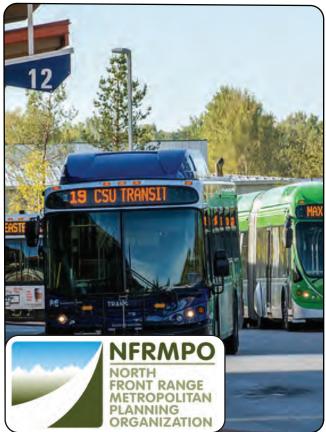
2015 Transportation Profile August 2017









2015 Transportation Profile

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Table of Contents

Acknowledgementsii
Chapter 1: Introduction
What is the NFRMPO?
What is a Transportation Profile? 8
Planning Process
Chapter 2: Demographics
Population
Households 10
Environmental Justice (EJ)10
Chapter 3: Employment and Industry14
Jobs and Unemployment
Daily Commutes
Chapter 4: Air Quality 16
Carbon Monoxide (CO) Maintenance Areas—Fort Collins and Greeley
Denver-North Front Range 8-Hour Ozone Nonattainment Area
Chapter 5: Roadways
Functional Classification
Regionally Significant Corridors21
Traffic Volumes
Drivability Life
Crashes
Bridges
Chapter 6: Transit
Public Transportation Providers33
Transfort - The City of Fort Collins
Greeley-Evans Transit (GET)
City of Loveland Transit (COLT)40
Bustang
BATS - Berthoud Area Transportation Services
SAINT - Senior Alternatives in Transportation
RAFT - Rural Alternative for Transportation 46
Senior Resource Services (SRS)47
Windsor Senior Ride Program47
Transit Safety
Chapter 7: Non-Motorized
Bicycle and Pedestrian Count Effort50



Programs and Services	51
Non-Motorized Safety	
Chapter 8: Transportation Demand Management (TDM)	
Regional TDM Efforts	
Local TDM Efforts	
Employer-Based TMD Efforts	
Chapter 9: Intelligent Transportation Systems (ITS)	60
Chapter 10: Freight	65
Trucks	65
Rail	
Freight Safety	69
Pipelines	71
Chapter 11: Aviation	74
Northern Colorado Regional Airport	74
Greeley-Weld County Airport	
Appendix	



List of Tables

Table 2-1: Population Characteristic Comparison	. 9
Table 2-2: Commute Comparison	. 9
Table 2-3: Household Characteristic and Home Ownership Comparison	. 10
Table 2-4: Larimer County HUD FY 2015 Low Income Limits	. 11
Table 2-5: Weld County HUD FY 2015 Low Income Limits	. 11
Table 2-6: Environmental Justice Benefits and Burdens	. 13
Table 3-1: Unemployment Statistics	. 14
Table 3-2: Jobs by NAICS Industry Sector	
Table 3-3: Top Ten Destinations for Worker Inflow to NFRMPO Region	
Table 3-4: Top Ten Destinations for NFRMPO Worker Outflow	. 15
Table 4-1: Fort Collins CO Emissions Test (Tons per Day)	. 17
Table 4-2: Greeley CO Emissions Test (Tons per Day)	
Table 4-3: 8-Hour Ozone Conformity for Denver-North Front Range (Northern Subarea) (Emiss	ion
Tons per Day)	. 19
Table 5-1: Centerline Miles by Functional Classification	
Table 5-2: Regionally Significant Corridors	. 22
Table 5-3: Crash Types in the North Front Range MPO,	. 28
Table 5-4: Types of Moving Motor Vehicle or Train Crashes in the North Front Range MPO, 20	
2015	
Table 5-5: Human Contributing Factors for Crashes	
Table 6-1: Transfort Trends, 2009-2015	
Table 6-2: Transfort 2015 System-Wide Performance Measures	
Table 6-3: FLEX 2015 System-Wide Performance Measures	
Table 6-4: GET Trends, 2009-2015	
Table 6-5: GET 2015 System-Wide Performance Measures	
Table 6-6: COLT Trends, 2009-2015	
Table 6-7: COLT 2015 System-Wide Performance Measures	
Table 6-8: Bustang Schedules.	
Table 6-9: BATS Trends, 2009-2015	
Table 6-10: BATS 2015 System-Wide Performance Measures Table 6-10: BATS 2015 System-Wide Performance Measures	
Table 6-11: SAINT Trends, 2007-2013	
Table 6-12: Windsor Senior Ride Program Schedule	
Table 6-13: Transit-Involved Collisions, Accidents, Injuries, and Fatalities, 2011-2015	
Table 7-1: Non-Motorized Facility Miles by Facility Type	
Table 9-1: Technologies within the NFRMPO region	
Table 10-1: Colorado Originated Rail Freight	
Table 10-2: Colorado Terminated Rail Freight Table 10-2: Division of the second seco	
Table 10-3: Railroad Miles by Classification (2015)	
Table 10-4: Truck Crash Data	
Table 10-5: Railroad Crossing Crashes	
Table 10-6: Colorado Oil and Gas Production 2014 and 2015	. 72



List of Figures

Figure 1-1: NFRMPO Region and Communities
Figure 2-1: Environmental Justice Areas
Figure 4-1: Carbon Monoxide Maintenance Areas
Figure 4-2: Denver-North Front Range 8-hour Ozone Nonattainment Area and Subareas 18
Figure 5-1: NFRMPO 2040 Regionally Significant Roadway Corridors
Figure 5-2: Average Daily Traffic Volumes
Figure 5-3: Road Drivability Life
Figure 5-4: Reported Crashes in the North Front Range MPO, 2011-2015
Figure 5-5: Serious Injuries and Fatalities due to Traffic Crashes in the North Front Range MPO,
2011-2015
Figure 5-6: Serious Injury and Fatal Crashes, 2011-201527
Figure 5-7: Crashes Involving Impaired Drivers as a Percentage of Total Crashes by Severity,
2011-2015
Figure 5-8: Crashes Involving Impaired Drivers by Severity, 2011-2015 30
Figure 5-9: Height and Weight Restricted and Poor-Rated Bridges
Figure 6-1: 2015 Transfort Map
Figure 6-2 2015 Greeley Evans Transit (GET) Map 39
Figure 6-3 2015 COLT Map
Figure 6-4: RAFT Service Area
Figure 7-1: Regional Non-Motorized Corridors
Figure 7-2: 2015 Bicycle and Pedestrian Counter Locations
Figure 7-3: Non-Motorized Serious Injury and Fatal Crashes, 2011-201553
Figure 7-4: Bicyclist-Involved Crashes as a Percentage of Total Crashes by Severity,
Figure 7-5: Pedestrian-Involved Crashes as a Percentage of Total Crashes by Severity, 54
Figure 8-1: 2015 Bi-Weekly Vanpool Trends
Figure 10-1: CDOT Freight Corridors
Figure 10-2: 2015 Average Daily Truck Traffic
Figure 10-3: Regional Railroad Lines by Owner
Figure 10-4: Truck-Involved Serious Injury and Fatal Crashes, 2011-2015
Figure 10-5: Active Pipelines
Figure 11-1: Regional Aviation Facilities



Chapter 1: Introduction

What is the NFRMPO?

The North Front Range Metropolitan Planning Organization (NFRMPO) is an inter-governmental agency responsible for long range transportation planning and air quality conformity activities in Northern Colorado. The NFRMPO, as shown in *Figure 1-1*, has 15 member governments: Berthoud, Eaton, Evans, Fort Collins, Garden City, Greeley, Johnstown, LaSalle, Loveland, Milliken, Severance, Timnath, Windsor, and the urbanized portions of Larimer and Weld counties. Colorado Department of Transportation's (CDOT) Transportation Commission and the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD) are also members. The NFRMPO covers approximately 675 square miles from the City of Fort Collins in the north, the Boulder County line on the south, the foothills of the Rockies to the west, and the City of Greeley to the east. The NFRMPO has two separate urbanized areas: Fort Collins Transportation Management Area (TMA) (including Fort Collins, Timnath, portions of Windsor, Loveland, and Berthoud; and Greeley (including Greeley, Evans, and Garden City).

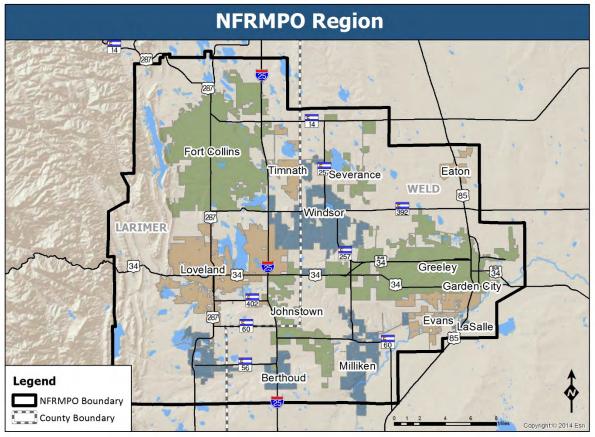


Figure 1-1: NFRMPO Region and Communities

Mar, 2017 Sources: CDOT, NFRMPO



The NFRMPO receives guidance on its plans and programs from the Technical Advisory Committee (TAC), made up of staff representatives from member agencies. The TAC makes recommendations to the Planning Council, a group of elected officials from each member jurisdiction that review and approve various NFRMPO plans, programs, and allocates federal funding.

What is a Transportation Profile?

The 2015 North Front Range Transportation Profile is a snapshot and inventory of the transportation facilities and services that existed in the region in 2015, as well as the demographic context that shaped them. Establishing a transportation profile allows the NFRMPO to assess the state of the regional transportation system between four-year Regional Transportation Plan (RTP) updates. This document is a tool which member jurisdictions and the general public can use to identify the components of their local transportation system, how that system serves the community, and how it fits into the larger regional system.

The report is organized into five sections, plus an *Appendix*:

- Introduction discusses the function of the NFRMPO, the purpose of the transportation profile, and the data collection efforts used to create this document
- Demographics provides the basic population, housing, and Environmental Justice (EJ) context that shape our region
- Employment/Industry highlights the major employment industries and the regional flow of workers to, from, and within the region
- Air Quality describes the NFRMPO's role in Ozone and Carbon Monoxide (CO) planning and conformity, as well as the regional emission levels and budgets
- Transportation System is the largest section of the profile, spanning seven chapters. This section provides an in-depth inventory and brief assessment of each individual facility type or service in the region (roadways, transit, non-motorized, transportation demand management, intelligent transportation systems, freight, and aviation).
- Appendix: Community Profiles are a snapshot of the transportation system and demographic trends specific to each member jurisdiction. Community members can compare their profile to the profiles of other communities or to the regional profile

Planning Process

The Transportation Profile was developed by the NFRMPO staff with assistance from member jurisdiction's staff and the TAC. Additional data was provided by various state and federal agencies.



Chapter 2: Demographics

Population

In 2015, the NFRMPO region had an estimated population of 482,144, with 75 percent living in the region's two Census-designated Urbanized Areas (UZAs) of 50,000 or more people: Fort Collins TMA and Greeley UZA. The remaining 25 percent of the population lived within the region's small to mid-sized communities and unincorporated areas. Population growth has been rapid in Northern Colorado and the State of Colorado. From 2010-2015, the NFRMPO region grew by 10.7 percent¹, compared with 9.5 percent for the rest of the Colorado Front Range, 7.7 percent for the rest of Colorado, and 3.9 percent for the entire United States over the same time period. Projecting to 2040, The North Front Range is expected to remain the fastest growing portion of the Front Range region.² *Tables 2-1 through 2-2* show the NFRMPO's demographics compared with the rest of the State and Country.

Table 2-1: Demographics Comparison						
	NFRMPO Region	Rest of Front Range	Rest of Colorado	United States		
Sex						
Female	50.2%	50.1%	49.8%	50.8%		
Male	49.8%	49.9%	50.2%	49.2%		
Age						
Median Age (years)	36.0	35.8	36.3	37.6		
Under 18	23.0%	23.4%	22.9%	23.3%		
Working Age (18 to 64)	64.9%	64.6%	64.8%	62.6%		
Over 65	12.1%	12.9%	12.2%	14.1%		
Source: US Census Bureau; A	American Comm	unity Survey (AC	S) 5-Year Estima	tes (2011-2015)		

Working-age individuals (age 18 to 64) make up the majority of the regional population at 64.9 percent. This population sector has the largest impact on the regional transportation system. *Table 2-2* shows statistics on the daily commutes of workers within the NFRMPO region.

Table 2-2: Commute Comparison					
	NFRMPO Region	Rest of Front Range	Rest of Colorado	United States	
Mean Commute Time (minutes)	24.3	25.8	24.8	25.9	
Commute Mode					
Drive Alone	76.6%	75.8%	75.1%	76.4%	
Carpool/Vanpool	9.5%	9.1%	9.5%	9.5%	
Public Transportation	1.0%	3.6%	3.4%	5.1%	
Bike or Walk	6.1%	3.7%	4.2%	3.4%	
Work at Home	5.9%	6.7%	6.8%	4.4%	
Other	0.9%	1.1%	1.1%	1.2%	
Source: US Cen	sus Bureau; ACS 5	-Year Estimates	(2011-2015)		

¹ State Demography Office (SDO), 2016

² State Demography Office (SDO), 2016



Households

Table 2-3 shows the characteristics of regional households in comparison with other geographies.

Table 2-3: Household Characteristic and Home Ownership Comparison							
	NFRMPO	Rest of Front	Rest of	United			
	Region	Range	Colorado	States			
Average Household Size	2.59	2.51	2.55	2.64			
Median Household	\$58,532	\$62,816	\$60,828	\$53,889			
Income	ψ 30 , 33 Ζ	Ψ02,010	Ψ00,020	\$33,007			
Home Ownership	Home Ownership						
Rent	36.9%	36.5%	35.5%	36.1%			
Own	63.1%	63.5%	64.5%	63.9%			
Source: US Census Bureau; ACS 5-Year Estimates (2011-2015)							

The institutionalized and non-institutionalized populations living in group quarters is not captured in household calculations. In contrast with traditional households, populations in group quarters are often have different transportation needs. This includes populations such as college students living in dormitories and certain senior living facilities.

Environmental Justice (EJ)

As stated in Title VI and *Executive Order 12898*, each federal agency is required to make "achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Accordingly, *US Department of Transportation (USDOT) Order 5610.2(a)* was enacted to ensure its programs, policies, or activities do not have disproportionately high and adverse effects on minority and low-income populations. The NFRMPO EJ process includes determination of these disproportionately high and adverse effects as:

- Being predominately born by a minority and/or low income population or
- Suffered by the minority and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority and/or non-low-income populations

It is important to identify where significant numbers of minority and low income households are located within the region to comply with Title VI, *Executive Order 12898*, and *USDOT Order 5610.2(a)*.

Low Income Populations

The Department of Housing and Urban Development (HUD) determines the low-income thresholds for each county in the U.S. *Tables 2-4 and 2-5* show the low income thresholds for Larimer and Weld counties as determined by HUD for FY2015.



Chapter 2: Demographics

Table 2-4: Larimer County HUD FY 2015 Low Income Limits								
		Persons per Household						
Income Limit	1	2	3	4	5	6	7	8
Low Income Limit	\$43,600	\$49,800	\$56,050	\$62,250	\$67,250	\$72,250	\$77,200	\$82,200
Very Low Income Limit	\$27,250	\$31,150	\$35,050	\$38,900	\$42,050	\$45,150	\$48,250	\$51,350
Extremely Low Income Limit	\$16,350	\$18,700	\$21,050	\$24,250	\$28,410	\$32,570	\$36,730	\$40,890
Source: HUD, 2015								

Table 2-5: Weld County HUD FY 2015 Low Income Limits								
Income Limit		Persons per Household						
	1	2	3	4	5	6	7	8
Low Income Limit	\$37,350	\$42,700	\$48,050	\$53,350	\$57,650	\$61,900	\$66,200	\$70,450
Very Low Income Limits	\$23,350	\$26,700	\$30,050	\$33,350	\$36,050	\$38,700	\$41,400	\$44,050
Extremely Low Income Limits	\$14,000	\$16,000	\$20,090	\$24,250	\$28,410	\$32,570	\$36,730	\$40,890
	Source: HUD, 2015							

Chapter nine of the <u>CDOT NEPA Manual</u> provides a methodology to calculate low income Census Tracts for EJ Analysis. Average household size and the income thresholds in *Tables 2-4 and 2-5* are used to calculate the percentage of households in a Tract which fall below the low income limit. This percentage is then compared to the percentage for the County. If a Tract has a percentage that is equal to or higher than the County, it is designated as an EJ Area on the basis of income.

Minority Populations

Title VI and *Executive Order 12898* defines the term minority as anyone who is:

- American Indian and Alaskan Native a person having origins in any of the original people of North America and who maintains cultural identifications through tribal affiliation or community recognition.
- Asian or Pacific Islander (including Native Hawaiian) a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.
- Black/African American a person having origins in any of the black racial groups of Africa.
- Hispanic/Latino a person who is Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

To calculate minority populations for EJ Analysis, the White, non-Hispanic/Latino population is subtracted from the total population for Census Tracts within the NFRMPO region. Any Tract



with a minority population percentage at or above the regional average of 24 percent is designated as an EJ Area on the basis of minority status.

Environmental Justice Areas

Figure 2-1 shows these EJ areas within the NFRMPO boundaries.

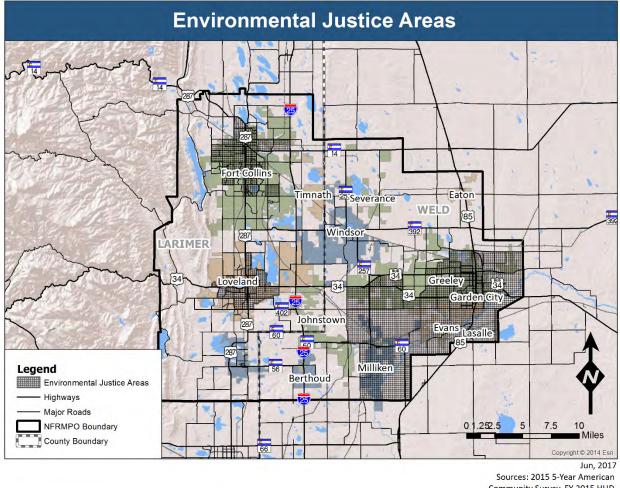


Figure 2-1: Environmental Justice Areas

Community Survey, FY 2015 HUD Income Limits, CDOT, NFRMPO

All projects in the Transportation Improvement Program (TIP) must undergo an EJ analysis. Projects located in, within ¼ mile of, or adjacent to an EJ area are considered EJ projects. All other projects are considered Non-EJ. The benefits and burdens of each project are then examined individually. An overall analysis of these projects determines whether or not the TIP meets EJ requirements. The benefits and burdens used in the analysis are listed in Table 2-6.



Table 2-6: Environmental Justice Benefits and Burdens				
Benefit	Burden			
Decrease in travel time	Air and water pollution			
Improved air quality	Soil contamination			
Expanded employment opportunities	Destruction or disruption of man-made or natural resources			
Better access to transit options and alternative modes of transportation (walking and bicycling)	Adverse impacts on community cohesion or economic vitality			
Improved quality of transit	Noise and vibration			
Increased property values	Decrease in property values			
Source: USDOT, 2012				

Other Environmental Justice Populations

Other populations that require special outreach or that face different mobility challenges are also considered by the NFRMPO in the EJ process. These areas are defined as Census Tracts with a moderate to high percentage of residents who are:

- Limited English Proficiency (LEP) a person who is proficient in another language, but speaks English "less than very well"
- Senior a person age 65 or older
- Disabled a person that has a disability (sensory, physical, mental, self-care, gooutside-home, employment) as designated in the American Community Survey (ACS)

These populations are analyzed as a percentage of each community's total population in the Community Profiles in the *Appendix*.



Chapter 3: Employment and Industry

Jobs and Unemployment

In 2015, there were 190,703 jobs in the NFRMPO region.³ The 2015 unemployment rate for Larimer County went from a high of 4.2 percent in January to a low of 2.6 percent in September. In Weld County during the same period, the unemployment rate peaked at 4.4 percent in February and dipped to 3.2 percent in September and October.⁴ The 2015 annual average unemployment rates for Larimer (3.3 percent) and Weld counties (3.8 percent) both were below the state average of 3.9 percent. These rates are not seasonally adjusted. These figures are shown in *Table 3-1*.

Table 3-1: Unemployment Statistics						
	Larimer County	Weld County	Colorado			
2015 Annual Average	3.3%	3.8%	3.9%			
High Month	January (4.2%)	February (4.4%)	January, February (4.7%)			
Low Month	September (2.6%)	September, October (3.2%)	September (3.2%)			
2014-2015 Net Change (Annual Average)	-1.0%	-0.7%	-1.1%			
Source: Bureau of Labor Statistics (BLS), 2017						

Approximately 88 percent of jobs in Larimer and Weld counties are within the NFRMPO's boundaries. Compared to 2015, the State Demography Office (SDO) projects total jobs will grow by 45 percent in Larimer County and 68 percent in Weld County by 2040.⁵ *Table 3-2* shows the top employment industries of the region in 2014.⁶

	Table 3-2: Jobs by NAICS Industry Sector					
Rank	Industry	Number of Jobs	Percent of Total Jobs			
1	Health Care and Social Assistance	26,858	14.1%			
2	Manufacturing	20,839	10.9%			
3	Retail Trade	20,006	10.5%			
4	Accommodations and Food Service	18,378	9.6%			
5	Educational Services	16,921	8.9%			
6	Construction	14,035	7.4%			
7	Waste Management and Remediation	12,604	6.6%			
8	Professional, Scientific, and Technical Services	12,348	6.5%			
9	Public Administration	10,469	5.5%			
10	Wholesale Trade or Finance and Insurance	6,186	3.2%			
	TOTAL EMPLOYMENT	190,703	100%			
So	Source: U.S. Census Bureau; Longitudinal Employer-Household Dynamics (LEHD), OnTheMap, 2017					

³ U.S. Census Bureau; Longitudinal Employer-Household Dynamics (LEHD), OnTheMap, 2017

⁶ Employment data will be updated once 2015 data is available through the U.S. Census OnTheMap online tool.



⁴ Bureau of Labor Statistics (BLS) Local Area Unemployment Statistics 2015

⁵ State Demography Office (SDO) 2017.

Daily Commutes

Over 70 percent of jobs within the region were held by workers who also lived in the region. *Table 3-3* shows the top 10 communities outside the region contributing workers to fill the remaining jobs.

	Table 3-3: Top Ten Destinations for Worker Inflow to NFRMPO Region						
Rank	Community	Workers Who Live Outside the NFRMPO Region	Percent of NFRMPO Region Jobs				
1	Denver	4,479	2.3%				
2	Aurora	2,756	1.4%				
3	Longmont	2,477	1.3%				
4	Colorado Springs	2,336	1.2%				
5	Thornton	1,325	0.7%				
6	Westminster	1,242	0.7%				
7	Arvada	1,094	0.6%				
8	Lakewood	1,087	0.6%				
9	Centennial	825	0.4%				
10	Lafayette	776	0.4%				
	Source: U.S. Census Bureau; LEHD, OnTheMap, 2017						

The NFRMPO also contributes a portion of its workforce to communities outside the region. *Table 3-4* shows the top 10 communities of employment for workers who live in the NFRMPO region and work outside of the region. The workers commuting to and from the NFRMPO region each day place added strain on major regional roadways.

	Table 3-4: Top Ten Destinations for NFRMPO Worker Outflow						
Rank	Place of Work	Residents Who Work Outside the NFRMPO Region	Percent of the NFRMPO Workers				
1	Denver	12,944	6.1%				
2	Longmont	5,147	2.4%				
3	Boulder	4,719	2.2%				
4	Aurora	4,596	2.2%				
5	Colorado Springs	3,495	1.3%				
6	Westminster	2,798	1.3%				
7	Lakewood	2,508	1.2%				
8	Centennial	1,581	0.7%				
9	Broomfield	1,264	0.6%				
10	Greenwood Village	1,242	0.6%				
	Source:	U.S. Census Bureau; LEHD, OnTheMa	p, 2017				



Chapter 4: Air Quality

The North Front Range Transportation and Air Quality Planning Council (NFRT&AQPC) is the designated lead air quality planning organization for carbon monoxide (CO), while the Regional Air Quality Council (RAQC) is the designated lead air quality planning organization for ozone. Air quality planning and conformity with the State Implementation Plan (SIP) is a federally and State-sanctioned function of the NFRMPO. The NFRMPO must address motor vehicle emissions, which constitute a major source of CO and ozone precursors – volatile organic compounds (VOCs) and nitrogen oxides (NOx). In 2015, the North Front Range area contained two designated Maintenance Areas for CO and was part of a Marginal Nonattainment Area for ozone.

The NFRMPO must prove it can meet air quality budgets established in the SIP to continue to spend federal funding. The NFRMPO's TIP and RTP projects must not exceed the air quality budgets, which identify the maximum allowable motor vehicle emissions for the region. Each update to the TIP and the RTP must obtain concurrence from CDPHE, Air Quality Control Commission (AQCC), Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and the Environmental Protection Agency (EPA) to ensure the projects meet these goals.

Many regional strategies are being implemented to offset the increase in emissions which will be described later in this document. Mobile Source strategies include a regional Transportation Demand Management (TDM) program with carpool and vanpool programs, regional transit planning, and improvements to the non-motorized network.

Carbon Monoxide (CO) Maintenance Areas—Fort Collins and Greeley

Fort Collins and Greeley are CO Maintenance Areas in the region, meaning the cities have reached their air quality targets and must maintain the standards for two ten year periods. Fort Collins is in its second 10-year Maintenance Plan, from 2013 through 2023. Greeley is also in its second 10-year Maintenance Plan, from 2009 through 2019. The CO Maintenance Areas are shown in *Figure 4-1*.



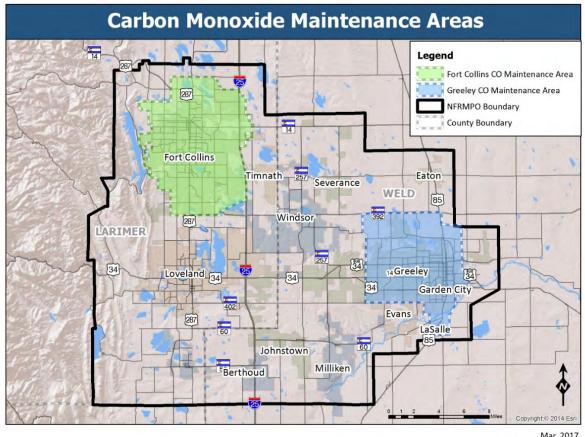


Figure 4-1: Carbon Monoxide Maintenance Areas



Both Maintenance Areas demonstrated attainment of their Motor Vehicle Emissions Budgets (MVEB) in the 2040 RTP Conformity Determination document approved in July 2015. This determination is based on projections from the Regional Travel Demand Model (RTDM) and the EPA's MOVES2014a emissions model. The conformity summary is shown in *Tables 4-1 and 4-2*.

Table 4-1: Fort Collins CO Emissions Test (Tons per Day)							
SIP Budget 2015 2023 ⁷ 2025 2035 2040							
Carbon Monoxide (CO)	94	36.91	32.33	31.65	13.28	12.77	
Pass/Fail		PASS	PASS	PASS	PASS	PASS	
Source: 2040 NFRMPO RTDM and CDPHE Air Pollution Control Division (APCD)							

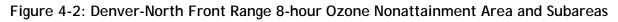
⁷ Socio-economic and vehicle travel data were interpolated for 2023 (for Fort Collins) and for 2019 (for Greeley) between the 2015 and 2025 model years in the regional travel model. The emissions test was run for these interpolated years, per 40 CFR 93.118(d)(2).

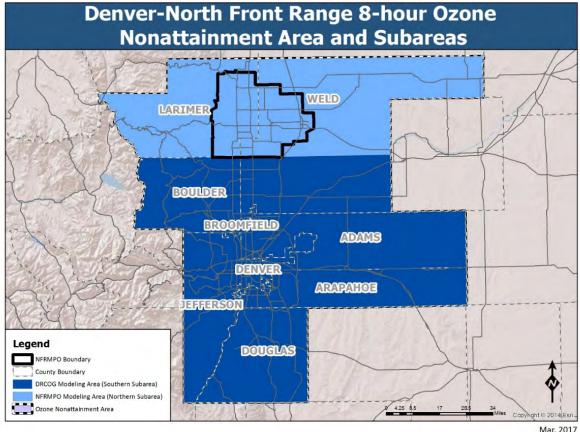


Table 4-2: Greeley CO Emissions Test (Tons per Day)							
SIP Budget 2015 2019 ⁸ 2025 2035 2040							
Carbon Monoxide (CO)	60	22.79	20.24	14.27	9.25	9.32	
Pass/Fail		PASS	PASS	PASS	PASS	PASS	
Source: 2040 NFRMPO RTDM and CDPHE APCD							

Denver-North Front Range 8-Hour Ozone Nonattainment Area

The Regional Air Quality Council (RAQC) is the lead air quality planning agency for the Denver-North Front Range 8-Hour Ozone Nonattainment Area. However, for the Northern Subarea, the NFRMPO takes the lead in travel modeling and determining and declaring conformity. In 2016, the region was bumped up from a Marginal Non-Attainment to a Moderate Non-Attainment Area for not reaching required ozone reductions. As a result, the Moderate Area 2008 8-Hour Ozone Standard SIP was developed. The Ozone Nonattainment Area and Subareas are shown in *Figure 4-2*.





Sources: CDOT, NFRMPO



The CDPHE Air Pollution Control Division (APCD) generates emission estimates using inputs from the NFRMPO's RTDM and running them through the MOVES2014a emissions model. The APCD performed the 8-hour ozone modeling for the 2040 RTP staging years (2015, 2025, 2035, 2040, and the interpolated 2017 estimates) and the emissions estimates passed, demonstrating conformity with the 2008 Standard. The results of this analysis are shown in *Table 4-3*.

Table 4-3: 8-Hour Ozone Conformity for Denver-North Front Range (Northern Subarea)(Emission Tons per Day)							
	SIP budgets	2017	2025	2035	2040		
Volatile Organic Compounds (VOC)	19.5	9.99	7.08	4.45	4.10		
Oxides of Nitrogen (NOx)	20.5	16.95	8.61	4.39	3.89		
Pass/Fail PASS PASS PASS PASS							
Source: 2040 NFRMPO RTDM and CDPHE APCD							

By meeting the CO and ozone emissions budgets, NFRMPO determined the fiscally constrained 2040 RTP, the NFRMPO FY2016-2019 TIP, the NFRMPO FY2018-2021 TIP, the Upper Front Range (UFR) 2040 RTP, and UFR portion of the Colorado FY2016-2019 Statewide Implementation Plan (STIP) demonstrate conformity using 2008 and 2015 National Ambient Air Quality Standards (NAAQS).



Chapter 5: Roadways

Roadways are the principal transportation component in the region, providing necessary infrastructure for passenger, freight, transit, and non-motorized vehicles.

Functional Classification

The Federal Highway Administration (FHWA) defines each roadway using a Functional Classification System based on the <u>Highway Functional Classification Concepts</u>, <u>Criteria and Procedures</u>.⁹ The functional classification of a roadway reflects its role in the regional system and has implications for the administration of federal highway funding. Functional classification is used locally and regionally to identify corridor preservation needs, access management, and roadway design requirements:

- Interstates: All routes which comprise the Interstate Highway system are considered interstate highways. Interstates are designed for mobility and long-distance travel. I-25 is the only interstate highway in the North Front Range region.
- Freeway and Expressways: Freeways and expressways have directional travel lanes, which are usually separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections. Freeways and expressways are designed and constructed to maximize their mobility function, and abutting land uses are rarely directly served by them.
- Principal Arterial: Urban Principal Arterials serve major activity centers, the highest traffic volume corridors, and longest trip demands. Principal Arterials interconnect and provide continuity for major rural corridors to accommodate trips entering and leaving urban areas and movements through the urban and rural areas. They serve demand for intra-area travel between the central business district and outlying areas.
- Minor Arterial: Minor arterials collect and distribute traffic from principal arterials, freeways and expressways, and Interstates to streets of lower functional classification and, in some cases, allow traffic to directly access properties. They serve secondary traffic generators such as community business centers, neighborhood shopping centers, multifamily residential areas, and traffic between neighborhoods. Access to land use activities is generally permitted, but should be consolidated, shared, or limited to larger-scale users. Minor arterial street spacing is recommended to be at half-mile intervals.
- Major Collectors: Major collectors serve traffic circulation in higher density residential and commercial/industrial areas. They distribute and channel trips between Local Roads and Arterials, usually over a distance of greater than 3/4 of a mile. They allow for higher speeds and more signalized intersections.
- Minor Collectors: Minor collectors serve traffic circulation in lower density residential and commercial/industrial areas. They distribute and channel trips between Local Roads and Arterials, usually over a distance of less than 3/4 of a mile. They allow for lower speeds and fewer signalized intersections. This functional classification is not eligible for federal funds.
- Local: Local roads' primary function is providing access to adjacent land uses in both urban and rural areas. They carry no through-traffic movement and constitute the

⁹ <u>http://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf</u>



mileage not classified as part of the Arterial and Collector systems. This functional classification is not eligible for federal funds.

Table 5-1 summarizes	lane mile	age by	federal	functional	classification	within	the	NFRMPO
region.								

Table 5-1: Centerline Miles by Functional Classification					
Functional Class	Centerline Miles				
Interstates	36.8				
Other Freeways or Expressways	40.3				
Other Principal Arterials	81.5				
Minor Arterials	281.6				
Major Collectors	325.4				
Minor Collectors	52.7				
Local Roads	2,107.5				
TOTAL	2,925.8				
Source: CDOT, 2015	•				

Regionally Significant Corridors

Regionally Significant Corridors (RSCs) are defined as important links in a multi-modal, regional network comprised of existing or new transportation corridors that connect communities and/or activity centers by facilitating the timely and safe movement of people, goods, information, and services. RSCs were identified most recently in the 2040 Regional Transportation Plan (RTP). Carried forward from past RTPs, RSCs help focus limited transportation dollars on the corridors most significant to the region. Three criteria were used to identify RSCs:

- 1. Includes all State Highways
 - Colorado Department of Transportation (CDOT) requires a corridor vision be developed for all state highways as part of the regional transportation plan. Since this is required by CDOT, and most state highways are regional in nature, this was established as the first criteria.
- 2. Functional Classification
 - Roadways must have a functional classification of minor arterial or higher, as defined by the appropriate government agency.
 - The higher the functional classification, the greater the likelihood trips are longer and the roadway connects more than one community or destination.
- 3. Connectivity
 - The corridor must go through, or plan to go through, more than one governmental jurisdiction and connect activity centers.



Table 5-2 describes the 27 RSCs whose numbers correspond to the locations in *Figure 5-1*. RSC miles by community are shown in the *Appendix*.

Table 5-2: Regionally Significant Corridors				
Corridor	Corridor	Description		
Number	Name/Component	Description		
1	I-25	Northern NFRMPO boundary to southern NFRMPO boundary		
2	US 34	Western NFRMPO boundary to eastern NFRMPO boundary		
3	US 34 Business Route	US 34 on the west to eastern NFRMPO boundary		
4	US 85	Weld CR 70 on the north to Weld CR 48 on the south		
5	US 85 Business Route	US 34 on the west to US 85 on the east		
6	US 287	Northern NFRMPO boundary to southern NFRMPO boundary, includes Berthoud Bypass		
7	SH 1	Northern NFRMPO boundary to US 287 on the south		
8	SH 14	US 287 on the west to eastern NFRMPO boundary		
9	SH 56	US 287 on the west to Weld CR 17 on the east		
10	SH 60	Larimer CR 17 on the west to Two Rivers Parkway on the east		
11	SH 257	SH 14 on the north to SH 60 on the south, includes offset in Windsor		
12	SH 392	US 287 on the west to US 85 on the east		
13	SH 402	Larimer CR 17 on the west to US 85 on the east		
14	Larimer CR 3	Crossroads Boulevard on the north to southern NFRMPO boundary		
15	Larimer CR 5	SH 14 on the north to US 34 on the south		
16	Larimer CR 17	US 287 on the north to SH 56 on the south		
17	Larimer CR 19	US 287 on the north to US 34 on the south		
18	Weld CR 13	SH 14 on the north to the southern NFRMPO boundary		
19	Weld CR 17	Crossroads Boulevard Extension on the north to southern NFRMPO boundary		
20	35 th Avenue	O Street on the north to US 85 on the south		
21	65 th Avenue	SH 392 on the north to 59 th Street on the south		
22	83 rd Avenue	Northern NFRMPO boundary to southern NFRMPO boundary		
23	Crossroads Boulevard	I-25 on the west to US 85 on the east		
24	Harmony Road	Larimer CR 17 on the west to the eastern NFRMPO boundary		
25	Mulberry Street	Larimer CR 19 on the west to Riverside Avenue (SH 14) on the east		
26	Prospect Road	US 287 on the west to Larimer CR 5 on the east		
27	Timberline Road	Vine Drive on the north to the southern NFRMPO boundary, following Timberline Road to Larimer CR 9E (road approximate) to Weld CR 7		



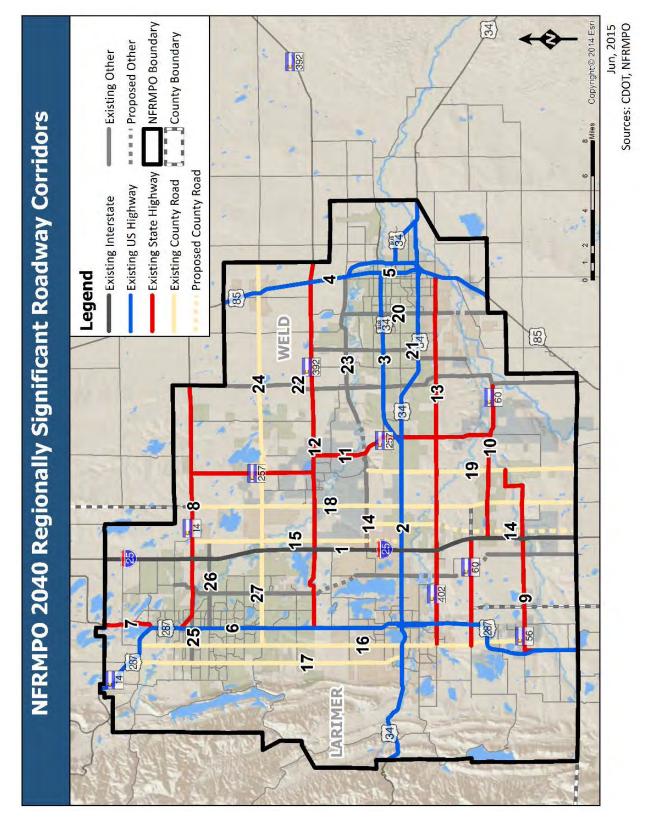


Figure 5-1: NFRMPO 2040 Regionally Significant Roadway Corridors



Traffic Volumes

Functional Classification is tied closely to the average daily traffic (ADT) volume on a roadway. In 2015, the most travelled stretch of roadway was I-25 between SH402 and US34 with over 79,000 daily trips. In the North Front Range region, 92 percent of roads carry less than 10,000 vehicles per day. *Figure 5-2* shows daily traffic volumes on major roadways in the region.

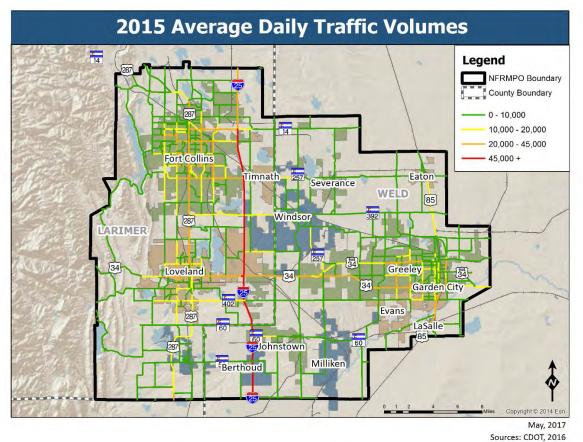


Figure 5-2: Average Daily Traffic Volumes

Drivability Life

In 2013, CDOT changed the way it reports pavement conditions on state facilities from "Remaining Service Life" to "Drivability Life." The new system is an indication of how many years a highway segment will have acceptable driving conditions. The three-tiered scoring system is based on pavement smoothness, surface cracking, rutting, and safety. Pavement with "High Drivability Life" is predicted to have acceptable driving conditions for more than 10 years. Pavement with "Moderate Drivability Life" is predicted to have four to 10 years of acceptable driving conditions. Pavement with "Low Drivability Life" is predicted to have fewer than four years of acceptable driving conditions.¹⁰ The CDOT Transportation Commission has set an objective for 80 percent of state highway pavement to have High to Moderate Drivability Life. Based on financial constraints, the Commission expects to achieve this objective by 2028. In

¹⁰ https://www.codot.gov/library/AnnualReports/2015-transportation-deficit-report p5



2015, 73.3 percent of pavement on state highways had High to Moderate Drivability Life. *Figure 5-3* shows Drivability Life of state highways within the region.

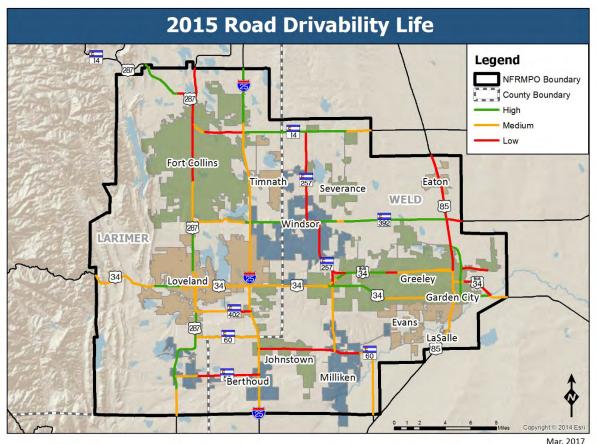


Figure 5-3: Road Drivability Life

Crashes

Traffic crashes are a significant safety issue. Nationally, over 35,000 individuals were killed in traffic crashes in 2015, over 96 fatalities per day. The number of traffic crash fatalities increased from 2014, when nationally there were 90 fatalities per day.¹¹ In the North Front Range, the number of traffic fatalities as well as the number of reported crashes have increased in recent years, in line with the national trend. This section presents data on reported crashes from 2011 through 2015. The four years before 2015 are included to provide context to the 2015 data and a broader base for analysis of specific crash type.

Reported crashes include all traffic crashes on public roads reported by law enforcement officers to the Colorado Department of Revenue (CDOR). Law enforcement agencies are required by state statute to submit crash reports to CDOR. The CDOR crash data does not include counter reports, which are required reports completed by drivers involved in a crash

¹¹ NHTSA. Quick Facts 2015. Accessed on 6/9/2017 at <u>https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812348</u>



Sources: CDOT, 2015

when a law enforcement officer is not on scene. Counter reports cannot be used for any crash involving loss of human life, injuries which are evident at the scene, drugs, or alcohol use. Therefore, the reported crashes presented in this section do not include all crashes, but they provide the most accurate and comprehensive picture of crashes in the region available.

CDOT processes the crash data compiled by CDOR and identifies the geographic location of crashes occurring on state facilities through geocoding. Crashes on local and county roads in the North Front Range are geocoded by the NFRMPO.

Crash Trends

The number of reported crashes in the North Front Range increased from 7,870 in 2011 to 9,551 in 2015 - a 21 percent increase, as shown in *Figure 5-4*. Crashes increased in every year except for 2012, which experienced a slight decline from 2011.

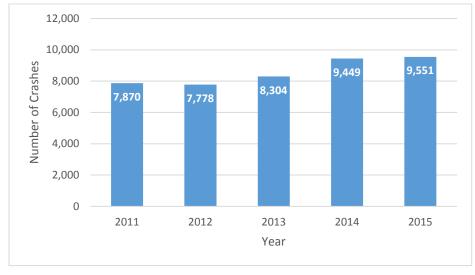
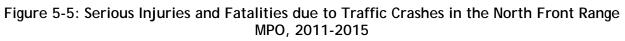


Figure 5-4: Reported Crashes in the North Front Range MPO, 2011-2015

Source: CDOT and NFRMPO

The number of serious injuries and fatalities from traffic crashes also increased from 2011-2015, as shown in *Figure 5-5*. Serious injuries are defined as incapacitating injuries. In the North Front Range, the number of serious injuries increased from 179 in 2011 to 227 in 2015 - a 27 percent increase, and the number of fatalities increased from 24 in 2011 to 43 in 2015 - 79 percent increase.







Source: CDOT and NFRMPO

The locations of serious injury and fatal crashes from 2011 through 2015 are displayed on *Figure 5-6*.

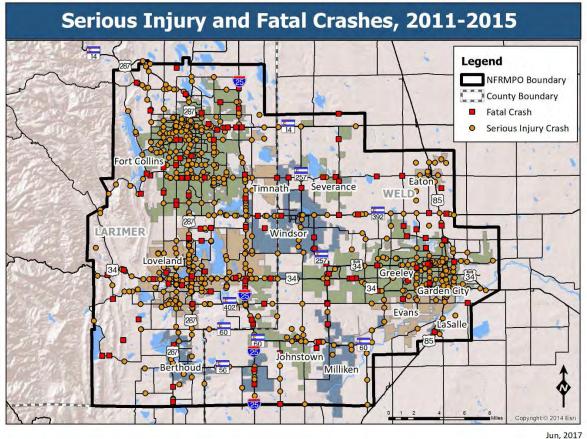


Figure 5-6: Serious Injury and Fatal Crashes, 2011-2015





Table 5-3 displays crash type as a percentage of all crashes and as a percentage of fatalities. The majority of crashes are between two or more motor vehicles or between a motor vehicle and a train. The next most common crash type is between a motor vehicle and a fixed object. The severity of crashes varies by type, with crashes between moving motor vehicles and crashes involving a parked vehicle or animal accounting for a lower percentage of fatalities than their share of all crashes. Rollover crashes and crashes involving a fixed object, bicyclist, or pedestrian account for a higher percentage of fatalities than their share of all crashes.

Table 5-3: Crash Types in the North Front Range MPO, 2011-2015					
Crash Type	Percent of Crashes	Percent of Fatalities			
Moving Motor Vehicle or Train	71.2%	48.8%			
Fixed object	14.3%	28.1%			
Parked vehicle	7.5%	0.0%			
Bicyclist	2.5%	4.4%			
Rollover or Non-Collison	2.0%	13.1%			
Animal 1.4% 0.6%					
Pedestrian	1.1%	5.0%			
Total 100.0% 100.0%					
Source: CDOT and NFRMPO					

Most crashes involving two or more moving motor vehicles are rear end crashes, as shown in *Table 5-4*. Rear end crashes accounted for 53.5 percent of crashes and 14.1 percent of fatalities in the North Front Range from 2011 to 2015. The next most common crash type among moving motor vehicles was broadside crashes, which accounted for 19.8 percent of crashes and 37.2 percent of fatalities. Crashes between a motor vehicle and railway vehicle, the least common crash type between vehicles, occurred 14 times during the five year period and accounted for 0.04 percent of moving motor vehicle crashes.

Table 5-4: Types of Moving Motor Vehicle or Train Crashes in the North Front Range MPO, 2011-2015					
Crash Type	Percent of Crashes	Percent of Fatalities			
Rear End	53.5%	14.1%			
Broadside	19.8%	37.2%			
Sideswipe - Same Direction	11.3%	5.1%			
Approach Turn	10.3%	9.0%			
Overtaking Turn	1.7%	0.0%			
Overturning	1.3%	10.3%			
Sideswipe - Opposite Direction	1.3%	10.3%			
Head On	0.9%	14.1%			
Railway Vehicle	0.0%	0.0%			
Total	100.0%	100.0%			
Source: CDOT a	nd NFRMPO				



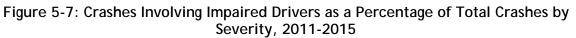
Human Contributing Factors

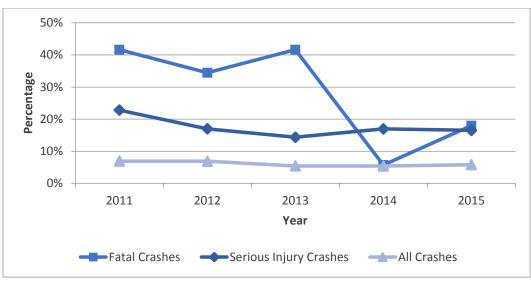
In approximately half of crashes, the law enforcement officer identified a primary "human contributing factor" for one or more drivers involved in the crash. A total of 22,638 individuals involved in crashes in the North Front Range between 2011 and 2015 were considered to contribute to the crash through one of the factors identified in Table 5-5. The most common factor was distracted driving, which accounted for about one third of individuals with human contributing factors.

Table 5-5: Human Contributing Factors for Crashes in the North Front Range MPO, 2011-2015					
Human Contributing Factor	Percent of Individuals	Number of Individuals			
Distracted Driving	32.4%	7,341			
Driver Inexperience	17.8%	4,024			
DUI, Driving While Ability Impaired, or Driving Under Influence of Drugs	11.1%	2,511			
Aggressive Driving	7.3%	1,647			
Driver Unfamiliar With Area	5.0%	1,121			
Asleep at the wheel	2.1%	473			
Driver Fatigue	1.6%	370			
IIIness/Medical	1.6%	364			
Other Factors	21.1%	4,787			
Total for Crashes with Human Factors	100.0%	22,638			
Source: CDOT and NFRMPO					

Crashes involving impaired drivers include crashes where a driver was suspected of alcohol use, drug use, or charged with a DUI. Impaired drivers were involved in 6 percent of crashes in the North Front Range from 2011 through 2015, but were involved in much higher shares of serious injury and fatal crashes. Specifically, 17.4 percent of serious injury crashes and 25.8 percent of fatal crashes involved impaired drivers. As shown in *Figure 5-7*, the percentage of all crashes involving impaired drivers has held steady, while the percentage of fatal crashes involving impaired drivers fell in 2014 to a low of 5.7 percent.







Source: CDOT and NFRMPO

The number of crashes involving impaired drivers resulting in a fatality or serious injury is displayed in *Figure 5-8*. The number of serious injury or fatal crashes involving impaired drivers decreased from 2011 to 2014, and increased in 2015.

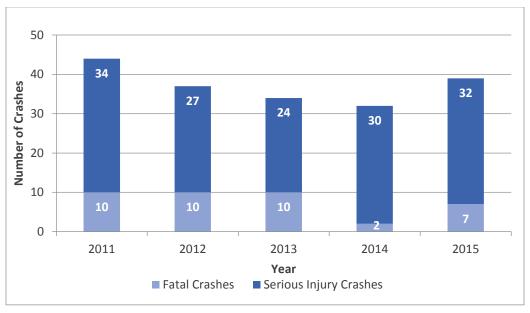


Figure 5-8: Crashes Involving Impaired Drivers by Severity, 2011-2015

Source: CDOT and NFRMPO



Bridges

The North Front Range is home to 410 bridges. This includes all bridges that carry vehicular traffic with an opening longer than 20 feet measured along the center of the roadway.¹² *Structurally Deficient* status is given to bridges if the deck, superstructure, substructure, or culvert is rated in "poor" condition (0 to 4). *Functionally Obsolete* bridges are structures built short of modern-day standards, but are not inherently unsafe. This can mean they do not have adequate lane widths, shoulder widths, vertical clearances, or they may be occasionally flooded.¹³ In 2015, 17.3 percent of bridges within the NFRMPO boundaries were classified as structurally deficient or functionally obsolete in the National Bridge Inventory (NBI). This figure is slightly above the state average for Colorado of 15.1 percent. These figures include all bridges that have not been built or reconstructed in the last 10 years.¹⁴

CDOT uses a similar system to rate bridges as good, fair, or poor based on the lowest performing component of the bridge. In 2009, the Funding Advancement for Surface Transportation and Economic Recovery (FASTER) legislation created the Colorado Bridge Enterprise (CBE) to fund the repair and replacement of State and U.S. facility bridges receiving a "poor" rating. Only two bridges in the region received a rating of poor, both located in Fort Collins. CDOT also places load restrictions on structures which cannot presently withstand the maximum legal load or structures which cannot presently withstand the maximum over load permit weights according to wheel and axle load restrictions found in §42-4-507 of the Colorado Revised Statutes (CRS).¹⁵ Additionally, bridge structures with clearance of less than 16 feet are considered height restricted. *Figure 5-9* shows load and height restricted bridges on all facilities and bridges receiving a poor-rating on state facilities.

¹⁵ Colorado Revised Statutes, 2017



¹² Federal Highway Administration (FHWA) National Bridge Inventory (NBI), 2015

¹³ http://www.virginiadot.org/info/resources/bridge_defs.pdf

¹⁴ https://www.fhwa.dot.gov/reports/tswstudy/Vol3-Chapter6.pdf

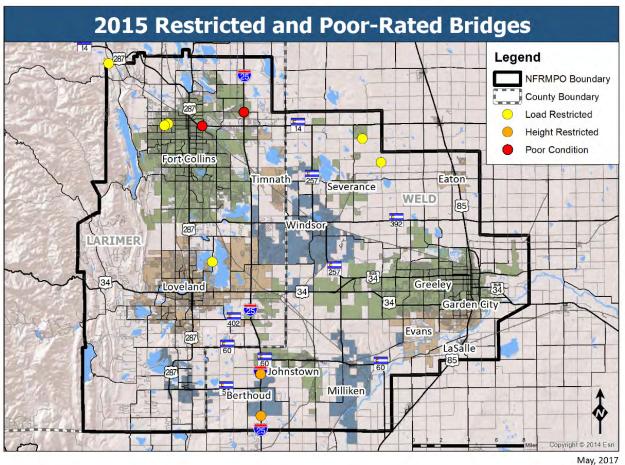


Figure 5-9: Height and Weight Restricted and Poor-Rated Bridges

May, 2017 Sources: CDOT, FHWA



Chapter 6: Transit

Public Transportation Providers

Current public transportation systems in the North Front Range region include those operated by the cities of Fort Collins, Greeley, and Loveland, the Town of Berthoud, and CDOT. Other transportation services active in the region include transportation services provided by volunteers, such as Senior Alternatives in Transportation (SAINT), Rural Alternative for Transportation (RAFT), Senior Resource Services (SRS), and several commercial transportation providers.

Public transportation in the region has evolved primarily as a city government function. SAINT, SRS, and the Berthoud Area Transportation Services (BATS) evolved to meet the needs of seniors and people with disabilities, while the transit services in Fort Collins, Greeley, and Loveland operate fixed-routes and paratransit services which serve broad markets.

Transfort - The City of Fort Collins

The Transfort system is owned and operated by the City of Fort Collins. Transfort provides fixed-route and paratransit services, known as Dial-a-Ride. In 2015, Transfort introduced the Dial-a-Taxi program, which uses FTA §5310 funding to subsidize taxi rides beginning in the Transfort service area.

Transfort operates 21 local routes, two late night weekend services, one bus rapid transit (BRT) route (MAX), and one regional route (FLEX). Routes generally run from 6:30 a.m. until 6:30 p.m., Monday through Saturday, but there is considerable variation with some routes to the CSU campus operating until 10:00 p.m. There is additional service frequency on multiple routes when CSU is in session.

Transfort charges a single ride fare of \$1.25, discounted to \$0.60 for seniors (60+) and disabled or Medicare recipients. The fare for the late night weekend service is \$1.00 each way, discounted to \$0.50 for seniors and disabled or Medicare recipients. There is no additional charge for transfers. Youths (17 and under) with Student IDs and full-time CSU students, faculty, and staff with a valid RamCard ride for free.

Service Characteristics

In 2015, Transfort carried nearly 3.3M passengers on the fixed-route system. Approximately 2.25M rides were provided on local buses, 154,869 on the FLEX route, 991,000 on the MAX BRT, and 15,960 on late night routes (Gold and Green routes). This is an increase from 2.29M total rides in 2014. The fixed-route system has a productivity of 27.4 riders per hour, while MAX has a productivity of 34.3 riders per hour.

Five routes were subsidized by CSU and the Associated Students of CSU (ASCSU), including the Around the Horn and Routes 19, 31, 32, and 33. These services provided rides between CSU's campuses and larger student residential areas. ACSCU and the City of Fort Collins provided funding for the Late-Night Downtown Services (Gold and Green Lines). Poudre School District



(PSD) provided funding for Routes 91 and 92, which provided one after-school trip each from the Downtown Transit Center to Lincoln Middle School and Poudre High School, respectively.

As required by the federal government, Transfort operates Dial-a-Ride service within ³/₄-mile of regular fixed routes. In 2015, the system provided 18,229 hours of service and 35,450 rides. This is a decrease of 2,207 rides from 2014. Transfort provides travel training to Dial-a-Ride users who are interested in learning to use the fixed-route buses for some or all of their trips. Transfort also teams with the Senior Transportation Coalition and local senior centers to provide travel training for the FLEX and MAX routes.

Dial-a-Taxi is open to eligible Dial-a-Ride riders, and allows rides outside of the Transfort service area. As part of the program, the first \$20 is paid for using a voucher provided by Transfort. Any fare above \$20 is the responsibility of the rider. From May to December 2015, the program provided 2,040 rides.

Vehicles

In 2015, Transfort had access to a fleet of 49 vehicles, 31 of which were for local bus routes, six for MAX, and 12 for purchased transportation (the late night routes and Dial-a-Ride). All vehicles are Americans with Disabilities Act (ADA) accessible. Transfort has a fleet mix of compressed natural gas and diesel buses. Veolia Transportation leases eight vehicles from Transfort to operate all paratransit service within the Transfort service area.

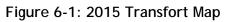
System Characteristics

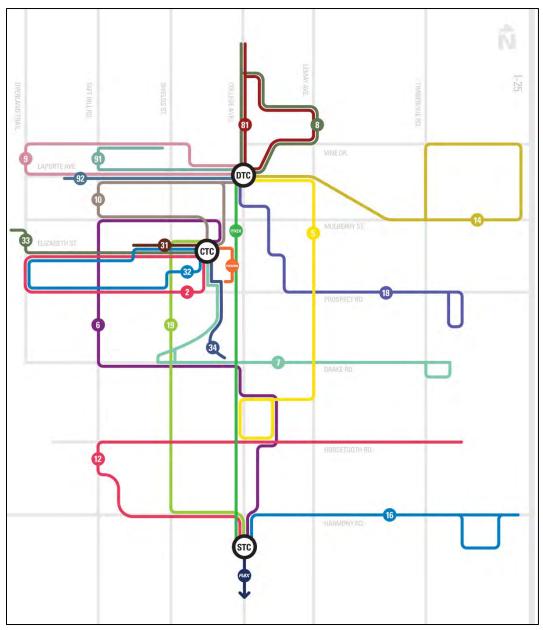
A major redesign of the Transfort network occurred in 2014 with the opening of the MAX BRT. The 2015 Transfort network is shown in *Figure 6-1*. As shown in the diagram, there are three major transit centers in Fort Collins: the Downtown Transit Center; Colorado State University (CSU) Transit Center; and the South Transit Center.

Table 6-1 shows the system-wide characteristics over the seven year period of 2009 to 2015. All categories show a steady increase, with a 73.1 percent increase in ridership and a 95.9 percent increase in service hours. There was a 128.4 percent increase in costs and a 193.8 percent increase in fare revenues during this period.

The City of Fort Collins funds Transfort with a combination of FTA Urbanized Area funds, City general funds, operating revenues, and contract revenue for CSU and PSD students. *Table 6-2* illustrates the system-wide performance measures for Transfort.







Source: City of Fort Collins/Transfort



Chapter 6: Transit

	Table 6-1: Transfort Trends, 2009-2015						
Year	Ridership	Annual Vehicle Miles	Annual Vehicle Hours	Annual Operating Costs	Annual Fares		
2009	1,904,229	791,627	69,984	\$6,001,968	\$790,883		
2010	2,034,195	913,682	75,563	\$6,267,239	\$869,409		
2011	2,156,732	995,858	77,355	\$7,121,053	\$951,141		
2012	2,271,732	1,028,405	78,551	\$7,303,399	\$955,073		
2013	2,270,148	1,188,513	96,512	\$8,739,326	\$1,155,348		
2014	2,646,225	1,505,405	120,875	\$11,453,778	\$1,599,907		
2015	3,297,091	1,706,151	137,071	\$13,710,996	\$2,323,294		
	Source: Transfort, 2017						

Table 6-2: Transfort 2015 System-Wide Performance Measures				
Performance Measure	Total			
Cost per Operating Hour	\$103.03			
Passengers per Operating Hour	24.05			
Cost per Passenger Trip	\$4.16			
Subsidy per Passenger Trip	\$3.45			
Farebox Recovery	16.9%			
Ridership per Capita ¹⁶	20.49			
Cost per Capita ¹⁶ \$85.20				
Source: Transfort, 2017				

Mason Express (MAX) Service

MAX provides a bus rapid transit (BRT) express service at 10-minute intervals during peak hours, taking approximately 20 minutes to travel between the Downtown Transit Center and the South Transit Center along the Mason Corridor. MAX operated for its first full calendar year in 2015, having opened in May 2014.

The MAX serves major activity and employment centers throughout Fort Collins, including Midtown, CSU, and Downtown. The MAX links with other Transfort bus routes, Park-N-Rides, the City's bicycle/pedestrian trail system, and other local and regional transit routes providing an integrated transit network for passengers.

The MAX's system has a partially dedicated corridor which runs parallel to the BNSF Railway Line, between the South Transit Center (south of Harmony Road) and Horsetooth Road and between Drake Road and University Avenue (CSU). This dedicated route is an integral part of

¹⁶ The Colorado Department of Local Affairs (DOLA) projected Fort Collins' population to be 160,935 in 2015.



the MAX service and is independent of traffic conditions. The MAX stations are spaced approximately one-half mile apart, which is farther than regular local-service bus routes.

MAX implements a number of Intelligent Transportation System (ITS) technologies to ensure efficient service. Each bus stop is equipped with Dynamic Message Signs (DMS) to show passengers anticipated wait times. On board, DMS inform passengers of upcoming stops via audio and visual announcements. Automatic vehicle location technologies help inform both the passenger and operator of bus location. Transit signal priority gives MAX buses reduced traffic signal wait times. Off-board fare collection increases system speed by eliminating on-board fare collection. Automated passenger counters record system use and stop popularity. MAX buses have cameras on-board and at each stop for security and bus location purposes. Passengers can access also access MAX's free on-board Wi-Fi. ITS is discussed further in *Chapter 9*.

FLEX Interregional Transit Service

FLEX is an interregional route which operates between Fort Collins, Loveland, Berthoud, and Longmont. Service begins at the South Transit Center and terminates at the Regional Transportation District's Longmont 8th and Coffman Park-n-Ride station. The service is operated by Transfort and funded through a regional partnership between the cities of Fort Collins, Longmont, and Loveland, the Town of Berthoud, and Boulder County. This service began as a three-year pilot project to connect riders in the North Front Range with the Boulder and Denver metro areas. During peak morning and afternoon commute times, an express route operates on 30-minute headways at key stops between Fort Collins and Loveland. In 2015, the service was awarded funding through the Denver Region Council of Governments (DRCOG) Congestion Mitigation and Air Quality (CMAQ) call for projects to expand service to the City of Boulder beginning in 2016.

In 2015, FLEX carried 154,879 passengers during 8,094 service hours or 19.1 passengers per hour. Performance measures for FLEX are listed in *Tables 6-3*.

Table 6-3: FLEX 2015 System-Wide Performance Measures					
Performance Measure	Total				
Cost per Operating Hour	\$86.79				
Passengers per Operating					
Hour	19.14				
Cost per Passenger Trip	\$4.53				
Subsidy per Passenger Trip	\$4.27				
Farebox Recovery 5.7%					
Source: Transfort, 2017					



Greeley-Evans Transit (GET)

Greeley-Evans Transit (GET) is operated by the City of Greeley and provides fixed-route, paratransit service, and door-to-door on-demand service, Call-N-Ride, to the public. The City of Evans and Town of Garden City have a purchase-of-service agreement with the City of Greeley to operate transit within their boundaries.

As of 2015, GET operated seven local fixed-routes, including a campus shuttle for UNC, the UNC Boomerang. Additionally, GET provided evening demand-response service. Routes generally run from 6:30 a.m. to 7:30 p.m., Monday through Friday and from 7:00 a.m. to 5:30 p.m. on Saturdays. The UNC Boomerang operates Monday through Friday when UNC is in session.

Paratransit service, a door-to-door service for persons who qualify under the ADA, is operated within ³/₄-mile of fixed-routes during the same time as fixed routes. Demand-response service operates within the same service area as paratransit and offers extended service during the evening for the general public, until 8:30 p.m. Monday through Saturday. Demand-response service is also available on Sunday from 7:45 a.m. until 1:45 p.m. There is no service on major holidays.

GET charges a basic single ride fare of \$1.50, discounted to \$0.75 for seniors, the disabled, Medicare recipients, and youth six to 18 years old. Children five years and under ride free. In August 2014, GET began its *Ride Free with a School ID* program which allows any student with a valid student ID to ride any GET bus for free. UNC students are allowed to ride for free under the University program. Aims Community College students are eligible to purchase a semester pass for \$64, but are not able to ride for free. A variety of multiple ride tickets and passes are also sold at a discount. Transfers are free.

Service Characteristics

In 2015, GET carried over 615,365 passengers on their fixed-route system. The fixed-route system's productivity was 18 riders per hour.

The paratransit and demand-response services combined, operated 12,489 hours of service, and carried 20,834 riders for an average productivity of 1.7 riders per hour. The paratransit and demand-response services use ¼ of the total system's service hours. GET provides travel training to assist riders in learning to use the fixed-route buses.

Vehicles

GET has a fleet of 19 vehicles, all running on diesel. GET uses seven vehicles for demandresponse service and 12 for fixed-route service. All of the vehicles are wheelchair accessible, with two wheelchair tie-downs on the fixed-route vehicles and three on the demand-response vehicles.

System Characteristics

The GET bus network is shown in *Figure 6-2*. Trends in basic system characteristics are illustrated in *Table 6-4*. Over the seven-year period from 2009 to 2015, ridership grew by 9.1 percent, service miles decreased by 0.5 percent, and service hours were reduced by 2.1



percent. Operating costs increased by 42.6 percent, while annual fare revenue increased by 98.5 percent.

In 2016, the GET fixed-route system underwent major changes, including new nomenclature and routings. These changes are not reflected in the *2015 Transportation Profile*.¹⁷

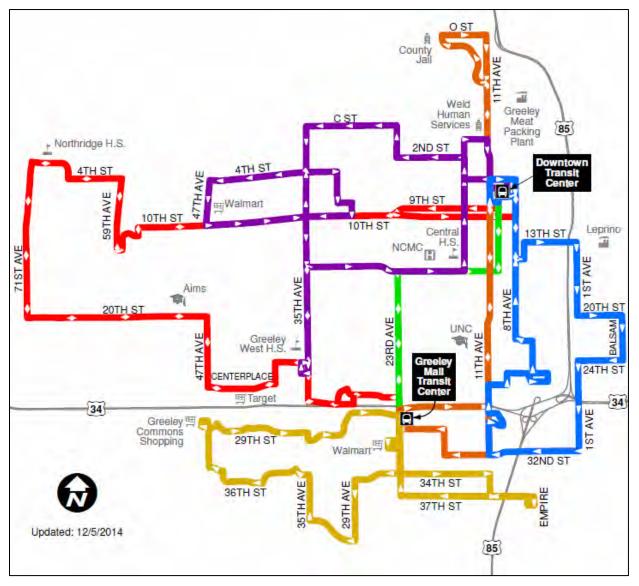


Figure 6-2 2015 Greeley Evans Transit (GET) Map

Source: City of Greeley/Greeley Evans Transit

¹⁷ The most updated GET fixed-route system map can be accessed here: <u>http://greeleyevanstransit.com/schedules/</u>



Chapter	6:	Transit	

Table 6-4: GET Trends, 2009-2015						
Year	Ridership	Annual Vehicle Miles	Annual Vehicle Hours	Annual Operating Costs	Annual Fares	
2009	555,754	537,251	45,285	\$2,553,479	\$406,712	
2010	517,582	527,931	44,369	\$2,542,641	\$366,671	
2011	507,271	555,751	46,492	\$2,684,182	\$466,439	
2012	538,034	571,576	44,568	\$2,633,583	\$481,126	
2013	550,193	586,791	46,182	\$3,010,244	\$560,372	
2014	555,975	559,065	45,880	\$3,360,878	\$429,327	
2015	615,365	586,530	45,467	\$3,652,921	\$478,204	
	Source: GET, 2015					

GET funds its \$3.65M annual operating costs through fares, UNC contract revenues, and local and FTA funding. Service is provided to the City of Evans and Garden City through a purchase of service contract.

GET system performance measures are shown in *Table 6-5*. The system has a lower cost per operating hour compared to COLT and Transfort at \$80.34, reflecting the limited staff available to run the system. The other performance measures reflect a basic system with a high level of paratransit service compared to the fixed-route services provided.

Table 6-5: GET 2015 System-Wide Performance Measures				
Performance Measure	Total			
Cost per Operating Hour	\$80.34			
Passengers per Operating Hour	13.53			
Cost per Passenger Trip	\$5.94			
Subsidy per Passenger Trip	\$5.16			
Farebox Recovery	13.1%			
Ridership per Capita ¹⁸ 5.79				
Cost per Capita \$36.06				
Source: GET, 2017				

City of Loveland Transit (COLT)

The City of Loveland Transit (COLT) system is operated by the City of Loveland's Public Works Department. COLT's fixed-route service runs from 6:48 a.m. to 6:40 p.m., Monday through Friday and from 8:48 a.m. to 5:40 p.m. on Saturdays, with one-hour headways. Paratransit and senior door-to-door service is available during the same hours for eligible passengers. The service is divided into three routes: 100, 200, and 300.

¹⁸ The Colorado Department of Local Affairs (DOLA) projected Greeley's population to be 101,302 in 2015.



A regular one-way adult fare is \$1.25 and reduced fares are offered for seniors, youth, ADA passengers, and those with limited income. COLT offers 10-day, 20-day, and monthly passes, as well as discounted annual passes for persons with disabilities, seniors, and students. Regular paratransit trips are \$2.00 each way and \$1.00 for ADA eligible passengers and those with limited income. COLT sends paratransit passengers an invoice for each month's service. Youth ages 17 and under ride free.

Vehicles

COLT has a fleet of five vehicles in maximum daily service. Two are available for the paratransit service, and three are used for fixed-route bus service.

System Characteristics

COLT saw a decrease in all of its ridership, but an increase in annual vehicle miles traveled (VMT) between 2009 and 2015. The 2015 COLT network is shown in *Figure 6-3* and trends are shown in *Table 6-6*. During this period, ridership decreased by 16.2 percent, service miles increased by 16.8 percent, and vehicle hours increased by 16.7 percent. Financially, COLT has seen an increase of almost 49 percent in its annual operating cost and a 12.7 percent increase in annual fare revenues.

Table 6-7 shows COLT's system-wide performance measures. The system has the lowest cost per capita of the region's three fixed-route systems.



Chapter 6: Transit

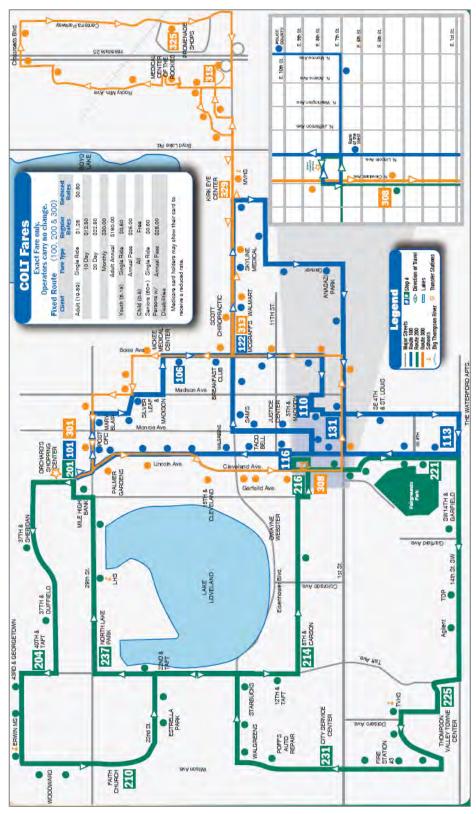


Figure 6-3 2015 COLT Map

Source: City of Loveland/COLT



Chapter 6: Transit

	Table 6-6: COLT Trends, 2009-2015						
Year	Ridership	Annual Vehicle Miles	Annual Vehicle Hours	Annual Operating Costs	Annual Fares		
2009	155,695	200,370	12,237	\$978,013	\$76,468		
2010	146,467	194,753	12,041	\$952,127	\$79,705		
2011	133,555	207,048	13,265	\$1,071,550	\$114,240		
2012	142,144	214,414	14,092	\$1,150,000	\$108,368		
2013	142,803	220,916	14,085	\$1,142,916	\$82,208		
2014	139,199	229,116	14,512	\$1,238,840	\$88,481		
2015	130,488	233,987	14,275	\$1,455,994	\$86,209		
	Source: COLT, 2015						

Table 6-7: COLT 2015 System-Wide Performance Measures				
Performance Measure	Total			
Cost per Operating Hour	\$102.00			
Passengers per Operating Hour	9.14			
Cost per Passenger Trip	\$11.16			
Subsidy per Passenger Trip	\$10.50			
Farebox Recovery	5.92%			
Ridership per Capita ¹⁹	1.75			
Cost per Capita19	\$19.55			
Source: COLT, 2015				

Bustang

The CDOT Bustang service is an interregional express bus service provided by CDOT through a contracted operator, Ace Express Coaches, which began service in July 2015. The Bustang service provides a connection between the North Front Range region and Denver with six northbound and six southbound buses Monday through Friday. Two other Bustang routes connect at Denver Union Station, including the West Line to Glenwood Springs and the South Line to Colorado Springs. There are three stops on the North Line in the region: US34 and I-25 in Loveland, Harmony Road, and the Downtown Transit Center in Fort Collins. The schedule is shown in *Table 6-8* and is accurate as of December 31, 2015. No trips are allowed that are entirely within either Larimer County or the Regional Transportation District (RTD). One-way and multi-trip discount tickets are available, with single tickets available for purchase on all buses. There is also a 25 percent discount for disabled persons and adults 65 years and over.

¹⁹ The Colorado Department of Local Affairs (DOLA) projected Loveland's population to be 74,461 in 2015.



The entire Bustang system operates with 13 over-the-road coaches, with capacity for 51 passengers each. The coach buses are manufactured by Motor Coach Industries and are ADA-accessible.

Table 6-8: Bustang Schedules Southbound Schedule						
Fort Collins Downtown Transit Center	Harmony Road Transit Center	Loveland- Greeley PNR	Denver Union Station	Denver Bus Center		
	5:30 AM	5:40 AM	6:40 AM	6:50 AM		
	5:45 AM	5:55 AM	6:55 AM	7:05 AM		
	6:15 AM	6:25 AM	7:25 AM	7:35 AM		
	6:45 AM	6:55 AM	7:55 AM	8:05 AM		
11:00 AM	11:20 AM	11:30 AM	12:20 PM	12:30 PM		
3:00 PM	3:20 PM	3:30 PM	4:20 PM	4:30 PM		
	Source: CDOT, 2015					

Northbound Schedule						
Denver Bus Center	Denver Union Station	Loveland- Greeley PNR	Harmony Road Transit Center	Fort Collins Downtown Transit Center		
8:30 AM	8:45 AM	9:35 AM	9:50 AM	10:10 AM		
1:00 PM	1:15 PM	2:10 PM	2:25 PM	2:45 PM		
4:15 PM	4:30 PM	5:20 PM	5:35 PM	5:55 PM		
4:30 PM	4:45 PM	5:35 PM	5:50 PM	6:10 PM		
5:00 PM	5:15 PM	6:05 PM	6:20 PM	6:40 PM		
5:50 PM	6:10 PM	7:00 PM	7:15 PM	7:35 PM		
	Source: CDOT, <u>www.ridebustang.com</u>					

BATS - Berthoud Area Transportation Services

BATS is operated by the Town of Berthoud and provides rides to residents who live within the municipal boundaries. BATS provides shared-ride demand-response service for residents in an approximately eight-square mile service area. The service area includes the developed portion of Berthoud and the immediate area surrounding the Town.

BATS transports riders to Longmont on Mondays, with trips to Loveland provided Tuesday through Friday. Out-of-town rider pickups begin at 8:00 a.m., with a return trip to Berthoud at 11:30 a.m. In-town trips are provided from 8:00 a.m. to 4:00 p.m., Monday through Friday. There is no service on holidays and all rides must be scheduled at least 24-hours in advance.

BATS fares are \$1.00 for in-town trips and \$4.00 for out-of-town trips, each way. The system has a small source of consistent revenue through a one-cent Town sales tax.



Vehicles

The BATS fleet includes three buses equipped with wheelchair lifts, acquired through CDOT grants.

Service Characteristics

BATS service characteristics reflect the demand-response service mode. In March 2013, the BATS service area was reduced to Berthoud's eight-square mile municipal boundary. From 2009 to 2015, BATS ridership decreased by 69.4 percent, vehicle miles decreased by 88.1 percent, vehicle hours decreased by 70.4 percent, operating costs decreased by 47.0 percent, and annual fare revenues decreased by 66.6 percent, see *Table 6-9*. BATS' 2015 performance measures are shown in *Table 6-10*. Considering the large geographic area the system covers, the system productivity is relatively high. BATS characteristics can best be compared with SAINT, although BATS uses paid drivers instead of volunteers.

Table 6-9: BATS Trends, 2009-2015							
Year	Ridership	Annual Vehicle Miles	Annual Vehicle Hours	Annual Operating Costs	Annual Fares		
2009	14,273	112,172	6,253	\$209,975	\$17,571		
2010	13,397	112,867	6,397	\$284,675	\$18,897		
2011	13,254	112,224	6,493	\$288,015	\$20,771		
2012	9,739	82,731	5,222	\$210,324	\$20,613		
2013	4,715	23,596	2,250	\$125,346	\$8,103		
2014	3,322	11,413	1,604	\$120,743	\$4,460		
2015	4,361	13,352	1,853	\$111,253	\$5,861		
	Source: Town of Berthoud–BATS, 2015						

Table 6-10: BATS 2015 System-Wide Performance Measures				
Performance Measure	Total			
Cost per Operating Hour	\$47.13			
Passengers per Operating Hour	2.3			
Cost per Passenger Trip	\$20.07			
Subsidy per Passenger Trip	\$24.17			
Farebox Recovery	5.3%			
Ridership per Capita ²⁰	0.77			
Cost per Capita \$19.55				
Source: Town of Berthoud–BATS, 2015				

²⁰ The Colorado Department of Local Affairs (DOLA) projected Berthoud's population to be 5,692 in 2015.



SAINT - Senior Alternatives in Transportation

SAINT is a 501(c)(3) non-profit providing rides to seniors 60+ and adults with disabilities in Fort Collins and Loveland. SAINT volunteers drive their own vehicles. SAINT staff recruits volunteers, schedules rides, and provides a mileage allowance and extra insurance to the volunteer drivers. SAINT's 500 clients are served by 160 volunteers and four staff members (one full-time and three part-time). Rides are offered within Fort Collins or Loveland, but not between the two cities. In 2015, volunteer drivers in Fort Collins and Loveland provided nearly 27,000 rides to seniors and persons with disabilities in need.²¹

SAINT operates from 8:15 a.m. to 4:00 p.m., Monday through Friday. Weekend and evening rides are available in Fort Collins by special request. Riders must call to make reservations at least three business days in advance, with reservations taken Monday through Friday from 8:00 a.m. to 12:00 p.m. No fare is required; however, donations of \$1.00 are suggested, with the average donation being \$1.15.

Table 6-11 shows SAINT's performance measures for the period of 2009 to 2015. The number of passengers increased by 39.4 percent, service hours by 61.7 percent, and miles by 48.1 percent. Costs to run the service increased by 25.6 percent.

	Table 6-11: SAINT Trends, 2007-2013					
Year	Passengers	Service Hours	Miles (Volunteer)	Cost	Donations 22	
2009	19,327	9,664	154,616	\$179,900	\$22,226	
2010	19,648	9,824	157,184	\$182,900	\$22,595	
2011	21,079	10,540	168,632	\$189,750	\$24,241	
2012	25,454	12,727	203,632	\$202,345	\$29,272	
2013	26,103	13,051	208,824	\$215,189	\$26,164	
2014	26,737	15,500	227,265	\$225,539	\$26,512	
2015	26,944	15,630	229,025	\$225,940	\$30,557	
	Source: SAINT, 2015					

RAFT - Rural Alternative for Transportation

RAFT began in January 2014 due to the reduction in the service area of BATS. RAFT is a nonprofit volunteer transportation service which offers door-to-door, on-demand services to eligible seniors (65+) and adults (18+) with disabilities. RAFT operates under the Berthoud Area Community Center/Golden Links, Inc. The service relies on volunteer drivers; however, the service acquired an ADA van with funds from a NFRMPO New Freedom sub-grant. During its first year of service, volunteers drove approximately 22,000 miles providing 960 trips for eligible individuals.

²² Donations estimated based on number of passengers and average donation per trip of \$1.15.



46

²¹ SAINT website: <u>www.saintvolunteertransportation.org</u>

Chapter 6: Transit

To be eligible, individuals must reside within the area served by the Berthoud Fire Protection District (zip code 80513), which is the area in yellow highlighted in *Figure 6-4*. These communities surround Berthoud, but are outside of the area served by BATS. RAFT volunteers take riders to Berthoud, Longmont, Loveland, and adjacent areas. Individuals choosing to use RAFT must pre-register as a rider.



Figure 6-4: RAFT Service Area

Source: RAFT website, 2015

Senior Resource Services (SRS)

Senior Resource Services is a Greeley-based volunteer transportation service, providing rides to seniors residing in Weld County. There has been rapid growth for the agency since its founding in 2006, limited more by the number of volunteer drivers than by demand.

Windsor Senior Ride Program

Senior Ride provides transportation assistance to Windsor residents age 55 and older who are unable to drive themselves. The service maintains one wheelchair accessible 13-passenger van. The van can hold up to two wheelchairs and 11 passengers. The service employs two drivers who split the driving duties. Rides are provided to and from medical appointments, as well as to and from Senior Nutrition Lunches at the Windsor Community Recreation Center on Wednesdays and Fridays. Rides to and from grocery stores in town are available on Thursdays and Fridays, *Table 6-12*.



Table 6-12: Windsor Senior Ride Program Schedule				
Day	Appointment Times	Destination	Fee	
Monday	8:00 a.m 3:30	Greeley, Fort Collins,		
Monuay	p.m.	Loveland, Windsor	\$6.00	
Tuesday	8:00 a.m 3:30	Greeley, Fort Collins,	\$6.00	
Tuesuay	p.m.	Loveland, Windsor		
Wednesday	8:00 a.m 3:30	Windsor	\$4.00	
wearesday	p.m.	Windson	Ψ4.00	
Thursday	8:00 a.m 3:30	Windsor	\$4.00	
Thursday	p.m.	Windson	ψ+.00	
Source: Town of Windsor—Windsor Senior Ride Program, 2015				

Transit Safety

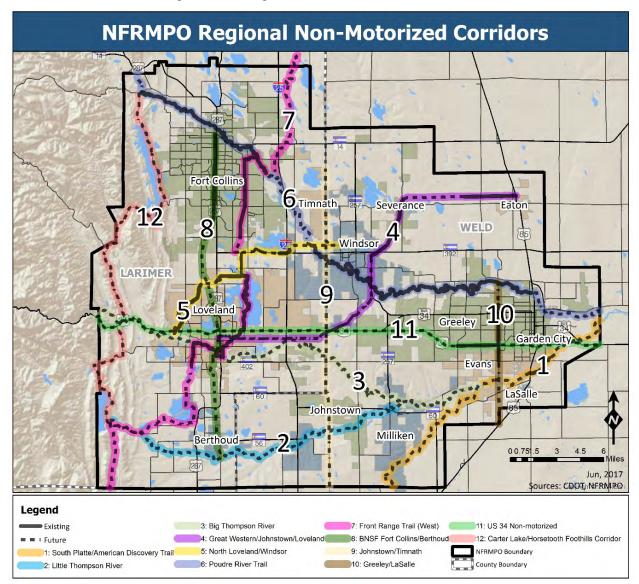
Transit providers report safety data, including traffic crashes and accidents such as slips and falls, to the National Transit Database. Data is available for the three public transportation providers located in Fort Collins, Greeley, and Loveland, and is aggregated for the region in *Table 6-13*. Between 2011 and 2015, four collisions were reported along with seven accidents identified as "not otherwise classified". The non-classified accidents could include slips, trips, and falls; electric shocks; vehicles leaving roadway; or other events. The four collisions and seven non-classified accidents resulted in 11 injuries and no fatalities. Three of the collisions were between a transit vehicle and another motor vehicle and one was between a transit vehicle and a pedestrian.

Table 6	Table 6-13: Transit-Involved Collisions, Accidents, Injuries, and Fatalities, 2011- 2015					
Year	Collisions	Accidents Not Otherwise Classified	Injuries	Fatalities		
2011	1	0	0	0		
2012	0	3	3	0		
2013	2	3	6	0		
2014	0	1	1	0		
2015	1	0	1	0		
Total	4	7	11	0		
	Source: National Transit Database					



Chapter 7: Non-Motorized

The 2013 NFRMPO Regional Bicycle Plan identified 12 Regional Bicycle Corridors (RBC) connecting the member communities with each other and surrounding communities. These routes also have the capacity to support pedestrian travel and have been renamed as Regional Non-Motorized Corridors (RNMC). The RNMCs comprise a recommended network based on local stakeholder input. Although many RNMC segments currently exist, many are identified for future development in the 2016 NFRMPO Non-Motorized Plan, one or more local planning documents, or are recommendations to complete a needed regional connection. The RNMCs are shown in Figure 7-1.







Existing portions of the RNMCs are comprised of multi-use trails, bicycle lanes, and bicycle routes. With sidewalks included, these types of facilities make up the non-motorized facilities in the region. An inventory of each community's non-motorized facilities is included in the Community Profiles in the *Appendix*. *Table 7-1* summarizes the non-motorized facilities for the region.

Table 7-1: Non-Motorized Facility Miles by Facility Type			
Facility Type	Miles		
Bike Lanes	662.5		
Bike Route	106.0		
Recreational Trails	178.2		
Sidewalks	2,472.0		
TOTAL 3,418.7			
Source: NFRMPO, 2016			

Bicycle and Pedestrian Count Effort

The NFRMPO began its bicycle and pedestrian counting efforts in December 2015 with the purchase of five counters to be installed and/or deployed in 2016. Two of the counters are permanent devices installed along the Poudre River Trail at the River Bluffs Open Space in Larimer County and the Rover Run Dog Park in Greeley. The remaining devices are two mobile tube-style counters and one mobile infrared counter. The mobile units are available for NFRMPO member communities to check out and use to collect data within the NFRMPO region.

There were six permanent bicycle and pedestrian counters installed and counting in the NFRMPO region in 2015. Four counters were located in Fort Collins. Three of these are owned and operated by CSU on their main campus and the fourth located along the Mason Trail just south of the Spring Creek Trail and operated by CDOT. The remaining counters are on the Loveland Recreation Trail near the north and south ends of Boyd Lake, and are owned and operated by the Colorado Parks and Wildlife (CPW). These sites are highlighted in *Figure 7-2*.



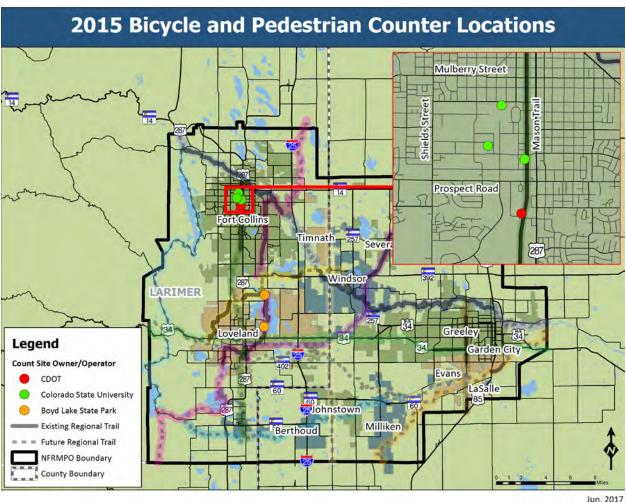


Figure 7-2: 2015 Bicycle and Pedestrian Counter Locations

Jun, 2017 Sources: CDOT, NFRMPO

Programs and Services

Bicycle Share

In 2012, the UNC Campus Recreation Department began a free campus bike share program for students and faculty. The program allows participants to check out bicycles from the Campus Recreation fleet of 100 cruiser bicycles and 20 mountain bikes, designed with branding unique to UNC. All bikes come with a helmet, lock, and the option to use a front-mounted basket.

The Fort Collins Bike Library was a bicycle and equipment rental service formed through an effort among FC Bikes, City of Fort Collins, New Belgium Brewery, the Downtown Development Authority, and Bike Fort Collins. The Fort Collins Bike Library charged a small fee for rentals from one hour to seven days, promoting alternative transportation options at a low cost. On April 1, 2016, the service was replaced by the Zagster automated bike share system which allows on-demand bike access at 17 locations across Fort Collins.²³

²³Information on Zagster can be found at <u>http://bike.zagster.com/fortcollins/</u>



Education and Outreach

Larger communities in the region like Fort Collins and Loveland operate Safe Routes to School (SRTS) programs to introduce children grades K-8 to walking and biking safely. There are a variety of community-run bicycle and pedestrian education programs and events such as bike rodeos, annual bike to school/work days, online mapping, and online education and safety resources.

Policy

Within the North Front Range, Berthoud, Fort Collins, Greeley, Loveland, and CDOT have adopted Complete Streets policies. The adoption of a Complete Streets policy by communities encourages the routine design and operation of the entire right of way to enable safe access for all users.²⁴ The towns of Eaton and LaSalle reference Complete Streets in their Transportation Plans.

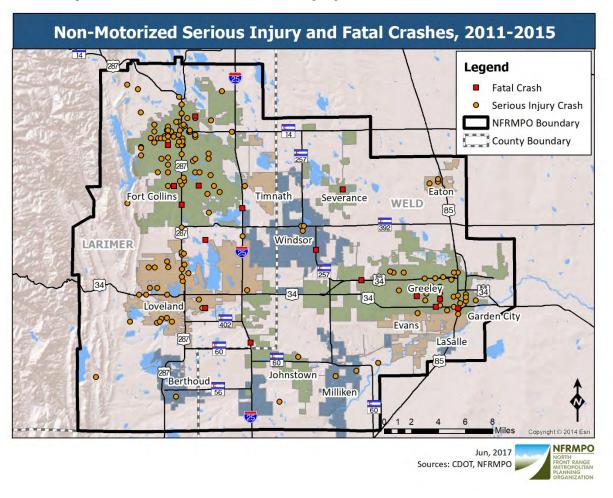
The NFRMPO Planning Council adopted a policy to use Transportation Alternatives (TA) funds allocated to the NFRMPO for completing the regional connections identified in the 2013 Regional Bike Plan.

Non-Motorized Safety

Non-motorized crashes accounted for 3.7 percent of reported crashes in the North Front Range from 2011 to 2015, with a total of 1,573 crashes. Only crashes on public roads with a responding law enforcement officer are included in the reported crash total. Non-motorized crashes include crashes that involve a pedestrian or bicyclist and tend to be more severe than other types of crashes. Non-motorized crashes accounted for 17.3 percent of serious injury and fatal crashes, with a total of 172 serious injury and fatal crashes from 2011 to 2015. *Figure 7-3* displays the location of non-motorized serious injury and fatal crashes in the North Front Range region from 2011 to 2015.

²⁴ What are Complete Streets? National Complete Streets Coalition. Smart Growth America. <u>http://www.smartgrowthamerica.org/complete-streets/complete-streets-fundamentals/complete-streets-faq</u>

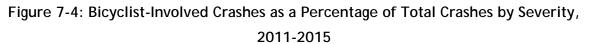


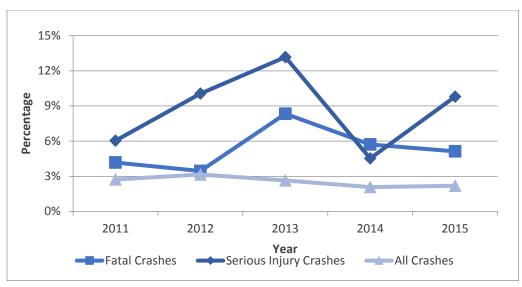




On average, there were 216 bicyclist-involved crashes per year from 2011 to 2015, accounting for 2.6 percent of reported crashes. Bicyclist-involved crashes accounted for 8.7 percent of serious injury crashes and 5.4 percent of fatal crashes from 2011 to 2015. *Figure 7-4* displays the severity of bicyclist-involved crashes as a percentage of all crashes over the five year period.



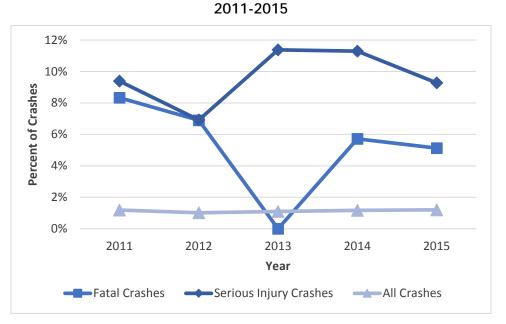




Source: CDOT and NFRMPO

Between 2011 and 2015, pedestrian-involved crashes accounted for 1.1 percent of reported crashes, 9.7 percent of serious injury crashes, and 5.3 percent of fatal crashes in the North Front Range. *Figure 7-5* displays the percentage of pedestrian-involved crashes by severity for each year.

Figure 7-5: Pedestrian-Involved Crashes as a Percentage of Total Crashes by Severity,



Source: CDOT and NFRMPO



Chapter 8: Transportation Demand Management (TDM)

Transportation Demand Management (TDM) is a set of strategies used to improve transportation system efficiency by altering demand rather than investing in roadway expansion. TDM strategies aim to reduce trip time or length, encourage off-peak travel, and/or reduce the number of single-occupancy vehicles (SOV) on roadways. As a result, these efforts aid in easing congestion and reducing travel-related pollutants. TDM efforts in the region are operational at various geographic levels and have been initiated in both the public and private employment sectors.

Regional TDM Efforts

The NFRMPO is the regional coordinator of TDM programs in the North Front Range. Efforts include both vanpool services and business/public outreach.

VanGo[™] Vanpool Services

VanGo[™] is a vanpooling service based in the North Front Range, operated by the NFRMPO. Riders are matched to a vanpool based on similar origin/destinations and travel times. During 2015, VanGo[™] operated 65 to 75 vanpools, serving 336 to 401 riders at any one time. *Figure 8-1* shows 2015 biweekly active vanpool and occupancy trends on the left axis and active vanpooler trends on the right axis. The number of vanpools has declined due to reduced cost of fuel.

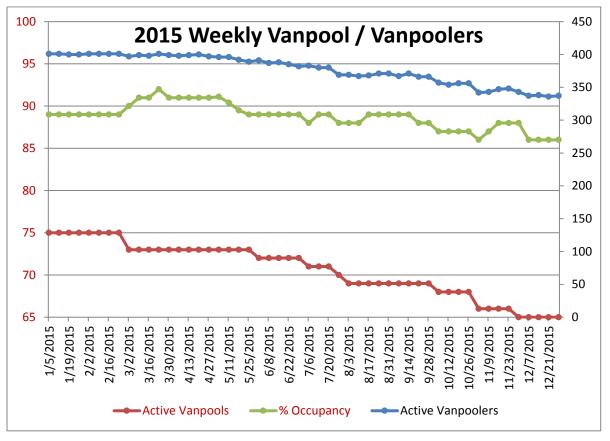


Figure 8-1: 2015 Bi-Weekly Vanpool Trends

Source: VanGo[™] Vanpools



Through an outreach program, VanGo[™] also markets to commuters and employers the benefits of ridesharing. Outreach avenues include participation and cooperation with local TDM programs, chambers of commerce, and regional transportation authorities and organizations, social media outreach, online trip-matching services, and building collaborative relationships with other ridesharing agencies.

SmartTrips™

The NFRMPO developed a free online tool, The SmartTrips[™] Go Portal, which allowed commuters to find carpool matches, calculate commute savings, and get information on commute options. This tool has since been replaced by a similar service hosted on the VanGo[™] website to match riders with potential carpools, vanpools, transit options, park-n-ride locations, and bike commute partners.²⁵

CarGo™

Carpool matching was provided by CarGo[™], a ridesharing system available through the SmartTrips[™] website. The program enabled users to receive personalized carpool matches. A similar service is now hosted on the VanGo website[™].

Bicycle Programs

The NFRMPO works with CDOT and local governments to promote Bike Month and Bike to Work Day each June. The SmartTrips[™] tool allowed users to track miles of bicycle travel. This service no longer exists, but the VanGo[™] website now offers a tool to help cyclists find a commuting partner.

Local TDM Efforts

The local governments of the region's three largest communities are involved in various TDM efforts. Transit and bicycle programs are the most common focus of TDM efforts, many of which are discussed more deeply in *Chapters 6* and 7.

City of Fort Collins

The most populous community in the North Front Range at 160,935, Fort Collins is also the most active community with respect to TDM programs. Through its FC Moves Department, The City of Fort Collins partners with various organizations to administer the Safe Routes to School (SRTS) Program in the Poudre School District (PSD). The City has earned the designation of Platinum Level Bicycle Friendly Community from the League of American Bicyclists, in part due to its TDM efforts.

-Fort Collins Bike Library

The Fort Collins Bike Library charged a small fee for rentals from one hour to seven days. On April 1, 2016, the service was replaced by the Zagster automated bike share system. The Fort Collins Bike Library and Zagster are discussed further in *Chapter 7*.

-Transfort

Transfort runs a program called Passfort, an employer-based bus program which allows for a bulk purchase of bus passes. An annual Passfort pass save riders 68 percent compared to the regular annual pass, further encouraging transit ridership.²⁶ Additionally, all Transfort buses

 ²⁵ The VanGo[™] portal and other ride matching services can now be found at <u>www.vangovanpools.org</u>
 ²⁶ <u>http://www.ridetransfort.com/fares-passes/passfort</u>



are equipped with bicycle racks to increase multimodal transportation opportunities. Transfort service is discussed in further detail in *Chapter 6*.

-Climatewise

Climatewise is a free, voluntary City of Fort Collins program that assists local businesses and the environment through the promotion of waste reduction, energy savings, alternative transportation, water conservation, and pollution prevention practices.

City of Loveland

Loveland sponsors an annual Bike to Work Day event, including a business challenge to encourage employers to promote cycling as a transportation option to their employees. Additionally, the City of Loveland's Engineering Department has partnered with the Thompson School District to promote a Safe Routes to School (SRTS) Program. This program benefits children and the community by reducing traffic congestion in school zones, improving air quality, increasing physical activity for children and adults, and promoting safe neighborhoods.

In their 2013 Bicycle and Pedestrian Plan, Loveland identified goals, objectives, and strategies to provide a safe and effective bicycle and pedestrian system, fill in missing segments in the system, design and implement a Complete Streets system, and develop a continued source of funding for bicycle and pedestrian infrastructure.

City of Greeley

The City of Greeley is home to approximately 126 miles of bike lanes, trails, and paths. Greeley's *Bicycle Master Plan* was adopted in May 2015 and aims to increase investment in the bicycle and pedestrian system through a dedicated budget and implementation of a complete street program. The City also hosts a number of cycling events throughout the year, including bike to work day, pop-up demonstrations of enhanced bicycle facilities, family bike nights, and more. Like Loveland, Greeley has also used the SRTS Program to provide funding for school zone enhancements to the bicycle and pedestrian system. These efforts were enough to earn the City designation as a Bronze Level Bicycle Friendly Community by the League of American Bicyclists in May 2013.

Local Transit Services

Transit is a large portion of TDM. *Chapter 6* provides more detail about the various programs and services in the region.

Employer-Based TMD Efforts

Employer-promoted TDM programs are an effective, locally-based mechanism to increase employee use of alternative modes for their journey to and from work.

Notable employer-based TDM efforts in the region include the New Belgium Brewery. New Belgium employees receive a custom cruiser bicycle after one year of employment with the company. New Belgium also offers local grants, sponsorships, and product donations for projects related to smart growth, climate change, and bicycle advocacy.

CDOT offers TDM programs to its employees located throughout Colorado. Employees who travel to the Denver metro area for meetings are provided with an RTD Eco Pass allowing them to ride transit free of charge. Full-time employees who commute to the Denver region from the NFRMPO region are also provided with Eco Passes. CDOT sponsors Bike to Work Day events in



June at all of its statewide offices and provides incentives for employees to ride their bikes to work throughout the month of July.

Several regional employers promote transportation alternatives in conjunction with other events at the workplace, most commonly health fairs. Those employers include:

- Advanced Energy, Inc.
- AMD
- Avago Technologies
- Gallegos Sanitation
- Hach
- Hewlett-Packard
- In-Situ
- Intel
- Keysight Technologies
- Kyst-COS
- LSI Corporation

- Madwire
- ► McKee Medical Center
- Platte River Power Authority -Rawhide Power Plant
- ▶ Rickards Long & Rulon, LLP
- Poudre River Public Library District
- State Farm Insurance Great Western Region
- Weld County
- Woodward Governor



Additionally, the NFRMPO region is home to 61 Bike Friendly Businesses as designated by the League of American Bicyclists. The City of Fort Collins has more Bike Friendly Businesses than any other community in the United States.

Universities

-Colorado State University (CSU)

With a record enrollment of 32,236 students for the 2015 Fall Semester, CSU continues to have a significant transportation impact on the City of Fort Collins. Accordingly, CSU operates a variety of programs, services, facilities, and resources related to TDM. Through subsidies provided to Transfort by ASCSU and CSU, all students, faculty, and staff are able to ride the Transfort bus system at no cost, using their university identification card. CSU has an extensive network of bicycle friendly facilities and an estimated 15,000 bicycle parking spaces on the main campus, with an additional 1,100 spaces at the satellite campuses, and longboard racks at 11 buildings. CSU is designated as a Platinum-Level Bicycle Friendly University by the League of American Bicyclists. CSU offers extensive online resources for community bike maps, safe cycling, carpooling, vanpooling, and other transportation alternatives. CSU also has a policy on flexible work arrangements to accommodate telecommuting for employees.²⁷

-University of Northern Colorado (UNC)

In fall 2015, UNC finished the academic year with an enrollment of 12,216. UNC operates a free campus bike check-out program for students and faculty. This program is discussed in more detail in *Chapter 5-3*. In partnership with Greeley Evans Transit (GET), UNC operates a campus shuttle for students called the Boomerang Bus, paid by student fees. UNC is also designated as a Bronze-Level Bicycle Friendly University.

²⁷ <u>http://www.hrs.colostate.edu/pdfs/hrs-manual-1-general-provisions.pdf</u>



Chapter 9: Intelligent Transportation Systems (ITS)

Intelligent Transportation Systems (ITS) encompass the integrated applications of sensor, electronic, computerized, and communication technologies as well as management strategies to improve mobility, increase safety, and reduce delays. Various technologies that currently exist in the North Front Range are described in *Table 9-1*, along with applications that are on the horizon for the region. Some of the technologies listed can be nested within other technologies. Many of the items listed are related to and reliant on one another to function properly. Most of the technologies described are deployed by local or regional agencies or by CDOT. Some technologies are deployed mainly within the private sector but heavily shape the state of the regional transportation system.

Table 9-1: Technologies within the NFRMPO region				
Technology	Description	Locations		
Adaptive Signal Control Technology (ASCT)	Signal controls adjust traffic light timing as traffic patterns change. Results in improved travel time reliability, reduced congestion, lower vehicle emissions, and more equitable green light time.	Greeley. Recommended for a few major corridors and event and incident routes. ^a		
Area Navigation (RNAV) GPS Approaches	An aircraft navigation method using Global Positioning Satellites (GPS) to guide landings in low visibility situation	Greeley-Weld County Airport and Northern Colorado Airport		
Automated Fare Collection Systems	Increase transit usage and improve operational efficiency	COLT, GET, Transfort		
Automatic Traffic Recording (ATR) Devices	A counting device, temporary or permanent, used to record vehicle volume and other characteristics such as classification, speed, and weight on a road segment	Fort Collins, Greeley, Loveland, I-25, and state highways. Recommended for all corridors. ^a		
Automatic Vehicle Location (AVL)	Geolocation services used to transmit en route vehicle information such as signal priority, stop annunciation, station monitors and kiosks with real time information, connection protection, and bus tracking and arrival information for online and mobile apps	Bus tracking and arrival information exists in the Bustang Ticketing, Ride Transfort, and RouteShout (GET) mobile apps		
Bicycle and Pedestrian Counting Devices	Similar to ATR Device, these devices count non-motorized traffic on sidewalks, roadways, and trails	The NFRMPO has purchased five counters (two permanent and three mobile) for deployment throughout the region. Four permanent counters are located in Fort Collins and two in Boyd Lake State Park.		



Cellular Wireless Communication	Allows for transmission of data from sites and situations that are not conducive to fiber communication	Exist for deployment throughout the region. Recommended for rural areas where fiber optic infrastructure is infeasible, DMS/VMS equipment, weather stations, and ATR devices. ^a
Closed Circuit TV (CCTV) Cameras	Increase real-time observation coverage at major intersections	Fort Collins, Greeley, Loveland, and Park-N-Ride locations. Some data made available on the COTrip or FCTrip websites.
Dynamic Message Signage (DMS) or Variable Message Signage (VMS)	Provide travelers with real-time updates to weather, roadway, construction conditions, speed limit changes, lane control, travel time estimates, and more. Information can be displayed on roadside or overhead display boards. Signage can be portable or permanent.	Permanent signs exist along I-25 and US34. Portable signs are deployed throughout the region during construction. Recommended at major decision points. ^a
Dynamic Ridesharing	Online service that connects riders and drivers to one another for carpools or vanpools	VanGo Vanpools Services website
Emergency Alert System (Reverse-911)	Allows an agency to disseminate emergency information in the form of texts, emails, or phone calls	CDOT Alerts, Larimer Emergency Telephone Authority (LETA911), Weld County CodeRed
Fiber-Optic Communications	Provides greater bandwidth, longer transmission distances, and more signal immunity for both data and video transmission	Along I-25, portions of Fort Collins, Greeley, and Loveland. Recommended for all urban areas. ^a
Grade Crossing Warning and Control Devices	Where a highway crosses a railroad at- grade, warning signal and traffic control devices are required. These are commonly bells, flashing lights, or gates triggered in advance of a train's arrival.	Crossing protection inventory is available for all at-grade crossings in the region from the Federal Railroad Administration, Office of Safety Analysis
Inductive-Loop Traffic Detectors	An in-pavement electrically conducting loop that sends pulses to the traffic signal controller when a vehicle passes through or is present in the loop	Various regional communities, with some recognizing bicycles
Information Call Line (511)	Statewide traveler information phone number to provide updates on road and weather conditions, construction information, and seasonal or major road closures	24-hour available from any cell phone or landline



		,
Instrument Landing System (ILS)	A system of radio signals allowing pilots to land aircraft when visual contact with the runway is inhibited	Greeley-Weld County Airport and Northern Colorado Airport
Lane Control Signage	Manages the number of highway lanes available, closed, tolled, or otherwise designated to travelers at a given time	Temporary in cases of incident management, construction, etc. Will exist permanently for I-25 express lanes after expansion.
Maintenance Decisions Support System (MDSS)	Combines weather and road prediction with rules of practice to generate road treatment recommendations on a route-by-route basis. Maintenance crews input current conditions and treatment method. MDSS compares this information to 15 weather reports and makes a recommendation based on models.	Deployed throughout the region.
Non-Directional Radio Beacon (NDB)	A radio transmitter used as an aviation aid. The signal does not include directional information and can be received at greater distances than alternative technologies like VOR	Northern Colorado Regional Airport
Online Advisory System	Provides travelers with real-time online updates related to weather, roadway, and construction conditions, closures and more	FCTrip website for Fort Collins, Larimer County Road Event Status System (RESS), Weld County Public Infrastructure Map, and COTrip for statewide information.
Ramp Metering	Devices equipped with a light and signal controller that regulates the flow of traffic entering freeways based on current traffic conditions	Recommended for locations on I-25 from Loveland to Fort Collins. ^a
Road and Weather Information Service (RWIS)	Stations that monitor weather and pavement conditions and provide transportation managers and maintenance personnel with data to inform response decision-making	On I-25, US Business 34 in Greeley, US85, US287 in Fort Collins, and Loveland. Recommended along all major corridors. ^a
Television and Radio Stations	Regular or emergency traffic and travel information can be broadcast to help travelers make informed decisions. The broadcasts occur on local or regional television and radio stations.	Various television and radio stations throughout Northern Colorado
Traffic Operation Centers	The control point for all ITS elements within a jurisdiction	Fort Collins, Greeley, Loveland, and CDOT



	Desvides more security informati	Transfort and OFT			
Transit Passenger	Provides more accurate information	Transfort and GET. Recommended for COLT. ^a			
Counting System	on ridership patterns	Recommended for COLT.			
Traveler Information Stations (TIS) or Highway Advisory Radio (HAR)	Locally transmitted radio stations travelers can tune to for non- commercial content related to emergencies, weather, roadway conditions, and other travel information	I-25 and on US34 in Loveland. Emergency information is also occasionally broadcast on local TV and radio stations.			
Vehicle Automation and Connection	Automation can range from assistance with or control of an aspect of critical functions such as steering, braking, parking, or throttle to full control of the vehicle itself. Automation relies on advanced sensing and wireless communication between the vehicle and its environment (V2E), the vehicle and infrastructure (V2I), or between vehicles (V2V). As these technologies become more commonplace, they will change the way drivers and travelers interact with the transportation network. Policy and regulation will begin at the state-level with some guidance from the federal government.	Lower levels of automation currently exist in some vehicles. Colorado has not enacted legislation on automated or autonomous vehicles.			
Very High Frequency Omni-Directional Range (VOR)	Short-range radio navigation used in aviation. Signals are sent from a network of ground radio beacons to keep aircrafts on course. VOR is the standard navigation system in commercial and general aviation.	Greeley-Weld County Airport and Northern Colorado Airport			
Weather Stations	Monitor temperature, precipitation, visibility, wind speed, surface condition, and more	Fort Collins, Greeley, Loveland, and Windsor			
Weigh-In-Motion (WIM)	Roadside equipment that weighs commercial vehicles, allowing them to bypass traditional weight stations	Two locations along I-25 in Fort Collins			
^a CDOT Region 4 Intelligent Transportation Systems Strategic Implementation Plan					

An inventory of ITS equipment throughout the North Front Range and CDOT Region 4 was completed in 2011 and can be found in the <u>CDOT Region 4 Intelligent Transportation Systems</u> <u>Strategic Implementation Plan</u>. The majority of ITS inventory was deployed by, and is operated and maintained by CDOT. The plan also identifies a need of \$64.6 M in investment for ITS implementation throughout the North Front Range through 2021.²⁸ An overwhelming majority of this investment is tabbed for work on Interstates, State Highways, and Regionally Significant

²⁸<u>http://www.cotrip.org/content/itsplans/CDOT%20Region%204%20ITS%20Strategic%20Implementation%20Plan_06-30-11.pdf</u>



Corridors (RSCs). The remainder of investment is identified for other regional roads and transit projects.



Chapter 10: Freight

Freight in the region is moved via truck and rail, with some pipeline transportation. Robust agriculture, education, medicine, resource extraction, technology, and tourism industries shape the composition of the freight transportation network within the NFRMPO boundaries.

Trucks

Colorado relies on trucks to transport approximately 89 percent of total tonnage, with nearly 80 percent of communities depending exclusively on trucks. This movement relies on the efforts of the State's 12,660 trucking companies, many of which are small and locally-owned businesses.²⁹

As part of the 2015 State Highway Freight Plan, CDOT consulted with the freight industry and key stakeholders to designate Freight Corridors across the state. Within the region, these corridors include: I-25, US34, US85, US287, and SH14. These corridors have the highest truck volumes and are critical to freight transport at the state level, *Figure 10-1*.

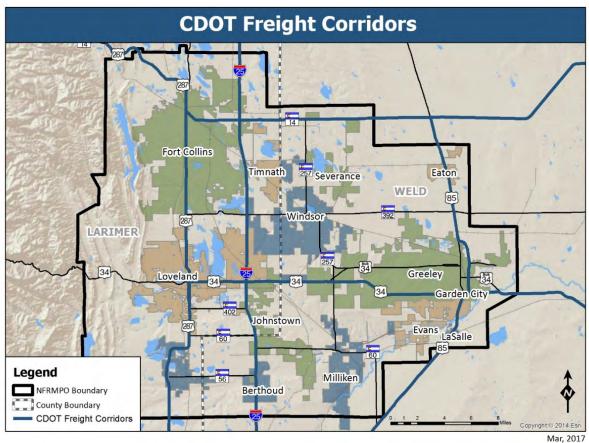


Figure 10-1: CDOT Freight Corridors

Mar, 2017 Sources: CDOT 2016

²⁹ Colorado Motor Carriers Association (CMCA): <u>http://www.cmca.com/industry-info/colorado-truck-facts/</u>



CDOT collects truck traffic data for its state facilities. The 2015 Annual Average Daily Truck Traffic (AADTT) is shown on the state facilities within the region in *Figure 10-2*. On average, the CDOT Freight Corridors exhibit a higher level of truck traffic as a percentage of total traffic (6.7 percent), than other state facilities in the region (4.4 percent).

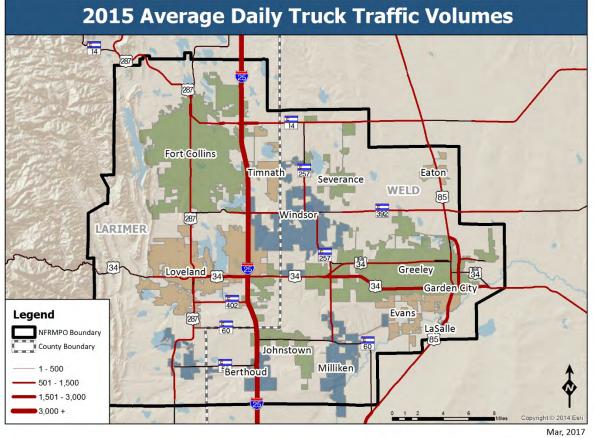


Figure 10-2: 2015 Average Daily Truck Traffic

Bridge capacity limitations can impact the flow of truck traffic within the region. CDOT places load restrictions on structures which cannot presently withstand the maximum legal load or structures which cannot presently withstand the maximum over load permit weights according to wheel and axle load restrictions found in §42-4-507 of the Colorado Revised Statutes (CRS).³⁰ Additionally, bridge structures with clearance of less than 16 feet are considered height restricted. Refer to *Figure 5-9* in *Chapter 5* for locations of restricted bridges in the region.

Rail

There are three railroads operating in the North Front Range: the BNSF Railway, Great Western Railway (GWR) and Union Pacific Railroad (UPRR). Statewide, 30.6M tons of freight rail commodities originated in Colorado in 2012, ranked 18th among states. In that same year, 29.7M

³⁰ http://tornado.state.co.us/gov_dir/leg_dir/olls/2013TitlePrintouts/CRS%20Title%2042%20(2013).pdf



Mar, 2017 Sources: CDOT, 2016

tons of rail freight terminated in Colorado, ranked 2nd among states. *Tables 10-1* and *10-2* show the top five rail commodities of origin and termination in Colorado.

Table 10-1: Colorado Originated Rail Freight (2012)					
Commodity	Percent of Total	Tons			
Coal	74%	22,776,000			
Other	Other 11% 3,354,000				
Cement	Cement 6% 1,721,000				
Food Products	Food Products 3% 954,000				
Waste & Scrap 3% 947,000					
Source: Association of American Railroads, Rail					
Fast Facts, 2015					

Table 10-2: Colorado Terminated Rail Freight (2012)					
Commodity	Percent of Total	Tons			
Coal	58%	17,138,000			
Other	23%	6,856,000			
Stone, Sand, Gravel	8%	2,475,000			
Intermodal	4%	1,132,000			
Food Products	Food Products 4% 1,059,000				
<i>Source:</i> Association of American Railroads, Rail Fast Facts, 2015					

Railroad classification is based on annual gross operating revenue from railroad operations as defined by the Surface Transportation Board (STB). Based on 2011 STB Classifications, a Class I Railroad had a minimum annual operating revenue of at least \$457.9M and accommodated mainly long-haul intercity traffic. Class II and III (short line and regional) Railroads had an operating revenue of less than \$475.7M and generally operate to serve a small number of towns or connect larger railroad lines. The following section describes the railroads within the region.

- Union Pacific Railroad (UPRR): UPRR is a Class I Railroad which has several rail lines in the North Front Range. The north-south line runs from the Denver metro region through the North Front Range to Wyoming, generally following the US85 Corridor. The majority of the east-west line of the UPRR runs between Milliken and Fort Collins and Milliken and LaSalle, with a switching yard in LaSalle. There are 17 trains per day on the UPRR.
- BNSF Railway: BNSF is a Class I Railroad which travels the length of the NFRMPO region, passing through Fort Collins, Loveland, and Berthoud, parallel to US287, with a switching yard in Fort Collins. Six trains operate per day on the BNSF line.
- Great Western Railway of Colorado (GWR): GWR is a regional/short line railroad managed by OmniTRAX. GWR operates a total of 80 miles of track and interchanges with both BNSF and UPRR. The company operates freight service between Loveland



and Johnstown, with spur lines to Milliken and Longmont. Another line connects north from Kelim (east of Loveland) to Windsor, and from there to Greeley and Fort Collins. GWR also owns a branch line from Johnstown to Welty (west of Johnstown). GWR serves a diverse customer base including the Great Western Industrial Park.

In addition to these operating railroads, the region also has 48.2 miles of abandoned rail, some of which has been converted to recreational trails, with more conversions planned. Miles of railroad by class are shown in *Table 10-2*, with railroad alignment shown in *Figure 10-3*.

Table 10-3: Railroad Miles by Classification (2015)			
Railroad Classification	Miles within the NFRMPO Region		
Class I	61.7		
Class II and III (Short Line and Regional)	119.44		
Source: Colorado Department of Transportation (CDOT)			

Regional Railroad Lines by Owner U-14 287 **BNSF North Yard** Switching Facility Fort Collins Timnath Eaton Severance WELD 85 Windso 287 LARIMER 34 Greeley Lovela Garder Legend City NFRMPO Boundary Evans **County Boundary** LaSalle 85 UP Switching Johnstown **BNSF Railway** Facility Milliken Great Western Railway 5Berthoud Union Pacific Railroad Abandoned Rail Line Jun, 2017 Sources: CDOT, 2016

Figure 10-3: Regional Railroad Lines by Owner



Freight Safety

Truck Crashes

To evaluate the safety of truck travel on the roadway network, the percentage of overall crashes involving trucks was compared against the percentage of truck traffic on the region's top 10 truck routes. *Table 10-4* compares Annual Average Daily Truck Traffic (AADTT), Annual Average Daily Traffic (AADT), and the percent truck crashes along the heaviest-traveled corridors. This comparison can be used to evaluate safety on routes with high truck traffic. Due to limitations in the data for non-State Highway facilities, this comparison is limited to the State Highway portions of the Regionally Significant Corridors (RSCs). The truck traffic is for the year 2015 and the truck crash percentages are for the five year period from 2011 to 2015. As shown in *Table 10-4*, the relationship between percent truck crashes and percent truck traffic varies by corridor.

	Table 10-4: Truck Crash Data						
Roadway	AADTT (Truck)	AADT (All Traffic)	Percent Truck Traffic	Total Crashes	Truck Crashes	Percent Truck Crashes	
I-25	5,292	63,267	8.4%	3,737	385	10.3%	
US 85	1,010	15,247	6.6%	844	135	16.0%	
SH 257	332	7,822	4.2%	450	35	7.8%	
SH 392	290	9,940	2.9%	860	73	8.5%	
SH 14	753	13,478	5.6%	905	91	10.1%	
US 34	646	25,449	2.5%	2,647	123	4.6%	
US 85 Business	148	10,008	1.5%	363	37	10.2%	
US 34 Business	147	15,561	0.9%	1786	51	2.9%	
SH 60	162	6,394	2.5%	410	39	9.5%	
US 287	397	21,714	1.8%	4513	116	2.6%	
SH 56	113	7,082	1.6%	135	6	4.4%	
	Source: CDOT and NFRMPO, 2017						



The location of truck-involved serious injury and fatal crashes between 2011 and 2015 is displayed in *Figure 10-4*.

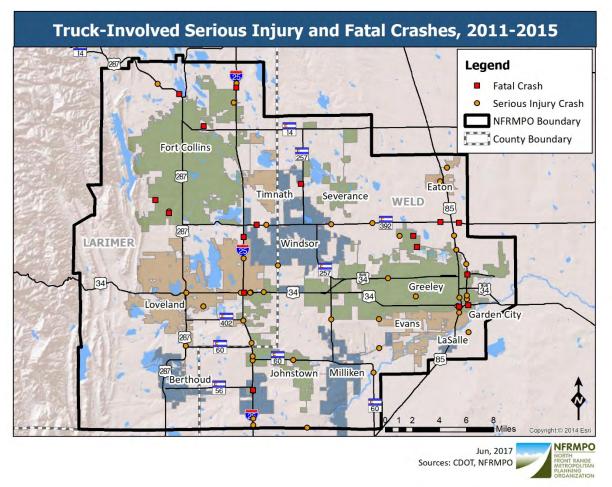


Figure 10-4: Truck-Involved Serious Injury and Fatal Crashes, 2011-2015

Rail Crashes

The region has 316 at-grade railroad crossings where roadways meet railroads. These crossings are equipped with a wide range of signage and crossing protection from lights and gates to signage only. In the period between 2011 and 2015, 12 incidents between a vehicle and a train occurred, with seven injuries and no fatalities. *Table 10-5* lists the at-grade crossing crash details.



Table 10-5: Railroad Crossing Crashes								
Year	Railroad	County	City/ Town	Crossing ID	Roadway Name	Crossing Protection	Fatality	Injury
2011	BNSF	Larimer	Loveland	245032J	Private Road	Stop Signs		
	UP	Weld	Eaton	804852B	CR 72	Stop Signs		
2012	UP	Larimer	Fort Collins	804501C	CR 32	Gates		
	UP	Weld	Eaton	804856D	CR 76	Stop Signs		1
2013	UP	Weld	Eaton	804856D	CR 76	Stop Signs		2
2014	UP	Larimer	Fort Collins	804514D	US 287	Highway Traffic Signals, Wigwags, Bells		
	UP	Weld	Evans	804363R	31 st Street	Gates		
	UP	Weld	Milliken	804491Y	CR 17	Cross Bucks		1
2015	BNSF	Larimer	Fort Collins	244622C	Horsetooth Road	Gates, Cantilever Flashing Light Signal		1
	BNSF	Larimer	Loveland	245033R	Roosevelt Avenue	Gates, Standard Flashing Light Signal		
	BNSF	Larimer	Loveland	245033R	Roosevelt Avenue	Gates, Standard Flashing Light Signal		
	UP	Weld	Eaton	804855W	5th Street	Cross Bucks, Stop Signs		1
Source: Federal Railroad Administration, Office of Safety Analysis, 2017								

Pipelines

Pipelines and pipeline facilities within the region transport petroleum, natural gas, and other hazardous materials. The Wattenberg Gas Field, which covers a large portion of Weld County and smaller portions of Larimer County, is a natural gas field stretching from I-25 east. The Wattenberg Gas Field covers 2,000 square miles between Denver and Greeley with over 20,000 wells and is located beneath 13 of the 15 communities within the NFRMPO area, including:

- City of Evans
- City of Greeley
- City of Loveland
- Town of Berthoud
- Town of Eaton
- Town of Garden City
- Town of Johnstown

- ► Town of LaSalle
- Town of Milliken
- ► Town of Severance
- Town of Windsor
- Larimer County
- Weld County



Weld County had 588 drilling permits pending and 1,767 permits approved in 2015, while Larimer County had 32 permits pending and one approved. Statewide, there were 889 permits pending and 3,047 approved in 2015, *Table 10-6*. In 2015, Weld County was the highest producing County in the State at 90 percent of the State's total barrels of oil and 33 percent of the natural gas.

Table 10-6: Colorado Oil and Gas Production 2014 and 2015					
Area	2015				
Alea	Barrels of Oil MCF of Natural Gas				
Larimer County	247,889	590,795			
Weld County	112,743,643	567,894,411			
State of Colorado 125,061,099 1,704,841,947					
Source: Colorado Oil and Gas Conservation Commission (COGCC), 2016					

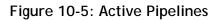
In addition, the region is also part of the Niobrara Shale field. The Niobrara Shale is a shale rock formation covering Northeastern Colorado, Southeast Wyoming,

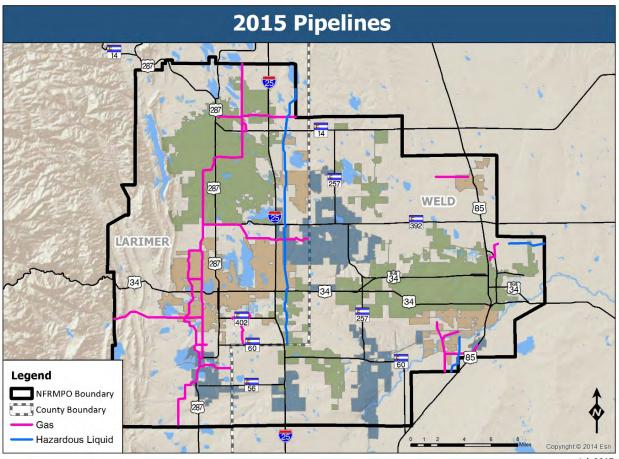
MCF-millions of cubic feet

Southwest Nebraska, and Northwest Kansas. In 2015, companies were still in the early stages of exploration of the Niobrara Shale for long-term production.

Throughout the region, pipelines are used to transport commodities associated with the oil and gas industry, including gasoline, natural gas, water, and other fuel oils. Pipelines within the region are shown in *Figure 10-5*.







Jul, 2017 Sources: US DOT Pipeline and Hazardous Materials Safety Association



Chapter 11: Aviation

Several airports currently operate within the NFRMPO region, the largest of which are Northern Colorado Regional and Greeley-Weld County. The region is also home to 13 small airports (11 public use, two private use), nine heliports (seven private use, two public use), and one private use ultralight facility. Regional aviation facilities are shown in *Figure 11-1*.

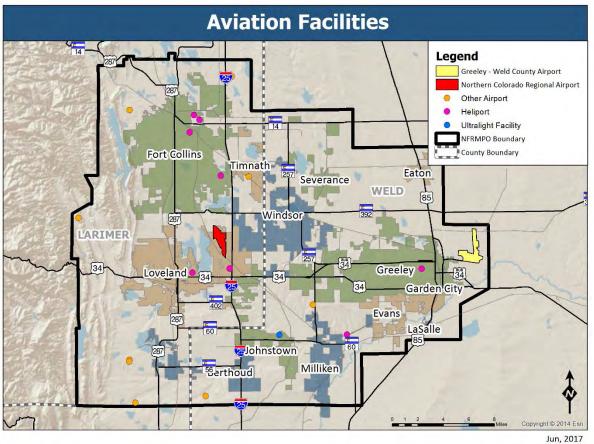


Figure 11-1: Regional Aviation Facilities

Jun, 2017 Sources: CDOT 2015, FAA 2017

Northern Colorado Regional Airport³¹

Northern Colorado Regional Airport (KFNL) is a Major Commercial Service Aviation airport. The two-runway facility currently has no regularly scheduled commercial services. In 2015, the airport had approximately 95,000 flight operations including air carrier, private charter, corporate, air ambulance transport, aerial fire suppression, flight training, and general aviation usage.³² An estimated 5,000 outbound flight passengers used the airport via charter services that same year.³³ According to the CDOT Division of Aeronautics, the airport's total economic

³³ <u>https://www.codot.gov/programs/aeronautics/PDF_Files/AnnualReports/2016AnnualReport</u>



³¹ Formerly the Fort Collins-Loveland Airport

³² <u>http://www.airnav.com/airport/KFNL</u>

output in 2013 was \$129.4M.³⁴ In 2015, the airport housed 245 based aircraft including singleuse aircraft, multi-use aircraft, jet aircraft, and helicopters in 209 hangars.

Greeley-Weld County Airport

The Greeley-Weld County Airport (GXY) is a Major General Aviation airport. The two-runway facility had 145,000 annual operations in 2015 including jet aircraft, helicopter, general aviation, and military usage.³⁵ According to the CDOT Division of Aeronautics, the airport's total economic output in 2013 was \$94.1M.³⁶ In 2015, the airport housed a total of 224 total based aircraft including single-engine aircraft, multi-engine aircraft, jet aircraft, and helicopters in 42 hangars. It is also home to the Colorado Air National Guard.

³⁶ CDOT Economic Impact Study for Colorado Airports, 2013



³⁴ CDOT Economic Impact Study for Colorado Airports, 2013

³⁵ <u>http://www.airnav.com/airport/KGXY</u>

Appendix

The following pages include Community Profiles for each of the 15 NFRMPO member communities. The Community Profiles summarize aspects of each community's transportation infrastructure, services, and programs, within a demographic and economic context. Each Community Profile is three pages in length. The Community Profiles are followed by a Data Dictionary to define terms and methodology used.



Berthoud

Berthoud Community Profile

Demographics*	
Land Area ¹ : 12.3 sq. mi.	Median Monthly Housing
Population ² : 5,962	Cost ⁷ : \$1,123
Sex ³ : 49.2% Female	Own/Rent Status ⁸ :
50.8% Male	80.4% Own
Median Age ⁴ : 43.2	19.6% Rent
Median HH Size ⁵ : 2.6	Households with School-
Median HH Income ⁶ : \$59,477	Aged Children (6 to 17) ⁹ : 3%

Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰
Single-Family	27
Multi-Family	0.3
TOTAL	27.3

*Demographic estimates are based on survey responses and are subject to error

Public

Transit

Commutes*^{16, 17}

Drive

Alone

Carpool /

Vanpool

6%



Work at

Home

9 2%

-

Working Age Population (18 to 64)¹¹: 3,608 (63.4%)



Top 3 Employment Sectors ¹⁵	Number of Jobs	Share of Total Jobs
Manufacturing	376	22.9%
Construction	241	14.7%
Health Care and Social Assistance	179	10.9%

*Economic estimates are based on survey responses and are subject to error

Other

1.3%

10/0	0 / 0	1.1 /0	0 /0	V . T /0	

Bicycle

n%

*Commute estimates are based on survey responses and are subject to error

1 1 %

Roadways

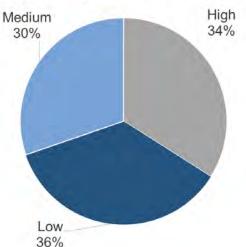
79%

Functional Classification ¹⁸	Centerline Miles
Interstates	1.5
Other Freeways or Expressways	4.4
Other Principal Arterials	0
Minor Arterials	0
Major Collectors	17.5
Minor Collectors	1.6
Local Roads	32.5
TOTAL	57.4

Highway Drivability Life¹⁹

Walk

3 4%



Regionally Significant Centerline **Corridors (RSCs)**²⁰ Miles I-25 (RSC 1) 1.5 US 287 (RSC 6) 3.8 Mountain Ave. / SH 56 (RSC 9) 6.2 Larimer CR 17 (RSC 16) 1.9 Weld CR 7 (RSC 27) 1.8 TOTAL 15.2

minutes

Mean Commute Time

Environmental Justice (EJ) Areas		Percent of Population		oute Service Pro-		9	
ing in a Low Income EJ Area ²¹		0%	Tansı		al Selvici	e	
ing in a Minority EJ Area ²²		0%		Fixed Route	Miles	Stops	
ing in an EJ Area (Either Low-Income or M	linority)	0%		FLEX	8.5	2	
Other Sensitive Populations	Perce Popula			esponse/Modifi Area Transporta			
Age 65 or Older ²³	14.3	3%	Rural Alte	ernatives For Tra	nsportatio	on (RAFT))
Limited English Proficiency (LEP) ²⁴	0.7	%	Paratransi	t ²⁹			
Disabled ²⁵	10.4	1%	Non-Eme	ergency Medical	Fransport	tation (NE	MT
and sensitive population estimates are based of	on survev	responses and	Commuter	[·] Shuttle ³⁰			
subject to error			• VanGo™	Vanpool Service	es		
n-Motorized			Medical SI	nuttle ³¹			
			None				
Bicycle/Pedestrian Facility	Miles		Commerci	al Service ³²			
Sidewalks ³³	41		 Sapphire 	Car Service			
Recreational Trails ³⁴	1.5		Smart Rides				
Bike Lanes ³⁵	0		Yellow Cab				
Bike Routes ³⁶	0						
TOTAL	42.5						
			60			,	
			56	- CA			

Legend

County Boundary

City Boundary — Bike Lanes

79

Bike Routes -

- Recreational Trails -

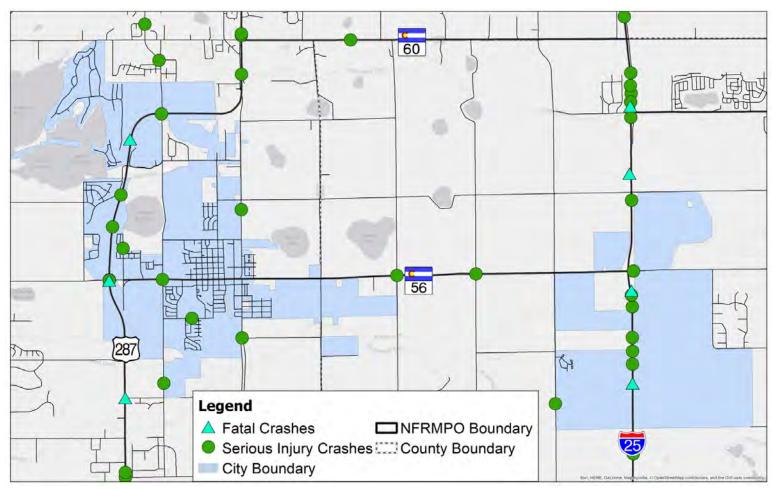
- Sidewalks

CDOT Freight Corridors ³⁷	Miles	Percent Trucks ³⁸
I-25	1.5	10.1%
US 287	3.8	3.2%
TOTAL	5.3	7.4%

Railroad	Miles
Union Pacific	2.3

Crash Analysis (2011-2015)

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	3	4	0	0	136
2012	3	6	1	1	97
2013	3	4	1	2	122
2014	5	6	1	1	116
2015	1	2	0	0	119
TOTAL	15	22	3	4	590



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit— Transfort, NFRMPO; Non-Motorized—Town of Berthoud, NFRMPO; Freight—CDOT; Crash Analysis—CDOT Eaton

Eaton Community Profile

Demographics*

Land Area ¹ : 2.8 sq. mi.	Median Monthly Housing Cost ⁷ : \$1,058
Population ² : 4,925 Sex ³ : 53% Female 47% Male	Own/Rent Status ⁸ : 77.1% Own
Median Age ⁴ : 35 Median HH Size ⁵ : 2.71 Median HH Income ⁶ : \$69,242	22.9% Rent Households with School- Age Children (6 to 17) ⁹ : 20.3%

Cost ⁷ : \$1,058
Own/Rent Status ⁸ :
77.1% Own
22.9% Rent
Households with School-
Age Children (6 to 17) ⁹ :

Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰
Single-Family	9.7
Multi-Family	0
TOTAL	9.7

*Demographic estimates are based on survey responses and are subject to error

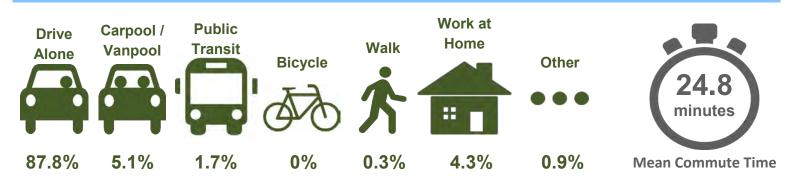
Economic*

Working Age Population (18 to 64)¹¹: 2,753 (55.9%)



Top 3 Employment Sectors ¹⁵	Number of Jobs	Share of Total Jobs
Educational Services	334	28%
Retail Trade	177	14.8%
Manufacturing	153	12.8%

*Economic estimates are based on survey responses and are subject to error



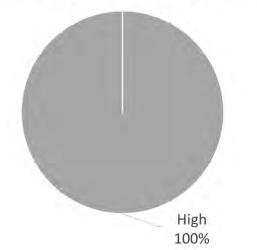
*Commute estimates are based on survey responses and are subject to error

Roadways

Commutes*^{16, 17}

Functional Classification ¹⁸	Centerline Miles
Interstates	0
Other Freeways or Expressways	0
Other Principal Arterials	1.6
Minor Arterials	0
Major Collectors	17.5
Minor Collectors	1.6
Local Roads	32.5
TOTAL	57.4

Highway Drivability Life¹⁹



Regionally Significant Corridors (RSCs) ²⁰	Centerline Miles
US 85 (RSC 4)	1.5
Collins St. (RSC 24)	2.1
TOTAL	3.6

Environmental Justice (EJ)		
Environmental Justice (EJ) Areas	Percent of Population	
Living in a Low Income EJ Area ²¹	0%	
Living in a Minority EJ Area ²²	0%	
Living in an EJ Area (Either Low-Income or Minority)	0%	

nvironmontal Justice (E1)*

Other Sensitive Populations	Percent of Population
Age 65 or Older ²³	13.4%
Limited English Proficiency (LEP) ²⁴	3.1%
Disabled ²⁵	13%

*EJ and sensitive population estimates are based on survey responses and are subject to error

Non-Motorized

Transit

Fixed-Route Service²⁶

None

Demand-Response/Modified Fixed-Route Service^{27, 28}

• None

Paratransit²⁹

• Non-Emergency Medical Transportation (NEMT)

Commuter Shuttle³⁰

• VanGo™ Vanpool Services

Medical Shuttle³¹

None

Commercial Service³²

- Sapphire Car Service
- Smart Rides
- Yellow Cab

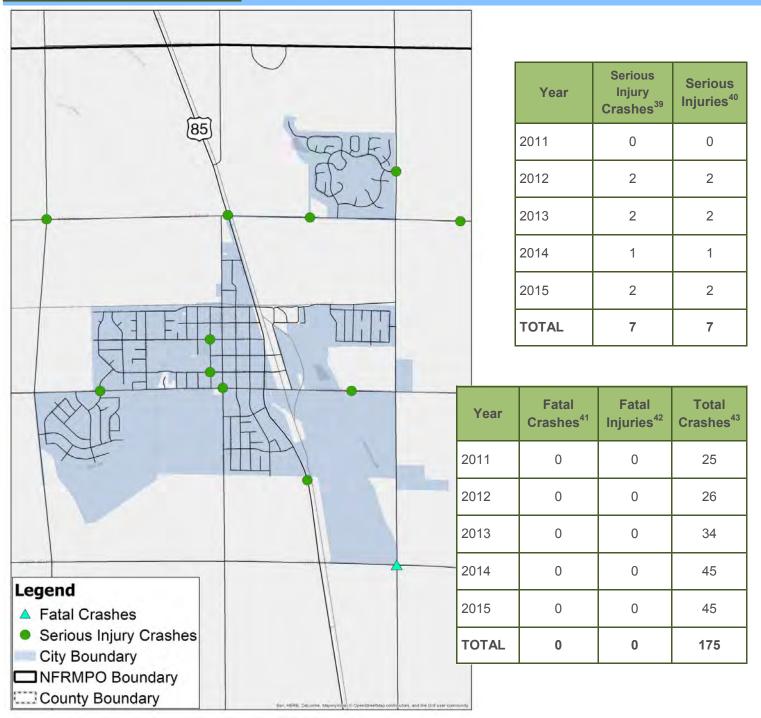


Bicycle/Pedestrian Facility	Miles
Sidewalks ³³	37.1
Recreational Trails ³⁴	3.1
Bike Lanes ³⁵	0
Bike Routes ³⁶	0
TOTAL	40.2

CDOT Freight Corridor ³⁷	Miles	Percent Trucks ³⁸
US 85	1.5	9.9%

Railroad	Miles
Great Western Railway	0.4
Union Pacific	0.9
TOTAL	1.3

Crash Analysis (2011-2015)



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit– NFRMPO; Non-Motorized—NFRMPO; Freight—CDOT; Crash Analysis—CDOT Evans

Evans Community Profile

Demographics* Land Area ¹ : 10.5 sq. n Population ² : 19,933 Sex ³ : 50.7% Female 49.3% Male Median Age ⁴ : 29.3 Median HH Size ⁵ : 2.94 Median HH Income ⁶ : S	Cost ⁷ : \$1,058 Own/Rent Status ⁸ : 54.4% Own 45.6% Rent Households with School		Economic* Working Age Population (18 to 64) ¹¹ : 12,693 (62.5%) 3,356 Live elsewhere and work in Evans ¹² Live and work in Evans ¹³ Live in Evans and work Elsewhere ¹⁴
Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰		Top 3 Employment Sectors15Number of JobsShare of Total Jobs
Single-Family	2.6		Mining, Quarrying, and Oil and Gas Extraction 829 21.5 %
Multi-Family	0		Health Care and Social Assistance 549 14.3%
TOTAL	2.6		Administration & Support, Waste Management and Remediation47512.3%
*Demographic estimates subject to error Commutes * ^{16, 17}	are based on survey responses and are		*Economic estimates are based on survey responses and are subject to error
Drive Alone Carpool Vanpoo		Walk	Work at Home Other Elime Uther Minutes

*Commute estimates are based on survey responses and are subject to error

0%

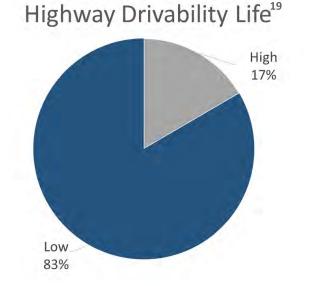
0.1%

Roadways

79.1%

Functional Classification ¹⁸	Centerline Miles
Interstates	0
Other Freeways or Expressways	3
Other Principal Arterials	0.4
Minor Arterials	9.8
Major Collectors	3.2
Minor Collectors	2.2
Local Roads	72.3
TOTAL	90.9

15.7%



2%

2.6%

0.5%

Regionally Significant Centerline **Corridors (RSCs)**²⁰ Miles US 34 (RSC 2) 0.8 US 85 (RSC 4) 1.9 US 85 Business (RSC 5) 0.4 37th St. (RSC 13) 4.2 35th Ave. (RSC 20) 0.9 65th Ave. (RSC 21) 1.5 83rd Ave. (RSC 22) 0.4 TOTAL 10.1

Mean Commute Time

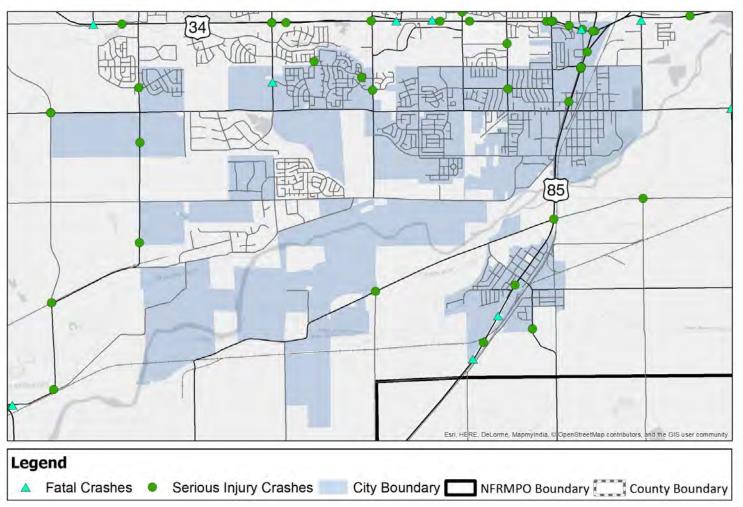
	Fixed-Route Service Provider ²⁶ : Greeley Evans Transit (GET)			
	Service	Stop		
e	Miles			
	8.2	38		
oute	1.1	3		
9	1.9 11.2	6 42		
ET underwent major route ch				
	anges in 201	0		
esponse/Modified Fixed	-Route Serv	/ice ²¹		
I-N-Ride • G	ET Paratrar	nsit		
t ²⁹				
ergency Medical Transport	tation (NEM	Г)		
r Shuttle ³⁰				
Vanpool Services				
huttle ³¹				
al Service ³²				
Arrow • S	mart Rides			
Car Service • Y	ellow Cab			
1				
	an community, and for OAN many company,			
	1			

CDOT Freight Corridors ³⁷	Miles	Percent Trucks ³⁸
US 34	0.8	5.9%
US 85	1.9	7.5%
TOTAL	2.7	6.8%

Railroad	Miles
Union Pacific	1.9

Crash Analysis (2011-2015)

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	2	2	0	0	293
2012	4	5	1	1	237
2013	1	1	0	0	328
2014	5	5	1	1	373
2015	1	2	0	0	359
TOTAL	13	15	2	2	1590

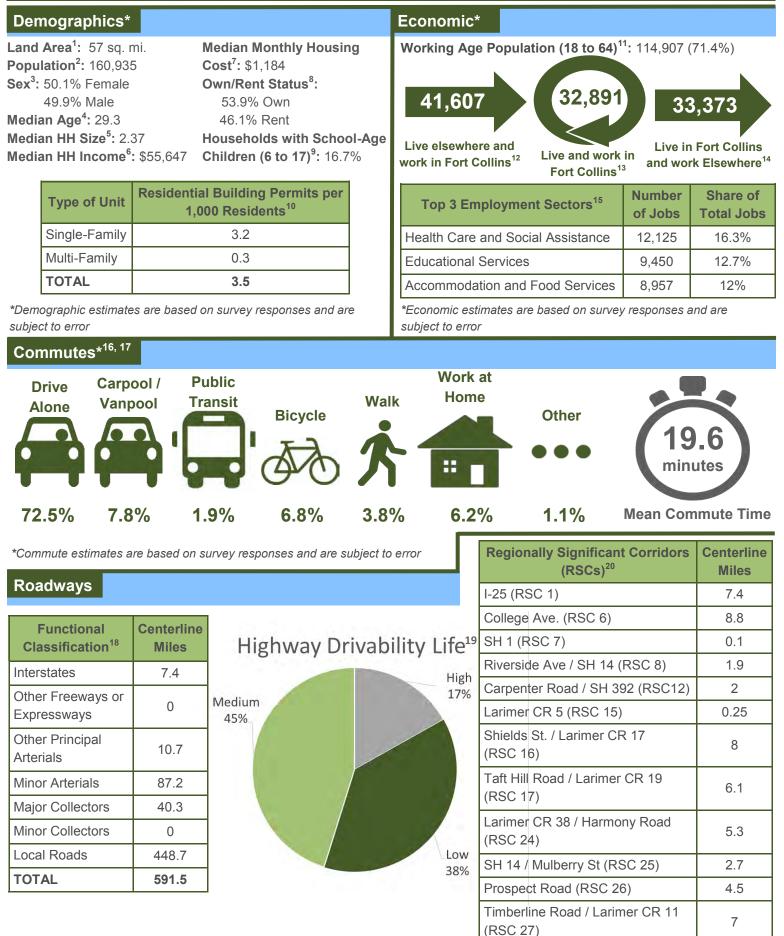


Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit— Greeley Evans Transit (GET), NFRMPO; Non-Motorized—City of Evans, NFRMPO; Freight—CDOT; Crash Analysis—CDOT

Fort Collins

Fort Collins Community Profile

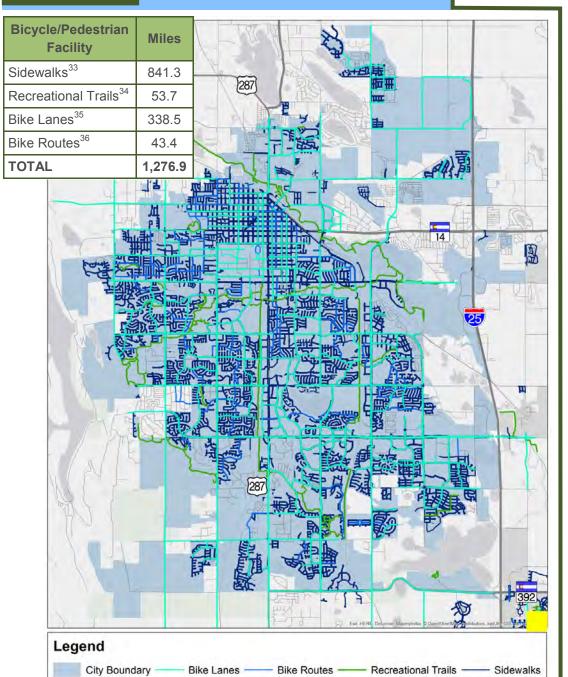
54.1



TOTAL

Enviror	nmental Justice (EJ)*	Transit			
Environmental Justice (EJ) Areas		Percent of Population	Demand-Response/Modified Fixed-Route ^{27, 28}		
Living in	Living in a Low Income EJ Area ²¹		44.8%		in Transportation (SAINT)
Living in a Minority EJ Area ²²		11.9%	Paratransit ²⁹		
Living in	n an EJ Area (Either Low-Income or Min	ority)	46.2%		
	Other Sensitive Populations	Percer Popula		Commuter Shuttle ³⁰ • Bustang	 VanGo™ Vanpool
	Age 65 or Older ²³	9.4%		FLEX	Services
	Limited English Proficiency (LEP) ²⁴	2.3%	6	Medical Shuttle ³¹	
Disabled ²⁵ 7.7%		6	Connecting Health		
	*EJ and sensitive population estimates are based on survey respor and are subject to error		onses	Commercial Service	32
				Sapphire Car Servio	ce • Yellow Cab

Non-Motorized



Fixed-Route Service Provider²⁶: Transfort

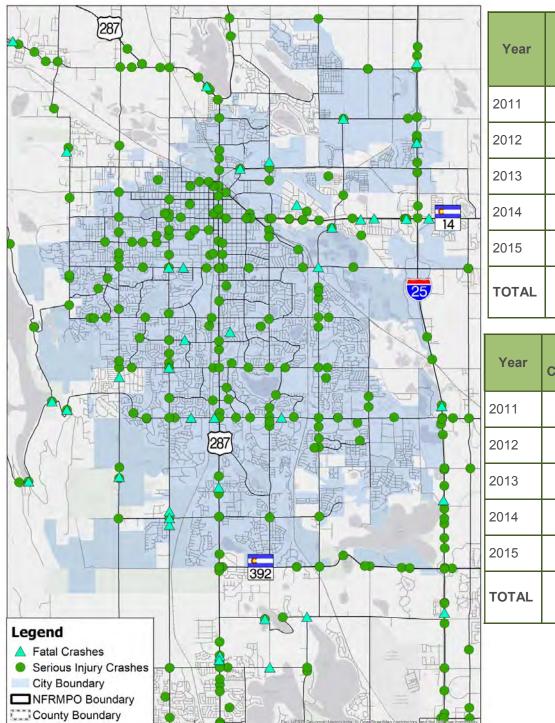
Fixed Route	Service Miles	Stops
Route 2	6.7	26
Route 5	12.1	40
Route 6	15	64
Route 7	14.1	54
Route 8	5.7	25
Route 9	4.9	29
Route 10	5.9	22
Route 12	15.6	56
Route 14	5.5	26
Route16	11	25
Route 18	9.5	33
Route 19	12.4	40
Route 31	2.5	13
Route 32	6.5	28
Route 33	3.2	29
Route 81	5.6	21
Route91	2.8	12
Route 92	4.9	20
FLEX	5.4	8
Gold Route	9	34
Green Route	9.1	30
HORN	4.8	24
MAX	5.3	20
TOTAL	177.5	679

Freight

CDOT Freight Corridors ³⁷	Miles	Percent Trucks ³⁸
I-25	7.4	11.7%
SH 14	2.7	5.6%
US 287	8.8	3.8%
TOTAL	18.9	5.9%

Railroad	Miles	
BNSF	12.5	
Great Western Railway	5.4	
Union Pacific	11.3	
TOTAL 29.2*		
*Fort Collins has 1.3 additional miles of abandoned railroad		

Crash Analysis (2011-2015)



Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰
2011	21	26
2012	39	42
2013	46	48
2014	36	41
2015	41	45
TOTAL	183	202

Year	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	4	4	3,237
2012	4	4	3,182
2013	3	3	3,290
2014	5	6	3,721
2015	4	4	3,630
TOTAL	20	21	17,060

Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit– Transfort, NFRMPO; Non-Motorized—NFRMPO; Freight—CDOT; Crash Analysis—CDOT

Garden City

Garden City Community Profile

minutes

Mean Commute Time

Demographics* Economic*							
Pop Sex Med Med	Area1: 0.1 sq. mi. pulation2: 244Median Monthly Housing Cost7: \$603x3: 44.8% Female 55.2% MaleCost7: \$60355.2% Male23.4% Own 76.6% Rentdian Age4: 37.776.6% Rentdian HH Size5: 2.1 dian HH Income6: \$26,354Households with School-Age Children (6 to 17)9: 26.9%		•	Working Age Popul 341 Live elsewhere and work in Garden City ¹²	lation (18 to 64) ¹¹ 0 Live and work in Garden City ¹³	8 Live in G and	
	Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰		Top 3 Employm	ent Sectors ¹⁵	Number of Jobs	Share of Total
	Single-Family	0		Accommodation and Food Services		81	23.8%
	Multi-Family Total	0 0		Other Services (Excluding Public Administration)		75	22%
		·		Health Care and Soc	cial Assistance	56	16.4%
	mographic estimates are b iect to error	ased on survey responses and are		*Economic estimates ar subject to error	re based on survey re	esponses an	d are
Co	mmutes* ^{16, 17}						
	Drive Carpool / Alone Vanpool	Public Transit Bicycle	lk	Work at Home	Other	22	5

*Commute estimates are based on survey responses and are subject to error

1.3%

0%

0 **0 0** 1

20.1%

Roadways

61%

0

Functional Classification ¹⁸	Centerline Miles	Highway Drivability Life ¹⁹		
Interstates	0			
Other Freeways or Expressways	0		Regionally Significant	Centerline
Other Principal	0.2		Corridors (RSCs) ²⁰	Miles
Arterials	0.2		US 85 Business (RSC 5)	0.2
Minor Arterials	0.4		L	
Major Collectors	0			
Minor Collectors	0			
Local Roads	1.8			
TOTAL	2.4	High		
		100%		

13.6%

.

0%

3.9%

Environmental Justice*

Environmental Justice (EJ) Areas	Percent of Population
Living in a Low Income EJ Area ²¹	100%
Living in a Minority EJ Area ²²	100%
Living in an EJ Area (Either Low-Income or Minority)	100%

Other Sensitive Populations	Percent of Population
Age 65 or Older ²³	15.2%
Limited English Proficiency (LEP) ²⁴	22%
Disabled ²⁵	19.1%

*EJ and sensitive population estimates are based on survey responses and are subject to error

Non-Motorized



Transit

Fixed-Route Service Provider²⁶:

Greeley Evans Transit (GET)

Fixed Route*	Miles	Stops	
Blue Route	0.2	2	
*GET underwent major route changes in 2016			

Demand-Response/Modified Fixed-Route Service^{27, 28}

GET Call-N-Ride

Paratransit²⁹

Non-Emergency Medical Transportation (NEMT)

Commuter Shuttle³⁰

VanGo[™] Vanpool Services

Medical Shuttle³¹

None

Commercial Service³²

- Express ArrowSapphire Car Service
- Smart Rides

GET Paratransit

Yellow Cab



CDOT Freight Corridors³⁷ None

Crash Analysis (2011-2015)

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	0	0	0	0	23
2012	0	0	0	0	20
2013	2	2	0	0	18
2014	0	0	0	0	25
2015	1	1	0	0	18
TOTAL	3	3	0	0	104

Railroads

None



Greeley

Greeley Community Profile

Centerline Miles 12.6 10.4 2.8 3.7 3 1.1 3.8

> 4.9 3.7

> 3.3

49.3

Demographics*

Land Area ¹ : 48 sq. mi.	Median Monthly Housir	
Population ² : 101,302	Cost ⁷ : \$905	
Sex ³ : 49.3% Female	Own/Rent Status ⁸ :	
50.7% Male	56.2% Own	
Median Age ⁴ : 30.5	43.8% Rent	
Median HH Size⁵: 2.63	Households with School- Age Children (6 to 17) ⁹ :	
Median HH Income ⁶ : \$48,813	22.8%	

Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰
Single-Family	5.1
Multi-Family	0.5
TOTAL	5.6

*Demographic estimates are based on survey responses and are subject to error

Commutes*^{16, 17}

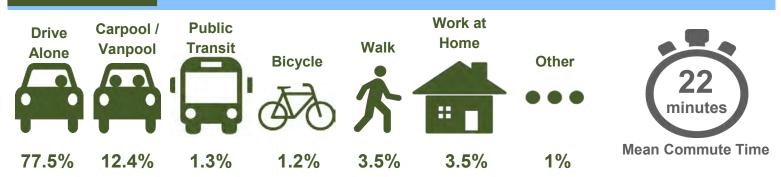
Economic*

Working Age Population (18 to 64)¹¹: 61,254 (60.5%)



Top 3 Employment Sectors ¹⁵	Number of Jobs	Share of Total Jobs
Health Care and Social Assistance	6,680	14.6%
Manufacturing	5,503	12%
Educational Services	5,076	11.1%

*Economic estimates are based on survey responses and are subject to error



*Commute estimates are based on survey responses and are subject to error

Roadways

Functional Classification ¹⁸	Centerline Miles		1.11. 1.6.19	Regionally Significant Corridors (RSCs) ²⁰
		Highway Driv	ability Life"	US 34 (RSC 2)
Interstates	0			U\$ 34 Business (RSC 3)
Other Freeways or Expressways	18.9		High	,
Other Principal		Medium	30%	US 85 Business (RSC 5)
Arterials	16.3	51%		SH 257 (RSC 11)
Minor Arterials	55.5			WCR 17 (RSC 19)
Major Collectors	34.1			35th Ave. (RSC 20)
Minor Collectors	0			59th Ave. / 65th Ave. (RSC 21)
Local Roads	279.7		Low	77th Ave. / 83rd Ave. (RSC 22)
TOTAL	404.6		19%	O St (RSC 23)
	1	1		TOTAL

Environmental Justice (EJ)*

Environmental Justice (EJ) Areas	Percent of Population
Living in a Low Income EJ Area ²¹	49%
Living in a Minority EJ Area ²²	60.6%
Living in an EJ Area (Either Low- Income or Minority)	63.8%

Other Sensitive Populations	Percent of Population
Age 65 or Older ²³	11.5%
Limited English Proficiency (LEP) ²⁴	9.1%
Disabled ²⁵	11.5%

*EJ and sensitive population estimates are based on survey responses and are subject to error

Non-Motorized

Non-Motorized Facility	Miles
Recreational Trails ³³	36.1
Sidewalks ³⁴	511.2
Bike Lanes ³⁵	89.9
Bike Routes ³⁶	35.2
TOTAL	672.4

Transit

Fixed-Route

Service Provider²⁶: Greeley Evans Transit (GET)

Fixed Route*	Miles	Stops		
Red Route	17.2	100		
Gold Route	4.9	18		
Purple Route	14.3	61		
Green Route	4.2	29		
Orange Route	8.5	43		
Blue Route	8.4	32		
Boomerang (UNC)	2.2	3		
TOTAL 59.7 286				
*GET underwent major routes changes in 2016				

Senior Resource Services

Demand-Response/Modified Fixed-Route Service^{27, 24}

GET Call-N-Ride

Paratransit²⁹

GET Paratransit

Non-Emergency Medical Transportation (NEMT)

Commuter Shuttle³⁰

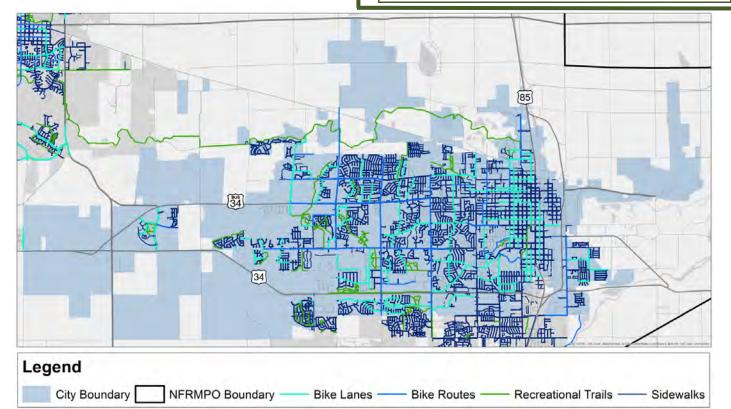
VanGo[™] Vanpool Services

Medical Shuttle³¹

Connecting Health

Commercial Service³²

- Express Arrow
- El Paso-Los Angeles Limousine Express (Los Limousines)
- Los Paisanos
- Sapphire Car Service
- Smart Rides
- Yellow Cab

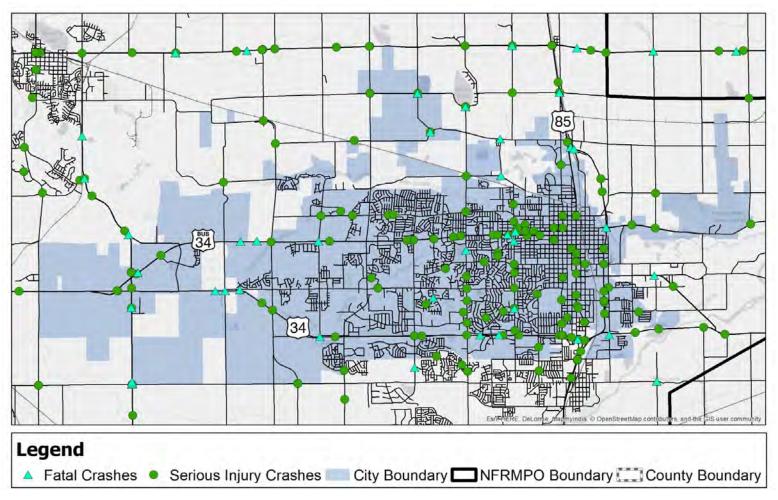


CDOT Freight Corridor ³⁷	Miles	Percent Trucks ³⁸
US 34	12.6	5.8%
US 85	2.8	10.1%
TOTAL	15.4	6.9%

Railroad	Miles
Great Western	2.2
Union Pacific	7.1
TOTAL	9.3*
*Greeley has 0.3 additional miles of a	bandoned railroad

Crash Analysis (2011-2015)

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	20	24	3	3	1,760
2012	22	24	7	7	1,867
2013	27	35	5	5	2,170
2014	34	43	7	7	2,231
2015	22	25	5	6	2,277
TOTAL	125	151	27	26	10,305



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit– Greeley Evans Transit (GET), NFRMPO; Non-Motorized—NFRMPO; Freight—CDOT; Crash Analysis—CDOT

Johnstown

Johnstown Community Profile

Demographics*	
Land Area ¹ : 14.1 sq. mi.	Median Monthly Housing
Population ² : 14,854	Cost ⁷ : \$1,542
Sex ³ : 48.7% Female	Own/Rent Status ⁸ :
51.3% Male	91.3% Own
Median Age ⁴ : 33.7	8.7% Rent
Median HH Size ⁵ : 3	Households with School-
Median HH Income ⁶ :	Age Children (6 to 17) ⁹ :
\$81.313	15.8%
¥ -)	

Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰
Single-Family	10.6
Multi-Family	0
TOTAL	10.6

*Demographic estimates are based on survey responses and are subject to error

Commutes*^{16, 17}

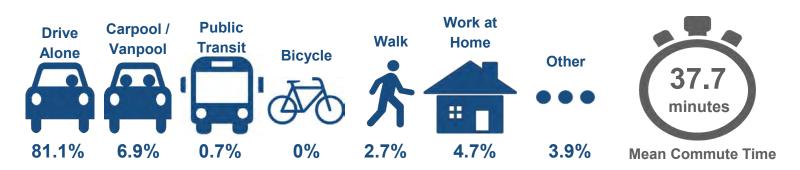
Economic*

Working Age Population (18 to 64)¹¹: 8,719 (58.7%)



Top 3 Employment Sectors ¹⁵	Number of Jobs	Share of Total Jobs
Construction	1,220	29.9%
Retail Trade	536	13.1%
Health Care and Social Assistance	482	11.8%

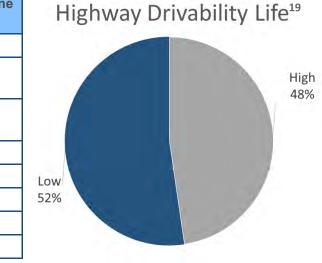
*Economic estimates are based on survey responses and are subject to error



*Commute estimates are based on survey responses and are subject to error

Roadways

Functional Classification ¹⁸	Centerline Miles
Interstates	8
Other Freeways or Expressways	0
Other Principal Arterials	1
Minor Arterials	1.3
Major Collectors	13.1
Minor Collectors	0.5
Local Roads	77.1
TOTAL	101.2



Regionally Significant Corridors (RSCs) ²⁰	Centerline Miles
I-25 (RSC 1)	8
US 34 (RSC 2)	1.3
SH 56 (RSC 9)	1.5
SH 60 (RSC 10)	3.8
SH 402 (RSC 13)	0.9
Larimer CR 3	1.2
Larimer CR 1 / Weld CR 13 (RSC 18)	2.8
Weld CR 17 (RSC 19)	4.1
TOTAL	23.6

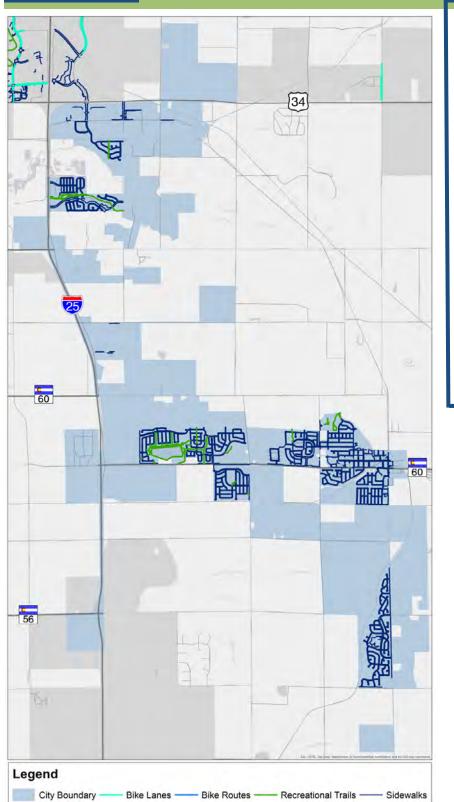
Environmental Justice (EJ)*

Environmental Justice (EJ) Areas	Percent of Population	Other Sensitive Populations	Percent of Population
Living in a Low Income EJ Area ²¹	0%	Age 65 or Older ²³	10.4%
Living in a Minority EJ Area ²²	0.4%	Limited English Proficiency (LEP) ²⁴	4%
Living in an EJ Area (Either Low-Income or Minority)	0.4%	Disabled ²⁵	7.5%

*EJ and sensitive population estimates are based on survey responses and are subject to error

Non-Motorized

Transit



Fixed-Route Service ²⁶
None
Demand-Response/Modified Fixed-Route Service ^{27, 28}
Senior Resource Services
Paratransit ²⁹
 Non-Emergency Medical Transportation (NEMT)
Commuter Shuttle ³⁰
 VanGo[™] Vanpool Services
Medical Shuttle ³¹
None
Commercial Service ³²
Sapphire Car ServiceSmart RidesYellow Cab

Bicycle/Pedestrian Facility	Miles
Sidewalks ³³	101.1
Recreational Trails ³⁴	7.6
Bike Lanes ³⁵	0
Bike Routes ³⁶	0
TOTAL	108.7

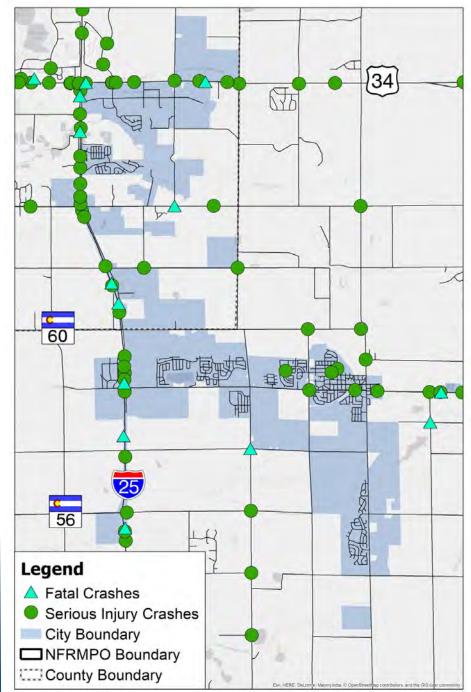
Freight

Crash Analysis (2011-2015)

CDOT Freight Corridors ³⁷	Miles	Percent Trucks ³⁸
I-25	8	8.7%

Railroad	Miles
Great Western Railway	9.6
Union Pacific	0.7
TOTAL	10.3

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	9	9	0	0	290
2012	7	8	0	0	253
2013	2	2	2	2	318
2014	7	8	1	2	377
2015	4	4	5	5	334
TOTAL	29	31	8	9	1572



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit— NFRMPO; Non-Motorized—Town of Johnstown, NFRMPO; Freight—CDOT; Crash Analysis—CDOT

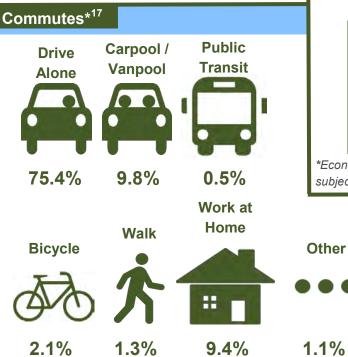
Larimer County

Larimer County Community Profile (Unincorporated area within the NFRMPO boundary)

Demographics*

Land Area ¹ : 227.3 sq. mi.	Own/Rent Status ⁸ :
Population ² : 50,479	84.5% Own
Sex ³ : 48% Female	15.5% Rent
52% Male	

*Demographic estimates are based on survey responses and are subject to error



Working Age Population (18 to 64)¹¹: 31,852 (63.1%) 1,927 12,828

Live elsewhere and

work in Larimer

County¹²

Economic*

Live and work in Larimer County¹³

Live in Larimer
County and work
Elsewhere ¹⁴

20,013

Top 3 Employment Sectors ¹⁵	Number of Jobs	Share of Total Jobs
Construction	3,483	23.6%
Manufacturing	1,638	11.1%
Administration & Support, Waste Management and Remediation	1,392	9.4%

*Economic estimates are based on survey responses and are subject to error

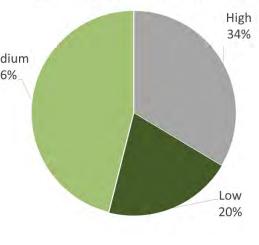
NFRMPO Regionally Significant Corridors (RSCs) ²⁰	Centerline Miles
I-25 (RSC 1)	11.3
US 34 (RSC 2)	6.6
US 287 (RSC 6)	10
SH 1 (RSC 7)	2.8
Riverside Ave (RSC 8)	5.4
SH 56 (RSC 9)	0.3
SH 60 (RSC 10)	2.5
SH 392 (RSC 12)	4
SH 402 (RSC 13)	4.7
Larimer CR 3 (RSC 14)	1.5
LCR 5 (RSC 15)	3.9
Larimer CR 17 (RSC 16)	6.3
Larimer CR 19 (RSC 17)	6.7
Larimer CR 1 (RSC 18)	6.8
Crossroads Blvd (RSC 23)	1.1
Harmony Road (RSC 24)	0.6
Prospect Road (RSC 26)	0.5
Timberline Road (RSC 27)	2.8
TOTAL	77.8

*Commute estimates are based on survey responses and are subject to error

Roadways

Functional Classification ¹⁸	Centerline Miles	
Interstates	11.3	
Other Freeways or Expressways	3.8	Me 4
Other Principal Arterials	18.6	
Minor Arterials	41.9	
Major Collectors	86.8	
Minor Collectors	17.4	
Local Roads	383	
TOTAL	562.8	

Highway Drivability Life¹⁹



Environmental Justice (EJ)*

Non-Motorized

Environmental Justice (EJ) Areas	Percent of Community
Living in a Low Income EJ Area ²¹	19%
Living in a Minority EJ Area ²²	10.2%
Living in an EJ Area (Either Low- Income or Minority)	19.2%

*EJ estimates are based on survey responses and are subject to error

Transit

Fixed-Route Service Providers²⁶:

COLT, Transfort

Fixed-Route	Miles	Stops
COLT Route 100	0.9	1
FLEX	10	6
Transfort Route 8	0.5	1
Transfort Route 9	2.1	9
Transfort Route 12	1.5	5
Transfort Route 14	5.3	13
Transfort Route 33	0.8	3
Transfort Route 81	0.5	1
Transfort Route 91	0.8	2
Transfort Route 92	0.1	1
TOTAL	22.5	42

Demand-Response/Modified Fixed-Route^{27, 28}

- Berthoud Area Transportation Service (BATS)
- Rural Alternatives For Transportation (RAFT)
- Senior Alternatives in Transportation (SAINT)

Paratransit²⁹

- COLT Paratransit (limited)
- Transfort Paratransit (limited)
- Non-Emergency Medical Transportation (NEMT)

Commuter Shuttle³⁰

- VanGo[™] Vanpool Services
- FLEX

Medical Shuttle³¹

None

Commercial Service³²

- Sapphire Car Service
- Yellow Cab

New Meterined Feetlike	Miles	
Non-Motorized Facility	Miles	
Recreational Trails ³³	15.5	
Sidewalks ³⁴	30.6	
Bike Lanes ³⁵	74.4	
Bike Routes ³⁶	2.6	
TOTAL	123.1	
<image/>		
Bike Lanes Recreational Trails	Unincorpo	rated County

NFRMPO Boundary

Bikes Routes -

Sidewalks

Crash Analysis (2011-2015)

Freight

Percent Trucks³⁸

> 5.8% 10.8% 3.8% 5% **8%**

> > Miles 12 13.6 6.8 32.4*

> > > **Total**

Crashes⁴³

814 743 727 1,079 1,072 **4,435**

Note: Map displays serious in unincorporated Larimer Coun	jury and fatal crashes ty in the MPO region.	within					
			-2-	F	CDOT reight ridors ³⁷	Centerline Miles	Perc Truc
		SET		SH 1	4	5.4	5.8
			TY	T I-25		11.3	10.8
				US 3	4	6.6	3.8
		a former		US 2	87	10	5%
				тот	AL	33.3	8%
					Railro	·	B.C.
			* 湾	BNS		Dau	Mi
T TRUE AT			The second		at Western		13
V V IV					on Pacific		6
	一一一一个 世界			ТОТ			32
KAL AN				12		an additional 10 m	
Carimer, Car		402			ndoned railroads		
		Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	T Cras
- KUT		2011	24	31	8	8	6
Legend	1 the main of the second secon	2012	28	31	2	2	7
Sev A Fatal Crash		2013	29	35	8	8	7
 Serious Injury Crash 		2014	40	45	5	6	1,
Unincorporated County	287	2015	45	58	9	9	1,
NFRMPO Boundary County Boundary		TOTAL	166	200	32	33	4,
County Boundary			7 - F		1	1	<u> </u>

Sources: Demographics—American Community Survey Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit—COLT, Transfort; Non-Motorized—NFRMPO; Freight—CDOT; Crash Location—CDOT LaSalle

LaSalle Community Profile

Demographics*

Land Area ¹ : 1 sq. mi.	Median Monthly Housing
Population ² : 2,068	Cost⁷: \$1,004
Sex³: 49.6% Female	Own/Rent Status ⁸ :
50.4% Male	69.5% Own
Median Age ⁴ : 33.5	30.5% Rent
Median HH Size⁵: 2.8	Households with School-
Median HH Income ⁶ :	Age Children (6 to 17) ⁹ :
\$48,906	25.1%

\$48,906	25.1%
Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰
Single-Family	10.6
Multi-Family	0
TOTAL	10.6

*Demographic estimates are based on survey responses and are subject to error

Commutes*^{16, 17}

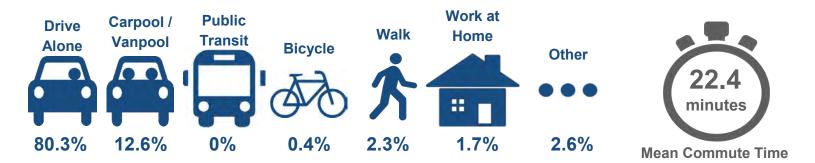
Economic*

Working Age Population (18 to 64)¹¹: 1,147 (55.5%)



Top 3 Employment Sectors ¹⁹	of Jobs	Total Jobs
Accommodation and Food Services	81	19.7%
Manufacturing	48	11.7%
Mining, Quarrying, and Oil and Gas Extraction	41	10%

*Economic estimates are based on survey responses and are subject to error

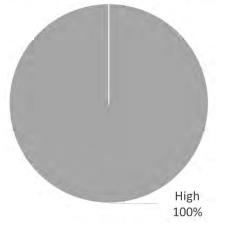


*Commute estimates are based on survey responses and are subject to error

Roadways

Functional Classification ¹⁸	Centerline Miles
Interstates	0
Other Freeways or Expressways	0.8
Other Principal Arterials	0
Minor Arterials	0
Major Collectors	1.5
Minor Collectors	0
Local Roads	10
TOTAL	12.2





Regionally Significant	Centerline
Corridors (RSCs) ²⁰	Miles
US 85 (RSC 4)	0.8

Environmental Justice (EJ)*				
	Environmental Justice (EJ) Areas	Percent of Population		
	Living in a Low Income EJ Area ²¹	99.3%		
	Living in a Minority EJ Area ²²	99.3%		

Living in an EJ Area (Either Low-Income or Minority)

Other Sensitive Populations

Limited English Proficiency (LEP)²⁴

Age 65 or Older²³

Disabled²⁵

Transit

Fixed-Route Service²⁶

None

99.3%

Percent of

Population

13.7%

7.7%

12%

Demand-Response/Modified Fixed-Route Service^{27, 28}

Senior Resource

Paratransit²⁹

• Non-Emergency Medical Transportation (NEMT)

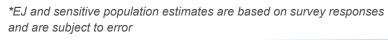
Commuter Shuttle³⁰

• VanGo™ Vanpool Services

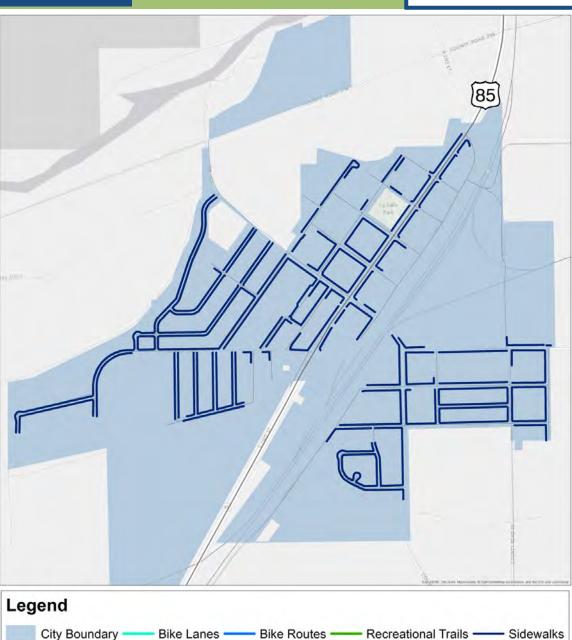
Medical Shuttle³¹

None

- **Commercial Service**³²
- Sapphire Car Service
- Smart Rides
- Yellow Cab



Non-Motorized



Bicycle/Pedestrian Facility	Miles
Sidewalks ³³	13.1
Recreational Trails ³⁴	0
Bike Lanes ³⁵	0
Bike Routes ³⁶	0
TOTAL	13.1

		Dereent		
CDOT Freight Corridors ³⁷	Miles	Percent Trucks ³⁸	Railroad	Miles
			Union Pacific	4.2
US 85	0.8	7.5%		1.2

Crash Analysis (2011-2015)

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	0	0	0	0	9
2012	0	0	0	0	18
2013	0	0	0	0	18
2014	1	1	0	0	16
2015	1	1	0	0	10
TOTAL	2	2	0	0	71



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit— NFRMPO; Non-Motorized—NFRMPO; Freight—CDOT; Crash Analysis—CDOT Loveland

Loveland Community Profile

Demographics*

Land Area¹: 35.6 sq. mi. Population²: 74,461 Sex³: 51.2% Female 48.8% Male Median Age⁴: 39.1 Median HH Size⁵: 2.44 Median HH Income⁶: \$56,277 Median Monthly Housing Cost⁷: \$1,063 Own/Rent Status⁸: 62.4% Own 37.6% Rent Households with School-Age Children (6 to 17)⁹: 16%

Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰
Single-Family	6.2
Multi-Family	0.1
TOTAL	6.3

*Demographic estimates are based on survey responses and are subject to error

Commutes*^{16, 17}

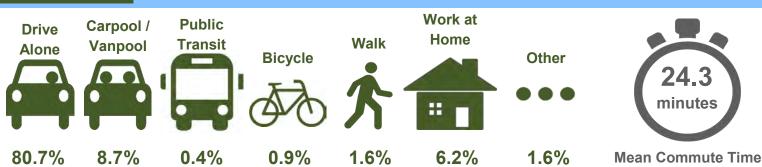
Economic*

Working Age Population (18 to 64)¹¹: 44,751 (60.1%)



Top 3 Employment Sectors ¹⁵	of Jobs	Total Jobs	
Health Care and Social Assistance	5,544	17.1%	
Retail Trade	4,919	15.2%	
Accommodations and Food Services	3,713	11.5%	

*Economic estimates are based on survey responses and are subject to error



*Commute estimates are based on survey responses and are subject to error

Roadways

Functional Classification ¹⁸	Centerline Miles
Interstates	7.6
Other Freeways or Expressways	0
Other Principal Arterials	23.8
Minor Arterials	56
Major Collectors	65
Minor Collectors	0
Local Roads	222
TOTAL	374.4

Regionally Significant Corridors (RSCs) ²⁰	Centerline Miles
I-25 (RSC 1)	7.6
US 34 (RSC 2)	9.7
US 287 (RSC 6)	9.9
SH 60 (RSC 10)	0.5
14th St SW / SH 402 (RSC 13)	3.7
Larimer CR 3 (RSC 14)	1.9
Centerra Pkwy (RSC 15)	2
Taft Ave. (RSC 16)	6
Wilson Ave. (RSC 17)	2.9
Crossroads Blvd (RSC 23)	2
Boyd Lake Ave. (RSC 27)	3.1
TOTAL	49.3

Environmental Justice (EJ)*

Environmental Justice (EJ) Areas	Percent of Population
Living in a Low Income EJ Area ²¹	17.5%
Living in a Minority EJ Area ²²	48.5%
Living in an EJ Area (Either Low-Income or Minority)	48.5%

Other Sensitive Populations	Percent of Population
Age 65 or Older ²³	16.8%
Limited English Proficiency (LEP) ²⁴	2.3%
Disabled ²⁵	11.6%

*EJ and sensitive population estimates are based on survey responses and are subject to error

Non-Motorized

Bicycle/Pedestrian Facility	Miles
Sidewalks ³³	519.7
Recreational Trails ³⁴	18.5
Bike Lanes ³⁵	163.2
Bike Routes ³⁶	14.9
TOTAL	716.3

Transit

Fixed-Route Service Provider²⁶:

City of Loveland Transit (COLT), FLEX

Fixed Route	Miles	Stops
Route 100	14	41
Route 200	17	39
Route 300	19	35
FLEX	16.5	15
TOTAL	66.5	130

Demand-Response/Modified Fixed-Route Service^{27, 28}

VanGo[™] Vanpool Services

• Senior Alternatives in Transportation (SAINT)

Paratransit²⁹

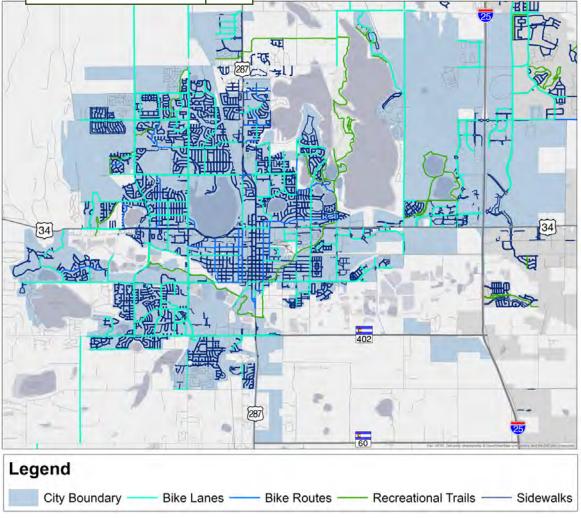
- COLT Paratransit
- Non-Emergency Medical Transportation (NEMT)

Commuter Shuttle³⁰

- Bustang
- FLEX

Medical Shuttle³¹

- Connecting Health
- **Commercial Service**³²
- Sapphire Car Service Yellow Cab



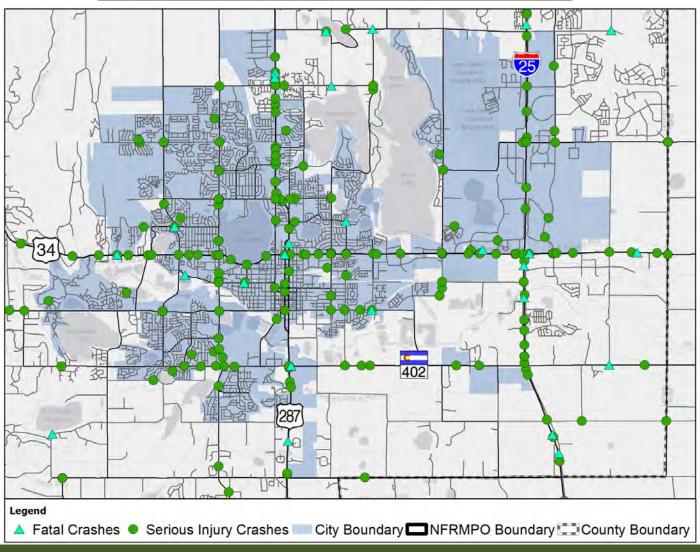
Freight

CDOT Freight Corridor ³⁷	Miles	Percent Trucks ³⁸
I-25	4.8	10.2%
US 34	7.6	3.9%
US 287	9.9	4%
TOTAL	22.3	5.1%

Railroad	Miles	
BNSF	7	
Great Western Railway	2.2	
Union Pacific	3.9	
TOTAL	13.2*	
*Loveland has 2.4 additional miles of abandoned railroads		

Crash Analysis (2011-2015)

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	26	32	3	3	682
2012	35	42	4	4	695
2013	34	40	1	1	646
2014	24	26	3	3	671
2015	45	49	4	4	800
TOTAL	164	189	15	15	3494



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit– City of Loveland Transit (COLT); Non-Motorized—NFRMPO; Freight—CDOT; Crash Analysis—CDOT

Milliken

Milliken Community Profile

Demographics*	
Land Area ¹ : 12.9 sq. mi. Population ² : 6,351 Sex ³ : 53.2% Female 46.8% Male Median Age ⁴ : 31.3 Median HH Size ⁵ : 3.01 Median HH Income ⁶ : \$72,273	Median Monthly Housing Cost ⁷ : \$1,318 Own/Rent Status ⁸ : 83.2% Own 16.8% Rent Households with School- Age Children (6 to 17) ⁹ : 37.5%
Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰
Single-Family	13.9
Multi-Family	0

*Demographic estimates are based on survey responses and are subject to error

13.9

Commutes*^{16, 17}

TOTAL

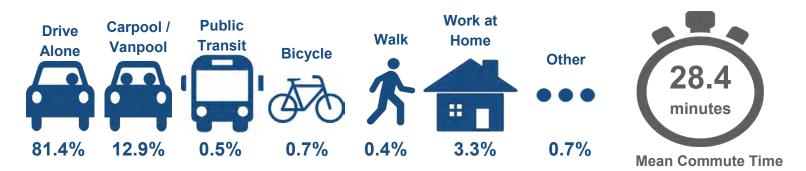
Economic*

Working Age Population (18 to 64)¹¹: 4,210 (66.3%)



Top 3 Employment Sectors ¹⁵	Number of Jobs	Share of Total Jobs
Manufacturing	225	33%
Retail Trade	75	11%
Health Care and Social Assistance	19	2.8%

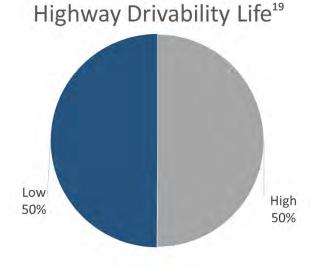
*Economic estimates are based on survey responses and are subject to error



*Commute estimates are based on survey responses and are subject to error

Roadways

Functional Classification ¹⁸	Centerline Miles	
Interstates	0	
Other Freeways or Expressways	0	
Other Principal Arterials	0	
Minor Arterials	0	
Major Collectors	9.9	
Minor Collectors	0	
Local Roads	35.8	
TOTAL	45.7	



Regionally Significant Corridors (RSCs) ²⁰	Centerline Miles
Broad St. / SH 60 (RSC 10)	2.5
SH 257 (RSC 11)	2.2
83rd Ave. (RSC 22)	0.1
TOTAL	4.8

Environmental Justice (EJ)*

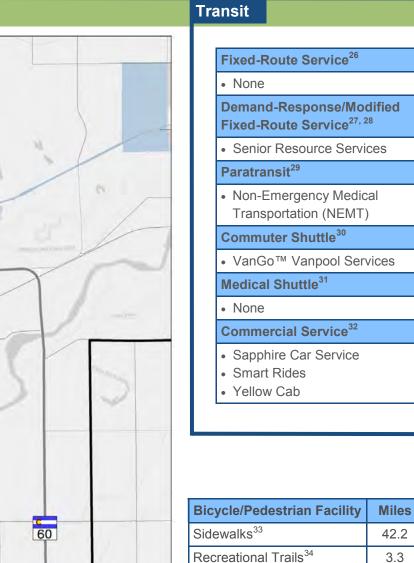
Environmental Justice (EJ) Areas	Percent of Population	
Living in a Low Income EJ Area ²¹	0.9%	Α
Living in a Minority EJ Area ²²	100%	L
Living in an EJ Area (Either Low-Income or Minority)	100%	C

Other Sensitive Populations	Percent of Population
Age 65 or Older ²³	6.5%
Limited English Proficiency (LEP) ²⁴	1.6%
Disabled ²⁵	3.4%

*EJ and sensitive population estimates are based on survey responses and are subject to error

Non-Motorized

c 257



0 0 45.5

Demand-Response/Mo Fixed-Route Service ²⁷	
Senior Resource Server	/ices
Paratransit ²⁹	
Non-Emergency Med Transportation (NEM	
Commuter Shuttle ³⁰	
• VanGo™ Vanpool Se	rvice
Medical Shuttle ³¹	
None	
Commercial Service ³²	
Sapphire Car Service Smart Rides Yellow Cab	
Bicycle/Pedestrian Facility 60 Sidewalks ³³	Ň
Recreational Trails ³⁴	
Bike Lanes ³⁵	+
Bike Routes ³⁶	+
TOTAL	-
85	
Legend City Boundary Bike Lanes — Recreational Trails	
_egend	

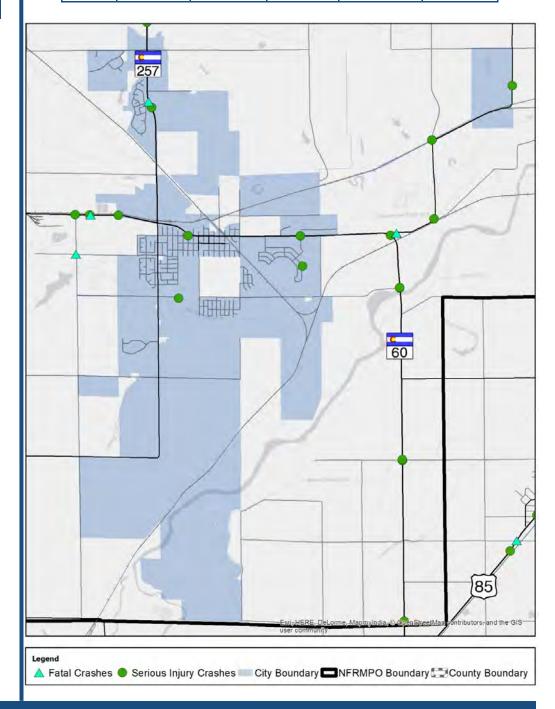
Freight

Crash Analy	ysis ((2011-2015)
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CDOT	Freight	Corridors ³⁷
None		

Railroad	Miles	
Great Western Railway	1.7	
Union Pacific	2.1	
TOTAL	3.8*	
*Milliken has additional 6.9 miles of abandoned railroads		

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	2	3	0	0	40
2012	1	2	0	0	30
2013	0	0	1	1	38
2014	2	3	0	0	50
2015	3	3	0	0	58
TOTAL	8	11	1	1	216



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit— NFRMPO; Non-Motorized—Town of Milliken, NFRMPO; Freight—CDOT; Crash Analysis—CDOT Severance

Severance Community Profile

Demographics*

Land Area ¹ : 6.4 sq. mi.	Median Monthly Housing
Population ² : 3,744	Cost⁷: \$1,498
Sex ³ : 47.3% Female	Own/Rent Status ⁸ :
52.7% Male	89.8% Own
Median Age⁴: 35.4	10.2% Rent
Median HH Size ⁵ : 2.87	Households with School- Age Children (6 to 17) ⁹ :
Median HH Income ⁶ : \$85,625	13.3%

Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰
Single-Family	27.8
Multi-Family	0
TOTAL	27.8

*Demographic estimates are based on survey responses and are subject to error

Commutes*^{16, 17}

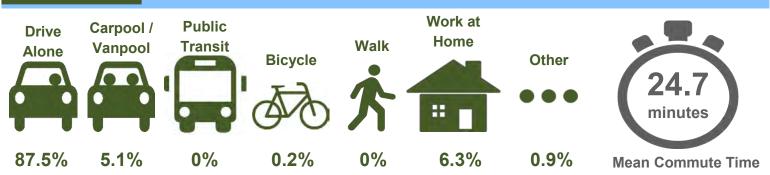
Economic*

Working Age Population (18 to 64)¹¹: 2,223 (59.4%)



Top 3 Employment Sectors ¹⁵	of Jobs	Total Jobs
Agriculture, Forestry, Fishing, and Hunting	41	18.7%
Accommodations and Food Services	30	13.7%
Construction	27	12.3%

*Economic estimates are based on survey responses and are subject to error

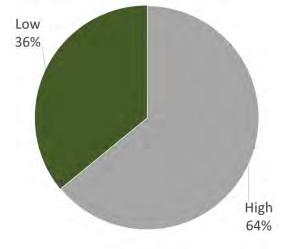


*Commute estimates are based on survey responses and are subject to error

Roadways

Functional Classification ¹⁸	Centerline Miles
Interstates	0
Other Freeways or Expressways	0
Other Principal Arterials	3
Minor Arterials	1.8
Major Collectors	9
Minor Collectors	0
Local Roads	30.1
TOTAL	43.9

Highway Drivability Life¹⁹



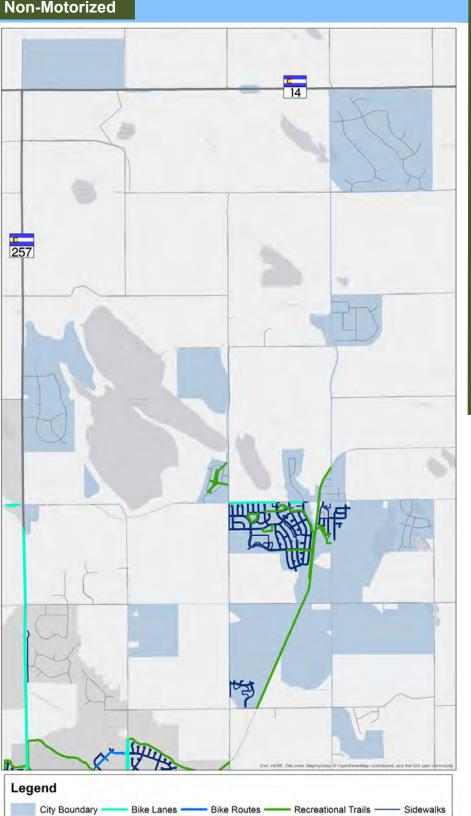
Regionally Significant
Corridors (RSCs)20Centerline
MilesSH 14 (RSC 8)3SH 257 (RSC 11)1.84th Ave. / Weld CR 74 (RSC 24)1.4TOTAL6.2

Environmental Justice (EJ)*

Environmental Justice (EJ) Areas	Percent of Population	Other Sensitive Populations	Percent of Population
Living in a Low Income EJ Area ²¹	0%	Age 65 or Older ²³	10.2%
Living in a Minority EJ Area ²²	7.9%	Limited English Proficiency (LEP) ²⁴	0.4%
Living in an EJ Area (Either Low-Income or Minority)	7.9%	Disabled ²⁵	7.8%

*EJ and sensitive population estimates are based on survey responses and are subject to error

Non-Motorized



Transit

Fixed-Route Service ²⁶
• None
Demand-Response/Modified Fixed-Route Service ^{27, 28}
Senior Resource Services
Paratransit ²⁹
 Non-Emergency Medical Transportation (NEMT)
Commuter Shuttle ³⁰
 VanGo[™] Vanpool Services
Medical Shuttle ³¹
• None
Commercial Service ³²
Sapphire Car ServiceSmart RidesYellow Cab

n

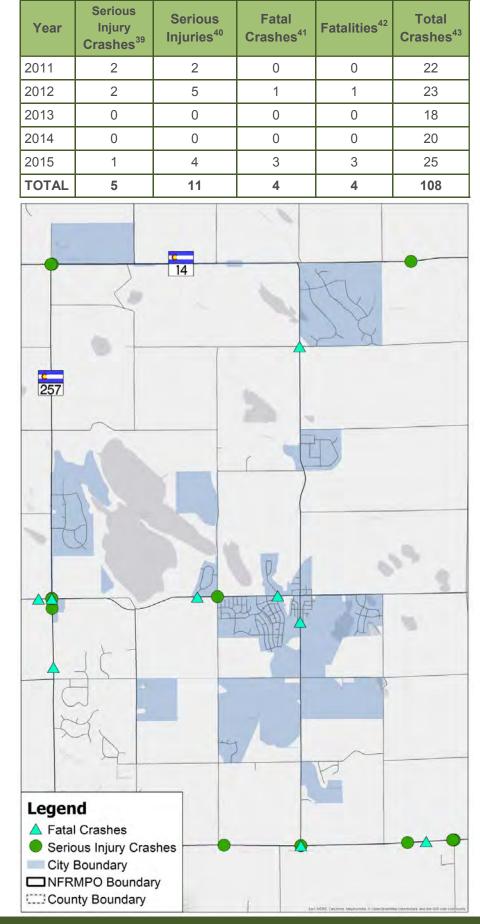
Bicycle/Pedestrian Facility	Miles	
Sidewalks ³³	18.1	
Recreational Trails ³⁴	5.6	
Bike Lanes ³⁵	0.6	
Bike Routes ³⁶	0	
TOTAL	24.3	

Freight

Crash Analysis	(2011-2015)
----------------	-------------

CDOT Freight Corridor ³⁷	Miles	Percent Trucks ³⁸
SH 14	3	11.2%

Railroad	Miles
Great Western Railway	2.8



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit– Greeley Evans Transit (GET); Non-Motorized—NFRMPO; Freight—CDOT; Crash Analysis—CDOT

Timnath

Timnath Community Profile

Demo	ographics*		Economic*		
	Area¹: 5.4 sq. mi. I ation²: 2,418	Median Monthly Housing Cost ⁷ : \$1,766	Working Age Population (18 to 64	4)¹¹: 1,288 (53.3%)
Sex ³ : Media Media	52.5% Female 47.5% Male an Age ⁴ : 30.7 an HH Size ⁵ : 2.92 an HH Income ⁶ :	Own/Rent Status ⁸ : 89.9% Own 10.1% Rent Households with School- Age Children (6 to 17) ⁹ : 23.8%	379 Live elsewhere and work in Timnath ¹²	Live in	240 Timnath and Elsewhere ¹⁴
\$8	30,694		Top 3 Employment Sectors ¹⁵	Number of Jobs	Share of Total Jobs
	Type of Unit	Residential Building Permits per 1,000 Residents ¹⁰	Retail Trade	129	33.9%
	Single-Family	76.5	Administration & Support, Waste	85	22.3%
	Multi-Family	0	Management and Remediation		
	Total	76.5	Manufacturing	59	15.5%
	graphic estimates are l to error	based on survey responses and are	*Economic estimates are based on surve subject to error	y responses	and are

Commutes*^{16, 17}

Drive Alone	Carpool / Vanpool	Public Transit	Bicycle	Walk	Work at Home	Other	22 minutes
82.1%	11.4%	0%	0%	0%	6.5%	0%	Mean Commute Time

*Commute estimates are based on survey responses and are subject to error

Roadways

Functional Classification ¹⁸	Centerline Miles
Interstates	0
Other Freeways or Expressways	0
Other Principal Arterials	0
Minor Arterials	4.9
Major Collectors	1
Minor Collectors	2.3
Local Roads	29.4
Total Miles	37.6

Regionally Significant Corridors (RSCs) ²⁰	Centerline Miles
Larimer CR 5 (RSC 15)	3
Harmony Road (RSC 24)	2.2
Prospect Road (RSC 26)	0.1
Total Miles	5.3

Environmental Justice (EJ)*

Non-Motorized

Environmental Justice (EJ) Areas	Percent of Population	
Living in a Low Income EJ Area ²¹	0%	
Living in a Minority EJ Area ²²	0%	
Living in an EJ Area (Either Low- Income or Minority)	0%	

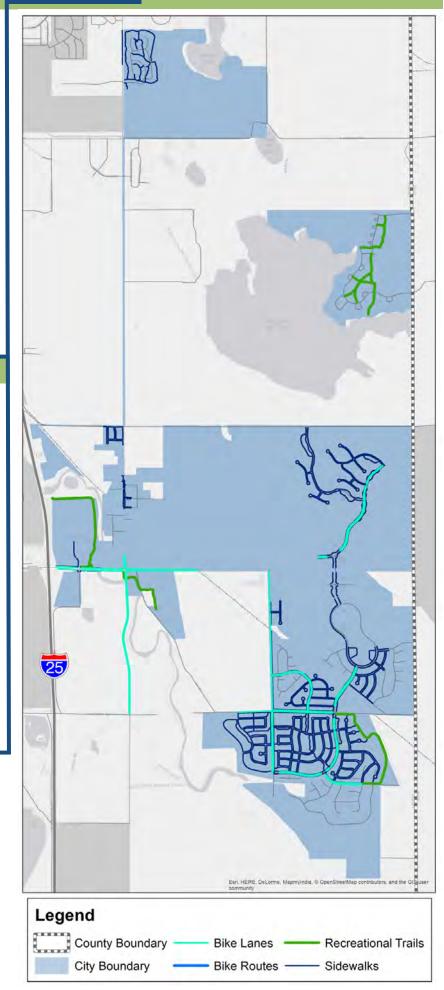
Other Sensitive Populations	Percent of Population
Age 65 or Older ²³	11%
Limited English Proficiency (LEP) ²⁴	0%
Disabled ²⁵	3.3%

*EJ and sensitive population estimates are based on survey responses and are subject to error

Transit

Fixed-Route Service ²⁶
None
Demand-Response/Modified Fixed-Route Service ^{27, 28}
None
Paratransit ²⁹
 Non-Emergency Medical Transportation (NEMT)
Commuter Shuttle ³⁰
 VanGo[™] Vanpool Services
Medical Shuttle ³¹
• None
Commercial Service ³²
Sapphire Car ServiceYellow Cab

Bicycle/Pedestrian Facility	Miles
Sidewalks ³³	26.1
Recreational Trails ³⁴	1.28
Bike Lanes ³⁵	3.4
Bike Routes ³⁶	0
TOTAL	30.78



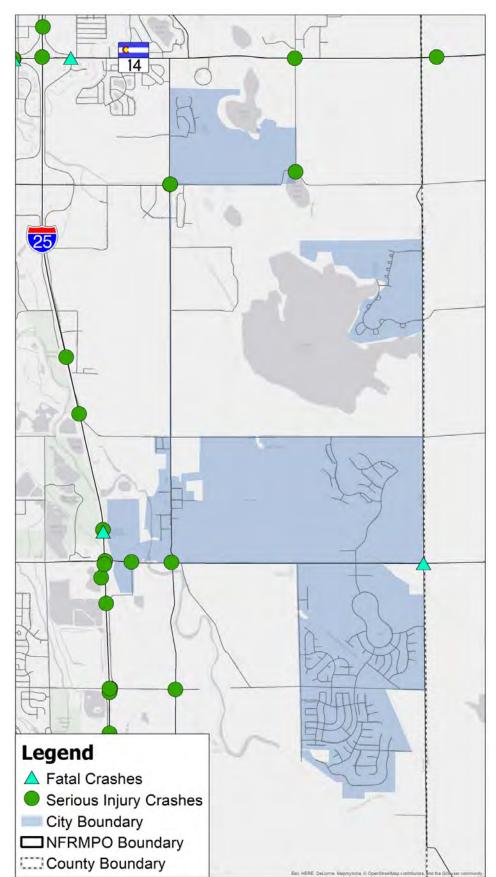
Freight

Crash Analysis (2011-2015)

CDOT Freight Corridors ³⁷				
None				
Railroad Miles				
	Ramoud	inite 3		

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰
2011	0	1
2012	0	0
2013	0	0
2014	3	6
2015	1	1
TOTAL	4	8

Year	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	1	1	39
2012	0	0	41
2013	0	0	24
2014	0	0	57
2015	0	0	47
TOTAL	1	1	208



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit— NFRMPO; Non-Motorized—NFRMPO; Freight—CDOT; Crash Analysis—CDOT Weld County

Weld County Community Profile (Unincorporated area within the NFRMPO boundary)

6,937

Live in Weld County

and work Elsewhere¹⁴

Number

of Jobs

1,087

Share of

Total Jobs

24.6%

15.6%

15%

Demographics*

Land Area¹: 221 sq. mi. Population²: 17,042 Sex³: 52.3% Female 47.7% Male

Own/Rent Status⁸: 69.7% Own 30.3% Rent

*Demographic estimates are based on survey responses and are subject to error

Commutes*^{16, 17} Carpool / **Public Drive** Vanpool Transit Alone 11.9% 76.7% 0% Work at Home Walk **Bicycle**

Manufacturing 688 Construction 664

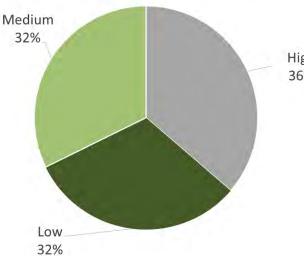
Top 3 Employment Sectors¹⁵

Mining, Quarrying, and Oil and Gas

*Economic estimates are based on survey responses and are subject to error

	Discusto	Walk	Home				Corridors
	Bicycle			Othe	er		I-25 (RSC 1)
	T	1.			•		US 34 (RSC 2)
	Gro	N					US 34 Busines
	2.0%	1.5%	6.4%	1.79	/_		US 85 (RSC 4)
				-	-		US 85 BUS(RS
*(Commute estimates	are based on	survey respon	ses and are s	ubject to error		SH 14 (RSC 8)
	Roadways						SH 56 (RSC 9
							SH 60 (RSC10
_			High	way Dri	ivability Li	fe 19	SH 257 (RSC1
	Functional	Centerline					SH 392 (RSC ²
	Classification ¹⁸	Miles	Medium				SH 402 (RSC ²
H	Interstates	1.8	32%				Weld CR 13 (R
	Other Freeways or Expressways	9.5				High 36%	Weld CR 17 (R
H	Other Principal					5070	35th Ave (RSC
	Arterials	11.4					Weld CR 31 (R

Functional Classification ¹⁸	Centerline Miles
Interstates	1.8
Other Freeways or Expressways	9.5
Other Principal Arterials	11.4
Minor Arterials	25
Major Collectors	65.7
Minor Collectors	23
Local Roads	278.7
Total Miles	415.1



Regionally Significant Corridors (RSCs) ²⁰	Centerline Miles
I-25 (RSC 1)	1.8
US 34 (RSC 2)	5.6
US 34 Business (RSC 3	2.7
US 85 (RSC 4)	9.5
US 85 BUS(RSC 5)	0.2
SH 14 (RSC 8)	4
SH 56 (RSC 9)	4.1
SH 60 (RSC10)	6.1
SH 257 (RSC11)	5.3
SH 392 (RSC 12)	11.1
SH 402 (RSC 13)	9.1
Weld CR 13 (RSC 18)	8.5
Weld CR 17 (RSC 19)	4.9
35th Ave (RSC 20)	3.6
Weld CR 31 (RSC 21)	2.7
83rd Ave (RSC 22)	18.1
Weld CR 64 / O St / Crossroads Blvd (RSC 23)	6.7
Weld CR 74 (RSC 24)	10
Weld CR 7 (RSC 27)	3.3
Total Miles	117.3

Economic*

4,216

Live elsewhere and

work in Weld

County¹²

Extraction

Working Age Population (18 to 64)¹¹: 11,844 (69.5%)

198

Live and work in

Weld County¹³

nvironmental Justice			Transit	
			Fixed-Route	Service ²⁶
Environmental Justice (EJ) Aroas	Percent of	None	
	Community	Demand-Res	ponse/Modified Fixed-Route Service ²⁷	
/ithin a Low Income EJ Area ²¹		26.2%		-Ride (limited)
/ithin a Minority EJ Area ²²		41.9%	Paratransit ²⁹	
/ithin an EJ Area (Either Low In	come or	43.7%	GET Paratra	ansit (limited)
linority)		4011 /0		ency Medical Transportation (NEMT)
estimates are based on survey respo	inses and are su	ubject to error	Commuter S	
				anpool Services
on-Motorized			Medical Shut	ttle ³¹
Bicycle/Pedestrian Facility	Miles		None	
Sidewalks ³³	1		Commercial	
Recreational Trails ³⁴	11.4		Sapphire Ca Smart Rides	
Bike Lanes ³⁵	0.9		Yellow Cab	
Bike Routes ³⁶	2			
Total Miles	15.3		~	
	34			
Legend				Exit, HERE, DeLorme, Mapmyindia, © OpenStreetMap contributors, and the QIS user community
Bike L	anes —— Bike Rou	utes —— Recreational	Trails —— Sidewalks	Unincorporated County NFRMPO Boundary
		131		

Freight

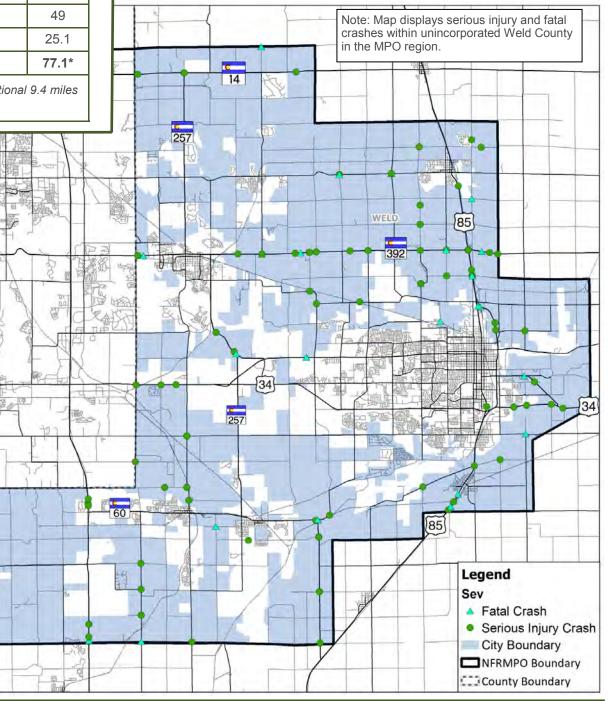
CDOT Freight Corridors ³⁷	Miles	Percent Trucks ³⁸
SH 14	4	11.2%
I-25	1.8	20.1%
US 34	5.6	7%
US 85	9.5	9.8%
TOTAL	20.9	11.7%

Miles
3
49
25.1
77.1*

*Weld County has an additional 9.4 miles of abandoned railroads

Crash Analysis (2011-2015)

Year	Serious Injury Crashes ³⁹	Serious Injuries ⁴⁰	Fatal Crashes ⁴¹	Fatalities ⁴²	Total Crashes ⁴³
2011	13	16	4	4	340
2012	14	20	7	7	347
2013	18	24	1	1	378
2014	16	29	11	11	435
2015	23	27	8	11	450
TOTAL	84	116	31	34	1,950



Sources: Demographics—American Community Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit—Greeley Evans Transit (GET); Non-Motorized—NFRMPO; Freight—CDOT; Crash Analysis—CDOT

Windsor

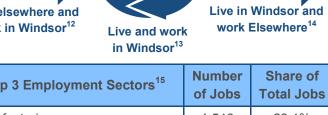
Windsor Community Profile

Demographics*		Economic*		
Land Area ¹ : 25.4 sq. mi.	Median Monthly Housing	Working Age Population (18 to 64)	¹¹ : 14,002	(59.7%)
Population ² : 23,454	Cost⁷: \$1,487			
Sex ³ : 50.2% Female	Own/Rent Status ⁸ :	5,655 1,033	11	,880
49.8% Male	80.2% Own	3,033		,000
Median Age ⁴ : 39.2	19.8% Rent	Live elsewhere and		Windsor ai
Median HH Size⁵: 2.8	Households with School-	work in Windsor ¹² Live and work in Windsor ¹³	work	Elsewhere ¹
Median HH Income ⁶ : \$80	Aged Children (6 to 17) ⁹ : 20.1%			
	20.1%	Top 3 Employment Sectors ¹⁵	Number of Jobs	Share o Total Jo
Type of Unit	Residential Building Permits			
Type of offic	per 1,000 Residents ¹⁰	Manufacturing	1,546	23.1%
Single-Family	12.3	Construction	960	14.4%

*Demographic estimates are based on survey responses and are subject to error

0.5

12.8



Manufacturing	1,546	23.1%
Construction	960	14.4%
Professional, Scientific, and Technical Services	689	10.3%

*Economic estimates are based on survey responses and are subject to error

Commutes*^{16, 17}

Multi-Family

TOTAL

Drive Alone	Carpool / Vanpool	Public Transit	Bicycle	Walk	Work at Home	Other	23.3 minutes
82.1%	7.5%	0%	0.6%	0.7%	7.6%	1.4%	Mean Commute Time

*Commute estimates are based on survey responses and are subject to error

Roadways

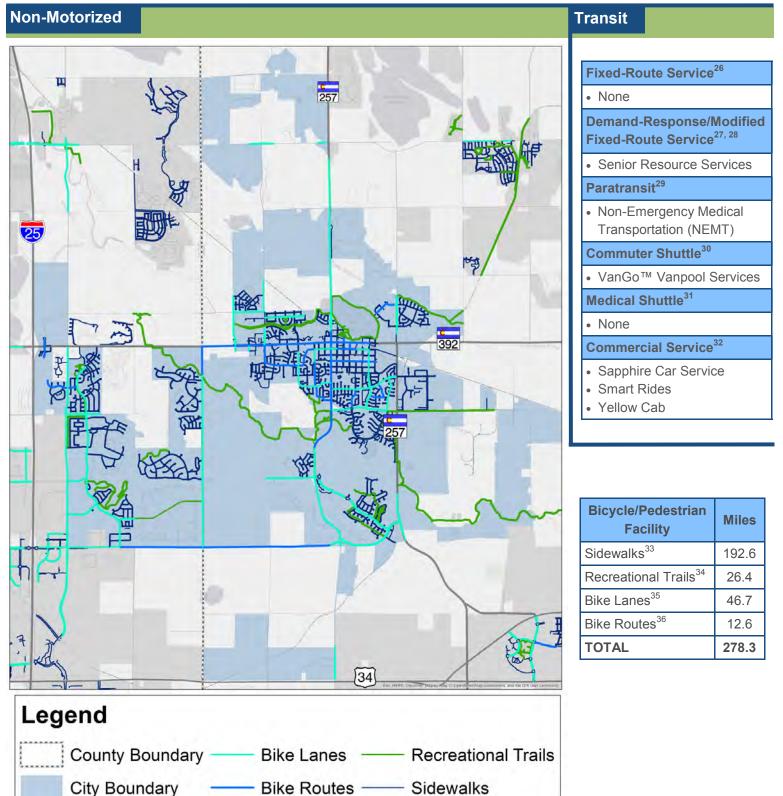
Functional Classification ¹⁸	Centerline Miles	Highway Drivability Life ¹⁹	Regionally Significant Corridors (RSCs) ²⁰	Centerline Miles
Interstates	0.3	Medium High	I-25 (RSC 1)	0.3
Other Freeways	0	21% 18%	N 7th St. / SH 257 (RSC 11)	6.3
or Expressways	Ŭ		Main St / SH 392 (RSC 12)	4.2
Other Principal	0		Fairgrounds Ave. (RSC 15)	2.8
Arterials			Weld CR 13 (RSC 18)	4
Minor Arterials	18.8		S 7th St. / Weld CR 17 (RSC 19)	1.8
Major Collectors	13.4		Crossroads Blvd (RSC 23)	1.5
Minor Collectors	3.3		Harmony Road / Weld CR 74	
Local Roads	122	Low	(RSC 24)	1.1
TOTAL	157.8	61%	TOTAL	22

Environmental Justice (EJ)*

Environmental Justice (EJ) Areas	Percent of Population	
Living in a Low Income EJ Area ²¹	0%	
Living in a Minority EJ Area ²²	0%	
Living in an EJ Area (Either Low-Income or Minority)	0%	

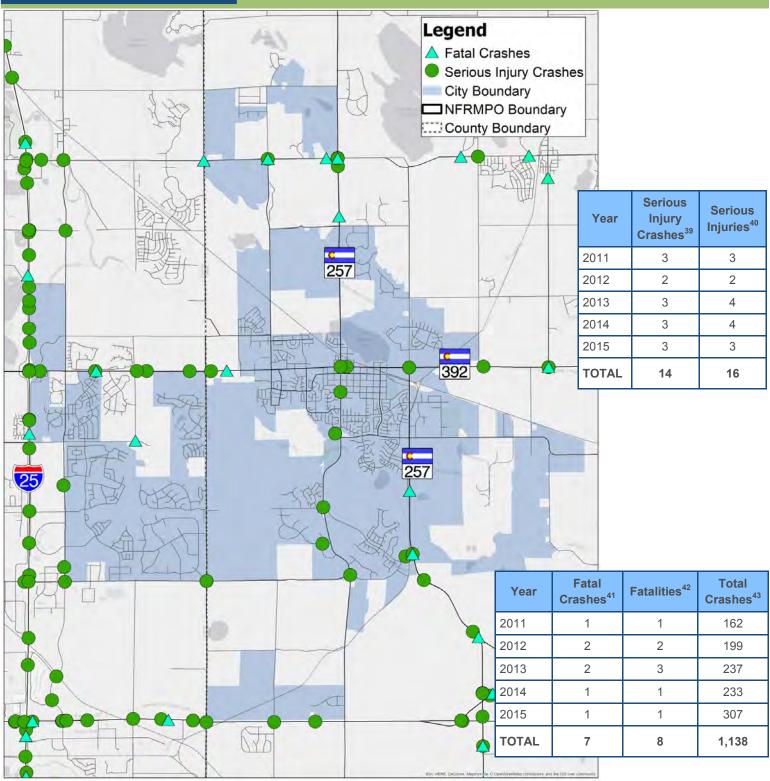
Other Sensitive Populations	Percent of
Age 65 or Older ²³	12.7%
Limited English Proficiency (LEP) ²⁴	1.7%
Disabled ²⁵	7.7%

*EJ and sensitive population estimates are based on survey responses and are subject to error



CDOT Freight Corridors ³⁷	Miles	Percent Trucks ³⁸	Railroad	Miles
I-25	0.3	9.9%	Great Western Railway	9.5

Crash Analysis (2011-2015)



Sources: Demographics—American Community Survey, Census Building Permits Survey; Commutes—American Community Survey; Economics—Census OnTheMap; Environmental Justice—American Community Survey, HUD; Roadways—CDOT; Transit— NFRMPO; Non-Motorized—Town of Windsor, NFRMPO; Freight—CDOT; Crash Analysis—CDOT

Data Dictionary

Data Dictionary

Demographics

1. Land Area: Square Miles within the jurisdictional boundaries (U.S. Census Bureau, 2015 TIGER/Line Shapefiles).

2. Population: Total population living within the jurisdiction (Colorado Department of Local Affairs, State Demography Office [SDO] 2015 Estimate).

3. Sex: Biological sex composition of the population (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

4. Median Age: Median age of the population in years (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

5. Median Household (HH) Size: Median number of people living in a housing unit (Colorado Department of Local Affairs, State Demography Office [SDO] 2015 Estimate).

6. Median Household (HH) Income: Median sum of income of all people 15 years and older living in the household (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

7. Median Monthly Housing Cost: Median monthly owner costs for owner-occupied units and gross rent for renter-occupied units (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

8. Own/Rent Status: Composition of owner-occupied and renter-occupied housing units (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

9. Households with School-Aged Children (6 to 17): Percent of households with children between ages 6 and 17 (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

10. Residential Building Permits per 1,000 Residents: The number of new housing units authorized for every 1,000 existing residents (U.S. Census Bureau, 2015 Building Permits Survey).

Economic

11. Working Age Population (18 to 64): Percent of the population between ages 18 and 64 (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

12. Live Elsewhere and Work in the Community: The number of workers flowing into the community from another community (U.S. Census Bureau, 2015 Longitudinal-Employer Household Dynamics [LEHD] Program, OnTheMap Application).

13. Live and Work in the Community: The number of workers who live and work in the community (U.S. Census Bureau, 2015 Longitudinal-Employer Household Dynamics [LEHD] Program, OnTheMap Application).

14. Live in the Community and Work Elsewhere: The number of workers flowing out of the community to work in another community (U.S. Census Bureau, 2015 Longitudinal-Employer Household Dynamics [LEHD] Program, OnTheMap Application).

15. Employment Sectors: Industries of employment defined by the North American Industry Classification System [NAICS] (Colorado Department of Transportation [CDOT], 2015 NEPA Manual).

Commuting

16. Mean Commute Time: How long it takes the average worker to get from his/her home to his/her usual workplace (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

17. Commute Mode: Composition of how workers get from their home to their usual workplace (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

Roadways

Functional Classification: A classification system developed by The Federal Highway Administration [FHWA] that defines the role each element of the roadway network plays in serving travel needs and the design elements that are expected in relation to speed, capacity, and future land use development. (Colorado Department of Transportation [CDOT], Online Transportation Information System [OTIS]).
 Highway Drivability Life: An indication of pavement condition, measured in years of how long a highway will have acceptable driving conditions based on an assessment of smoothness, pavement distress, and safety. A roadway can be classified as High, Moderate, or Low. Measures state highways and above (Colorado Department of Transportation [CDOT], Online Transportation Information System [OTIS]).
 Regionally Significant Corridors (RSCs): Corridors identified in the 2040 Regional Transportation Plan (RTP) as most significant to the region (*NFRMPO 2040 Regional Transportation Plan*).

21. Living in a Low-Income EJ Area: Percent of the population living in a Census Tract with a median household income below the FY2015 low-income thresholds developed by for the county. For EJ Analysis, Low-Income EJ Areas are defined as Census Tracts with a median income below 30 percent of the FY2012 median county income by the average household size of the Census Tract, as defined by the Department of Housing and Urban Development [HUD] (Colorado Department of Transportation [CDOT], 2015 NEPA Manual).

22. Living in a Minority EJ Area: Percent of the population living in a Census Tract where a higher percent of the population identifies as something other than "Not Hispanic or Latino: White Alone" than the county average (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

23. Age 65 or Older: Percent of population that is 65 years of age or older (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

24. Limited English Proficiency (LEP): Percent of respondents who speak a language other than English at home and who speaks English "less than very well" (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

25. Disabled: Percent of the population with a long-lasting physical, mental, or emotional, condition (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

Transit

26. Fixed-Route: Buses which run along an established path at preset times, picking up passengers at designated bus stops.

27. Demand Response: Vehicles operating in response to calls from passengers.

28. Modified Fixed-Route: Fixed route service with some flexibility in drop off

29. Paratransit: Transportation service primarily intended for persons with disabilities and the

elderly. Operates in response to calls from passengers. Application required to determine eligibility for service.

30. Commuter Shuttle: Limited route structure connecting commuters to a limited number of origins and destinations.

31. Medical Shuttle: Limited route structure connecting patients to a limited number of origins and destinations.

32. Commercial Service: Vehicle with driver for hire to carry passengers between any two points for a fare determined by a meter or a flat rate.

Non-Motorized

33. Sidewalks: an off-street paved path mainly for pedestrians, but also accessible to cyclists unless prohibited (Community and NFRMPO Staff).

34. Recreational Trails: a hard or soft surface trail designed to be used by commuters and recreationalists. These facilities are accessible to bicycles, pedestrians, equestrians, and other non-motorized users (Community and NFRMPO Staff).

35. Bike Lanes: an on-street bicycle facility delineated by pavement markings and signage for the use of cyclists. Typically located on roadways with a classification of collector and above (Community and NFRMPO Staff).

36. Bike Routes: an on-street bicycle facility, delineated by signage only. These facilities tend to be located on lower volume residential streets or in semi-rural areas (Community and NFRMPO Staff).

Freight

37. CDOT Freight Corridor: Routes on the State Highway System identified by the freight industry and stakeholders as critical for the movement of freight (Colorado Department of Transportation (CDOT), Online Transportation Information System [OTIS]).

38. Percent Trucks: The percent of AADT that is composed of trucks of all types. Calculated by taking the number of trucks divided by the AADT (Colorado Department of Transportation (CDOT), Online Transportation Information System [OTIS]).

Crash Analysis

39. Serious Injury Crashes: Number of crashes resulting in at least one incapacitating injury [see Serious Injuries] (Colorado Department of Transportation, 2015).

40. Serious Injuries: Number of person(s) with an incapacitating injury due to a traffic crash. Incapacitating injuries include any injury (other than a fatal injury) that prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury. Examples include severe lacerations, broken limbs, and skull, chest, or abdominal injuries. Momentary unconsciousness is not included (Colorado Department of Transportation, 2015).

41. Fatal Crashes: Number of crashes wherein an involved party sustains a crash related injury that results in death within 30 days of the crash (Colorado Department of Transportation, 2015).

42. Fatalities: Number of person(s) who sustain a crash-related injury that results in death within 30 days of the crash (Colorado Department of Transportation, 2015).

43. Total Crashes: Number of crashes reported by law enforcement agencies (Colorado Department of Transportation, 2015).