit flex route south of Dry Creek Station.
N/A	Sky Ridge Station south of Lincoln Avenue	CDOT Mobility Hubs	Establish Lone Tree Mobility Hub at the Sky Ridge Station, including slip ramps at I-25 and Lincoln Avenue for Bustang transit services, including a pedestrian bridge over I-25 and sidewalks on either side.
N/A	Statewide	Colorado EV Plan	Goals, actions and strategies to develop EV fast-charging corridors across the state and transition of state vehicles to 100% EV.

Corridor	Project Boundaries	Plan/ Study	Project Description
N/A	Statewide	Colorado NEVI Plan	Implement EV charging network across the state.
N/A	Statewide	Colorado EV Equity Study	Support transportation electrification in an equity-centered approach.
N/A	Belleview & I-25	Greenwood Village Capital Project Dashboard	Study will look at potential corridor improvements that will allow agencies to move forward with design and construction
Quebec Street	between Belleview to Berry	Greenwood Village Capital Project Dashboard	Rehabilitation of concrete facilities including curb and gutter, cross pans, on-street drainage structures, improvements to address ADA requirements
Quebec Street	between Berry to Orchard	Greenwood Village Capital Project Dashboard	Ongoing preservation of asphalt streets in accordance with recommendations of the Pavement Management System
Orchard Road	at Greenwood Plaza Boulevard	Greenwood Village Capital Project Dashboard	Intersection Improvements
Orchard Road	at Quebec Street	Greenwood Village Capital Project Dashboard	Southbound Right Turn Lane
DTC Parkway	between Prentice to Valentia	Greenwood Village Capital Project Dashboard	Concrete repair
DTC Parkway	between Valentia to DTC Blvd	Greenwood Village Capital Project Dashboard	Pavement repair
Greenwood Plaza Boulevard	at Caley Avenue	Greenwood Village Capital Project Dashboard	Median modifications
Yosemite Street	Yosemite Overpass	Greenwood Village Capital Project Dashboard	Bridge Rail Replacement
I-25	at Lincoln Avenue	DRCOG TIP Subregional Share Project Submittals (2024 - 2027)	Bike/ped infrastructure connections
Douglas County	Douglas County Transit Pilot	DRCOG TIP Subregional Share Project Submittals (2024 - 2027)	Project will initiate pilot projects identified in the Douglas County Transit & Multimodal Feasibility Study

Corridor	Project Boundaries	Plan/ Study	Project Description
N/A	RTD Service Area	Regional BRT Feasibility Study	Identified potential BRT service corridors to provide better connectivity in Denver South area
Arapahoe Road	between I-25 and Parker Road	Centennial CIP	Add 8' sidewalk in phases with roadway improvements
Yosemite Street	between Arapahoe and Dry Creek	Centennial CIP	Provide 10' multi-use path connection along Yosemite St on west side of road in addition to existing sidewalk
Yosemite Street	Between Dry Creek and County Line	Centennial CIP	Provide 10' multi-use path connection along Yosemite St on west side of road in addition to existing sidewalk.
Monaco Parkway	Quincy to Belleview	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
	Quebec Trail, Belleview to Quebec	DSTMA North-South Regional Bicycle Corridors Study	Trail widening
Greenwood Plaza Boulevard	Berry to Greenwood Plaza	DSTMA North-South Regional Bicycle Corridors Study	Buffered bike lane striping
Greenwood Plaza Boulevard	Greenwood Plaza to Syracuse	DSTMA North-South Regional Bicycle Corridors Study	Separated bike lane construction
Syracuse Way	Greenwood Plaza to Peakview	DSTMA North-South Regional Bicycle Corridors Study	Buffered bike lane striping
Peakview Avenue	Syracuse to Yosemite	DSTMA North-South Regional Bicycle Corridors Study	Buffered bike lane striping
Yosemite Street	Yosemite to Yosemite	DSTMA North-South Regional Bicycle Corridors Study	
Yosemite Circle	Yosemite to Arapahoe	DSTMA North-South Regional Bicycle Corridors Study	Bike lane striping
Yosemite Street	Arapahoe to Willow Creek Trail	DSTMA North-South Regional Bicycle Corridors Study	Separated bike lane construction
	Willow Creek Trail, Yosemite to Maximus	DSTMA North-South Regional Bicycle Corridors Study	Trail widening
Maxiumus Drive	Willow Creek Trail to Kimmer	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening

Corridor	Project Boundaries	Plan/ Study	Project Description
Kimmer Drive	Yosemite to Park Meadows	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
Park Meadows Drive	Kimmer to Lone Tree Trail	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
	Lone Tree Trail, Park Meadows to Kaiser	DSTMA North-South Regional Bicycle Corridors Study	Trail extension
	Heritage Hills Trail, Kaiser to Lincoln	DSTMA North-South Regional Bicycle Corridors Study	Trail construction
Lincoln Avenue	Lincoln to Heritage Hills	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
	Heritage Hills Circle, Lincoln to Bridge	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
	Lincoln Trail, Lincoln to Sky Ridge	DSTMA North-South Regional Bicycle Corridors Study	Trail construction
Sky Ridge Avenue	Bellwether to Park Meadows	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
Park Meadows Boulevard	Sky Ridge to RidgeGate	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
RidgeGate Parkway	Park Meadows to Havana	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
	Goldsmith Gulch Trail, Quincy to Belleview	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
Belleview Avenue	DTC to Ulster	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
Ulster Street	Belleview to DTC	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
DTC Parkway	Prentice to Ulster	DSTMA North-South Regional Bicycle Corridors Study	Buffered bike lane striping
Willow Drive	Orchard to Fair	DSTMA North-South Regional Bicycle Corridors Study	Bike lane striping
Yosemite Street	Caley to Peakview	DSTMA North-South Regional Bicycle Corridors Study	Bike lane striping

Corridor	Project Boundaries	Plan/ Study	Project Description
Peakview Avenue	Yosemite to Boston	DSTMA North-South Regional Bicycle Corridors Study	Buffered bike lane striping
Peakview Avenue	Boston to Dayton	DSTMA North-South Regional Bicycle Corridors Study	Buffered bike lane striping
Peakview Avenue	Dayton to Havana	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
Havana Street	Peakview to Costilla	DSTMA North-South Regional Bicycle Corridors Study	Multiuse path widening
Costilla Avenue	Havana to Fulton	DSTMA North-South Regional Bicycle Corridors Study	Buffered bike lane striping
Fulton Street	Costilla to Clinton	DSTMA North-South Regional Bicycle Corridors Study	Buffered bike lane striping
	Clinton St/Inverness Dr W, Fulton to Inverness Dr E	DSTMA North-South Regional Bicycle Corridors Study	Separated bike lane construction
	Inverness Trail	DSTMA North-South Regional Bicycle Corridors Study	Trail widening
Jamaica Street	Inverness Pkwy to Meridian	DSTMA North-South Regional Bicycle Corridors Study	Bike lane construction
Meridian Boulevard	Jamaica to Havana	DSTMA North-South Regional Bicycle Corridors Study	Bike lane construction
Peoria Street	Oswego to RidgeGate	DSTMA North-South Regional Bicycle Corridors Study	Separated bike lane construction
Corridor-Wide	Corridor-Wide	South I-25 Urban Corridor Study (2016)	TMA Housing Task Force
Corridor-Wide	Corridor-Wide	South I-25 Urban Corridor Study (2016)	Innovation District Partnership
Corridor-Wide	Corridor-Wide	South I-25 Urban Corridor Study (2016)	Bike Connections to Regional Trails
Corridor-Wide	Corridor-Wide	South I-25 Urban Corridor Study (2016)	RTD Bus Service Committee
Corridor-Wide	Corridor-Wide	South I-25 Urban Corridor Study (2016)	Internal Transit Circulator Study
Corridor-Wide	Corridor-Wide	South I-25 Urban Corridor Study (2016)	Mobility Hub Pilot Program
Corridor-Wide	Corridor-Wide	South I-25 Urban Corridor Study (2016)	RTD Transit Pass Study

Corridor	Project Boundaries	Plan/ Study	Project Description
Dry Creek Rd/Easter Ave/Broncos Parkway Corridor	I-25 to Parker Rd	Centennial and Arapahoe County - Dry Creek Corridor Study	Intersection reconfigurations to prioritize east-west corridor traffic movements
E-470	I-25 to Parker	E-470 Traffic and Revenue Study	Widen to eight lanes
Lincoln Avenue	I-25 to Peoria	Advancing Lincoln Avenue	Safety and mobility improvements
Lincoln Ave	Peoria St to Parker Rd	Douglas County Transportation Plan, Lone Tree Plans, DRCOG Regional Transportation Plan	Widen to six lanes
Peoria St	RidgeGate Pkwy to E-470	Douglas County Transportation Plan	Widen to four lanes

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