CDOT Speed Study Request Form

Colorado Department of Transportation
Traffic Safety and Engineering Services Branch
April 2024 Update

Table Of Contents

Introduction

Purpose

The purpose of this checklist is to provide the Colorado Department of Transportation (CDOT) with an overview of roadway segments for which a speed study is requested. Each question needs to be answered so that the program personnel can start their assessment for the traffic engineering investigation as required by Colorado revised statute.

CDOT Speed Management Process

The CDOT process for setting speed limits balances safety and travel time. Speed Management is science-based and data-driven, and creates a climate of natural compliance. It considers the roadway environment and the purpose of the roadway facility to ensure that Colorado highways provide safe access and mobility for all users. CDOT Speed Management is a transparent process that provides a consistent, rational basis for setting speed limits in different environments and contexts.

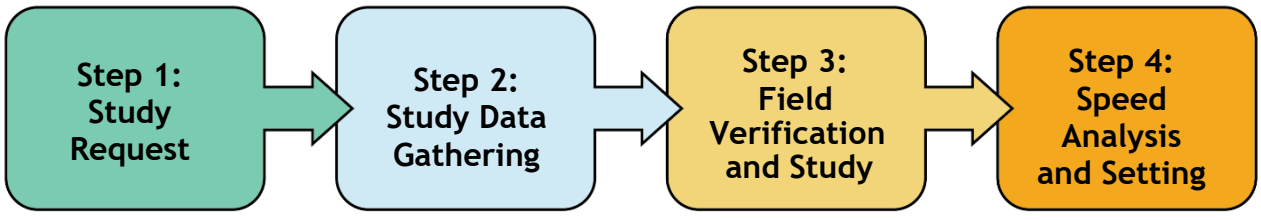
The CDOT Speed Management Process starts with context and understanding current roadway conditions. After receiving context from the region and local agency, CDOT will perform safety, operations, and geometry data collection tasks that gather information on the following items:

- Safety characteristics to determine if there are crash patterns or significant non-pattern crashes along the roadway.
- Geometry characteristics of a roadway that include the number of curves, condition, and existence of the shoulder, condition of the pavement, physical geometry, sight and stopping distances, and relationship with the contextual characteristics.
- Operations characteristics that include pedestrian activity volumes, bicycle activity volumes, transit, and other operational factors.

As the data collection progresses, the Field Regulatory Operations team prepares their fieldwork, which includes reviewing safety, geometry, context, and operations information, requesting traffic control, and determining speed data gathering locations.

Once the data collection and pre-field work are complete, the Field Regulatory Operations teams schedule and perform fieldwork to gather speed data (speeds drivers currently travel), update roadway mapping and drive curves, and confirm signage.

The last step is to consolidate and analyze all the data to determine an appropriate speed limit, weighing all gathered information. The study data is also input into CDOT's Speed Setting Tool (August 2024 Public Release) and analyzed by traffic engineers. Peer and engineering reviews are conducted on the draft, and the regions weigh in before speed limit setting recommendations are finalized.



What Works and What Does Not

- As many observations during COVID have shown, just reducing a speed limit with new physical signs alone does not work well without regular enforcement.
- Natural compliance works well with a combination of geometry changes, striping changes, education campaigns, and/or enforcement strategies. Natural compliance means that drivers will naturally drive a posted speed limit due to the geometric and contextual characteristics of the roadway.

Context-Sensitive Solutions Considerations

CDOT will seek input from the appropriate stakeholders and will:

1. Strive to balance the regional needs of the roadway facility's use considering the local jurisdiction’s input, reflecting the community's values and aspirations for quality of life and business development in urban and rural communities throughout Colorado.
2. Demonstrate a comprehensive understanding of the roadway environment, traffic characteristics, user needs, and the relationship between severity of crashes and characteristics of the flow of the evaluated roadway facility.
3. Foster continuing communication, education, understanding, and collaboration with stakeholders to achieve buy-in (no surprises)
4. Demonstrate that CDOT establishes consistent, appropriate speed limits balancing safety and travel time while considering the facility's surroundings to preserve the community it serves.

Speed Management Study Request

Getting Started with The Request Form

Each speed study is different because of the context, setting, geometry, crash history, roadway classification, volumes, freight activity, accesses, zoning, and activities. Local agencies should work with the Region Traffic Engineering Unit to answer the questions in the request form so it is as complete as possible. Start with the context that is known and then reach out to your local agency engineer, consultant, or the region to answer the rest of the questions.

The request form is the first step in the speed study life cycle. The more information that is provided the better evaluation can be conducted.

Checklist Contact Information Instructions

The Checklist Contact Information portion of the Checklist ***must*** be completed and accompany the Checklist when it is submitted. It provides the opportunity to explain any additional circumstances specific to the roadway in question. Furthermore, it provides documentation of the request and support of the local government via an authorized signature.

Fill out and attach pages six through eight for each requested segment or for a segment with differing characteristics. For example, a rural roadway segment goes from MM 1.0 to 2.0 and then a rural town goes from MM 2.0 to MM 3.0, fill out a checklist for each segment.

Please present the completed Request form and Letter of Understanding to your municipality official authorized to request a Traffic Engineering Study for processing, approval, signature, and submission. ***Do not*** send these documents directly to CDOT. Before the documents can be processed by CDOT, the contact portion of the form must be signed by the appropriate municipality official(s) authorized to request an official Traffic Engineering Study. It is their responsibility to then forward the documents to the CDOT Region Traffic Engineer.

Checklist documents received by CDOT lacking official governmental signatures will be returned to the appropriate municipality for approval and processing.

Local Agency Contact Information

(Please type or print all information except signature)

Local Agency Name: _____

Local Agency Representative: _____

Local Agency Address: _____

Local Agency Website: _____

Representative Phone: _____

Representative Email: _____

_____

Authorized Signature of Requesting Local Agency

Overall Study Information

Region: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Date Requested: _____ Requester: _____

Region Traffic Rep: _____ Local Agency Rep: _____

Reason for Study:

- ☐ Complaint
- ☐ Time since last study
- ☐ New Development
- ☐ New Access Plan
- ☐ New Signalization
- ☐ No Passing Zone
- ☐ Speed Limit Non-Compliance
- ☐ Crash
- ☐ New Zoning
- ☐ Time since end of construction
- ☐ Traffic Impact Study

Study Request Task List:

- ☐ A. Notify Region Traffic Engineer
- ☐ B. Fill out Speed Study Checklist for each segment.
- ☐ C. Sign Speed Study Checklist
- ☐ D. Prepare and Sign Letter of Understanding (Signed PDF Required)
- ☐ E. Submit to Region Traffic Engineer

Speed Management Study Request

Roadway Information (Each Segment)

Highway: _____ MP Start: _____ MP End: _____

*Otis Link: Https://Dtdapps.Coloradodot.Info/Otis

Direction: ☐ Nb ☐ SB ☐ EB ☐ WB

What is the desired speed limit for this segment of roadway? _____

Roadway Context (Each Segment)

1. Zoning and Development

What is the zoning for this segment of roadway?

☐ Residential ☐ Commercial ☐ Industrial

☐ Residential/Commercial Mix ☐ Mix ☐ No Zoning

Is there any development planned for this segment of roadway?

☐ Yes ☐ No

If yes, please explain what the planned development is and how it will affect the roadway:

Has there been significant development in the past 10 years?

Yes ☐ No ☐

2. Urban-Rural Classification

*OTIS Link: https://dtdapps.coloradodot.info/otis

☐ Urban ☐ Rural ☐ Suburban

☐ Town ☐ City ☐ Unincorporated

3. Operational Activity

What is the Pedestrian Activity Level?

☐ Low ☐ Medium ☐ High

*Low - <20/Day | Medium – 20/day to 50/day | High – 50+/Day

What is the Bicycle, E-Bike, Scooter Activity Level?

☐ Low ☐ Medium ☐ High

*Low - <20/Day | Medium – 20/day to 50/day | High – 50+/Day

What is the semi-truck activity level?

☐ Low ☐ Medium ☐ High

Low - Lower than 5% of Traffic | Medium - 5%to 10% of Traffic | High - 10%+ of Traffic

Are there any bus routes, transit lines, or mobility centers in the area of this roadway segment?

☐ Yes ☐ No

Are there any recurring events on this segment of roadway? (sports events, holiday events, parades, concerts, annual events, festivals, etc)

☐ **Yes** ☐ **No**

Is the roadway adjacent to hiking, biking, or pedestrian trails?

☐ Yes ☐ No

Is there any parking on the sides of the roadway segment?

☐ Parallel ☐ Diagonal ☐ Perpendicular ☐ None

Are there any schools adjacent to or in the vicinity (within .5 to 1 mile, students crossing highway) of the roadway segment?

☐ Yes ☐ No

Are there any established school zones in the roadway segment? **

☐ Yes ☐ No

**If there is a request for a school zone, a school zone request must be submitted along with the speed study request.

Are there Emergency Medical Service stations located within the roadway segment?

☐ Yes ☐ No

Roadway Characteristics (Each Segment)

What is the functional classification of the roadway segment?
*OTIS Link: https://dtdapps.coloradodot.info/otis

- ☐ Interstate
- ☐ Freeway
- ☐ Arterial
- ☐ Collector
- ☐ Local Road

What access categories are present in the roadway segment?
*OTIS Link: https://dtdapps.coloradodot.info/otis

- ☐ F-W Freeway, Interstate
- ☐ E-X Expressway, Bypass
- ☐ R-A Rural Regional Highway
- ☐ R-B Rural Highway NR-A Non-Rural Regional Highway
- ☐ NR-B Non-Rural Arterial NR-C Non-Rural Arterial
- ☐ F-R Frontage Road (Rural/Urban)

Does the roadway have an access management plan?

☐ Yes ☐ No

What is the average annual daily traffic volume? (AADT) _____
*OTIS Link: https://dtdapps.coloradodot.info/otis

What is the number of residential accesses?_____

What is the number of commercial accesses?_____

Are there any sight distance issues?

☐ Yes ☐ No

Reference: AASHTO Highway Design Guide

Are there recoverable shoulders throughout the roadway segment?

☐ Yes ☐ No

Reference: Clear Zones and Shoulders

Are there raised medians throughout the roadway segment?

☐ Yes ☐ No

Are there curb and gutters sections throughout the roadway segment?

☐ Yes ☐ No

Are there a high number of curves?

Low ☐ Medium ☐ High ☐

Low - 0-3 per mile | Medium - 4-6 per mile | High - 6+ per mile

Law Enforcement (Each Segment)

What is the posted speed limit(s) on the State Highway in question? _____

Is there good compliance with existing speed limits?

☐ Yes ☐ No

What law enforcement agency is responsible for this area? (e.g. State Patrol, Sheriff's office, City Police, etc.)? _____

How often does the responsible law enforcement agency patrol the area during the day? Give an average number of patrols per day. _____

Additional Local Input:

Additional Files and Data:

Region Traffic Engineers and Local Agencies can submit photos, videos, and other files to help the Field Regulatory Operations team better understand the context of each study request.