WELCOME

WESTBOUND I-70 MOUNTAIN CORRIDOR CONCEPT DEVELOPMENT

A Path Forward

COLORADO Department of Transportation
HOW DID WE GET HERE?

BIG IMPACT FROM POPULATION BOOM

Colorado has become the second fastest growing state.* The total current population is over 5.5 million, with 91,726 new residents in 2016.

Traffic Congestion

This rapid growth has caused major road congestion issues. During the 2016 winter and summer seasons, a combined 2.1 million vehicles traveled the I-70 Mountain Corridor.

* According to the Dec. 20, 2016 U.S. Census Bureau report
HOW DID WE GET HERE?

PLANNING PROCESS IS UNDERWAY

Recognizing the need for westbound improvements, CDOT and Clear Creek County have begun a planning process for the top of Floyd Hill to Empire Junction.

Programmatic Environmental Impact Statement (EIS)
Process ended in 2011 and resulted in an official Record of Decision (ROD) that identified list of selected improvements.

Goals of the Concept Development
+ Identify concepts for the roadway to be advanced into the National Environmental Policy Act (NEPA) Process.
+ The work will examine context of the communities and landscapes through which I-70 travels while identifying any fatal flaws with concepts.
IDENTIFIED SOLUTIONS
FROM THE 2011 RECORD OF DECISION

1.04

I-70 MOUNTAIN CORRIDOR IMPROVEMENT PROJECTS

Additional Capacity
- Six lane capacity from Floyd Hill through the Veterans Memorial Tunnels, previously known as the Twin Tunnels
- Frontage road from Idaho Springs to US 6

Interchange Efficiency
- Empire Junction interchange improvements

Safety Improvements
- PARTIALLY COMPLETED: Eastbound acceleration lane from the Eisenhower-Johnson Memorial Tunnels to Herman Gulch
- Westbound acceleration lane from Bakerville to Eisenhower-Johnson Memorial Tunnels

Multimodal Improvement
- PARTIALLY COMPLETED: Bike trail from Idaho Springs to US 6
IDENTIFIED SOLUTIONS
FROM THE 2011 RECORD OF DECISION

ADVANCED GUIDEWAY SYSTEM (AGS)
CDOT’S Advanced Guideway System feasibility study was completed in 2014. It came to the following conclusions:

- 4.6 to 6.2 million annual riders
- $13.3 to $16.5 billion in capital costs
- $114 to $157 million in annual operating revenue
- Technically feasible
- Not currently financially feasible without local, state, or federal funding sources that can cover capital costs
- Westbound concepts will not stop future Advanced Guideway System

OTHER IMPROVEMENTS IDENTIFIED

- Truck operations improvement in non specified locations
- Interchange improvements at Georgetown, Downieville, Fall River Road, and base of Floyd Hill
- Non-infrastructure strategies such as: Expanding use of existing infrastructure, bus service, programs for improving truck movements, and traveler information
IDENTIFIED SOLUTIONS
FROM THE 2011 RECORD OF DECISION

ADVANCED TECHNOLOGY OPPORTUNITIES

- Autonomous and connected vehicles
- Information technology systems
- Technology advancements (RoadX)
- Bus, van or shuttle services (supported by technology advancements)
- Advanced Guideway System

What is RoadX?
The RoadX vision is to transform Colorado’s transportation system into one of the safest and most reliable in the nation by teaming up with public and industry partners to harness emerging technologies. Learn more: cdot.gov/programs/roadx
ADAPTIVE MANAGEMENT PROCESS IS A VITAL COMPONENT

- Maximum program of improvements (including 6 lane capacity in Clear Creek County) implemented only after evaluating the need for those improvements in 2020.

- Recognizes that future travel demand and behavior are uncertain.

- Recognizes that global, regional, or local trends or events have unexpected effects on travel needs, behavior and patterns.

- May need to consider other improvements in response to unexpected trends or events.

What is Adaptive Management?
It is a structured commitment to a deliberate style of repetitive decision making with an aim to revisit and analyze key questions at important project milestones.
VETERANS MEMORIAL TUNNELS

- Veterans Memorial Tunnels, previously known as the Twin Tunnels, were widened in both directions.

I-70 MOUNTAIN EXPRESS LANES

- The I-70 Mountain Express Lane Project was completed in Spring 2016. It extends eastbound from Empire Junction through the Veterans Memorial Tunnels.

ACCELERATION LANE ADDITION

- Eastbound acceleration lane addition just east of the Eisenhower Johnson Memorial Tunnel was partially completed.
EASTBOUND IMPACT

POSITIVE EFFECT OF RECENT CONSTRUCTION

- Travel times for all lanes has improved 20 to 50 percent
- Time to clear corridor back-ups has substantially improved
- Express Lane has been well received by public and the media
- Time to clear incidents has improved
- Frontage Road congestion has been alleviated

Data is from the I-70 Mountain Express Lane January 1 through April 10, 2016 and May 30 through September 5, 2016 Summary of Findings Report
EASTBOUND DATA

VOLUME

Winter: 1.03 million vehicles
2010-2012 average: 896,000 vehicles

Summer: 1.06 million vehicles
2010-2012 average: 993,500 vehicles

CORRIDOR SAFETY IMPROVED

Corridor incidents were down 15 percent in the winter season.

TRAVEL TIMES IMPROVED

In a worst-day comparison between 2015 and 2016, eastbound travel times between Georgetown and US 40 improved by 21 minutes with Mountain Express Lanes.

Data is from the I-70 Mountain Express Lanes January 1 through April 10 and May 30 through September 5 Summary of Findings Report.
OUR LESSONS LEARNED

FEEDBACK ON RECENT CONSTRUCTION

Need better coordination among the multiple construction projects

Need better communication with the business community and the public, especially about road closures

Need more signage that business access is open

Need better construction quality

Need more sufficient traffic control
WHY ARE WESTBOUND IMPROVEMENTS NEEDED?

TRAFFIC IS STILL A DRAG
Westbound congestion that starts at the base of Floyd Hill on Saturday mornings and Friday afternoons is a drag on the local economy and impacts tourism negatively.

HAZARDS REMAIN THE SAME
Increasing number of westbound crashes occur when the roads are congested. This also creates delays for emergency response vehicles.

LOCALS ARE STILL STRANDED
Local access becomes nearly impossible during westbound gridlock time periods on I-70.
CORRIDOR SPEEDS CAN BE SEVERELY IMPACTED

During heavy congestion, it takes about **2 hours and 48 minutes** to travel westbound from C-470 to Silverthorne. Under normal conditions, it should take **55 minutes**.

**At US 40 On-Ramp**
- **SUMMER**: 60 MPH
- **WINTER**: 47 MPH

**At Veterans Memorial Tunnels**
- **SUMMER**: 38 MPH
- **WINTER**: 41 MPH

**At US 6 On-Ramp**
- **SUMMER**: 18 MPH
- **WINTER**: 27 MPH

**At Evergreen Parkway**
- **SUMMER**: 54 MPH
- **WINTER**: 49 MPH

*Speeds are an average of the slowest speeds on Friday and Saturday in the Summer and in the Winter.*
WESTBOUND DATA

CRASHES BY DAY OF THE WEEK

Westbound crash data is from 2012-2015

CRASHES BY MILE POINT

TOP OF FLOYD HILL
HIDDEN VALLEY INTERCHANGE
WEST END OF IDAHO SPRINGS
US 40

Westbound data is from 2012-2015
WHO’S DOING THE WORK?

CONTEXT SENSITIVE SOLUTIONS

Project Leadership Team
+ Drives Concept Development Process and ensures guidance is followed
+ Approves decision making process and enables teams to follow process
+ Determines what materials are relevant for decision making
+ Assists to resolve issues

Technical Team
+ Defines context of project segments and identifies critical issues
+ Evaluates concepts based on critical issues, core values, and evaluation criteria
+ Defines level of feasibility

Engineering Consultants & Contractors
+ Participates in meetings to understand Technical Team perspectives
+ Develops concepts and identifies fatal flaws, constructibility and design
+ Ensures feasibility of Technical Team guidance

Project Management Team*
+ Personnel the Project Leadership and Technical Teams uses to organize, fund and facilitate the process

* The Project Management Team is comprised of CDOT; HDR, Inc.; THK Associates, Inc; and CDR Consultants
TEAM PARTNERSHIPS

PROJECT LEADERSHIP TEAM
+ CDOT
+ Central City
+ City of Idaho Springs
+ Clear Creek County
+ Eagle County
+ Federal Highway Administration
+ Georgetown
+ I-70 Coalition
+ Silver Plume
+ Summit County
+ Town of Empire
+ U.S. Forest Service

TECHNICAL TEAM*
+ CDOT
+ Central City
+ City of Black Hawk
+ City of Idaho Springs
+ Clear Creek Bikeway Users Group
+ Clear Creek County
+ Clear Creek County Archivist
+ Clear Creek County Emergency Services
+ Clear Creek County Sheriff
+ Clear Creek Economic Development Corp.
+ Clear Creek Fire Authority
+ Clear Creek Greenway Authority
+ Clear Creek Open Space
+ Clear Creek Rafting
+ Clear Creek School District
+ Clear Creek Tourism Bureau
+ Clear Creek Watershed Foundation
+ Colorado Motor Carriers Association
+ Colorado Parks and Wildlife
+ Denver Regional Council of Governments
+ Downieville, Lawson, and Dumont Neighborhood
+ Empire Junction
+ Federal Highway Administration
+ Floyd Hill Property Owners Association
+ Georgetown Loop Railroad
+ Gilpin County
+ Jefferson County
+ Loveland Ski Resort
+ Mile Hi Rafting
+ Summit County
+ Trout Unlimited
+ U.S. Forest Service
+ Vail Ski Resorts
+ Winter Park Ski Resort

* Technical Team is made up of agencies that have been invited to participate
WHAT’S THE CONCEPT DEVELOPMENT PROCESS?

CONTEXT SENSITIVE SOLUTIONS PROCESS

1. Establish context statement
2. Define core values & issues
3. Develop concepts with staff, project teams, & public
4. Evaluate, select, and refine alternative or option
5. Determine which option(s) to advance to NEPA
6. Finalize documents and evaluate process
The I-70 Mountain Corridor is a magnificent, scenic place.

Human elements are woven through breathtaking natural features. The integration of these diverse elements has occurred over the course of time.

The corridor is a world class recreational destination, a route for interstate and local commerce and a unique place to live. I-70 is also a nationally significant part of the defense network and is the lifeline for many local communities along the corridor.

Current I-70 roadway geometry is constrained, with narrow shoulders and tight curves resulting in decreased safety, mobility, accessibility and capacity for travelers. Westbound improvements are needed to lessen delays caused by peak period volumes in a manner that protects and enhances the unique environmental, historic, community and recreational resources in the I-70 Mountain Corridor.
CORE VALUES

Safety  Mobility & Accessibility  Implementability  Community  Environment

Sustainability  Engineering Criteria & Aesthetic Guidelines  Historic Context  Decision Making
WHAT’S NEXT?

WESTBOUND CONCEPT DEVELOPMENT TIMELINE

6 TO 9 MONTHS
Initiate the National Environmental Policy Act process

1 TO 2 YEARS
Design the improvements

2 TO 3 YEARS
Secure funding

3 YEARS
Construct
Plan is to construct the Westbound Peak Period Shoulder Lane project first, to minimize construction effects in Clear Creek County.

3 TO 4 YEARS

Second public meeting Summer 2017
TELL US YOUR IDEAS

Please visit the map table to write down your thoughts and ideas for Westbound Improvements

1. What concerns do you have for each project segment?
2. What are your suggestions for improvements for each project segment?

WANT TO LEARN MORE OR HAVE QUESTIONS?

Send your additional comments and questions to Neil.Ogden@state.co.us
Go online to codot.gov/projects/i-70mountaincorridor
THANK YOU FOR JOINING US
CRITICAL ISSUES: SEGMENT 1

Improvements in ROD:
- Six-lanes from Floyd Hill to Veterans Memorial Tunnels
- Bike trail from Idaho Springs to US 6
- Frontage road from Idaho Springs to US 6
- Interchange improvements at base of Floyd Hill

Improvements in MOU:
- Widen to 3 lanes westbound
- Improve design speed
- Replace bridge at bottom of Floyd Hill
- Reconstruct interchange at US 6
- Phase 2 of Greenway and Frontage Road

Improvements in ROD:
- Six-lanes from Floyd Hill to Veterans Memorial Tunnels
- Bike trail from Idaho Springs to US 6
- Frontage road from Idaho Springs to US 6
- Interchange improvements at base of Floyd Hill

Homeowners Associations
- Beaver Brook
- Saddleback
- Grand Preserve
- Floyd Hill
CRITICAL ISSUES:
SEGMENT 2

Clear Creek County and Idaho Springs Visioning Ideas:
- Consider a local bridge over I-70 to accommodate pedestrian, bicycle, and recreational traffic west of Exit 241 bridge
- Frontage road to the ballfields south of I-70 must be cleared and cleaned up
- Consider a parking structure/transit center at Exit 240. Should retain development space
- Discourage through truck traffic on Colorado Boulevard
- Replace sound wall by football field
- Consider signage at Exit 239 for rafting traffic
- Consider a stop sign at end of westbound 239 exit ramp
- Expand rafting staging area at base of Exit 239

January 2014 MOU:
- Westbound PPSL
CRITICAL ISSUES: SEGMENT 3

Clear Creek County and Idaho Springs Visioning Ideas:
- Investigate moving the Port of Entry
- Construction schedules developed with stakeholder input
- Improve view quality, reduce noise, signage, lights
- Connect Fall River Road to Frontage Road with bridge
- Greenway construction
- Study light, shadow, and icing at Fall River Road before any curve improvements
- Retain eastbound/westbound median
- Keep signage to a minimum
- Incorporate Downieville-Lawson-Dumont Neighborhood Plans
- Cover I-70 in Downieville-Lawson-Dumont area
- Raise I-70 or otherwise buffer Lawson and Silver Lakes area
- Buffer Rocky Mountain Village to provide noise and visual mitigation
- Relocate government uses at Empire Junction
- Include iconic pedestrian/bicycle bridge at Empire Junction
- Maximize county development and recreation uses at Empire Junction

January 2014 MOU:
- Westbound PPSL
- Not exceed scope of eastbound PPSL