

3

Section 3

2045 Forecast and Scenarios



To plan for the future transportation system, it is important to forecast population and employment growth that will impact travel demand and to identify transportation improvements that could serve future demand. The NFRMPO developed the 2010 Land Use Allocation Model (LUAM) and the 2015 Regional Travel Demand Model (RTDM) to forecast land use and travel conditions through 2045. Both models were developed using the latest assumptions and identify expected future conditions in “baseline” scenarios for 2045 as well as alternative scenarios for 2045 that address the impacts of different policy choices.

A. Land Use Forecast and Scenarios

Two scenarios were developed using the 2010 LUAM, including the baseline scenario and the high-density scenario. The baseline scenario relies on the inputs provided by member agencies, while the high-density scenario artificially increases the maximum allowable densities in urban core areas to analyze the impact of increasing density beyond current expectations. Both scenarios rely on the regional forecast developed by the Colorado Department of Local Affairs (DOLA) which identifies household and employment control totals for the modeling area.

Regional Forecast

The region is forecasted to grow rapidly as shown in **Figure 3-10**. In 2015, there were 466,000 residents, 185,000 households, and 275,000 jobs. By 2045, it is expected the population will increase 88 percent to 877,000, the number of households will increase by 99 percent to 367,000, and the number of jobs will increase by 67 percent to 459,000. On an annual scale, population growth is 2.1 percent per year, household growth is 2.3 percent per year, and job growth is 1.7 percent per year from 2015 to 2045.

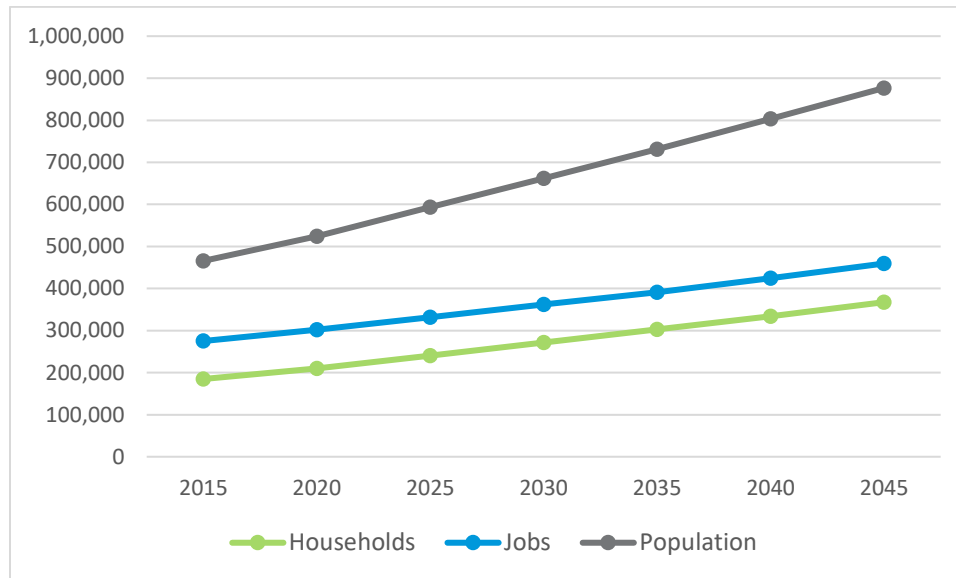
The NFRMPO LUAM allocates household and employment growth through the UrbanCanvas Block Model. UrbanCanvas is a data-driven, location-choice model designed to reflect the interdependencies of the real-estate market and the transportation system.²⁷ Control totals for the entire modeling area, **Figure 3-11**, were developed by DOLA.

The model begins with a base year of 2010-11, and then uses information such as observed growth through 2013, recently constructed and committed developments, zoning and future land use density constraints, and the regional control totals to allocate households and jobs to Census Blocks in each year out to the horizon year 2045. In addition to forecasting the number of households and jobs, the model forecasts attributes including each household’s income, household size, number of workers, and auto ownership and each job’s industry type. The resulting forecasts are aggregated from Census Blocks to Traffic Analysis Zones (TAZ) and are input to the NFRMPO RTDM to project future traffic volumes on roadways, transit ridership, and other travel metrics.

²⁷UrbanCanvas Block-Level Documentation, <https://cloud.urbansim.com/docs/block-model/index.html>, accessed June 11, 2019.

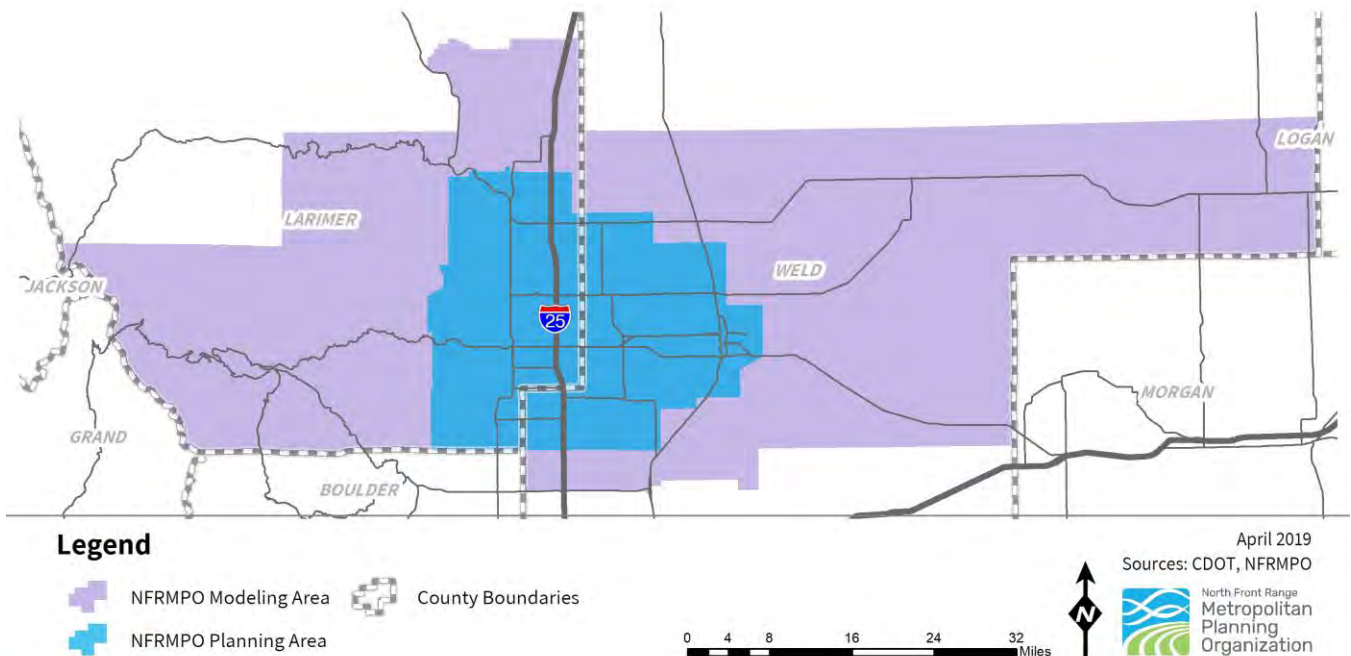
Additional information on the control totals and development of the 2010 LUAM is available in the [2010 LUAM Technical Documentation](#).

Figure 3-10: Forecasted Household and Job Growth in the North Front Range Region, 2015-2045



Source: NFRMPO 2010 LUAM

Figure 3-11: North Front Range Modeling Boundary

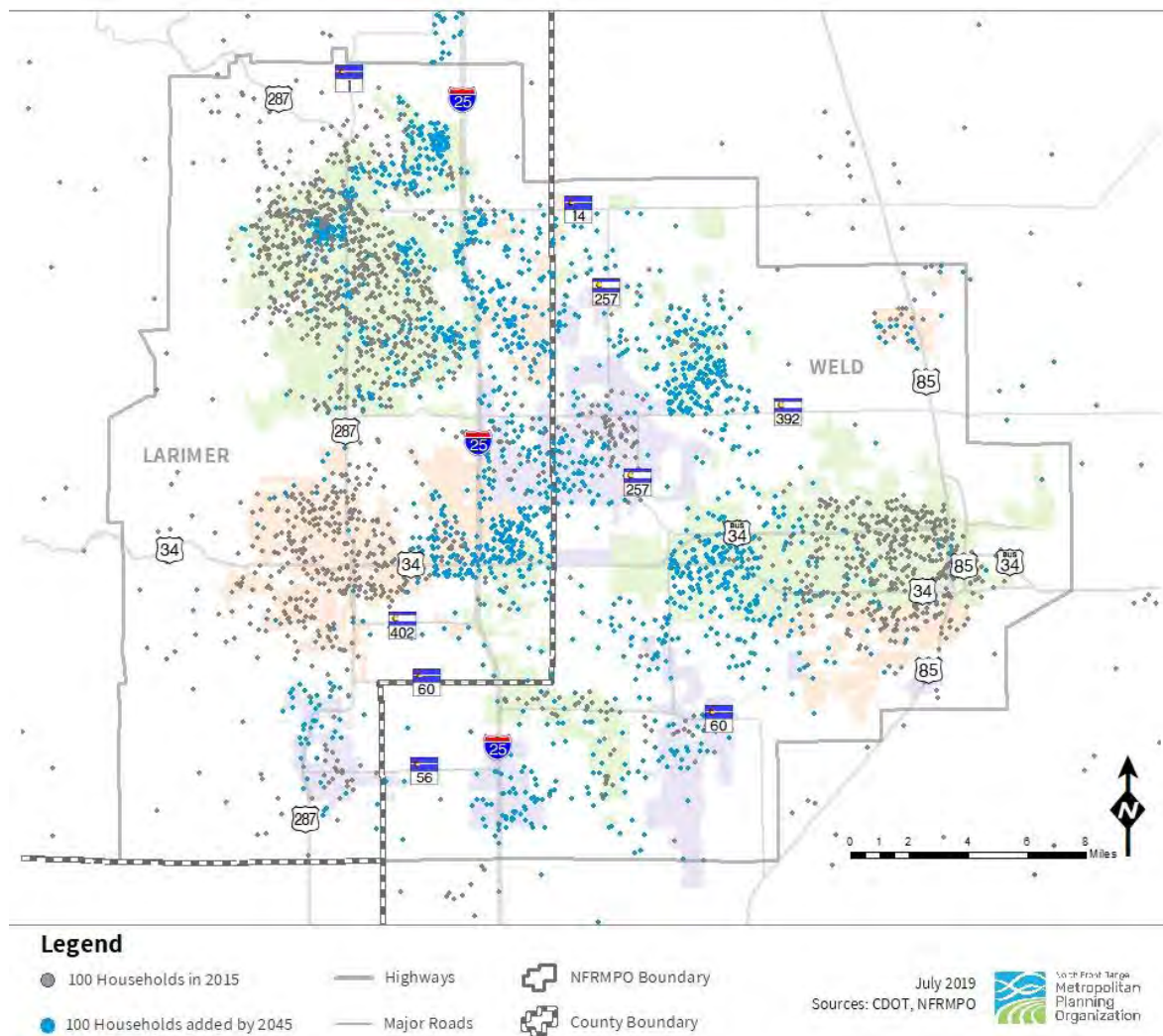


Baseline Land Use Scenario

The baseline land use scenario provides the expected growth in the region out to 2045. The location of households in 2015 and the location of new household growth out to 2045 is illustrated in **Figure 3-12**. The 2010 LUAM forecasts much of the household growth will occur in the center of the region along I-25, as well as in western Greeley, Severance, and the communities in the southern portion of the region.

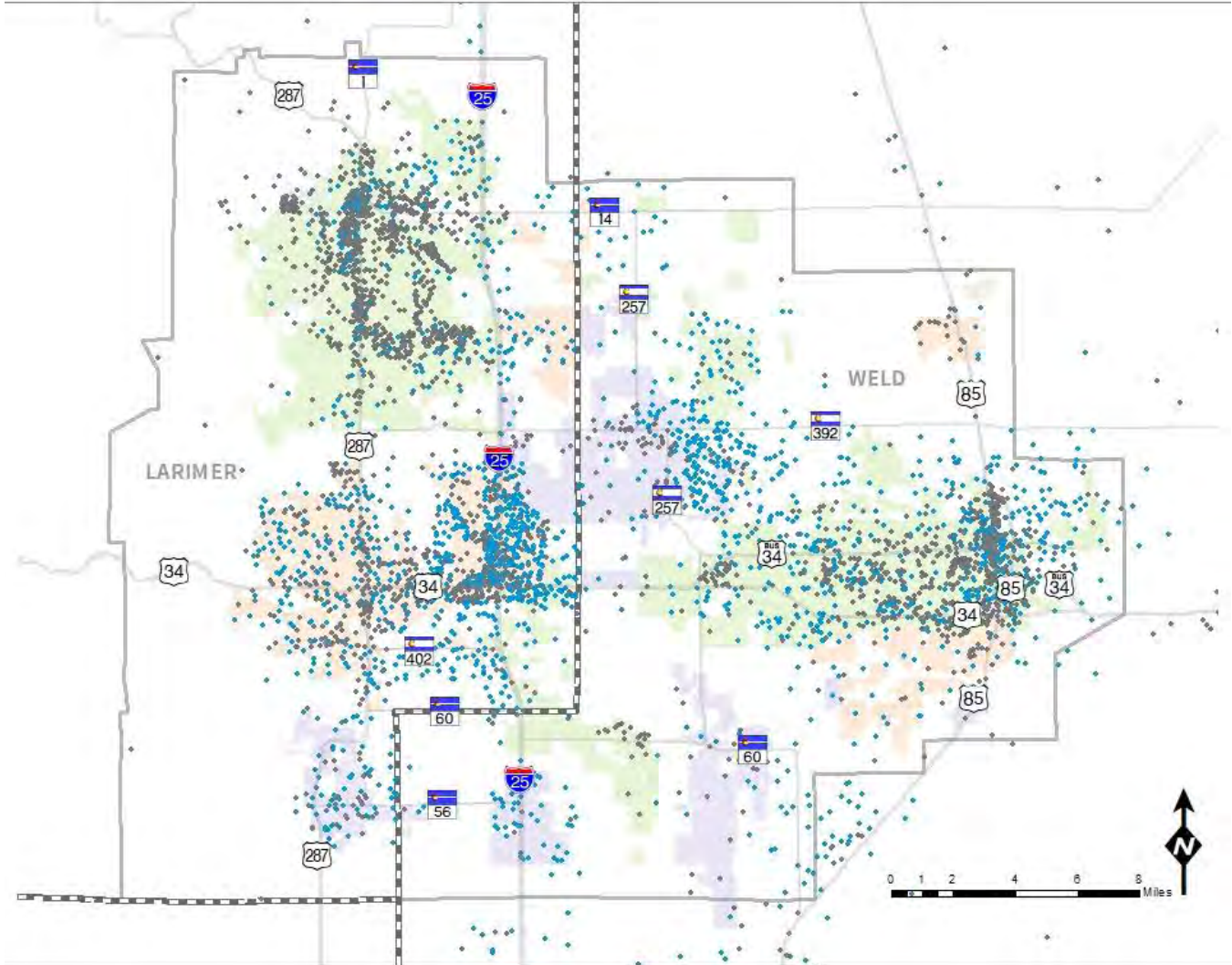
The location of jobs in 2015 and the location of new job growth out to 2045 is illustrated in **Figure 3-13**. The baseline scenario forecasts much of the employment growth out to 2045 will occur along I-25 near US34 and Crossroads Boulevard, with additional growth scattered throughout the rest of the region.

Figure 3-12: NFRMPO Household Growth 2015-2045



Note: Households are distributed randomly within TAZs, the boundaries of which are not identified on the map.

Figure 3-13. Employment Growth 2015-2045



Legend

- 100 Jobs in 2015
- 100 Jobs added by 2045

- Highways
- Major Roads

- ⊕ NFRMPO Boundary
- ⊕ County Boundary

July 2019
Sources: CDOT, NFRMPO



Note: Jobs are distributed randomly within TAZs, the boundaries of which are not identified on the map.

As forecasted in the baseline scenario, the anticipated household growth in each community’s Growth Management Area (GMA) is identified in **Table 3-5**. The highest household growth is forecasted for Severance at 9.2 percent, followed by Timnath at 8.6 percent and Milliken at 5.3 percent. The highest employment growth is forecasted for Severance at 7.3 percent, Timnath at 5.8 percent, and Berthoud at 4.1 percent.

Table 3-5: Household and Job Forecasts by GMA, 2015 and 2045

GMA	Households 2015	Households 2045	Jobs 2015	Jobs 2045	Household Growth Rate (2015-2045)	Job Growth Rate (2015-2045)
Berthoud	3,209	11,589	4,465	14,843	4.4%	4.1%
Eaton	1,907	3,564	2,282	2,388	2.1%	0.2%
Evans	8,405	12,085	5,166	9,907	1.2%	2.2%
Fort Collins	72,643	118,811	110,526	128,310	1.7%	0.5%
Greeley	36,930	63,491	71,061	114,235	1.8%	1.6%
Johnstown	5,884	17,318	6,205	17,331	3.7%	3.5%
LaSalle	890	1,033	1,038	1,096	0.5%	0.2%
Loveland	33,565	57,067	57,087	120,810	1.8%	2.5%
Milliken	2,271	10,595	2,325	4,383	5.3%	2.1%
Severance	1,779	24,894	1,083	8,876	9.2%	7.3%
Timnath	1,278	15,287	1,196	6,547	8.6%	5.8%
Windsor	8,905	25,348	9,297	29,432	3.5%	3.9%

Source: NFRMPO 2010 LUAM

Household Size and Income

Household projections were classified by five household sizes representing the number of people occupying the household and three income levels, identified in **Table 3-6** for 2015 and in **Table 3-7** for the 2045 forecast. Combined, household size and household income are important indicators for travel patterns and mode choice.

Table 3-6: 2015 Household Size and Income Data

Household Income (2010 dollars)	1-person HH	2-person HH	3-person HH	4-person HH	5+ person HH	Total HH	Percent
Less than \$20,000 (Low Income)	15,392	7,846	3,869	1,823	1,007	29,937	16%
\$20,000 - \$74,999 (Medium Income)	21,556	35,689	14,338	9,904	7,051	88,538	48%
\$75,000 and higher (High Income)	4,704	27,041	14,245	12,616	7,783	66,389	36%
Total	41,652	70,576	32,452	24,343	15,841	184,864	100%
Percent	23%	39%	17%	13%	9%	100%	-

Source: NFRMPO 2010 LUAM

Table 3-7: 2045 Household Size and Income Data

Household Income (2010 dollars)	1-person HH	2-person HH	3-person HH	4-person HH	5+ person HH	Total HH	Percent
Less than \$20,000 (Low Income)	32,761	16,110	7,243	2,871	1,580	60,565	16%
\$20,000 - \$74,999 (Medium Income)	46,917	76,908	27,482	16,215	11,008	178,530	49%
\$75,000 and higher (High Income)	10,044	57,415	27,540	20,966	12,407	128,372	35%
Total	89,722	150,433	62,265	40,052	24,995	367,467	100%
Percent	24%	41%	17%	11%	7%	100%	-

Source: NFRMPO 2010 LUAM

Employment by Sector

Overall, employment is projected to grow at approximately two percent per year for the entire region, with Weld County projected to grow at a slightly higher rate than Larimer County. For input into the RDTM, employment was divided into four categories: Basic, Medical, Retail, and Service.

- **Basic jobs**, also known as production-distribution, are those based on outside dollars flowing into the local economy and include industries that manufacture and/or produce goods locally for export outside the region. Basic jobs include manufacturing, mining, utilities, transportation, and warehousing among others.
- **Medical jobs** include health care and social assistance.
- **Retail jobs** include retail trade and food service.
- **Service jobs** include finance, insurance, real estate, and public administration.

The Basic, Medical, Retail, and Service employment estimates for 2015 and forecasts for 2045 are shown in **Table 3-8**. The employment forecast does not account for self-employed people working from home.

The NFRMPO 2010 Household Survey provides information about how residents in the region commute to work. The vast majority of people who commute to work do so in automobiles as shown in **Table 3-9**. Most commuters who use bicycles or walk to work live in Fort Collins or Greeley/Evans.

Table 3-8: Classification of Employment, 2015 and 2045

Classification	2015		2045		Percent Growth (%)
	Employees	Percentage (%)	Employees	Percentage (%)	
Basic	61,520	22%	103,949	23%	69%
Medical	39,833	14%	66,358	14%	67%
Retail	55,638	20%	92,341	20%	66%
Service	118,164	43%	196,794	43%	67%
Total	275,155	100%	459,442	100%	67%

Source: NFRMPO 2010 LUAM

Table 3-9: Commute to Work by Mode, 2010

Travel Mode	Commuter Trips (%)
Auto/van/truck driver or passenger	89.3%
Bike	6.2%
Walk	3.4%
Transit (local bus or express bus)	0.5%
Other (don't know or refused)	0.6%
Total	100%

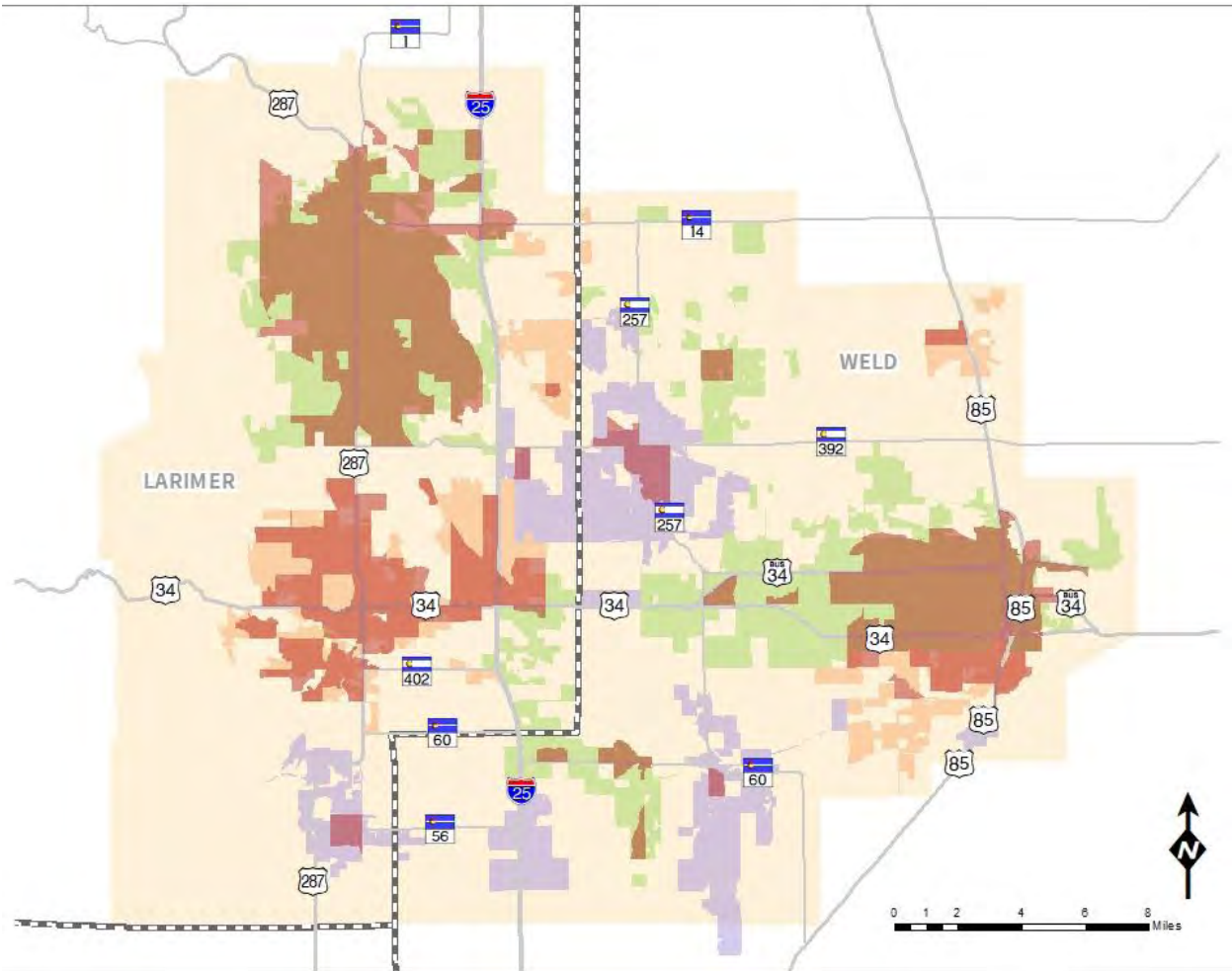
Source: NFRMPO Household Survey, 2010

High-Density Scenario

The high-density scenario was created to demonstrate how the region would develop if additional density was allowed in urban core areas compared to the density currently identified in communities' long range plans. Urban core areas were identified based on locations with the highest density in 2015 and are displayed in **Figure 3-14**. To accommodate additional growth, the maximum allowable densities in the urban core were doubled in the high-density scenario. The high-density scenario was also used in conjunction with the transit-investment travel model scenario, as discussed in the following section.

Compared to the baseline scenario, the high-density scenario forecasts higher household density in the region's largest communities in 2045, including Fort Collins, Greeley, and Loveland, and lower density in many of the region's smaller communities. **Figure 3-15** and **Figure 3-16** illustrate the household density in 2045 according to the baseline scenario and the high-density scenario, respectively.

Figure 3-14: Urban Core Areas

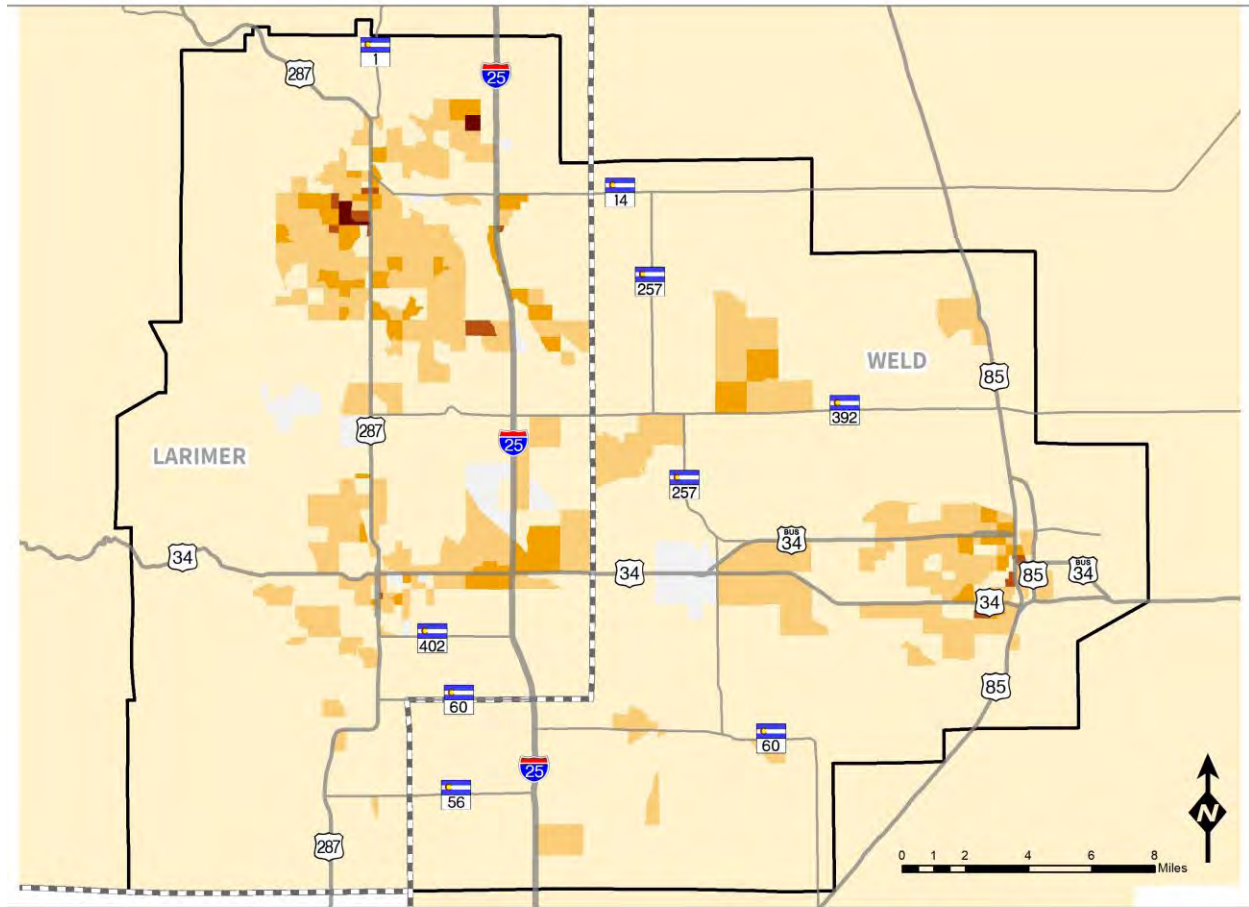


Legend

- Urban Cores
- NFRMPO Boundary
- County Boundary

July 2019
Sources: CDOT, NFRMPO
North Front Range Metropolitan Planning Organization

Figure 3-15: Baseline Scenario Household Density, 2045



Legend

Households per Acre

- 0.0
- 0.1 - 2.0
- 2.1 - 5.0
- 5.1 - 10.0
- 10.1 - 20.0
- 20.1 - 32.6

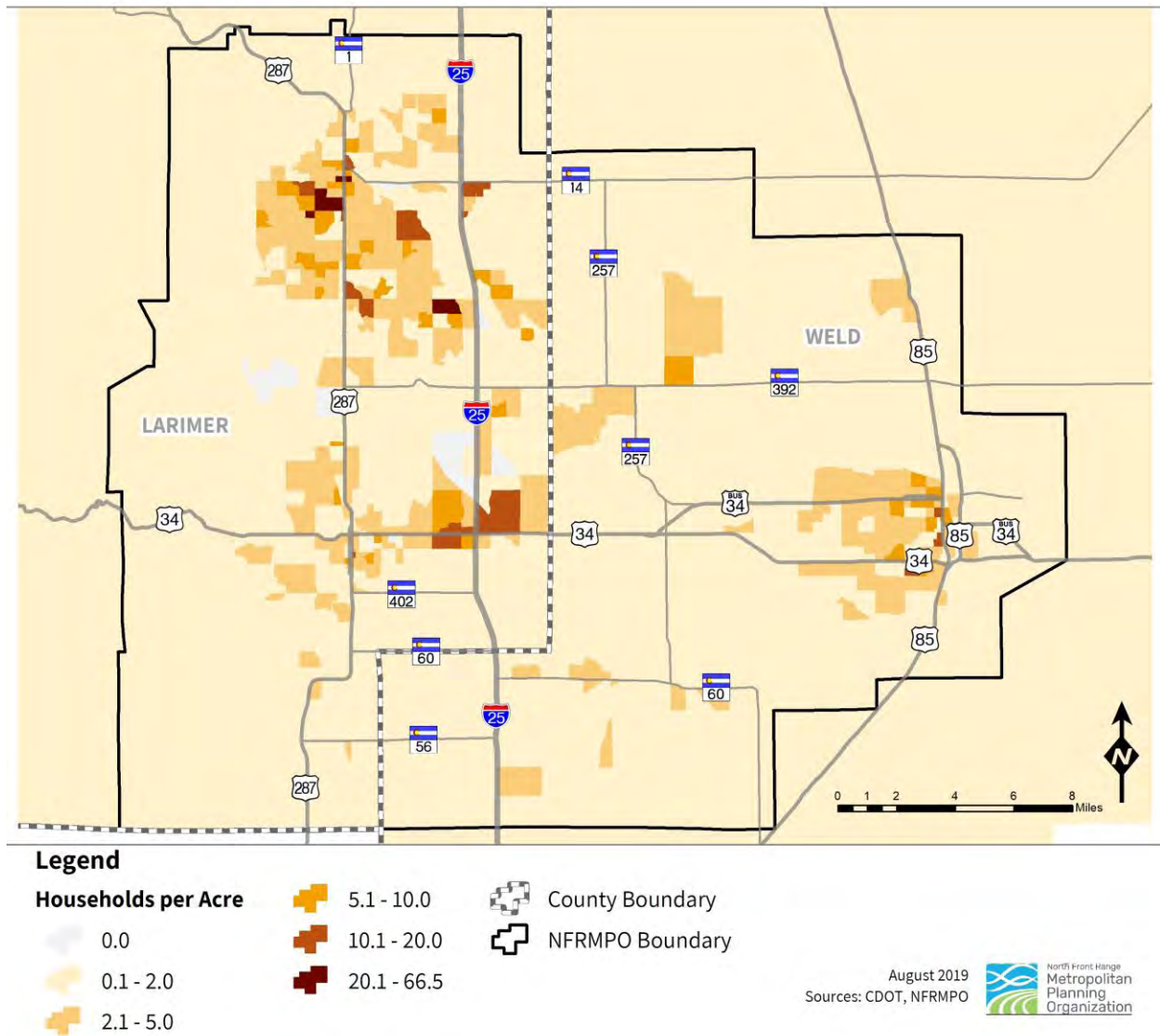
- County Boundary
- NFRMPO Boundary

August 2019
Sources: CDOT, NFRMPO



Note: Household density is displayed by TAZ. To improve readability, TAZ boundaries are not delineated.

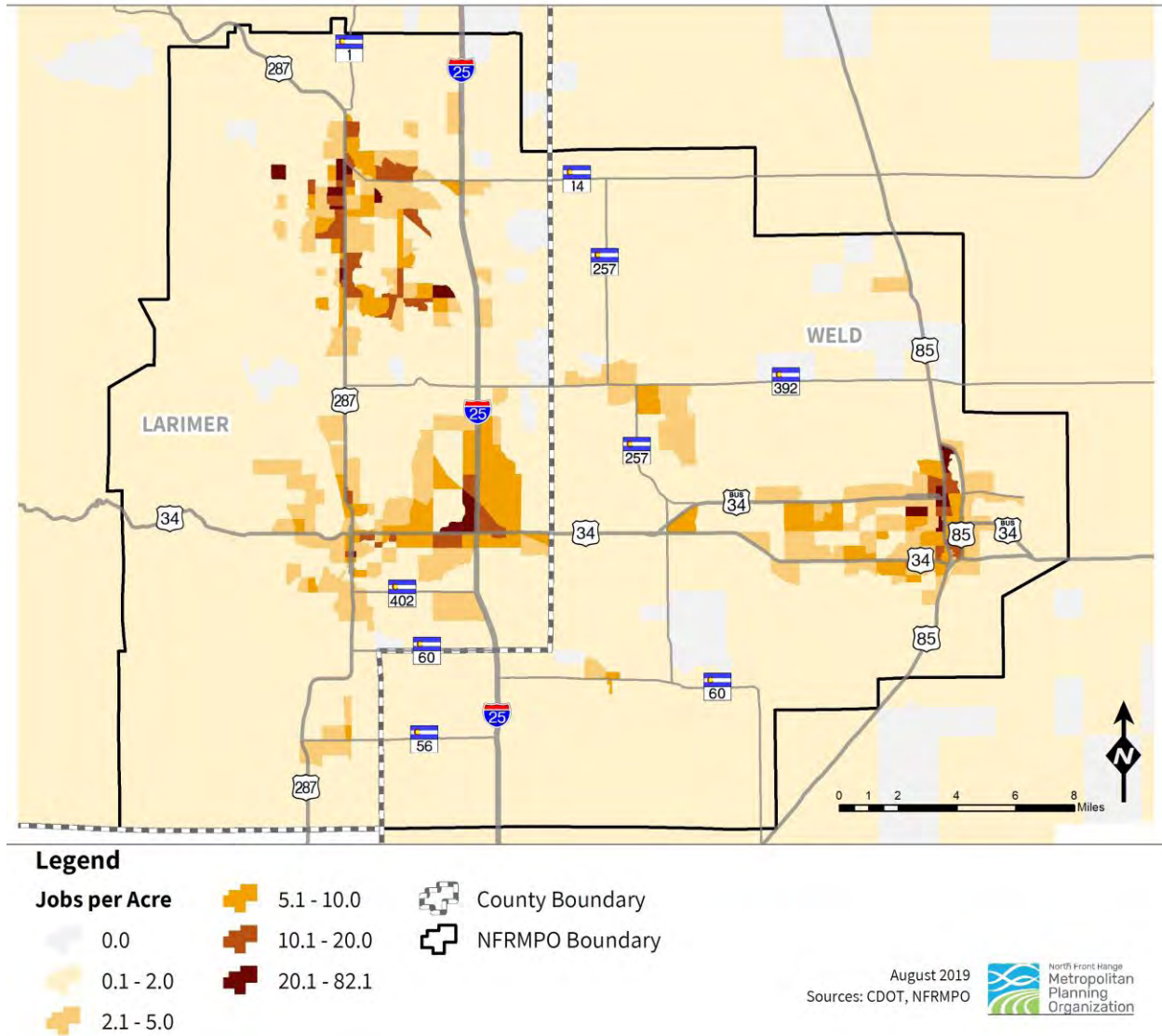
Figure 3-16: High-Density Scenario Household Density, 2045



Note: Household density is displayed by TAZ. To improve readability, TAZ boundaries are not delineated.

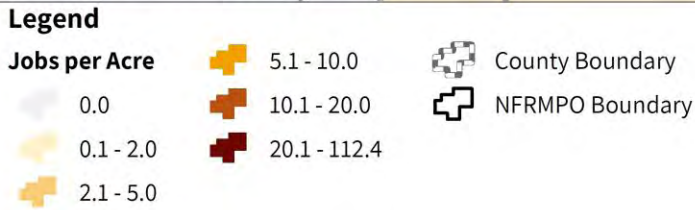
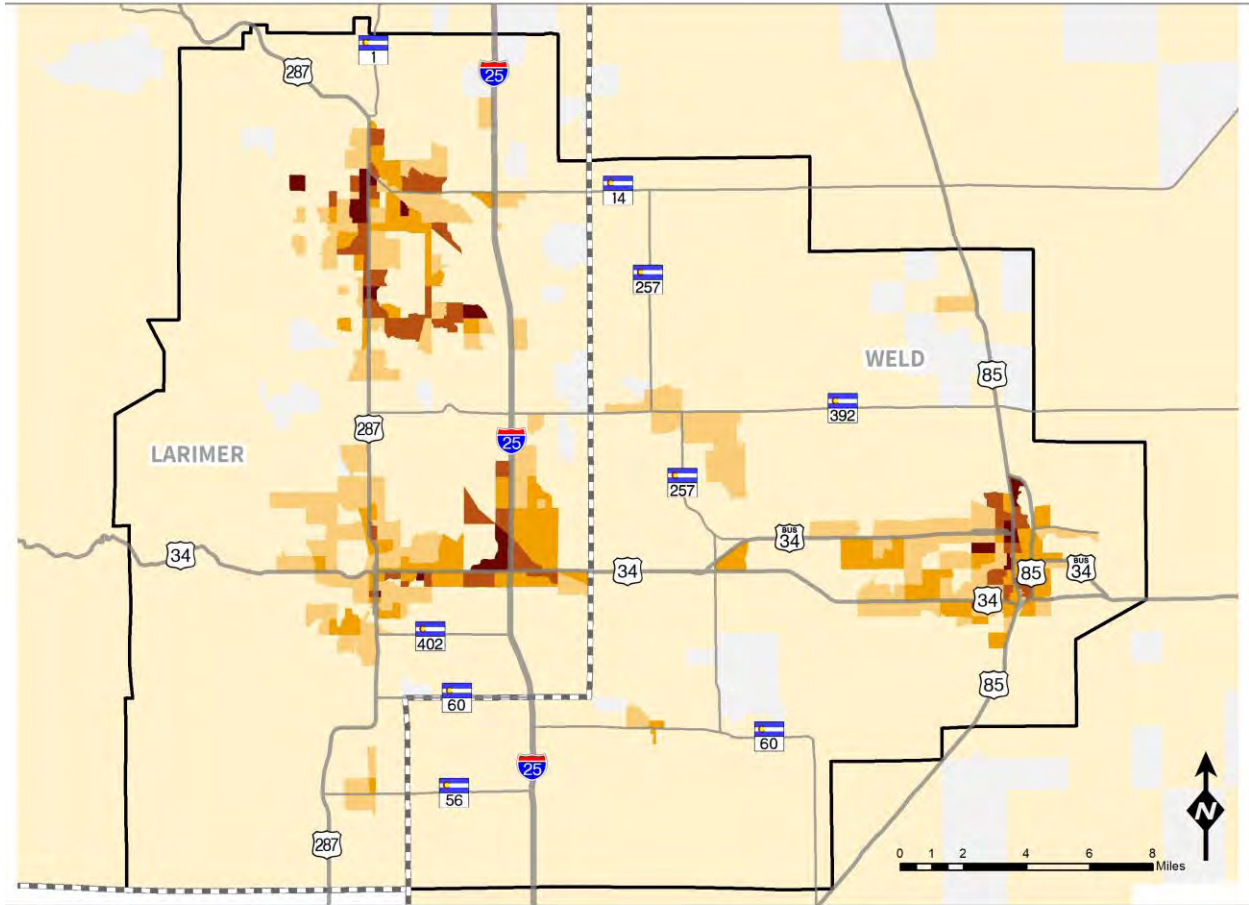
Both the baseline scenario and the high-density scenario show similar job density in 2045, as shown in **Figure 3-17** and **Figure 3-18**.

Figure 3-17: Baseline Scenario Job Density, 2045



Note: Job density is displayed by TAZ. To improve readability, TAZ boundaries are not delineated.

Figure 3-18: High-Density Scenario Job Density, 2045



August 2019
Sources: CDOT, NFRMPO

Note: Job density is displayed by TAZ. To improve readability, TAZ boundaries are not delineated.

B. Transportation Forecast and Scenarios

The 2015 RTDM builds upon the outputs from the 2010 LUAM to identify how the region's transportation system will perform in 2045, including traffic volume, congested travel speeds, and transit ridership. The 2015 RTDM uses a base year of 2015 and a combination of destination choice and gravity modeling to forecast travel choices by trip purpose.

Five transportation scenarios were developed using the 2015 RTDM, including the baseline scenario and four alternative investment scenarios. The baseline scenario forecasts the transportation system using the fiscally constrained priority transportation projects. The alternative investment scenarios test the following investment options:

- **No Build** – No transportation investments from 2020 through 2045.
- **Fiscally constrained transit investment** – All flexible funds invested in the 2045 Regional Transit Element (RTE) buildout corridors including WCR74, Greeley to Fort Morgan, Loveland to Estes Park, US34, US85, and Regional Rail between Greeley and Fort Collins and between Greeley and Loveland.
- **Fiscally constrained I-25** – All flexible funds invested in capacity projects along I-25.
- **Fiscally unconstrained: All identified projects** – All identified transportation projects.

The baseline land use forecast was used to analyze all of the transportation scenarios. In addition, the high-density land use scenario was analyzed with the baseline transportation scenario and the fiscally constrained transit investment scenario for a total of seven scenarios.

As discussed in **Chapter 3, Section 1: Technology**, connected and autonomous vehicles (CAV) have the potential to drastically change travel patterns and the functioning of the transportation system as a whole. CAV technology could decrease congestion by reducing the incidence of crashes and increasing roadway capacity through closer following distances, or it could increase congestion due to travel behavior changes such as making additional trips and longer trips, especially if driverless ridesharing becomes available. While the potential impacts of CAV technology on the transportation system are important to consider, the NFRMPO 2015 RTDM does not forecast the potential impacts of CAV adoption. CDOT is currently developing CAV scenarios for use in the statewide travel model, which will provide insight into the potential impacts of CAV within the State and the North Front Range region.

Baseline Transportation Scenario

The baseline transportation scenario represents the expected transportation system in 2045 and includes the fiscally constrained, regionally significant projects identified in **Chapter 3, Section 5**. Compared to the 2015 network, the fiscally constrained 2045 network includes roadway widenings, new roads, and newly paved roads, as well as additional transit routes.

The number of lanes in the 2045 fiscally constrained roadway network are displayed in **Figure 3-19**. The peak period headways in the 2045 fiscally constrained transit network is displayed in **Figure 3-20** according to three categories: 10-15 minutes, 20-30 minutes, and 60 minutes and above. **Figure 3-21** shows the breakdown of shifts in mode choice between 2015 and 2045. Drive Alone, Carpool, and Transit all see slight increases during this time period.

Compared to the base year 2015, the region is expected to experience a 90 percent increase in vehicle miles traveled (VMT) by 2045, as shown in **Table 3-10**. Volumes on each roadway in 2015 and 2045 are presented in **Figure 3-22** and **Figure 3-23**, respectively.

Roadway travel in 2045 is forecasted to be slower and more congested than in 2015, with vehicle hours traveled (VHT) more than doubling and almost six times as many vehicle hours of delay. The average speed across the network is forecasted to decrease from 37 mph in 2015 to 29 mph in 2045.

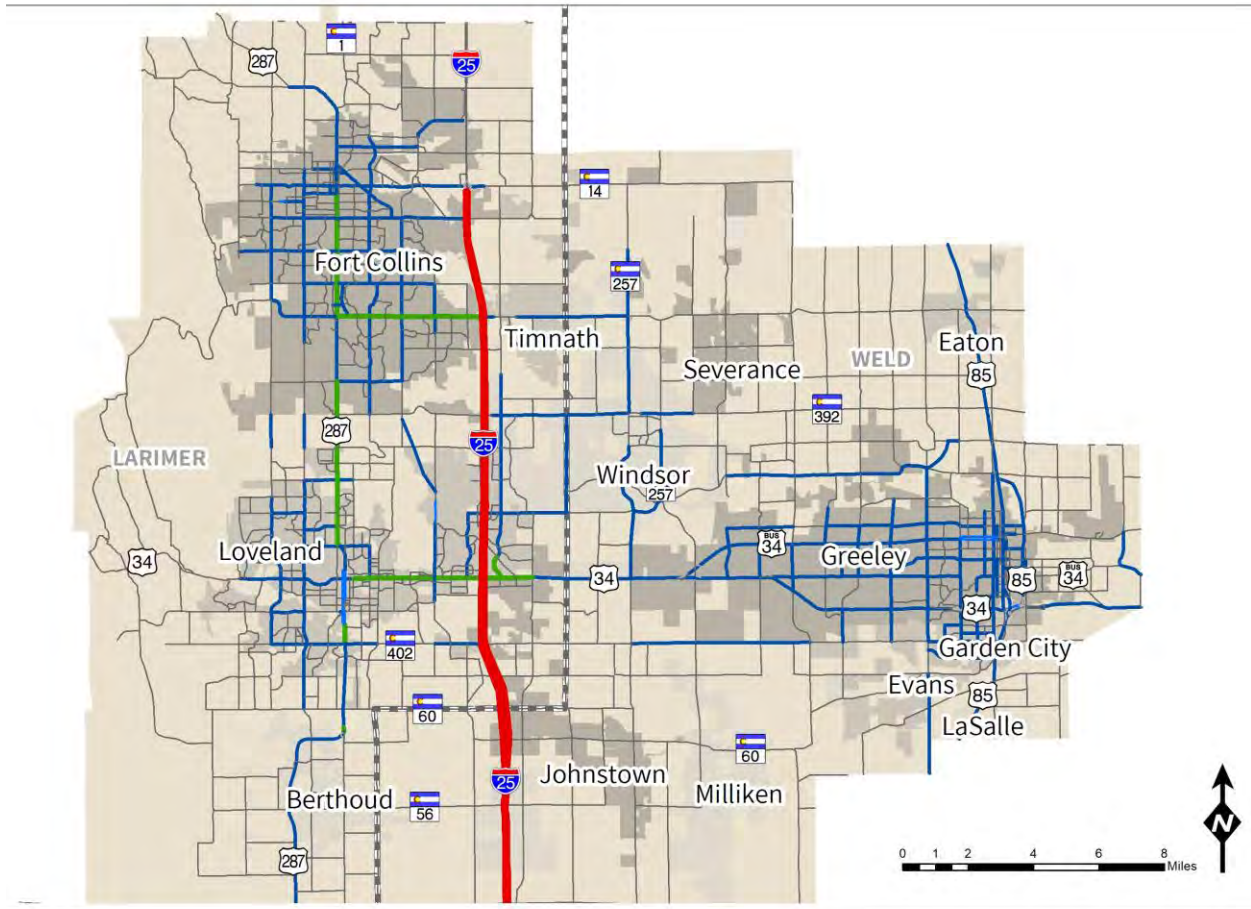
The Travel Time Index (TTI), a measure of congestion that compares travel time during the peak period to free-flow conditions, is forecasted to be higher in 2045 than in 2015. As defined in the 2019 Congestion Management Process

(CMP), a TTI of 1.5 or higher is indicative of congestion. In 2015, 0.8 percent of the roadway system had a TTI of 1.5 or higher, while the percentage of the system forecasted to have a TTI of 1.5 or higher in 2045 is 7.1 percent. **Figure 3-24** and **Figure 3-25** display TTI in 2015 and 2045, respectively.

Level of Service (LOS) is a qualitative measure of how well the roadway serves traffic. LOS ranges from a score of A, which is free-flow traffic, to a score of F, which is stop-and-go traffic that is poorly served by the roadway's capacity. The percentage of the system with a LOS of F is expected to increase from 6.1 percent in 2015 to 16.6 percent in 2045. LOS is displayed in **Figure 3-26** and **Figure 3-27** for 2015 and 2045, respectively.



As shown in **Figure 3-21** the majority of person trips in the North Front Range region are by vehicle, with 45.2 percent of person trips by drive-alone automobile and 44.1 percent of person trips by carpool in 2015. The carpool category includes any vehicle with a driver and at least one passenger. Walk trips account for 7.5 percent of trips, followed by biking at 2.8 percent and transit at 0.4 percent in 2015. By 2045 the mode split is expected to hold relatively constant, with slight increases to automobile modes and transit, and slight decreases to walking and biking mode shares.

Figure 3-19: Fiscally Constrained Roadway Network by Number of Lanes, 2045



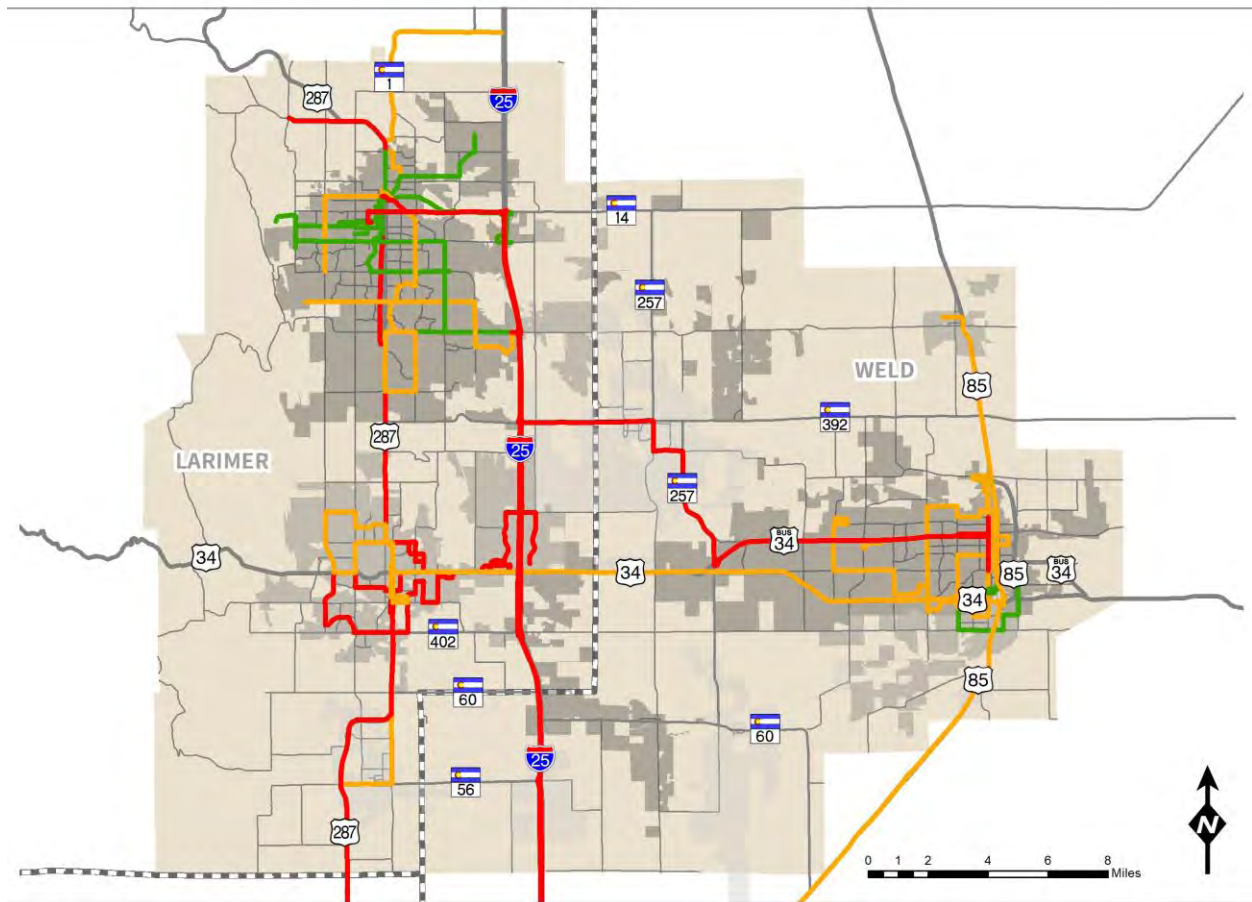
Legend

Number of Lanes

- 1
- 2
- 3
- 4
- 6
- 2 General Purpose + 1 Express Lane in each direction
-  County Boundary
-  NFRMPO Boundary

July 2019
Sources: CDOT, NFRMPO  North Front Range Metropolitan Planning Organization

Figure 3-20: Fiscally Constrained Transit Network by Peak Period Headways, 2045



Legend

Peak Period Headways

- 10-15 minutes
- 20-30 minutes
- 60+ minutes



County Boundary



NFRMPO Boundary

July 2019
Sources: CDOT, NFRMPO



Table 3-10: 2015 and 2045 Travel Model Metrics, Baseline Scenario

Metric	2015	2045	Percent Change
Vehicle Miles Traveled (VMT)	10,689,996	20,259,703	90%
Vehicle Hours Traveled (VHT)	288,357	687,302	138%
Vehicle Hours of Delay	26,898	179,439	567%
Percent of System with TTI>=1.5	0.8%	7.1%	788%
Percent of System with LOS F	6.1%	16.6%	173%
Person Miles Traveled	13,584,093	26,214,326	93%
Person Hours Traveled	376,301	913,679	143%
Average Speed	37 mph	29 mph	-22%

Figure 3-21: 2015 and 2045 Mode Choice Percentages, Baseline Scenario

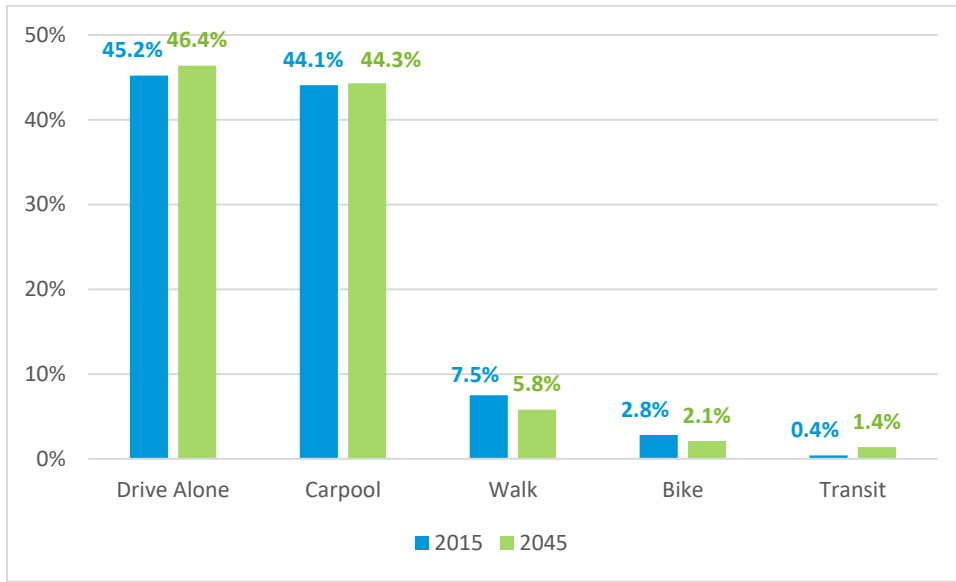


Figure 3-22: 2015 Average Daily Traffic Volumes

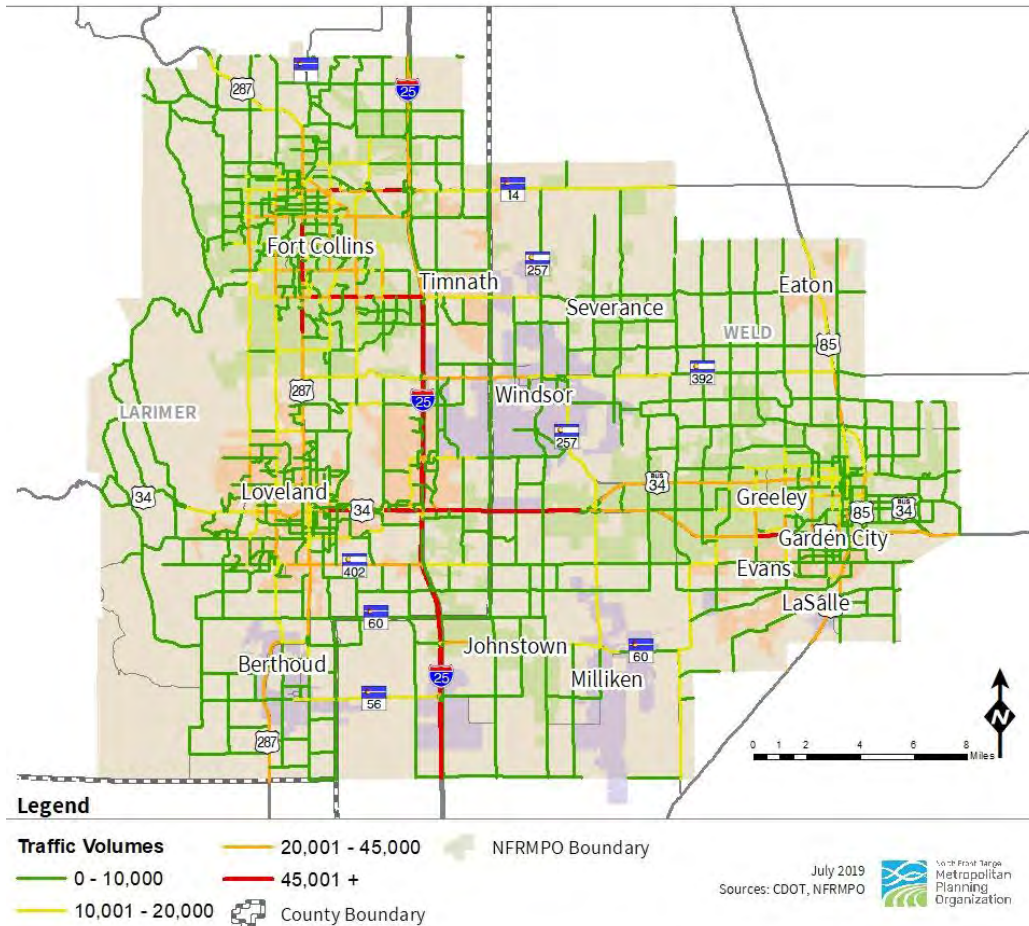


Figure 3-23: 2045 Average Daily Traffic Volumes, Baseline Scenario

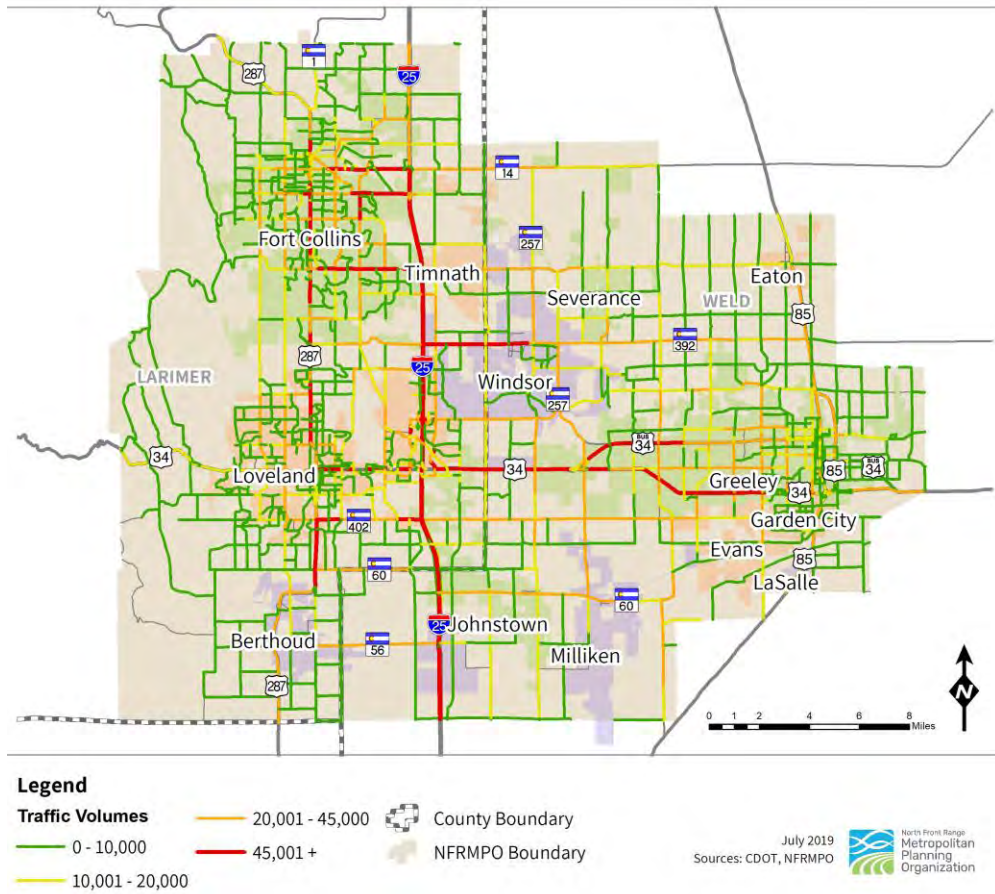


Figure 3-24: 2015 TTI

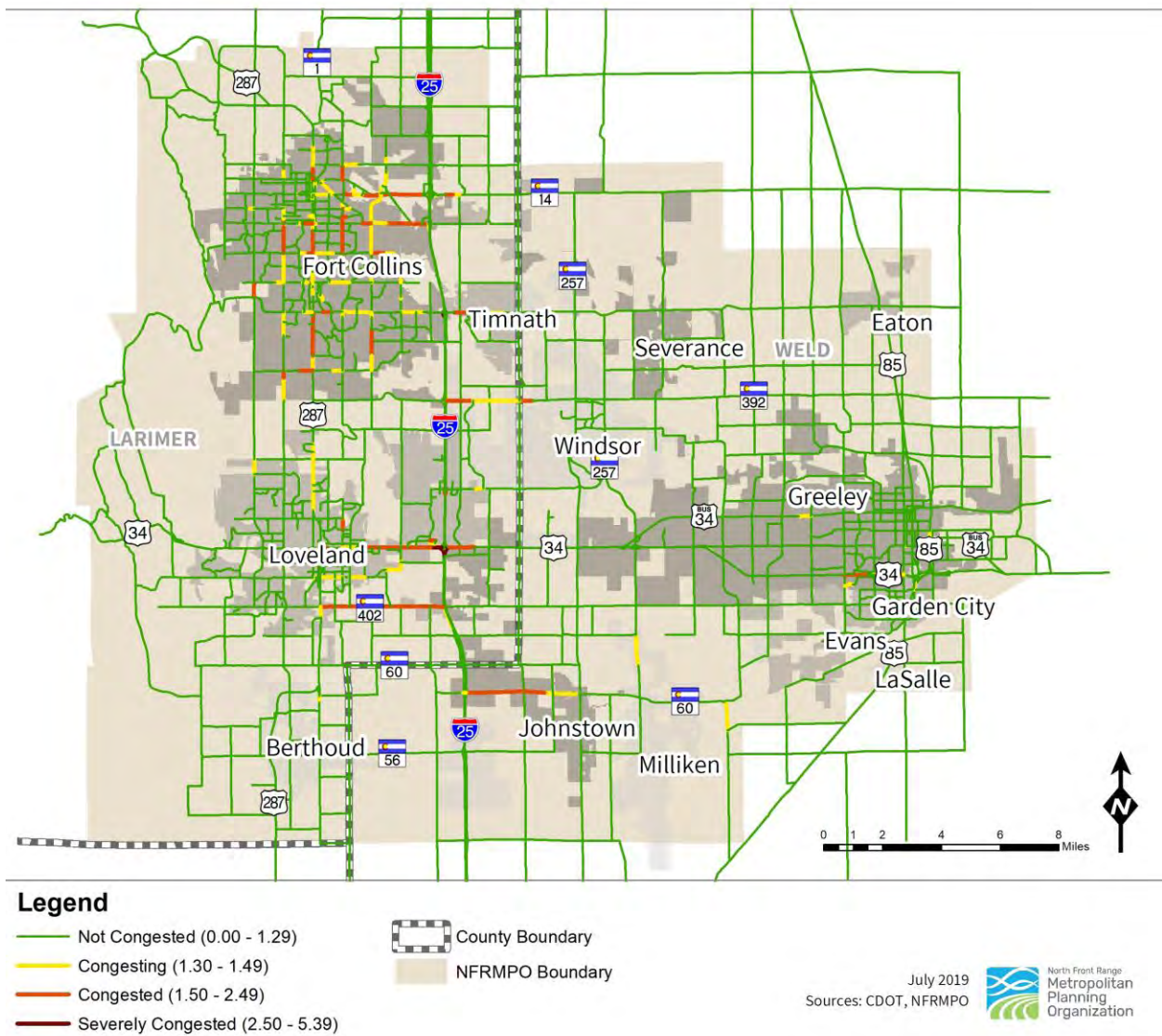
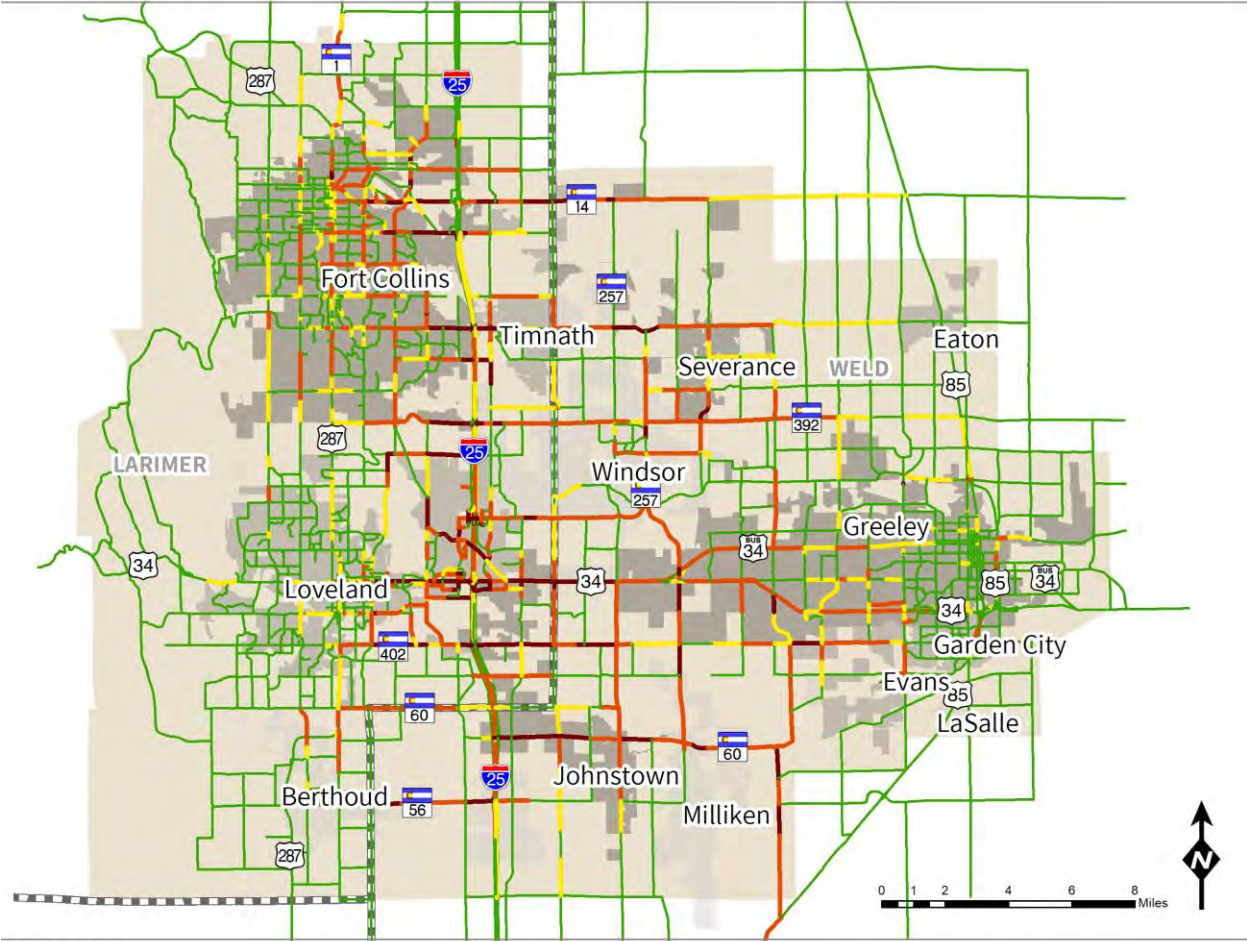


Figure 3-25: 2045 TTI, Baseline Scenario

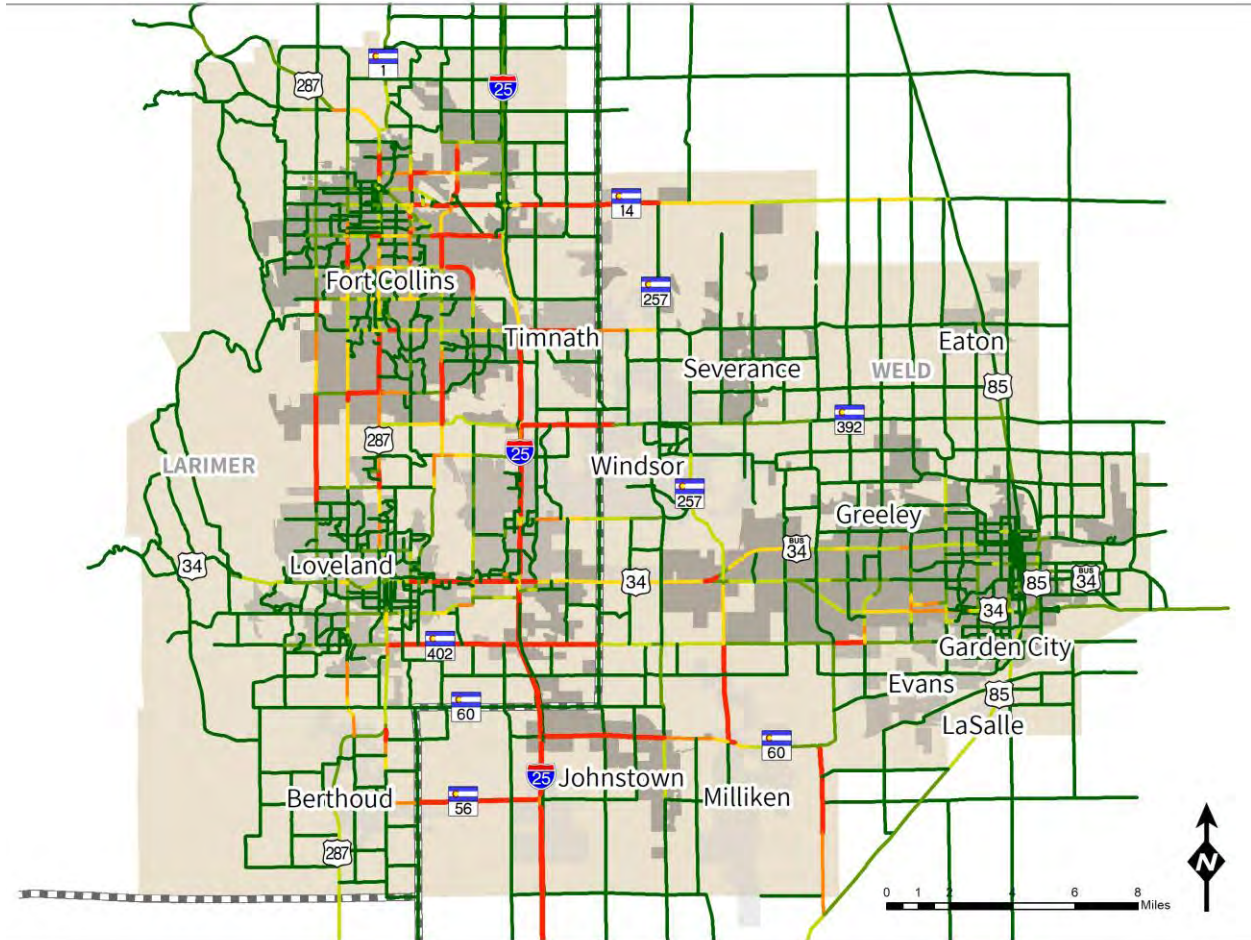


Legend

- Not Congested (0.00 - 1.29)
- Congesting (1.30 - 1.49)
- Congested (1.50 - 2.49)
- Severely Congested (2.50 - 23.20)
- County Boundary
- NFRMPO Boundary

July 2019
Sources: CDOT, NFRMPO

Figure 3-26: 2015 LOS



Legend

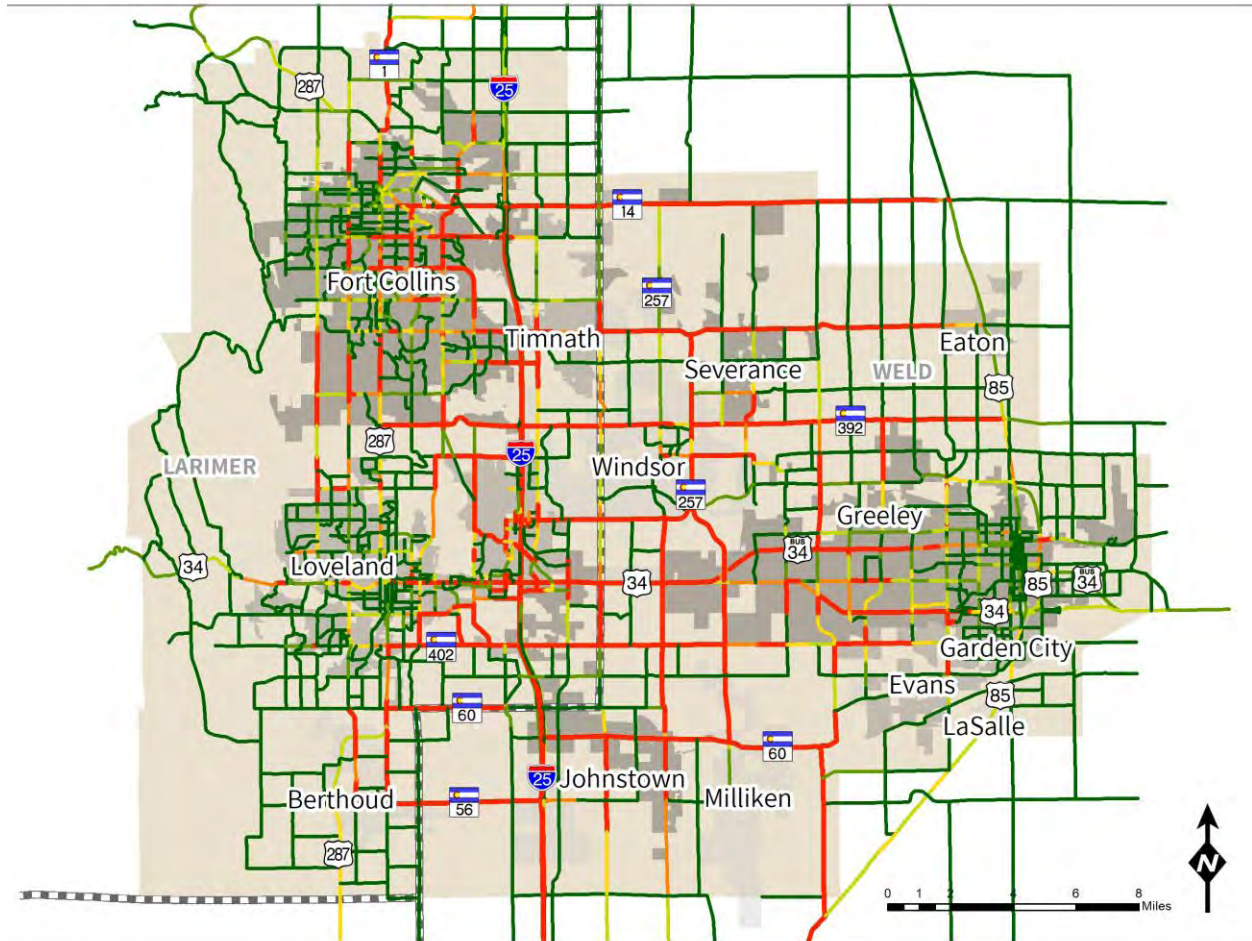
LOS

- | | | | |
|---|---|---|---|
|  |  |  |  County Boundary |
|  |  |  |  NFRMPO Boundary |

July 2019
Sources: CDOT, NFRMPO



Figure 3-27: 2045 LOS, Baseline Scenario



Legend

LOS

- | | | | | | | | |
|--|---|--|---|--|---|--|-----------------|
| | A | | C | | E | | County Boundary |
| | B | | D | | F | | NFRMPO Boundary |

July 2019
 Sources: CDOT, NFRMPO North Front Range Metropolitan Planning Organization

Alternative Investment Scenarios

The alternative investment transportation scenarios identify how the transportation system would function if the region's transportation funding is applied to different sets of projects or if the amount of funding changes thereby impacting the number of projects that can be funded. A total of four alternative investment transportation scenarios were developed. Select transportation scenarios were analyzed with the high-density land use scenario identified in the previous section.

No Build Scenario

The no build scenario tests how the transportation system functions if no transportation investments are made from 2020 through 2045.

Fiscally Constrained Transit Investment

This scenario funds the 2045 Regional Transit Element (RTE) buildout corridors including WCR74, Greeley to Fort Morgan, Loveland to Estes Park, US34, US85, and Regional Rail between Greeley and Fort Collins and between Greeley and Loveland. To retain fiscal constraint, the scenario removes funding from roadway projects on county and local roads. The resulting transportation system is displayed in **Figure 3-28**.

Fiscally Constrained I-25

This scenario funds the third general purpose lane on I-25 and remains fiscally constrained by not funding all roadway capacity projects other than those on I-25. The resulting transportation system for this scenario is displayed in **Figure 3-29**.

Fiscally Unconstrained: All identified projects

This scenario funds all of the identified transportation projects at an additional cost of

\$3.5B. The additional projects are displayed in **Figure 3-30**.

Alternative Investment Scenario Analysis

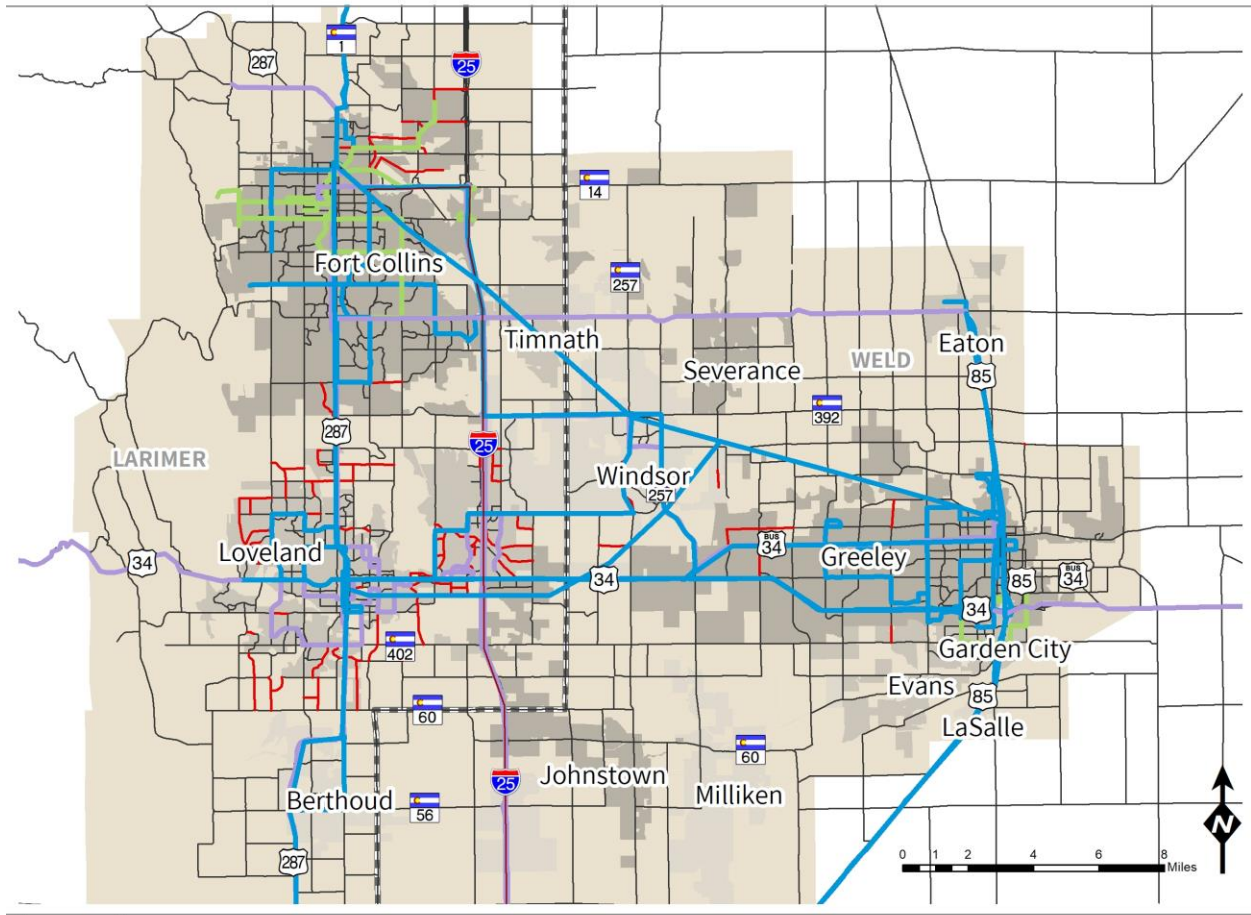
Several metrics are reported for each roadway scenario, including maps of TTI and LOS and tables identifying systemwide statistics including VMT, VHT, vehicle hours of delay, percent of system with TTI at or above 1.5, percent of system with LOS F, person miles traveled, person hours traveled, average speed, and mode choice. The transit investment scenario outcomes focus on the impacts to transit.

Compared to the 2045 baseline scenario, all of the alternative roadway investment scenarios have higher percentages of the system with a TTI at or above 1.5, except for the fiscally unconstrained scenario, as shown in **Table 3-11**. **Figure 3-31**, **Figure 3-32**, and **Figure 3-33** display the TTI for the alternative roadway investment scenarios.

Similarly, all of the alternative roadway investment scenarios have higher percentages of the system with a LOS of F compared to the 2045 baseline scenario, as shown in **Table 3-11**.

Figure 3-34, Figure 3-35, and Figure 3-36 display the LOS for the alternative roadway investment scenarios.

Figure 3-28: Fiscally Constrained Transit Investment Scenario

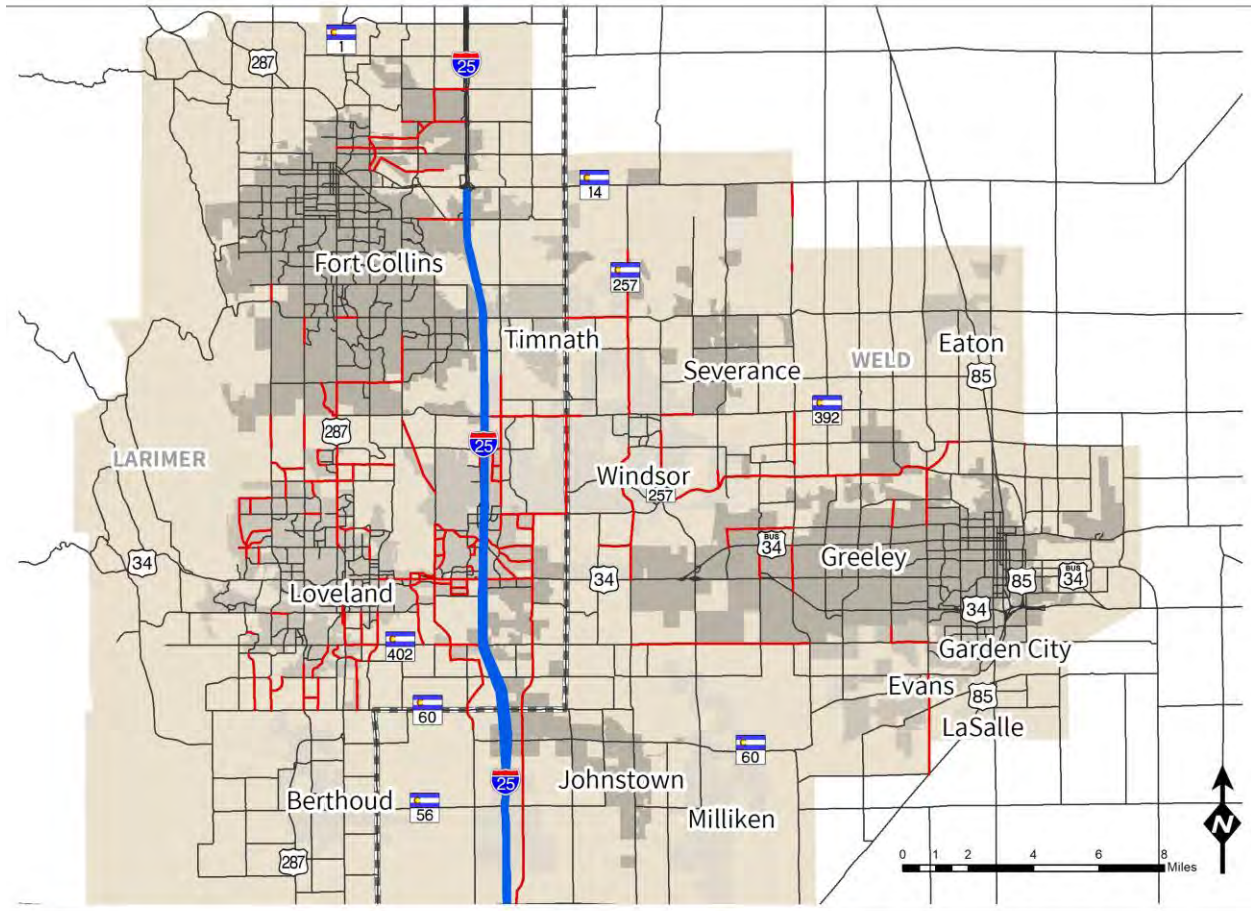


Legend






- | | | |
|-----------------------------|------------------|-----------------|
| Peak Period Headways | Removed Projects | County Boundary |
| 10-15 minutes | Roadway Network | NFRMPO Boundary |
| 20-30 minutes | | |
| 60+ minutes | | |

July 2019
Sources: CDOT, NFRMPO
 North Front Range Metropolitan Planning Organization

Figure 3-29: Fiscally Constrained I-25 Scenario

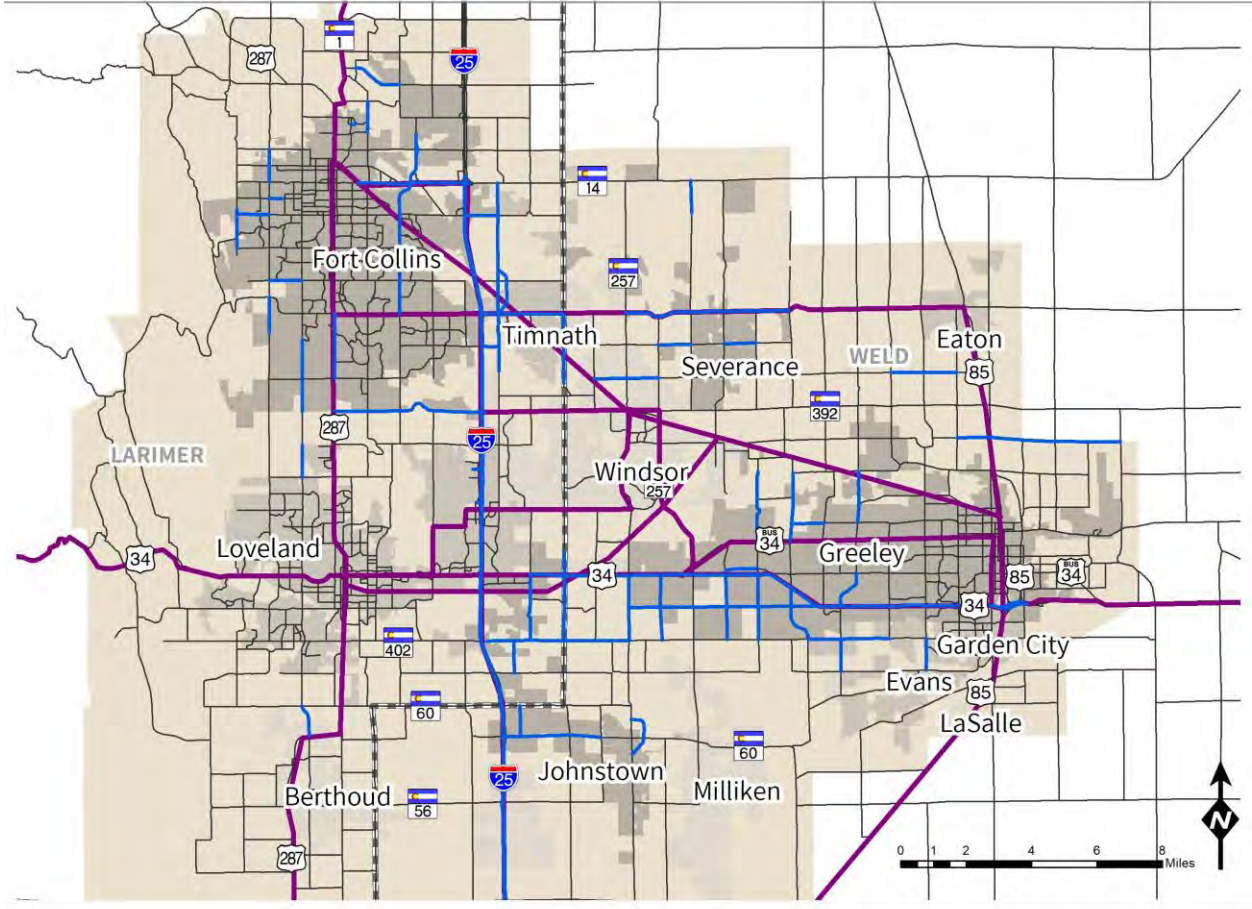


Legend

-  Added Project (3 General Purpose + 1 Express Lane in each direction)
-  Removed Projects
-  Roadway Network
-  County Boundary
-  NFRMPO Boundary

July 2019
 Sources: CDOT, NFRMPO  North Front Range Metropolitan Planning Organization

Figure 3-30: Fiscally Unconstrained Scenario



Legend

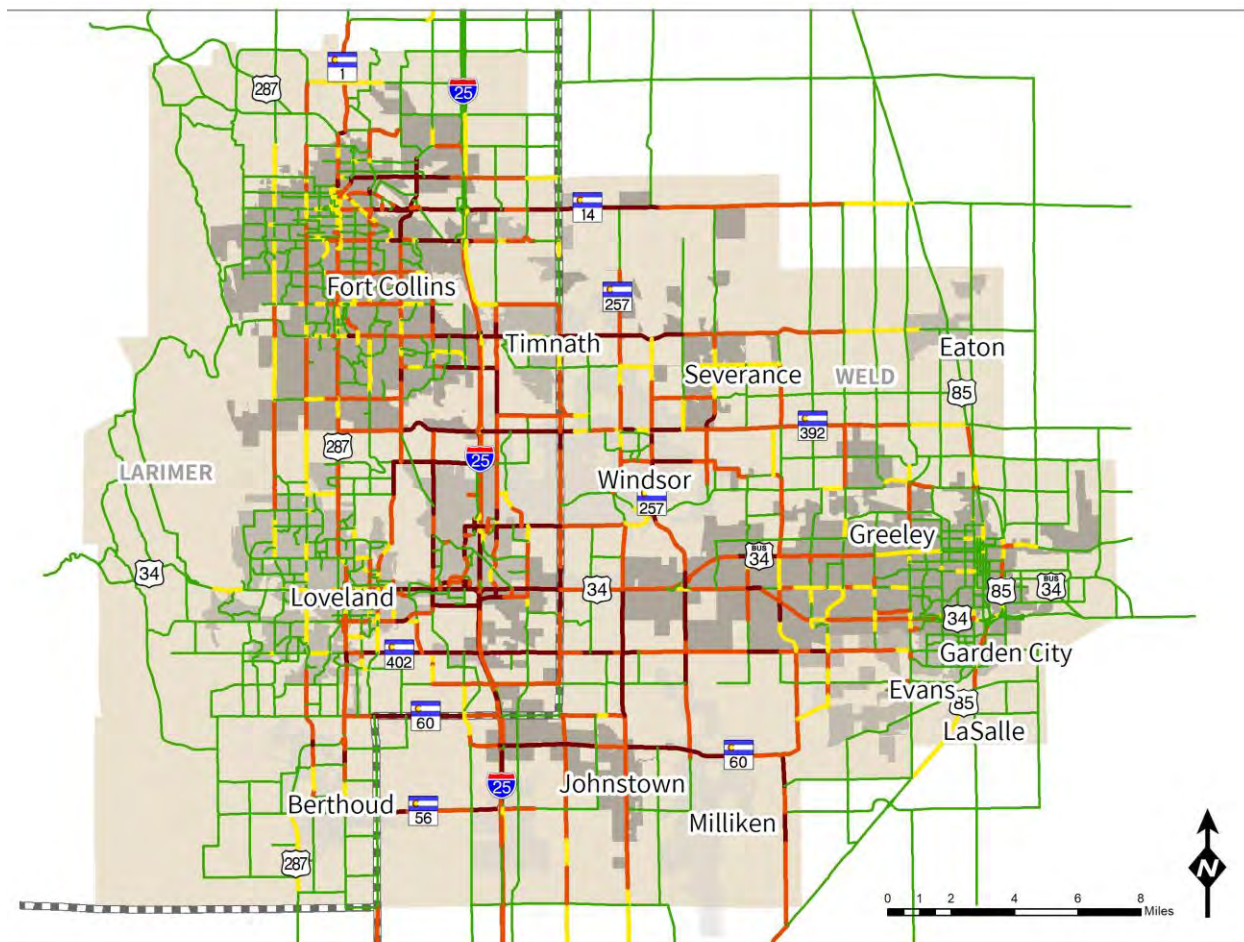
- Added Roadway Projects
- Added Transit Projects
- Roadway Network
- County Boundary
- NFRMPO Boundary

July 2019
 Sources: CDOT, NFRMPO



North Front Range
 Metropolitan
 Planning
 Organization

Figure 3-31: 2045 TTI, No Build Scenario



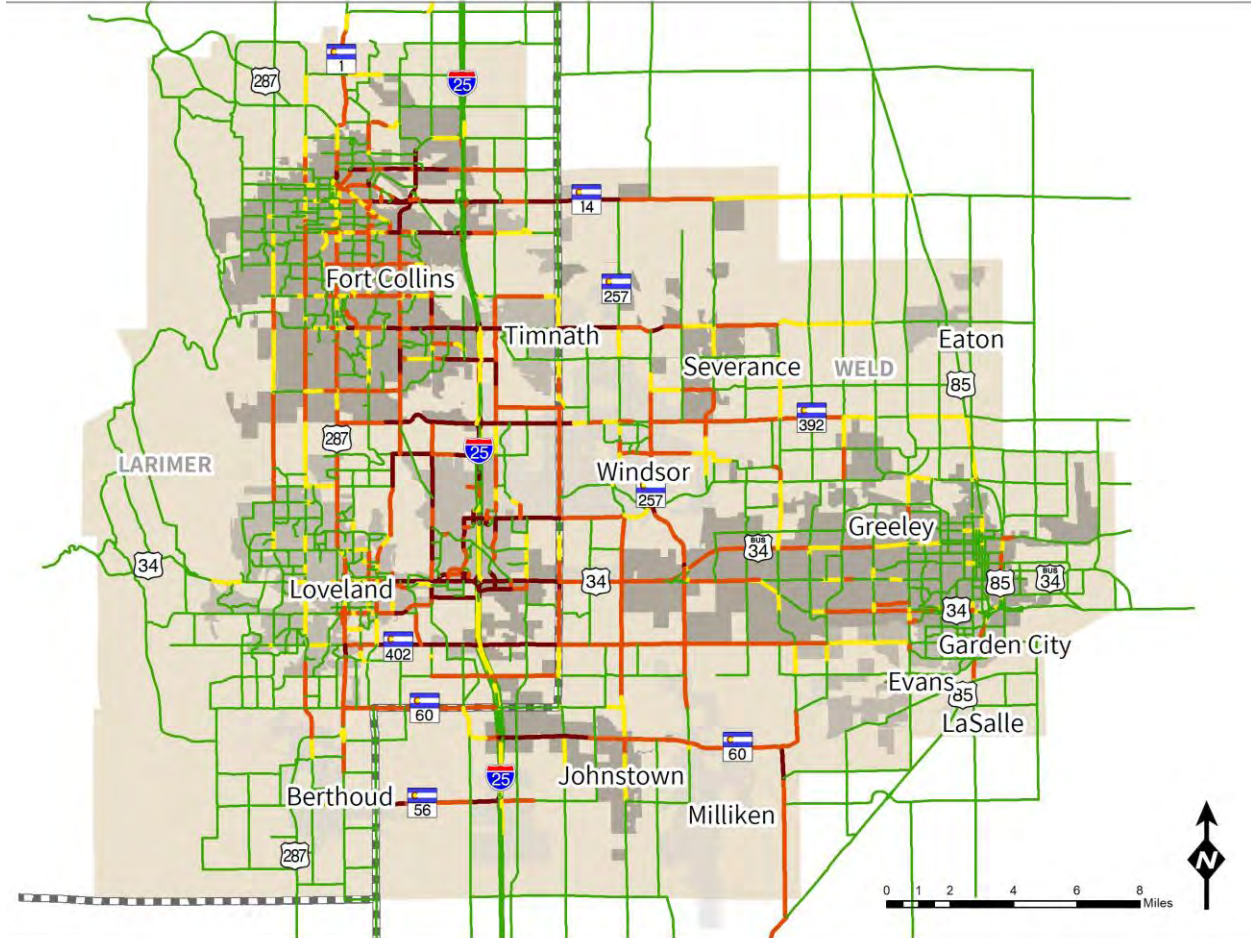
Legend

- Not Congested (0.00 - 1.29)
- Congesting (1.30 - 1.49)
- Congested (1.50 - 2.49)
- Severely Congested (2.50 - 36.71)
- County Boundary
- NFRMPO Boundary

July 2019
Sources: CDOT, NFRMPO



Figure 3-32: 2045 TTI, I-25 Investment Scenario

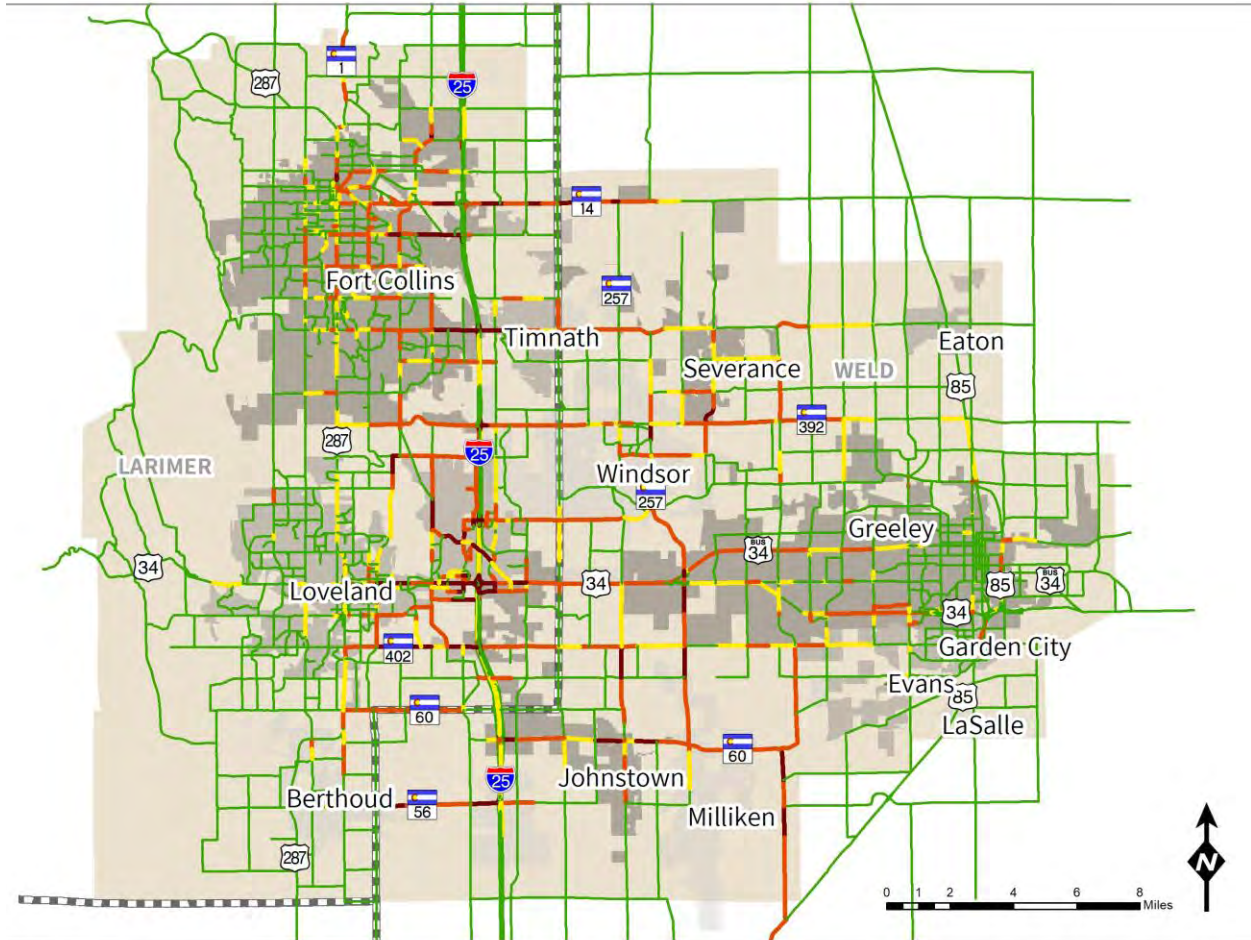


Legend

- Not Congested (0.00 - 1.29)
- Congesting (1.30 - 1.49)
- Congested (1.50 - 2.49)
- Severely Congested (2.50 - 40.19)
- County Boundary
- NFRMPO Boundary

July 2019
Sources: CDOT, NFRMPO

Figure 3-33: 2045 TTI, Unconstrained Scenario

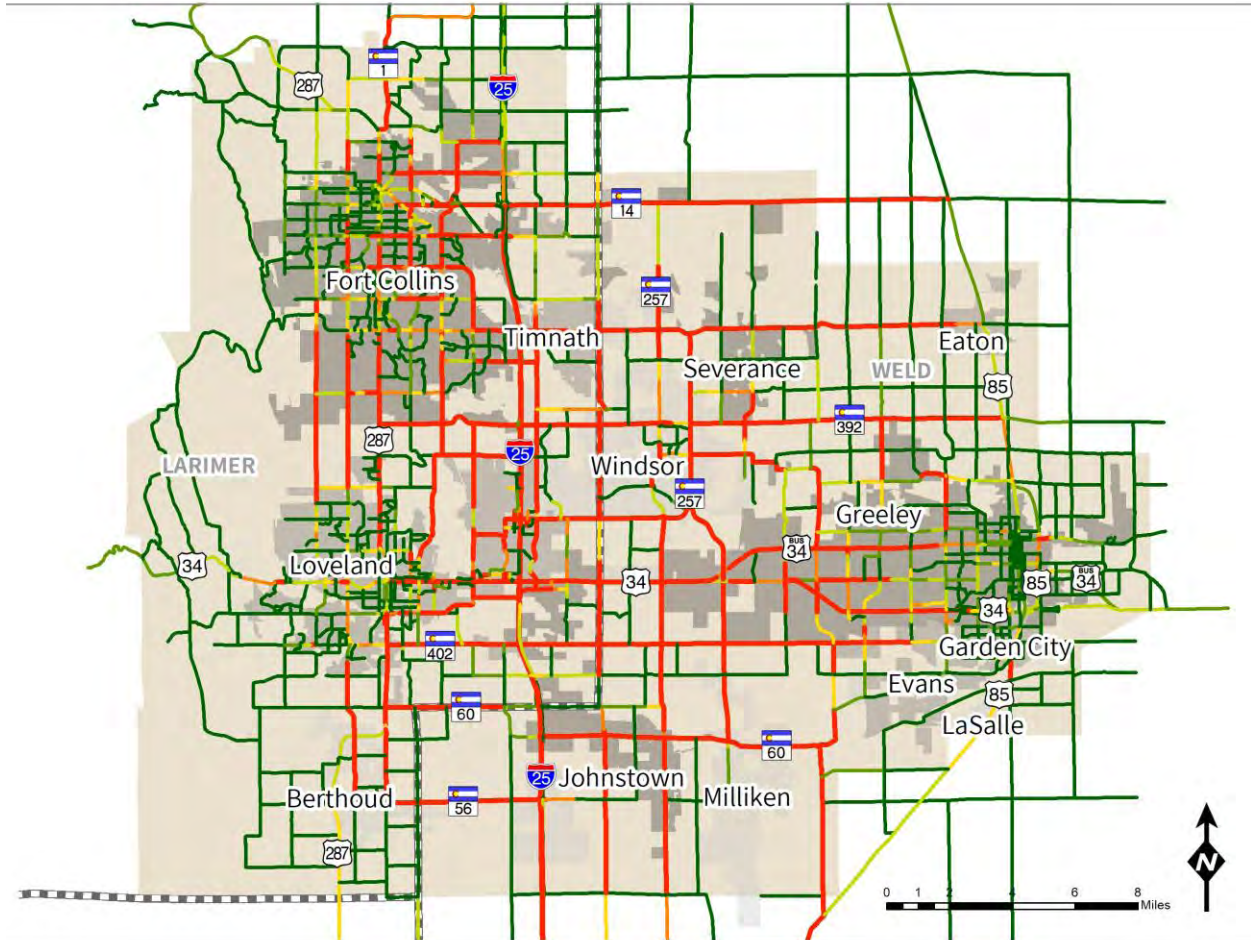


Legend

- Not Congested (0.00 - 1.29)
- Congesting (1.30 - 1.49)
- Congested (1.50 - 2.49)
- Severely Congested (2.50 - 20.19)
- County Boundary
- NFRMPO Boundary

July 2019
Sources: CDOT, NFRMPO

Figure 3-34: 2045 LOS, No Build Scenario



Legend

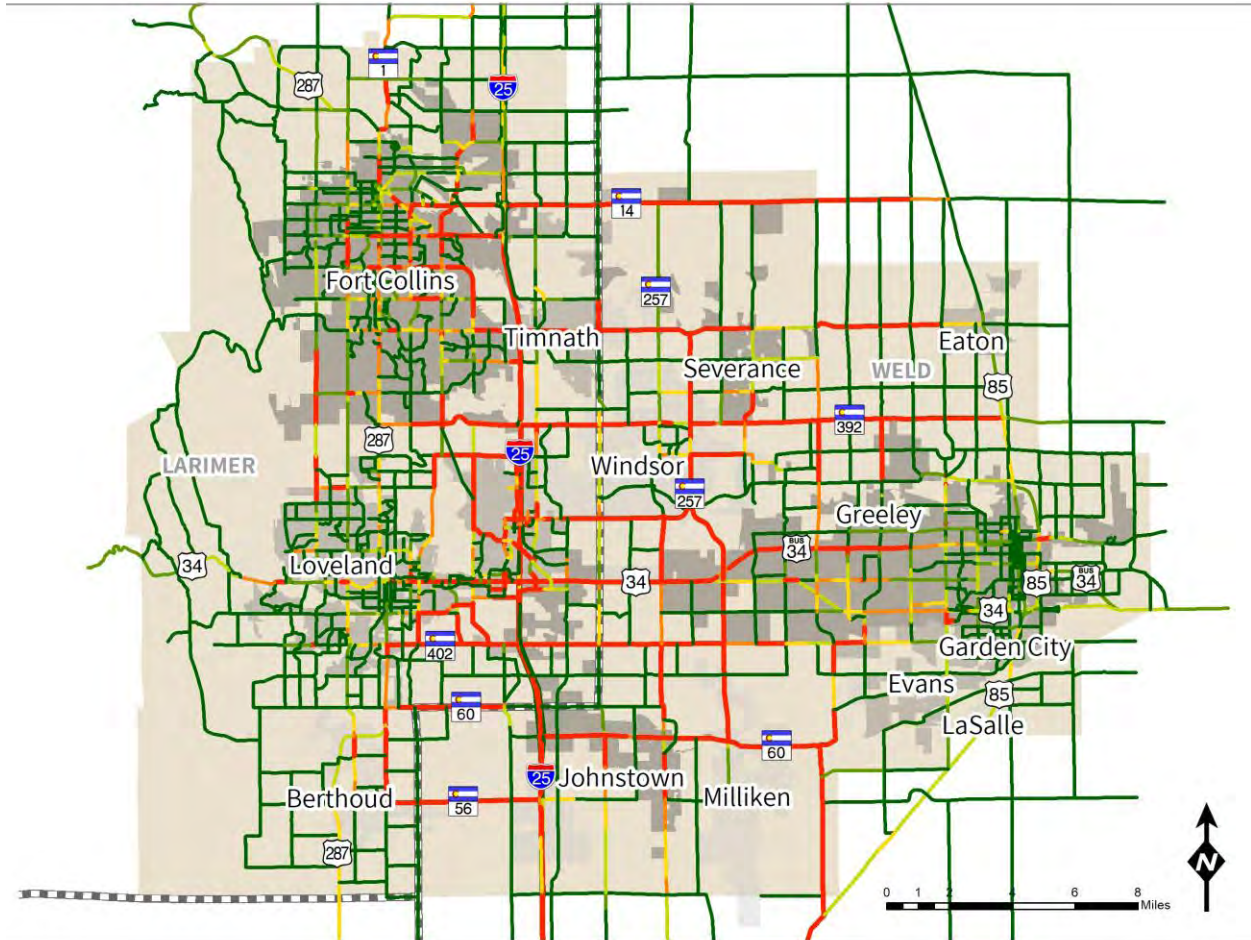
LOS

- | | | | | | | | |
|--|---|--|---|--|---|--|-----------------|
| | A | | C | | E | | County Boundary |
| | B | | D | | F | | NFRMPO Boundary |

July 2019
Sources: CDOT, NFRMPO



Figure 3-36: 2045 LOS, Unconstrained Scenario



Legend

LOS

- | | | | | | | | |
|--|---|--|---|--|---|--|-----------------|
| | A | | C | | E | | County Boundary |
| | B | | D | | F | | NFRMPO Boundary |

July 2019
Sources: CDOT, NFRMPO



The alternative investment scenarios vary the most according to the percentage of the system with LOS F, as shown in **Table 3-11**. Whereas the unconstrained scenario has just 3.8 percent of the system with an LOS of F, the no build scenario has 21.8 percent of the system with an LOS of F.

Other measures of delay, such as vehicle hours of delay, percent of system with TTI greater than or equal to 1.5, and person hours of delay also vary substantially among the alternative investment scenarios. Distance traveled as

measured by VMT and person mile traveled do not vary substantially among the scenarios.

Table 3-12 displays mode choice among the alternative investment scenarios. The walk and bike modes do not vary substantially among the scenarios, while drive alone, carpool, and transit show the most variance. The highest transit mode share is observed with the transit investment scenario paired with the high-density land use scenario. In this scenario, 4.2 percent of person trips are completed by transit.

Table 3-11: 2045 Travel Model Metrics by Alternative Investment Scenario

Metric	No Build	Unconstrained	I-25	Baseline with High-Density
Vehicle Miles Traveled (VMT)	20,475,936	20,289,220	19,214,939	19,073,998
Vehicle Hours Traveled (VHT)	790,668	640,507	703,572	638,722
Vehicle Hours of Delay	272,164	136,903	222,200	161,481
Percent of System with TTI>=1.5	10.1%	5.4%	7.3%	6.0%
Percent of System with LOS F	21.8%	3.8%	17.1%	14.6%
Person Miles Traveled	26,255,442	26,314,910	25,073,813	24,900,177
Person Hours Traveled	1,043,072	853,898	952,011	863,946
Average Speed	26 mph	32 mph	27 mph	30 mph

Table 3-12: 2045 Mode Choice Percentages by Alternative Investment Scenario

Mode Choice	No Build	Unconstrained	I-25	Baseline with High-Density	Transit	Transit High-Density
Drive Alone	46.6%	46.2%	44.9%	44.9%	46.3%	44.7%
Carpool	44.3%	44.2%	42.8%	42.8%	44.2%	42.7%
Walk	6.0%	5.8%	6.2%	6.1%	5.9%	6.2%
Bike	2.3%	2.1%	2.3%	2.3%	2.1%	2.3%
Transit	0.7%	1.6%	3.9%	3.9%	1.5%	4.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Transit performance for each RTE corridor for the 2045 baseline transportation scenario and the transit investment scenario, analyzed with both the baseline land use and the high-density land use scenario, is presented in **Table 3-13**. Performance is measured according to person miles traveled per service mile and organized into three categories: low, medium, and high. A low performance indicates the route provides less than 4 person miles traveled per service mile, medium performance is between 4 and 20 person miles traveled per service mile, and high performance is 20 person miles traveled per service mile or higher.

Performance for each RTE corridor is consistent among the tested scenarios. The routes with the highest performance include the Poudre Express, the FLEX, US34 between Loveland and Greeley, Harmony Road/WCR74, and Windsor to Loveland. The routes with the lowest performance include the regional rail between Greeley and Fort Collins and between Greeley and Loveland. All other routes are classified as having medium performance. Additional transit modeling and forecasting should be completed as part of subsequent studies into routes proposed for implementation.

Table 3-13: Transit Performance by RTC for 2045 Forecast and Alternative Scenarios

Agency	Route	2045	2045 High-Density	Transit	Transit High-Density
GET	RTE A - Poudre Express	High	High	High	High
Transfort	RTE B - Fort Collins to Wellington (SH1)	Medium	Medium	Medium	Medium
Transfort	RTE C - Fort Collins to Longmont/Boulder (US287) / FLEX	High	High	High	High
Unidentified	RTE D - Loveland to Greeley (US34)	High	High	High	High
Unidentified	RTE E - Eaton to Denver Region (US85)	Medium	Medium	Medium	Medium
Unidentified	RTE F - Harmony Road/WCR74	N/A	N/A	High	High
CDOT	RTE G - Greeley to Fort Morgan	N/A	N/A	Medium	Medium
CDOT	RTE H - Loveland to Estes Park (US34)	N/A	N/A	Medium	Medium
Unidentified	RTE I - Windsor to Loveland	N/A	N/A	High	High
Unidentified	RTE J - Regional Rail, Greeley to Fort Collins	N/A	N/A	Low	Low
Unidentified	RTE K - Regional Rail, Greeley to Loveland	N/A	N/A	Low	Low