



COLORADO

Department of Transportation

Division of Transportation Development

Multimodal Planning Branch
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Denver, CO 80204

DATE: November 15, 2018
TO: Transportation Commission
FROM: Debra Perkins-Smith, Division of Transportation Development, Director
SUBJECT: Building Resilience into Transportation Infrastructure and Operations

Purpose

Discuss and Act on Adopt new Policy Directive 1905.0, Building Resilience into Transportation Infrastructure and Operations.

Action

Discuss and Adopt.

Background

Since the catastrophic floods of 2013, the Colorado Department of Transportation has made great strides in advancing resiliency within our transportation system. Resilient repairs such as those completed on US 34 after the floods and cutting-edge research into risk assessments such as the “I-70 Risk and Resilience Pilot” are just two examples of work done to date. CDOT staff across all major business functions: planning, design, engineering, operations, maintenance, are already taking resilient actions every day. A resilient transportation agency is prepared and positioned to take action, to restore services and build back better or relocate routes and assets when appropriate. A resilient CDOT is pro-active in maintenance and operations, in mitigating potential consequences, and planning for the future.

Details

This Policy Directive builds on the Department’s efforts to date to formalize and encourage future resilience activities at CDOT, so that we can pro-actively manage our risks and successfully adapt to future challenges. This Policy Directive sets the vision for incorporating resilience at CDOT, while the Resilience Program Coordinator will work with specific branches and programs to implement this vision.

Next Steps

The Resilience Coordinator can provide the Transportation Commission updates, if requested, and proceed with the resilience projects in the CDOT Resilience Work Plan as discussed previously with the Transportation Commission. The Resilience Coordinator is meeting monthly with the Resilience Working Group and the Resilience Executive Oversight Committee to advance this Work Plan and implement resilience actions.

Attachments

- Attachment A: Policy Directive 1905.0 (Building Resilience into Transportation Infrastructure and Operations)
- Attachment B: Policy Directive 1905.0 Resolution



COLORADO DEPARTMENT OF TRANSPORTATION		<input checked="" type="checkbox"/> POLICY DIRECTIVE <input type="checkbox"/> PROCEDURAL DIRECTIVE	
Subject			Number
Building Resilience into Transportation Infrastructure and Operations			1905.0
Effective	Supersedes	Originating Office	
	New	Division of Transportation Development	

I. PURPOSE

The purpose of this Policy Directive is to implement the principles of resilience into Colorado’s transportation system practices. This will enable the Colorado Department of Transportation to proactively manage risks, minimize disruptions and adapt to changing conditions in order to provide continuous transportation service in Colorado. Colorado’s transportation infrastructure directly or indirectly affects the lives of all people living in the state, and provides the essential services that underpin the state’s economy and the movement of people, goods, and information. Maintaining a secure, functioning, and resilient infrastructure is critical to the state’s safety, prosperity, and well-being.

The benefits or resilience are widespread, including fiscal benefits by saving the state money, social and economic benefits, by saving the public time and ensuring timely access to markets for businesses, and safety benefits, by taking action before a disruption becomes disastrous.

II. AUTHORITY

Transportation Commission pursuant to § 43-1-106(8), C.R.S.

III. APPLICABILITY

This Policy Directive applies to all operations of the Colorado Department of Transportation, including all offices, divisions, regions, and branches of the Department, including but not limited to the areas of planning, engineering and design, asset management, maintenance, mobility operations, and enterprise operations.

IV. DEFINITIONS

In Colorado House Bill 18-1394 Section 3, 24-33.5-703 (7.5), resiliency is defined as “the ability of communities to rebound, positively adapt to, or thrive amidst changing conditions or challenges, including human-caused and natural disasters, and to maintain quality of life, healthy growth, durable systems, economic vitality, and conservation of resources for present and future generations.”

The American Association of State Highway and Transportation Officials (AASHTO) defines transportation resilience as “the ability to prepare and plan for, absorb, recover from, or more successfully adapt to adverse events.”

V. POLICY

A. The Transportation Commission ascribes to the above definitions of resilience and directs the Colorado Department of Transportation to support state resilience goals by incorporating resilience in strategic decisions regarding transportation assets and operations.

B. To maintain a resilient transportation infrastructure, it shall be the policy of the Department to take proactive steps to manage risk and strengthen transportation system resilience, considering natural hazards such as floods, rockslides, avalanches, as well as man-made hazards that could have a debilitating impact on our infrastructure. These efforts shall seek to identify threats, plan better to reduce disaster losses, reduce vulnerabilities, minimize consequences to our assets, implement a risk-based asset management approach, and hasten response and recovery efforts related to transportation assets and infrastructure.

C. The Department shall also consider enhancing its operational resilience, both in transportation mobility and operations, but also in day-to-day enterprise activities. To develop enterprise resilience, the Department shall deploy a coordinated approach to manage risks to business operations, adapt to cyber threats and physical disruptions to daily activity.

D. The Resilience Program Coordinator's responsibilities include but are not limited to: providing guidance and support to Department staff in implementing resilience activities, directing and implementing resilience research, and creating a knowledge base of guidance and best practices for resilience in transportation.

VI. FISCAL IMPACT

The fiscal impacts of resilient actions will be considered within the scope of specific projects and will be incorporated based on cost-effectiveness, according to the results of benefit-cost analysis or qualitative subject matter expert assessment. Resilient solutions are part of how the Colorado Department of Transportation operates and completes capital improvements, and will be incorporated if the long-term benefits outweigh the costs.

VII. IMPLEMENTATION PLAN

The Resilience Program Coordinator in the Division of Transportation Development will work with an Executive Oversight Committee and Resilience Work Group to develop a plan to implement this Policy Directive.

The Office of Policy and Government Relations shall post this Policy Directive on CDOT's intranet as well as on public announcements.

Building Resilience into Transportation Infrastructure and Operations**1905.0****VIII. REVIEW DATE**

This Policy Directive shall be reviewed on or before August 2023.

Herman Stockinger, III
Transportation Commission Secretary

Date

Resolution # TC-2018-11-XX

Approval of New Policy Directive 1905.0 “Building Resilience into Transportation Infrastructure and Operations”

Approved by the Transportation Commission on (Insert Date).

WHEREAS, § 43-1-106 (8)(a) C.R.S. gives authority to the Transportation Commission of Colorado (“Commission”) to formulate general policy with respect to the management, construction, and maintenance of public highways and other transportation systems in the state; and

WHEREAS, the principle of resiliency is based on being proactive in maintenance and operations to mitigate potential consequences, and to plan for the future; and

WHEREAS, a resilient transportation agency is prepared and positioned to take action, to restore services and build back better or relocate routes and assets when appropriate; and

WHEREAS, in 2018 the Colorado General Assembly passed HB18-1394, emphasizing the importance of resilience as an integral concept for state agencies; and

WHEREAS, the Colorado Department of Transportation (“Department”) has made great strides in advancing resiliency within Colorado’s transportation system; and

WHEREAS, the Commission supports the Department’s efforts to make the Department a more resilient organization; and

WHEREAS, new Policy Directive 1905.0 “Building Resilience into Transportation Infrastructure and Operations” directs the Department to formalize the efforts thus far to incorporate resilience at the Department.

NOW THEREFORE BE IT RESOLVED, the Commission herein adopts new Policy Directive 1905.0 “Building Resilience into Transportation Infrastructure and Operations.”

Herman Stockinger, Secretary
Transportation Commission of Colorado

Date