



CDOT Region 2 Chain Station Project Town of Blue River Design Update May 17, 2022

Department of Transportation

COLORADO



Design Philosophy

GOAL: Create a win-win situation with a design that provides the Town of Blue River with safety and operational benefits year-round, yet still achieves CDOT's goal to allow an area for trucks and passenger vehicles to chain-up when the Chain Law is in effect and a safe place to chain-down after traversing Hoosier Pass if conditions allow.





What is a Shoulder Bypass Lane?

A shoulder bypass lane delivers several benefits:

- Functions as a type of auxiliary lane that maintains the southbound through traffic movement on CO 9 when vehicles stop and wait for on-coming traffic to clear before turning left on Whispering Pines
- During Chain Law events, the additional shoulder width allows a safe area for southbound vehicles to mount tire traction devices before starting the climb over Hoosier pass.
- Additional shoulder width provides a safe area for Summit Stage to stop and drop off passengers.

Example of a shoulder bypass lane on CO 86 in Douglas County.



- Create a multi-purpose chain down station on northbound CO 9 starting at Whispering Pines going north through the intersection with Silver Heels and taper back to existing alignment north of Silver Heels.
- This alignment will allow for year-round safety benefits with a right turn accel/decel lane. It allows traffic from Whispering Pines to pull into the acceleration lane and gain speed before merging with northbound CO 9 traffic instead of waiting for a gap in traffic. Motorists wanting to turn right onto Silver Heels can pull into the deceleration lane and make the right turn without impacting or slowing down traffic on northbound CO 9.
- We will go through the right-of-way acquisition process and do additional survey work.
- While funding hasn't been identified to build the chain down station, it will be built as part of the project if funding becomes available. Otherwise, it will be ready to be built once funding is identified.



- The existing roadway pavement will be widened by approximately 10 feet to the west and 24 feet to the east and will shift the centerline alignment of CO 9 to the east by approximately 6 feet.
- The chain up station will not require additional ROW from the west side of CO 9, all will come from the east side of the highway. We are just beginning ROW easement investigation now.
- Our goal is that existing utility easements will be maintained on both sides of CO 9.
- Existing historic drainage will be maintained.
- Advance warning and changeable signs will be used to inform drivers when the chain stations are open
- No lighting improvements will be installed as part of this project



- Landscaping/tree planting on private property would be accomplished outside the permanent easement on private property under a temporary construction easement with the permission of the property owner. Landscape maintenance to be addressed as design proceeds.
- Landscaping will include low profile berms, evergreen trees, landscape boulders, native shrubs/seeding and stabilizing of all disturbed areas within the project limits
- Coordinating closely with Pete Stein, property owner representative on the Project Leadership Team



- Shoulder bypass lanes are infrequently used by CDOT, but are considered when larger-scale roadway widening is not an option
- Signing directly adjacent to the shoulder bypass lane must be able to change when the Chain Law is in effect. This will be accomplished using a changeable sign panel.
- Permanent advance warning signs will be placed along CO 9 that are consistent with chain stations statewide, to be activated only when the Chain Law is in effect
- The shoulder bypass lane and right turn accel/decel lane will provide an additional 3-foot buffer between the through lanes and auxiliary lanes on CO 9 for additional safety
- Variable speed limit signs will be installed to automatically reduce the posted speed limit when the Chain Law is in effect

Signing Plan





Advance Signing Plan







Signing Plan

















Signing Plan





Enhanced Safety

- Allowing southbound traffic to safely get around left turning vehicles reduces the potential for rear-end crashes
- Left turning traffic can safely wait for the suitable gaps in on-coming traffic to make the left turn, reducing the potential for approach turn crashes
- During Chain Law events, the bypass lane becomes a safe area for trucks and passenger vehicles to chain up
- 3-foot buffer separation between the shoulder bypass lane and the through traffic lane provide additional safety







- Reducing the posted speed from 50 MPH to 40 MPH while vehicles are using the shoulder as a chain-up station
- Extending the standard spacing for variable speed limit signs from ½ mile to a full mile in each direction from the bypass lane creates a longer reduced speed zone during Chain Law events
- Placement of radar feedback signs to increase compliance with posted speed limits
- A dedicated chain up area and enhanced fines for violators improves voluntary compliance with the Chain Law reducing the risk of traffic impacts resulting from "spun out" trucks and crashes on Hoosier Pass





- Permission to enter letters have been sent
- Currently identifying wetlands location and documenting existing environmental conditions (i.e., plant life)
- This project will be cleared using a NEPA Categorical Exclusion process, which considers the following:

Cultural Resources	Environmental Policy & Biological Resources	Water Quality	Landscape Architecture
 History Paleontology Archeology Air 	 Wildlife Wetlands Sustainability Sections 4f and 6f 	 Wet Weather Monitoring Public Outreach and Education Storm Water Management Plan (SWMP)/Pollution Prevention during Construction 	 Visual Resources Landscape Design Roadside Resiliency/Pollinator Program

For more information on the NEPA Categorical Exclusion process, visit https://www.codot.gov/programs/environmental/nepa-program



Project Leadership Team

- Meets bimonthly; a time to bring forth issues and discuss the design
- PLT Members
 - Mark Fossett, Blue River Mayor Pro Tem/Trustee
 - Michelle Eddy, Blue River Town Manager
 - Ahmet Susic, Chief of Blue River Police Department
 - Pete Stein, Blue River property owner
 - Tracy Sakaguchi, Colorado Motor Carriers Association
 - Robert Jacobs, Summit County Engineer
 - Patti Henschen, CDOT Region 2 Project Manager
 - John Hall, CDOT Region 2 Resident Engineer
 - Grant Anderson, CDOT Region 3 Resident Engineer
 - Gabriel Cosyleon, CDOT Region 2 Environmental
 - Stephanie Prochaska, CDOT Region 2 Environmental
 - Elise Thatcher, CDOT Region 3 Communications Manager
 - Emily Wilfong, Design Public Information Manager
 - Clark Roberts, Ulteig/Design Consultant
 - Laeken Carey, Ulteig/Design Consultant



Contact Information

• For questions or comments, please contact:

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Questions