

CDOT

BICYCLE FACILITY DESIGN TRAINING



SUPPLEMENTAL MATERIALS

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Preamble

Roadways are part of the Colorado life experience. Every day, people use the roadways to commute to work and to school. They're used for traveling to the mountains out to the plains. Colorado roadways play an important part in a community's vitality and often reflect the natural surroundings nearby. Coloradans have come to expect a high quality of life, and building and maintaining roads for the transportation, recreation, health and economic development of a community is paramount. While we measure success based on safety, we also must value the many purposes a roadway fulfills and respect the transportation choices of all users. We need transportation systems that allow residents and visitors alike places to gather, conduct business, recreate, and travel. In addition to motorized vehicle infrastructure, we need systems that support other choices, such as walking, bicycling and connections to transit.

Every workday in Colorado, approximately 29,000 Coloradans bicycle to work as their primary mode of transportation (2023 ACS 5-year estimates). This number dramatically under counts the number of residents that use bicycles for other transportation type trips or as a secondary means of commuting. The Colorado Department of Transportation (CDOT), the Colorado Office of Economic Development and International Trade (OEDIT), and Colorado Department of Public Health and Environment (CDPHE) estimated in their 2016 report "Economic and Health Benefits of Bicycling and Walking" that 43 percent of residents in Colorado rode their bicycle in the last year, with 17 percent using their bicycle for transportation based trips.

Multimodal transportation is a key element of CDOT's mission in providing improvements to the statewide transportation system. CDOT has adopted a Policy Directive and a Procedural Directive to improve the accommodation of bicyclists and pedestrians in CDOT programs. Additionally, federal surface transportation law places a strong emphasis on creating a seamless transportation system that persons of all ages and abilities can utilize for safe and convenient access to jobs, services, schools and recreation.

The following materials are intended to provide practitioners with a toolbox of best practices for designing and building bicycle-friendly roadways and infrastructure. The concepts are taken from Chapter 13 of the CDOT Roadway Design Guide, local examples and leading design guidance issued by national organizations and agencies around the United States.

CDOT POLICY DIRECTIVE 1602.0

It is the policy of the Colorado Transportation Commission to provide transportation infrastructure that accommodates bicycle and pedestrian use of the highways in a manner that is safe and reliable for all highway users. The needs of bicyclists and pedestrians shall be included in the planning, design and operation of transportation facilities, as a matter of routine.

CDOT PROCEDURAL DIRECTIVE 1602.1 (EXCERPTS)

The full policy is available in **Policy + Procedural Directives** on page 41.

Planning

“Provide Bicycle and Pedestrian technical support and education assistance to the Transportation Planning Regions (TPRs) and Metropolitan Planning Organizations (MPOs) to ensure Bicycle and Pedestrian accommodations are included in all planning efforts.”

Design

“Ensure that Bicycle and Pedestrian accommodation is included in both design scoping meetings and scoping summaries; as well as consideration in project characteristics, Field Inspection Review (FIR) and Final Office Review (FOR) meetings and notes.”

Construction

“During project construction, ensure that reasonable accommodations and access for bicyclist and pedestrian use have been made, including signed detour routes or alternate transportation for the length of the project.”

Maintenance

“Bikeways within the right-of-way of state highways will be maintained by the Department, except where a maintenance agreement provides otherwise. Where new projects are being considered, maintenance agreements shall be in place prior to construction.”

Education

CDOT shall continue its on-going programs that support education for motorists, bicyclists, pedestrians and law enforcement personnel regarding their shared responsibilities, as well as programs that provide design and planning instruction to internal and external audiences. The Department will continue to publish a Colorado Bicycle Manual and Colorado Bicycling Map to provide guidance on shared roadway usage.



COLORADO
Department of Transportation

Updated 03/2026

Resources

The sections that follow serve as an overview of bicycle facility design treatments from the training session. Not all topics of discussion are included in this classroom supplement. This document is a quick reference to help you in addressing design issues, but is not in itself a substitute for a thorough evaluation of facility improvements. The following standards and guidelines are referred to in this supplement and should be consulted for any facility design.

2023 CDOT Roadway Design Guide, Chapter 13
https://www.codot.gov/business/designsupport/bulletins_manuals/2023-cdot-roadway-design-guide

CDOT Policy Directive 1602.0 and Procedural Directive 1602.1 Elevating Bicycle and Pedestrian Opportunities in Colorado
<https://www.codot.gov/programs/bikeped/design-policy>

CDOT's bicycle and pedestrian design resources website:
<https://www.codot.gov/programs/bikeped/design-policy.html>

2023 Manual on Uniform Traffic Control Devices (MUTCD), 11th Edition
https://mutcd.fhwa.dot.gov/kno_11th_Edition.htm

2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition
can be purchased at <https://store.transportation.org/item/collectiondetail/267>

2025 NACTO Urban Bikeway Design Guide, 3rd Edition
<https://nacto.org/publication/urban-bikeway-design-guide/>

2018 AASHTO A Policy on Geometric Design of Highways & Streets (Greenbook)
can be purchased at <https://store.transportation.org/item/collectiondetail/180>

2016 FHWA Small Town and Rural Multimodal Networks Guide
https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf

2024 Mitigation Strategies for Design Exceptions
https://highways.dot.gov/sites/fhwa.dot.gov/files/Design%20Exceptions%20Mitigation_Strategies%20Guide_508.pdf

2014 NCHRP 783: Evaluation of the 13 Controlling Criteria for Geometric Design
<http://www.trb.org/Publications/Blurbs/171358.aspx>

2023 NCHRP 1043 Roundabouts Guide, 3rd Edition
<https://nap.nationalacademies.org/catalog/27069/guide-for-roundabouts>

2021 CDOT Region 4 Bicycle and Pedestrian Safety Study
<https://www.codot.gov/projects/archives/study-archives/region4bikepedestrianstudy>

2023 CDOT Region 1 Bicycle and Pedestrian Safety Study
https://www.codot.gov/projects/denver-metro-bike-ped-study/assets/apznzabybppplhfrhfeckzq0jicclpa7-n5jngavlvttypcrx0aczjyc3nnsmpskg7zmcq5bhq6h2fuklk5xrid1xlbf25vtnpyozato-fw71k1pvkav6glewntmhw7c_4rketadyvuzvunqoqcbljixjilbecf-2h6gd_lh09bm9upkwzgeawmlryhtdn-akuiknyf.pdf

2023 CDOT Vulnerable Road User Safety Assessment
<https://oitco.hylandcloud.com/CDOTRMPop/docpop/docpop.aspx?clienttype=html&docid=18974635>

A person wearing a cap and sunglasses is riding a bicycle on a city street. The image is overlaid with a green tint. The text 'DESIGN FUNDAMENTALS' is written in large, white, sans-serif capital letters across the middle of the image.

DESIGN FUNDAMENTALS

DESIGN NEEDS OF BICYCLISTS
BICYCLE USER TYPE
LEVEL OF TRAFFIC STRESS

Design Needs of Bicyclists

The facility designer must have an understanding of how bicyclists operate and how their bicycle influences that operation. Bicyclists, by nature, are much more affected by poor facility design, construction and maintenance practices than motor vehicle drivers.

By understanding the unique characteristics and needs of bicyclists, a facility designer can provide quality facilities and minimize user risk.

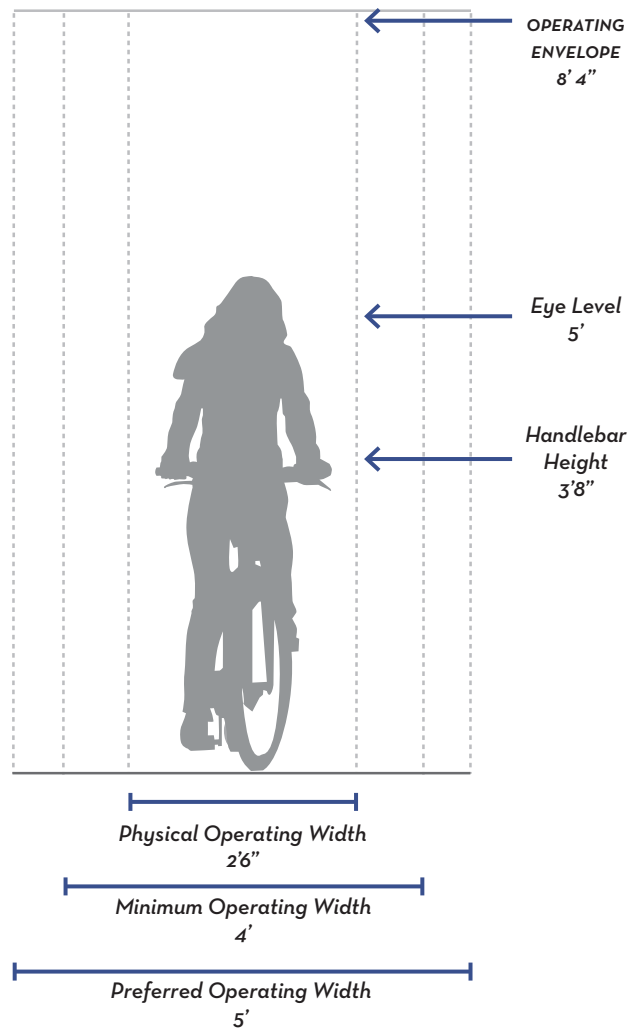
BICYCLE AS A DESIGN VEHICLE

Similar to motor vehicles, bicyclists and their bicycles exist in a variety of sizes and configurations. These variations occur in the types of vehicle (such as a conventional bicycle, a recumbent bicycle or a tricycle), and behavioral characteristics (such as the comfort level of the bicyclist). The design of a bikeway should consider reasonably expected bicycle types on the facility and utilize the appropriate dimensions.

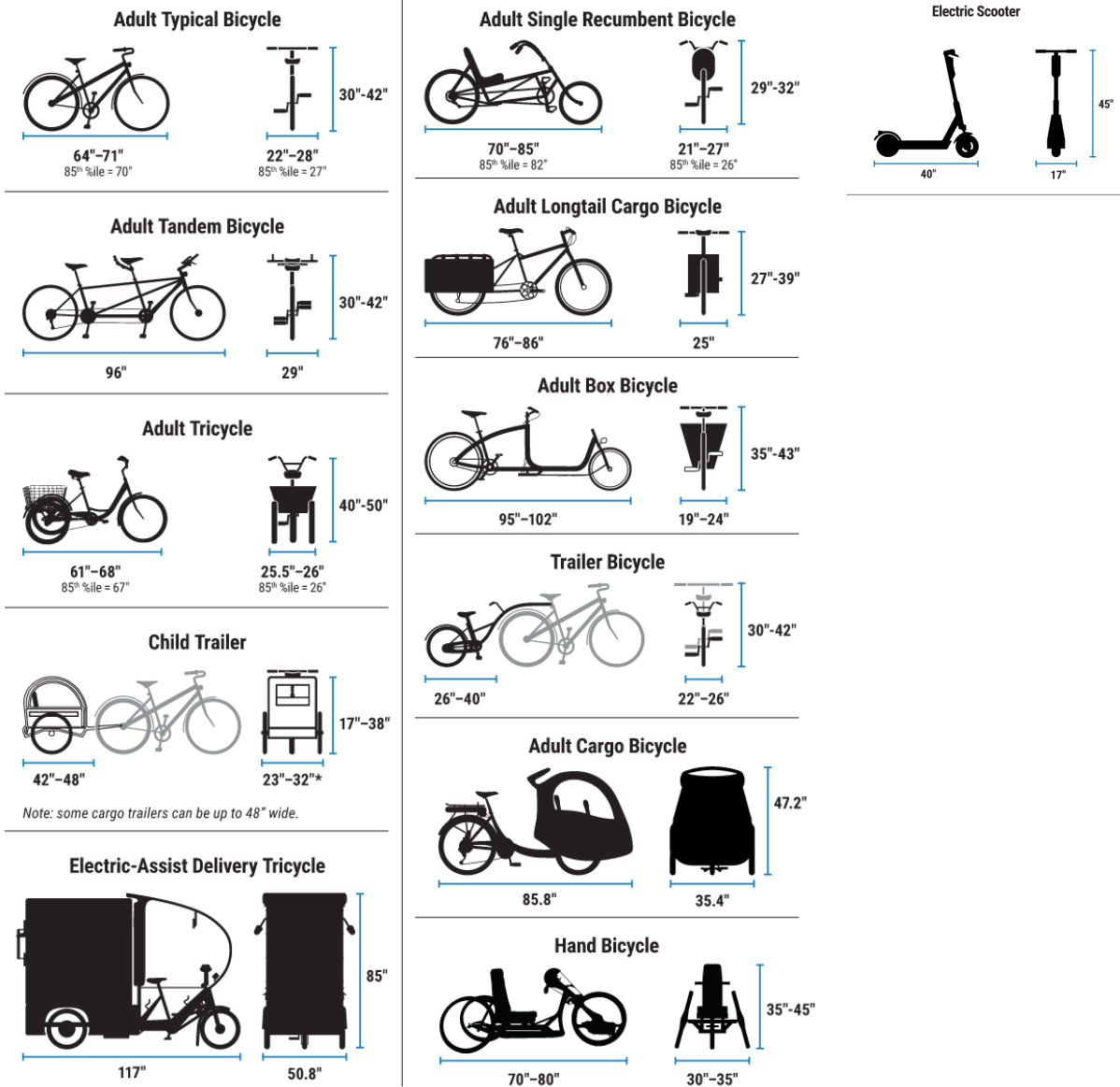
The figure to the right illustrates the operating space and physical dimensions of a typical adult bicyclist, which are the basis for typical facility design. Bicyclists require clear space to operate within a facility. This is why the minimum operating width is greater than the physical dimensions of the bicyclist. Bicyclists prefer five feet or more operating width. For minimum bicycle lane widths in Colorado consult Chapter 13 of the CDOT Roadway Design Guide.

In addition to the design dimensions of a typical bicycle, there are many other commonly used pedal-driven cycles and accessories to consider when planning and designing bicycle facilities. The most common types include tandem bicycles, recumbent bicycles, and trailer accessories. The figure on the following page summarizes the typical dimensions for bicycle types.

Bicycle Rider - Typical Dimensions



Bicycle Design Vehicle - Typical Dimensions



Note: some cargo trailers can be up to 48" wide.

Source: AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

Bicycle as Design Vehicle - Design Speed Expectations

BICYCLE TYPE	FEATURE	TYPICAL SPEED
Upright Adult Bicyclist	Paved level surfacing	8-15 mph*
	Crossing Intersections	8 mph
	Downhill	For every 1% increase in downhill grade, speed is increased by .53 mph
	Uphill	For every 1% increase in uphill grade, speed is reduced by .9 mph
Recumbent Bicyclist	Paved level surfacing	18 mph

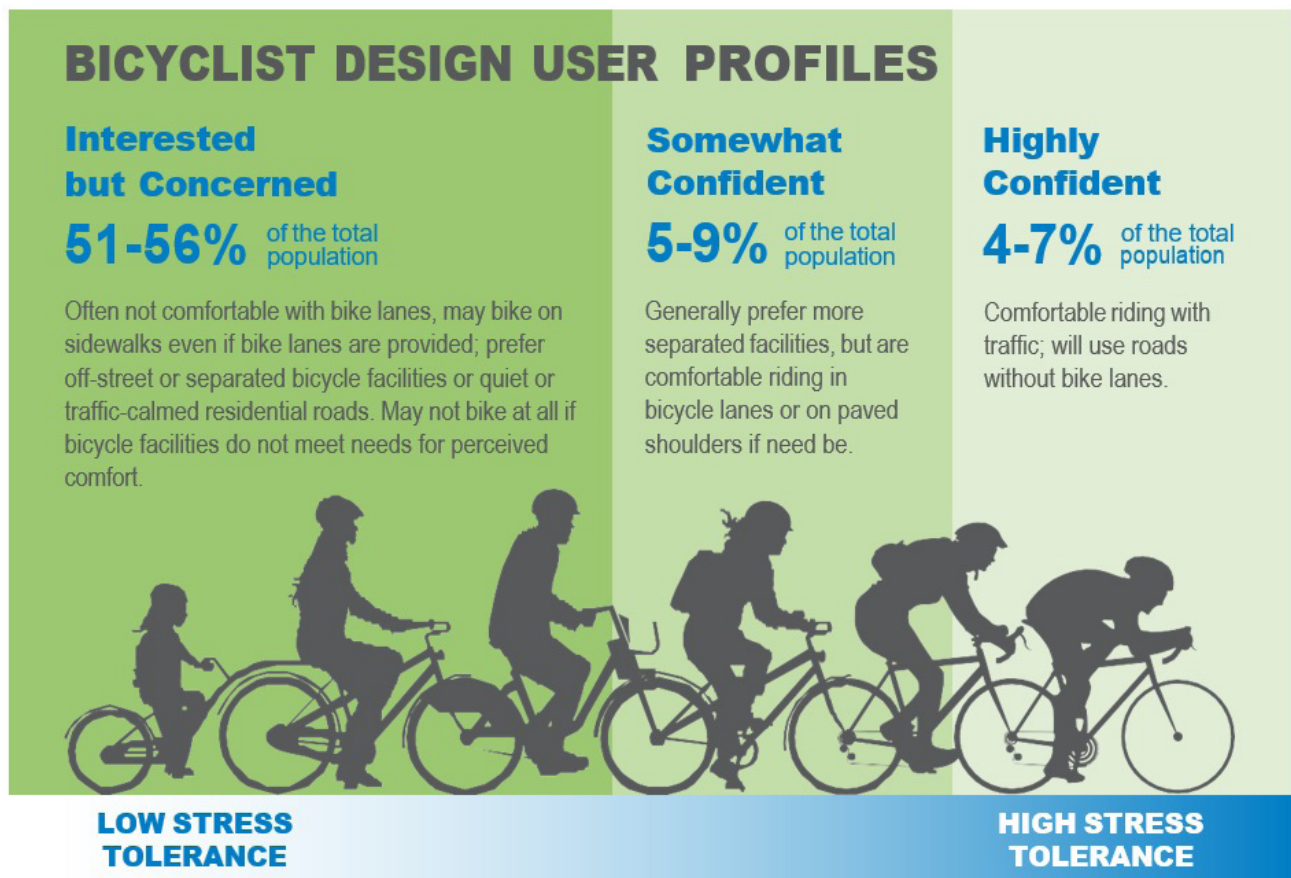
* Typical speed for casual riders per AASHTO 2024.

FOR MORE INFORMATION
 CDOT Roadway Design Guide,
 Chapter 13, Section 13.2.3.1
 2024 AASHTO Guide for
 the Development of Bicycle
 Facilities, 5th Edition

Bicycle User Type

The current AASHTO Guide to the Development of Bicycle Facilities uses the FHWA Bikeway Selection Guide (FHWA, 2019) to identify three types of potential and existing bicyclist profiles. These profiles consider a person’s comfort level operating a bicycle with motorized traffic, bicycling skill and experience, age, and trip purpose. Supported by research*, this classification identifies three distinct types of bicyclists and can be used to inform bikeway design.

Bicyclist Design User Profiles - FHWA Bikeway Selection Guide, 2019



* Dill, J., & McNeil, N. Revisiting the four types of cyclists: Findings from a national survey. 2016.

Level of Traffic Stress

This approach scores a route based on its safety, as perceived by the cyclist. This method is easy to implement and is based on easily-gathered data. In addition to route evaluation, this method is useful for identifying connectivity barriers between the low stress “islands” in a network.

Levels of Traffic Stress (LTS)

LTS LEVEL	DESCRIPTION	WHAT TYPE OF BICYCLISTS WILL RIDE ON THIS LTS FACILITY?		
		HIGHLY CONFIDENT	SOMEWHAT CONFIDENT	INTERESTED BUT CONCERNED
LTS 1	Presents the lowest level of traffic stress; demands less attention from people riding bicycles, and attractive enough for a relaxing bicycle ride. Suitable for almost all people riding bicycles, including children trained to ride in the street and to safely cross intersections.	YES	YES	YES
LTS 2	Presents little traffic stress and therefore suitable to most adults riding bicycles, but demands more attention than might be expected from children.	YES	YES	SOMETIMES
LTS 3	More traffic stress than LTS2, yet significantly less than the stress of integrating with multilane traffic.	YES	SOMETIMES	NO
LTS 4	A level of stress beyond LTS 3. Includes roadways that have no dedicated bicycle facilities and moderate to higher vehicle speeds and volumes OR high speed and high volume roadways WITH an exclusive riding zone (lane) where there is a significant speed differential with vehicles.	YES	NO	NO

LTS 1



LTS 2



LTS 3



LTS 4



FOR MORE INFORMATION
“Low Stress Bicycling and Network Connectivity”, Mineta Transportation Institute, Report 11-19, May 2012

Review Questions

1. What kind of bike lane is associated with greater comfort? (circle one)

- Wider
- Narrower

2. Match the type of design cyclist with their traffic stress tolerance. Each type can have multiple answers.

Types of Design Cyclist

- Highly Confident
- Somewhat Confident
- Interested but Concerned

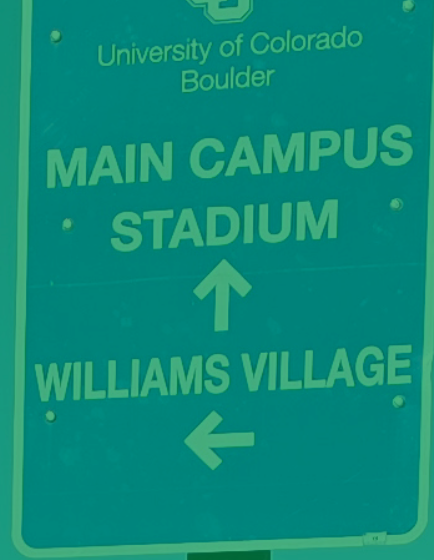
Bicycle Facility Type

- Shared Use Path
- Separated Bike Lane
- Shared Lane on Highway
- Conventional Bike Lane

BICYCLE FACILITIES

FACILITY SELECTION
SHARED ROADWAYS
ROADWAY SHOULDERS
BIKE LANES

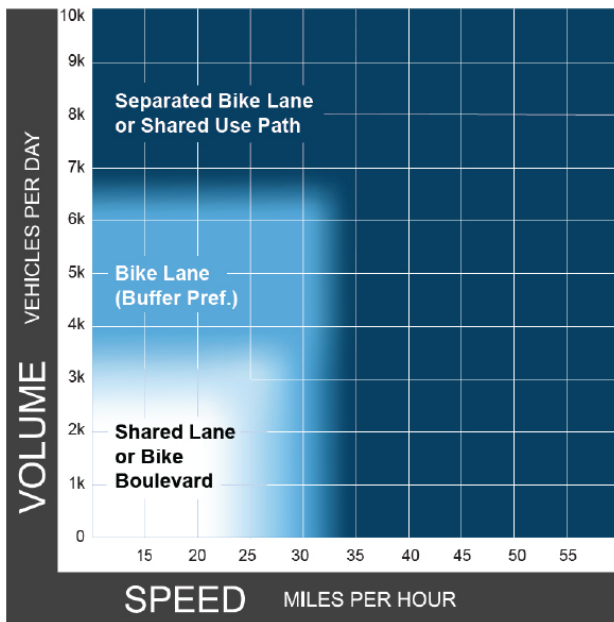
BUFFERED BIKE LANES
SEPARATED BIKE LANES
NEW BUILDS OR RETROFITS
RESURFACING OPPORTUNITIES



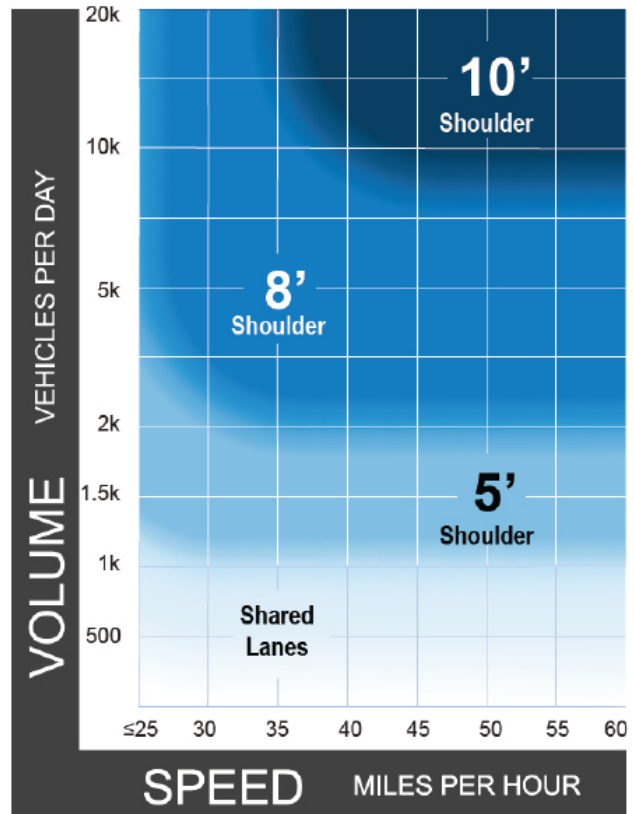
Facility Selection

Selecting the best bikeway facility type for a given roadway can be challenging, due to the range of factors that influence bicycle users' comfort and safety. There is a significant impact on cycling comfort when the speed differential between bicyclists and motor vehicle traffic is high and motor vehicle traffic volumes are high. FHWA developed the graphs below to provide guidance for how motor vehicle volume and speed can be taken into consideration in urban and rural contexts. Other factors which should be weighed when choosing a facility include the number of lanes, driveway spacing, percentage of heavy vehicles, parking, median and transit (FHWA Bikeway Selection Guide, 2019).

Preferred Bikeway Type for Urban, Urban Core, Suburban and Rural Town Contexts



Preferred Preferred Shoulder Widths for Rural Roadways



Charts assume operating speeds are similar to posted speeds; use operating speeds if available

Shared Roadways

On shared roadways, bicyclists and motor vehicles use the same roadway space.

Shared roadways employ a large variety of treatments from simple signage and shared lane markings to more complex treatments if developed as a local street bikeway.



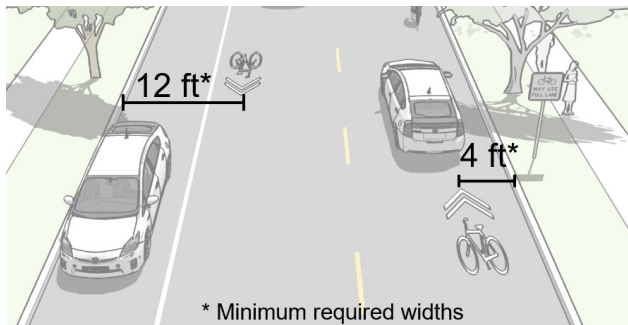
SIGNED SHARED ROADWAYS

Signed shared roadways, sometimes known as bicycle routes, are facilities shared with motor vehicles. They are typically used on roads with low speeds and traffic volumes, however, they can be used on higher volume roads with wide outside lanes or shoulders.

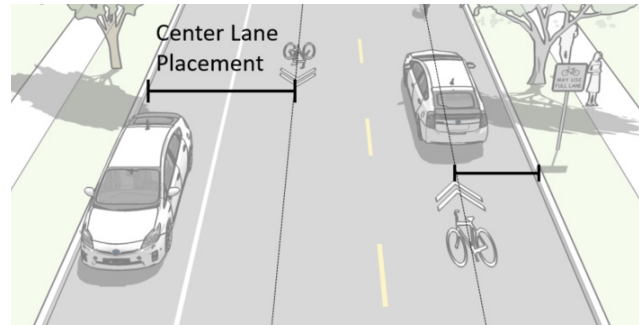
Bike route signage (D11-1) should be applied at intervals frequent enough to keep bicyclists informed of changes in route direction and to remind motorists of the presence of bicyclists.

SHARED LANE MARKINGS

Shared lane markings (SLMs) are the standard marking for indicating shared lane bicycle operations. Place SLMs in the center of the travel lane to minimize wear and encourage riding a safe distance from parked cars, and encourage safer passing maneuvers by drivers.



MUTCD Minimum Placement



Recommended Placement

Typical application

- Shared Lane Markings are not intended as a replacement for bike lanes. They should not be considered such even on constrained facilities. If used on a local street, additional improvements such as traffic calming or signal improvements should be considered for implementation in conjunction with Shared Lane Markings.
- Shared Lane Markings should be implemented in conjunction with BIKES MAY USE FULL LANE signs in urban settings with lanes 12 feet and under.

Further Considerations

- Consider modifications to signal timing to induce a bicycle-friendly travel speed for all users.
- Though not always possible, placing the markings outside of vehicle tire tracks will increase the life of the markings and the long-term cost of the treatment.
- On higher speed roadways they may not be as effective as on lower speed roadways, bike lanes should be provided instead.

WIDE CURB LANES

Fourteen feet is the recommended maximum lane width for an outside travel lane. Curb lanes with widths greater than fourteen feet should be evaluated for conversion to a standard bicycle lane. Gutter pan width (if present) should not be included in the 14 feet. Wide or uneven gutters do not increase the usable width of the roadway for bicyclists and are hazardous if they are expected to ride there.

FOR MORE INFORMATION

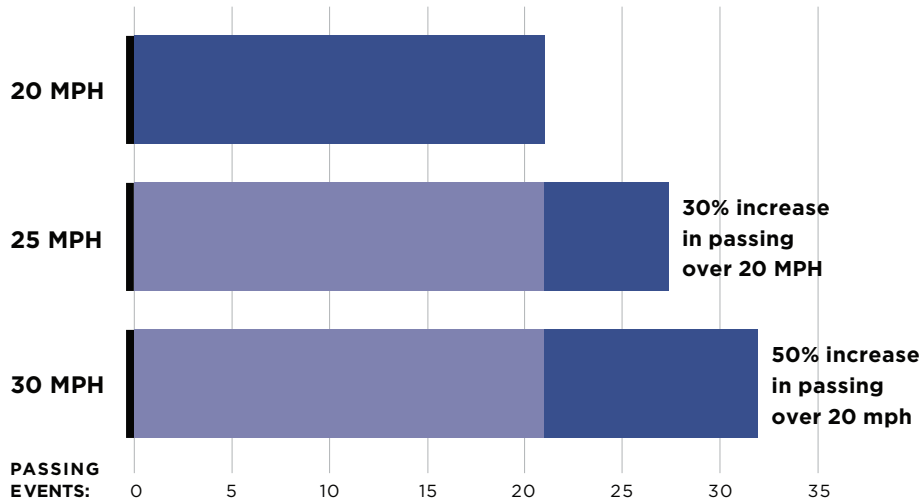
CDOT Roadway Design Guide, Chapter 13, Sections 13.2.5

2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

2025 NACTO Urban Bikeway Design Guide

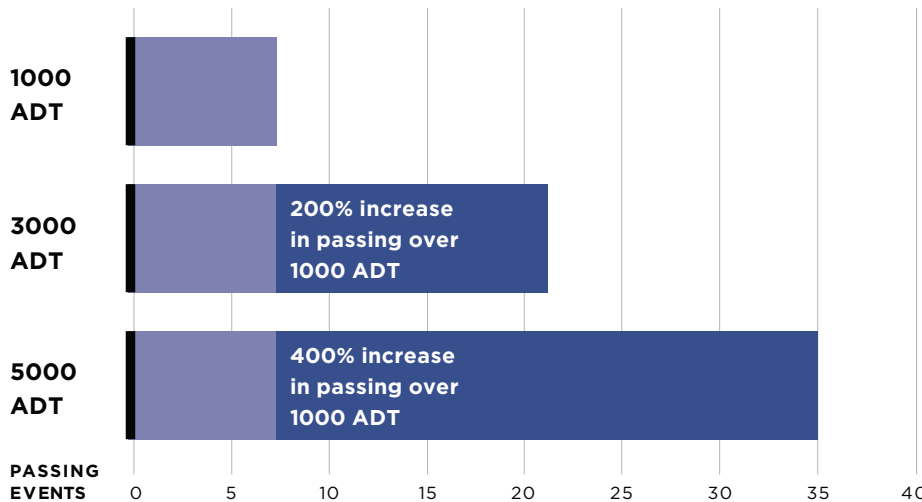
EFFECTS OF VOLUME AND SPEED ON PASSING FREQUENCY

Depending on motor vehicle speeds, a bicyclist will be passed by a car going the same direction this many times during a 10 minute trip:



Values shown assume 3,000 VPD. Local street peak hour is 15 percent of ADT. 70 percent of peak hour traffic is in the peak direction. Cars are evenly spaced along the street: no platooning. Ten minute trip calculated during peak hour. Cars are travelling the posted speed limit (speed management techniques may be necessary). Note: Cars may pass bicyclists more or less frequently depending on how well these assumptions reflect reality.

Depending on motor vehicle volumes, a bicyclist will be passed by a car going the same direction this many times during a 10 minute trip:



Values shown assume 20 mph posted speed. Local street peak hour is 15 percent of ADT. 70 percent of peak hour traffic is in the peak direction. Cars are evenly spaced along the street: no platooning. 10 minute trip calculated during peak hour. Cars are travelling the posted speed limit (speed management techniques may be necessary). Note: Cars may pass bicyclists more or less frequently depending on how well these assumptions reflect reality.

Roadway Shoulders

Typically found in less-dense, or rural areas, shoulders intended for bicycle travel should contain a rideable width of at least 4 feet. These shoulders may often include signage alerting motorists to expect bicycle travel along the roadway. Shoulders may be implemented in excess of 4 feet under a variety of circumstances. See CDOT Roadway Design Guide section 13.2.6.1 for scenarios which may justify additional width.



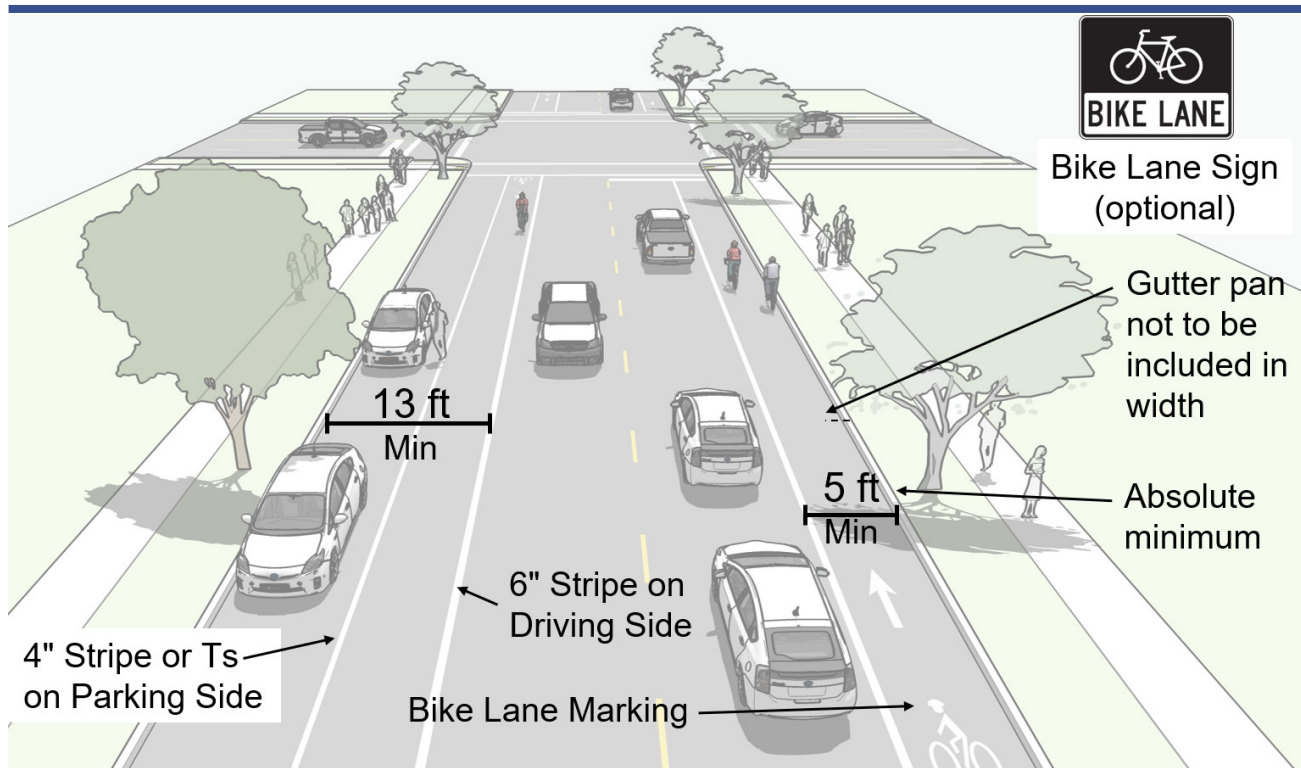
For steep roadways where wide shoulders are not feasible, the uphill shoulder may be increased in width, while the downhill shoulder reduced or eliminated. The speed differential of downhill bicyclists in these scenarios is more compatible with sharing the travel lane with vehicles.

USE OF RUMBLE STRIPS ON SHOULDERS

Where appropriate, rumble strips should be installed per CDOT Standard Plan No. M-614-1. On roadways identified as bicycle routes continuous rumble strips shall not be used. Rumble strips shall not be installed on shoulders less than 6 feet wide when guardrail is placed at the edge of the shoulder. Rumble strips should be placed as closely as possible to the right edge of the roadway edge line. A minimum of 4 feet clear shoulder should be provided to the right of the rumble strips. A warning marking as shown in the CDOT Roadway Manual Figure 13-14 should be placed in advance of each rumble strip installation.

Bike Lanes

Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and signage. The bike lane is typically located on the right side of the street, between the adjacent travel lane and curb, and is used in the same direction as motor vehicle traffic.



TYPICAL APPLICATION

- Wider than minimum dimensions preferred whenever possible.
- Posted speeds: 25 to 40 MPH
- Recommend greater protection as volumes warrant more than one travel lane in each direction

ONE WAY STREETS

- Left Side Bike Lanes can be considered to avoid conflicts with high frequency taxi or transit traffic, and to avoid dooring conflicts.
- Contra Flow Bike Lanes can provide two-way travel for bicyclists on a one-way street.

FOR MORE INFORMATION

2023 CDOT Roadway Design Guide, Chapter 13, Section 13.2.7

2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

2025 NACTO Urban Bikeway Design Guide

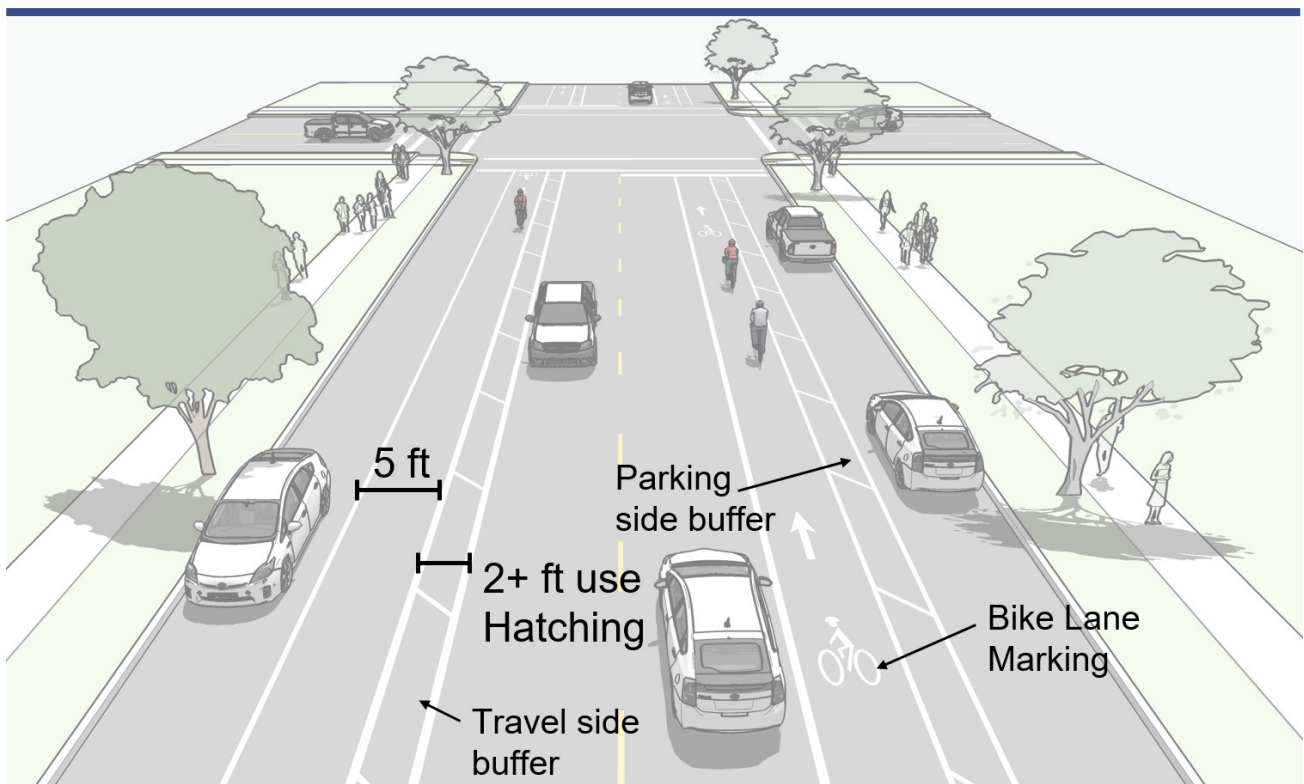
NCHRP 766: Recommended Bicycle Lane Widths for Various Roadway Characteristics



Buffered Bike Lanes

Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space, separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. Buffered bike lanes should follow guidance per MUTCD (section 9E-06).

Buffered bike lanes are designed to increase the space between the bike lane and the travel lane and/or parked cars. This treatment is appropriate for bike lanes on roadways with high motor vehicle traffic volumes and speed, adjacent to parking lanes, or a high volume of truck or oversized vehicle traffic.



TYPICAL APPLICATION

Applicable wherever a standard bike lane is being considered and special situations such as:

- Streets with high travel speeds, high volumes, and/or high % of large vehicle traffic,
- Streets with door zone risk, and
- Streets with extra lanes or width.
- Buffer may be placed on the side of the bike lane with greater conflict, or both sides if width allows.

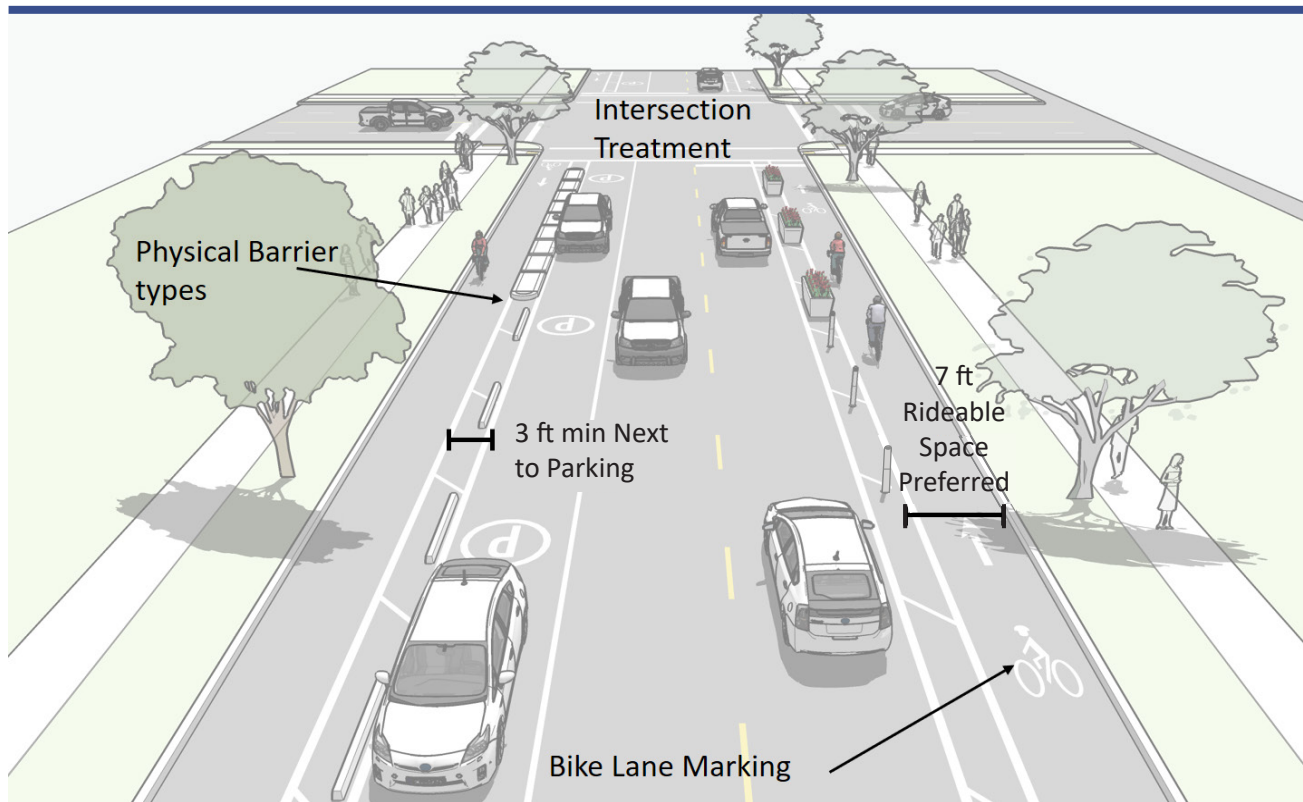
FOR MORE INFORMATION

2023 CDOT Roadway Design Guide, Chapter 13, Section 13.2.7.5
2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition
MUTCD 11th Edition, Section 9E-06

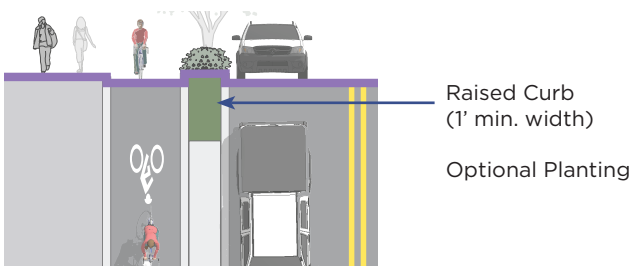
Separated Bike Lanes

A separated bike lane (SBL) is an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. A SBL is physically separated from motor traffic and distinct from the sidewalk. SBLs have different forms but all share common elements—they provide space that is intended to be exclusively or primarily used by bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. In situations where on-street parking is allowed, these facilities are located to the curb-side of the parking (in contrast to bike lanes). SBLs are either raised or at street level and may use a variety of elements for physical protection from passing traffic.

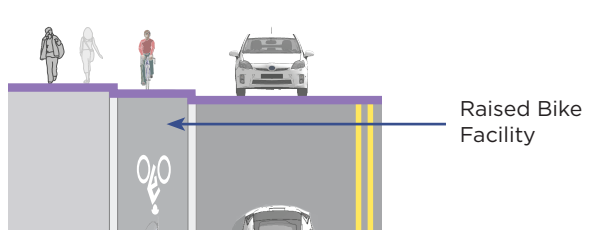
ONE-WAY BICYCLE OPERATION



Median Separation



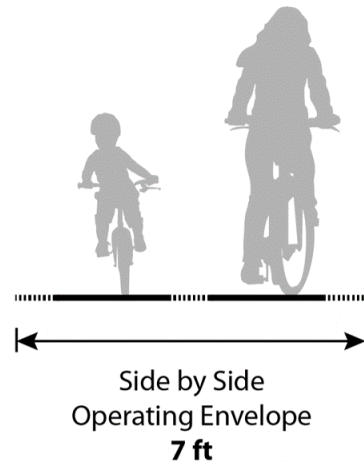
Grade Separation



Separated Bike Lanes (Continued)

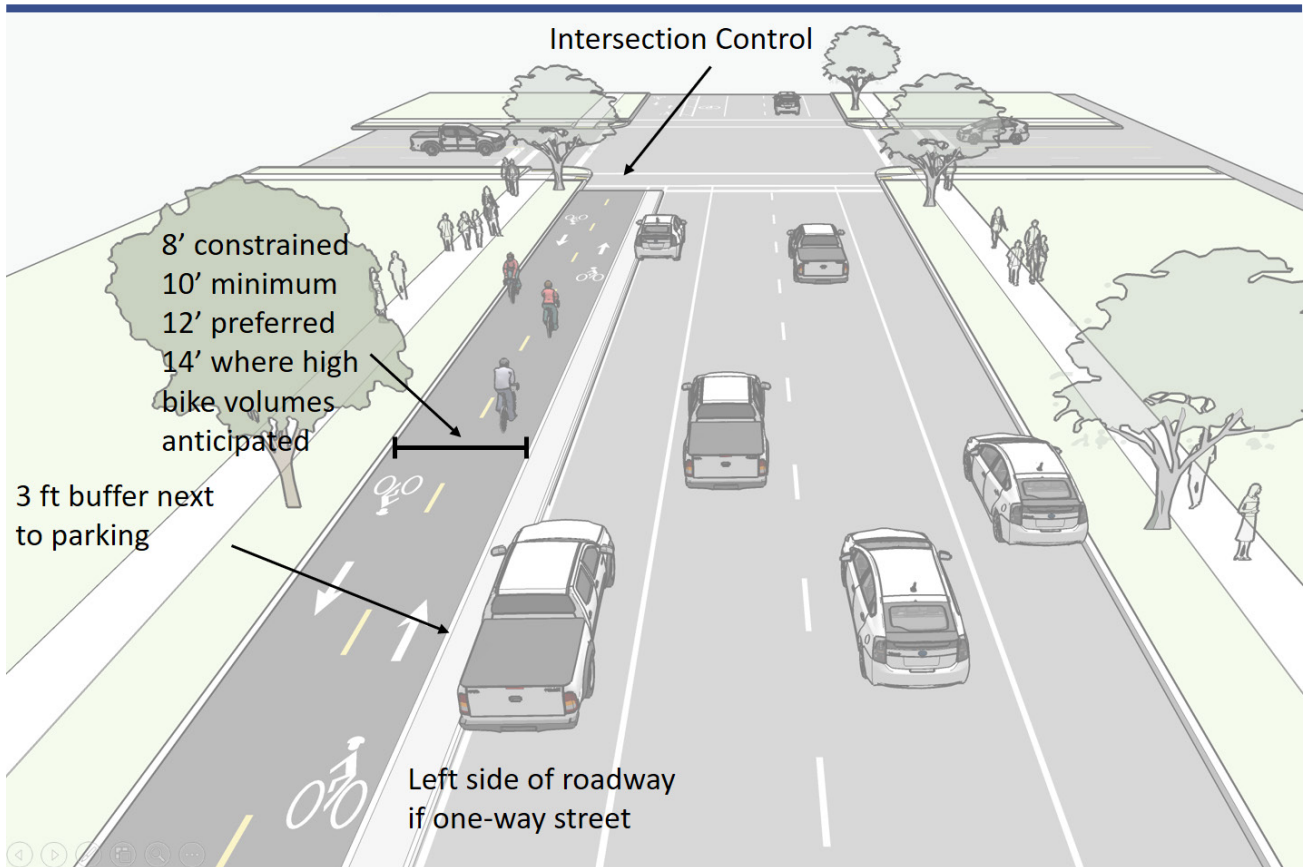
WIDTH CONSIDERATIONS

- 7 foot rideable space recommended to allow passing, consider shy distance to curbs, barriers and other objects.
- 5 foot absolute minimum width in constrained locations.
- When placed adjacent to parking, the parking buffer should be a minimum of 3 feet wide to allow for passenger loading and to prevent door collisions.
- Curb design, and shy distance to obstructions will impact the effective width of the facility.
- Design so that bicyclists can pass each other without leaving the separated bike lane.
- Design as wide as needed to allow for available maintenance vehicles.



TWO WAY OPERATION

Two-way separated bike lanes are physically separated bike lanes that allow bicycle movement in both directions on one side of the road. Two-way separated bike lanes share some of the same design characteristics as one-way separated bike lanes, but may require additional considerations at driveway and side-street crossings.



TWO-WAY CONSIDERATIONS

- Two-way separated bike lanes introduce more complex interactions.
- Compared to one-way, two-way increases risk of injury by 50% at unsignalized intersections.
- Two-way separated bike lanes create more challenging bikeway connections.
- Two-way separated bike lanes may require more complicated signalization and signal progression of contra-flow bicycle direction can be challenging.

Remedies for these issues are generally more expensive and complicated than on one way facilities.

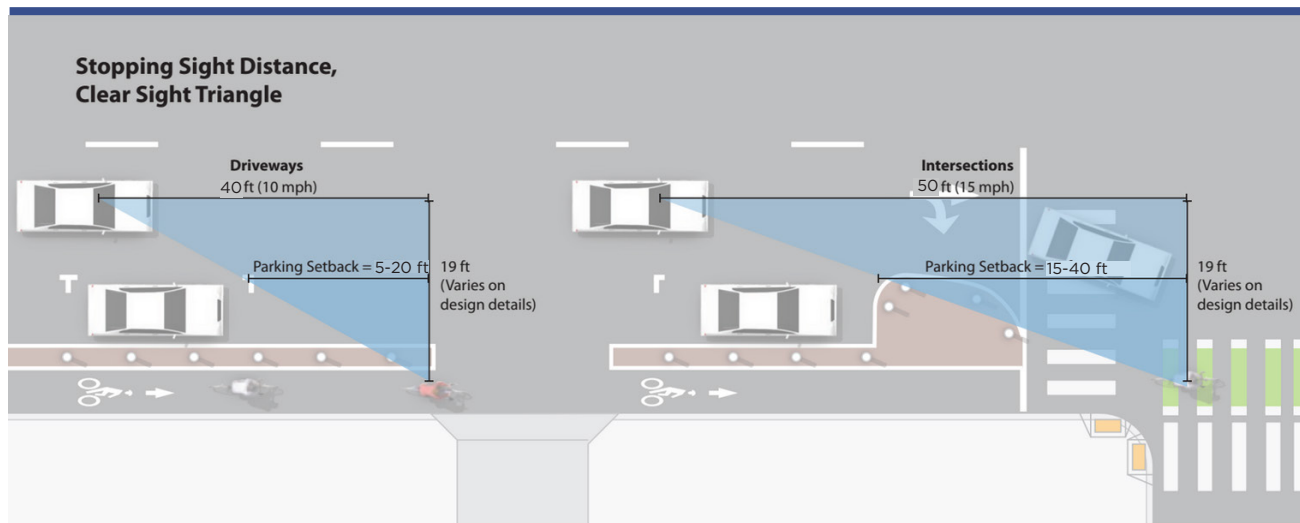
DRIVEWAYS & CONFLICT POINTS

Driveways are a critical problem for two way separated bike lanes. Design strategies for driveways include elimination and/or mitigation. Elimination of driveways can be accomplished using standard access management strategies.

Mitigation can be accomplished by:

- Improving sight lines,
- Slowing vehicles, by utilizing more abrupt driveway aprons or tighter turning paths,
- Raising awareness of bicyclists with color, markings, and signage,
- Setting them back.

BIKE LANE SETBACK TO PARKING OR OBSTRUCTIONS



Dimensions to be based on the design speed of the roadway, as reported in Table 9-21 Stopping Sight Distance for Turning Roadways in AASHTO's A Policy on Geometric Design of Highways and Streets, 2018

10 mph = 40-foot stopping sight distance at driveways
15 mph = 50-foot stopping sight distance at intersections

FOR MORE INFORMATION

2023 CDOT Roadway Design Guide, Chapter 13, Section 13.2.10

2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

2025 NACTO Urban Bikeway Design Guide

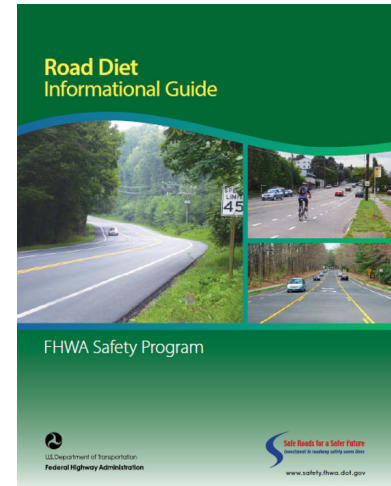
2016 FHWA Small Town and Rural Multimodal Networks Guide

2023 Manual on Uniform Traffic Control Devices, Section 9C.04

New Builds or Retrofits

Bicycle and/or pedestrian facilities can be added through new build projects or major reconstructions, however, these opportunities may take decades to realize. New builds should be designed as multimodal corridors from the beginning and avoid the use of minimum dimensions for bicycle and pedestrian facilities. For Retrofits, there are 3 common methods of finding space for bicycle facilities on existing streets. They are:

- Reconfigure/Remove Travel Lanes
- Narrow Lane Widths
- Remove Parking



LANE REMOVAL/ RECONFIGURATION

Road Diet

The name “Road Diet” refers to the conversion of a four-lane undivided roadway with two through lanes in each direction to a 3-lane undivided roadway consisting of two through lanes on either side of a two-way left turn lane (TWLTL). Other lane reduction approaches are also referred to as road diets, e.g. 5-to-3 lane conversions but the 4-to-3 conversion is most common.

The 2012 FHWA Memorandum on Promoting the Implementation of Proven Safety Countermeasures lists road diets as one of the nine proven safety countermeasures.

According to the FHWA Road Diet Informational guide, benefits of the 4-to-3 lane conversion include:

- A 19 to 47 percent reduction in overall crashes
- A reduction in speed differential which reduces crash severity
- A reduction in various types of delay

Type of Roadway	Rural		Urban	
	US (feet)	Metric (meters)	US (feet)	Metric (meters)
Freeway	12	3.6	12	3.6
Ramps (1-lane)	12-30	3.6-9.2	12-30	3.6-9.2
Arterial	11-12	3.3-3.6	10-12	3.0-3.6
Collector	10-12	3.0-3.6	10-12	3.0-3.6
Local	9-12	2.7-3.6	9-12	2.7-3.6

Recommended Lane Widths from 2018 AASHTO Green Book

- Right of way available for reallocation to pedestrian and bicycle facilities
- Risk reduction for pedestrians whether crossing at an intersection or mid-block
- An improvement of the livability or comfort level of the street

LANE NARROWING

Contrary to expectations, narrower lane widths do not reduce roadway capacity and can increase roadway safety.

Narrower Lanes do not Reduce Capacity

“The measured saturation flow rates are similar for lane widths between 10 feet and 12 feet. ... Thus, so long as all other geometric and traffic signalization conditions remain constant, there is no measurable decrease in urban street capacity when through lane widths are narrowed from 12 feet to 10 feet.” John Zegeer, P.E.,(2007).

Capacity, therefore, is not degraded until lane widths are reduced to less than 10 feet. The 2010 Highway Capacity Manual has been revised to eliminate any saturation flow adjustments for lane widths between 10 and 13 feet wide.

Narrower Lanes do not Increase Crash Rates

- 10-foot lanes cause no more accidents than 12-foot lanes, and may cause fewer.
- Potts, Ingrid B., Douglas W. Harwood, and Karen R. Richard. “Relationship of Lane Width to Safety on Urban and Suburban Arterials.” 2007.
- NCHRP Report 330: “Effective Utilization of Street Width on Urban Arterials, 1990.

REMOVE PARKING

If removal, reconfiguration or narrowing of existing lanes does not provide sufficient space, removal of on-street parking can be considered. Removal of parking is often a controversial proposal. Some strategies to reduce the impact of parking removal are:

- If considering removal of one lane only, look for streets with less than 50% parking occupancy,
- Include immediate side streets in corridor parking occupancy analysis, and
- Consider side street reconfiguration to increase parking capacity and offset losses.

Resurfacing Opportunities

Resurfacing of a street can provide an opportunity to easily and cost effectively add bicycle facilities. The FHWA has published guidance on the ways to take advantage of this process. Key lessons from FHWA Resurfacing Workbook include:

1. Provide adequate time
2. Multimodal approach – include key staff
3. Review relevant plans
4. Apply design flexibility



“Installing bicycle facilities during roadway resurfacing projects is an efficient and cost-effective way for communities to create connected networks of bicycle facilities.”

FOR MORE INFORMATION

2015 FHWA Incorporating On-Road Bicycle Networks into Resurfacing Projects
2014 FHWA Road Diet Informational Guide
2018 AASHTO A Policy on Geometric Design of Highways & Streets (Greenbook)
2013 NACTO Urban Street Design Guide

Review Questions

1. A shared lane marking is a good treatment for a multi-lane arterial.

- True
- False

2. Is a “Share the Road” sign the best sign option for a rural highway?

- Yes
- No

3. To be “bikeable”, a shoulder should have at least ____ feet of clear riding space (circle one).

4 5 6

4. Can the gutter pan be counted in the width of a bike lane per the current 2023 MUTCD?

- Yes
- No

5. Bike lane buffers are most useful with _____ vehicle volumes and travel speeds.

- High
- Low

6. Roadway surface preservation projects should _____ examine opportunities to include bike facilities (circle one).

Always Never Sometimes (if my boss asks)

7. Separated bike lanes offer _____ comfort and security for people who have traffic safety concerns (circle one).

More Less

8. List several popular types of bike lane separators _____

9. Two-way separated bike lanes create _____ complex intersections and transitions when compared to one-way separated bike lanes (circle one).

More Less The Same



INTERSECTIONS

INTERSECTION PRINCIPLES
TURNS + BIKE LANES
BIKE SIGNALS

PROTECTED INTERSECTIONS
ROUNDBABOUTS
MAJOR ROADWAYS

Intersection Principles

Intersections are where the majority of bicycle-motor vehicle crashes occur. Proper design can reduce the risk faced by bicyclists at intersections.

DESIGN PRINCIPLES FOR INTERSECTIONS

Minimize Speed

Control through and turning speed of the majority of vehicles. Slower speeds at intersections reduce crash frequency and severity as well as increase yielding rates to bicyclists and pedestrians. See charts below.

Increase Awareness

Use signage and markings to make the presence of bicyclists expected and anticipated.

Increase Conspicuity

Use geometry to put bicyclists in a position where they are more visible through advance stop lines for cars and bend in or out geometry at side streets and driveways. Position motorists so that they cross the path of bicyclists at an angle as close to 90 degrees as possible.

Isolate Conflicts

Minimize the size and number of conflict points between turning vehicles and through moving bicyclists. Conflicts can also be isolated through signal phasing.

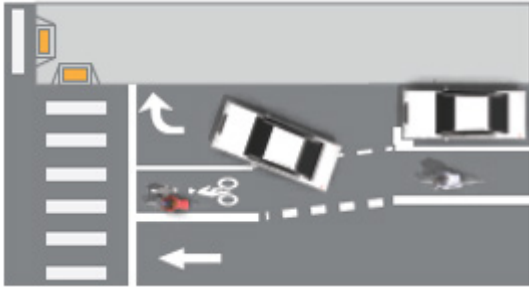
Clearly Assign Priority

Make it obvious which user has the legal right-of-way. Angled crossings and ambiguous designs can create confusion or a false sense of security.

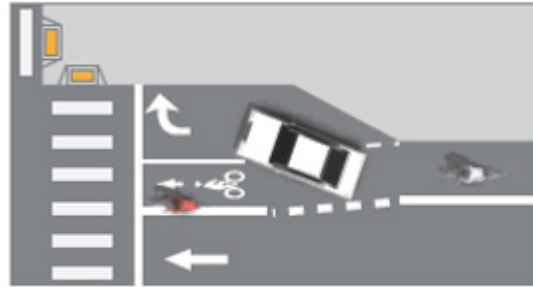
Right Turns and Bike Lanes

On-street bike facilities can create a threat when through-traveling bicyclists conflict with right-turning motorists.

WHEN AN AUXILIARY RIGHT TURN ONLY LANE IS ADDED



Parking Lane into Right Turn Only lane:
Through Bike lanes provide bicycle priority within weaving area

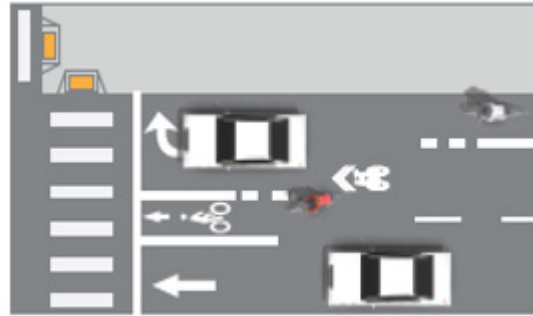


Right Turn Only lane through widening:
Through bike lanes provide bicycle priority within weaving area

WHEN A THROUGH TRAVEL LANE DROPS INTO A RIGHT TURN ONLY LANE



Bicyclists are not provided priority in weaving area and must use caution to merge across motor vehicle traffic. Dotted line transition areas should not be provided in these locations due to confusing geometry.



Bicycle lane dropped in advance of the intersection encourages bicyclists to merge across as gaps permit. Shared lane markings may be used to provide additional guidance.



Exclusive bicycle signal phase used to separate conflicting movements

Separated Bike Lanes

Separated bike lanes have additional options for interacting with right turn lanes. See NACTO Urban Bikeway Design Guide for guidance.

FOR MORE INFORMATION

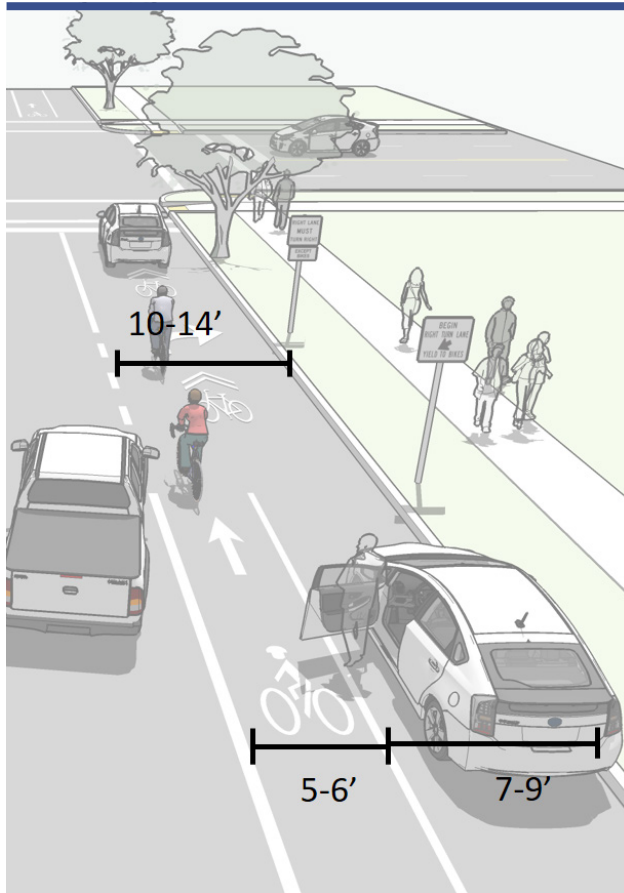
CDOT Roadway Design Guide, Chapter 13, Section 13.2.7.4

2025 NACTO Urban Bikeway Design Guide

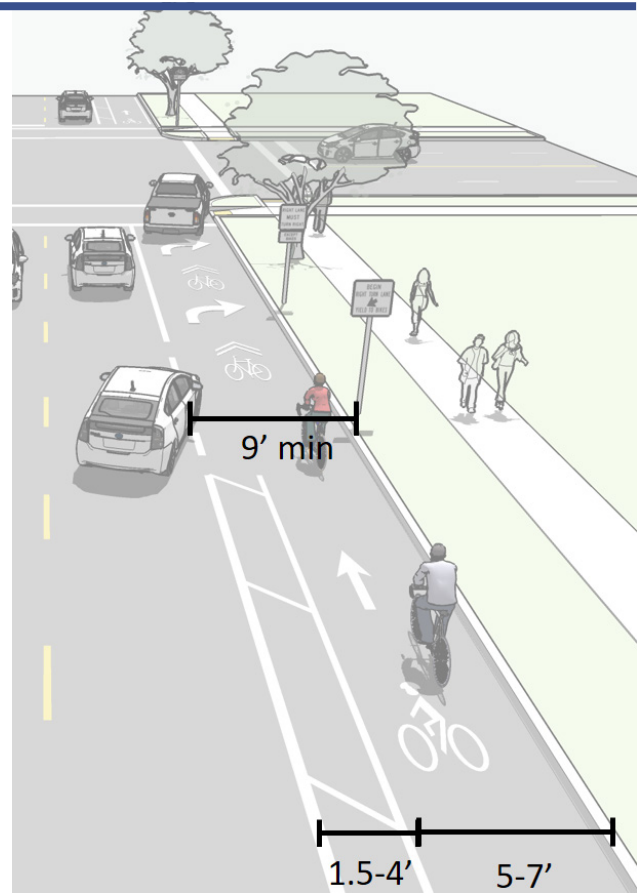
2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

Shared Right Turn Lane

The shared right turn lane places shared lane markings within a right turn only lane. This treatment is recommended at intersections lacking sufficient space to accommodate both a standard through bike lane and right turn lane.



The combined width of the bike lane and parking lane create sufficient space for a right turn only lane



The combined width of the bike lane and buffer may be used to create a right turn only lane if 9 feet or greater

FOR MORE INFORMATION

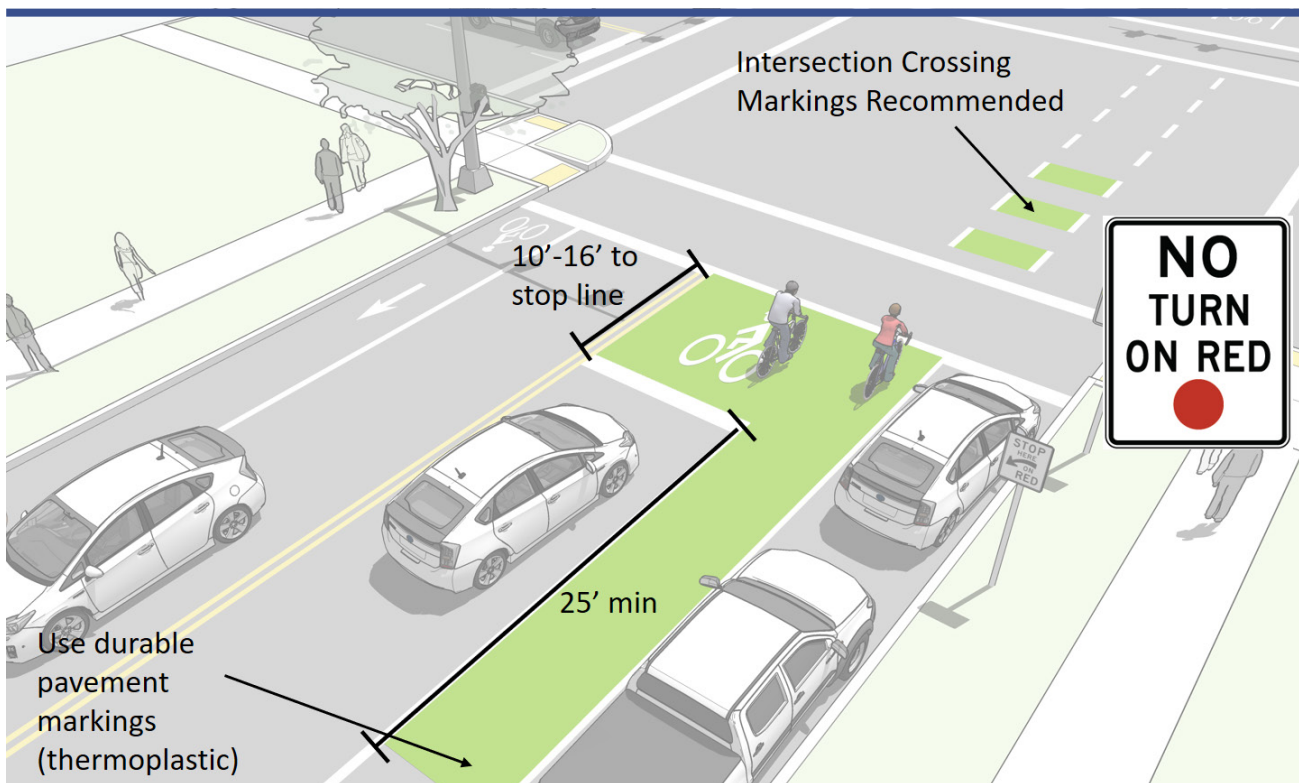
CDOT Roadway Design Guide, Chapter 13, Figures 13-32

2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

2025 NACTO Urban Bikeway Design Guide

Bike Box

A bike box is a designated area located at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible space to get in front of queuing motorized traffic during the red signal phase. Motor vehicles must queue behind the white stop line at the rear of the bike box. Bike boxes should be placed only at signalized intersections, and right turns on red shall be prohibited for motor vehicles if the bike box is in front of the right turn only lane. Bike boxes should be used in locations that have a large volume of bicyclists and are best utilized in central areas where traffic is usually moving more slowly. Bike boxes may not be the best treatment for facilitating bicyclist left turns. See Two Stage Turn Queue Box. Multi-lane bike boxes should be carefully considered before implementation as the maneuvering time required to position is higher.



FOR MORE INFORMATION

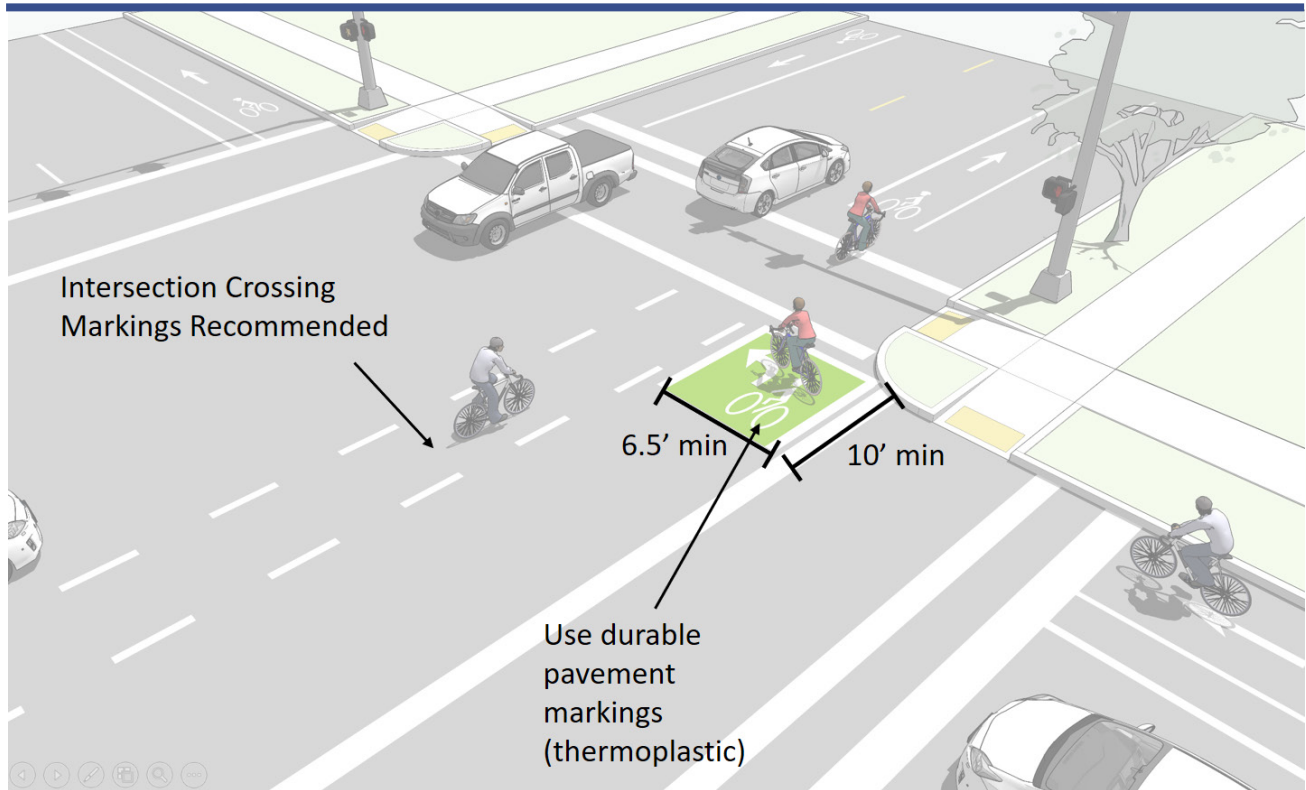
CDOT Roadway Design Guide, Chapter 13, Section 13.3.16.7

2025 NACTO Urban Bikeway Design Guide

2023 Manual on Uniform Traffic Control Devices, Section 9E.12

Two Stage Turn Queue Box

Two-stage turn boxes offer bicyclists a safe way to make turns at multi-lane signalized intersections from a separated or conventional bike lane. On separated bikeways, bicyclists are often unable to merge into traffic to turn due to physical separation, making the provision of two-stage turn boxes critical.



TYPICAL APPLICATION

- Streets with high vehicle speeds and/or traffic volumes.
- At intersections with multi-lane roads with signalized intersections.
- At signalized intersections with a high number of bicyclists making a left turn from a right side facility
- On streets with separated bike lanes and intersecting bikeways
- Right turn on red from cross-street prohibited per MUTCD 9E.11.

DESIGN FEATURES

The two stage turn box shall be placed in a protected area that does not conflict with vehicular or bicycle through lanes. Typically this is within the shadow of an on-street parking lane or separated bikeway buffer area and should be placed in front of the crosswalk to avoid conflict with pedestrians.

FOR MORE INFORMATION

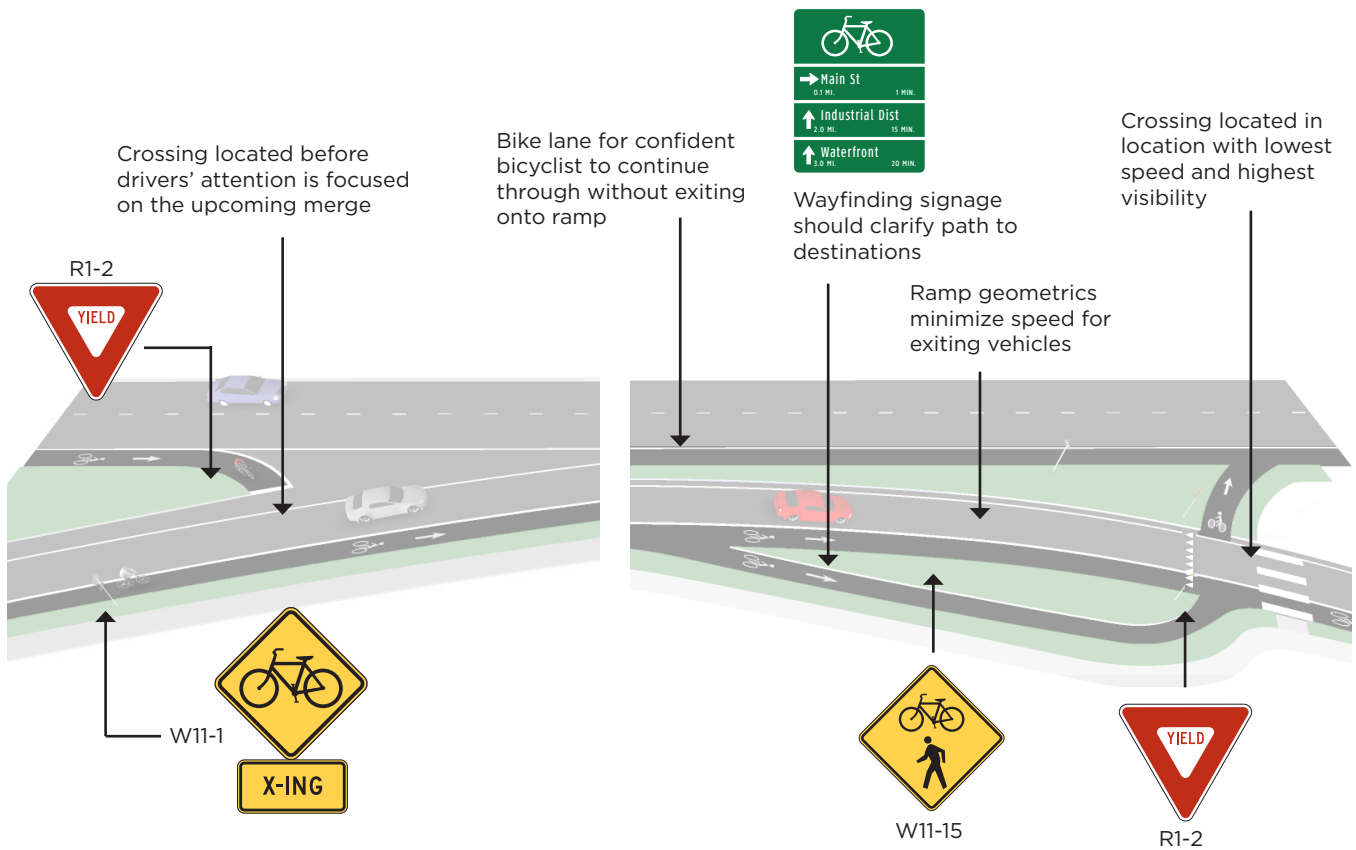
CDOT Roadway Design Guide, Chapter 13, Section 13.2.7.4.2

2025 NACTO Urban Bikeway Design Guide
2023 Manual on Uniform Traffic Control Devices, Section 9E.11

Bike Lanes and Interchange Ramps

Some arterials may contain high speed freeway-style designs such as merge lanes and exit ramps, which can create difficulties for bicyclists. The entrance and exit lanes typically have intrinsic visibility problems because of low approach angles and feature high speed differentials between bicyclists and motor vehicles.

Strategies to improve safety focus on increasing sight distances, creating formal crossings, and minimizing crossing distances.



TYPICAL APPLICATION

Entrance Ramps:

Angle the bike lane to increase the approach angle with entering traffic. Position crossing before drivers' attention is focused on the upcoming merge.

Exit Ramps:

Use a jug handle turn to bring bicyclists to increase the approach angle with exiting traffic, and add yield striping and signage to the bicycle approach.

FOR MORE INFORMATION

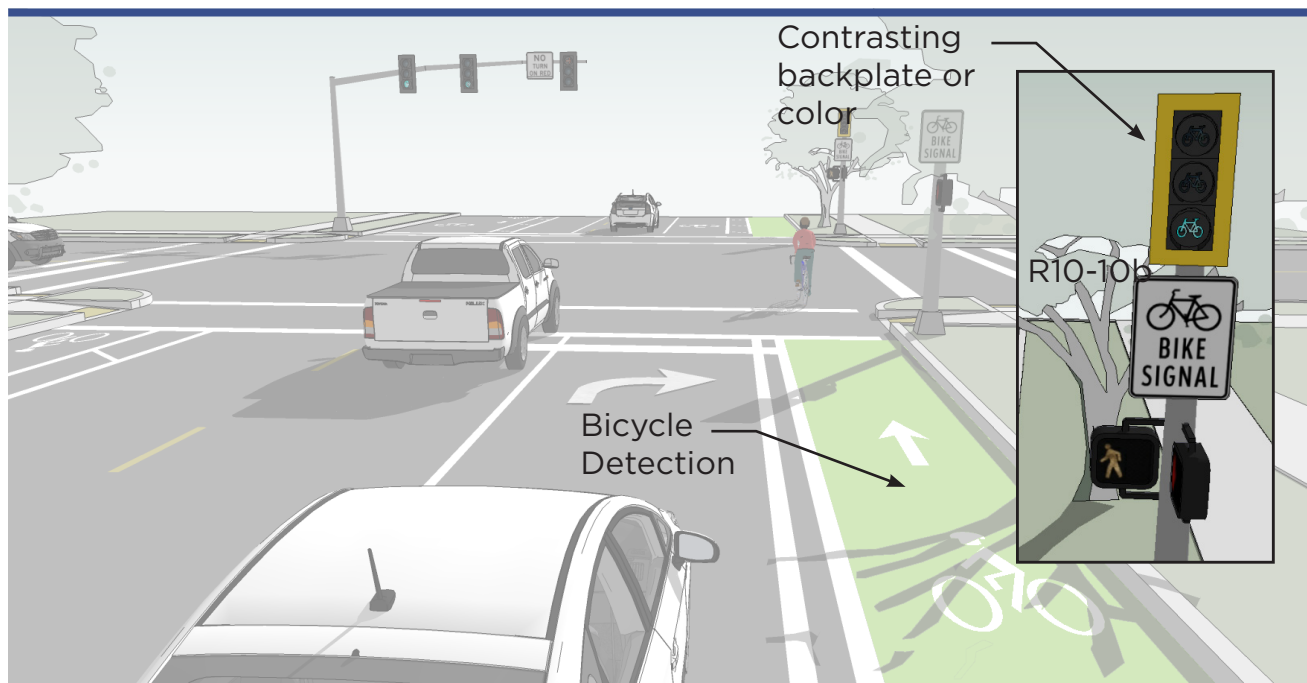
CDOT Roadway Design Guide, Chapter 13, Figure 13-25

2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

Bicycle Signals

Bicycle signals are typically used to improve identified safety or operational problems involving bicycle facilities. Bicycle signal heads may be installed at signalized intersections to indicate bicycle signal phases and other bicycle-specific timing strategies. Bicycle signals can be actuated with bicycle sensitive loop detectors, video detection, or push buttons.

Bicycle signals are typically used to provide guidance for bicyclists at intersections where they may have different needs from other road users (e.g., bicycle-only movements).



TYPICAL APPLICATION

Bicycle signals are used:

- For contra-flow bicycle movements,
- Where high-volume turns will cross the bikeway, and
- Where concurrent phases are possible.
- Where a bicycle lane is established to the right of a right turn only lane (prohibited by MUTCD).

Bicycle signals are not used:

- Where conflicting turning traffic is minor,
- Where conflicting turning traffic can be prohibited, or
- Where a protected phase can't be provided.

Current restrictions on bicycle signals include:

- No use of leading bicycle interval (LBI),
- No conflicts of any kind with vehicle movements,
- No bicycle scrambles,
- No use with hybrid beacons, and
- Must have bike lane, no shared lane approaches.

FOR MORE INFORMATION

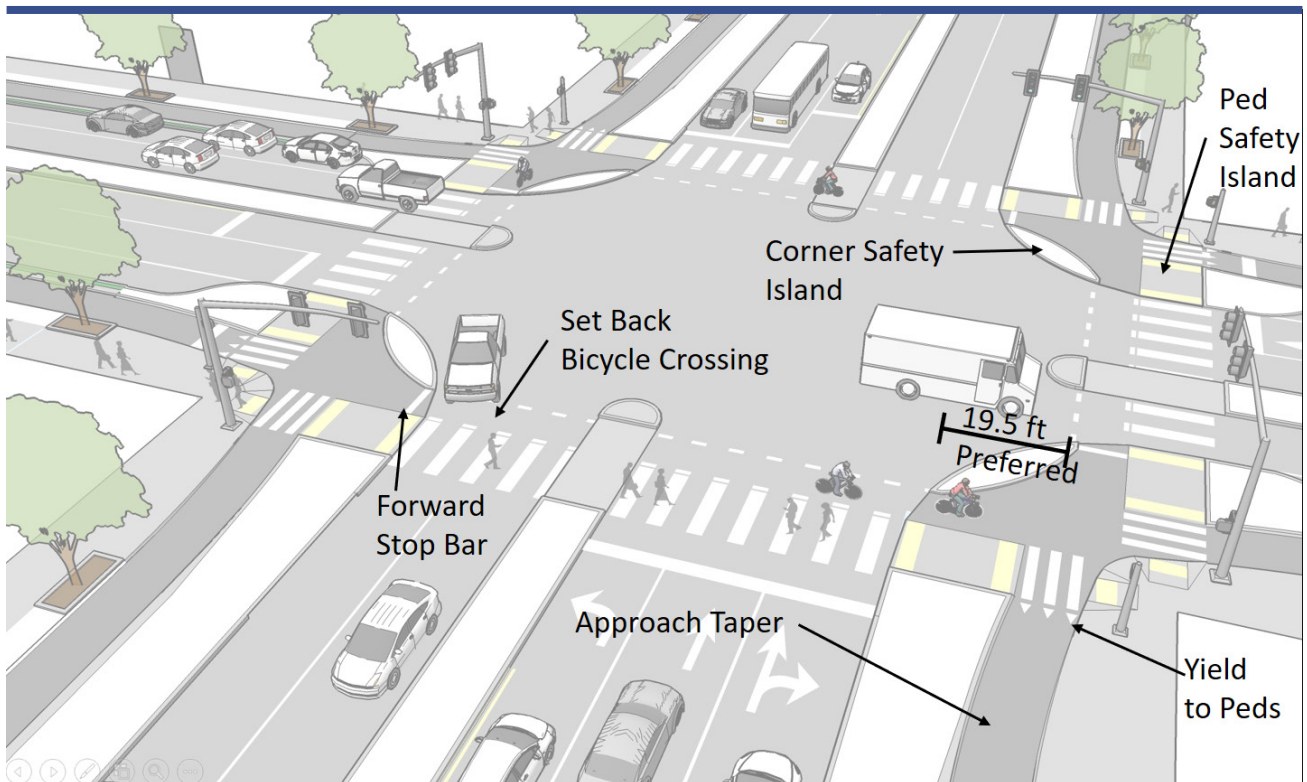
CDOT Roadway Design Guide, Chapter 13, Section 13.2.8

2025 NACTO Urban Bikeway Design Guide

2023 Manual on Uniform Traffic Control Devices, Chapter 4H

Protected Intersections

A protected intersection, or “bend-out” uses a collection of intersection design elements to maximize user comfort within the intersection and promote a high rate of motorists yielding to people bicycling. The design maintains a physical separation within the intersection to define the turning paths of motor vehicles, slow vehicle turning speed, and offer a comfortable place for people bicycling to wait at a red signal.



TYPICAL APPLICATION

- Streets with separated bikeways protected by wide buffer or on-street parking.
- Where two separated bikeways intersect and two-stage left-turn movements can be provided for bicycle riders.
- Helps reduce conflicts between right-turning motorists and bicycle riders by reducing turning speeds and providing a forward stop bar for bicycles.
- Where it is desirable to create a curb extension at intersections to reduce pedestrian crossing distance.

FOR MORE INFORMATION

2025 NACTO Urban Bikeway Design Guide
2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition
2015 Lessons Learned: Evolution of the Protected Intersection at <https://altaplanning.com/resources/evolution-of-the-protected-intersection/>
2023 Manual on Uniform Traffic Control Devices, Section 9E.07

Bikeway Crossings of Major Roads

Construction of bicycle or shared use facilities normally requires the crossing of existing roads, whether it be a CDOT facility or a City/County facility crossing a CDOT route. Depending on volumes and speeds, treatments at those crossings can range from a marked crosswalk to full signalization.

Alternatives which exist along this continuum vary in motorist compliance rate, cost, and delay. These alternatives include marked crosswalks, median refuge islands, rectangular rapid flashing beacons (RRFB), hybrid beacons, and full signalization.

Uncontrolled Crossing Countermeasure Evaluation Table												
Roadway Type	Vehicle ADT < 9,000			Vehicle ADT 9,000 - 12,000			Vehicle ADT 12,000 - 15,000			Vehicle ADT > 15,000		
	Speed Limit (mph)											
Number of Travel Lanes and Median Type	≤30	35	40≥*	≤30	35	40≥*	≤30	35	40≥	≤30	35	40≥
2 Lanes ^b	1	1	2	1	1	2	1	1	3	1	2	3
3 Lanes with Raised Median ^b	1	1	2	1	1	2	1	2	3	2	2	3
3 Lanes without Raised Median ^{b,c}	1	1	2	1	2	2	2	3	3	2	3	3
4 Lanes with Raised Median ^{c,d}	1	1	2	1	2	2	2	3	3	3	3	3
4+ Lanes without Raised Median	1	2	3	2	2	2	3	3	3	3	3	3

Tier 1 involves awareness treatments to encourage driver yielding.

Tier 2 involves geometric elements and/or RRFBs to provide active warning.

Tier 3 involves treatments such as PHBs or full signals to stop traffic for more complex crossings.

FOR MORE INFORMATION

2023 CDOT Roadway Design Guide, Chapter 13, Section 13.3.9

2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition, Section 5.9.2.

2025 NACTO Urban Bikeway Design Guide
2023 Manual on Uniform Traffic Control Devices

Review Questions

1. Match the design cyclist with the type of intersection approach. Each type can have multiple answers.

Design Cyclist

Highly Confident

Somewhat Confident

Interested but Concerned

Intersection Approach Type

Mixed Zone / Shared Turn Lane

Through Bike Lane

Bend Out / Protected Corner

Maintain Separated Bike Lane

Bike Signal

2. Which is the better treatment to facilitate bicyclist left turns? (circle one)

Bike Box

Two-Stage Turn

Queue Box

3. Should traffic be stopped as part of a design treatment to help cross bicyclists over a 4-lane street with more than 15,000 average daily traffic?

Yes

No

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An aerial photograph of a highway interchange with a shared-use path in the foreground. The path is a light-colored, paved area that curves along the edge of a grassy embankment. A black fence runs along the path. In the background, a multi-lane highway with several cars and a truck is visible. The scene is set against a backdrop of rolling green hills and mountains under a clear sky. The entire image has a green color overlay.

SHARED-USE PATHS

SHARED USE PATH DESIGN
SIDEPATH DESIGN

Shared Use Path Design

Shared use paths are physically separated from motorized vehicular traffic by either a physical barrier or clear space. They are often on their own alignments but may be located within the right-of-way of an adjacent roadway.

The design of these facilities should be approached as if designing a road. Because shared use paths accommodate pedestrians, ADA access requirements must also be met.

SURFACE TREATMENTS

Shared use paths can be unpaved but these facilities may have greater problems with erosion, use by the physically disabled, use by alternative wheeled users (e.g., in-line skaters, skateboarders, etc.), and snow removal. Unpaved paths may require more maintenance effort.

Paved paths are usually surfaced with either asphalt or concrete.



Saw cut joints offer a smoother ride for bicyclists

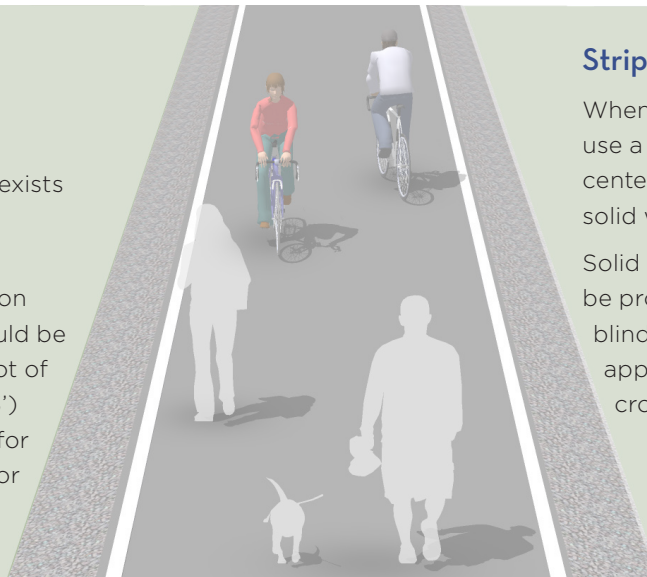
	Asphalt	Concrete
Pros	Smooth surface (no joints) Runners tend to prefer over concrete Cheaper up front cost (usually) Melts out in winter easier	Lower long-term life cycle cost Less frequent maintenance required
Cons	More frequent maintenance required More prone to edge failure and root damage	Higher up front cost Runners don't like Can have joint issues (saw cut rather than trowel) Holds snow

Width:

- 8' in constrained areas
- 10' minimum
- 12 - 14' where heavy use exists

Shoulder:

2 foot or greater shoulder on both sides of the path should be provided. An additional foot of lateral clearance (total of 3') is required by the MUTCD for the installation of signage or other furnishings.



Striping:

When striping is required, use a 4 inch dashed yellow centerline stripe with 4 inch solid white edge lines.

Solid centerlines can be provided on tight or blind corners, and on the approaches to roadway crossings.

Sidepath Design

The term sidepath refers to a shared use path located immediately adjacent and parallel to a roadway. Along roadways, these facilities create a situation where a portion of the bicycle traffic rides against the normal flow of motor vehicle traffic and can result in wrong-way riding where bicyclists enter or leave the path.

ADVANTAGES

Sidepaths are most advantageous when:

- Few driveways / side streets are encountered
- Sidepaths are available on both sides of the roadway
- Crossings are designed to be clear and visible to all users
- Adequate signage is used on the path
- Trail serves an important high-use link

CHALLENGES

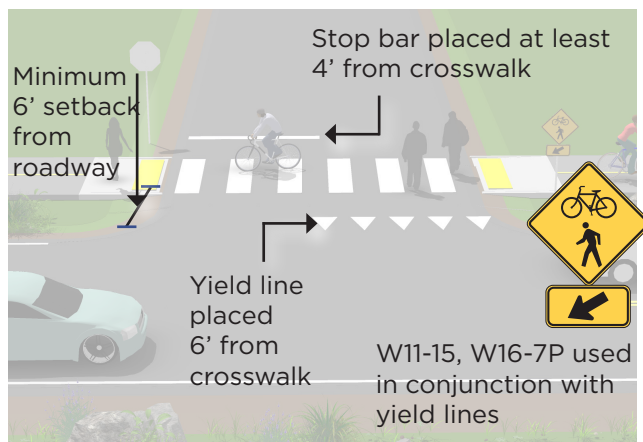
Sidepath challenges include:

- Two-way travel on one side of the street
- Starting and ending points
- Driveway/Intersection safety
- Rules of the road are not always clear to drivers or bicyclists
- Should not be used as an alternative to bike lanes

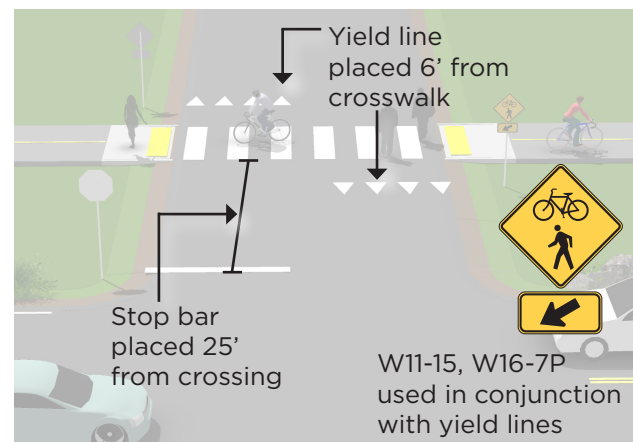
DESIGN STRATEGIES FOR DRIVEWAYS

The strategies for addressing conflicts at driveways are similar to those for two-way separated bike lanes.

Adjacent Crossing - A separation of 6 feet emphasizes the conspicuity of riders at the approach to the crossing.



Setback Crossing - A set back of 25 feet separates the path crossing from merging/turning movements that may be competing for a driver's attention.



FOR MORE INFORMATION

2023 CDOT Roadway Design Guide, Chapter 13, Section 13.3.12

2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

PROWAG Guidelines: <http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way>

2016 FHWA Small Town and Rural Multimodal Networks Guide

Review Questions

1. Concrete is generally _____ intensive from a maintenance perspective.

More

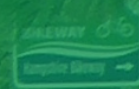
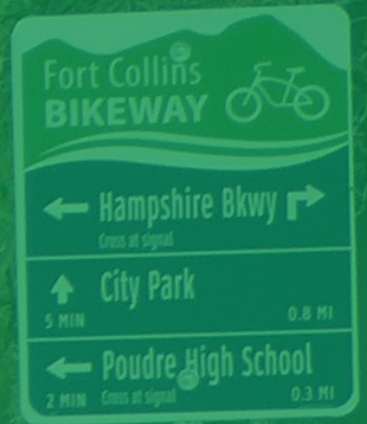
Less

2. Are bollards currently the recommended treatment to discourage vehicle access onto a shared use path?

Yes

No

WAYFINDING



UNDENOSA

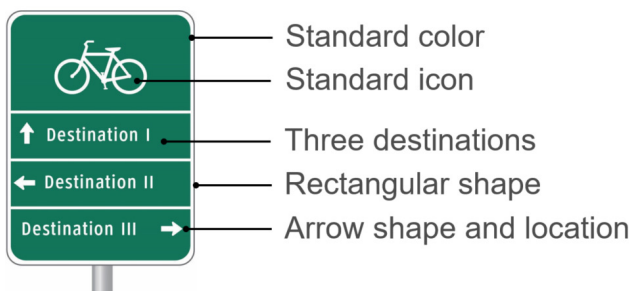
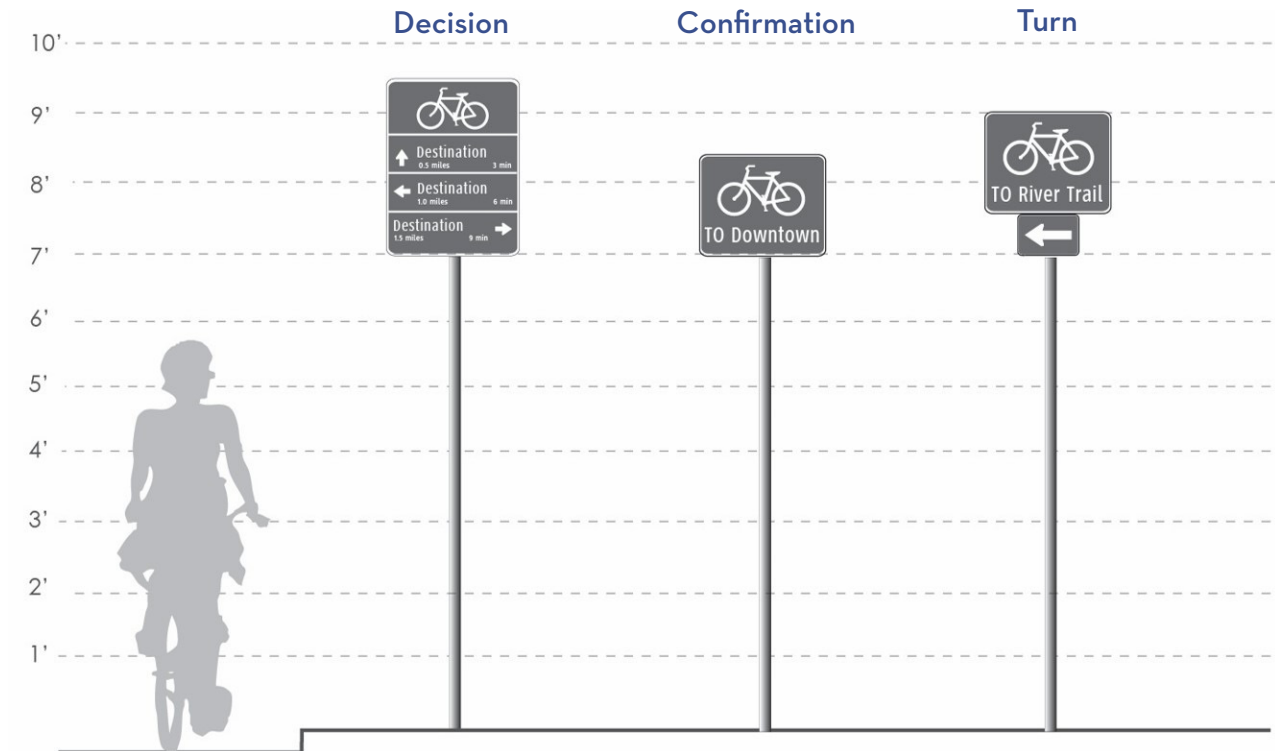
Wayfinding Fundamentals

A good wayfinding system has the following properties:

- **Progressive Disclosure** – provide information gradually so as not to overwhelm user
- **Consistency** – design and placement should be uniform
- **Available** – wayfinding is legible to the fullest range of users, e.g. low vision, non-English speakers
- **Simple** – wayfinding which is easy to use is more likely to be used

Three types of wayfinding signs:

- **Decision** signs are located at intersections with other bicycle facilities to clarify travel options.
- **Confirmation** signs are often placed after a complex maneuver is made to reassure the cyclist that they are indeed on their intended path.
- **Turn** signs should be used at both complex intersections, as well as along non-intuitive routes, to reinforce a specific direction.



FOR MORE INFORMATION

2023 CDOT Roadway Design Guide, Chapter 13, Section 13.3.11

2025 NACTO Urban Bikeway Design Guide

2023 MUTCD section 2D.55 Community Wayfinding allows custom colors and enhancement markers (logos).

2024 AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

Review Questions

1. Can on-street bicycle wayfinding signs introduce a level of creative design and also be MUTCD compliant?

Yes

No

2. Is orange a good color for a bicycle wayfinding sign?

Yes

No

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POLICY + PROCEDURAL DIRECTIVES

The following section contains the CDOT Policy and Procedural Directives and relevant forms. Policy and Procedural Directives are periodically updated, with the latest versions available on the CDOT intranet hub under “Policies and Procedural Directives”. Similarly, look for the latest version of the bicycle and pedestrian variance form (#464bp) on the CDOT Forms Catalog:

<https://www.codot.gov/about/forms>.



COLORADO
Transportation Commission
4201. E. Arkansas Ave.
Denver, CO 80122

RELEASE MEMORANDUM

To: All CDOT Employees
From: Debra Perkins-Smith / Herman Stockinger
Re: Updated Policy Directive 1602.0 “Elevating Bicycle and Pedestrian Opportunities in Colorado”
Date: January 25, 2017

1. Name of Policy Directive: “Elevating Bicycle and Pedestrian Opportunities in Colorado”
2. Date of Policy Directive this Directive Supersedes: May 19, 2016
3. Executive Summary: Policy Directive 1602.0 was last adopted by the Commission on May 19, 2016, and established the following criteria for when bicycle and pedestrian accommodation may be exempted:
 - 1) Bicyclists and pedestrians are prohibited by law from using the roadway; or
 - 2) The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. (Excessively disproportionate is defined as exceeding twenty percent of the cost of the larger transportation project.); or
 - 3) Where scarcity of population or other factors indicate an absence of need.

Since then, in the process of updating the accompanying Procedural Directive 1602.1, it was determined that two new exemption criteria needed to be added to Policy Directive 1602.0. The only changes to this updated PD 1602.0 are the two new exemption criteria which concern resurfacing projects, and they are:

- 4) In a resurfacing project on a state highway, if the only means of accommodating bicycle and pedestrian needs is adding a shoulder, the project shall be automatically exempted on the grounds that under CDOT’s current asset management guidelines, resurfacing money cannot be used for shoulders; or
 - 5) If the resurfacing project on a state highway runs through a town, consideration must be given to restriping that portion within the town to accommodate bicyclists and pedestrians. If the accommodation cannot be made, an exemption must be documented.
4. Office to Contact with Questions: Division of Transportation Development, Bicycle and Pedestrian Program
 5. Effective Date of Updated Policy Directive: January 19, 2017

COLORADO DEPARTMENT OF TRANSPORTATION		<input checked="" type="checkbox"/> POLICY DIRECTIVE <input type="checkbox"/> PROCEDURAL DIRECTIVE
Subject Elevating Bicycle and Pedestrian Opportunities in Colorado		Number 1602.0
Effective 01.19.17	Supersedes 05.19.16	Originating Office Division of Transportation Development Bicycle and Pedestrian Program

I. PURPOSE

The Transportation Commission supports the Colorado Department of Transportation (“CDOT” or “Department”) in elevating the needs of bicyclists and pedestrians in the planning, design, and operation of transportation facilities as a necessary component of all projects. The Department will promote transportation mode choice by enhancing safety and mobility for bicyclists and pedestrians on or along the state highway system. This includes all aspects of accommodating pedestrians and bicyclists, from planning, programming, design, construction, to operation, maintenance and education.

II. AUTHORITY

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

§ 43-1-120, C.R.S. (requiring that exemptions be documented)

See Appendix “A” for additional authority

III. APPLICABILITY

This Policy Directive applies to all branches, divisions, regions and offices of CDOT and consultants working for CDOT. All projects overseen by CDOT or within CDOT right-of-way shall adhere to this Policy Directive.

IV. POLICY

A. In conformance with § 43-1-120(2)(c), C.R.S., FHWA Guidance, and Procedural Directive 1602.1, the Department shall include the needs of bicyclists and pedestrians in the planning, design, operation and maintenance of transportation facilities as a necessary component of all programs and activities.

B. Any decision of the Department to not accommodate the needs of bicyclists and pedestrians in the planning, design, and operation of transportation facilities shall be documented prior to finalizing the decision. The decision must be based on at least one or more of the following

Subject Elevating Bicycle and Pedestrian Opportunities in Colorado	Number 1602.0
--	------------------

exemption criteria herein established by the Commission:

1. Bicyclists and pedestrians are prohibited by law from using the roadway; or
2. The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. (Excessively disproportionate is defined as exceeding twenty percent of the cost of the larger transportation project.); or
3. Where scarcity of population or other factors indicate an absence of need; or
4. In a resurfacing project on a state highway, if the only means of accommodating bicycle and pedestrian needs is adding a shoulder, the project shall be automatically exempted on the grounds that under CDOT’s current asset management guidelines, resurfacing money cannot be used for shoulders; or
5. If the resurfacing project on a state highway runs through a town, consideration must be given to restriping that portion within the town to accommodate bicyclists and pedestrians. If the accommodation cannot be made, an exemption must be documented.

C. The Department shall follow the requirements of the bicycle and pedestrian program set forth more specifically in Procedural Directive 1602.1.

V. IMPLEMENTATION PLAN

This Policy Directive shall be effective upon signature.

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

This Policy Directive applies to all projects scoped after the effective date. The Division of Transportation Development Bicycle and Pedestrian Program shall provide a copy of this Policy Directive to applicable CDOT personnel.

VI. REVIEW DATE

This Policy Directive shall be reviewed on or before January 2022.



 Herman Stockinger
 Transportation Secretary

1-19-17

 Date of Approval

Subject	Number
Elevating Bicycle and Pedestrian Opportunities in Colorado	1602.0

Appendix “A”

Authority Pertaining to CDOT’s Bicycle and Pedestrian Program

Fixing America's Surface Transportation Act (“FAST Act”), Pub. L. No. 114-94, 129 Stat. 1312 (2015).

Moving Ahead for Progress in the 21st Century Act (MAP-21), 2012, 23 U.S.C. 127

23 U.S.C. 104 (Federal funds)

23 U.S.C. 109 (existing routes)

23 U.S.C. 134 and 135 (planning for all modes)

23 U.S.C. 217 (due consideration for bicycles/pedestrians)

23 U.S.C. 402 (highway safety)

23 U.S.C. 652 (bicycle/pedestrian accommodation in projects)

United States Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations, March 11, 2010

Federal Highway Administration “Accommodating Bicycle and Pedestrian Travel: A Recommended Approach”

http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design.cfm

Federal Highway Administration: “Bicycle and Pedestrian Provisions of Federal Transportation Legislation”http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/guidance_2015.cfm#bp4

§ 43-1-120, C.R.S. (requiring that exemptions be documented)

Resolution # TC-17-1-6

Updated Policy Directive 1602.0 “Elevating Bicycle and Pedestrian Opportunities in Colorado”

Approved by the Transportation Commission on Jan. 19, 2017.

WHEREAS, under § 43-1-106(8), C.R.S., the Transportation Commission of Colorado has the statutory responsibility to set policies for the Colorado Department of Transportation (“CDOT”); and

WHEREAS, § 43-1-120, C.R.S. requires the Department to include the needs of bicyclists and pedestrians in the planning, design, operation and maintenance of transportation facilities as a necessary component of all programs and activities; and

WHEREAS, the Transportation Commission has authority under § 43-1-120(2)(c), C.R.S. to set exemption criteria by which the Department will determine and document that the needs of bicyclists and pedestrians not be included in a given project; and

WHEREAS, in Policy Directive 1602.0 adopted on May 19, 2016, the Transportation Commission established three such exemption criteria; and

WHEREAS, two additional exemption criteria are needed to clarify whether bicycle and pedestrian needs can be included in resurfacing projects carried out by the Department; and

WHEREAS, updated Policy Directive 1602.0 includes the two additional exemption criteria set by the Transportation Commission under § 43-1-120(2)(c), C.R.S., thereby establishing a total of five exemption criteria;

NOW THEREFORE BE IT RESOLVED, the Commission herein adopts updated Policy Directive 1602.0 “Elevating Bicycle and Pedestrian Opportunities in Colorado.”



Herman Stockinger
Transportation Secretary



Date of Approval

COLORADO DEPARTMENT OF TRANSPORTATION		<input type="checkbox"/> POLICY DIRECTIVE <input checked="" type="checkbox"/> PROCEDURAL DIRECTIVE
Subject Elevating Bicycle and Pedestrian Opportunities in Colorado		Number 1602.1
Effective 03/03/2017	Supersedes 02/04/2010	Originating Office Division of Transportation Development (DTD) Multimodal Planning Branch Bicycle and Pedestrian Section

I. PURPOSE

The purpose of this Procedural Directive is to comply with § 43-1-120, C.R.S. and relevant federal regulations which require the Department to incorporate Bicycle and Pedestrian facilities in CDOT projects. The Colorado Department of Transportation (“CDOT” or “Department”) shall include the needs of bicyclists and Pedestrians in the planning, design, and operation of all transportation facilities. As a means of fulfilling this requirement, the Department will promote transportation mode choice by enhancing safety and mobility for bicyclists and pedestrians on or along the state highway system. This includes accommodating pedestrians and bicyclists during planning, programming, design, construction, operation and maintenance as well as providing education to motorists, bicyclists and Pedestrians.

II. AUTHORITY

Executive Director pursuant to § 43-1-105, C.R.S.

§ 43-1-120, C.R.S. (requiring that exemptions be documented)

See Appendix “A” for additional authority

III. APPLICABILITY

This Procedural Directive applies to all branches, divisions, regions and offices of CDOT and consultants working for CDOT. All projects overseen by CDOT or within CDOT right-of-way shall adhere to this Procedural Directive.

IV. DEFINITIONS

“Bicycle” shall mean a vehicle having two wheels, propelled solely by human power, upon which any person or persons may ride.

“Bike Lane” shall mean a portion of the Roadway designated for preferential or exclusive use by bicyclists through pavement markings and, if used, signs.

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“Bike Route” shall mean a system of Bikeways designating a preferred route for Bicycle travel along which Bicycle guide signs may provide direction or distance information.

“Bikeway” shall mean a generic term for any road, street, or path, which in some manner is specifically designated for Bicycle travel, regardless of whether such a facility is designated for the exclusive use of Bicycles or is to be shared with other transportation modes. These include but are not limited to Bike Lanes, Bike Routes, shoulders and multi-purpose paths.

“Commuter Route” shall mean a transportation facility that provides a reliable, regularly used, continuous route ordinarily structured for access to work, school or other destinations.

“Context Sensitive Solution” shall mean a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. It is an approach that leads to preserving and enhancing scenic, aesthetic, historic, community, and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions.

“Department” (also known as “CDOT”) shall mean the Colorado Department of Transportation pursuant to § 43-1-105, C.R.S.

“Exemption Criteria” shall mean the criteria established by the Transportation Commission in Policy Directive 1602.0 that describes the minimum values or ranges required to meet design standards.

“Exemption” shall mean the same as “exception or variance” and shall mean the Region Transportation Director’s approval of a request for a Bicycle & Pedestrian exemption based on the Exemption Criteria set forth in Policy Directive 1602.0. See CDOT Form 464BP.

“High Priority Bicycle and/or Pedestrian Corridor” shall mean an on-system Roadway or multi-purpose path, identified for its significance to Bicycle and Pedestrian mobility, as well as to resource planning.

“Multi-Purpose Path” (also known as “Trail”) shall mean a paved or unpaved path physically separated from motorized vehicular traffic by an open space or barrier, and specifically designated as being open to non-motorized users.

“Pedestrian” shall mean any person traveling afoot or using a wheelchair.

“Region Bicycle and Pedestrian Representative” shall mean an employee who is designated by the CDOT Regional Transportation Director to act as the region representative and resource in support of Bicycle and Pedestrian related topics within a CDOT region.

“Roadway” shall mean the portion of a highway, including shoulders, intended for vehicular use.

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“Seasonal Path” shall mean a multi-purpose path that is not accessible 12 months of the year due to weather conditions. See Appendix A.

“Sidewalk” shall mean the paved portion of the Roadway right-of-way, beyond the curb or edge of Roadway pavement, which is intended for use by Pedestrians.

V. PROCEDURE

A. General Requirements

1. In conformance with Policy Directive 1602.0, § 43-1-120(2)(c), C.R.S., and FHWA Guidance, the Department shall include the needs of bicyclists and Pedestrians in the planning, design, operation and maintenance of transportation facilities as a necessary component of all programs and activities.
2. As stated with greater specificity below, any decision of the Department not to accommodate the needs of bicyclists and Pedestrians shall be documented prior to finalizing the decision. The decision must be based on Exemption Criteria established by the Commission in Policy Directive 1602.0 which states at least one or more of the following must apply:
 - a) Bicyclists and Pedestrians are prohibited by law from using the Roadway; or
 - b) The cost of establishing Bikeways or walkways would be excessively disproportionate to the need or probable use (Excessively disproportionate is defined as exceeding twenty percent of the cost of the larger transportation project.); or
 - c) Where scarcity of population or other factors indicate an absence of need; or
 - d) In a resurfacing project on a state highway, if the only means of accommodating bicycle and pedestrian needs is adding a shoulder, the project shall be automatically exempted on the grounds that under CDOT’s current asset management guidelines, resurfacing money cannot be used for shoulders; or
 - e) If the resurfacing project on a state highway runs through a town, consideration must be given to restriping that portion within the town to accommodate bicyclists and pedestrians. If the accommodation cannot be made, an Exemption must be documented on Form 464BP.
3. The Chief Engineer and the Multimodal Planning Branch Bicycle and Pedestrian Section will oversee the implementation of this Procedural Directive, as well as lead the development of strategy, programs, policies, plans, and initiatives to support Bicycle and Pedestrian activity.

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4. To comply with the Statewide Bicycle and Pedestrian Plan, and to inform decisions regarding resources, the Multimodal Planning Branch Bicycle and Pedestrian Section shall convene and lead a group of stakeholders to determine and make recommendations on High Priority Bicycle and Pedestrian Corridors based on but not limited to the following criteria:

- a) Connectivity of the facility;
- b) All-season facility; and
- c) User data (if available) indicates high use by bicyclists and/or Pedestrians.

The Multimodal Planning Branch Bicycle and Pedestrian Section shall communicate the recommendations to a management review panel comprised of the Deputy Executive Director, the Chief Engineer, the Director of the Division of Highway Maintenance, and the Director of the Division of Transportation Development, who shall approve or deny recommendations.

5. To further support implementation of Policy Directive 1602.0, and the Statewide Bicycle and Pedestrian Plan, each Regional Transportation Director shall identify a Region Bicycle and Pedestrian Representative for the region. Said Representative will act as a point of contact for Pedestrian and/or Bicycle related issues within the region, as well as provide information on project design, operation and maintenance of work zones to accommodate Pedestrians and bicyclists. These responsibilities will be identified in the Representative's Position Description Questionnaire (PDQ).

6. The Multimodal Planning Branch Bicycle and Pedestrian Section will oversee and update, as needed, the Colorado Statewide Bicycle and Pedestrian Plan to provide direction and goals for improving biking and walking throughout Colorado.

B. Department Responsibilities

1. Responsibilities of the Chief Engineer

(a) The Chief Engineer shall:

- (1) Ensure that the Regional Transportation Directors ("RTDs") identify a Region Bicycle and Pedestrian Representative for each CDOT Region.
- (2) Ensure that all Region Bicycle and Pedestrian Representatives, Region Traffic Engineers and Design Engineers complete the Bicycle and Pedestrian Facility Design trainings at least once every five years.
- (3) Review and comment on quarterly Bicycle and Pedestrian design Exemption reports provided by the Multimodal Planning Branch Bicycle

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and Pedestrian Section.

2. Responsibilities of the Region Transportation Directors (“RTDs”)

(a) The Region Transportation Directors (“RTDs”) shall:

- (1) Identify an employee working within the region to serve as the Region Bicycle and Pedestrian Representative.
- (2) Ensure that processes to identify and address the needs of Pedestrians and bicyclists are being followed within the region, specifically in project initiation, planning, budgeting, scoping, preliminary and final design activities.
- (3) Review and accept/reject bicycle and pedestrian variance requests as presented by the Program Engineer on CDOT Form 464BP. A response shall be provided to the requestor within 30 days of the date the request was received.

3. Responsibilities of the Region Program Engineers, Resident Engineers and Project Engineers

(a) The Region Program Engineers, Resident Engineers and Project Engineers shall:

- (1) Consult with the Region Planner and the Region Bicycle and Pedestrian Representative to ensure that Context Sensitive Solution practices are utilized when working with local communities to identify the most practicable and feasible solution to a transportation need.
- (2) Ensure that Bicycle and Pedestrian accommodation is included in both design scoping meetings and scoping summaries.
- (3) Ensure that Bicycle and Pedestrian accommodation is considered in project characteristics, as well as Field Inspection Review (FIR) and Final Office Review (FOR) meetings and notes.
- (4) Work with the Region Bicycle and Pedestrian Representative, and the Multimodal Planning Branch Bicycle and Pedestrian Section Engineer or Manager to confirm that any decision to exempt Bicycle and Pedestrian accommodation from a project is based on the Exemption Criteria established by the Commission in Policy Directive 1602.0, § 43-1-120(2)(c), C.R.S., and the CDOT Project Development Manual.
- (5) Document Exemptions on Form 464BP (Bicycle/Pedestrian Design

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Exemption Request) any decision not to accommodate Bicyclists and Pedestrians in a project.

(6) Ensure that Bicycle and Pedestrian accommodation is included in the safety analysis of state Roadways.

(7) Follow recommended and required standards, manuals, guidance, and procedures to maximize the mobility and safety of Pedestrians and bicyclists, including, but not limited to:

- The applicable Federal Highway Administration (“FHWA”) and American Association of State Highway and Transportation Officials (“AASHTO”) Design guides and manuals;
- The Manual on Uniform Traffic Code Devices (“MUTCD”);
- CDOT Roadway Design Guide, Chapter 14; and
- Industry-recognized best practices (National Association of City Traffic Officials (“NACTO”), Institute of Transportation Engineers (“ITE”), etc.).

(8) During project construction, ensure that reasonable accommodations and access for bicyclist and Pedestrian use have been made, including signed detour routes or alternate transportation for the length of the project.

(b) The Program Engineers, Resident Engineers and Project Engineers shall refer all Bicycle and Pedestrian Exemptions to the RTD for final determination.

4. Responsibilities of the Region Bicycle and Pedestrian Representative

(a) The Region Bicycle and Pedestrian Representative shall:

(1) Receive training in Pedestrian and Bicycle accommodation and serve as the de facto Pedestrian and Bicycle subject matter expert in the region.

(2) Be the point of contact for Pedestrian and/or Bicycle related issues within the region.

(3) Act as a region resource to provide guidance on project design, operation, and maintenance of work zones which accommodate Pedestrians and bicyclists.

(4) Follow recommended and required standards, manuals, guidance, and

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procedures to maximize the mobility and safety of Pedestrians and bicyclists, including, but not limited to:

- The Federal Highway Administration (“FHWA”) and American Association of State Highway Traffic Officials (“AASHTO”) Design Manuals and Guidance;
- The Manual on Uniform Traffic Control Devices (“MUTCD”);
- CDOT Roadway Design Guide, Chapter 14; and
- Industry-recognized best practices such as National Association of City Transportation Officials (“NACTO”), Institute of Transportation Engineers (“ITE”), etc.

(5) Distribute information and best practices regarding Bicyclist and Pedestrian accommodation to region staff.

(6) Work with the Region Program Engineer, the Resident Engineer, the Project Engineer, and the Multimodal Planning Branch Bicycle and Pedestrian Section Engineer or Manager, to review any Exemption request regarding Bicycle and Pedestrian accommodation on CDOT Form 464BP (Bicycle/Pedestrian Design Exception Variance Request).

(7) Collect quarterly region exemption data from Form 464BP and distribute it to the Multimodal Planning Branch Bicycle and Pedestrian Section.

(8) Work in collaboration with the Multimodal Planning Branch Bicycle and Pedestrian Section, the Maintenance Superintendents (or their designees), the Region Planners and other stakeholders to develop criteria for and the selection of High Priority Bicycle and Pedestrian Corridors and Seasonal Paths. Selected corridors and paths will be identified and tracked in Appendix B.

5. Responsibilities of the Division of Highway Maintenance

(a) The Division of Highway Maintenance shall:

- (1) Pursue providing budget support for maintenance activities with CDOT’s Chief Financial Officer. This would be part of the Maintenance Level of Service (MLOS) System for CDOT-owned Multi-Purpose Paths.
- (2) Include consideration of Bicycle and Pedestrian mobility and safety when resurfacing and/or restriping a road.
- (3) Include Bicycle and Pedestrian facilities in developing annual level of

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service plans. This shall include, but not be limited to:

(a) Multi-Purpose Paths owned by the state and designated by CDOT management review panel as a High Priority Bicycle and Pedestrian Corridor, shall be designated a level of service category 10 (the same as highway category 10) following the end of a snow storm.

(b) Bikeways within the right-of-way of state highways will be maintained by the Department, except where a maintenance agreement provides otherwise. Where new projects are being considered, maintenance agreements shall be in place prior to construction.

(c) All Bikeways other than those defined above will not be the responsibility of CDOT.

(4) Work in collaboration with the Multimodal Planning Branch Bicycle and Pedestrian Section, the Region Bicycle and Pedestrian Representatives, the Region Planners, and other stakeholders to develop criteria for and the selection of High Priority Bicycle and Pedestrian Corridors and Seasonal Paths. Selected corridors and paths will be identified and tracked in Appendix B.

(5) Ensure that Bicycle and Pedestrian training is included in the Maintenance Academy curriculum.

6. Responsibilities of the Multimodal Planning Branch Bicycle and Pedestrian Section

(a) The Multimodal Planning Branch Bicycle and Pedestrian Section shall:

(1) Provide administration of CDOT Bicycle and Pedestrian programs and initiatives and oversee implementation of this Procedural Directive.

(2) Oversee the “Share the Road Program” together with the Office of Transportation Safety in order to support education for motorists, bicyclists, Pedestrians and law enforcement personnel.

(3) Provide annual Bicycle and/or Pedestrian facility design training to internal and external engineers, designers, planners and interested parties.

(4) Provide Bicycle and Pedestrian technical support and education assistance to the Transportation Planning Regions (TPRs) and Metropolitan Planning Organizations (MPOs) to ensure Bicycle and

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Pedestrian accommodations are included in all planning efforts.

(5) Review Exemption requests and make a recommendation to the Program Engineer as to whether the Exemption shall be granted or denied. A response shall be provided to the requestor within 30 days of the date the request was received.

(7) Work in collaboration with the Maintenance Superintendents (or their designees), the Region Bicycle and Pedestrian Representatives, the Region Planners, and other stakeholders to facilitate the development of criteria for and the selection of High Priority Bicycle and Pedestrian Corridors and Seasonal Paths. Selected corridors and paths will be identified and tracked in Appendix B.

(8) Publish a Colorado Bicycle Manual and Colorado Bicycle and Scenic Byways Map.

(9) Utilizing the information provided by the Region Bicycle and Pedestrian Representative, summarize Exemption requests, and after reviewing, compiling, and storing, disseminate the information on a quarterly basis to the Chief Engineer.

(10) In conjunction with other CDOT divisions and offices, facilitate the development of a tracking system to monitor Bicycle and Pedestrian investments on all projects.

(11) Inform staff, local agencies, and stakeholders of available funding sources, programs and mechanisms which can be used to address Bicycle and Pedestrian accommodation.

7. Responsibilities of the Multimodal Planning Branch and Region Planners

(a) The Multimodal Planning Branch and Region Planners shall:

(1) Ensure Bicycle and Pedestrian needs and considerations are addressed in the Statewide Transportation Plan, the Regional Transportation Plans, and in Policy Directive 14.0.

(2) Work in collaboration with the Multimodal Planning Branch Bicycle and Pedestrian Section, the Region Bicycle and Pedestrian Representatives, the Maintenance Superintendents (or their designees), and other stakeholders to develop criteria for and selection of High Priority Bicycle and Pedestrian Corridors and Seasonal Paths. Selected corridors and paths will be identified and tracked in Appendix B.

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(b) Region Planners will work with Region Engineers to ensure any Bicycle and Pedestrian improvements from MPO and TPR plans are incorporated into new projects.

8. Responsibilities of the Division of Project Support

(a) The Division of Project Support shall:

(1) Support the Multimodal Planning Branch Bicycle and Pedestrian Section in the development and implementation of a cost-tracking mechanism for Bicycle and Pedestrian facility investments.

9. Responsibilities of the Office of Transportation Safety

(a) The Office of Transportation Safety shall:

(1) Promote CDOT’s goal of zero deaths or injuries on all facilities, including Bikeways and Sidewalks, through collaboration with the Colorado State Patrol.

10. Responsibilities of the Division of Traffic Systems Management and Operations (“TSM&O”)

(a) The TSM&O Division shall:

(1) Include bicyclist and Pedestrian safety accommodation as part of the Strategic Highway Safety Plan.

(2) Include consideration of Bicycle and Pedestrian mobility when conducting all duties and responsibilities assigned to the TSM&O Division, including, but not limited to, analyzing, selecting, and programming TSM&O projects.

(3) Ensure that the TSM&O evaluation process is properly accommodating the needs of bicyclists and Pedestrians in accordance with Policy Directive 1602.0.

(b) The Region Traffic Engineer shall:

(1) Ensure that the Region Bicycle and Pedestrian Representative is consulted on all matters related to Bicycle and Pedestrian accommodation, including signing, striping, signals, signal timing, markings, striping, school zones, speed limits, work zones, etc.

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- (2) Include consideration of Bicycle and Pedestrian mobility and safety when restriping roads.
- (3) When striping and marking roads, ensure that any project has undergone the TSM&O evaluation process which will include compliance requirements with state and federal laws and governing documents.
- (4) Ensure that projects undergo the TSM&O Evaluation process, including a review of compliance with Pedestrian and Bicycle related laws, policies, and guidance.

11. Responsibilities of the Division of Transit and Rail

(a) The Division of Transit and Rail shall:

- (1) Include consideration of the mobility of bicyclists and Pedestrians in its Statewide Transit Plan and in Regional Transit Plans.

VI. DOCUMENTS REFERENCED IN THIS PROCEDURAL DIRECTIVE

Bicycle/Pedestrian Design Exception Variance Request (Form 464BP)

CDOT Roadway Design Guide (*See* Chapter 14)

National Association of City Transportation Officials (NACTO) “Urban Bikeway Design Guide”

National Association of City Transportation Officials (NACTO) “Urban Streets Design Guide”

Manual on Uniform Traffic Control Devices (MUTCD)

American Association of State Highways and Transportation Officials (AASHTO) Roadside Design Guide

Appendix A “Authority Pertaining to CDOT’s Multimodal Planning Branch Bicycle and Pedestrian Section”

Appendix B “CDOT High Use Bicycle and Pedestrian Corridors and Seasonal Paths”

VII. IMPLEMENTATION PLAN

- 1. This Procedural Directive shall be effective upon signature.
- 2. This Procedural Directive applies to all projects scoped after the effective date.

Subject Elevating Bicycle and Pedestrian Opportunities in Colorado	Number 1602.1
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3. The Multimodal Planning Branch Bicycle and Pedestrian Section, in conjunction with Region Bicycle and Pedestrian Representatives, will develop a tracking system to record all projects exempted pursuant to the process set forth above.
4. The Chief Engineer and the Multimodal Planning Branch Bicycle and Pedestrian Section will oversee the implementation of this Procedural Directive, including reporting annually to executive management on the status of the Procedural Directive’s implementation and Exemption reports.
5. The Multimodal Planning Branch Bicycle and Pedestrian Section will distribute this Procedural Directive to all involved employees and stakeholders within three weeks of its effective date.
6. The Office of Policy and Government Relations shall post the Procedural Directive on the Directive webpage within one week of the effective date.

VIII. REVIEW DATE

This directive shall be reviewed on or before March 2022.

Shailen P. Bhatt
Executive Director

Date of Approval

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Elevating Bicycle and Pedestrian Opportunities in Colorado	1602.1

Appendix “A”

Authority Pertaining to CDOT’s Multimodal Planning Branch Bicycle and Pedestrian Section

Fixing America's Surface Transportation Act (“FAST Act”), Pub. L. No. 114-94, 129 Stat. 1312 (2015).

Moving Ahead for Progress in the 21st Century Act (MAP-21), 2012, 23 U.S.C. 127

23 U.S.C. 104 (Federal funds)

23 U.S.C. 109 (existing routes)

23 U.S.C. 134 and 135 (planning for all modes)

23 U.S.C. 217 (due consideration for bicycles/pedestrians)

23 U.S.C. 402 (highway safety)

23 U.S.C. 652 (Bicycle/pedestrian accommodation in projects)

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http://www.fhwa.dot.gov/environment/Bicycle_pedestrian/guidance/design.cfm

Federal Highway Administration: “Bicycle and Pedestrian Provisions of Federal Transportation Legislation” http://www.fhwa.dot.gov/environment/Bicycle_pedestrian/guidance/guidance_2015.cfm#bp4

§ 43-1-120, C.R.S. (requiring that exemptions be documented)

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Appendix “B”

CDOT High Priority Bicycle and Pedestrian Corridors and Seasonal Paths

This Appendix B will be routinely updated as needed by the Multimodal Planning Branch Bicycle and Pedestrian Section Manager and the Region Bicycle and Pedestrian Representatives, with input from the Chief Engineer, the Regional Transportation Directors, the Maintenance Superintendents, the Traffic Engineers, and other Department stakeholders.

High Priority Bicycle and Pedestrian Corridors

C-470 Trail

Seasonal Paths

Vail Bike Path (from the Summit west to the boundaries of the town of Vail)

Glenwood Canyon Trail

Beaver Tunnel Trail

COLORADO DEPARTMENT OF TRANSPORTATION BICYCLE & PEDESTRIAN EXEMPTION REQUEST (See PD 1802.0 & 1802.1 for direction & information)		Date	Project Definition (Project #)
		<input type="text"/>	<input type="text"/>
Project Name		Region	Route Number
<input type="text"/>		<input type="text"/>	<input type="text"/>
Project Type <input type="checkbox"/> New Construction <input type="checkbox"/> Reconstruction <input type="checkbox"/> Resurfacing <input type="checkbox"/> Safety <input type="checkbox"/> Enhancement <input type="checkbox"/> Rehabilitation <input type="checkbox"/> Other (Explain): <input type="text"/>		Begin Mile Point	Date Revised
		<input type="text"/>	<input type="text"/>
		End Mile Point	
		<input type="text"/>	

Part 1 - Project & Exemption Information

A. Project Description: <input type="text"/>										
B. Description of Pedestrian & Bicycle accommodations considered by project: <input type="text"/>										
C. Justification for excluding Pedestrian & Bicycle accommodations on project: <input type="text"/>										
D. Select the approved Exemption which applies: <input type="checkbox"/> Bicyclists or Pedestrians are prohibited by law from using the roadway. <input type="checkbox"/> The cost of establishing Bikeways or Walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding 20% of the cost of the larger project. <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Estimated project cost if built with accommodation:</td> <td style="width: 10%; text-align: center;">\$</td> <td style="width: 30%;"><input type="text"/></td> </tr> <tr> <td>Estimated project cost with exemption applied:</td> <td style="text-align: center;">\$</td> <td><input type="text"/></td> </tr> <tr> <td>% Difference in cost:</td> <td style="text-align: center;">%</td> <td><input type="text"/></td> </tr> </table>		Estimated project cost if built with accommodation:	\$	<input type="text"/>	Estimated project cost with exemption applied:	\$	<input type="text"/>	% Difference in cost:	%	<input type="text"/>
Estimated project cost if built with accommodation:	\$	<input type="text"/>								
Estimated project cost with exemption applied:	\$	<input type="text"/>								
% Difference in cost:	%	<input type="text"/>								

CDOT Form #464-BP 03/17

Scarcity of population or other factors indicate an absence of need. Provide justification in the space below.

Exemption based on the fact that this is a resurfacing project on a state highway and the only means of accommodating bicycle and Pedestrian needs is adding a shoulder. Under CDOT's current asset management guidelines, resurfacing money cannot be used for shoulders. (If selected skip Part 2 of this form and submit to RTD for approval)

Consideration was given to restriping the portion of this resurfacing project on a state highway that runs through a town. It was concluded that accommodation could not be made to accommodate Bicyclists and Pedestrians (If selected skip Part 2 of this form and submit to RTD for approval)

F. Other Relevant Information (as needed):

Signature (Project Manager) <small>OPTIONAL</small>	Name (Project Manager)	Date
Signature (Program Engineer) <small>OPTIONAL</small>	Name (Program Engineer)	Date

Part 2 (Review & Signatures Required)

Regional Bicycle/Pedestrian Representative Comment & Recommendation:

Signature (Region Bike/Ped Rep) <small>OPTIONAL</small>	Name (Region Bike/Ped Rep)	Date
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DTD Bicycle & Pedestrian Section Representative Comment & Recommendation:		
<div style="background-color: #e6f2ff; height: 100px;"></div>		
DTD (Bike/Ped Section Rep) <small>REQUIRED</small>	Name (Bike/Ped Section Rep)	Date
<div style="background-color: #e6f2ff; height: 20px;"></div>	<div style="background-color: #e6f2ff; height: 20px;"></div>	<div style="background-color: #e6f2ff; height: 20px;"></div>

Part 3 (Approval)

RTD Conditions / Comments:		
<div style="background-color: #e6f2ff; height: 100px;"></div>		
<input type="checkbox"/> Approved <input type="checkbox"/> Approved with conditions <input type="checkbox"/> Denied		
Signature (RTD) <small>REQUIRED</small>	Name (RTD)	Date
<div style="background-color: #e6f2ff; height: 20px;"></div>	<div style="border: 1px solid red; background-color: #e6f2ff; height: 20px;"></div>	<div style="border: 1px solid red; background-color: #e6f2ff; height: 20px;"></div>

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Office of Government Relations
4201 East Arkansas Avenue, Room 275
Denver, Colorado 80222
(303) 757-9772



To: All CDOT Employees

From: Heidi Humphreys – DAS / Herman Stockinger – OPGR / Katherine Williams - CRBRC

Re: Policy Directive 604.0 “Policy on Non-Discrimination”

Date: January 27, 2014

Background Policy Directive 604.0 “Policy on Non-Discrimination” updates Policy Directive 604.0 “Non-Discrimination in Federally Funded Programs Policy,” adopted July 7, 2004.

Rationale for Policy Directive Outlines CDOT’s general non-discrimination policy for all CDOT programs and activities. Also identifies and describes the forms of discrimination that are prohibited by federal law and highlights objectives related to access for persons with disabilities, access for persons with limited English proficiency, principles of environmental justice, and fair competition for federally funded contracts. This directive does not include CDOT’s Equal Employment Opportunity policy, which is set forth in Policy Directive 600.0.

Individuals/Entities Impacted in Policy Directive This Policy Directive applies to all operations of CDOT, including all offices, divisions, regions, and branches of CDOT, its contractors and anyone who acts on CDOT’s behalf. This Policy Directive also applies to the operations of any department or agency to which CDOT extends federal financial assistance. Federal financial assistance includes grants, training, use of equipment, donations of surplus property, and other assistance.

Implementation The Division of Administrative Services (DAS), Civil Rights and Business Resource Center shall implement this directive.

Effective Date January 22, 2014

Review Date On or before January 2019

COLORADO DEPARTMENT OF TRANSPORTATION		<input checked="" type="checkbox"/> POLICY DIRECTIVE <input type="checkbox"/> PROCEDURAL DIRECTIVE
Subject POLICY ON NON-DISCRIMINATION		Number 604.0
Supersedes 604 (7/1/04) 611 (4/15/10)	Effective 1.22.14	Originating Office Civil Rights & Business Resource Center, Division of Administrative Services

I. Purpose

To ensure that no person shall, on the ground of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination in the operations of the Colorado Department of Transportation (“CDOT”) or of any department or agency to which CDOT extends federal financial assistance.

II. Authority

See Appendix A. This Policy Directive is intended to meet Federal Highway Administration and Federal Transit Authority requirements.

III. Applicability

This Policy Directive applies to all operations of CDOT, including all offices, divisions, regions, and branches of CDOT, its contractors and anyone who acts on CDOT’s behalf. This Policy Directive also applies to the operations of any department or agency to which CDOT extends federal financial assistance. Federal financial assistance includes grants, training, use of equipment, donations of surplus property, and other assistance.

IV. Policy

1. It is CDOT’s policy that no person shall on the ground of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination in any operation of CDOT or of any department or agency to which CDOT extends federal financial assistance.

A. Examples of prohibited types of discrimination based on race, color, national origin, sex, disability, or age include:

- (1) Denial to an individual any service, financial aid, or other benefit;
- (2) Distinctions in the quality, quantity, or manner in which a benefit is provided;
- (3) Segregation or separate treatment;
- (4) Restriction in the enjoyment of any advantages, privileges, or other benefits provided;

Subject Policy on Non-Discrimination	Number 604.0
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(5) Discrimination in any activities related to highway and infrastructure or facility built or repaired; and

(6) Discrimination in employment.

B. Prohibited discrimination may be intentional or unintentional. Seemingly neutral acts that have disparate impacts on individuals of a protected group and lack a substantial legitimate justification are a form of prohibited discrimination. Instances where seemingly neutral acts may result in discrimination include:

(1) Utilizing criteria or methods of administration that have the effect of subjecting persons to discrimination or have the purpose or effect of substantially reducing the likelihood that persons can benefit from the objectives of a program or activity with respect to persons;

(2) Using different standards or requirements for determining whether a person satisfies any admissions, enrollment, quota, eligibility, membership, or other requirement for any service, financial aid, or other benefit; and

(3) Determining the site or location of a facility that has the effect of excluding persons, denying them the benefits of, or otherwise subject to them discrimination.

C. Harassment and retaliation are also forms of discrimination. Harassment includes a wide range of abusive and humiliating verbal or physical behaviors that are directed against a particular person because of race, color, national origin, sex, disability, or age. This Policy Directive prohibits retaliation against any person because he or she has reported alleged discrimination under this Policy Directive or has testified, assisted or participated in any manner in an investigation of such report, or has opposed such discrimination. No one shall intimidate, threaten, coerce, or discriminate against any individual for the purpose of interfering with their rights against discrimination.

D. As part of this Policy Directive, CDOT adheres to the following objectives, which shall not be interpreted in any way to limit the general policy stated above:

(1) Access for Persons with Disabilities – No qualified disabled person shall, solely by reason of his or her disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination. Aids, benefits, and services, to be equally effective, are not required to produce the identical result or level of achievement for disabled and non-disabled persons, but must afford persons with disabilities equal opportunity to obtain the same result, to gain the same benefit, or to reach the same level of achievement, in the most integrated setting that is reasonably achievable. Even if separate or different aid, benefits, or services are available to handicapped persons, a qualified disabled person shall

<p>Subject Policy on Non-Discrimination</p>	<p>Number 604.0</p>
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not be denied the opportunity to participate in the programs or activities that are not separate or different.

(2) Access for Persons with Limited English Proficiency – Individuals who have a limited ability to read, write, speak, or understand English are considered limited English proficient (“LEP”). Language for LEP individuals can be a barrier to accessing important benefits or services, understanding and exercising important rights, complying with applicable responsibilities, or understanding other information provided by CDOT. Ignoring LEP populations may constitute discrimination on the basis of national origin. CDOT shall seek to communicate with LEP populations and provide LEP individuals meaningful access to CDOT programs and activities.

(3) Principles of Environmental Justice – CDOT will meaningfully engage all sectors of the public, including low-income and minority populations, potentially affected by CDOT projects. To help ensure the fair distribution of the benefits and burdens associated with CDOT programs and activities, CDOT will be guided by the following environmental justice principles:

(a) To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations;

(b) To ensure the full and fair participation by all potentially affected communities in CDOT’s decision-making process; and

(c) To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

(4) Fair Competition for Federally-Funded Contracts – A Disadvantaged Business Enterprise (“DBE”) is a business that is owned and controlled by a socially and economically disadvantaged individual or individuals. The objectives of CDOT’s DBE program are to:

(a) To ensure nondiscrimination in the award and administration of federally-assisted contracts in CDOT’s highway, transit, and airport programs;

(b) To create a level playing field on which DBEs can compete fairly for federally-assisted contracts;

(c) To ensure that CDOT’s DBE program is narrowly tailored in accordance with applicable law;

(d) To ensure that only firms that fully meet this part’s eligibility standards are permitted to participate as DBEs;

Subject Policy on Non-Discrimination	Number 604.0
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(e) To help remove barriers to the participation of DBEs in federally-assisted contracts; and

(f) To assist the development of firms that can compete successfully in the marketplace outside the DBE program.

V. Implementation Plan

1. This Policy Directive shall be effective immediately upon approval by the Transportation Committee.
2. The Civil Rights & Business Resource Center (“CRBRC”) shall implement this Policy Directive and will coordinate education and training to ensure compliance with this Policy Directive. All CDOT employees, its contractors, and anyone who acts on behalf of CDOT, including any department or agency to which CDOT extends federal financial assistance, shall be responsible for assuring that the proscribed discrimination does not occur. Should the potential for discrimination be discovered, action to eliminate the potential shall be taken.
3. Notices informing individuals of their rights under this Policy Directive will be posted on CDOT’s internal and external webpages, and be displayed in public office areas. These notices will also be consistent with CDOT’s policy for communicating with LEP populations.
4. As required by federal law, the CRBRC and regional civil rights staff shall be responsible for acquiring non-discrimination assurances, investigating discrimination complaints, conducting reviews of program areas, and preparing required reports.

VI. Review Date

This Policy Directive shall be reviewed on or before January 2019.

Herman F. Stroking III
Secretary, Transportation Commission

1-22-14
Effective Date

Subject Policy on Non-Discrimination	Number 604.0
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APPENDIX A: Authority for Policy Directive 604.0

Federal Statutes

Title VI of the 1964 Civil Rights Act, 42 U.S.C. § 2000d

Age Discrimination Act of 1975, 42 U.S.C. § 6101

Federal Aid Highway Act of 1970, 49 U.S.C. § 306

Federal Aid Highway Act of 1973, 23 U.S.C. § 324

Civil Rights Restoration Act of 1987, Pub. L. No. 100-259, 102 Stat. 28

Title II of the Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101 – 12213

Rehabilitation Act of 1973 § 504, 29 U.S.C. § 794

Federal Transit Laws, 49 U.S.C. § 5332

Federal Regulations

23 CFR §1.36 – Compliance with Federal laws and regulations

23 CFR pt. 200 – Title VI Program and Related Statutes – Implementation and Review Procedures

23 CFR pt. 771 – Environmental Impact and Related Procedures

28 CFR pt. 35 – Nondiscrimination on the Basis of Disability in State and Local Government Services

28 CFR pt. 36 – Nondiscrimination on the Basis of Disability in Public Accommodations and in Commercial Facilities

28 CFR pt. 42, subpart C – Nondiscrimination in Federally Assisted Programs – Implementation of Title VI of the Civil Rights Act of 1964

49 CFR pt. 21 – Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964

49 CFR pt. 26 – Participation By Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs

49 CFR pt. 27 – Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance

<small>Subject</small> Policy on Non-Discrimination	<small>Number</small> 604.0
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49 CFR § 37.5 – Nondiscrimination – Transportation Services for Individuals with Disabilities (ADA)

Executive Orders

Exec. Order No. 12898, 59 Fed. Reg. 7629 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Exec. Order No. 13166, 65 Fed. Reg. 50121 – Improving Access to Services for Persons with Limited English Proficiency

Resolution # TC-3128

Approved on January 16, 2014

Adoption of Policy Directive 604.0 “Policy on Non-Discrimination” and Repeal of Policy Directive 611.0 “Disadvantaged Business Enterprise Program”

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

WHEREAS, The Colorado Department of Transportation (“CDOT”) is required to comply with Title VI of the Civil Rights Act, 42 U.S.C. § 2000d, and related statutes as a recipient of federal funds from the U.S. Department of Transportation; and

WHEREAS, CDOT is required to comply with Title II of the Americans with Disabilities Act of 1990, 42 U.S.C. §12101-12213, and related statutes as a recipient of federal funds from the U.S. Department of Transportation; and

WHEREAS, CDOT is required to comply with the Civil Rights Restoration Act of 1987, Pub L. No. 100-259, 102 Stat. 28, as a recipient of federal funds from the U.S. Department of Transportation; and

WHEREAS, CDOT created the Civil Rights and Business Resource Center to coordinate with regional civil rights staff to ensure compliance with civil rights laws; and

WHEREAS, revised Policy Directive 604.0 updates and replaces Policy Directive 604.0, “Non-Discrimination in Federally Funded Programs Policy” adopted on July 1, 2004; and

WHEREAS, Policy Directive 604.0 includes the policy specifications regarding the Disadvantaged Business Enterprise Program and thus, replaces the need for Policy Directive 611.0, “Disadvantaged Business Enterprise Program” adopted on April 15, 2010.

NOW THEREFORE BE IT RESOLVED, the Commission herein approves updated Policy Directive 604.00 “Policy on Non-Discrimination.”

BE IT FURTHER RESOLVED, the Commission repeals Policy Directive 611.0 “Disadvantaged Business Enterprise Program” as its terms have been consolidated into updated Policy Directive 604.0.

Norman J. Stodolinger III 1-22-14
Transportation Commission Secretary Date



COLORADO
Department of Transportation
Office of Policy and Government Relations
2829 W. Howard Place, Suite 562
Denver, CO 80204

RELEASE MEMORANDUM

TO: All CDOT Employees
FROM: Michael P. Lewis, Executive Director
RE: New Procedural Directive 604.1 “Title VI Non-Discrimination”
DATE: August 3, 2018

1. Name of New Procedural Directive: “Title VI Non-Discrimination”
2. Rationale for New Directive: This new Procedural Directive 604.1 “Title VI Non-Discrimination” is required by FHWA and explains CDOT’s responsibilities in complying with Title VI for non-discrimination related to CDOT’s activities and programs. Many of the responsibilities outlined in PD 604.1 are for specific programs listed in Appendix A, and those programs have already been complying with everything in the PD.

One of the key requirements in PD 604.1 for all employees is to send complaints of discrimination from external entities to CDOT’s Title VI Coordinator in the Civil Rights & Business Resource Center at CDOT. For help in implementing this PD, questions should also be directed to the Title VI Coordinator.
3. Individuals/Entities/Projects Impacted by Procedural Directive: All employees who work in programs that affect external entities.
4. PD 604.1 will be implemented by: Title VI Coordinator in the Civil Rights & Business Resource Center at CDOT Headquarters.



COLORADO DEPARTMENT OF TRANSPORTATION		<input type="checkbox"/> POLICY DIRECTIVE
		<input checked="" type="checkbox"/> PROCEDURAL DIRECTIVE
Subject		Number
Title VI Non-Discrimination		604.1
Effective	Supersedes	Originating Office
8/3/18	New	Civil Rights & Business Resources Center

I. PURPOSE

The purpose of this Directive is to ensure the public that interacts with CDOT programs and activities are protected against discrimination under Title VI of the Civil Rights Act of 1964 with regard to race, color, national origin, sex, disability, or age. Additionally, this Directive shall be read in conjunction with Policy Directive 604.0 "Policy on Non-Discrimination" with regard to CDOT's compliance with environmental justice.¹

II. AUTHORITY

Executive Director, pursuant to § 43-1-105, C.R.S.

[Policy Directive 604.0 "Policy on Non-Discrimination"](#)

[CDOT Title VI Implementation Plan](#)

[CDOT Limited English Proficiency \("LEP"\) Plan](#)

See Appendix B for a list of federal authority

III. DEFINITIONS

"Limited English Proficiency" or "LEP" means an individual whose primary language is not English, and who has limited ability to read, write, speak, or understand English. See CDOT LEP Plan.

"Reasonable Steps" for purposes of LEP services shall mean ensuring meaningful access to CDOT's programs and activities by LEP persons, which is contingent upon a number of factors. While designed to be a flexible and fact-dependent standard, the starting point is an individualized assessment that balances the four following factors: (1) The number or proportion of LEP persons eligible to be served, or likely to be encountered by the program or grantee; (2) the frequency with which LEP individuals come into contact with the program; (3) the nature and importance of the program activity or service provided by the program to people's lives; and (4) the resources available to the grantee/recipient and cost. "Guidance to Federal Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons," 67 Fed. Reg. 41455, 41459 (June 18, 2002); See Also CDOT LEP Plan;

¹ Procedural Directive 600.6 "Internal Discrimination Complaint Procedures" sets forth the process to be followed for complaints filed by CDOT employees and applicants.

Subject	Number
Title VI Non-Discrimination	604.1

“Synopsis of DOT Guidance to Recipients on Special Language Service to Limited English Proficient (LEP) Beneficiaries,” at https://www.fhwa.dot.gov/cadiv/docs/special_lang.pdf.

IV. APPLICABILITY

This Procedural Directive applies to all divisions, regions and offices of CDOT. Where stated, specific requirements apply to the CDOT programs identified in Appendix A.

V. PROCEDURES

A. General Requirements

1. All CDOT Division Directors shall ensure that all contracts and agreements, solicitations for bids and Requests for Proposals regardless of the funding source include the required nondiscrimination language from the USDOT Standard Title VI/Non-Discrimination Assurances, DOT Order No. 1050.2A. See information on this requirement at Civil Rights & Business Resources Center’s (CRBRC) website at www.codot.gov/business/civilrights/titlevi.
2. All CDOT employees whose job responsibilities include publishing notices of meetings to which the public is invited shall:
 - a) Include in all notices the language set forth in the LEP Guidance Document (<https://www.codot.gov/business/civilrights/titlevi>). The meeting notice must include Limited English Proficiency interpretation and translation services if the contact person listed in the meeting notice receives a request for translation or interpretation services, the contact person shall consult with the Title VI Coordinator in the CRBRC.
 - b) For questions on this requirement, contact the Title VI Coordinator in the CRBRC.
3. All program managers, division directors and supervisors in the programs identified in Appendix A shall comply with the Title VI Implementation Plan and the requirements of this Directive.
4. All CDOT employees must cooperate with the Title VI Coordinator in providing any and all requested information.
5. All CDOT employees shall notify the Title VI Coordinator of any potential Title VI related issues (i.e., potential discrimination of members of the public engaging in business with CDOT).
6. All CDOT employees, including Regional Civil Rights Managers, shall notify the Title VI Coordinator within three business days of any written or verbal complaints of discrimination they receive from a member of the public engaging in business with CDOT.

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Title VI Non-Discrimination	604.1

- a) A Title VI complaint is the method whereby a person engaging in business with CDOT may allege discrimination based on race, color, national origin, sex, age or disability.
- b) All Title VI complaints must be forwarded to the Title VI Coordinator.
- c) The Title VI Coordinator shall be responsible for managing the investigation process for discrimination complaints. With the exception of FHWA-related complaints, the Title VI Coordinator shall determine whether CDOT is responsible for conducting the investigation. The Title VI Coordinator shall forward all relevant complaints to FHWA.
- d) If CDOT is specifically designated by the respective federal agency as the appropriate party to conduct the investigation, the respective Regional Civil Rights Manager and the Title VI Coordinator shall collaborate on who should conduct an investigation of the complaint. All investigations shall follow the discrimination complaint procedures, which are available at www.codot.gov/business/civilrights/titlevi.
- e) After a complaint investigation is completed all relevant documents related to the complaint investigation shall be submitted to the Title VI Coordinator.
- f) All pertinent CDOT employees shall cooperate with the Title VI Coordinator or Regional Civil Rights Manager in the investigation.
- g) If the complaint is communicated verbally, the person shall be offered the option of completing the complaint form on the CRBRC webpage or they may contact the Title VI Coordinator directly (<https://www.codot.gov/business/civilrights/titlevi>). The form is available in Spanish and other languages upon request.

B. Title VI Coordinator

The Title VI Coordinator in the CRBRC or his/her designee shall be the Department’s resource on compliance with Title VI requirements. The Title VI Coordinator shall coordinate efforts with respective federal agencies regarding Title VI complaints. The Title VI Coordinator is responsible for the following:

- 1. Updating public notices and disseminating updated notices to the Regional Civil Rights Managers;
- 2. Tracking all complaints submitted to the respective federal agency to note the date forwarded by the Title VI Coordinator. If CDOT is designated by the federal agency to investigate the complaint, the Title VI Coordinator shall track the date that CDOT was notified as the investigating agency, and the date the investigation was concluded;
- 3. Conducting investigations and processing and maintaining a log of all external discrimination complaints in coordination with Regional Civil Rights Managers and the federal agency;

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Title VI Non-Discrimination	604.1

4. Conducting program area audits for Title VI compliance in accordance with the CDOT Title VI Program Plan;
5. Reviewing and commenting on Title VI/environmental justice issues in Environmental Impact Statements (EIS) and Environmental Assessment (EA) Finding of No Significant Impact (FONSIs);
6. Recommending appropriate action to program managers or the division director as identified in Appendix A where Title VI issues are involved;
7. Providing Title VI/environmental justice training, information, and technical assistance to CDOT staff and programs;
8. Ensuring that Title VI Liaisons are trained to comply with the requirements for collection of demographic data (i.e.at least race and ethnicity);
9. Serving as a contact on Title VI matters for the U.S. Department of Transportation and its federal funding recipients;
10. Conducting subrecipient oversight to ensure nondiscrimination in the award and administration of funds received from CDOT. To such end, CRBRC may conduct desk audits, site reviews, and/or other investigations to ensure compliance with Title VI;
11. Reviewing new policy/procedural directives to comply with Title VI requirements prior to implementation;
12. Advising CDOT employees on Title VI LEP services;
13. Collecting information on minority representation on decision-making and advisory boards;
14. Meeting semi-annually with all program managers or designee to ensure Title VI compliance is met, including any reporting requirements; and
15. Completing annual program reviews and implementing programmatic changes to fulfill annual goals for Title VI compliance in furtherance of ensuring non-discrimination.

C. Regional Civil Rights Managers

Regional Civil Rights Managers are responsible for:

1. Title VI Public Notices. Ensuring that CDOT’s English and Spanish non-discrimination notices apprising the public of the protections against discrimination afforded to them by

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Title VI are posted in their respective Region’s facilities. Additional notices may be requested by contacting CRBRC.

2. Access for LEP persons. In the event a member of the public requests LEP services, the Regional Civil Rights Managers shall be notified and the request shall be directed to the HQ Title VI Liaison (see (V)(D) below).

3. Demographic Data Collection. Working with the Title VI Liaison to ensure that demographic data is provided to the Title VI Coordinator.

4. Title VI Complaints. Please see (V)(A)(6) above.

D. Title VI Liaisons for CDOT Programs Identified in Appendix A

Division directors for programs included in Appendix A shall be responsible for the following.

1. Pursuant to Policy Directive 604.0 "Policy on Non-Discrimination," incorporate environmental justice evaluations into their processes by following the Federal Highway Administration Environmental Justice Reference Guide and ensure that their respective programs implement and consider the FHWA-identified environmental justice principles in transportation decision-making. Divisions receiving Federal Transit Administration funding shall incorporate environmental justice principles into their processes by following the Federal Transit Administration's Environmental Justice Policy Guidance for FTA Recipients.

2. Develop and maintain a program-specific language assistance plan in accordance with CDOT’s LEP Plan. The measures described in a language assistance plan must be tailored to the needs of LEP individuals affected or likely to be affected by the particular program area.

3. Assign a liaison responsible for carrying out the Title VI responsibilities. The Title VI Liaison shall:

a) Meet at a minimum on a semi-annual basis with the Title VI Coordinator to provide an update on the program area’s Title VI-related initiatives and progress made toward annual goals.

b) Maintain a record of all translated materials and requests for language assistance, including the language requested and assistance provided, and submit such information to the Title VI Coordinator by September 1 of each year.

c) Work with the Title VI Coordinator to comply with the requirements for collection of demographic data (i.e.at least race and ethnicity) by doing the following:

(i) At every meeting where the specific program is attempting to gather input from impacted citizens and affected communities, ensuring that best efforts are made to collect voluntary demographic data (i.e. at least race and ethnicity) from meeting attendees;

Subject	Number
Title VI Non-Discrimination	604.1

- (ii) Collecting the data using the template Data Collection form (attached as Appendix C) or by some other method as approved by the Title VI Coordinator and the respective federal agency;
- (iii) Analyzing the data to determine whether traditionally underserved populations attended the meeting, provided input, and whether modifications should be made to the program’s public involvement strategy;
- (iv) Providing the demographic data to the Title VI Coordinator to determine whether traditionally underserved populations are participating in the decision making and whether modifications should be made to the specific program’s public involvement strategy;
- (v) Coordinating with the Title VI Coordinator to complete a site or location equity analysis during the planning stage of the CDOT facility/project to ensure the location is selected without regard to race, color or national origin, pursuant to 49 C.F.R. 21.5(b)(3);
- (vi) Engaging in outreach to persons potentially impacted by the siting of the facility/project determined on a project by project basis and in coordination with the Title VI Coordinator; and
- (vii) Complying with the Title VI Coordinator’s requests for information as necessary to complete CDOT’s annual program area reviews, implement programmatic changes to fulfill annual goals, and ensure nondiscrimination in the respective program area. As further described in the Title VI Implementation Plan, each Title VI Liaison shall notify the Title VI Coordinator of any potential Title VI related issues.

VI. DOCUMENTS REFERENCED IN THIS DIRECTIVE

[Policy Directive 604.0 "Policy on Non-Discrimination"](#)

[CDOT Title VI Implementation Plan](#)

[CDOT Limited English Proficiency \(“LEP”\) Plan](#)

VII. IMPLEMENTATION PLAN

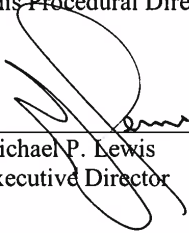
The Office of Policy and Government Relations shall post this Procedural Directive on CDOT’s intranet as well as on public announcements.

Subject	Number
Title VI Non-Discrimination	604.1

The Civil Rights & Business Resources Center shall provide this Procedural Directive to pertinent personnel and ensure the Directive's implementation, including any training on Title VI compliance.

VIII. REVIEW DATE

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



Michael P. Lewis
Executive Director



Date of Approval

Subject	Number
Title VI Non-Discrimination	604.1

Appendix A

The following CDOT divisions or programs must adhere to the requirements of Title VI non-discrimination as set forth in the Title VI Implementation Plan and this Procedural Directive:

Multimodal Planning Branch, Division of Transportation Development

Environmental Programs Branch, Division of Transportation Development

Applied Research and Innovation Branch, Division of Transportation Development

Safety (which includes Office of Transportation and Safety (OTS) and Transportation Systems Management & Operations (TSM&O))

Right-of-Way Office, Project Development Branch, Division of Project Support

Construction (as coordinated by CRBRC staff)

Subject	Number
Title VI Non-Discrimination	604.1

Appendix B

Federal Statutes

Title VI of the 1964 Civil Rights Act, 42 U.S.C. § 2000d

Age Discrimination Act of 1975, 42 U.S.C. § 6101

Federal Aid Highway Act of 1970, 49 U.S.C. § 306

Federal Aid Highway Act of 1973, 23 U.S.C. § 324

Civil Rights Restoration Act of 1987, Pub. L. No. 100-259, 102 Stat. 28

Title II of the Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101 – 12213

Rehabilitation Act of 1973 § 504, 29 U.S.C. § 794

Federal Transit Laws, 49 U.S.C. § 5332

Federal Regulations

23 C.F.R. §1.36 – Compliance with Federal laws and regulations

23 C.F.R. pt. 200 – Title VI Program and Related Statutes – Implementation and Review Procedures

23 C.F.R. pt. 771 – Environmental Impact and Related Procedures

28 C.F.R. pt. 35 – Nondiscrimination on the Basis of Disability in State and Local Government Services

28 C.F.R. pt. 36 – Nondiscrimination on the Basis of Disability in Public Accommodations and in Commercial Facilities

28 C.F.R. pt. 42, subpart C – Nondiscrimination in Federally Assisted Programs – Implementation of Title VI of the Civil Rights Act of 1964

49 C.F.R. pt. 21 – Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964

49 C.F.R. pt. 26 – Participation By Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs

49 C.F.R. pt. 27 – Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance

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49 C.F.R. § 37.5 – Nondiscrimination – Transportation Services for Individuals with Disabilities (ADA)

Executive Orders

Exec. Order No. 12898, 59 Fed. Reg. 7629 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Exec. Order No. 13166, 65 Fed. Reg. 50121 – Improving Access to Services for Persons with Limited English Proficiency

Federal Highway Administration (FHWA)

“Memorandum: Processing of Title VI Complaints,” from Nichole McWhorter, HCR-20, issued by FHWA, June 13, 2018



Appendix C

TITLE VI PUBLIC INVOLVEMENT SURVEY

Completing this form is voluntary but encouraged.
 You are not required to provide the information requested in order to participate in this meeting. Thank you for your participation.

Title VI of the Civil Rights Act of 1964 requires the Colorado Department of Transportation (CDOT) to provide opportunity for everyone to comment on transportation programs and activities that may affect their community. Title VI specifically states that “No person in the United States shall on the grounds of race, color, or national origin be excluded from participation in, be denied the benefit of, or otherwise be subjected to discrimination under any program, service, or activity receiving federal financial assistance.”

By completing this form you are helping CDOT to comply with Title VI of the Civil Rights Act of 1964 and related statutes, which require the collection of statistical data to aid in assessing CDOT’s outreach efforts among those who are affected or interested in this project. Your participation is voluntary but it helps CDOT ensure that it is inclusive of all members of the community. It will not be used for any other purpose.

Meeting Purpose:			Location of Meeting:				Date:	
Please check all that apply. Check Race/Ethnicity								
	List zip code	Indicate M-Male or F=Female	White	African American	Hispanic/Latino	Native American	2 or more races	Other
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COLORADO
Transportation Commission
2829 W. Howard Place, Suite 562
Denver, CO 80204

RELEASE MEMORANDUM

To: All CDOT Employees

From: Herman Stockinger / Greg Diehl / Susan Rafferty

Re: Updated Policy Directive 605.0 "Comprehensive Accessibility for Persons with Disabilities"

Date: November 27, 2018

1. Name of Updated Policy Directive: "Comprehensive Accessibility for Persons with Disabilities"
2. Executive Summary: On November 15, 2018, the Transportation Commission adopted updated Policy Directive 605.0 "Comprehensive Accessibility for Persons with Disabilities." This PD was last updated in 2012, and states CDOT's policy to ensure that all new or existing Transportation Facilities, Building Facilities, and other CDOT services are accessible to persons with disabilities. Updated PD 605.0 includes a reference to PD 602.1 "ADA and PWFA Accommodations Procedures" as one of the ways that this policy will be implemented at CDOT, in addition to PD 605.1 "ADA Accessibility Requirements in CDOT Transportation Projects" and the ADA Transition Plan.
3. Office to Contact with Questions: Division of Human Resources, Civil Rights & Business Resource Center
4. Effective Date of Updated Policy Directive: November 15, 2018

COLORADO DEPARTMENT OF TRANSPORTATION		<input checked="" type="checkbox"/> POLICY DIRECTIVE <input type="checkbox"/> PROCEDURAL DIRECTIVE
Subject Comprehensive Accessibility for Persons with Disabilities		Number 605.0
Effective 11/15/18	Supersedes 07/03/2012	Originating Office Civil Rights and Business Resource Center

I. PURPOSE

To ensure that all new or existing Transportation Facilities, Building Facilities and all other services of the Colorado Department of Transportation (“CDOT” or “Department”) are accessible to persons with disabilities in accordance with the authorities set forth herein and any other state or federal laws and regulations.

II. AUTHORITY

Colorado Transportation Commission, § 43-1-106(8)(a), C.R.S.

The Americans with Disabilities Act of 1990, Title II, 42 U.S.C. § 12101, *et seq.*, (1990) (“ADA”)

The Rehabilitation Act of 1973, 29 U.S.C. § 701 (1973)

The Civil Rights Restoration Act of 1987, 42 U.S.C. § 2000d-4a, § 6101, *et seq.* (1987), as amended

28 C.F.R. pt. 35

49 C.F.R pt. 27, Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance

FHWA Memorandum, “Clarification of FHWA’s Oversight Role in Accessibility,” dated September 12, 2006 (http://www.fhwa.dot.gov/civilrights/memo/ada_memo_clarificationa.htm)

Note: Capitalized terms in this Policy are defined in Procedural Directive 605.1 “ADA Accessibility Requirements in CDOT Transportation Projects.”

III. APPLICABILITY

This Policy applies to all divisions, branches, regions and offices of the Colorado Department of Transportation (“CDOT” or “Department”) and any entity that receives funding from CDOT for all Transportation Projects, Transportation Facilities, Building Facilities, other services, and all local agency Transportation Projects that interface with Colorado state highways regardless of the funding source.

IV. POLICY

It is the Policy of the Colorado Department of Transportation to ensure that all new or existing Transportation Projects, Transportation Facilities, Building Facilities and all other services of the Department are accessible to persons with disabilities in accordance with the authorities set forth herein

Subject	Number
Comprehensive Accessibility for Persons with Disabilities	605.0

and any other state or federal laws and regulations. This Policy shall be implemented through Procedural Directive 602.1 “ADA and PWFA Accommodation Procedures,” CDOT’s ADA Transition Plan, Procedural Directive 605.1 “ADA Accessibility Requirements in CDOT Transportation Projects,” through the ADA Title II Complaint Procedure, and any other methods that CDOT determines may be necessary.

V. IMPLEMENTATION PLAN

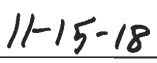
1. This Policy shall be effective immediately upon approval by the Commission.
2. The Civil Rights and Business Resource Center and Division of Human Resources shall ensure that impacted internal and external customers are aware of this Policy Directive within thirty (30) days of the effective date.
3. The Office of Policy and Government Relations shall post the Policy Directive on Public Announcements and on the CDOT Intranet within one (1) week of the effective date.

VI. REVIEW DATE

This Policy Directive shall be reviewed within five years of the effective date.



Herman Stockinger, III
Transportation Commission Secretary



Date

Resolution # TC-2018-11-07

Approval of Updated Policy Directive 605.0 "Comprehensive Accessibility for Persons with Disabilities"

Approved by the Transportation Commission on November 15, 2018.

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 Commission adopted Policy Directive 605.0 "Comprehensive Accessibility for Persons with Disabilities" on July 3, 2012; and

WHEREAS, Policy Directive 605.0 states that it is the policy of the Colorado Department of Transportation ("Department") to ensure that all new or existing Transportation Facilities, Building Facilities, and other Department services are accessible to persons with disabilities; and

WHEREAS, Policy Directive 605.0 is implemented by Procedural Directive 605.1 "ADA Accessibility Requirements in CDOT Transportation Projects," the CDOT ADA Transition Plan, and Procedural Directive 602.1 "ADA and PWFA Accommodations Procedures"; and

WHEREAS, Procedural Directive 605.1 has been updated, and the programs that implement Procedural Directive 602.1 and 605.1 have significantly improved since 2012 when Policy Directive 605.0 was last adopted; and

WHEREAS, Policy Directive 605.0 has been updated to include reference to Procedural Directive 602.1 "ADA and PWFA Accommodations Procedures" which was recently updated; and

WHEREAS, updated Policy Directive 605.0 has been revised with updated information regarding implementation of the policy.

NOW THEREFORE BE IT RESOLVED, the Commission herein approves updated Policy Directive 605.0 "Comprehensive Accessibility for Persons with Disabilities."



Herman Stockinger, Secretary
Transportation Commission of Colorado

11-15-18
Date



COLORADO
Department of Transportation
Office of the Executive Director
4201 East Arkansas Ave, Suite 262
Denver, CO 80222

RELEASE MEMORANDUM

To: All CDOT Employees

From: Shailen P. Bhatt, Executive Director

Re: Updated Procedural Directive 605.1 “ADA Accessibility Requirements in CDOT Transportation Projects”

Date: April 10, 2017
Updated on August 3, 2018: Form #464 references have been deleted from the PD since the form is no longer used for curb ramps

1. Name of Updated Procedural Directive: PD 605.1 “ADA Accessibility Requirements in CDOT Transportation Projects”
2. Date of Directive Superseded: July 30, 2012
3. Executive Summary: PD 605.1 has been updated to reflect CDOT’s decision to adopt PROWAG (Proposed Right-of-Way Accessibility Guidelines) standards for curb ramps. Detailed requirements for ADA accessibility requirements have been removed and now reside in the updated CDOT ADA Transition Plan, which should be read in conjunction with updated PD 605.1. Updated PD 605.1 also provides the following:
 - An explanation on the difference between Maintenance Treatments and Alteration;
 - The responsibilities of various levels of employees involved in the ADA program, including newly defined responsibilities of the Project Manager, Project Engineer, Resident Engineer, and Program Engineer;
 - Updates to the section on local agency agreement projects; and
 - That with regard to Maintenance Treatment Projects, the Maintenance Superintendents or Traffic Engineers shall consult with the ADA Coordinator in the Civil Rights and Business Resource Center to determine whether a Project that could be categorized as an Alteration is included in the 5 year (FY 2017-2022) ADA Curb Ramp Program initiative.
4. Effective Date: March 31, 2017
5. Office to Contact with Questions: Civil Rights and Business Resource Center



COLORADO DEPARTMENT OF TRANSPORTATION		<input type="checkbox"/> POLICY DIRECTIVE <input checked="" type="checkbox"/> PROCEDURAL DIRECTIVE
Subject		Number
ADA Accessibility Requirements in CDOT Transportation Projects		605.1
Effective	Supersedes	Originating Office
03/31/2017	07/30/2012	Civil Rights and Business Resource Center/ Division of Project Support, Standards & Specifications Unit

I. PURPOSE

To ensure that Transportation Facilities, Building Facilities, rest areas, and other services of the Colorado Department of Transportation (the “Department” or “CDOT”) are accessible to persons with disabilities in accordance with governing federal regulations set forth below.

II. AUTHORITY

Policy Directive 605.0 Comprehensive Accessibility for Persons with Disabilities

Executive Director pursuant to § 43-1-105, C.R.S.

The Rehabilitation Act of 1973, 29 U.S.C. §701 (1973), as amended

The Americans with Disabilities Act of 1990, Title II, 42 U.S.C. § 12101, *et seq.* (1990) (hereinafter “ADA”), as amended; 28 CFR 35 Subpart B

Public Rights-of-Way Accessibility Guidelines (hereinafter “PROWAG”), proposed by the U.S. Access Board (available online at <https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way>)

49 C.F.R. 27 (Nondiscrimination on the Basis of Disability in Programs and Activities Receiving or Benefitting From Federal Financial Assistance)

FHWA’s Memorandum Clarification of FHWA’s Oversight Role in Accessibility dated September 12, 2006

§ 43-2-135, C.R.S.

§ 43-2-107, C.R.S.

III. APPLICABILITY

This Procedural Directive applies to all divisions, branches, regions and offices of CDOT and any entity that receives funding from CDOT for all Transportation Facilities, Building Facilities, other services, and all local agency projects that intersect with Colorado State Highways and interstates regardless of the funding source.

Subject	Number
ADA Accessibility Requirements in CDOT Transportation Projects	605.1

IV. DEFINITIONS

“Accessibility Feature” shall mean the ADA-compliant features available in the CDOT M & S Standard Plans. The Project Manager must select the most appropriate plan design for the specific location of the Transportation Project from these options.

“Alteration” for the purpose of this Procedural Directive is a change that affects or could affect the usability of all or part of a building or a facility. Alterations of streets, roads, or highways include activities such as reconstruction, rehabilitation, resurfacing, widening, and projects of similar scale and effort. *See Appendix A and B (FHWA Technical Assistance Memorandum).*

“Building Facility” shall mean any building which a member of the public may be expected to enter.

“FHWA” shall mean the Federal Highway Administration.

“Maintenance Treatment” for the purpose of this Procedural Directive means a treatment that serves solely to seal and protect the road surface, improve friction, and control, splash and spray because they do not significantly affect the public’s access to or usability of the road. Some examples of the types of treatments that would normally be considered maintenance are: painting or striping lanes, crack filling and sealing, surface sealing, chip seals, slurry seals, fog seals, scrub sealing, joint crack seals, joint repairs, dowel bar retro fit, spot high-friction treatments, diamond grinding, and pavement patching. In some cases, the combination of several maintenance treatments occurring at or near the same time may qualify as an alteration and would trigger the obligation to provide curb ramps. *See Appendix A and B (FHWA Technical Assistance Memorandum).*

“Off System” shall mean any intersection that is not on a state highway or does not intersect with a state highway.

“On System” shall mean any intersection that is on or intersects with a state highway or interstate.

“Technically Infeasible” shall mean when constructing a new Transportation Facility or altering an existing Transportation Facility, CDOT or a local agency shall consider what Accessibility Features must be included within the scope of the project. Whether an Accessibility Feature is Technically Infeasible depends on if there is little likelihood of it being accomplished because existing structural conditions would require removing or altering a load-bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces, or features that are in full and strict compliance with the minimum requirements. If a determination has been made that an Accessibility Feature is Technically Infeasible, then CDOT or the local agency is required to construct the Accessibility Feature to the maximum extent practicable. The Project Manager, Project Engineer, Resident Engineer, and Program Engineer shall follow the procedure set forth in Section V of this Procedural Directive regarding the Curb Ramp Variance Support Document.

“Transportation Facility” shall mean, but may not be limited to, a highway or other roadway, contiguous or detached walkway, shared use pedestrian/bicycle path, sidewalk, curb ramp, street, underpass, overpass, compacted pathway or other enhancement project.

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ADA Accessibility Requirements in CDOT Transportation Projects	605.1

“Transportation Project” or “Project” shall mean, but is not limited to, any CDOT or local agency project involving a highway or other roadway, contiguous or detached walkway, shared use pedestrian/bicycle path, sidewalk, curb ramp, street, underpass, overpass, compacted pathway or other enhancement project.

V. PROCEDURES

A. Adoption of Public Rights-of-Way Accessibility Guidelines (“PROWAG”)

CDOT has determined to adopt PROWAG standards regarding curb ramps, proposed by the U.S. Access Board.

B. ADA Transition Plan

This Procedural Directive shall be read in conjunction with the CDOT ADA Transition Plan, which contains further requirements for compliance with ADA standards.

C. Alteration versus Maintenance Treatment on a Transportation Facility

ADA requires state and local governments to provide accessible routes in the public right-of-way. When streets, roadways, or highways are altered, state and local governments must provide curb ramps or street level pedestrian walkways cross curbs. Maintenance Treatments that are considered to be maintenance rather than an Alteration are exempt from the requirement to install curb ramps. See definitions above for Alteration and Maintenance Treatment, and also Appendix A for clarification on addressing curb ramps.

D. New Construction of or Alteration to a Building Facility or Portion Thereof

Any entity that receives funding from CDOT for any new construction or alteration to a Building Facility (i.e., a local agency, a private non-profit corporation, or a private contractor) must include Accessibility Features required by the authorities set forth herein. When applying these requirements, the engineer or other responsible person shall follow the applicable CDOT guidance.

E. Disproportionality

The disproportionality exception set forth in 28 C.F.R. 35.151(b)(4)(iii)(A) does not apply to Transportation Projects. This section states that “alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds twenty percent of the cost of the alteration to the primary function area.” However, the disproportionality exception applies to Building Facilities.

F. Right-of-Way Acquisition

Right-of-Way acquisition in general does not qualify as Technically Infeasible, as defined in this Procedural Directive. Right-of-Way shall be purchased if needed to make a ramp compliant. Case-

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ADA Accessibility Requirements in CDOT Transportation Projects	605.1

by-case situations may be escalated to the Region Transportation Director who may consult with the Civil Rights and Business Resource Center for clarification and/or assistance.

G. Right-of-Way, Utility and Access Permits

All right-of-way, access and utility permits shall be issued on the condition that the Permittee complies with the requirements of this Procedural Directive 605.1 and the applicable authorities set forth therein.

H. Responsibilities

1. CDOT Civil Rights and Business Resources Center (“CRBRC”). The CRBRC shall be responsible for the following:

- a) In conjunction with the Federal Highway Administration (FHWA), Federal Transit Authority, and Federal Aviation Administration, interpreting the relevant federal ADA regulations for inclusion of requirements within the design and construction of CDOT Transportation Projects and Building Facilities.
- b) Upon request of a CDOT Project Manager or Project Engineer, reviewing project sites and project plans to identify where specific ADA requirements must be implemented.
- c) In conjunction with the Division of Project Support, coordinating ADA-related training for CDOT engineers and other appropriate staff, including appropriate written materials.
- d) As needed, reviewing design exceptions with the Project Manager, Project Engineer, and Resident Engineer.
- e) Making random evaluations of project designs, projects under construction, and/or completed projects.
- f) Developing and overseeing the process for data collection and management related to the ADA requirements set forth in this Procedural Directive and the CDOT ADA Transition Plan.

2. Division of Project Support. The Division of Project Support shall be responsible for the following:

- a) Developing and disseminating the current version of the CDOT M & S Standard Plans and bulletins that serve as guidance for CDOT engineers and other appropriate staff.
- b) As needed, reviewing design exceptions with the Project Manager, Project Engineer, and Resident Engineer.
- c) Working with the CRBRC in developing and presenting ADA-related training for

Subject	Number
ADA Accessibility Requirements in CDOT Transportation Projects	605.1

CDOT engineers and other appropriate staff.

3. Project Manager (Design) / Project Engineer (Construction). The Project Manager / Project Engineer shall be responsible for the following:

- a) Evaluating each project through the project development and project scoping processes to determine which Accessibility Features are required, and adhering to the budget set forth by the Resident Engineer and Program Engineer.
- b) Incorporating ADA requirements into the design and construction of Transportation Projects, referring to CDOT plan details contained in the current version of the CDOT M & S Standard Plans, or by contacting the CDOT ADA Coordinator for guidance in situations where there is uncertainty of requirements.
- c) Preparing the Curb Ramp Variance Support Document for situations where curb ramps or other Accessibility Features cannot be installed without a significant deviation from the current CDOT M & S Standard Plans.
- d) Reviewing the Curb Ramp Variance Support Document with the Resident Engineer to seek approval from the Program Engineer.
- e) Providing documentation to the project file and to CRBRC that demonstrates compliance with all authorities set forth herein.
- f) Monitoring that the local agency completes the specified project(s) in accordance with this Procedural Directive and the authority set forth herein.
- g) Confirming that the design complies with all requirements of this Procedural Directive and the authorities cited herein.
- h) Submitting the signed Curb Ramp Variance Support Document to the CRBRC.

4. Resident Engineer. The Resident Engineer shall be responsible for the following:

- a) Determining the appropriate budget for required Accessibility Features by evaluating each project through the project development and project scoping processes.
- b) Providing guidance and consultation to the Project Manager or Project Engineer related to the Curb Ramp Variance Support Document to request approval from the Program Engineer.
- c) Confirming that the design complies with all requirements of this Procedural Directive and the authorities cited herein.
- d) Ensuring the local agency completes the specified project(s) in accordance with this Procedural Directive and the authority set forth herein, and not accepting the project at

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ADA Accessibility Requirements in CDOT Transportation Projects	605.1

final project inspection until all such requirements have been met.

5. Program Engineer. The Program Engineer shall be responsible for the following:

- a) Approving or denying the Curb Ramp Variance Support Document, including the budget associated with the Accessibility Feature.
- b) Confirming that the design complies with all requirements of this Procedural Directive and the authorities cited herein.

6. Maintenance Treatment Projects. With regard to Maintenance Treatment Projects, the Maintenance Superintendents or Traffic Engineers shall consult with the ADA Coordinator to determine whether a Project that could be categorized as an Alteration is included in the 5 year (FY 2017-2022) ADA Curb Ramp Program initiative.

7. Local Agency Agreement Projects. CDOT personnel who work on local agency agreement projects shall ensure the local agencies comply with these requirements below.

- a) For new construction, reconstruction, major rehabilitation, widening, and projects of similar scale and effect, including Safe Routes to School Program projects, projects in public parks, or projects that are not adjacent to a state highway, or other Transportation Projects which impact pedestrian facilities, the local agency must address Accessibility Features required by the authorities set forth herein.
- b) Under the provision of 28 CFR § 35.130(b)(1)(v), CDOT is prohibited from providing significant assistance to any local agency that does not fulfill the requirements of Title II of the ADA.
- c) In practice, FHWA interprets 28 CFR § 35.130(b) as a requirement that CDOT obtain an assurance of compliance from the local agency stating that the local agency will meet all applicable ADA requirements. CDOT shall enforce the local agency’s assurance of compliance.
- d) The agreement between CDOT and any local agency regarding the Transportation Project shall contain language clearly stating that the local agency shall comply with all applicable ADA requirements referenced in this Procedural Directive 605.1 and the CDOT ADA Transition Plan.
- e) Appropriate CDOT staff on each project will ensure that the local agency designs the project(s) specified in the agreement according to the requirements of Procedural Directive 605.1 and the authority set forth therein.
- f) In the course of completing Accessibility Features, the local agency will evaluate the areas adjacent to the newly-installed or retrofitted curb ramp and take reasonable steps to relocate signs or other obstacles when it is within the local agency’s authority to do so.

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ADA Accessibility Requirements in CDOT Transportation Projects	605.1

g) Local Agencies must meet or exceed PROWAG design and construction standards for curb ramps. If the Transportation Facility is Off System, CDOT may permit the local agency to utilize its own alternative specifications regarding curb ramps, detectible warning, and other accessibility designs provided it complies with either the PROWAG guidelines or the most current Americans with Disabilities Act Accessibility Guidelines (ADAAG). If the Transportation Facility is On System, the local agency must utilize CDOT’s specifications for the intersection or intersections On System; however, the Local Agency may be granted the opportunity to utilize alternate specifications if it can demonstrate that the Department of Justice concurs with the Local Agency’s alternate specifications, and CDOT approves the suitability of the alternate specifications. In order to seek approval, the Local Agency must comply with the following:

- (1) Submit the alternate specification proposal concurrently to the CDOT Project Manager, Project Engineer, the Civil Rights and Business Resources Center, and Standards and Specifications Unit.
- (2) Include documentation establishing why the local agency cannot meet the specific ADA requirement.
- (3) Seek approval from the CDOT Project Manager, Project Engineer, the Civil Rights and Business Resource Center, and the Standards and Specifications Unit who shall jointly accept or deny the alternate specifications or may provide alternative options to meet the requirements of the applicable federal regulations and this Procedural Directive 605.1 to the maximum extent technically feasible.

h) CDOT shall not disburse final payment to the Local Agency until the Local Agency has complied with the requirements of this Procedural Directive with regard to the completion of a Transportation Project.

VI. FISCAL IMPACT

- A. CDOT will fund and complete required Accessibility Features using funds allotted to the project.
- B. In the circumstance where a specific Transportation Project requires the purchase of right-of-way, an additional fiscal impact may result. Regardless of the fiscal impact, under current federal regulations, the right-of-way required to meet the requirements of this Procedural Directive must be acquired.

VII. DOCUMENTS REFERENCED

Curb Ramp Variance Support Document (available on the CRBRC website)

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ADA Accessibility Requirements in CDOT Transportation Projects	605.1

Public Rights-of-Way Accessibility Guidelines (“PROWAG”), available online at <https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way>

Department of Justice/Department of Transportation Joint Technical Assistance on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing (2013) (“FHWA Technical Assistance Memorandum”), attached hereto as Appendix B.

Glossary of Terms for DOJ/FHWA Joint Technical Assistance on the ADA Title II Requirements to Provide Curb Ramps When Streets Roads or Highways are Altered Through Resurfacing (2013), attached hereto as Appendix C.

CDOT ADA Transition Plan, available online at: <https://www.codot.gov/business/civilrights/accessibility/ada>

VIII. IMPLEMENTATION PLAN

- A. This Procedural Directive shall become effective upon signature by the Executive Director.
- B. The Office of Policy and Government Relations shall post this Procedural Directive on CDOT’s internal website as well as on the CDOT Public Announcements.
- C. This Procedural Directive shall be implemented by the Civil Rights and Business Resources Center and the Division of Project Support, with the assistance of the Standards & Specifications Unit.
- D. The Civil Rights and Business Resources Center and the Division of Project Support, Standards & Specifications Unit, shall ensure within thirty (30) days that all CDOT divisions, branches, regions, and offices are aware of this Procedural Directive.

IX. REVIEW DATE

This Procedural Directive will be reviewed on or before February 2022.



Shailen P. Bhatt
Executive Director

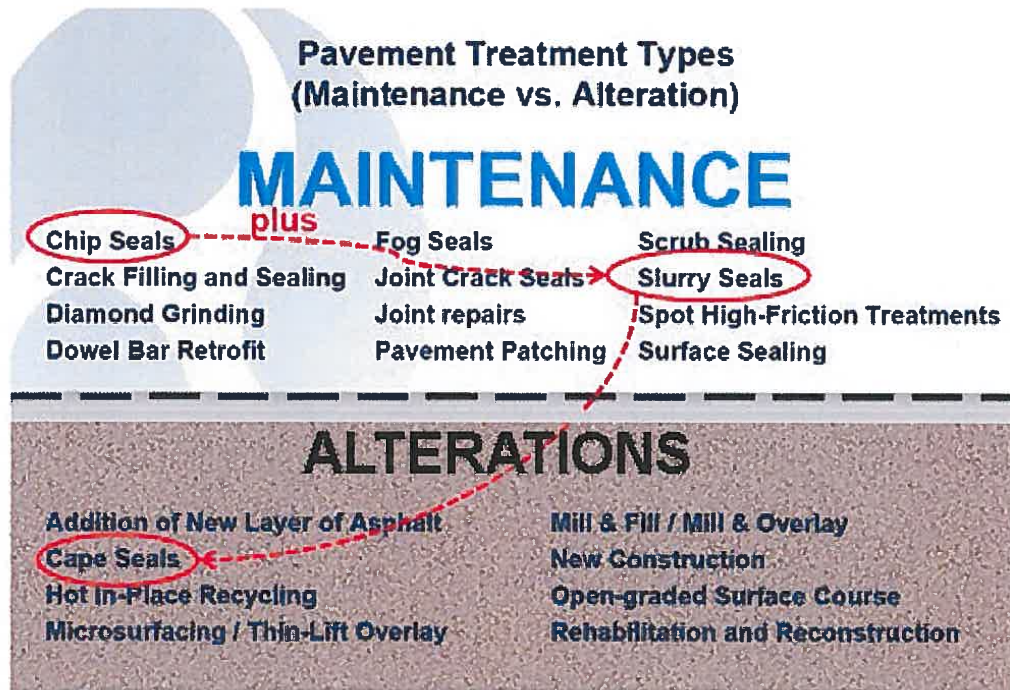
3/31/17

Date of Approval

Subject	Number
ADA Accessibility Requirements in CDOT Transportation Projects	605.1

Appendix A

[Obtained from FHWA]



Appendix B

U.S. Department of Transportation
Federal Highway Administration
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

Civil Rights

Civil Rights



U.S. Department of Justice
Civil Rights Division
Disability Rights Section



U.S. Department of Transportation
Federal Highway Administration

Department of Justice/Department of Transportation Joint Technical Assistance¹ on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing

Title II of the Americans with Disabilities Act (ADA) requires that state and local governments ensure that persons with disabilities have access to the pedestrian routes in the public right of way. An important part of this requirement is the obligation whenever streets, roadways, or highways are *altered* to provide curb ramps where street level pedestrian walkways cross curbs.² This requirement is intended to ensure the accessibility and usability of the pedestrian walkway for persons with disabilities.

An alteration is a change that affects or could affect the usability of all or part of a building or facility.³ Alterations of streets, roads, or highways include activities such as reconstruction, rehabilitation, *resurfacing*, widening, and projects of similar scale and effect.⁴ Maintenance activities on streets, roads, or highways, such as filling potholes, are not alterations.

Without curb ramps, sidewalk travel in urban areas can be dangerous, difficult, or even impossible for people who use wheelchairs, scooters, and other mobility devices. Curb ramps allow people with mobility disabilities to gain access to the sidewalks and to pass through center islands in streets. Otherwise, these individuals are forced to travel in streets and roadways and are put in danger or are prevented from reaching their destination; some people with disabilities may simply choose not to take this risk and will not venture out of their homes or communities.

Because resurfacing of streets constitutes an alteration under the ADA, it triggers the obligation to provide curb ramps where pedestrian walkways intersect the resurfaced streets. See *Kinney v. Yerusalem*, 9 F 3d 1067 (3rd Cir. 1993). This obligation has been discussed in a variety of technical assistance materials published by the Department of Justice beginning in 1994.⁵ Over the past few years, state and local governments have sought further guidance on the scope of the alterations requirement with respect to the provision of curb ramps when streets, roads or highways are being resurfaced. These questions have arisen largely due to the development of a variety of road surface treatments other than traditional road resurfacing, which generally involved the addition of a new layer of asphalt. Public entities have asked the Department of Transportation and the Department of Justice to clarify whether particular road surface treatments fall within the ADA definition of alterations, or

whether they should be considered maintenance that would not trigger the obligation to provide curb ramps. This Joint Technical Assistance addresses some of those questions.

Where must curb ramps be provided?

Generally, curb ramps are needed wherever a sidewalk or other pedestrian walkway crosses a curb. Curb ramps must be located to ensure a person with a mobility disability can travel from a sidewalk on one side of the street, over or through any curbs or traffic islands, to the sidewalk on the other side of the street. However, the ADA does not require installation of ramps or curb ramps in the absence of a pedestrian walkway with a prepared surface for pedestrian use. Nor are curb ramps required in the absence of a curb, elevation, or other barrier between the street and the walkway.

When is resurfacing considered to be an alteration?

Resurfacing is an alteration that triggers the requirement to add curb ramps if it involves work on a street or roadway spanning from one intersection to another, and includes overlays of additional material to the road surface, with or without milling. Examples include, but are not limited to the following treatments or their equivalents: addition of a new layer of asphalt, reconstruction, concrete pavement rehabilitation and reconstruction, open-graded surface course, micro-surfacing and thin lift overlays, cape seals, and in-place asphalt recycling.

What kinds of treatments constitute maintenance rather than an alteration?

Treatments that serve solely to seal and protect the road surface, improve friction, and control splash and spray are considered to be maintenance because they do not significantly affect the public's access to or usability of the road. Some examples of the types of treatments that would normally be considered maintenance are: painting or striping lanes, crack filling and sealing, surface sealing, chip seals, slurry seals, fog seals, scrub sealing, joint crack seals, joint repairs, dowel bar retrofit, spot high-friction treatments, diamond grinding, and pavement patching. In some cases, the combination of several maintenance treatments occurring at or near the same time may qualify as an alteration and would trigger the obligation to provide curb ramps.

What if a locality is not resurfacing an entire block, but is resurfacing a crosswalk by itself?

Crosswalks constitute distinct elements of the right-of-way intended to facilitate pedestrian traffic. Regardless of whether there is curb-to-curb resurfacing of the street or roadway in general, resurfacing of a crosswalk also requires the provision of curb ramps at that crosswalk.

¹ The Department of Justice is the federal agency with responsibility for issuing regulations implementing the requirements of title II of the ADA and for coordinating federal agency compliance activities with respect to those requirements. Title II applies to the programs and activities of state and local governmental entities. The Department of Justice and the Department of Transportation share responsibility for enforcing the requirements of title II of the ADA with respect to the public right of way, including streets, roads, and highways.

² See 28 CFR 35.151(i)(1) (Newly constructed or altered streets, roads, and highways must contain curb ramps or other sloped areas at any intersection having curbs or other barriers to entry from a street level pedestrian walkway) and 35.151(i)(2) (Newly constructed or altered street level pedestrian walkways must contain curb ramps or other sloped areas at intersections to streets, roads, or highways).

³ 28 CFR 35.151(b)(1).

⁴ 2010 ADA Accessibility Standards, section 106.5.

⁵ See 1994 Title II Technical Assistance Manual Supplement, Title II TA Guidance: The ADA and City Governments: Common Problems; and ADA Best Practices Tool Kit for State and Local Governments: Chapter 6, Curb Ramps and Pedestrian Crossings under Title II of the ADA, available at ada.gov.

Page last modified on June 28, 2013.

Appendix C

U.S. Department of Transportation
Federal Highway Administration
1200 New Jersey Avenue, SE
Washington, DC 20590
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Civil Rights

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Glossary of Terms for DOJ/FHWA Joint Technical Assistance on the ADA Title II Requirements to Provide Curb Ramps When Streets Roads or Highways are Altered Through Resurfacing

This glossary is intended to help readers understand certain road treatments referenced on page 2 of the DOJ/FHWA Joint Technical Assistance on the ADA Title II Requirements to Provide Curb Ramps When Streets Roads or Highways are Altered Through Resurfacing. The definitions explain the meaning of these terms from an engineering perspective and are provided in the order in which they appear in the Technical Assistance document.

Treatments that are considered alterations of the road surface

Reconstruction – Reconstruction refers to removing all or a significant portion of the pavement material and replacing it with new or recycled materials. This may include full-depth reclamation, where the pavement surface is demolished in place and new pavement surface is applied. In addition, reconstruction may also include grinding up a portion of the pavement surface, recycling it and placing it back, and then adding a wearing surface, such as in cold in-place asphalt recycling. Reconstruction often includes widening or geometrical changes to the roadway profile.

Rehabilitation – Rehabilitation refers to significant repairs made to a road or highway surface, including activities such as full slab replacement, filling voids under slabs (slabjacking), widening, and adding additional structural capacity.

Open-graded surface course – Open-graded surface course, also known as “open-graded friction course,” involves a pavement surface course that consists of a high-void, asphalt concrete mix that permits rapid drainage of rainwater through the course and off the shoulder of the road. The mixture consists of either Polymer-modified or rubber-modified asphalt binder, a large percentage of one-sized coarse aggregate, and a small amount of fibers. This treatment prevents tires from hydroplaning and provides a skid-resistant pavement surface with significant noise reduction.

Microsurfacing – Microsurfacing involves spreading a properly proportioned mixture of polymer modified asphalt emulsion, mineral aggregate, mineral filler, water, and other additives, on a paved surface. Microsurfacing differs from slurry seal in that it can be used on high volume roadways to correct wheel path rutting and provide a skid resistant pavement surface.

Thin lift overlays – Thin lift overlays are thin applications of mixtures of hot mix asphalt. Thin lift overlays may also require some milling along curbs, manholes, existing curb cuts, or other road structures to assure proper drainage and cross slopes.

Cape seal – A cape seal is a thin surface treatment constructed by applying a slurry seal or microsurfacing to a newly constructed chip seal. It is designed to be an integrated system where the primary purpose of the slurry is to fill voids in the chip seal.

In-place asphalt recycling – In-place asphalt recycling is a process of heating and removing around 1-2 inches of existing asphalt and remixing the asphalt with the addition of a binder additive and possible aggregate to restore the wearing surface for placement and compaction. All of this is performed in a train of equipment.

Treatments that are considered maintenance of the road surface

Crack filling and sealing – Crack filling and sealing involves placing elastomeric material directly into cracks in pavement.

Surface sealing – Surface sealing involves applying liquid sealant to pavement surface in order to stop water penetration and/or reduce oxidation of asphalt products. Sand is sometimes spread over liquid to absorb excess material.

Chip seals – Chip Seals involve placing graded stone (chips) on liquid emulsified asphalt sprayed on pavement surface. The surface is rolled to enable seating of chips.

Slurry seal – Slurry seals involve spraying a mixture of slow setting emulsified asphalt, well graded fine aggregate, mineral filler, and water on the pavement surface. It is used to fill cracks and seal areas of old pavements, to restore a uniform surface texture, to seal the surface to prevent moisture and air intrusion into the pavement, and to improve skid resistance.

Fog seals – Fog seals are a type of surface sealing.

Scrub sealing – Scrub sealing is type of surface sealing

Joint crack seals – Joint crack seals are usually associated with concrete pavement. This work consists of routing and cleaning existing cracks and joints and resealing to prevent water and non-compressibles from entering into the pavement joints and subgrade materials.

Joint repairs – Joint repairs are usually associated with concrete pavement. This work consists of selectively repairing portions of the pavement where the slabs are generally in good condition, but corners or joints are broken. The depth of the patch could be full depth or partial depth.

Dowel retrofit – Dowel retrofits are usually associated with concrete pavement. This work involves the installation of dowel bars connecting slabs in existing pavements. Pavement with dowel bar retrofits can have life extensions of as much as 20 years. Its application is almost exclusively on high-speed Interstate highways.

Spot high-friction treatments – Spot high-friction treatments involve using epoxy based resin liquids as a binder for an aggregate with high-friction properties. These are used in locations where drivers are frequently braking and the pavement surface has less resistance to slipping.

Diamond grinding – Diamond grinding involves using a gang saw to cut grooves in the pavement surface to restore smoothness and eliminate any joint faulting.

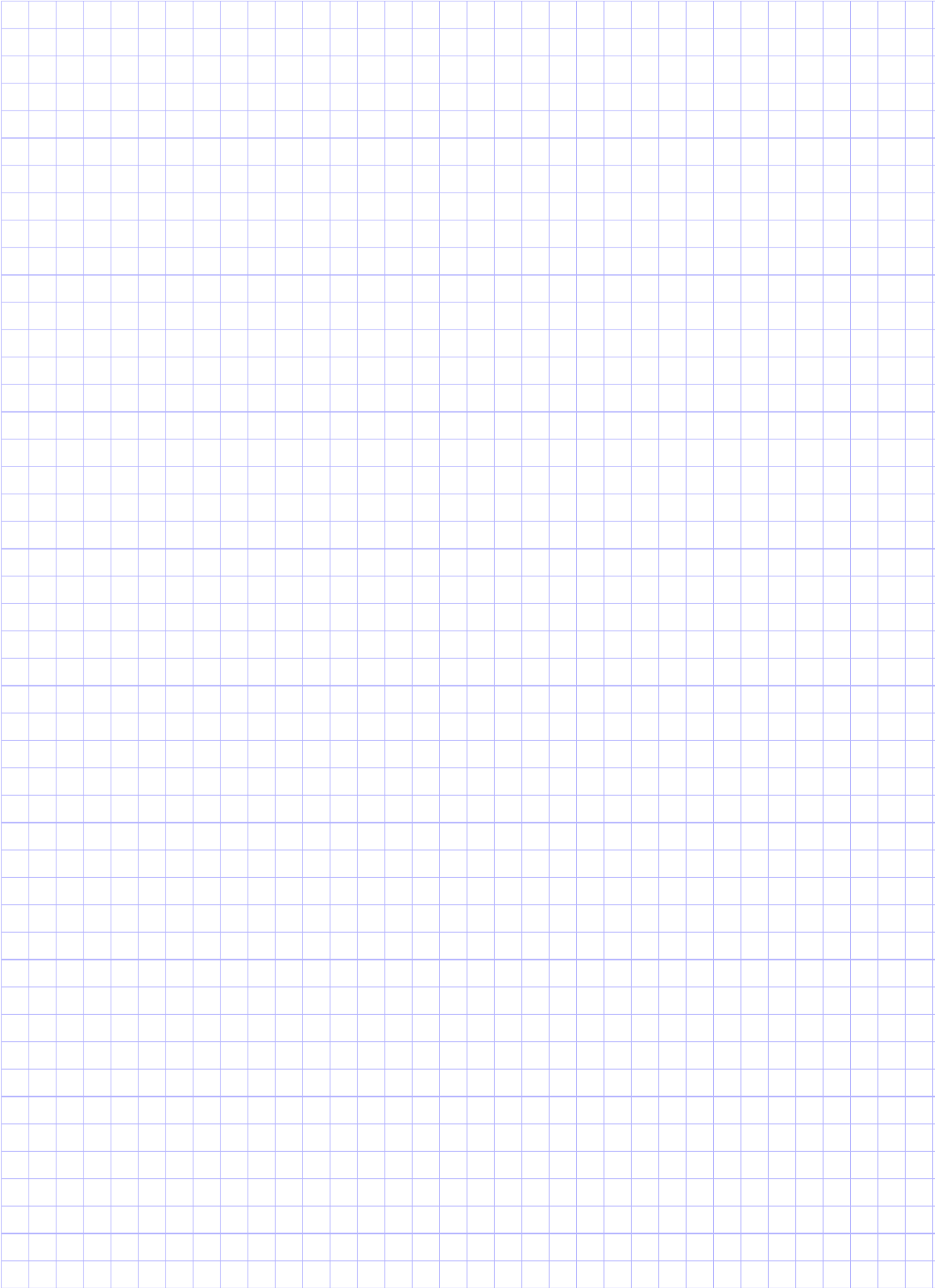
Pavement patching – Pavement patching involves selectively repairing portions of the pavement where the slabs are generally in good condition, but corners or joints are broken. The depth of the patch could be full depth or partial depth.

Page last modified on February 3, 2013.

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