



**COLORADO**

**Department of Transportation**



# Performance Plan

## Fiscal Year 2019-2020





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## INTRODUCTION & OVERVIEW

On behalf of Executive Director Lew and its 2,950 employees (out of 3,300 positions), the Colorado Department of Transportation (CDOT) is pleased to present its Performance Plan for fiscal year 2019-20. This plan will help the Department serve Coloradans in providing a more sustainable, efficient, and equitable transportation network.

Described within the plan are one- and three-year Strategic Policy Initiatives, the strategies and processes supporting those initiatives, outcome and process measures indicating performance levels, as well as a description of the department and the current environment in which the department operates within.

The Performance Plan is required by the 2013 State Measurement for Accountable, Responsive, and Transparent Government (SMART) Act. The Governor’s Office provides guidance each year on recommended and required plan content.

Revisions to the plan may occur through consultations with Governor’s Office, and as CDOT completes its annual review of the Federal Highway Administration-CDOT Stewardship and Oversight Agreement and other documents that contain many of the same or similar performance indicators.



The Red Cliff Bridge in Eagle County, as seen in 2004, is Colorado’s only cantilevered steel arch bridge and is listed on the National Register of Historic Places.



## DEPARTMENT DESCRIPTION

The Colorado Department of Transportation is the cabinet level department that plans for, operates, maintains, and constructs the state-owned multimodal transportation system. The Department's statutory authority resides within Title 43, Article 1, Part 1 of the Colorado Revised Statutes (2019). Article 1 of Title 43, Section 106 vests the Colorado Transportation Commission with authority to formulate general policy with respect to the management, construction, and maintenance of public highways and other transportation systems in the state, and to assure the preservation and enhancement of Colorado's environment, safety, mobility, and economics considered in the planning, selection, construction, and operation of all transportation projects in Colorado.

CDOT is responsible for a state highway system that encompasses 9,077 centerline miles (22,970<sup>1</sup> total lane miles) and includes 3,451<sup>1</sup> major structures and bridges. This system handles around 32 billion vehicle miles of travel each year. Additionally, CDOT operates Bustang, the state's interregional bus network, with 194,064<sup>2</sup> passenger trips a year, provides funding for local multimodal projects, and distributes grants to the 74 public airports in Colorado to support the state's aviation network.



Reconstruction of the Veterans' Memorial Tunnels, along I-70 near Idaho Springs, in 2014.

<sup>1</sup>Highway mileage, bridge count, and vehicle miles traveled statistics are as of October 2018, based on the latest HPMS submission and bridge inspection reports.

<sup>2</sup>Bustang ridership is as of January 2019, for total ridership for fiscal year 2018.



## Vision, Mission, & Strategic Framework

The Department’s **vision** is to enhance the quality of life and the environment of the citizens of Colorado by creating an integrated transportation system that focuses on safely moving people, goods, and information by offering convenient linkages among modal choices. CDOT’s **mission** is to provide the best multimodal transportation system for Colorado that most effectively and safely moves people, goods, and information.

CDOT has six core values which are integrated in all of the Department’s projects and processes:

- **SAFETY:** We work together to achieve a high performing safety culture. We promote and apply consistent and sustainable safe work behaviors and everything we do.
- **PEOPLE:** We value our employees. We acknowledge and recognize the skills and abilities of our coworkers and draw strength from our diversity and commitment to equal opportunity.
- **INTEGRITY:** We earn Colorado’s trust. We are honest and responsible in all that we do and hold ourselves to the highest moral and ethical standards.
- **CUSTOMER SERVICE:** We strive to provide the highest level of customer satisfaction and experience. With a can-do attitude, we work together and with others to respond effectively to our customers’ needs.
- **EXCELLENCE:** We are committed to quality. We are leaders and problem solvers, continuously improving our products and services in support of our commitment to provide the best transportation systems for Colorado.
- **RESPECT:** We treat everyone with respect. We are kind and civil with everyone, and we act with courage and humility.

### SAFETY

We work together to achieve a high-performing safety culture.

We promote and apply consistent and sustainable work behaviors in everything we do.

### PEOPLE

We value our employees.

We acknowledge and recognize the skills and abilities of our coworkers and draw strength from our diversity and commitment to equal opportunity.

### INTEGRITY

We earn Colorado’s trust.

We are honest and responsible in all that we do and hold ourselves to the highest moral and ethical standards.

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### RESPECT

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We are kind and civil with everyone, and we act with courage and humility.



From these organizational priorities, the Department establishes mid- to long-term performance goals and objectives. CDOT’s Policy Directive 14, an updated version of which was adopted by the Colorado Transportation Commission in 2017, provides policy direction on investment decisions to achieve certain performance levels for the statewide transportation system, including safety, infrastructure condition, maintenance, and system performance goal areas. The objectives in Policy Directive 14 help set the direction for funding levels for various programs in the long-range Statewide Transportation Plan, the near-term Statewide Transportation Improvement Plan (STIP), and the Department’s annual budget.



An airliner takes off from Aspen-Pitkin County Regional Airport in 2014. CDOT supports multimodal transportation options, including transit, ridesharing, walking, biking, and aeronautics.



## Colorado Department of Transportation History

**Late 1800s:** The majority of Colorado's roads were privately built by stage or mining companies or built as toll roads by individuals.

**1909:** The first state highway bill passed, forming a three-member Highway Commission to approve work and allocate funds. The Commission first took their post on January 1, 1910.

**1913:** The State Highway Fund was created and a department was formed to approve highway construction projects, The Colorado State Highway Department. The department consisted of a five-member Highway Commission, the Chief Engineer, and staff.

**1916:** Passage of the Federal Aid Road Act (also known as the Bankhead-Shakleford Act) of 1916 by the United States Congress, which provided matching funds for state highway construction projects.

**1921:** The five-member Highway Commission was expanded by the Colorado General Assembly to seven members.

**1935:** The Colorado Department of Highways was joined by 44 new co-workers selected from approximately 7,500 applicants to become the first members of the Colorado State Highway Courtesy Patrol. The Patrol became a division of the Colorado State Highway Department.

**1947:** The first National System of Interstate and Defense Highways was approved by Federal Works Agency Administrator Gen. Philip B. Fleming. In Colorado, approved Interstate routes include Interstate 25 from Raton Pass to the Wyoming border, Interstate 70 from the junction of Interstate 25 in Denver to the Kansas border, and Interstate 80S from Denver to the Nebraska border.

**1952-1953:** The Highway Commission was expanded to eight members and added policy making authority. The Colorado State Highway Department was reorganized into the Colorado Department of Highways (CDOH) by statute passed by the Colorado General Assembly.



US-550 near Ouray, also known as the Million Dollar Highway, in 1926.



The Seal of the Colorado Department of Highways.



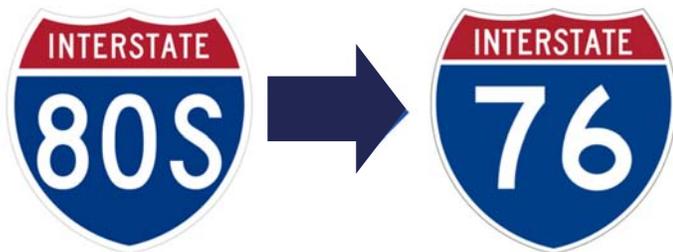
**1956:** The United States Congress passed the Federal Aid Highway Act of 1956, authorizing the creation of the Interstate Highway System with an original appropriation of \$25 billion. In Colorado, the original Interstate System plan expanded Interstate 70 from the junction I-25 to the Utah border.

**1969:** Interstate 25 in Colorado is completed with the final 21-mile segment of highway between Trinidad and Walsenburg.

**1971:** An amendment to the Colorado Constitution permitted the Governor of Colorado to appoint the position of Executive Director to lead the Colorado Department of Highways.



Original National Interstate System Highway Plan, 1957.  
Source: U.S. Federal Government—1957



Interstate Highway Shield for Interstate 80S in 1956, and the current Interstate 76 shield. Interstate 80S became 76 in 1976.

**1987:** The Colorado General Assembly increased the number of Highway Commissioners from eight to eleven.

**1991:** The Colorado Department of Highways is reorganized into the Colorado Department of Transportation, adding aeronautics, transit, and multimodal transportation responsibilities to the Department.

**1976:** Interstate 80S is renumbered to Interstate 76, in accordance with American Association of State Highway and Transportation Officials (AASHTO) policy to remove letter suffixes from Interstate routes. “76” was chosen to associate with 1876, the year Colorado was admitted as a state.

**1984:** The Colorado State Patrol was removed from the Colorado Department of Highways and placed within the newly created Department of Public Safety.



Logo of the Colorado Department of Transportation 1991-2014.



**1992:** Interstate 70 in Colorado is completed with the 12-mile Glenwood Canyon Final Link segment. Completion of this segment was also the final segment completed of the originally planned Interstate Highway System from the Federal Aid Highway Act of 1956.

**1993:** Interstate 76 is completed with the 1.4-mile segment of highway between Pecos Street and Interstate 25.

**2010:** The Colorado Department of Transportation celebrates its 100<sup>th</sup> anniversary.

**2018:** The Colorado Department of Transportation headquarters is moved from 4201 E. Arkansas Avenue in Denver, a location the department has occupied for 65 years, to a new facility at 2829 W. Howard Place in Denver. Region 4 and Region 2 headquarters are moved to new facilities in Greeley and Pueblo respectively.



The Hanging Lakes Tunnel in Glenwood Canyon along Interstate 70. This stretch of Interstate completed the originally planned Interstate Highway System.



Former CDOT Headquarters at 4201 E. Arkansas Avenue in Denver, as seen in 2009.



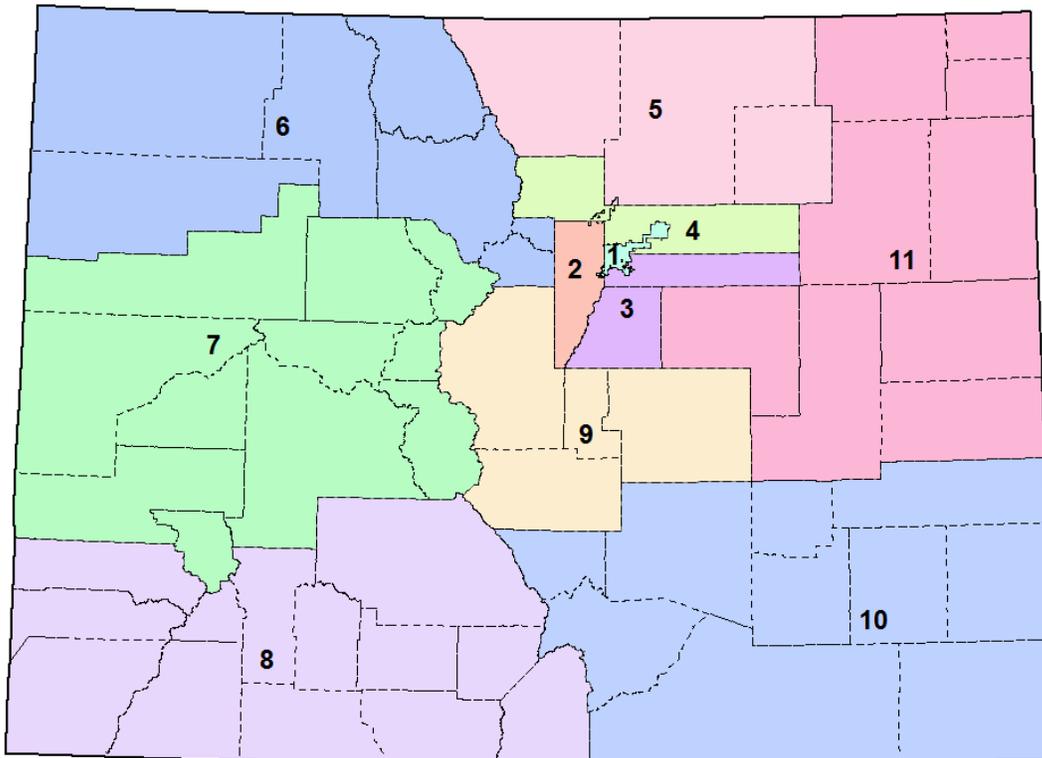
CDOT's current headquarters complex located at 2829 W. Howard Place in Denver.



## Transportation Commission

The state’s transportation system is managed by CDOT under the direction of the Colorado Transportation Commission, which is composed of eleven members from geographic districts around state, as established within C.R.S. 43-1-106 (2). Each commissioner, appointed by the Governor and confirmed by the Colorado Senate, serves a four-year term. The commission directs policy and programs for the department and adopts the department’s annual budget.

### Transportation Commission Districts & Transportation Commissioners



<p><b>Commission District 1</b> Chairwoman Shannon Gifford Counties Representing: Denver</p>	<p><b>Commission District 10</b> Vice-Chairman Bill Thiebaut Counties Representing: Bent, Baca, Crowley, Custer, Huerfano, Kiowa, Las Animas, Otero, Prowers, and Pueblo</p>	<p><b>Commission District 2</b> Commissioner Edward Peterson Counties Representing: Jefferson and a portion of Broomfield</p>
<p><b>Commission District 3</b> VACANT Counties Representing: Arapahoe and Douglas</p>	<p><b>Commission District 4</b> Commissioner Karen Stuart Counties Representing: Adams, Boulder, and a portion of Broomfield</p>	<p><b>Commission District 5</b> Commissioner Kathy Gilliland Counties Representing: Larimer, Morgan, Weld, and a portion of Broomfield</p>
<p><b>Commission District 6</b> Commissioner Kathy Connell Counties Representing: Clear Creek, Gilpin, Grand, Jackson, Moffat, Rio Blanco, and Routt</p>	<p><b>Commission District 7</b> Commissioner Kathy Hall Counties Representing: Chaffee, Delta, Eagle, Garfield, Gunnison, Lake, Mesa, Montrose, Ouray, Pitkin, and Summit</p>	<p><b>Commission District 8</b> Commissioner Sidny Zink Counties Representing: Alamosa, Archuleta, Conejos, Costilla, Dolores, Hinsdale, La Plata, Mineral, Montezuma, Rio Grande, Saguache, San Juan, and San Miguel</p>
<p><b>Commission District 9</b> Commissioner Rocky Scott Counties Representing: El Paso, Fremont, Park and Teller</p>	<p><b>Commission District 11</b> Commissioner Steven Hofmeister Counties Representing: Cheyenne, Elbert, Kit Carson, Lincoln, Logan, Phillips, Sedgwick, Washington, and Yuma</p>	<p><b>Commission Secretary</b> Herman Stockinger</p>

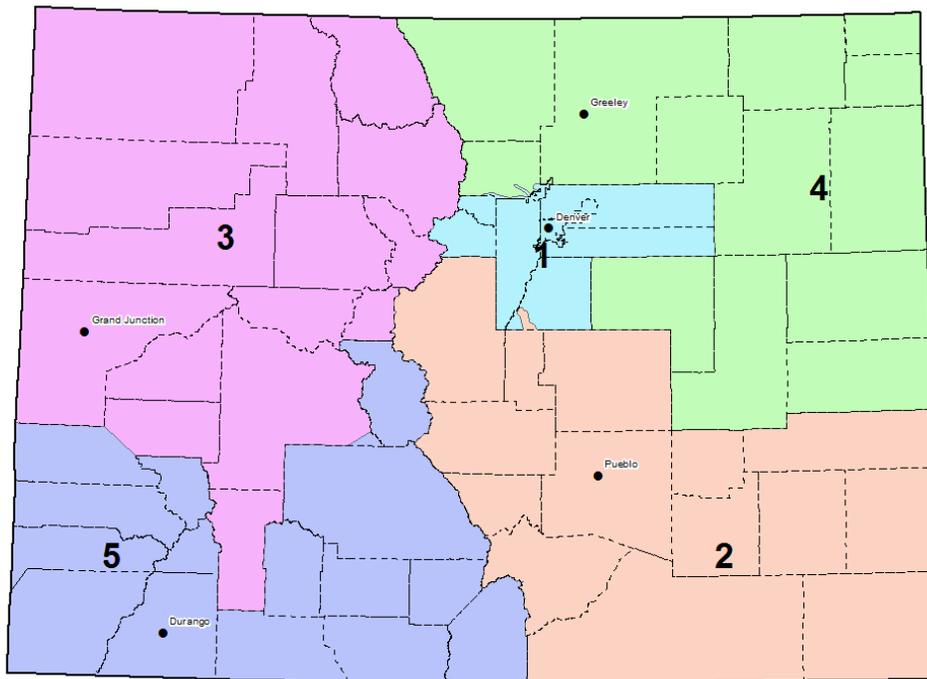


## Executive Director

The Executive Director’s Office leads the Department in planning for addressing Colorado’s transportation needs. The Executive Director, with support of the Department’s senior staff, sets the strategic direction for the department, makes recommendations to the Colorado Transportation Commission, ensures consistent communication, sets internal policy, establishes short-term and long-term strategic goals, and provides leadership for the Department through the execution of the Colorado Transportation Commission’s policies and adopted annual budgets.

## Department Divisions and Offices

**Transportation Regions:** Colorado’s five Transportation Regions operate under the guidance of the Executive Director, the Deputy Executive Director, and their respective Regional Transportation Directors. CDOT’s Transportation Regions design highway projects and award contracts to private companies that submit the lowest bids to construct the projects. The Regions also deliver needed maintenance for the state multimodal system and maintain ongoing contact with local governments, industry, and the public within their geographic area. Each Region covers all aspects of CDOT operations for that geographic area including: engineering, planning and environmental management, traffic operations, right-of-way acquisition and surveying, and utilities management.



<p><b>Region 1</b> Director: Paul Jesaitis 2829 W. Howard Pl. Denver, CO 80204</p>	<p><b>Region 2</b> Director: Karen Rowe 5615 Willis Blvd. Pueblo, CO 81008</p>	<p><b>Region 3</b> Director: Michael Goolsby 222 South 6<sup>th</sup> St. #317 Grand Junction, CO 81501</p>
<p><b>Region 4</b> Director: VACANT 10601 W. 10<sup>th</sup> St. Greeley, CO 80634</p>	<p><b>Region 5</b> Director: Michael McVaugh 3803 North Main Ave. #306 Durango, CO 81301</p>	<p><b>CDOT Headquarters</b> 2829 W. Howard Pl. Denver, CO 80204</p>



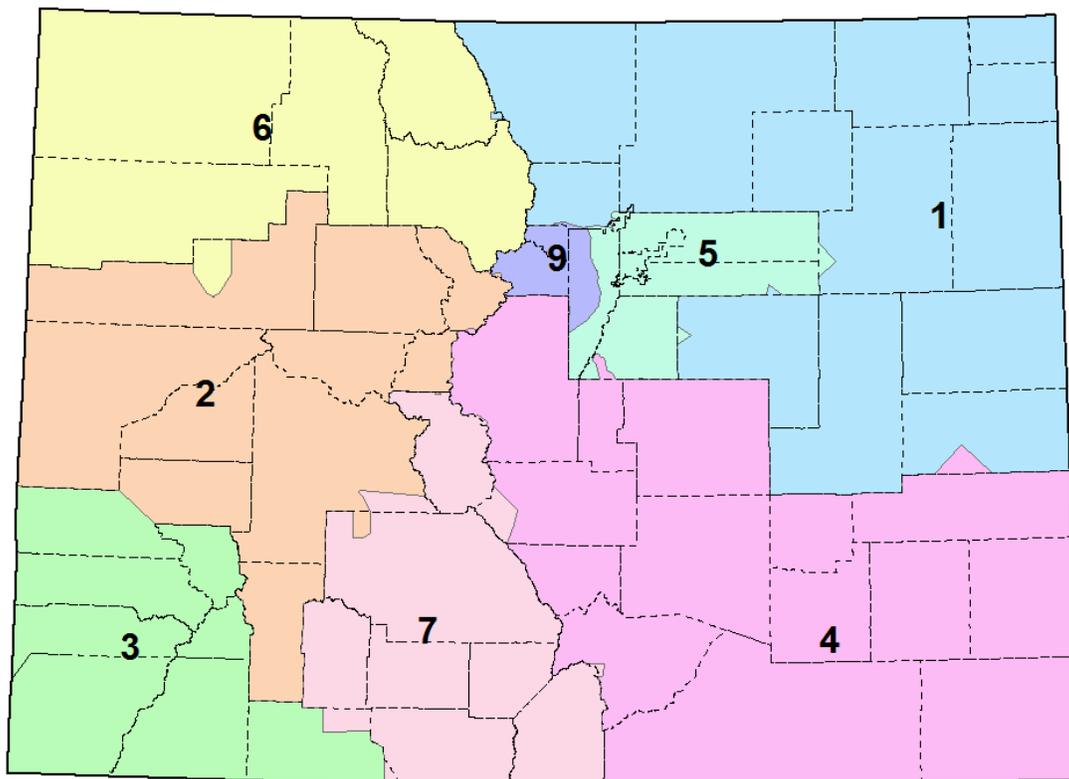
**Division of Engineering:** The division is led by the Chief Engineer and is responsible for integrated transportation program development functions including planning, engineering, design, and construction. Reporting to the Chief Engineer are CDOT’s Division of Transportation Development, Division of Project Support, Office of Property Management, Office of Civil Rights & Business Resource Center, Office of Program Management, and the Central Interstate 70 Project Team.

**Division of Maintenance & Operations:** The Division was created in 2019 by combining maintenance and operations functions of the state highway system to provide a coordinated response from both functional areas to improve efficiency and safety. The Division is responsible for coordinating the Department’s maintenance program, implementing low-cost, high-value operational improvements for the highway system, providing asset management for various ancillary assets of the department, and managing the Department’s vehicle fleet.



CDOT Maintenance crews perform avalanche mitigation on Red Mountain Pass in southwest Colorado. CDOT’s snow and ice control program ensures safe travel for Colorado’s citizens during inclement weather.

**CDOT Statewide Maintenance Sections**

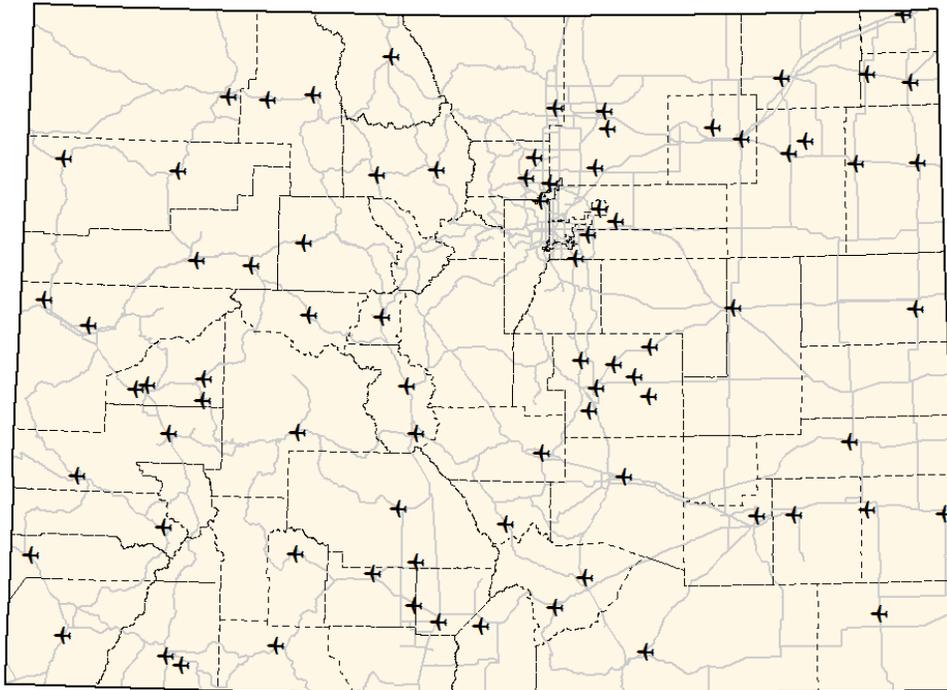




**Division of Accounting & Finance:** The Division is responsible for producing CDOT’s annual budget, under the direction for the Colorado Transportation Commission. Additionally, the Division forecasts transportation funding revenue from the Highway Users Trust Fund, manages federal-aid billing, providing department accounting services, and manages the department’s procurement process.

**Division of Aeronautics:** The division supports aviation interests statewide, by awarding and administering grants to help improve Colorado’s 74 airports, funded by aviation fuel tax receipts. The Division operates under the guidance of the Colorado Aeronautical Board.

**Locations of Colorado’s Airports & Colorado Aeronautical Board Membership**



<b>Chairman Jeffery Forrest</b> Representing: Eastern Slope Governments	
<b>Vice-Chairman Robert Olisagers</b> Representing: Airport Management	<b>Secretary Joe Rice</b> Representing: Aviation Interests-at-Large
<b>Mr. Kenny Maenpa</b> Representing: Western Slope Governments	<b>Mr. Ray Beck</b> Representing: Western Slope Governments
<b>Mr. Chic Myers</b> Representing: Eastern Slope Governments	<b>Ms. Ann Beardall</b> Representing: Pilot Organizations

**Office of Innovative Mobility:** The Office elevates the role of the existing Division of Transit and Rail, integrating its functions with other means of expanding mobility options, including through ridesharing, electrification, and emerging technologies.

**Office of Government Relations:** Government Relations liaisons with both the state legislature and local governments on transportation issues effecting the diverse set of communities within the state. The Office also provides standards on retention of records and compliance with state and federal statutes.



**Office of Communications:** Provides the traveling public with updated communication of the state of the highway system with updates through various media outlets including television, radio, social media, and the internet. The Office also conducts internal communication efforts throughout the Department to keep all employees informed on important events and initiatives.

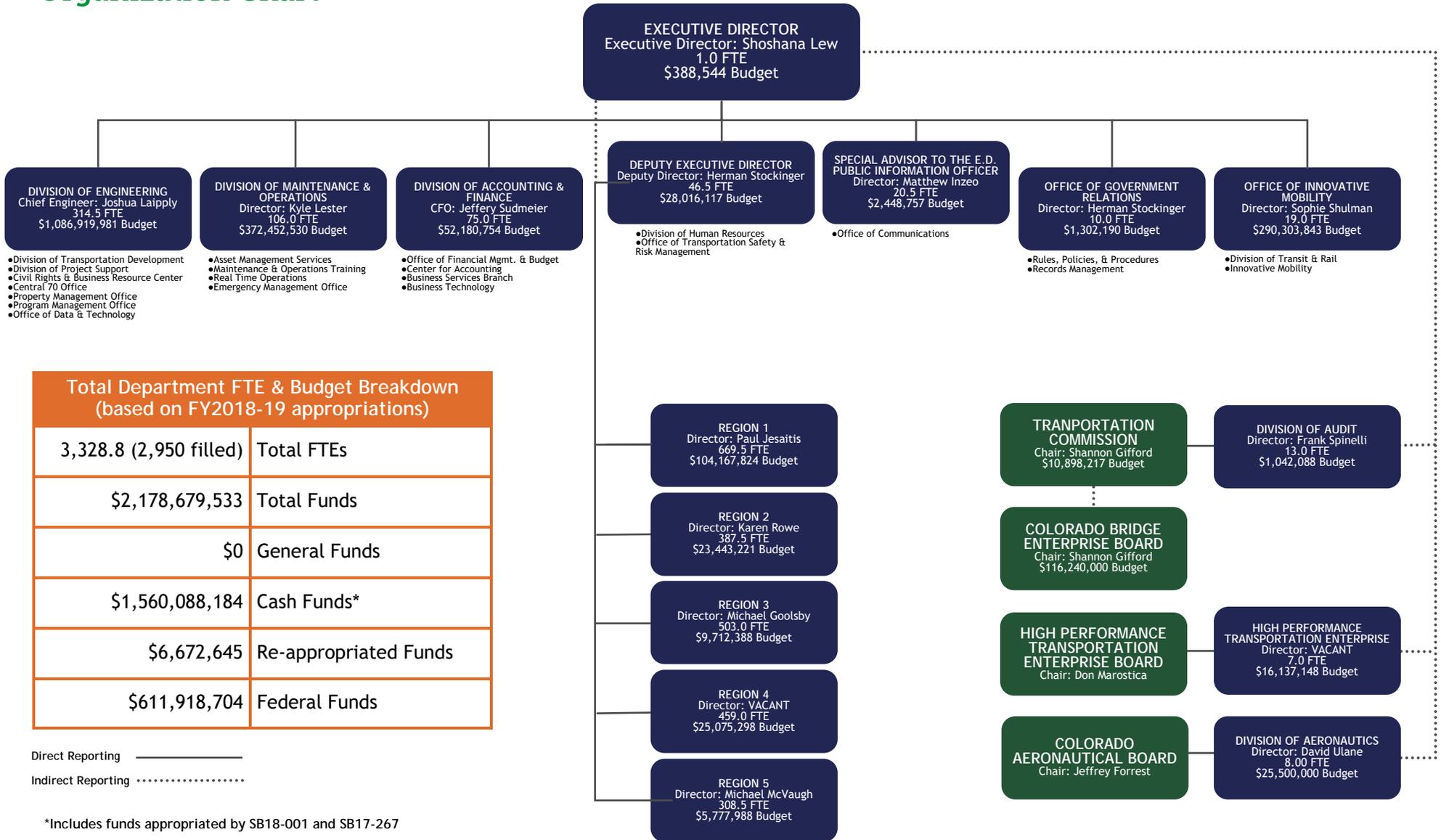
**Office of Transportation Safety:** The Office helps local law-enforcement agencies with special funds to provide education programs to reduce distracted and impaired driving and to increase the use of safety belts. The Office also conducts internal safety programs to ensure that all employees are safe when performing their work duties.



US Route 50, east of Cimarron, as seen in 2012.



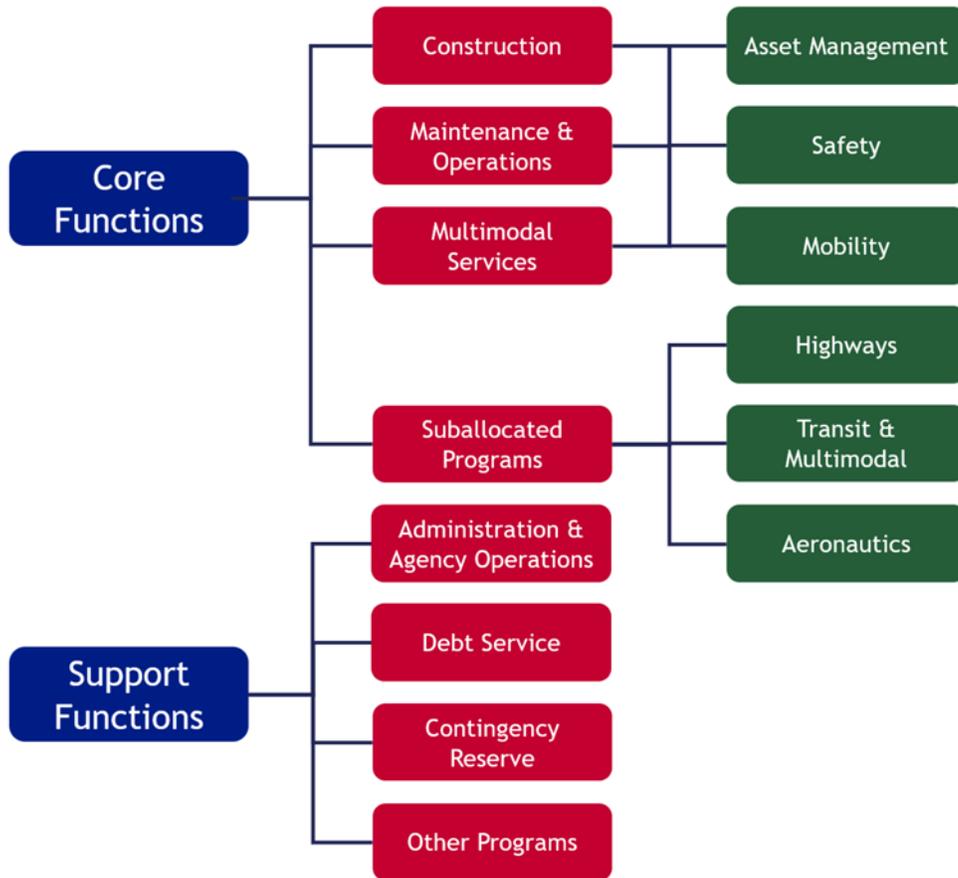
## Organization Chart



# DEPARTMENT MAJOR FUNCTIONS

CDOT administers construction, maintenance & operations, multimodal services, and suballocated programs pursuant to state and federal statute and the policies of the Colorado Transportation Commission. The Department uses these four main categories for the Department’s major core functions, which incorporate safety, mobility, and asset management in each area, plus support functions for the Department’s four core functions:

## Department Core Functions & Support Functions



## Core Functions

- I. **Construction:** Supported by construction contractors, CDOT delivers an annual construction program focused on maintaining the condition of existing assets, improving the safety of the system, and enhancing mobility through major upgrades and expansion of the system. CDOT’s construction program includes 13 construction programs organized into three categories: Asset Management, Safety, and Mobility. Funding for construction includes not only the work performed on the road by contractors, but also design, right of way acquisition, and related support costs.



- II. **Maintenance & Operations:** CDOT maintenance and operations staff are responsible for the daily maintenance and operation of the state transportation system. This includes 13 Maintenance Program Areas focused on activities such as snow and ice removal and pavement repair, and programs focused on ensuring the system operates efficiently, such as Courtesy Patrol and Heavy Tow services to remove inoperable vehicles from traffic, and real-time travel information provided to travelers via Variable Message Signs, or the COTRIP website.
- III. **Multimodal Services:** CDOT works to reduce pollution in our air and congestion on our roads by providing multimodal transportation options through its Office of Innovative Mobility and Division of Transit and Rail. This includes Bustang and Bustang Outrider interregional bus service, strategic investment in multimodal infrastructure such as Mobility Hubs, support for transit and light duty vehicle electrification, and other innovative programs focused on providing more choices to Coloradans.
- IV. **Suballocated Programs:** CDOT administers several suballocated programs, passing funds through to local agencies to prioritize and deliver transportation improvements. This includes transit and aeronautics grant programs, as well as flexible programs, such as STP-Metro and CMAQ, used for a variety of highway and multimodal improvements. Suballocated programs are organized into three categories: Highways, Transit, and Aeronautics.

## Support Functions

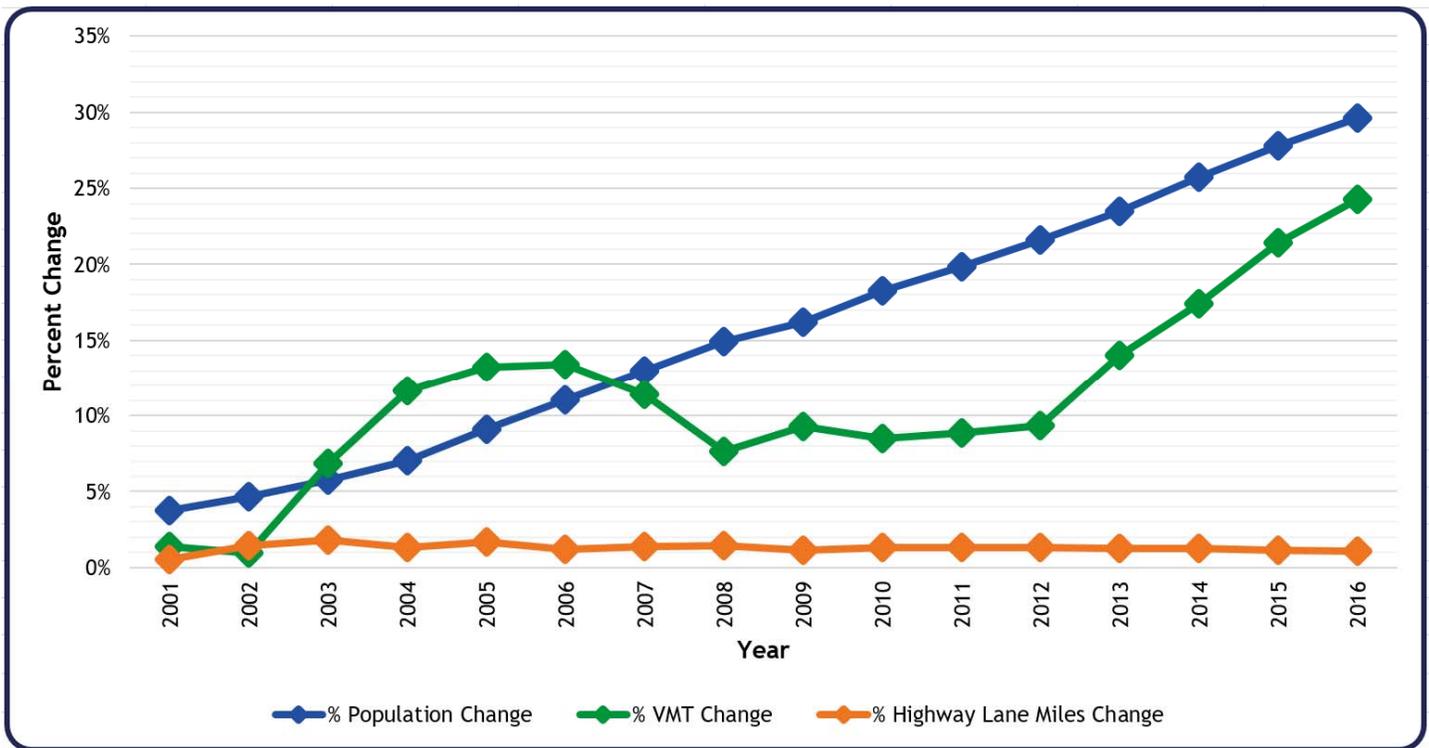
- V. **Administration & Agency Operations:** Administration and Agency Operations programs support the Department's core functions through support services such as contracting and procurement, development of specifications and standards, materials testing, finance and accounting, and human resources, among others. Salaries and benefits make up the largest portion of Administration and Agency Operations costs. Other examples include software and IT infrastructure, and legal expenses.
- VI. **Debt Service:** CDOT and the Enterprises periodically issue debt and are responsible for annual debt service payments. The majority of this debt is associated with Certificates of Participation (COPs) issued under SB 17-267 for "strategic transportation projects," bonds issued under the federal Build America Bonds program to advance the replacement of poor bridges under the FASTER Bridge program, and debt held by the High Performance Transportation Enterprise (HPTE) on major toll corridor projects.
- VII. **Contingency Reserve:** CDOT maintains a contingency fund to provide a source of funding for emergencies (such as major rockfall events or flooding), and for other unplanned or unanticipated needs such as the need to commit matching funds for grant opportunities. Ultimately the majority of contingency funds are allocated to Construction or Maintenance and Operations programs.
- VIII. **Other Programs:** CDOT administers several other programs that support its core functions and the achievement of the Department's mission to provide the best multi-modal transportation system for Colorado that most effectively and safely moves people goods, and information. This includes the Department's planning and research programs, and safety education programs focused on driver education and enforcement activities.



# TRANSPORTATION CONSIDERATIONS

Within the past decade, Colorado has had one of the fastest growing economies in the country, and the total population of the state has been estimated to have increased by 13 percent since the last census (fifth highest growth rate in the nation). During this period, the capacity of the state highway system has remained relatively constant. Due to a rising population, and a highway network capacity remaining relatively stagnant, congestion of the transportation system is a growing issue facing Colorado’s citizens. At the same time, the current funding model of the Department, state and federal motor fuel excise taxes, have not been increased since 1992 (last state motor fuel tax increase) and 1993 (last federal motor fuel tax increase). Increasing demand and a stagnant funding source has created a gap between expected revenue and current needs.

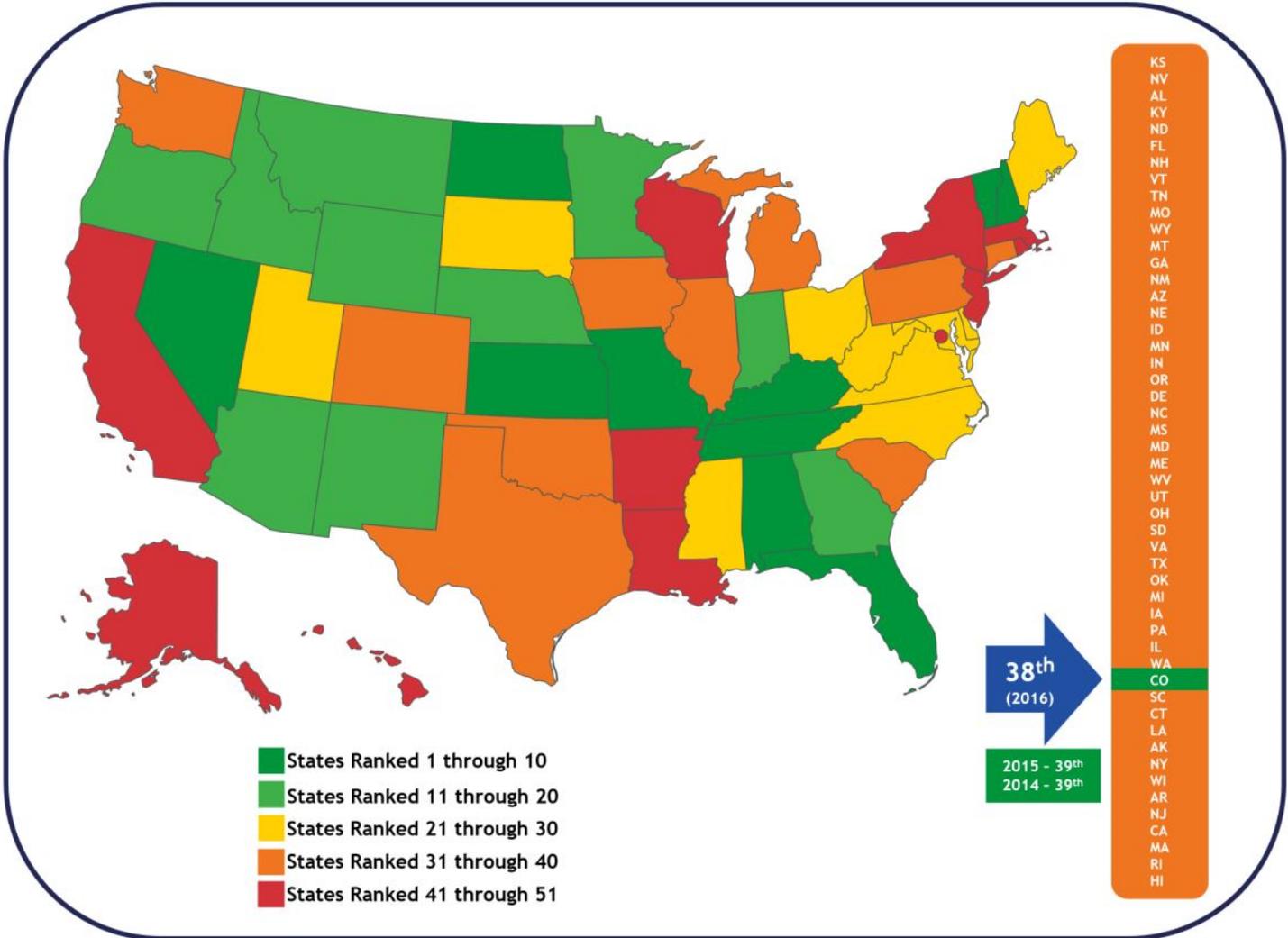
## Percent Change in Vehicle Miles Traveled, Population, and State Highway Lane Miles – 2017



Over the past two decades, population and vehicle miles traveled (VMT) have increased more than 25 percent, while total highway lane miles have remained relatively constant.

Issues with the current funding model are due to increasing vehicle fuel efficiency, declining purchasing power of the current excise tax rate, and an increasing population. With higher fuel economy standards, less fuel per mile is being purchased, resulting in less revenue being available for maintenance and highway system capacity relative to previous decades. As the population of the state increases, more vehicle miles are being traveled on the Colorado’s transportation network, causing overuse of the current system. Colorado’s highway pavement currently ranks 38<sup>th</sup> in the nation, lower than many neighboring states.

**Colorado Pavement Condition Rank by IRI – 2016**



Colorado currently ranks 38<sup>th</sup> in the nation of Interstate and National Highway System (NHS) pavements ranked “good” by international roughness index condition, lower than neighboring states.  
 Source: Federal Highway Administration - 2017

Other issues related to the growth of state’s population and the increase in vehicle miles traveled (VMT) are the effects to the environment and safety. In 2016, the transportation sector is estimated to emit 28 percent of the total greenhouse gas emissions, higher than any other sector. That percentage is expected to increase towards 33 percent of total emissions by the end of 2020. Even though vehicles are becoming more fuel efficient, the increasing number of vehicles in the state traveling even a larger amount of miles is now the number one contributor towards greenhouse gas pollution, eclipsing the electricity generation sector for the first time.



Even though Safety is the Department’s number one priority, the past decade has seen an increase in both fatal and severe injury crashes. Traffic related fatalities have increased 33 percent since 2010, after decades of decline. With increased road usage, and the prevalence of distracted driving, which is often under-reported as a cause for motor vehicle collisions, with this issue may become worse without intervention.

Due to these issues facing transportation in Colorado, the Department has developed strategic policy initiatives with strategies that will align with the overarching goals of the administration to address congestion, improve safety, reduce environmental impact, and becoming more efficient in planning and execution of the Department’s capital program.



Congestion, as seen here along Interstate 25 near 88<sup>th</sup> Avenue in Thornton, will continue to increase unless alternative solutions are developed to expand multimodal transportation solutions to all Colorado citizens.



## PLAN OVERVIEW

At the heart of this plan are the Department’s Strategic Policy Initiatives for fiscal year 2019-2020. These initiatives were developed by integrating the Department’s functions into these the key priorities to achieve the goals established by the Governor for the administration.

### Governor’s Priorities

At the start of the new administration, Colorado Governor Jared Polis has set out for key priority areas, also known as the “The Bold Four” for the administration to focus on:



### Economy

Foster an economy that works for everyone



### Environment & Renewables

Move to renewable resources and protect the environment



### Health

Save Coloradans money on healthcare



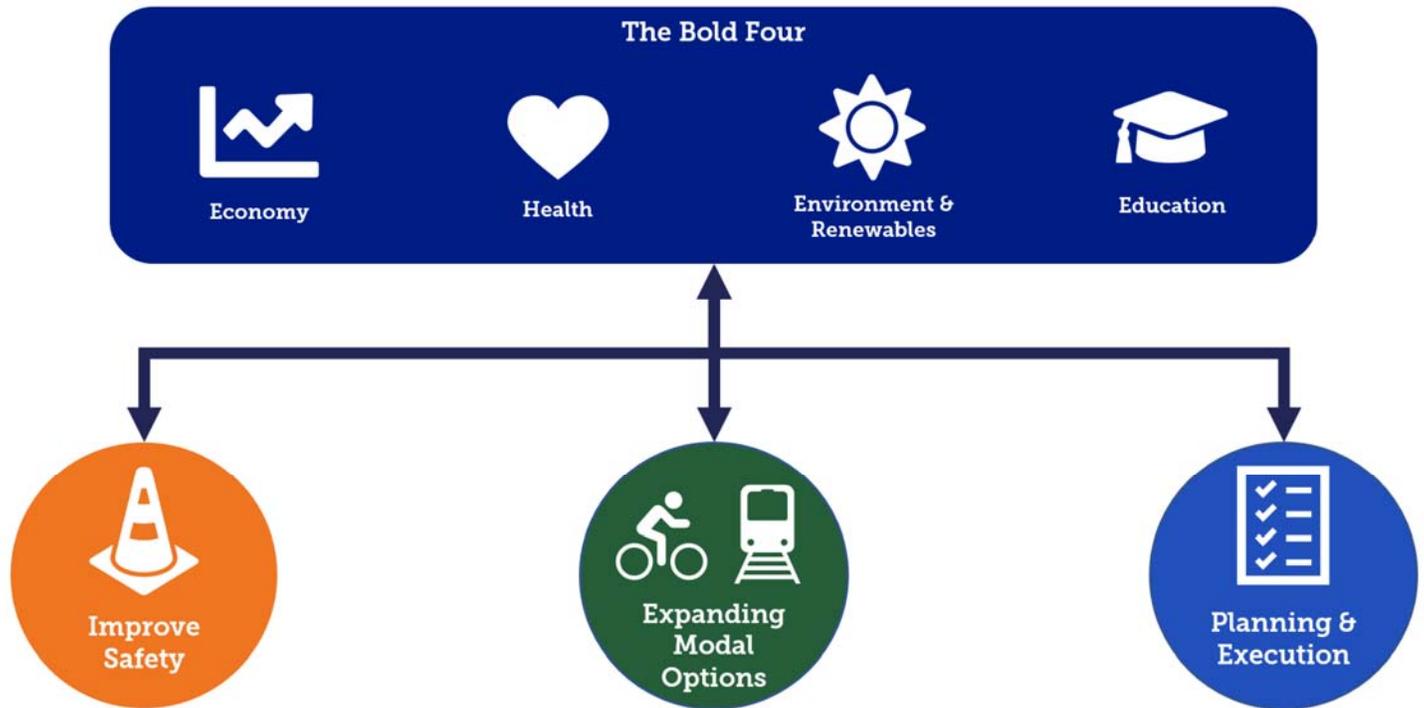
### Education

Fulfill every child’s potential regardless of their zip code

Transportation is an integral part of all of these key priority areas, ensuring that all Coloradans have equitable access to multimodal transportation options that can help drive the economy and give citizens access to jobs, healthcare, and education. Additionally, the transportation sector has a large impact on the environment, but options are available to reduce that impact and continue to ensure transportation connectivity for all citizens of the state.

## FY2019-2020 Strategic Policy Initiatives

From the framework of the Governor’s Priorities and the Department’s own Mission, Vision, and Values, CDOT has established the following Strategic Policy Initiatives for fiscal year 2019-2020:



1. **Improve Safety:** Improve the safety of Colorado’s transportation network by reducing vehicle crashes by 2,500 by June 30, 2020, and by 7,500 by June 30, 2022.
2. **Expanding Modal Options:** Reduce pollution in our air and congestion on our roads by reducing vehicle miles traveled (VMT), greenhouse gas (GHG), and ozone causing emissions from the transportation sector, through multimodal options, by one percent per capita (from 9,500 VMT to 9,400 VMT per capita, GHG emissions from 4.75 tons to 4.70 tons per capita, NOx emissions from 15.29 pounds to 15.14 pounds per capita, and VOC emissions from 2.45 pounds per capita to 2.43 pounds per capita) on average, by June 30, 2020, and by three percent per capita (from 9,500 VMT to 9,200 VMT per capita, GHG emissions from 4.75 tons to 4.65 tons per capita, NOx emissions from 15.29 pounds to 14.83 pounds per capita, and VOC emissions from 2.45 pounds to 2.38 pounds per capita) on average, by June 30, 2022.
3. **Planning & Execution:** Develop a 10-year, achievable, strategic pipeline of projects that maximizes safety and mobility, based on a data-driven project selection process and public stakeholder involvement, with the 10-year STIP adopted by the Transportation Commission by June 30, 2020 and the first STIP update, informed by the Department’s public stakeholder involvement, 100% complete and adopted by the Transportation Commission by June 30, 2022.



## Strategic Policy Initiative IMPROVE SAFETY

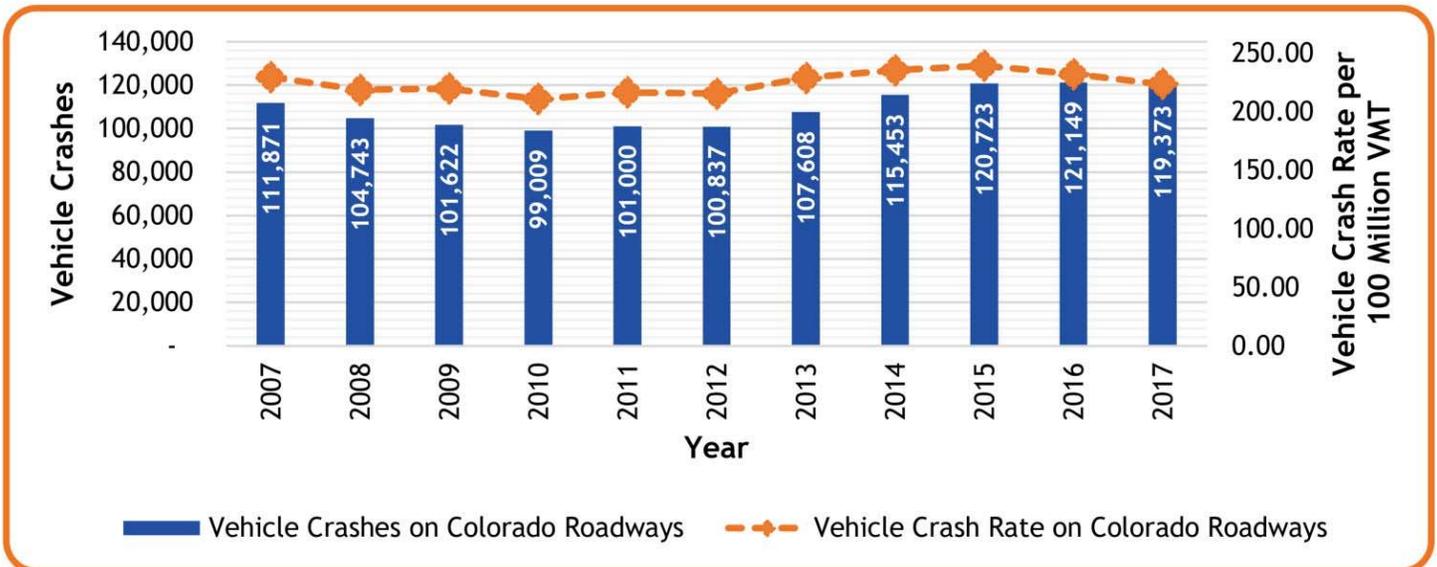
### Initiative Goal

Improve the safety of Colorado’s transportation network by reducing vehicle crashes by 2,500 by June 30, 2020, and by 7,500 by June 30, 2022.

### Initiative Background

The safety of the traveling public and the Department’s employees is at the forefront of everything CDOT does. Despite the Department’s continued focus on safety, the number of traffic fatalities has increased in the past decade, from 450 in 2010 to 628 in 2018. For the traveling public, there is a 1 in 33 chance of being in an automotive crash, which makes driving the most dangerous activity most people do every day. Analysis of crash data has determined that most automotive crashes are caused by human factors, with distraction and use of mobile devices increasingly becoming the cause of many incidents, but often heavily under reported. Human factors can also contribute to unsafe conditions for highway construction and maintenance workers, with distraction and unsafe speeds creating unnecessary hazards for Department employees, the Department’s contracting partners, and first responders.

### Vehicle Crashes on Colorado Roadways – 2007-2017



Since 2010, total number of vehicle crashes on Colorado’s roadways have increased 24 percent. CDOT is refocusing efforts on safety through a new program: “Whole System, Whole Safety.”



In response, the Department is providing a renewed emphasis on safety by introducing a new program: *Whole System, Whole Safety: Bringing everyone home safely*. This program capitalizes on current and planned safety efforts with new initiatives to help reduce traffic injuries and deaths. The Department aims to use this newly developed, systematic, statewide safety program that combines the benefits of CDOT programs to address human factors, physical assets, and organizational culture to fully integrate safety in everything that CDOT does and support real time operations. This program continues the initiative “Towards Zero Deaths,” launched in 2015 with the 2015-2019 Strategic Highway Safety Plan which aims for a bold and visionary goal of zero deaths for every individual, family, and community using Colorado’s transportation system.

# WHOLE SYSTEM WHOLE SAFETY

The *Whole System, Whole Safety* Program will capitalize on current safety efforts and introduce new initiatives to help reduce traffic injuries and deaths.

## Programs & Operational Strategies

The main program for implementing the Department’s strategies for improving safety is the *Whole System, Whole Safety* program, primarily delivered by the Division of Maintenance & Operations, the Office of Transportation Safety, and the Transportation Regions, under the guidance of the Deputy Executive Director. Within this program, CDOT will combine current safety efforts of delivering 100 safety projects each year, totaling \$100 million to address safety issues, supporting law enforcement in high-visibility enforcement campaigns, and introduce new strategies, including:

- In coordination with the Department of Public Safety and the Colorado State Patrol, increase the number of lane miles covered by Traffic Incident Management (TIM) Coalitions from 5,846 lane miles to 8,928 lane miles by June 30, 2020 and 10,000 lane miles by June 30, 2022.

By increasing the coverage of these coalitions throughout the state, first responders can utilize best practices for traffic incident management for rapid deployment of response teams for incidents, focus on quickly clearing of incidents, and returning to normal traffic conditions. An added benefit of this strategy is reducing secondary crashes, crashes whose cause is related to an original crash on the roadway, by quickly eliminating hazards to the traveling public.



- **Increase the use of six inch reflective striping on Colorado roadways from 114 striped miles in 2018 to 7,657 striped miles by June 30, 2020 and 9,000 striped miles by June 30, 2022.**  
By changing pavement markings from four inch wide striping to six inch wide striping, CDOT can improve driver awareness on our transportation network, reducing vehicle crashes caused by distraction. Studies have shown that this relatively low cost strategy can have a benefit/cost ratio of 17:1 on rural highways, especially in preventing run-off-the-road and cross-over vehicle crashes. Additionally, as autonomous vehicles become more prevalent, improved roadway striping will become important to support technological advancement.
- **Perform outreach to Colorado’s future drivers on driver education, emerging technologies, and safe usage of the transportation system by performing 20 middle school visits by June 30, 2020 and 60 visits by June 30, 2022.**  
Providing education to the state’s young citizens before they get behind the wheel, and showing the dangers of distraction and intoxication will prepare them with the knowledge and tools needed to become safe users of the transportation system.
- **Increase the amount of funding delivered by the Strategic Safety Program for improvements in safety related roadway assets including cable guard rail, six inch reflective striping, and rumble strips from \$0 in 2018 to \$11.3 million by December 31, 2019 and \$34 million by December 31, 2021.**  
Strategic Safety Program funding will allow the Department to deploy safety related infrastructure along Colorado’s roadways, including six inch striping, cable guard rail, and rumble strips. Investment in these safety assets will help improve driver awareness, thus reducing vehicle crashes caused by distraction, and reduce the severity of vehicle crashes.

## Major Functions Supporting Strategic Policy Initiative

The Improving Safety strategic policy initiative is supported by the following department major functions:

- Maintenance & Operations
- Support Programs
- Construction
- Multimodal Services
- Suballocated Programs



## Operational Metrics

	Metric Description	Year Type	Targets	2018 Actual	2017 Actual	2016 Actual	2015 Actual	2014 Actual
O U T C O M E	Reduce the number of vehicle crashes on Colorado roadways by 2,500 by June 30, 2020 and 7,500 by June 30, 2022 from the current baseline of 122,774 as of 2018.	CY	2020: 120,274 2022: 115,274	122,774	119,373	121,149	120,723	115,453
	Metric Description	Year Type	Targets	2018 Actual	2017 Actual	2016 Actual	2015 Actual	2014 Actual
O P E R A T I O N A L	In coordination with the Department of Public Safety and Colorado State Patrol, increase the number of lane miles covered by TIM Coalitions from 5,846 lane miles to 8,928 lane miles by June 30, 2020 and 10,000 miles by June 30, 2022.	FY	2020: 8,928 2022: 10,000	5,846	N/A	N/A	N/A	N/A
	Increase the use of 6" reflective striping on Colorado roadways from 114 striped miles in 2018 to 7,657 striped miles by June 30, 2020 and 9,000 lane miles by June 30, 2022.	FY	2020: 7,657 2022: 9,000	114	N/A	N/A	N/A	N/A
	Perform outreach with Colorado's future drivers on driver education, emerging technologies, and safe usage of the transportation system by performing 20 middle school visits by June 30, 2020 and 60 visits by 2022.	FY	2020: 20 2022: 60	N/A	N/A	N/A	N/A	N/A
	Increase the amount of funding delivered by the Strategic Safety Program for improvements for safety related roadway assets including cable guard rail, six inch reflective striping, and rubber strips from \$0 in 2018 to \$11.3 million by December 31, 2019 and \$34 million by December 31, 2021.	CY	2020: \$11.3 M 2022: \$34.0 M	N/A	N/A	N/A	N/A	N/A
	Metric Description	Year Type	Targets	2018 Actual	2017 Actual	2016 Actual	2015 Actual	2014 Actual
I N P U T	Annual Vehicle Miles Traveled on Colorado Roadways.	CY	N/A	N/A	53.38 Billion	52.15 billion	50.44 billion	48.99 billion
	Total number of licensed drivers in Colorado.	CY	N/A	N/A	4,156,138	4,066,580	3,974,521	3,883,362
	Total number of lane miles on Colorado's State Highway System.	CY	N/A	N/A	22,969.90	22,984.73	23,016.70	23,018.20



## Strategic Policy Initiative **EXPANDING MODAL OPTIONS**

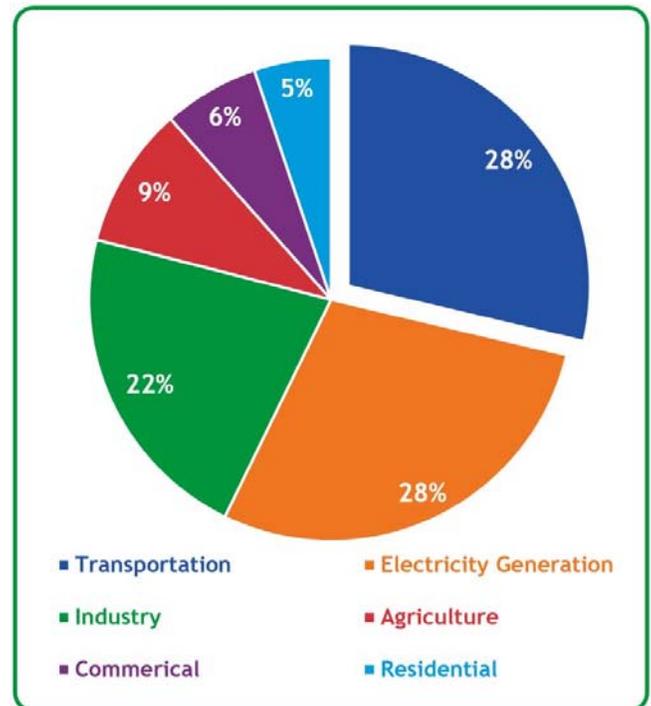
### Initiative Goal

Reduce pollution in our air and congestion on our roads by reducing vehicle miles traveled (VMT), greenhouse gas (GHG), and ozone causing emissions from the transportation sector, through multimodal options, by one percent per capita (from 9,500 VMT to 9,400 VMT per capita, GHG emissions from 4.75 tons to 4.70 tons per capita, nitrogen oxide (NOx) emissions from 15.29 pounds to 15.14 pounds per capita, and volatile organic compound (VOC) emissions from 2.45 pounds per capita to 2.43 pounds per capita) on average, by June 30, 2020, and by three percent per capita (from 9,500 VMT to 9,200 VMT per capita, GHG emissions from 4.75 tons to 4.65 tons per capita, NOx emissions from 15.29 pounds to 14.83 pounds per capita, and VOC emissions from 2.45 pounds to 2.38 pounds per capita) on average, by June 30, 2022.

### Initiative Background

Colorado's unique transportation issues will require innovative solutions to ensure equitable and efficient access to the transportation network for all residents of the state. Previous expensive capacity building initiatives have become unsustainable, with the population of Colorado forecasted to grow by 35 percent by 2045, and current primary funding sources, federal and state motor fuel excise taxes, remaining stagnant since 1993, alternative transportation solutions for a growing population will be required. Additionally, the transportation sector is one of the top contributors to greenhouse gases emitted into the environment, contributing more than one quarter of the total emissions from all sectors. Reducing the use of single occupancy vehicles will help reduce these emissions into the environment, while providing other safety and health benefits for residents of the state.

**GHG Emissions by Sector – 2016**

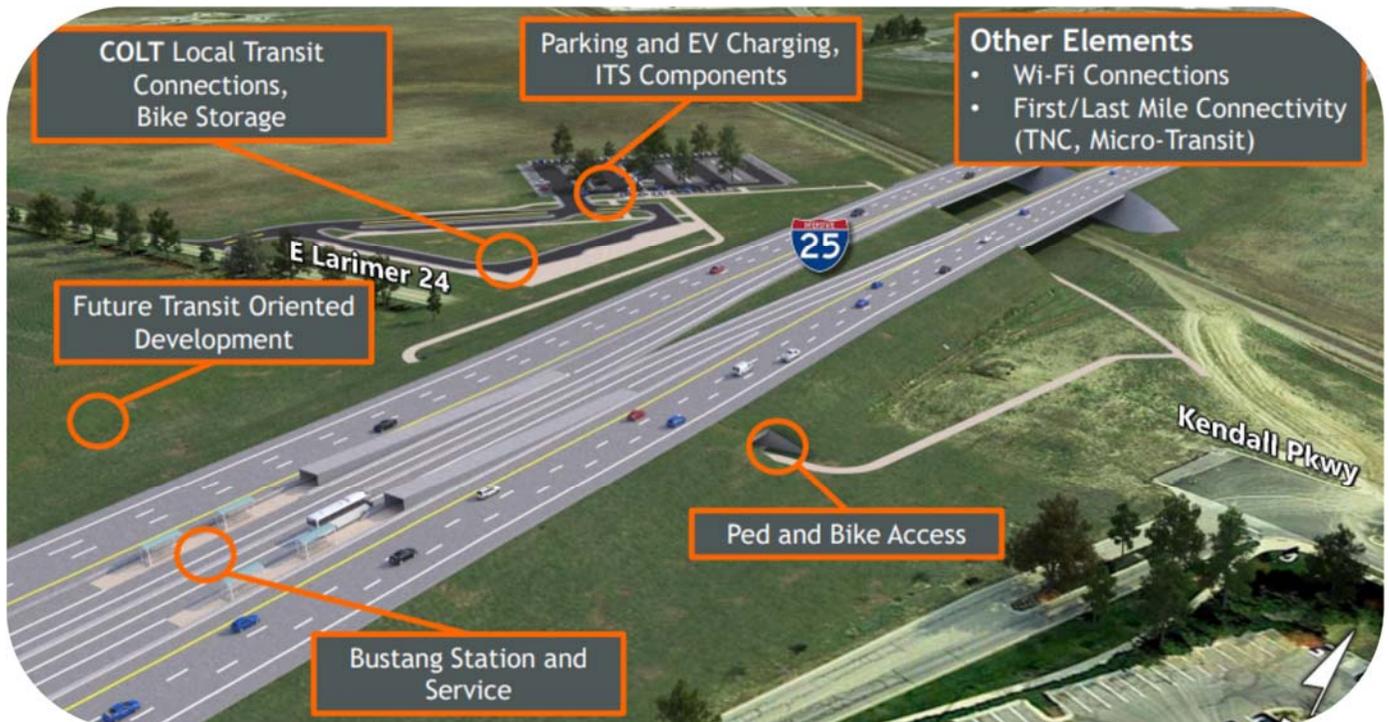


According to the EPA, the transportation sector has eclipsed electricity generation to become the number one source of GHG emissions of any sector, comprising more than a quarter of the total emissions emitted.

Source: Environmental Protection Agency - 2018

As part of this initiative, CDOT looks to expand multimodal options by expanding the current infrastructure to support interregional multimodal transport, and support mobility programs statewide. The Department plans to re-envision the traditional park-and-ride transit locations into “Mobility Hubs,” transportation centers which emphasize multimodal options. Elements in Mobility Hubs could include: electric vehicle charging stations, parking spaces, bicycle and pedestrian connections, Bustang or other interregional transit services, local transit service connections, and Wi-Fi service for first mile/last mile services. These hubs could help build demand for future Front Range mobility options, such as possible rail service along the Interstate 25 corridor, and well as other essential service corridors.

**Mobility Hub Development – Centerra-Loveland Station**



The design of the Centerra-Loveland transit station incorporates Mobility Hub elements including local transit connections, bike and pedestrian access, and Bustang service.

Along with the development of Mobility Hubs, the Department plans to expand current Bustang and Bustang Outrider service throughout the State, to provide additional transportation options to many of the State’s important tourism destinations, and provide transit connections for more of the State’s rural communities. The Department will be supporting other mobility services, providing additional options to commuters to avoid single occupancy vehicle use. Through these initiatives, the Department hopes to reduce total vehicle miles traveled per capita in the state, and look to curb the growth of greenhouse gas and ozone causing emissions from transportation related activities. In addition, the Department will help implement the Governor’s Executive Order B2019-002, “Supporting a Transition to Zero Emission Vehicles,” including developing a CDOT Clean Transportation Plan, helping to electrify transit fleets, and support zero emission vehicle adoption throughout the State.



## Programs & Operational Strategies

The objectives and strategies of the Expanding Modal Options strategic policy initiative will be executed primarily by the Office of Innovative Mobility, the Office of Communications, the Division of Engineering, the High Performance Transportation Enterprise, the Transportation Regions, and informed by the Division of Transportation Development's planning process. Operationally, progress will be determined by the following strategies:

- To support Front Range mobility options, expand Bustang bus service with new routes and additional service, including pilots to key summer and winter tourist destinations, increasing overall ridership by 10% in fiscal year 2020 and 30% in fiscal year 2022, from an estimated baseline of 228,000 in fiscal year 2019.

Bustang, the Department's interregional bus service, provides connections to many of the state communities. By expanding current Bustang round trips and Bustang Outrider service, Coloradans have a new option to travel between communities which can boost the tourism industry, reduce environmental impact of transportation, reduce congestion along the state's major travel corridors, and provide an alternative to visitors who may be unfamiliar with the unique driving conditions here in Colorado.

- To support Front Range mobility options, increase funding for comprehensive "Mobility Hubs" from \$0 in 2018 to \$50 million by June 30, 2020 and \$80 million by June 30, 2022 (including local matching funds), advancing to construction during 2020-2022, with 75 percent dedicated to the Interstate 25 Front Range Corridor and 25 percent to rural Colorado to activate important commuter and essential service corridors.

Mobility Hubs investment will provide a path towards the infrastructure needed to increase multimodal connectivity throughout the state and serve as precursor towards the development of Front Range Rail. Mobility Hubs will include elements that will provide connectivity between all modes of travel ensuring first mile/last mile support, allowing more citizens to take advantage of multimodal travel.

- Increase the number of Coloradans commuting to work using multimodal options to 25 percent in 2020 and 26 percent in 2022 from the current baseline of 24.8 percent.

The Department's comprehensive strategies towards increasing multimodal travel include expanding Bustang service, infrastructure investments in Mobility Hubs, and increasing funding for other mobility options that will allow Coloradans to use multimodal options for their commute, avoiding the frustration of congested rush-hour roadways and providing connections for all of Colorado's communities.



- Increase departmental funding and advocacy for electrical vehicle adoption, for infrastructure, awareness, and education, supporting the Governor's Electrification Executive Order, increasing electric vehicles sold in the state from 7,051 in 2018 to 10,000 in fiscal year 2020, and 21,000 in fiscal year 2022.

Executive Order B2019-002 supports a transition in the state towards zero emission vehicles, with an ambitious goal of 940,000 electric vehicles in the state by 2030. The Department can support this goal through investment in infrastructure such as increasing the number of publicly available vehicle charging stations and providing awareness around the benefits of switching from gasoline-fueled vehicles to electric vehicles.

## Major Functions Supporting Strategic Policy Initiative

The Expanding Modal Options strategic policy initiative is supported by the following major department functions:

- Multimodal Services
- Suballocated Programs
- Support Programs
- Construction



Expanding Bustang, the Department's interregional bus service, to more communities and to summer/winter tourist destinations is a key strategy for the department to expand modal options to Coloradans.



## Operational Metrics

	Metric Description	Year Type	Targets	2018 Actual	2017 Actual	2016 Actual	2015 Actual	2014 Actual
O U T C O M E	Reduce annual vehicle miles traveled (VMT) per capita by 1% annually from a base of 9,500 VMT per capita in 2017.	CY	2020: 9,400 2022: 9,200	N/A	9,520.36	9,430.49	9,270.81	9,152.43
	Reduce GHG emissions from the transportation sector by 1% annually from a base of 4.75 tons per capita in 2016.	CY	2020: 4.70 tons 2022: 4.60 tons	N/A	N/A	4.75 tons	4.86 tons	N/A
	Reduce Volatile Organic Compounds (VOC) emitted from the transportation sector by 1% annually from a base of 2.45 pounds per capita in 2016.	CY	2020: 2.43 lbs. 2022: 2.38 lbs.	N/A	N/A	2.45 lbs.	2.84 lbs.	N/A
	Reduce nitrogen oxides (NOx) emitted from the transportation sector by 1% annually from a base of 15.29 pounds per capita in 2016.	CY	2020: 15.14 lbs. 2022: 14.83 lbs.	N/A	N/A	15.29 lbs.	18.06 lbs.	N/A
	Metric Description	Year Type	Targets	2018 Actual	2017 Actual	2016 Actual	2015 Actual	2014 Actual
O P E R A T I O N A L	To support Front Range mobility options, expand Bustang bus service with new routes and additional service, including pilot routes to key summer and winter tourist destinations, increasing overall ridership by 10% in fiscal year 2020 and 30% in fiscal year 2022, from an estimated baseline of 228,000 in fiscal year 2019.	FY	2020: 251,000 2022: 296,000	194,064	155,864	102,503	N/A	N/A
	To support Front Range mobility options, increase funding for comprehensive "Mobility Hubs" from \$0 in 2018 to \$50 million by June 30, 2020 and \$80 million by June 30, 2022, advancing to construction during 2020-2022.	FY	2020: \$50 M 2022: \$80 M	N/A	N/A	N/A	N/A	N/A
	Increase the number of Colorado citizens commuting to work using multimodal options from 24.8 percent to 25 percent in 2020 and 26 percent in 2022.	FY	2020: 25% 2022: 26%	N/A	24.8%	24.8%	24.7%	25.0%
	Increase funding from the Department for electrical vehicle adoption, for infrastructure, awareness, and education, supporting the Governor's Electrification Executive Order, increasing electric vehicles sold in the state from 7,051 in 2018 to 10,000 by June 30, 2020 and 21,000 by June 30, 2022.	FY	2020: 10,000 2022: 21,000	7,051	4,156	2,711	1,898	1,543



## Strategic Policy Initiative **PLANNING & EXECUTION**

### Initiative Goal

Develop a 10-year, achievable, strategic pipeline of projects that maximizes safety and mobility, based on a data-driven project selection process and public stakeholder involvement, with the 10-year STIP adopted by the Transportation Commission by June 30, 2020 and the first STIP update, informed by the Department’s public stakeholder involvement, 100% complete and adopted by the Transportation Commission by June 30, 2022.

### Initiative Background

In the past, transportation planning on a statewide level was focused on a grassroots approach, but was often siloed by transportation mode. While a 25-year statewide plan was developed, many mode specific plans were developed concurrently (examples include: Freight Plan, Mobility Plan, Statewide Transit Plan), with multiple lists of unfunded projects developed at irregular intervals. Each of these plans required months of work to develop and required multiple connections to stakeholders across the state, often meeting with the same stakeholders for each different effort. This gave the appearance of a disconnected planning process.

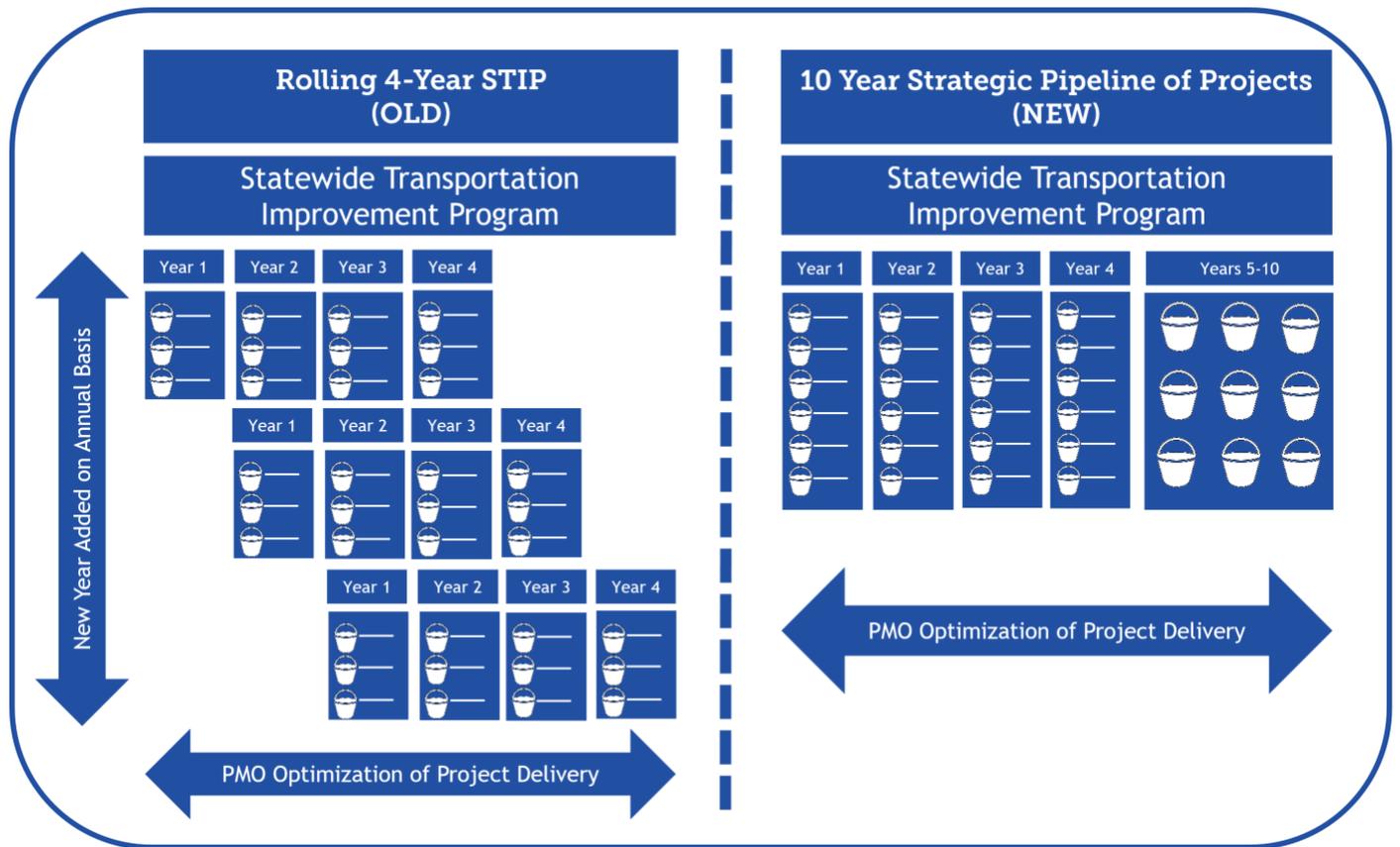
The Department’s new approach to transportation planning does not start with the question “how do we pay for more infrastructure?” but now starts with the question “what challenges do we face as a community and what infrastructure investments will help solve them?” This new, bottom-up approach will produce smarter investment priorities based on input from all of Colorado’s communities, amplifying rural input, putting small projects on the same footing as “mega-projects,” and bring all modes and varying needs into a single statewide conversation.



*Your Transportation Plan* ([YourTransportationPlan.com](http://YourTransportationPlan.com)), will start a statewide conversation on the challenges Coloradans face and what infrastructure investments will solve them.

This initiative will expand the current four-year Statewide Transportation Improvement Plan, a federally required, fiscally constrained list of projects, currently updated on a rolling basis where a fourth year of projects is added every year, into a 10-year strategic pipeline of projects. This strategic pipeline of projects will be informed by a data-driven needs assessment with public and stakeholder input, and will be inclusive of all transportation modes. Using the Department’s recently completed Statewide Travel Demand Model and in-house geographic information system (GIS) capabilities, CDOT can visually represent the relationship of the existing transportation system with a range of different factors to assess transportation needs for the diverse set of communities around the state. Under this initiative, the department will look to provide modal plan integration, marrying both the Statewide Transit Plan and the overall 2045 Statewide Long Range Plan to effectively engage the public and stakeholders and accurately inform the 10-year strategic pipeline of projects of transportation needs across all modes.

**Development of the 10-year Strategic Pipeline of Projects**



CDOT looks transition from the current 4-year rolling Statewide Transportation Improvement Plan (left) to a 10-year Strategic Pipeline of Projects (right). This process transition will allow CDOT to better plan for the future and optimize project delivery over a broader period of time.



## Programs & Operational Strategies

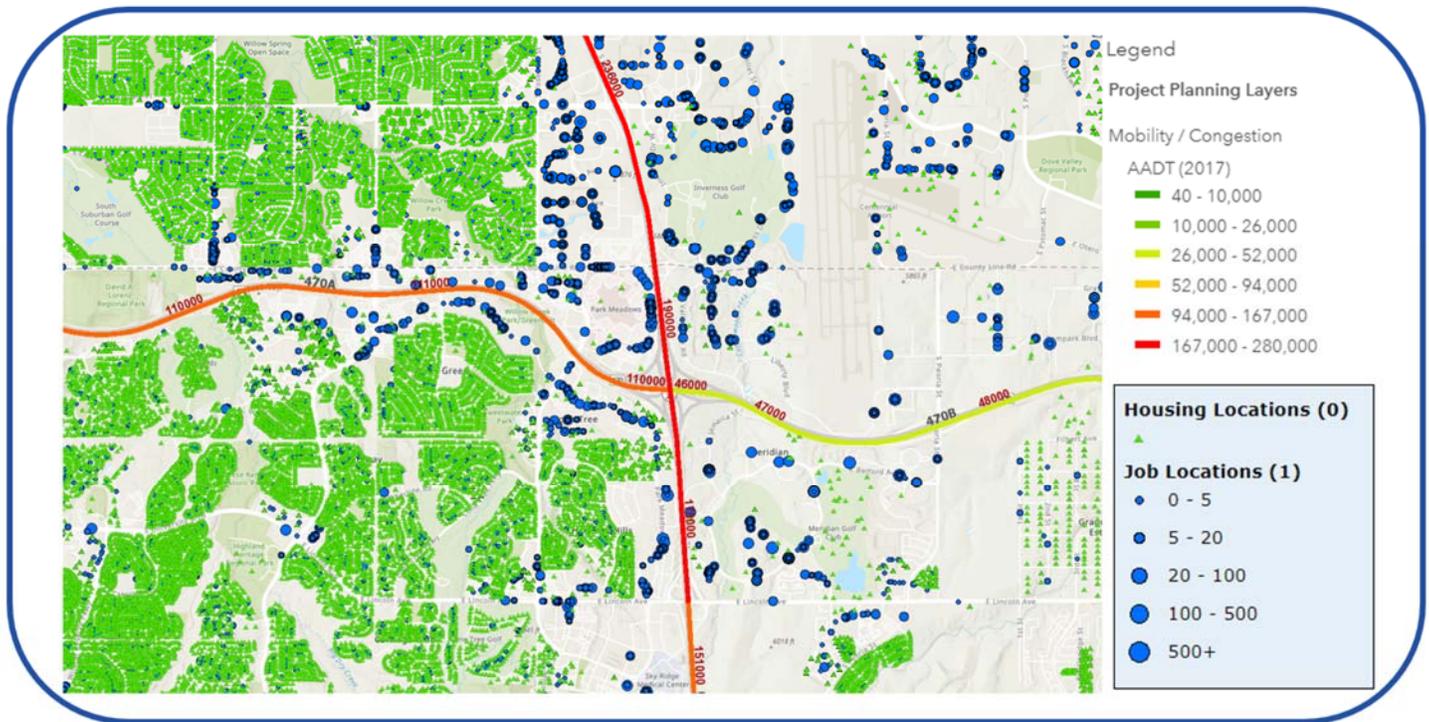
Operationally, delivering the strategies within the Planning and Execution strategic policy initiative will be conducted primarily by the Division of Engineering, the Transportation Regions, the Office of Government Relations, and the High Performance Transportation Enterprise. Progress will be determined by the following strategies:

- **Through the continuous planning process, use a data driven approach to identify system needs, through the use of geospatial analysis, ensuring that every county in the state has the footprint overlaid with at least five key transportation drivers such as population distribution, employment centers, safety factors, tourism destinations, and environmental/ climate factors by September 30, 2019 and ensure that this geospatial analysis is prominently displayed through the Department’s website ensuring 10 million media impressions focused on “Your Transportation Plan” by June 30, 2022.**  
By overlaying the current transportation system with factors that will affect how people will use the system in the future, smarter decisions can be made on what kind of infrastructure investments are needed and where specific investments can provide the best impact towards a sustainable and equitable transportation network.
- **Engage Coloradans from across the state in the new transportation planning effort by reaching 64,000 people and 64 counties through county and stakeholder presentations, survey responses, telephone town halls, and other means by September 30, 2019, and continue engagement through social and traditional media channels by ensuring 10 million media impressions focused on “Your Transportation Plan” by June 30, 2022.**  
The Department will rely on stakeholders across the state to provide the Department the information needed on what the specific transportation challenges are and what communities believe are the best solutions for a multimodal transportation system which provides the freedom and connection for all Coloradans.
- **Identify a data-driven project selection framework that is 100 percent completed and implemented by September 30, 2019.**  
Future selection of projects will be based on a data-driven approach, and will account for transportation factors such as population distribution, safety factors, tourism and affects to the environment to ensure that projects selected meet the needs of Coloradans statewide.

## Major Functions Supporting Strategic Policy Initiative

The Planning and Execution strategic policy initiative is supported by the following department major processes:

- Support Functions
- Suballocated Programs
- Multimodal Services
- Construction



Overlaying the transportation system with key factors, such as land use and daily travel as seen above, will allow the Department to create a data-driven approach to the project selection process.



## Operational Metrics

	Metric Description	Year Type	Targets	2018 Actual	2017 Actual	2016 Actual	2015 Actual	2014 Actual
O U T C O M E	Develop a 10-year, achievable, strategic pipeline of projects that maximizes safety and mobility, based on a data-driven project selection process and public stakeholder involvement, with the 10-year STIP adopted by the Transportation Commission by June 30, 2020 and the first STIP update, informed by the Department's public stakeholder involvement, 100% complete and adopted by the Transportation Commission by June 30, 2022.	FY	2020: 100% 2022: 100%	N/A	N/A	N/A	N/A	N/A
	Metric Description	Year Type	Targets	2018 Actual	2017 Actual	2016 Actual	2015 Actual	2014 Actual
O P E R A T I O N A L	Through the continuous planning process, use a data driven approach to identify system needs, through the use of geospatial analysis, ensuring that every county in the state has the footprint overlaid with at least five key transportation drivers such as population distribution, employment centers, safety factors, tourism destinations, and environmental/climate factors by September 30, 2019 and ensure that this geospatial analysis is prominently displayed through the Department's website ensuring 10 million media impressions focused on "Your Transportation Plan" by June 30, 2022.	FY	2020: 64 2022: 10 million	N/A	N/A	N/A	N/A	N/A
	Engage Coloradans from across the state in the new transportation planning effort by reaching 64,000 people and 64 counties through county and stakeholder presentations, survey responses, telephone town halls, and other means by September 30, 2019, and continue further public engagement through social and traditional media channels to ensure 10 million media impressions focused on "Your Transportation Plan" by June 30, 2022.	FY	2020: 64,000 2022: 10 million	N/A	N/A	N/A	N/A	N/A
	Identify a data-driven project selection framework that is 100 percent completed and implemented by September 30, 2019.	FY	2020: 100%	N/A	N/A	N/A	N/A	N/A
	Metric Description	Year Type	Targets	2018 Actual	2017 Actual	2016 Actual	2015 Actual	2014 Actual
I N P U T	Total number of presentations, meetings, telephone town halls, and other engagements with public stakeholders on the transportation planning process.	FY	N/A	N/A	N/A	N/A	N/A	N/A
	Colorado Department of Transportation's total fiscal year budget.	FY	N/A	\$2.18 billion	\$1.56 billion	\$1.43 billion	\$1.26 billion	\$1.25 billion



## PROCESS IMPROVEMENT

CDOT's focus on improving business processes is primarily tied to the core values of Customer Service, Excellence, and Safety. The Department began its structured process improvement initiative in late 2011 and uses principles and practices of Lean process improvement as its foundation, along with a robust change management component.

Process improvement efforts are spread throughout the Department. CDOT's efforts sometimes start small, such as individuals using Lean "Everyday Ideas" to improve their workplaces and processes.

CDOT's innovation and improvement efforts support the Agency's three primary goals, as outlined below:

### Improve Safety Strategic Policy Initiative

The Office of Process Improvement (OPI) has and will continue to actively engage in safety oriented projects. These include efforts both internal and external to the office.

- Support the 2019 roll out of the construction post-incident reporting process improvement.
- Coaching in the implementation of Safe and Secure Retainage.
- Continue to solicit and complete a full Regional Safety Officer vetting of improvements. All improvements that pass this rigorous safety review are published to [www.codot.gov](http://www.codot.gov) in an ongoing effort to publicize CDOT safety innovations around Colorado. Some examples include:
  - Rubberized Truck Bed
  - Barbed Wire Cage
  - Back Wing Camera

In addition, the OPI team organizes and guides 10 Every Day Counts (EDC) champions to implement FHWA backed innovations CDOT. These include innovations that improve safety such as:

**2D hydraulic modeling:** Advances in hydraulic modeling tools are providing a more comprehensive understanding of complex flow patterns at river crossings versus traditional modeling techniques. These 2D hydraulic modeling technologies also facilitate more effective communication and collaboration, improving CDOT's ability to design safer, more cost-effective, and more resilient structures on waterways.

**Advanced Geotechnical Exploration:** Using novel soil identification technology, advanced geotechnical exploration seeks to mitigate risks and improve reliability by optimizing geotechnical site characterization with proven, effective exploration methods and practices. This allows CDOT crews to be less exposed to traffic when soil testing and is a more reliable determination of soil sturdiness when constructing bridges and other CDOT structures.



**Unmanned Aerial Systems:** UAS can benefit nearly all aspects of transportation, from inspection to construction and operations by collecting high-quality data remotely. These relatively low-cost devices will allow CDOT to reduce the adverse impacts of temporary work zones on work crews and the traveling public.

**Safe Transportation for Every Pedestrian:** Pedestrians account for 16 percent of all roadway fatalities in the U.S., and crashes are predominantly at midblock and intersection crossing locations. As pedestrian safety continues to be a concern for CDOT, cost-effective countermeasures are available to assist practitioners in providing safer crossings for pedestrians.

**Reducing Rural Roadway Departures:** Roadway departures on the rural road network account for one-third of traffic fatalities. Systemic application of proven roadway departure countermeasures, such as rumble strips, friction treatments, and clear zones, helps keep vehicles in their travel lanes, reduce the potential for crashes, and reduce the severity of those crashes that do occur.

For the fifth round of EDC, the OPI team is helping to advance these innovations within the EDC umbrella by:

- Coaching 10 champions in the development of project charters, strategies for deployment, and work plans
- Establishment and tracking of key performance metrics
- Securing Executive sponsorship
- Ongoing coaching and support
- Helping champions to secure and manage Federal grant opportunities
- Developing change management capabilities through training and continued coaching

## Expanding Modal Options Strategic Policy Initiative

OPI is working to reduce traffic and emissions by increasing the use of flex place and flex time at CDOT by 20%. The office has several project deliverables regarding this initiative, including providing managers and supervisors with guidance, training, and better information on how to supervise remote employee(s); and assistance in supporting telecommuting practices within CDOT.

In addition, OPI supports a reduction in VMT by spreading awareness of the benefits of multimodal options for CDOTers and the traveling public. In FY 2020, OPI will restructure internal CDOT commuter benefits by improving the RTD EcoPass registration process for eligible CDOT staff.



As an Office, OPI is also working to coach EDC-5 champions in implementing FHWA backed innovations that will reduce VMT and GHG emissions:

- **Weather Responsive Management Strategies:** Determining how to effectively and efficiently distribute snow plows and maintenance support vehicles has the ability to greatly reduce the amount of GHGs CDOT produces.
- **Crowdsourcing to Advance Operations:** Crowdsourcing has demonstrated the ability to effectively mitigate publicly identified safety hazards and decrease the amount of sensors needed to maintain CDOT roads. Implementing these measures enables agency staff to provide better traveler information and more proactive operation strategies which can lead to reduced traffic congestion, decreasing GHG emissions.
- **Virtual Public Involvement:** Increasing online tools to engage with the public as an alternative to face-to-face meetings not only increases communication and collaboration, but also reduces the drive time and commuting to and from CDOT events.

## Planning & Execution Strategic Planning Initiative

OPI continues to coach teams on larger process improvement efforts, including the following projects that are planned for completion in FY20:

- Streamlined approval process for Federal-aid project authorizations, a project in conjunction with FHWA.
- Improvement to the State Infrastructure Bank application process to reduce time for disbursement by 25%.
- Improve Annual Budget form submission process.
- Develop and rollout dashboard reporting, which will eliminate manual reporting as data can now be pulled with a click of the refresh button.
- Project for Safe and Secure Retainage of electronic W9 and banking information, rather than printing and filing paper copies
- Create a Geographic Information Systems (GIS) Layer of Historic Highways to streamline the environmental planning process

In addition, the EDC innovation of project bundling awards a single contract for several similar preservation, rehabilitation, or replacement projects. This allows CDOT to streamline design and construction, reduce costs, and effectively decrease transportation project backlogs.



# EXECUTIVE DIRECTOR'S GOALS

## Fiscal Year 2019-2020

The following goals have been submitted by CDOT's Executive Director to the Colorado Governor for fiscal year 2020. These goals align with the strategic policy initiatives in this Performance Plan.



### Goal #1 **IMPROVE SAFETY**

#### Goal Description

Improve the safety of Colorado's transportation network by reducing vehicle crashes by 2,500 by June 30, 2020.

#### Key Strategies

- 1) In coordination with the Department of Public Safety and the Colorado State Patrol, increase the number of lane miles covered by Traffic Incident Management Coalitions from 5,846 lane miles to 8,928 lane miles by June 30, 2020.
- 2) Increase the use of six inch reflective striping on Colorado roadways from 114 striped miles in 2018 to 7,657 striped miles by June 30, 2020.
- 3) Perform outreach to Colorado's future drivers on driver education, emerging technologies, and safe usage of the transportation system by performing 20 middle school visits by June 30, 2020.
- 4) Increase the amount of funding delivered by the Strategic Safety Program for improvements for safety related roadway assets including cable guard rail, six inch reflective striping, and rubber strips from \$0 in 2018 to \$11.3 million by December 31, 2019.



# EXECUTIVE DIRECTOR'S GOALS

Fiscal Year 2019-2020



Goal #2

## EXPANDING MODAL OPTIONS

### Goal Description

Reduce pollution in our air and congestion on our roads by reducing vehicle miles traveled (VMT), greenhouse gas (GHG), and ozone causing emissions from the transportation sector, through multimodal options, by one percent per capita (from 9,500 VMT to 9,400 VMT per, GHG emissions from 4.75 tons per capita to 4.70 tons per capita, nitrogen oxide (NOx) emissions from 15.29 pounds to 15.14 pounds per capita, and volatile organic compound (VOC) emissions from 2.45 pounds per capita to 2.43 pounds per capita) on average, by June 30, 2020.

### Key Strategies

- 1) To support Front Range mobility options, expand Bustang bus service with new routes and additional service, including pilot routes to key summer and winter tourist destinations, increasing overall ridership by 10% in fiscal year 2020, from an estimated baseline of 228,000 in fiscal year 2019.
- 2) To support Front Range mobility options, increase funding for comprehensive "Mobility Hubs" from \$0 in 2018 to \$50 million by June 30, 2020 (including local matching funds), advancing to construction during 2020-2022, with 75 percent dedicated to the Interstate 25 Front Range Corridor and 25 percent to rural Colorado to activate important commuter and essential service corridors.
- 3) Increase the number of Colorado citizens commuting to work using multimodal options from 24.8 percent to 25 percent in 2020.
- 4) Increase departmental funding and advocacy for electric vehicle adoption, for infrastructure, awareness, and education, supporting the Governor's Electrification Executive Order, increasing electric vehicles sold in the state from 7,051 in 2018 to 10,000 in fiscal year 2020.



# EXECUTIVE DIRECTOR'S GOALS

Fiscal Year 2019-2020



Goal #3

## PLANNING & EXECUTION

### Goal Description

Develop a 10-year, achievable, strategic pipeline of projects that maximizes safety and mobility, based on a data-driven project selection process and public stakeholder involvement, with the 10-year Statewide Transportation Improvement Program (STIP) adopted by the Transportation Commission by June 30, 2020.

### Key Strategies

- 1) Through the continuous planning process, use a data driven approach to identify system needs, through the use of geospatial analysis, ensuring that every county in the state has the footprint overlaid with at least five key transportation drivers such as population distribution, employment centers, safety factors, tourism destinations, and environmental/climate factors by September 30, 2019.
- 2) Engage Coloradans from across the state in the new transportation planning effort by reaching 64,000 people and 64 counties through county presentations, telephone town halls, and other means by September 30, 2019.
- 3) Identify a data-driven project selection framework that is 100 percent completed and implemented by September 30, 2019.



# Appendix A: Fiscal Year 2018-19 Performance Plan Quarter 3 Evaluation



# FY2019 PERFORMANCE PLAN – QUARTER 3 EVALUATION

## Strategic Policy Initiatives

The Colorado Department of Transportation (CDOT) identified several Strategic Policy Initiatives (SPIs) for fiscal year 2018-19. For this performance evaluation, the Department has updated progress on initiatives from its Fiscal Year 2019 Performance Plan. The update reflects data for January, February, & March of 2019. Additional details on these initiatives are available in the Department's FY2019 Performance Plan, which may be accessed from the Department's external website.

### SPI 1 - Overall Safety

**Safety:** Move Colorado toward zero deaths by reducing traffic-related deaths by one-half by 2030. This includes reducing fatalities by 12 per year, from 548 in 2008 to 344 in 2025. CDOT aims to limit fatalities to 728 for its one-year target (Dec. 31, 2019 target, or calendar year 2019 fatalities) and 808 for its three-year target (Dec. 31, 2021 target, or calendar year 2021 fatalities).

**Workers' Compensation Claims:** Create a high-performing culture of employee safety, limiting workers' compensation claims to a goal of 228 in calendar year 2019.

### SPI 2 - Pavement Condition

Attain High or Moderate Drivability Life for 80 percent of sampled lane miles of pavement on the state highway system by 2025. Achieve 75 percent High/Moderate Drivability Life for fiscal year 2019 pavement condition, compared to 73 percent in fiscal year 2017. Achieve 65 percent High/Moderate Drivability Life for fiscal year 2021 pavement condition.

### SPI 3 - Travel-Time Reliability

Slow the growth of congestion and achieve satisfactory travel-time reliability on Interstate 25 in the Front Range and in the Interstate 70 West Mountain Corridor. (See specific targets in pages below.)

### SPI 4 - Maintenance

Maintain CDOT's roadways and facilities to minimize the need for replacement or rehabilitation in a constrained funding environment. This includes achieving an overall Maintenance Levels of Service (MLOS) grade of B- for the state highway system in fiscal year 2019 and a B- for fiscal year 2021, compared to a C+ in fiscal year 2017.

### SPI 5 - Customer Service

The Department values customer feedback on their experience with programs and services. Through multiple forms of customer interactions, the department seeks to maintain a positive relationship with the general public by improving the customers' perception of the Department and maintaining the customer service satisfaction rate to 85%.



## Operational Measures

### SPI 1 - Overall Safety

Fatalities: Move Colorado toward zero deaths by reducing traffic-related deaths by one-half by 2030. This includes reducing fatalities by 12 per year, from 548 in 2008 to 344 in 2025. CDOT aims to reduce fatalities to 728 for its one-year target (Dec. 31, 2019 target, or calendar year 2019 fatalities) and 808 for its three-year target (Dec. 31, 2021 target, or calendar year 2021 fatalities).

Major Functional Area: Safety

Process: CDOT implements a variety of processes to mitigate injuries and fatalities on Colorado’s roadways. For example, the Department qualifies, selects, advertises and awards Highway Safety Improvement Program projects. Projects that are selected address identified crash patterns, which are mitigated by the scope of the project and meet a minimum benefit/cost ratio of 1.0. CDOT’s goal is to meet a program-wide benefit/cost ratio of 2.0.

MEASURE	Year Type	2015 Actual	2016 Actual	2017 Actual	2018 Actual	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019 Target	2021 Target
OUTCOME MEASURE: Total traffic fatalities on Colorado roadways	CY	547	608	648	628	88				728	808
LEAD METRIC 1: Average benefit/cost ratio for Highway Safety Improvement Program (HSIP) projects	CY	2.98	2.85	2.53	3.15	3.74				Minimum 2.0	Minimum 2.0
LEAD METRIC 2: Percentage of advertised FASTER Safety projects that address level of safety service (LOSS) 3 and 4 locations.	CY	75%	86%	95%	93%	40.0%				90%	90%
LEAD METRIC 3: Dedicated law enforcement contact hours for traffic safety enforcement	CY	84,146	119,762	92,816	56,727	14,449				75,000	N/A
LEAD METRIC 4: FASTER Safety Mitigation program dollars spent as a percentage of the program’s fiscal-year allocation <sup>3</sup>	SFY	159%	160%	113%	80%	11%	34%	46%		100%	100%

Note: Fatalities and injuries statistics are subject to frequent revision as new data become available. These data were current as of early April 1, 2019.

<sup>3</sup>Metric compares program dollars spent during the specified time period to current year’s allocation. The dollars spent may be revenue accumulated in any year.



Workers' Compensation Claims: Create a high-performing culture of employee safety, reducing workers' compensation claims from 236 in 2018 to 228 in calendar year 2019.

Major Functional Area: Safety

Process: CDOT uses safety engagements between supervisors and employees as an operational process that can reduce injuries and result in workers' compensation claims.

MEASURE	Year Type	2015 Actual	2016 Actual	2017 Actual	2018 Actual	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019 Target	2021 Target
OUTCOME MEASURE: Number of workers' compensation claims	CY	250	267	180	212	48				228	206
LEAD METRIC 1: Number of safety engagements performed	CY	15,331	10,824	16,108	16,370	3,595				10,000	11,000
LEAD METRIC 2: Number of safety leaders recognized <sup>4</sup>	CY	173	95	80	245	Annual Metric				125	175
LEAD METRIC 3: Number of safety champions recognized <sup>5</sup>	CY	1038	926	640	716	Annual Metric				900	1,000

<sup>4</sup>Criteria for achieving Safety Leader status was revised in 2016. Results are no longer comparable to previous years.

<sup>5</sup>Criteria for achieving Safety Champion status was revised in 2016. Results are no longer comparable to previous years.



## SPI 2 - Pavement Condition

Attain High or Moderate Drivability Life for 80 percent of sampled lane miles of pavement on the state highway system by 2025. Achieve 75 percent High/Moderate Drivability Life for fiscal year 2019 pavement condition, compared to 80 percent in fiscal year 2017. Achieve 65 percent High/Moderate Drivability Life for fiscal year 2021 pavement condition.

Major Functional Area: Various, including Capital Construction; Operations and Maintenance; Safety; and Program and Project Support

MEASURE	Year Type	2015 Actual	2016 Actual	2017 Actual	2018 Actual	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019 Target	2021 Target
OUTCOME MEASURE: Percent of state highway pavement with high or moderate drivability life	SFY	80%	81%	81%	80%	Annual Metric	Annual Metric	Annual Metric		75%	65%
LEAD METRIC 1: Percent of surface treatment program projects advertised that match recommendations from the pavement management system <sup>6</sup>	SFY	77%	91%	89%	94%	100%	100%	87.5%		80%	80%

<sup>6</sup>This target is set at 80 percent to allow CDOT's Transportation Regions flexibility in selecting projects that many no match recommendations from the model. Region selections could be more cost-effective, because they can take into account factors that the pavement management system does not.



### SPI 3 - Travel-Time Reliability

Slow the growth of congestion and achieve satisfactory travel-time reliability on Interstate 25 in the Front Range and in the Interstate 70 Mountain Corridor. (See specific targets in chart below.)

Major Functional Area: Operations and Maintenance

Process: Various processes will be used to achieve this goal, such as improving incident management and training first responders.

MEASURE	Year Type	2015 Actual	2016 Actual	2017 Actual	2018 Actual	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019 Target	2021 Target
OUTCOME MEASURE: Average travel time per trip for northbound I-25 (Denver Metro Corridor) during peak weekday periods	CY	49 min.	49 min.	51 min.	50 min.	48 min.				49 min.	48 min.
OUTCOME MEASURE 2: Average travel time per trip for southbound I-25 (Denver Metro Corridor) during peak weekday periods	CY	52 min.	49 min.	50 min.	50 min.	48 min.				49 min.	48 min.
OUTCOME MEASURE 3: Average travel time per trip for eastbound I-70 (Mountain Corridor) during peak Sunday periods	CY	106 min.	100 min.	96 min.	102 min.	102 min.				95 min.	90 min.
OUTCOME MEASURE 4: Average travel time per trip for westbound I-70 (Mountain Corridor) during peak Saturday periods	CY	93 min.	95 min.	92 min.	94 min.	99 min.				93 min.	91 min.
LEAD MEASURE 1: Average incident clearance time on northbound I-25 (Denver Metro Corridor) during weekday peak periods	CY	N/A	16 min.	16 min.	19 min.	18 min.				15 min.	14 min.
LEAD MEASURE 2: Average incident clearance time on southbound I-25 (Denver Metro Corridor) during weekday peak periods	CY	N/A	16 min.	16 min.	20 min.	20 min.				15 min.	15 min.
LEAD MEASURE 3: Average incident clearance time on eastbound I-70 (Mountain Corridor) during Sunday peak periods	CY	N/A	27 min.	33 min.	40 min.	48 min.				31 min.	32 min.
LEAD MEASURE 4: Average incident clearance time on westbound I-70 (Mountain Corridor) during Saturday peak periods	CY	N/A	20 min.	27 min.	34 min.	38 min.				24 min.	23 min.
LEAD MEASURE 5: Percent of Colorado first responders trained in traffic incident management (TIM) training	SFY	12%	20%	27%	38%	41%	44%	45%		50%	70%



## SPI 4 - Maintenance

Maintain CDOT’s roadways and facilities to minimize the need for replacement or rehabilitation in a constrained funding environment. This includes achieving an overall Maintenance Levels of Service (MLOS) grade of B- for the state highway system in fiscal year 2019 and a B- for fiscal year 2021, compared to an actual grade of C+ in fiscal year 2017.

Major Functional Area - Operations and Maintenance

Process - Under nine Maintenance Program Areas, CDOT performs many processes to maintain the state highway system. For example, the Roadway Surface area includes sealing potholes and blading unpaved surfaces. The Structure Maintenance area includes painting bridges, repairing expansion joints and patching bridge decks. The Snow and Ice Control area includes plowing snow and avalanche control measures.

MEASURE	Year Type	2015 Actual	2016 Actual	2017 Actual	2018 Actual	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019 Target	2021 Target
OUTCOME MEASURE: Overall maintenance level of service grade	SFY	B-	C+	C+	B	Annual Metric	Annual Metric	Annual Metric		B-	B-
LEAD METRIC 1: Overall snow-and-ice control level of service grade	SFY	B	B	B-	B	Winter Metric	B+	B+ <sup>7</sup>		B	B
LEAD METRIC 2: Percent of statewide yellow striping with an overall maintenance level of service grade of “C” or better	CY	N/A	N/A	74%	75%	N/A <sup>8</sup>				67%	67%
LEAD METRIC 3: Percent of statewide white striping with an overall maintenance level of service grade of “C” or better	CY	N/A	N/A	75%	77%	N/A <sup>8</sup>				67%	67%

<sup>7</sup>Snow and Ice LOS grade as of February 2019.

<sup>8</sup>MLOS grades for striping are collected before and after striping projects have been completed on the highway system, with a minimum total of two collections per year. The last collection of striping data occurred in October 2018. Another collection of data is expected to occur late spring of 2019.



### SPI 5 – Customer Service

Department values customer feedback on their experience with our programs and services. Through multiple forms of customer interactions, the department seeks to maintain a positive relationship with the general public by improving the customers’ perception of the Department and increasing the customer service satisfaction rate to 85%.

Major Functional Area: Customer Service

Process: Respond to all direct customer inquiries, resolve inquiries within three business days, increase social media and online media footprint, and keep public updated on the progress of construction program and major projects.

MEASURE	Year Type	2015 Actual	2016 Actual	2017 Actual	2018 Actual	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019 Target	2021 Target
OUTCOME MEASURE: Overall customer service rating	CY	N/A	N/A	87%	N/A	Annual Metric				85%	87%
LEAD METRIC 1: Percent of customer inquiries responded to within 48 hours	CY	N/A	N/A	100%	100%	100%				100%	100%
LEAD METRIC 2: Percent of customer inquiries to the department addressed within 3 business days.	CY	N/A	N/A	29%	91%	92% <sup>9</sup>				90%	90%
LEAD METRIC 3: Percent of customers who were assisted by CDOT’s Courtesy Patrol service and were satisfied with the service provided.	CY	N/A	N/A	96%	100%	96% <sup>9</sup>				90%	90%

<sup>9</sup>Data as of end of February 2019. March 2019 data will be available at the beginning of July 2019.



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