



Regional Active Transportation Plan (ATP)

Adopted May 7, 2026



North Front Range
Metropolitan
Planning
Organization



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Regional Active Transportation Plan (ATP)

Prepared By:

North Front Range Metropolitan Planning Organization

419 Canyon Ave, Suite 300

Fort Collins, CO 80521

Adopted: May 7, 2026

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RESOLUTION NO. 2026-09
OF THE NORTH FRONT RANGE TRANSPORTATION & AIR QUALITY PLANNING COUNCIL
ADOPTING THE 2025 ACTIVE TRANSPORTATION PLAN (ATP)

WHEREAS, the North Front Range Transportation and Air Quality Planning Council (dba NFRMPO), is the Metropolitan Planning Organization for the North Front Range of Colorado and receives both Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) in the work programs of the agency; and

WHEREAS, the NFRMPO is federally required to address bicycle and pedestrian (active transportation) planning as a component of the *Regional Transportation Plan* (RTP) according to Code of Federal Regulations (CFR) §450.324; and

WHEREAS, the Value Statement of the NFRMPO’s *2050 RTP* Goals, Objectives, Performance Measures, and Targets (GOPMT) Framework are guided by the following Value Statement: “Ensure the multimodal transportation system in Northern Colorado is safe, socially and environmentally sensitive, and strengthens the region’s quality of life and economic vitality”.

NOW, THEREFORE, BE IT RESOLVED the North Front Range Transportation & Air Quality Planning Council approves the *2025 Active Transportation Plan* (ATP).

Passed and approved at the regular meeting of the North Front Range Transportation & Air Quality Planning Council held this 7th day of May 2026.

Liz Heid
Liz Heid (May 11, 2026 13:51:55 MDT)

Liz Heid, Vice Chair

ATTEST:

Elizabeth Relford
Elizabeth Relford (May 11, 2026 14:22:35 MDT)

Elizabeth Relford, Executive Director

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Executive Summary

The *Regional Active Transportation Plan* (ATP) is a consolidated summary of existing active transportation (bicycle and pedestrian) infrastructure in the North Front Range Metropolitan Planning Organization (NFRMPO) region, provides the 15 member agencies and other planning partners with tools to support their active transportation planning activities, positions the NFRMPO and its partners to various funding opportunities, and fulfills federal requirements to address bicycle and pedestrian planning as a component of the *Regional Transportation Plan* (RTP)

Chapter 1 of the ATP provides regional context, introduces the concept of active transportation, including the benefits of investing in active transportation, establishes the purpose of the ATP and summarizes how the ATP was developed. **Chapter 2** builds on this introduction by providing a consolidated summary of the existing conditions across the NFRMPO region, including infrastructure, travel patterns, demand, and a crash analysis.

Chapter 3 identifies many of the strategies, emerging trends, and approaches currently shaping the active transportation regionally, statewide, or nationally. This chapter covers considerations and standards for the design, development, maintenance, and implementation of active transportation infrastructure, policies, and programs. Many of these topics are accompanied by best practices and guidance within the same section or within one of the ATP's Appendices.

Chapter 4 contains a detailed update of the Regional Active Transportation Corridor (RATC) visions. This chapter includes narratives, tables, and maps of the existing and projected conditions, segment-level needs, planning considerations, and other important notes related to the development of the RATC network.

The main document concludes with **Chapter 5**, consisting of various Action Steps identified for the NFRMPO, its member agencies, and/or other planning partners to improve active transportation across the region. These Action Steps focus on initiatives that can begin within the four-year cycle of the ATP.

The ATP is supplemented with five Appendices comprised of additional resources that can inform local and regional planning efforts, as well as detailed analysis, guidance, standards, and best practices on topics of interest in Northern Colorado.

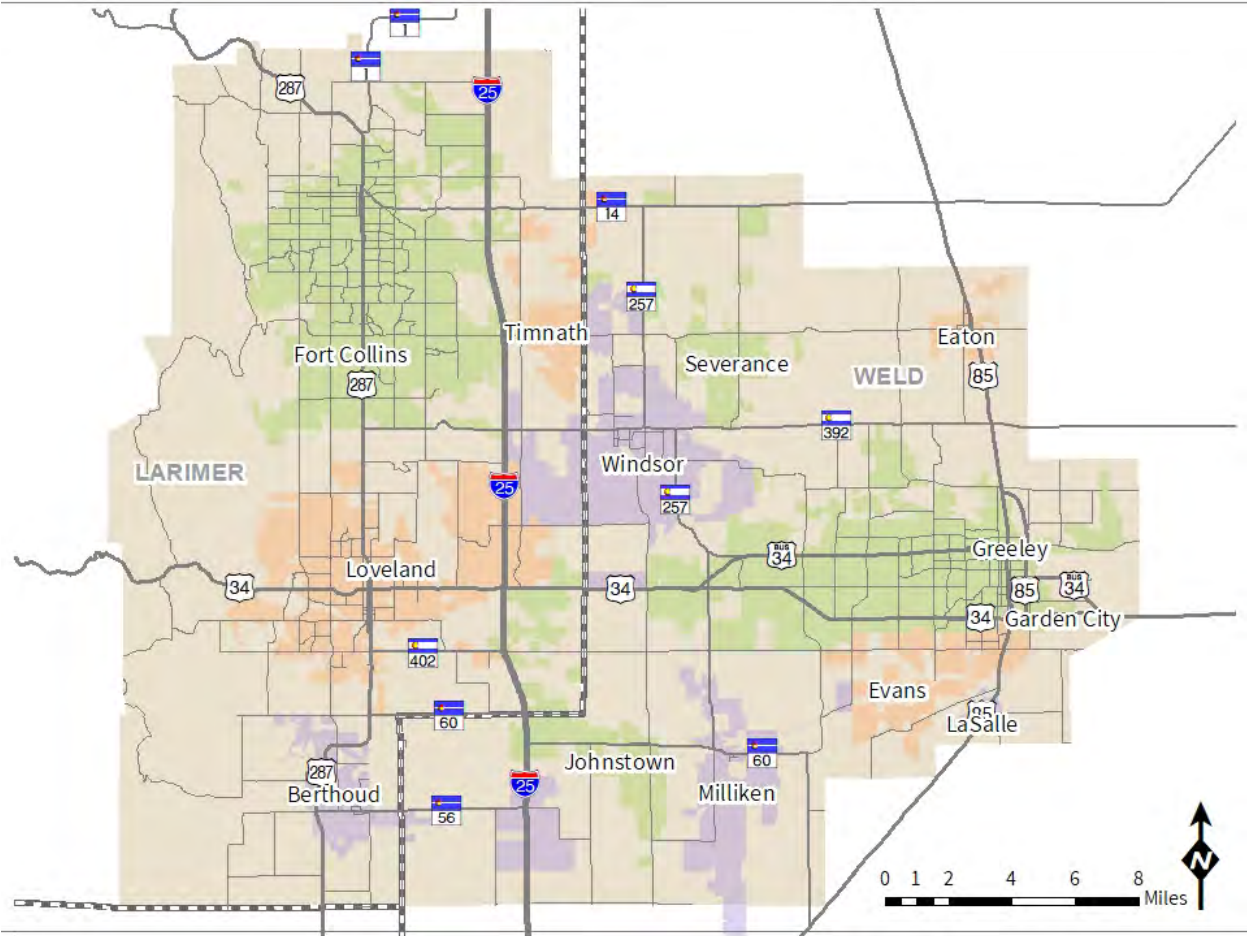
Chapter 1: Introduction

The North Front Range Metropolitan Planning Organization (NFRMPO) is a governmental agency responsible for the long-range regional transportation planning in Northern Colorado. The NFRMPO's 15 local member agencies include the communities of Berthoud, Eaton, Evans, Fort Collins, Garden City, Greeley, Johnstown, LaSalle, Loveland, Milliken, Severance, Timnath, Windsor, and Larimer and Weld Counties as shown in **Figure 1-1**. Through this role, the NFRMPO is federally required to address bicycle and pedestrian (active transportation) planning as a component of the Regional Transportation Plan (RTP). The NFRMPO is uniquely positioned to offer guidance and support policies and strategies endorsed by state and federal partners such as the Colorado Department of Transportation (CDOT) and the United States Department of Transportation (USDOT).

CDOT's Policy Directive ([Bike and Pedestrian Policy 1602](#)) and subsequent [State Statute 43-1-120](#), make clear the Colorado Transportation Commission's (TC) directive for CDOT to promote mode choice and provide for the needs of bicyclists and pedestrians. Through this policy the TC has directed the safe and reliable accommodation of bicyclists and pedestrians in all CDOT's planning, design, and operation of transportation facilities. The [USDOT policy](#) is to incorporate safe and convenient walking and bicycling facilities into transportation projects.

Every transportation agency has the responsibility to improve conditions and opportunities for walking and bicycling and to actively integrate them into their transportation systems. The Active Transportation Plan (ATP) reinforces the NFRMPO's commitment in working with all Northern Colorado partners to ensure safe, accessible, and reliable active transportation accommodations are prioritized in the transportation planning process.

Figure 1-1: The NFRMPO Region



April 2023
Sources: CDOT, NFRMPO

Legend

- County Boundary
- NFRMPO Planning Area



What is Active Transportation

For the purposes of this plan, and subsequent planning efforts, the NFRMPO is defining active transportation as human-powered and human-scaled modes of transportation, including:

- pedestrian (walk or wheel)
- bicycle
- electric bicycle (e-bike)
- scooter



Above: Image Credit: City of Fort Collins

- electric scooter (e-scooter)
- skateboard
- other personal mobility devices

The term active transportation acknowledges the emerging trends in personal- or micro-mobility solutions. For instance, it is more inclusive of electric assist technologies than the term ‘non-motorized.’ Additionally, active transportation acknowledges the fluidity in the way public space is used, more so than the term ‘bicycle and pedestrian.’ Many jurisdictions define electric-assist scooter (e-scooter) users as pedestrians but limit their operation exclusively to roadways in certain areas. As much as possible, ATP will use the terms ‘active transportation’ and ‘active modes.’

Purpose of the Active Transportation Plan (ATP)

The ATP is an update to the NFRMPO’s *2013 Regional Bicycle Plan (RBP)*, *2016 Non-Motorized Plan*, and *2021 Regional Active Transportation Plan*. The primary purposes of the ATP are to:

- Fulfill the federal requirement to address bicycle and pedestrian planning as a component of the Regional Transportation Plan (RTP);
- Present a consolidated summary of the existing bicycle and pedestrian infrastructure, data, policies, programs, and standards throughout the region;
- Summarize best practices for topics such as emerging micromobility solutions (electric bikes, scooters, and skateboards, etc.);
- Identify opportunities to connect and enhance the local and regional active transportation system, with implementation strategies;
- Provide updated tools, analysis, and guidance supporting local and regional planning, funding and implementation efforts; and
- Position the NFRMPO and its planning partners to pursue state, federal, and other funding opportunities

Benefits of Investing in Active Transportation

Accommodating bicyclists and pedestrians for transportation and recreation has numerous benefits in health, safety, air quality and climate, economy, congestion, and community resiliency. These benefits are too numerous to be listed in this plan, but some quick highlights are listed in this section. The Northern Colorado (NoCo) Bike & Ped Collaborative has developed a more comprehensive [Why Invest in Active Transportation?](#) document to underscore the value that thoughtfully planned, designed, and implemented active transportation infrastructure can bring to a community. Research and data on benefits are

ever-changing along with our ability to quantify them. The NFRMPO and its planning partners should stay updated on the latest and most locally-specific findings.

Health

According to the 2016 report, [2016 Economic and Health Benefits of Bicycling and Walking](#), a 10 percent increase in bicycling and walking in Colorado would prevent an additional 30-40 deaths per year and lead to \$258-\$387M in additional annual health savings to the state. A 30 percent increase could equal up to \$2B in additional health savings. Bicycling currently contributes \$511M in health benefits to the State of Colorado annually and prevents an estimated 50 deaths. Walking currently contributes \$2.7B in health benefits to the State of Colorado annually and prevents an estimated 285 deaths.

Safety

Improvements such as road diets, defined as removing travel lanes from a roadway and utilizing the space for other uses and travel modes, can lead to fewer and less severe bicycle and pedestrian crashes. This is due to pedestrians spending less time crossing travel lanes, bicyclists having new or better dedicated facilities, and vehicle speeds being reduced. The FHWA [2014 Road Diet Informational Guide](#) suggests roads under 20,000 vehicles per day (vpd) may be good road diet candidates.

Lower speeds limits, design that discourages high speeds, and/or physical separation between vehicle traffic and bicyclists or pedestrians lower the risk of serious injury or death. According to an Institute of Traffic Engineers study on crashes between a vehicle and pedestrian, fatality rates are 10 percent at 20 mph, 40 percent at 30 mph, and 80 percent 40 mph or faster.

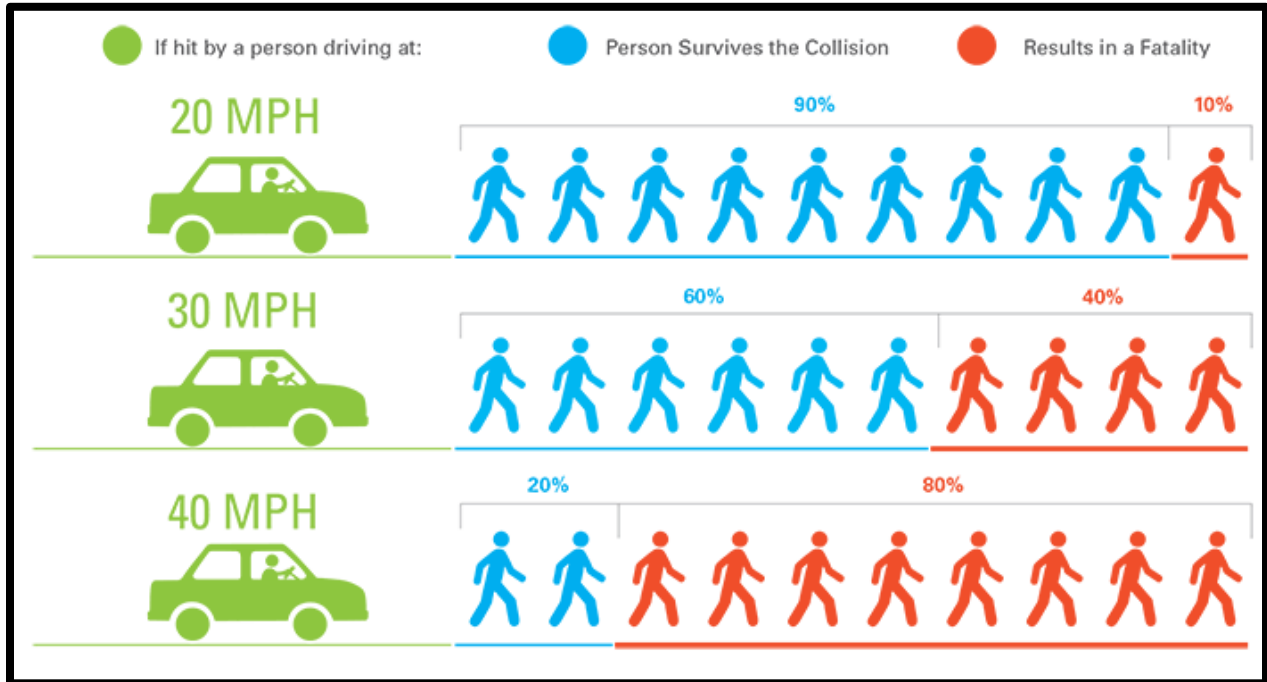


Photo Credit: Institute of Transportation Engineers

Economy

Bicycling has a \$1.1B annual economic impact on the Colorado economy, including \$484M from out-of-state visitors (excluding health benefits). Walking has a \$497M annual economic impact on the Colorado economy (excluding health benefits), according to the 2016 Colorado-specific report, [2016 Economic and Health Benefits of Bicycling and Walking](#).

Replacing a car trip with a bike trip saves individuals and society \$2.73 per mile in costs related to congestion reduction, roadway cost savings, vehicle cost savings, parking cost savings, air pollution reduction, energy conservation, and traffic safety improvements, according to [Biking, On-Street Parking, and Business](#) by Clean Air Partnership.

In the 2023 study, [Wheels to Meals: Measuring the Impact of Micromobility on Restaurant Demand](#), researchers found that the introduction of shared e-scooters through shared micromobility programs led to a 5.2% increase in restaurant spending. This study notes there was a stronger positive effect on fast food restaurant spending, and a weaker effect on sit-down restaurant spending.

Congestion

Congestion costs the Fort Collins-Loveland Urbanized Area \$186M annually, or \$489 and 25 hours of delay per commuter. Congestion costs the Greeley Urbanized Area \$72M annually, or

\$527 and 23 hours of delay per commuter, according to the Texas A&M Transportation Institute's (TTI) [2023 Urban Mobility Report](#). The capacity of a 10-foot lane (or equivalent width) at peak conditions with normal operations is 600-1,600/hr for private motor vehicles only, 1,000-2,800/hr for mixed traffic with frequent buses, 7,500/hr for a two-way protected cycleway, and 9,000/hr for a sidewalk, according to the [Transit Street Design Guide](#) by the National Association of City Transportation Officials (NACTO).

Community Resiliency

According to [Gas Prices and Bicycling](#) by Bikes Belong, when gas prices peaked to \$4.11/gallon in 2008, bike commuting increased 15 percent nationally and 23 percent in the 31 largest bicycle-friendly cities (BFCs) compared to 2007.

Northern Colorado (NoCo) Bike and Pedestrian Collaborative

The NoCo Bike & Ped Collaborative (NoCo) is composed of staff and elected officials from the NFRMPOs member agencies, NFRMPO staff, state partners, and other partners, regardless of affiliation or location, who are interested in helping achieve the vision of safe, convenient, and cost-effective bicycle and pedestrian network for people of all ages and abilities. NoCo typically meets monthly to discuss current initiatives, best practices, and approaches for improving active transportation in the region. Although NoCo is an independent group from the NFRMPO, the group advises NFRMPO Staff and the Technical Advisory Committee (TAC) on a variety of plans, programs, and projects. NoCo has been involved in the awarding of several million dollars in federal and state funds to active transportation projects across the region.

NoCo has played an instrumental role in the implementation of the NFRMPO's *2013 Regional Bicycle Plan*, the *2016 Non-Motorized Plan*, the *2021 Regional Active Transportation Plan*, and will do the same for the ATP. NoCo is referenced throughout the ATP as a critical link for making progress towards the NFRMPO's aspirational goals. Learn more about NoCo's values and operating procedures at <https://nfrmpo.org/bike-ped/noco/>.

Public Stakeholder Engagement

Many elements of the ATP were guided by the NoCo Bike & Ped Collaborative, as well as community members and planning partners who provided feedback through various mediums. Formal dialogue about the ATP between NFRMPO staff and the community began in December 2023 and carried into early 2024; however, conversations have been ongoing since the adoption of the 2021 ATP through the NoCo Bike & Ped Collaborative, NFRMPO Technical Advisory Committee (TAC) meetings, and NFRMPO staff outreach efforts across the region.

Chapter 2: Existing Conditions

The 2013 Regional Bicycle Plan, 2016 Non-Motorized Plan, and the 2021 Regional Active Transportation Plan each contained a review and inventory of NFRMPO member community plans, programs, and policies related to active transportation.

Regional Infrastructure Inventory

The NFRMPO is consistently updating and improving the geographic information systems (GIS) inventory of existing active transportation facilities in the region. Collecting and managing this inventory involves combining datasets from various agencies and including additional features based on aerial imagery, development plans, and other pertinent information. Currently, the inventory only indicates the presence of facilities and does not consistently identify characteristics of the facilities such as facility width and surface condition. The NFRMPO will continue to update the regional active transportation facility inventory to include more data on facility condition, width, and build-out status. The regional active transportation inventory can be found at the [NFRMPO Open Data Page](#).

Definitions

- **Sidewalk**- Hard-surface paths providing space intended for pedestrian travel within the public right-of-way and separated from motor vehicle traffic by curb buffer, or curb with buffer. Sidewalks often also serve bicyclists.
- **Shared-Use Path**- Typically distinguished from sidewalks by having a consistent width of eight feet or greater that allows for two-way travel or passing by different types of users (foot traffic, wheelchair users, bicyclists, roller skaters, skateboarders, etc.). Shared-use paths (often referred to as trails or multi-use paths) are sometimes characterized by more separation from traffic than sidewalks. Shared-use paths can be paved (hard surface) or unpaved (soft surface). The NFRMPO inventory includes all hard-surface paths and some soft-surface paths where information is available.



- Bicycle Lane-** A portion of roadways that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions and facilitate predictable behavior and movements between bicyclists and motorists. Bike lanes can have physical barriers (bollards, medians, raised curbs, etc.) that restrict the encroachment of vehicle traffic.
- Bicycle Route-** Streets with low motorized traffic volumes and speeds, designated and designed for bicycle safety, comfort, and connectivity. Bicycle routes typically use signs, pavement markings, speed and volume management measures, and enhanced bicycle crossings of busy arterial streets. Although the NFRMPO has some information on local bicycle routes, they are not currently included in the inventory due to varying definitions across local jurisdictions.



Chapter 3 includes high-level guidance for identifying appropriate active transportation treatments based on state and federal guidance.

Active Transportation Facility Miles per Capita

Table 2-1: Active Transportation Facilities per Capita (Sidewalks, Bike Lanes/Bikeable Shoulders, Shared-Use Paths)

Year	Total Miles	Total Population	Miles per 1,000 residents
2016	3,313	483,144	6.87
2020	4,013	526,402	7.62
2023	5,064	549,237	9.22

Table 2-1 summarizes the expansion of active transportation infrastructure among the first comprehensive inventory in 2016, the 2021 Regional Active Transportation Plan inventory for 2020, and the updated inventory for 2023. Over the course of 3 years, the NFRMPO region has

added 1,051 miles of active transportation infrastructure, which equates to an additional 1.6 miles of facilities per 1,000 residents.

Active Transportation Facilities by Community

Table 2-2 summarizes the 2023 active transportation facility mileage by jurisdiction.

Table 2-2: Active Transportation Facilities Mileage by Jurisdiction

Jurisdiction	Sidewalks	Shared-Use Paths/Trails	Bike Lanes/ Bikeable Shoulders
Berthoud	104.38	6.56	1.81
Eaton	48.68	2.2	0
Evans	120.93	8.69	11.16
Fort Collins	1,041.98	153.74	399.89
Garden City	2.93	0	0
Greeley	688.65	67.17	190.97
Johnstown	155.87	11.73	3.32
LaSalle	14.56	0	0
Loveland	670.05	37.05	162.6
Milliken	56.62	4.01	0
Severance	83.91	7.85	.6
Timnath	111.59	9.09	16.06
Windsor	369.59	35.91	69.80
Unincorporated Larimer County (NFRMPO Portion)	57.11	150.48	145.74
Unincorporated Weld County (NFRMPO Portion)	7.87	31.6	1.9
Total	3,534.52	526.08	1,003.85
Note: Figures in this table may differ from local estimates. Bicycle routes were omitted because they are defined differently across communities.			

The presence of bike infrastructure does not always signify a low-stress facility for people on bikes. For example, properly designed bike routes can play an integral role in creating connectivity and filling gaps in a local or regional bike network at a low cost. Bike route designations are most appropriate where traffic volumes and speeds are low, a road connects to other bike facilities or destinations, and/or there is not space for more intensive

infrastructure. For future inventory, baseline qualifications for bike routes will be agreed upon and the mileage will be quantified.

This inventory does not consistently distinguish sidewalks from shared-use paths or classify bike lanes into categories such as striped bike lanes, buffered bike lanes, protected bike lanes, bikeable shoulders, and cycletracks. The NFRMPO will work with local communities to include more robust information on the varying levels of bicycle infrastructure in future inventory updates. These efforts should focus on classifications that are meaningful and informative for users trying to choose a route and understand active transportation options in their area.

Soft Surface Trails

The NFRMPO does not currently maintain a complete inventory of current or proposed soft-surface trails. Data about these facilities are not consistently maintained across communities. Although the regional inventory is lacking, soft-surface trails play a critical role in the multimodal connectivity for all types of trips. Within the NFRMPO, the Great Western Trail and the Little Thompson River Trail are great examples of regional soft-surface facilities that can be used as much for transportation as for recreation. Less formalized trail spurs can provide crucial connections to neighborhoods, business districts, schools, natural areas, and more. A prime example of the potential impact soft-surface trails is the 240-mile Katy Trail across Missouri. The Katy Trail connects over 34 communities, attracts over 400,000 annual visitors, and has an annual economic impact of \$18.5M in 2011 which would be around \$26,750,000 in 2026.¹

With a firm and stable surface, soft-surface trails can be accessible for individuals with disabilities and are eligible for federal funding through the NFRMPO and other recipients. They may also provide a great interim trail surface if full funding is not yet available for a hard surface. Soft-surface trails paralleling hard-surface trails also help minimize conflicts between users, such as cyclists and equestrians, and are the preferable surface for many runners. It is important to note that multiple jurisdictions within the NFRMPO have a ban on e-bikes on soft surface trails which creates a barrier for e-bike access. Future local and regional active transportation planning efforts should better incorporate and consider soft-surface trails while taking into account the barriers associated with soft-surface trails.

¹ https://mostateparks.com/sites/mostateparks/files/Katy_Trail_Economic_Impact_Report_Final.pdf

Travel Patterns

Commuting, or Journey to Work, data from the US Census Bureau is the most reliable and readily available source of information about how people get to work and how long it takes to get there. For the *ATP*, 2015-2019 and 2019-2023 American Community Survey (ACS) 5-year estimates were used. **Table 2-3** shows the primary mode share for workers commuting by community.

Table 2-3: Commuting Patterns by Community (Workers Age 16 and Over)

Community	Percent of Workers													
	Drive Alone		Carpool		Public Transportation		Walk		Bicycle		Taxicab, Motorcycle, or Other		Work From Home	
	2019	2023	2019	2023	2019	2023	2019	2023	2019	2023	2019	2023	2019	2023
Berthoud	81.4	75.5	7.8	6.1	1.3	0	0	1.6	0	0	0.7	1.4	8.7	15.4
Eaton	90	84.9	3.7	1.7	0	0	3.7	1.3	0	0	0.5	.3	2.1	11.7
Evans	81.4	79.8	11.3	9.2	0.9	1	0.6	.4	0.6	.1	0.6	1.2	4.6	8.4
Fort Collins	71.9	63.3	7.2	5.6	2.3	1.5	4.2	4.2	5.4	4.2	1	.9	8	20.2
Garden City	77.2	47.9	7.9	43.8	0.8	0	7.9	6.6	0.8	.8	5.5	0	0	.8
Greeley	79.5	74.8	11.3	12.9	0.6	.4	2.8	2.3	0.7	.6	1.2	.8	3.9	8.2
Johnstown	77.3	74.3	8	5.4	0.5	0	2.7	4	0.6	.2	2.7	1.1	8.2	15
LaSalle	88.4	73.3	7.3	10.3	0	0	1.1	1.9	0	0	0.9	9.9	2.2	4.7
Loveland	81.1	75.5	7.3	5.6	0.6	.3	1.4	1.1	0.7	.6	1.6	1.2	7.3	15.7
Milliken	82.9	73.5	10.6	10.1	0.4	.6	2.9	0	0	0	0.5	2	2.5	13.8
Severance	77.6	67.8	11.7	8.4	0	0	0.8	1.3	0.4	0	1.2	.9	8.3	21.6
Timnath	77	67.6	9.6	5.1	0	0	0	2	0	0	5.3	0	8	25.3
Windsor	82.5	73.1	6.9	5.1	0.2	.1	0.5	1.4	0.2	.1	1	1.1	8.9	19.2

Note: Respondents only report the mode they use to get to or from work “most of the time.” To fully understand travel patterns, bike and pedestrian counts and travel surveys are recommended.

Source: 2015-2019 American Community Survey (ACS) 5-year estimates; 2019-2023 American Community Survey (ACS) 5-year estimates

Within the region, an estimated 4,851 workers typically bike to work and 7,260 workers typically walk to work. Of those who walk to work, 11% travel 25 minutes or longer one way. For many of these workers, improved bicycle infrastructure could result in significant travel time savings. Additionally, some workers bike or walk to work on an occasional or less frequent basis and therefore cannot be captured in the survey results shown above.

Looking at the travel patterns of those who do not currently use active modes can help the NFRMPO quantify the portion of the population who might be interested in choosing an active

mode under the right circumstances. This section summarizes some of the data about trips that could be taken by active modes, either under current conditions or with some improvements or incentives.

Regionwide, 234,198 workers age 16 or older report car, truck, or van as their primary commute mode, and 90% of these workers drive alone as their primary commute mode. **Table 2-4** shows average commute time (one-way) for these workers. Commuting under 10 minutes are likely to be very bikeable (and potentially walkable) some of the time, assuming safe infrastructure exists. Commuting between 10-15 minutes or 15-19 minutes may also be somewhat bikeable, especially as electric assist (e-bike) popularity grows. This is discussed more in Chapter 3.

Table 2-2: Travel Times for Workers Commuting by Car, Truck, or Van

Commute Travel Time	Number of Workers	Percent of all workers commuting by car, truck, or van
Less than 10 minutes	28,909	12.3%
10-14 minutes	36,108	15.4 %
15-19 minutes	41,192	17.6%
Total Under 20 Minutes	106,209	45.4%

Source: 2019-2023 American Community Survey (ACS) 5-year estimates

An additional 2,058 workers commute via public transportation as their primary mode. Of these workers, 754 (36.6%) have travel times of 30 minutes or longer. Many of these trips have longer times due to long walks or bike rides to (access) and from (egress) transit stops. Active transportation system improvements could shorten these access and egress times, improve safety, and/or provide access where there previously was none. Studies suggest the average person is willing to walk five or ten minutes to access transit but is willing to bike significantly longer.² The lack of bike storage accommodations on-board transit vehicles and at transit stops or transit centers may also create a barrier for bike access to transit (discussed more in Chapter 3). Additional guidance can be found in the [FTA's Manual on Pedestrian and Bicycle Connections to Transit](#).

For the 1,304 workers with shorter public transportation commutes (less than 30 minutes), active transportation system improvements could provide a reliable alternative mode in instances when public transportation service does not meet their schedule or needs.

² Federal Highway Administration (FHWA). Pedestrian Safety Guide for Transit Agencies. 2013.

Figure 2-1 shows the connectivity of Transfort, City of Loveland Transit (COLT), Greeley Evans Transit (GET), and Bustang bus stops to the regional sidewalk network. Bus stops are represented as connected to the sidewalk network, have sidewalk infrastructure at the bus stop, but are disconnected from the larger sidewalk network, or have no sidewalk infrastructure. Connected bus stops connect into the municipal network at multiple points, while disconnected bus stops may have a portion of a sidewalk but it does not connect into the larger network. Based on the map, areas in need of sidewalk upgrades include northwest Fort Collins, northeast Fort Collins, and along US287 between Fort Collins and Loveland. Data included in this map is available from NFRMPO staff upon request.

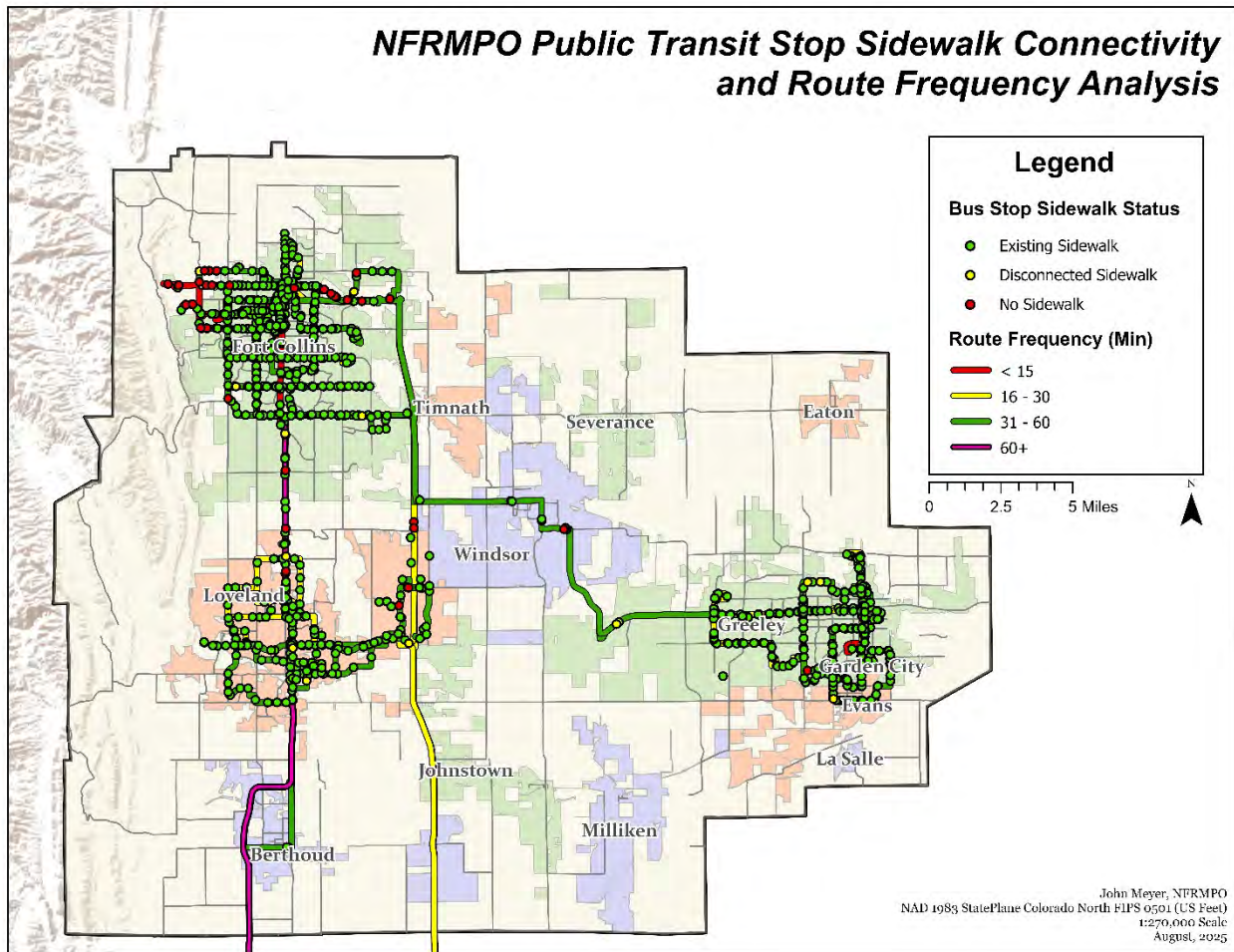
Overall, there were 974 bus stops in the NFRMPO region as of November 2025. A further analysis finds:

- 918 (94.3%) are connected; 17 (1.7%) have sidewalk infrastructure at the bus stop but are disconnected; and 39 (4.0%) have no sidewalk infrastructure.
 - Of Transfort’s 512 bus stops, 471 (92.0%) are connected, 9 (1.8%) have sidewalk infrastructure at the bus stop, but are disconnected, and 32 (6.3%) have no sidewalk infrastructure.
 - Of GET’s 313 bus stops, 305 (97.4%) are connected, 6 (1.9%) have sidewalk infrastructure at the bus stop, but are disconnected, and 2 (.6%) have no sidewalk infrastructure.
 - Of COLT’s 179 bus stops, 171 (95.6%) are connected, 3 (1.7%) have sidewalk infrastructure at the bus stop, but are disconnected, and 5 (2.8%) have no sidewalk infrastructure.

Table 2-3: Transit Stop to Sidewalk Connectivity Analysis

Transit Agency	Total Bus Stops	Connected	Have sidewalks, but disconnected	No sidewalk infrastructure
Transfort	512	471	9	32
GET	313	305	6	2
COLT	179	171	3	5

Figure 2-1: Transit Stop to Sidewalk Connectivity Analysis



Demand

On any given day, nearly everyone is a pedestrian at some point. Anyone who parks their car or bike or gets off a bus still needs to be able to safely walk or roll to and from their destination, no matter the distance. Although active transportation affects everyone regardless of their main transportation mode, quantifying the demand for active transportation is a difficult task. It can be approached through tools such as surveys; however, if safe walking or biking options do not exist in an area and community members are unaware of the possibilities for safer active transportation options, survey respondents in that area may not report demand even when asked what would help them to walk or bike more often. This is a form of latent demand, in which the option either is not available, or the user does not know the option exists, so the user does not report their demand. The phenomenon in which more people suddenly want to walk or bike because they see infrastructure improvements is called induced demand. With induced demand for active transportation, the provision of safe infrastructure reveals pent-up

latent demand, or previously suppressed trips. Local agencies should consider the possibilities of latent and induced demand within their communities when planning for active transportation.

Responses to the 2025 Active Transportation Plan Survey indicate potential latent demand for walking and/or biking across the region. Of the respondents, 26.5% walk to/from work at least once a week or more, 46.5% walk to go shopping for groceries and other errands at least once a week or more, and 93.1% walk for exercise and recreation at least once a week or more. For bikes, 49% bike to/from work at least once a week or more, 56.8% bike to go shopping for groceries and other errands at least once a week or more, and 80.7% bike for exercise and recreation at least once a week or more.

Respondents were asked “I would walk or roll more if” then were presented with a series of statements. Respondents were asked to choose all that apply. Of the respondents, 26% would walk more if it did not take so long to walk/roll to their destination, 16% would walk more if there were safer crosswalks, and 16% would walk more if there were more off-street sidewalks or off-street walking paths.

Respondents were asked a similar question pertaining to biking. Of the respondents, 15% would bike more if there were more space separating bicycles from automobiles on roads (bike lanes or shoulders), 15% would bike more if there were more physical barriers between bikes and automobiles on roads (barrier-protected bike lanes), and 14% would bike more if there were more off-street trails/multi-use paths.

Community Health Assessments

Periodically, the Health District of Northern Larimer County (HDNLC) and the Weld County Department of Public Health and Environment (WCDPHE) conduct community health assessments (CHAs) in which they survey a sample of residents on various topics related to health and quality of life. These CHAs are increasingly including questions related to active transportation. The collected data is useful in assessing overall perceptions on the ease of walking or biking, infrastructure deficiencies and barriers, individual habits, and latent demand for improved infrastructure.

According to the 2022 HDNLC CHA, 83% of Larimer County adults agree that walking is “easy to do”, but only 30% agree that walking gets them to their destination. 47% of respondents between 18 and 34 agreed that walking gets them to their destination while only 30% of adults 65 and older agree. For bicycles, 83% agree that bicycling is “easy to do”, and 65% agree that

bicycling gets them to their destinations. 79% of respondents between 18 and 34 agree that bicycling gets them to their destinations while only 43% of respondents 65 and older agree.

According to the 2022 WCDPHE CHA, 69.1 percent of respondents agree that “it’s easy to walk in my community”, 65 percent of respondents agree that “it’s easy to bike in my community”, but only 36.8 percent agree that “it’s easy to get many places I need to go by walking or biking”.

Moving forward, NFRMPO Staff and its partners should work more closely with HDNLC and WCDPHE to analyze geographic and socioeconomic disparities in CHA results related to active transportation.

Count Program

In 2016, the NFRMPO began a regional active transportation counting and monitoring program. Through this program, the NFRMPO has purchased 5 permanent electronic counting devices (counters) and four mobile/temporary counters for use on trails and roadways. The five mobile/temporary counters are available to any NFRMPO member agency. To date, they have been loaned out to Eaton, Loveland, Timnath, Windsor, and Greeley for various purposes. The counters help highlight travel patterns, quantify facility usage, evaluate investment effectiveness, identify areas of need, and develop maintenance schedules that avoid the periods of highest usage. The data is often used to support grant applications and other investment decisions.

Local agencies are encouraged to take advantage of the NFRMPO count program and invest in their own equipment.

Safety

In February 2025, the NFRMPO chose to set its own regionally-specific safety performance measure target of reducing the number of non-motorized fatalities and serious injuries to an average of 41 from 2021-2025. The safety performance measure targets are a five-year average using three years of actual crash data and two years of future estimated crash data. It is important to note that these safety targets must be data-driven and cannot be aspirational. The NFRMPO does not currently have region-specific targets related to pedestrian and bicycle safety. In September 2020, the NFRMPO Planning Council took a step towards a safer transportation system by adopting an organizational safety vision called the Towards Zero Deaths Policy. This vision was developed out of a desire to eliminate deaths and serious injuries on the region’s roadways. The Towards Zero Deaths Policy commits the NFRMPO to:

- Continue prioritizing safety in future NFRMPO Calls for Projects;

- Analyze all available crash data to make more informed decisions for safety related projects;
- Integrate the Towards Zero Deaths framework in future planning initiatives, including *the Active Transportation Plan (ATP)*, *Congestion Mitigation Process (CMP)*, and *Regional Transportation Plan (RTP)*;
- Provide regionally specific crash data to compare to statewide crash data when possible; and
- Identify crash types and characteristics which are most prevalent in the region as well as best practices to mitigate those specific crash types.

Other NFRMPO partner agencies have been leaders in safety initiatives. **Table 2-6** shows NFRMPO partner agencies’ transportation safety policies.

Table 2-4: NFRMPO Partner Agency Safety Policies

Organization	Year Adopted	Policy
Fort Collins	2023	0 fatalities and serious injuries by 2032
Greeley	2025	0 fatalities and serious injuries by 2045
Larimer County	2025	0 fatalities by 2040 and 0 serious injuries by 2045
Loveland	2025	20% reduction by 2035
Weld County	2025	25% reduction by 2045
Windsor	2025	0 fatalities and serious injuries by 2035

Regionwide Crash Trends

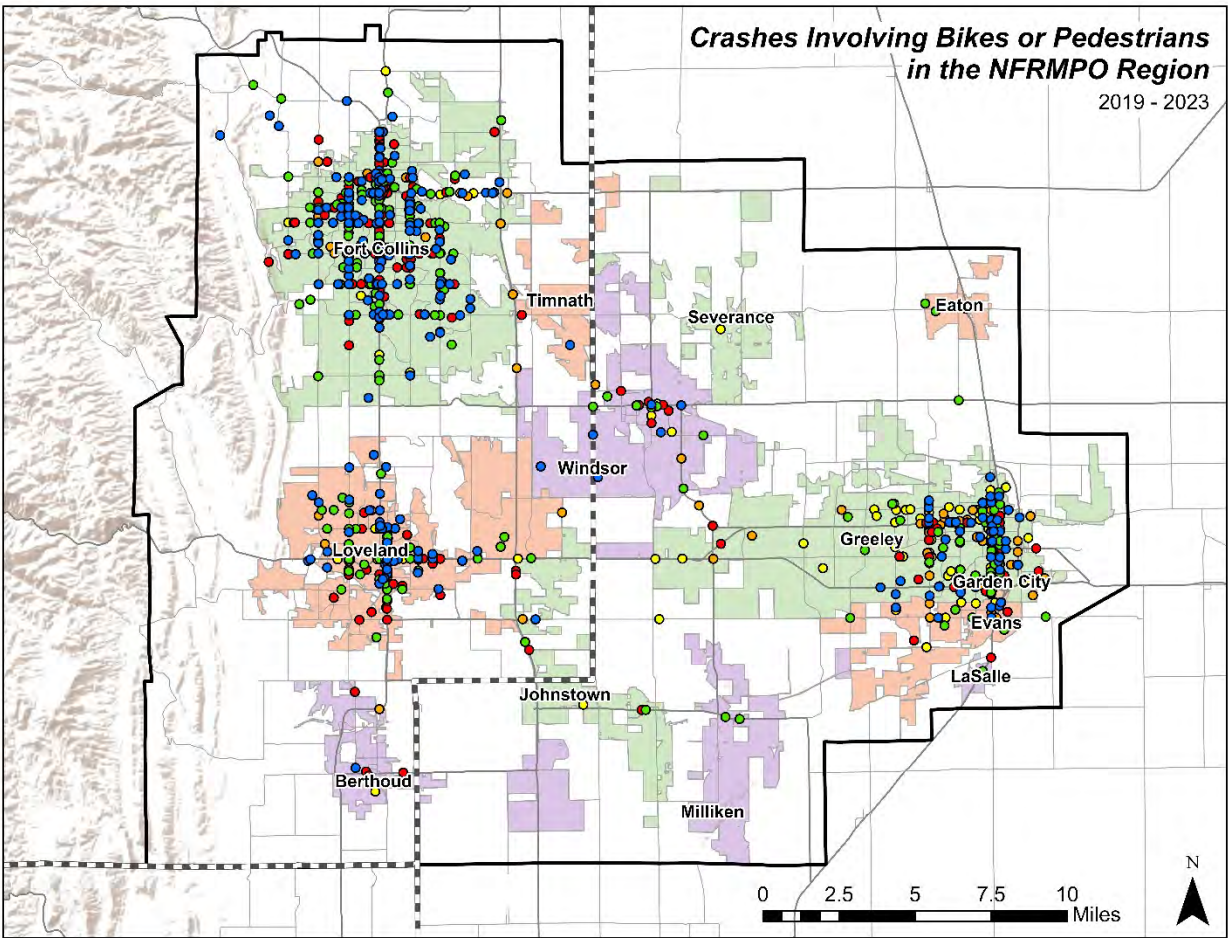
Between 2019 and 2023, there have been 898 bicycle-and/or pedestrian-involved crashes. Over this five-year period, bike/ped crashes have trended upward with the exception of 2020. This could be due to changes in travel patterns due to the COVID-19 pandemic. **Table 2-7** shows the number of bike/ped crashes per year, and **figure 2-2** shows the location of these crashes.

Table 2-5: Bicycle- and/or Pedestrian-Involved Crashes between 2019 and 2023

	2019	2020	2021	2022	2023
Injuries	102	68	153	165	189
Fatalities	2	7	8	6	13
Total	138	97	193	213	257

Note: The total number of injuries and fatalities will not add up to the total due to a third category of crash. This category is property damage only.

Figure 2-2: Bicycle- and/or Pedestrian-Involved Crashes between 2019 and 2023



Legend
 Crash Year
 ● 2023 ● 2020
 ● 2022 ● 2019
 ● 2021

*There is considerable point overlap because many crashes occur in similar locations over multiple years.

March 2026
 Sources: CDOT, NFRMPO


For fatalities and serious injuries (FSI), the numbers increased year over year except for 2022 for fatalities and 2020 for injuries. Most regions across the nation have seen the crash and FSI trends increase over the same time period.

Crash data presented in this section was obtained from the Colorado Department of Transportation and is based on reported crashes collected through law enforcement reporting systems. While this data provides a valuable foundation for understanding regional safety trends, it is subject to several limitations. Not all crashes, particularly those involving bicyclists and pedestrians, are reported to law enforcement, which may result in underrepresentation of total incidents. Additionally, there may be inconsistencies in reporting practices, location accuracy, and crash severity classification across jurisdictions and over time. In many cases, the available data does not clearly identify which party in a crash sustained a specific injury severity level; as a result, analyses involving vulnerable road users often assume that the most severe injury reported in a crash applies to the bicyclist or pedestrian. Recent years of data may also be subject to revision as additional reports are finalized. Despite these limitations, the dataset remains the most comprehensive and consistent source available for analyzing regional crash patterns and informing safety planning efforts. For more information on CDOT's crash data, please visit their [Crash Data](#) webpage.

National Crash Trends

A nationwide analysis of 60 pedestrian crash “hot spots” with six or more pedestrian deaths over eight years found consistent characteristics, including:

- 97 percent were multilane roadways (70 percent required pedestrians to cross five or more traffic lanes);
- Over three-quarters have speed limits of 30 mph or higher;
- 62 percent had volumes over 25,000 vehicles per day;
- All had adjacent commercial retail and service land uses;
- 72 percent had billboards; and
- 75 percent were bordered by low-income neighborhoods.³

Reducing bicycle and pedestrian crashes can also have significant direct economic impacts. According to a [2010 National Highway Traffic Safety Administration \(NHTSA\) report](#), pedestrian-involved crashes resulted in \$65B in comprehensive costs (includes economic costs

³ Schneider, R. J., Sanders, R., Proulx, F., & Moayyed, H. (2021). United States fatal pedestrian crash hot spot locations and characteristics. *Journal of Transport and Land Use*, 14(1), 1-23. <https://doi.org/10.5198/jtlu.2021.1825>

and quality-of-life valuations) annually, a cost of \$258,094 per crash. Likewise, bike-involved crashes results in \$21.7B in comprehensive costs, or \$118,938 per crash.

Motor vehicle design is also a major factor in bicycle and pedestrian safety, according to a 2020 study by the Insurance Institute for Highway Safety, sport utility vehicles (SUVs) are disproportionately likely to injure and kill pedestrians compared with cars, primarily at crashes of intermediate speed (20-39 mph).⁴ This raises concerns for walkability in communities across the nation given the rising consumer preference for SUVs. In 2010, 27 percent of total car sales in the United States were SUVs. In 2018, that number was up to 48 percent.⁵ Over the past decade, pedestrian fatalities involving SUVs have increased 69 percent, compared with just a 46 percent increase for pedestrian fatalities involving passenger cars.⁶ As the motor vehicle size continues to trend upward, additional infrastructure, traffic control, and enforcement that promote safe driving practices will become increasingly important.

Highways through Community Cores

The Towns of Severance and Timnath are the only NFRMPO member communities without a state highway bisecting its main street or a primary commercial corridor. Across the NFRMPO region, heavily traveled highway corridors pass directly through centers of commerce and dense downtown areas that are important to community character. In most instances, these highways can inhibit safe biking and walking. Often, they isolate neighborhoods where household access to motor vehicles is already low. Although these corridors may not be appropriate for on-street biking, destinations along them should be accessible via parallel alternatives and safe intersections or access points. Multi-agency coordination is important to facilitate mobility for all user types. The NFRMPO and its partners should continue to work closely with CDOT Region 4 on upcoming safety initiatives and needs assessments.

⁴ <https://www.iihs.org/topics/bibliography/ref/2203>

⁵ <https://www.iea.org/commentaries/growing-preference-for-suvs-challenges-emissions-reductions-in-passenger-car-market>

⁶ Projected 2020 U.S. Pedestrian Death Rate on Pace for Record High Despite Significant Drop in Driving.: Governors Highway Safety Association (GHSA). <https://www.ghsa.org/resources/news-releases/pedestrians21>

Chapter 3: Strategies, Approaches, and Emerging Trends

This Chapter summarizes strategies, approaches, and emerging trends in active transportation that may be well established in the NFRMPO region, relatively new, or somewhere in between. The topics highlighted are important for local, regional, and state agencies to consider in the transportation planning process. As much as possible, the principles in these topic areas should be applied consistently across the region.

Infrastructure

Basic types of active transportation infrastructure were introduced in Chapter 2. This section highlights some of the nuances and standards that, in the right context, can contribute to a safer, more reliable, and more resilient transportation network.

Facility Design Standards

The NFRMPO encourages local agencies to strive for active transportation facility design consistent with or above the minimum acceptable standards outlined in the [Larimer County Urban Area Street Standards \(LCUASS\)](#). The LCUASS applies to all development within the jurisdiction of the Cities of Fort Collins and Loveland and their Growth Management Areas (GMA). The LCUASS encourages consistent design across jurisdictions and contains specific sections for pedestrian facilities (Chapter 16) and bicycle facilities (Chapter 17), with additional bike/ped design guidance scattered throughout other sections. The LCUASS is considered the best practice in intergovernmental coordination. Per guidance within the LCUASS, for design or construction methods and materials not specified within the LCUASS, the following resources should be considered:

- AASHTO- [A Policy on Geometric Design of Highways and Streets, Guide for the Development of Bicycle Facilities](#)
- ADA- [2010 ADA Accessibility Guidelines](#)
- APWA- [Manual of Standard Plans](#)
- ASTM- [American Society for Testing and Materials](#)
- CDOT- [Standard Specifications for Road and Bridge Construction; Standard Plans \(M&S Standards\); Roadway Design Guide; Pedestrian Crossing Installation Guide](#)
- FHWA- [Standard Plans \(M&S Standards\); Roundabouts: An Informational Guide; Bikeway Selection Guide](#)
- ITE- [Trip Generation Volumes 1 through 3](#); other appropriate design publications

- NACTO: [Urban Bikeway Design Guide](#)
- NCHRP- [Report 279, Intersection Channelization Design Guide](#)
- USDOT- [Manual on Uniform Traffic Control Devices \(M.U.T.C.D\)](#)

It is increasingly important to consider how micromobility solutions (e-scooters, e-bikes, skateboards, etc.) are accommodated in the active transportation network. People will choose to use these devices whether they are accommodated or not, so design standards and policies should be adjusted to facilitate and encourage safe use.

Additional Resources and Considerations

The following resources may provide supplemental support for decision-making when weighing design and facility selection. The guidance and examples can accompany the information found in the resources listed in the previous section. NFRMPO staff are available to assist local agencies in identifying appropriate strategies and countermeasures.

Sidewalks

Sidewalks are an essential form of infrastructure for pedestrian movement and often serve bicyclists and other active modes. Although LCUASS defines sidewalk standards for various street classifications, local context should determine whether the minimum acceptable standard meets the needs of common users. For instance, the LCUASS specifies a minimum width of 4.5 to 5 feet for sidewalks along residential local streets, but this may not be adequate in areas with higher-than-average concentrations of older adults and individuals with disabilities. Five feet is the minimum width needed for circular wheelchair turns or for two wheelchairs to safely pass one another, and six feet is the minimum width needed for two people using walking aids or service animals to pass one another. Many sidewalks across the region do not currently meet ADA standards and are unusable or unsafe for many community members. The full extent to which the sidewalk network meets current ADA standards is not fully known across the NFRMPO region. Documenting and quantifying this information could allow the NFRMPO and its partners to better analyze disparities across communities and prioritize limited federal funding based on a project's accessibility impacts.

Other considerations such as vertical versus rollover curbs, see **Figure 3-1**, can have significant impacts on user experience and safety. Although a rollover curb may be cheaper to build than a vertical curb, rollover curbs more easily allow vehicles to park on the sidewalk, errant vehicles to enter the sidewalk, or plowed snow to be stored on the sidewalk.

Sidewalk buffers (or parkways, according to LCUASS) provide increased separation from motor vehicle traffic, generally increasing the comfort of the facility and increase space for shade

trees and other pedestrian amenities. **Figure 3-1** illustrates attached (no buffer) and detached (buffer) sidewalks.

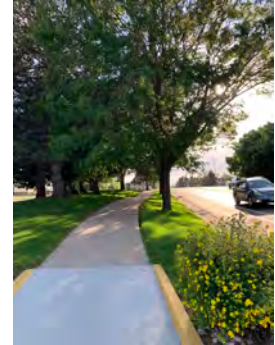
Figure 3-1: Basic Sidewalk Characteristics: Buffers and Curb Types



Above: Attached (no buffer), Rollover Curb



Above: Attached (no buffer), Vertical Curb



Above: Detached (buffer)

Shared-Use Paths

Shared-use paths (often referred to as trails or multi-use paths) are typically distinguished from sidewalks by having a consistent width that allows for two-way travel and safe passage of different types of users (foot traffic, wheelchair users, bicyclists, roller skaters, etc.). Shared-use paths are often characterized by more separation from traffic than sidewalks. Shared-use paths can be paved (hard surface) or unpaved (soft surface). The NFRMPO maintains a database of all paved shared-use paths, and some unpaved paths, such as the Great Western Trail, that meet the accessibility standards of the Americans with Disabilities Act (ADA). Future efforts will be made to identify and inventory other accessible unpaved paths. Generally, provision of shared-use paths should be a requirement for all new residential developments. Provision of active transportation facilities through development is typically more cost-effective than adding facilities at a later time and ensures consistency within and across communities as the region continues its rapid growth.

The Regional Active Transportation Corridor (RATC) Network consists mainly of shared-use paths. **Table 3-1** includes high-level design guidance for shared-use paths that serve regional traffic or see very heavy local usage.

Table 3-1: Basic Design Guidance for Regional and/or High-Usage Shared-Use Paths

Design Consideration	Guidance
Uses	Connects several community destinations such as residential, commercial, and recreation areas, and other active

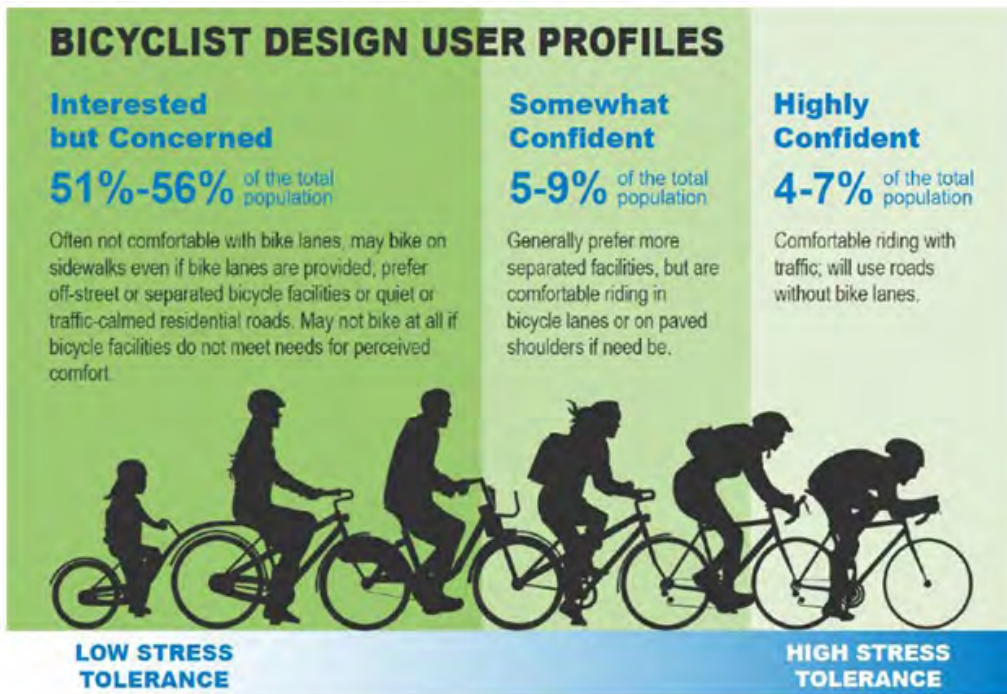
	transportation facilities; Used by bicyclist, pedestrians, and other mobility devices, including electric assist; Used for transportation and recreation
Preferred Location	Through residential, commercial, and recreation areas; along right-of-way corridors such as irrigation canals, drainage corridors, railroads, utilities, or roads; separated from hazards to provide a safe and pleasurable experience
Corridor Width	50-feet preferred; 30-foot minimum
Trail Width	12-feet preferred; 10-foot minimum
Vertical Clearance	10-feet preferred; 8-foot minimum
Horizontal Clearance	Minimum 3-foot clear on both sides of trail, minimum bridge width of 10-feet
Lighting	At trailheads, access points, underpasses, at-grade road or trail crossings, intersections
Trail Waysides/Rest Areas	1 major wayside/rest area per mile, or as available; combine amenities with trailheads; preferred amenities (as appropriate/feasible) include shelter, benches/seating, picnic areas, potable water, informational kiosks, wayfinding, restrooms, trash/recycling receptacles
Wayfinding	Consistent with guidance in Appendix C: Wayfinding Guidance . Basic principles to follow include providing clear wayfinding at major access points, trailheads, and ½-mile marker and/or confirmation sign ½-1 mile and after major decision points; turn or decision signs in advance of and at major decision points, intersections, network gaps, major destination, or hazards
Grade	Consistent with the U.S Access Board’s ADA Accessibility Guidelines (ADAAG)
Trailheads	At major access points, in parks, open spaces, or other parking areas where possible; preferred amenities (as appropriate/feasible) include shelter, benches/seating, picnic areas, potable water,

	informational kiosks, restrooms, trash/recycling, entry signs, wayfinding, regulatory information
Connecting Path Width	8-foot minimum wherever possible

On-Road Bicycle Facilities

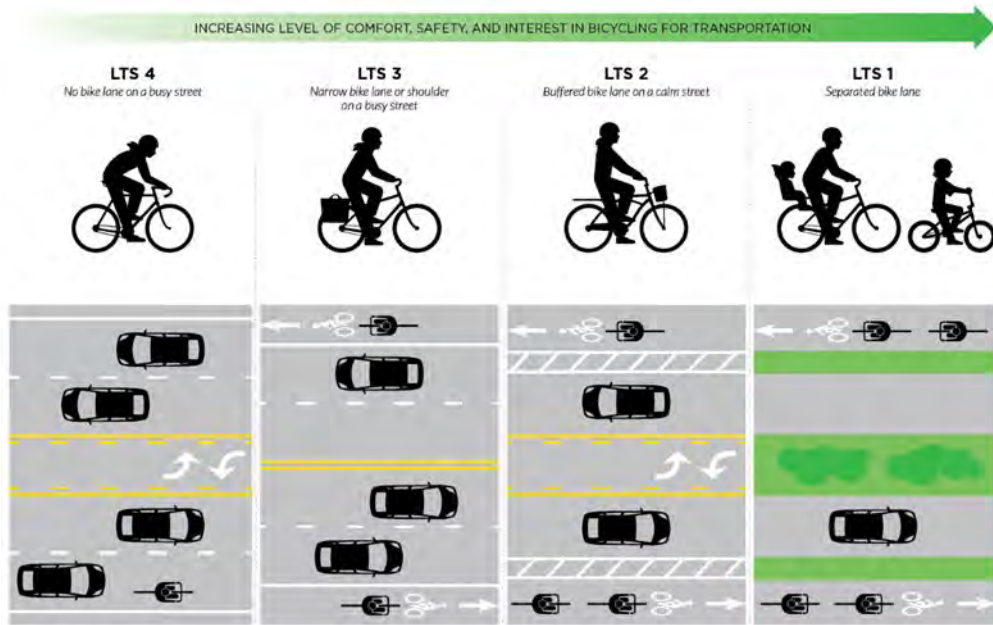
The appropriateness of on-road bike facility types depends largely on the land use context and nearby destinations, available space, vehicle volumes, vehicle speeds, anticipated user type, intuitiveness of the area, and more. On-road bicycle infrastructure should be designed with a specific user type in mind. Three bicycle user types are referenced by FHWA in their guidance on bikeway design. These user types include Interested but Concerned, Somewhat Confident, and Highly Confident.⁷ These three user types are shown in **Figure 3-2** and generally correspond to the roadway profiles shown in **Figure 3-3**.

Figure 3-2: Bicyclist Design User Profiles



Note: the percentages above reflect only adults who have stated an interest in bicycling.

⁷ A fourth bicyclist user type of “No Way, No How” is often referenced as the portion of the population that will not ride a bicycle under any circumstances.

Figure 3-3: Bicycle Level of Traffic Stress (LTS)

According to the FHWA Bikeway Selection Guide, the three most important principles in bikeway selections are safety, comfort, and connectivity. **Figure 3-3** illustrates how safety and comfort translate into the level of traffic stress (LTS) for different types of bicyclists, where “LTS 1” represents the lowest stress and “LTS 4” represents the highest stress. As traffic volumes increase and separation between bicyclists and motorists decreases, the LTS increases. Connectivity can be addressed by ensuring low LTS facilities are connected to one another without significant gaps or pinch points of high LTS.

Figures 3-4 through **3-7** shows the bicycle LTS for the NFRMPO Road Network in 2019, 2030, 2040, and 2050. This is an output from the Regional Travel Demand Model (RTDM) which considers the assigned bicycle facility type, number of lanes on the roadway, traffic speed, and traffic volumes. This data should be used in conjunction with other data to help inform bike/ped planning efforts due to limitations with the RTDM.

Figure 3-4: 2019 Bicycle Level of Traffic Stress (LTS) on Regional Roadway Network

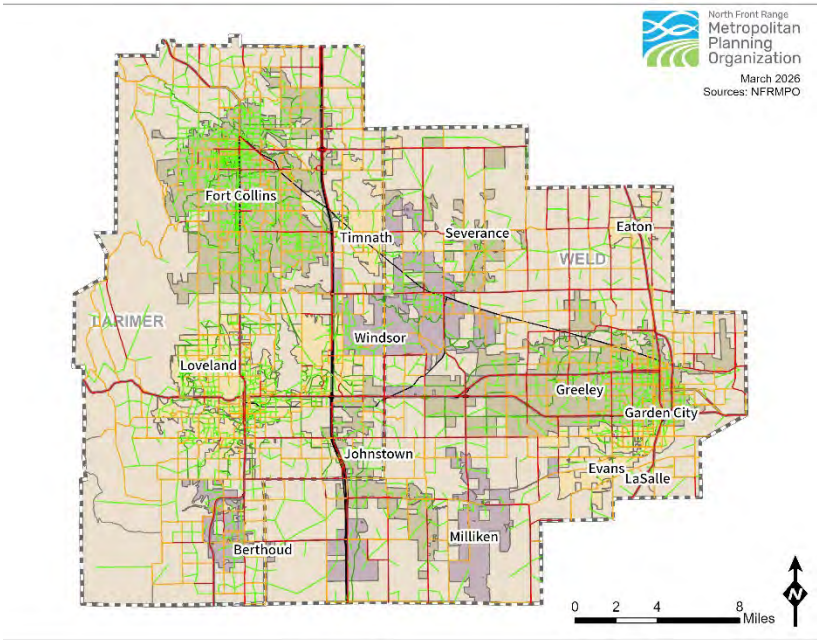


Figure 3-5: 2030 Bicycle Level of Traffic Stress (LTS) on Regional Roadway Network

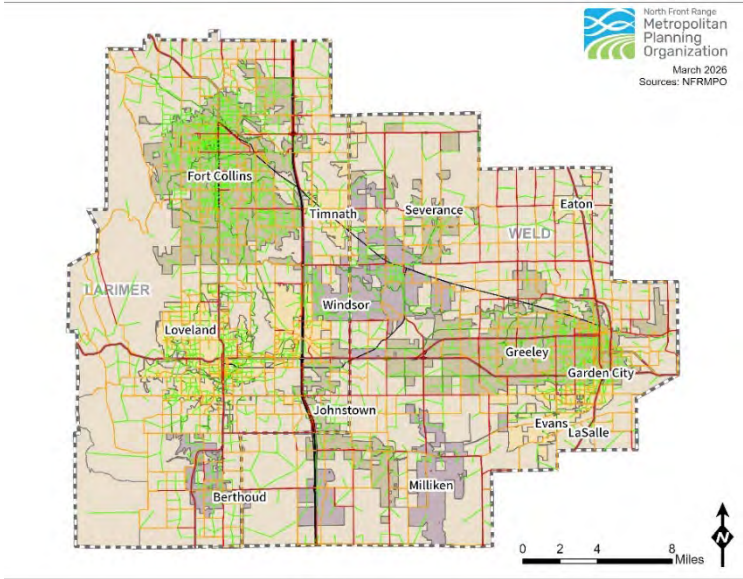


Figure 3-6: 2040 Bicycle Level of Traffic Stress (LTS) on Regional Roadway Network

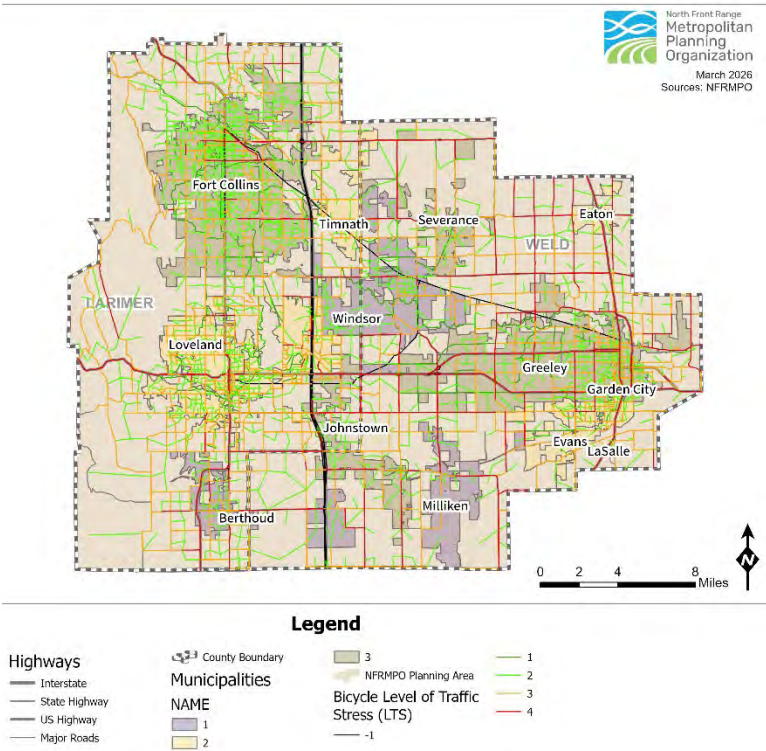
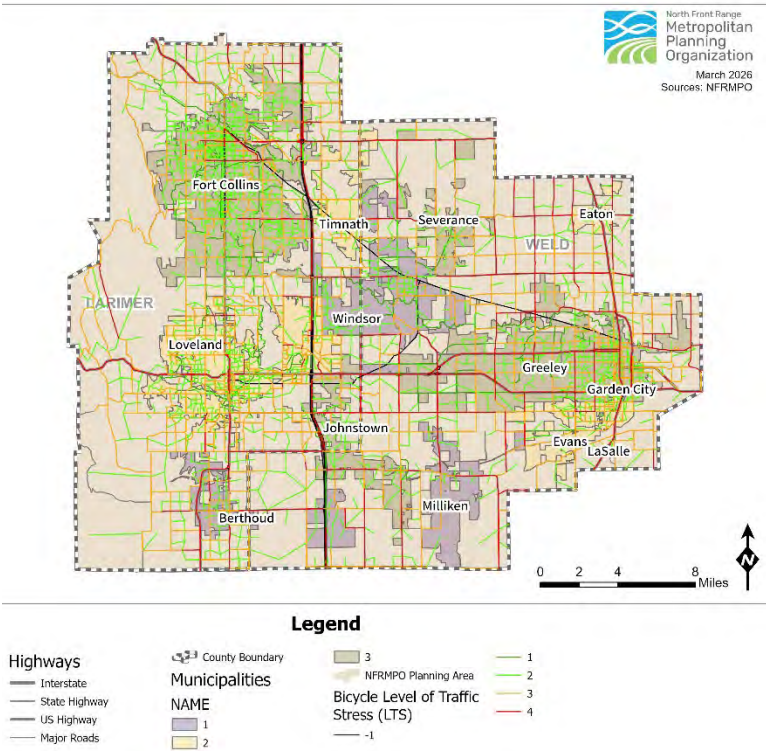
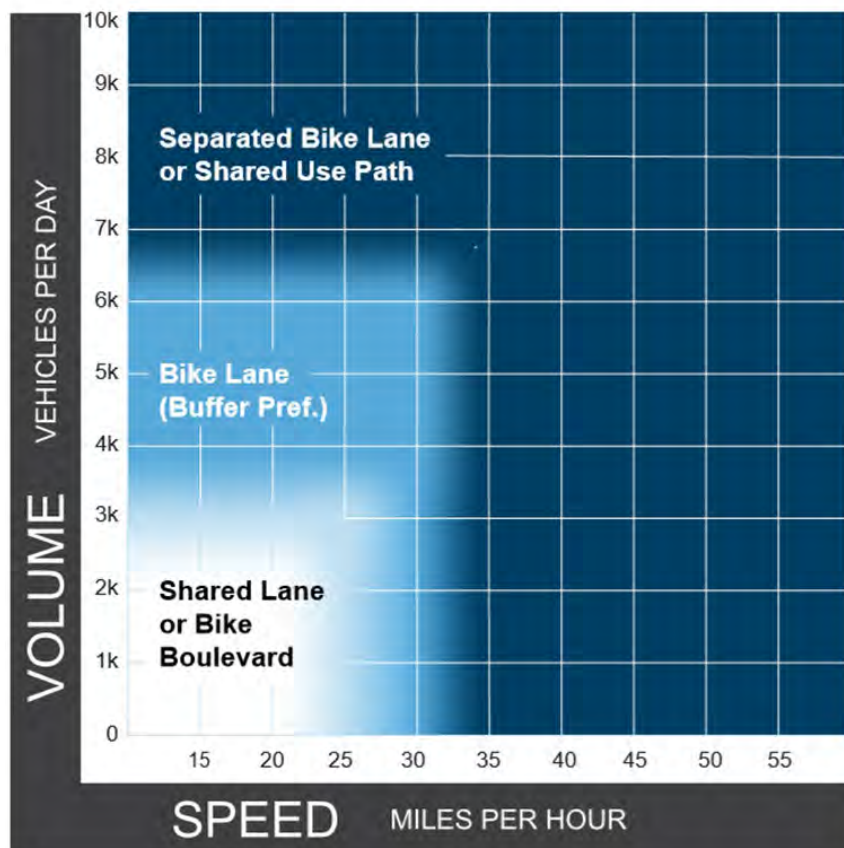


Figure 3-7: 2050 Bicycle Level of Traffic Stress (LTS) on Regional Roadway Network



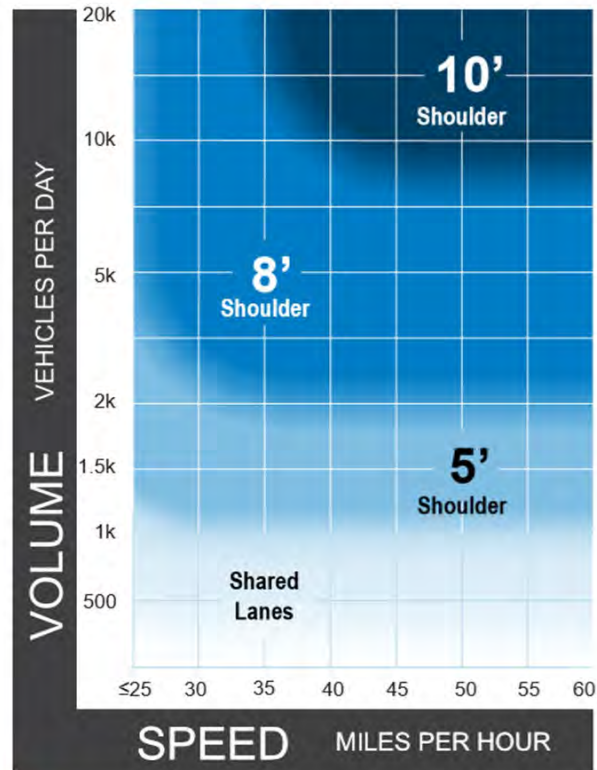
Figures 3-8 and **3-9** highlight high-level guidance from FHWA on the types of facilities that align best with the safety and comfort principles in urban and rural settings. Generally, the higher the speed and volume of a road, the more protective the recommended bikeway. Shared lanes or bicycle boulevards are recommended for the lowest speeds and volumes; bike lanes for low speeds and low to moderate volumes; and separated bike lanes or shared use paths for moderate to high speeds and high volumes. When the design user is the Interested but Concerned cyclist, the most appropriate recommendation may be a more protective facility than necessary for Highly Confident or Somewhat Confident design user. The preferred bikeway types and shoulder widths in **Figures 3-8** and **3-9** should be considered the standard minimums for sections of roadway designated as part of the Regional Active Transportation Corridor (RATC) Network. Additional guidance on RATC design considerations can be found in **Chapter 4**.

Figure 3-8: Preferred Bikeway Types for Urban Core, Suburban, and Rural Town Contexts



Notes

- 1 Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
- 2 Advisory bike lanes may be an option where traffic volume is <3K ADT.

Figure 3-9: Preferred Shoulder Widths for Rural Roadways**Notes**

- 1 This chart assumes the project involves reconstruction or retrofit in constrained conditions. For new construction, follow recommended shoulder widths in the AASHTO Green Book.
- 2 A separated shared use pathway is a suitable alternative to providing paved shoulders.
- 3 Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
- 4 If the percentage of heavy vehicles is greater than 5%, consider providing a wider shoulder or a separated pathway.

Narrowing and Removing Travel Lanes

Providing on-road bicycle facilities requires a reallocation of space among the various modes that will use a given roadway. This may mean a narrower or reduced number of travel lanes for motor vehicles. Lanes as narrow as 10 feet do not result in an increase in crashes or reduce vehicle capacity on roads with speeds of 45 mph or less.⁸ Narrowing lane widths can result in slower vehicle speeds and improved safety for all users with only negligible impacts on travel times. Additionally, travel lanes are not required to be of equal width. For example, some agencies use an 11-foot-wide outer lane to accommodate buses and trucks, with inner travel lanes at 10 feet wide.⁹

⁸ Potts, I. B., D.W., Harwood, and K.R., Richard. Relationship of Lane Width to Safety on Urban and Suburban Arterials. Presented at the 86th Annual Meeting of the Transportation Research Board, Washington DC, 2007.

⁹ FHWA Bikeway Selection Guide page 26

Removing lanes and reconfiguring the space to accommodate all users is commonly known as a “road diet”. Many roads have excess capacity and encourage fast speeds. Road diets can often have operational benefits if a new center turn lane is provided, keeping left turning vehicles from impeding through traffic. The [FHWA Road Diet Informational Guide](#) should be referenced across the region to identify opportunities to better accommodate all users. Although many factors other than volumes should be considered, road diets in major metropolitan areas have been implemented successfully on roadways with relatively high volumes. These reconfigurations can be achieved using paint as part of a regularly scheduled resurfacing project. More intensive treatments such as physical barriers can also be used. Narrower roadways can also reduce the right-of-way needed and the costs associated with land acquisition.

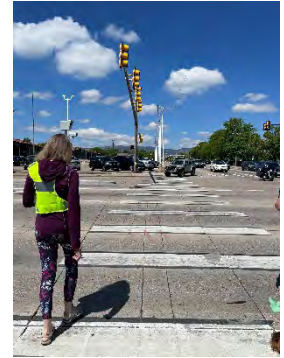
Crossings

Design considerations can become complicated quickly for active transportation crossing facilities at controlled and uncontrolled intersections with the roadway and railroad networks, or with other active transportation facilities. Lack of safe crossings for active modes can represent the shortest but most significant gaps in the network. They are often overlooked due to the complexity of turning movements and signalization. The need for a safe crossing where one does not already exist should not be determined based solely on observed demand for active mode crossings at that location via a simple count. “In many situations, a latent demand for places that feel safe to walk and bike is revealed after pedestrian- and bicyclist-focused improvements are made.”¹⁰ For a more simplified approach, FHWA promotes their [proven pedestrian safety countermeasures at uncontrolled intersections](#). These countermeasures include Crosswalk Visibility Enhancements, Leading Pedestrian Interval (LPI), Pedestrian Hybrid Beacon (PHB), Pedestrian Refuge Island, Raised Crosswalk, Road Diet, and Rectangular Rapid-Flashing Beacon.

¹⁰ Associates, Inc., William W. Hunter, and Peter Koonce; National Cooperative Highway Research Program; Transportation Research Board; National Academies of Sciences, Engineering, and Medicine National Academies of Sciences, Engineering, and Medicine 2020. Guidance to Improve Pedestrian and Bicyclist Safety at Intersections. Washington, DC: The National Academies Press. <https://www.nap.edu/catalog/25808/guidance-to-improve-pedestrian-and-bicyclistsafety-at-intersections>.

At-Grade Crossings

Appropriate at-grade crossing treatments or countermeasures along the active transportation network can vary widely in character. Available countermeasures include traffic signs, pavement markings, traffic signals, lighting, signal timing changes, and bicycle or pedestrian recognition/detection treatments. The appropriateness of the various available treatments depends on a combination of the traffic speeds, traffic volumes, number of travel lanes, presence of street lighting, observed and latent pedestrian/bike demand, and other factors.

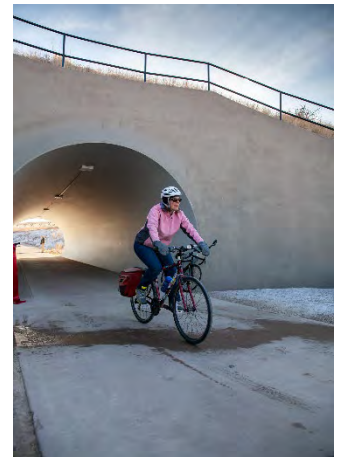


Above: a pedestrian crossing College Avenue

Grade-Separated Crossings

Grade-separated crossings (overpasses/bridges or underpasses/tunnels) are often the safest treatment but are usually the costliest and may not be the most convenient treatment for active modes if careful consideration is not given to the distance it may add compared with another treatment. Bridges or tunnels perceived as less convenient or less secure to use will often result in people crossing a roadway or railroad at grade, even if at-grade crossing is prohibited.

Chapter 4 identifies existing crossings and high-level crossing improvement needs along the RATC network. The NFRMPO also maintains an inventory of existing crossing types on the RATC Network.

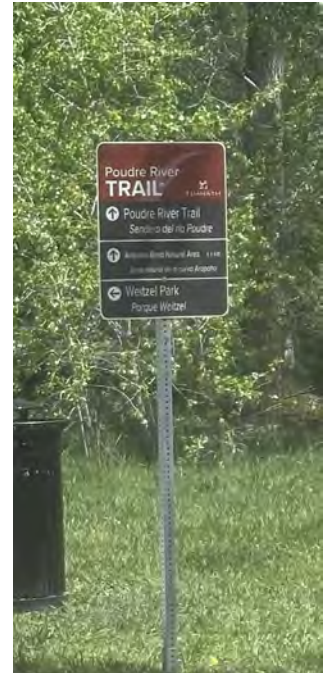


Above: A Bicyclist passing under roadway on Fossil Creek Trail

Wayfinding and Other Signage

Wayfinding and other signage are crucial infrastructure elements to direct and inform active mode users and alert other road users to the presence and/or rights of pedestrians and cyclists. Signage related to active transportation must be compliant with the Manual on Uniform Traffic Control Devices (MUTCD) and should be designed to meet the needs of older adults and individuals with visual disabilities.

In 2021, The Town of Windsor, in partnership with Larimer County, Town of Timnath, City of Greeley, and the Poudre River Trail Corridor received a Transportation Alternatives (TA) grant through the NFRMPO 2021 Call for Projects to design and install wayfinding signage along the Poudre River Trail (RATC #6) between I-25 and Island Grove Regional Park. This project aimed to create a seamless wayfinding experience across jurisdictions with consistent message across the corridor. NFRMPO communities should continue to look for collaboration opportunities for regional wayfinding.



Above: Poudre River Trail Wayfinding Sign in Timnath

Transit-Oriented Walkability

Accessibility to the active transportation network can have a major impact on mobility, specifically for the use of transit. The [NACTO Transit Street Design Guide](#) highlights that transit trips are door-to-door, not stop-to-stop, meaning the entire trip goes beyond just riding the bus.¹¹ People must be able to connect from their origin to the bus stop and from the bus stop to their destination. A safe and connected sidewalk network improves access to transit, providing an alternative to single-occupant vehicle travel (SOV).

The National Aging and Disability Transportation Center (NADTC) identifies architectural and environmental factors that can prevent travel as being one components of paratransit eligibility.¹² Converting some paratransit trips to fixed-route trips can save communities and transit agencies funding, and can be accomplished by addressing some of the following issues:

- Lack of curb ramps or a reasonable alternative accessible path of travel
- Lack of sidewalks or alternative safe accessible path of travel
- Snow and/or ice

¹¹ <https://nacto.org/publication/transit-street-design-guide/transit-system-strategies/network-strategies/pedestrian-access-networks/>

¹² <https://www.nadtc.org/wp-content/uploads/NADTC-Determining-ADA-Paratransit-Eligibility.pdf>

- Major intersections or other difficult-to-negotiate street crossings
- Temporary construction projects

Some transit funds may be used to support the buildout of sidewalk networks, including FTA Section 5310 funds¹³. According to FTA, “building an accessible path to a bus stop, including curb-cuts, sidewalks, accessible pedestrian signals, or other accessible features...[and] improving signage, or way-finding technology” are nontraditional eligible projects. Additionally, the Coordinating Council on Access and Mobility (CCAM) identified 130 federal programs which can be used to improve mobility.¹⁴ Combining multiple federal funding programs with local funds, or “braiding” can expand the reach of a program and bring in more funding for projects.

For example, combining Recreational Trails Program funds, FTA § 5310 funds, and local funding could help connect a Regional Active Transportation Corridor (RATC) to the sidewalk network and the transit network. In doing so, a person could ride their bicycle along the Poudre River Trail, then connect to a Poudre Express stop, and take their bicycle on the bus back to their trip’s origin. This can expand the reach of the trail and create a more seamless regional multimodal network.

Quick Win Projects

“Quick win” active transportation projects involve elements requiring small financial investments that can be implemented relatively quickly to make immediate improvements for active modes. Potential quick-win improvements include strategies such as, but not limited to:

- **Parklets and Pedlets:** Parklets are public platforms or designated spaces that convert curbside parking spaces into spaces that can be used in a variety of ways by community members. They may incorporate design elements such as seating, greenery, or bike racks and can help meet demand for public space in certain high-use areas. Pedlets are a similar reallocation of curbside space to expand the sidewalk or walking areas, allowing more maneuverability in high-use areas.



Above: A parklet in Old Town Fort Collins provides additional outdoor seating while preserving sidewalk space. Image credit: [The Coloradoan](#)

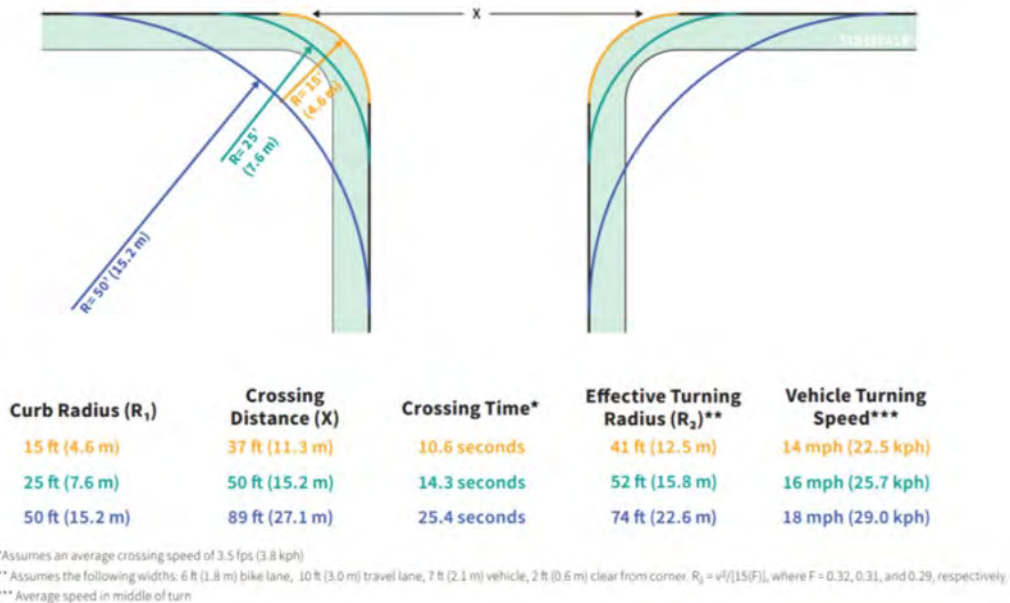
¹³ <https://www.transit.dot.gov/funding/grants/enhanced-mobility-seniors-individuals-disabilities-section-5310>

¹⁴ <https://www.transit.dot.gov/regulations-and-guidance/ccam/about/ccam-program-inventory>

- Curb extensions:** A visual and physical narrowing of the roadway for safer and shorter pedestrian crossings, increasing the available space for street furniture, benches, plantings, street trees, public art, etc. Low-cost curb extensions can require minimal materials such as paint and bollards. Curb extensions can serve as a visual cue to drivers entering a neighborhood street or area.



Above: An example of a painted curb extension with bollards in a residential area in Fort Collins



Above: This image illustrates the decreased crossing distance and time for pedestrians as well as the reduced vehicle speed that can be associated with curb extensions that decrease the curb radius. Decreased curb radius can be achieved through low-cost improvements such as planters, bollards, tires, and other low-cost barriers accompanied by paint. Image credit: Global Designing Cities Initiative.

- Pop-up Protected Bike Lanes:** Low-cost reallocation of space to create a dedicated bike lane with a physical separator, such as bollards, planters, jersey barriers, or other readily available materials. Pop-up bike lanes can encourage mode shift by creating safer alternatives where space is currently underutilized.

- **Street Furniture:** Where there is adequate sidewalk space, amenities such as lighting, benches, newspaper kiosks, utility poles, tree pits, and bicycle parking can be provided to enhance the pedestrian experience and create a more welcoming environment.



Above: Street furniture in Downtown Greeley includes information kiosks, benches, planters, trees, trash cans, street lighting, and more. Image credit: Colorado Public Radio.

Various other types of infrastructure, some of which are mentioned throughout the ATP, can also be great candidates for quick-win projects. Some additional elements that have proven successful in the NFRMPO region include bike and pedestrian wayfinding, trail access improvements, bicycle parking or repair stations, on-street bollards or warning signs for traffic channelization, and more. Local agencies with walk audits or workshops to brainstorm quick win (as well as long-term) solutions with community members and leaders. Communities that identify potential projects through exercises such as walk audits are often more competitive than other communities for grant opportunities.

Trail Accessibility Information

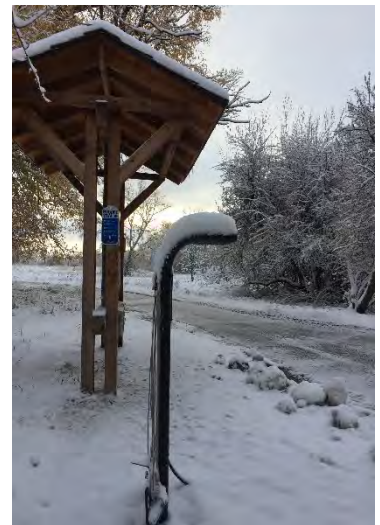
Ensuring information is available on the accessibility of trail facilities can help individuals with disabilities and older adults determine if the facility is navigable for them. Certain users are unlikely to explore these facilities if they are not confident the experience will be safe and comfortable. Information that can be helpful includes the availability of accessible restrooms, trail surface type, the grade/steepness along various sections of the trail. Information should be available in various media such as a landing webpage for the trail, digital interactive map, printable map, and/or postings at trailheads.



Above: An informative trail sign at Fort Ross State Historic Park in California informs users of trail accessibility

Winter Maintenance Plans

Snow and ice can add significant barriers to travel. The Americans with Disabilities Act (ADA) requires public entities to maintain in operation working conditions those features of facilities and equipment that are required to be readily accessible and usable by persons with disabilities. In some instances, proper winter maintenance of pedestrian and bicycle facilities requires additional time and resources; however, there are various low- or no-cost solutions that can help keep facilities clear and usable following snow and/or ice events. These solutions include developing priority routes, reminders to property owners regarding their sidewalk maintenance responsibilities, additional or modified training for maintenance crews on techniques to keep crosswalks, bus stops, and other important access points clear of obstruction. The Minnesota Department of Health published the Sidewalk Snow Clearing Guide in 2018 to identify options for keeping sidewalks and crosswalks clear year-round, along with case studies on how communities around have turned these options into public policy.



Above: Poudre River Trail in the Winter

Best Practices

In 2019, members of the NoCo Bike & Ped Collaborative held a walking audit workshop with Town of Berthoud staff, elected leaders, and community members. The participants identified quick win priorities to immediately improve walkability in the Old Town Berthoud area.

Due in part to these efforts, the Colorado Department of Public Health and Environment (CDPHE) identified Northern Colorado as a focus area for implementing quick win bikeability and walkability projects under \$5,000. Staff from CDPHE, Weld County Department of Public Health and Environment (WCDPHE), and Larimer County Department of Health and Environment (LCDHE) worked together to identify projects across seven communities that could create “quick win” improvements for active modes. The recipients included Berthoud, Greeley, the Great Western Trail Authority (GWTA), Loveland, Milliken, Severance, and Wellington. The projects included fencing for better defined trail access, wayfinding to parks, painted curb extensions, bicycle repair stations, “Bike May Use Full Lane” signage, trailhead enhancements, and trail surface improvements.

Pilot Projects

Active transportation pilot projects allow communities to conduct a small-scale implementation of a concept or strategy to estimate and analyze the feasibility, cost, drawbacks, and benefits of that treatment. In 2005, funding from a one-time \$25M federal transportation bill was awarded to four communities nationwide to monitor the impact of active transportation improvements on travel choices. Projects included bikeways, pedestrian walkways, sidewalks, education and outreach programs, and bike parking. All projects were focused on access in demographically diverse areas. The year following completion, the improvements resulted in a 22.8 percent increase in walking trips and 48.3 percent increase in bicycling trips; avoided 85.1M vehicle miles traveled (VMT), saving an estimated 3.6M gallons of gasoline and avoiding approximately 34,629 tons of carbon dioxide emissions. They also expanded quarter-mile access to the bicycle network for approximately 240,000 people, 106,000 housing units, and 102,000 jobs. The projects were followed by a 20 percent decline in the number of pedestrian fatalities, despite increases in walking and bicycling, and improved public health including a reduced economic cost of mortality (death) of \$46.3M from increased bicycling in 2013.¹⁵

Pilot projects have also been deployed across Northern Colorado. In 2018, the City of Fort Collins installed various protected bike lane treatments and a new signal along a 1.8-mile section of West Mulberry Street. An evaluation one year after the improvements demonstrated a 15-20 percent reduction in total crashes, a 4-11 percent reduction in vehicle speeds, minimal to negligible travel time increases for motor vehicles (10-12 seconds westbound, no change for

¹⁵ Nonmotorized Transportation Pilot Program Yields Striking Results. Volpe. United States Department of Transportation. December 16, 2014. <https://www.volpe.dot.gov/policy-planning-environment/transportation-planning/nonmotorizedtransportation-pilot-program-yields>

eastbound), a 50 percent increase in on-street bike traffic and an 81 percent decrease in sidewalk bike traffic where pedestrian conflicts were a major concern. A survey of the public indicated 61-65 percent believe the project improved travel conditions along the corridor. Although initial annual maintenance costs are estimated at \$5,000 (winter operation, sweeping, replacing damaged rail), these costs are anticipated to drop as design treatments and maintenance methods are improved.

Maintenance

A simple approach to encouraging active transportation is maintaining existing facilities. Facilities that are not well maintained can create a safety hazard and a barrier to many users, particularly those with limited physical mobility, older adults, or individuals with disabilities. Uncleared sidewalks, patches of ice, or other obstacles can force people with limited mobility to take unnecessary risks or remain inside. Heaving or uneven sidewalks flooded or muddy curb ramps, unplowed bike lanes, paths, or shoulders, and roadway debris all pose barriers to safe and reliable active transportation. Studies suggest maintenance is a larger barrier to biking in cold weather months than the cold weather itself. Improved winter surface maintenance of bike facilities (plowing, sweeping, etc) can help retain an additional 12 to 24 percent of commuters who bike to work in warmer months.¹⁶

Maintenance also includes code enforcement. Cars can commonly be parked blocking the sidewalk at driveway access or in areas with rollover curbs, or in dedicated bike lanes. Trash and recycling bins may also be placed on sidewalks on collection day. When these barriers force bicyclists and pedestrians into busy traffic lanes, it creates unnecessary danger and may be enough to deter people from biking and walking for various trips.

Best Practices

Maintenance best practices include:

- Routine maintenance plans that prioritize demand, health, equity, and safety.
- Streamlined maintenance reporting and request tools for community members.
- Snow plowing route prioritization and scheduling (school zones and business districts first).



Above: Sidewalk Prioritization Criteria for the City of Fort Collins

¹⁶ Fisher C. "Cycling Through Winter." Urban Strategies, Inc. 2014.

- Small snow removal vehicles that fit active transportation facilities (small tractors/mowers, ATVs, and other utility vehicles).
- Recessed thermoplastics pavement markings to better withstand snowplow activity.
- Designing bike lanes, sidewalks, and other facilities with buffers for adequate snow and/or debris storage.

Additional maintenance best practices can be found in documents such as Design’s [Winter Bike Lane Maintenance: A Review of National and International Best Practices](#) report.

Programming

Programming focused on active transportation can refer to a wide variety of educational workshops, promotional initiatives or events, data and information sharing practices, and more. Active transportation programs are often coordinated on a local level to respond to the specific needs of the community. Other programs may be coordinated at a regional, state, or national level for local implementation. Some of the best-known active transportation programs include the City of Fort Collins’ Safe Routes to School (SRTS) Program, the City of Greeley’s Full Moon Bike Rides, and Loveland’s Bike and Walk Month. Programming the NFRMPO has most recently been involved with includes the Shift Your Ride Challenge, Bike to Work Day events, walking audits, educational workshops, the regional bike/ped counting program, and assisting with the 2024 National Safe Routes to School Conference in Fort Collins.

Table 3-2 outlines the NFRMPO-led mobility audits.



Above: Regional Stakeholders participate in a mobility audit in on the Poudre Trail in Timnath



Above: NFRMPO Staff at a Bike to Work Day Booth in Windsor

Table 3-2: NFRMPO Mobility Audits

Mobility Audit Name	Community	Year
<u>Berthoud Walk Audit</u>	Berthoud	2019
<u>Windsor (Wayfinding) Bike & Walk Audit</u>	Windsor	2021
<u>Fort Collins (Foothills Mall) Walk Audit</u>	Fort Collins	2022
<u>Severance Walk Audit</u>	Severance	2022
<u>Poudre River Trail Walk Audit</u>	Timnath	2023
<u>Eaton Walk Audit</u>	Eaton	2023
<u>Loveland Transit Center Mobility Audit</u>	Loveland	2024
<u>Greeley Mobility Audit</u>	Greeley	2024

In collaboration with local partners, NFRMPO Staff should continue to assess opportunities to support and expand local programs for the benefit of the entire region through coordination, facilitation, and/or financial means.

Policy

Emerging Micromobility Solutions

New variations of electric-powered transportation devices, whether personal or shared, are rapidly coming to market, bringing with them opportunities and challenges for communities to consider. This section does not address all forms of micromobility devices and places more emphasis on devices with electric assist capabilities. The micromobility devices referenced in this section all share three common characteristics:

- **Human or Electric-powered:** Fully capable of movement without human power, or motor-assisted (the rider provides some sort of propulsion)
- **Low Speed:** Top travel speed of 30 mph, according to definitions by the Society of Automotive Engineers (SAE). Many operate below 20mph and are regulated down to 8 mph
- **Small Size:** a typical width of three feet or less and weight of less than 100 pounds

Such devices include electric bikes (e-bikes), standing or sitting e-scooters, and other technologies such as e-skateboards, hoverboards, etc. In urban areas, e-bikes and e-scooters can commonly be rented as part of a private, shared-use system. All types of micromobility

devices can be personally owned. Learn more about the various technologies through the Pedestrian and Bicycle Information Center’s (PBIC) Brief on Micromobility Typology. Motorized wheelchairs and personal mobility devices, or Electric Personal Assistance Mobility Devices (EPAMD), used by people with disabilities can also fall under the micromobility device term. These solutions can increase mobility especially when combined with quality public transit.



Image Credit: Pedestrian and Bicycle Information Center (PBIC)

The following sections describe these solutions, with reference to some of the best practices in managing their use and for establishing successful share programs. Best practices are constantly evolving and should be analyzed further over the next several years. The City of Fort Collins is the only Northern Colorado community with a shared e-bike/e-scooter system in place. The City’s new program will focus on refining dismount zone polygons, hours of operation, reestablishing the community bike library, intersection treatment, sufficient stock/density, increasing low-income user ridership by decreasing cost, encouraging longer trips to encourage vehicle trip replacement, mobile app integration with Transfort app, improved adaptive program, and establishment of mobility hubs/downtown designated parking areas.

Electric Assist Bicycles (E-Bikes)

Under Colorado law, e-bikes are defined as bicycles with two or three wheels, fully operable pedals, and an electric motor. Currently, local laws and regulations vary across Northern Colorado. Although e-bikes represent a small percentage of bicyclists today, their use is likely to increase as price points drop and as aging populations look for ways to stay active. As the technology evolves, it will be increasingly difficult to distinguish some e-bikes from conventional bikes. Although there are three distinct



Above: An e-bike and e-trike demonstration at CSU in Fort Collins. Image credit: PeopleForBikes.

classifications of e-bikes, they do not have outwardly defining characteristics. **Table 3-3** summarizes e-bike classification definitions according to the State of Colorado.

Table 3-3: E-Bike Classification Definitions

Class 1 E-Bike	Class 2 E-Bike	Class 3 E-Bike
Provides electrical assistance only when rider is pedaling, up to 20 mph	Provides electrical assistance regardless if the rider is pedaling or not, up to 20 mph	Provides electrical assistance while the ride is pedaling, up to 28 mph. Class 3 e-bikes must be equipped with a speedometer and may not be ridden by people under 16 (unless as a passenger). People under 18 must wear a helmet.

Access

At their current price point, many e-bike models are cost prohibited for some community members. In 2022, the Colorado General Assembly passed SB22-193 which established the Community Access to Electric Bicycles program which provided funding for a statewide e-bike rebate program. The program offered point-of-sale rebates to low and moderate-income Colorado residents at bike shops around the state. Residents were required to apply for the program. The program formally launched in August 2023 and resulted in about 34,000 applicants and 7,985 people purchasing an e-bike. In a survey of rebate recipients, 89% of recipients stated they would not have purchased an e-bike without this rebate program. This program has been discontinued and replaced with a statewide \$225 e-bike tax credit. Unlike the rebate program, there is no application for this tax credit, and anyone who lives in Colorado is eligible.

Mobility

Requiring less effort than standard bikes, e-bikes effectively flatten hills, reduce energy needed to start and stop, and increase the amount of cargo a bicyclist can carry. For older adults and individuals with disabilities or other factors limiting their mobility, e-bikes can provide a mobility and independence option that standard bikes cannot. E-bikes can extend the riding range of all cyclists, making key destinations more accessible. A 2018 national study of e-bike owners in the U.S. found that 28.7 percent had physical limitations that make riding a standard bicycle difficult and 67.2 percent of owners were over the age of 45. The top three barriers to cycling identified by the respondents were hills, lengthy distances to desired destinations, and not wanting to arrive at destinations sweaty. Physical limitations, physical ability, and weather

conditions were also common barriers. E-bike designs that are adaptive to a variety of mobility needs are becoming more available and providing adaptive e-bike options should be an essential part of any shared e-bike program. Research suggests the average e-bike trip length is 50% longer than a standard bicycle.

Safety

A 2019 pilot study of e-bikes in Boulder County found that average e-bike speeds (13.8 mph) are typically lower than standard bikes (14.5 mph), which may be attributed to the demographic of e-bike riders and the information presented to them. E-bike riders tend to be older than standard bike riders and many are presented with their speed via a speedometer on the e-bike. The study found that e-bike speeds were typically faster than standard bikes when going uphill, while standard bikes were faster going downhill.¹⁷ A 2019-2020 pilot study of e-bikes in Fort Collins found a negligible difference in speeds between e-bikes and standard bikes. Although e-bikes are typically perceived as less safe than standard bikes, observed behaviors of e-bicyclists are often better than those of standard cyclists.¹⁸ Nationally, the vast majority (80 percent) of e-bike owners have not experienced crashes while on their e-bikes. Of those who have, only 19 percent believe the e-bike contributed in a significant way.¹⁹ Literature also suggests e-bikes have no greater impacts on trail condition or wildlife than standard bikes.

Best Practices

The best practices highlighted in **Table 3-4** may refer to either or both personal or shared e-bike ownership models. These practices may be helpful for local agencies when considering their individual approach to micromobility and serve as a basis for achieving consistency across the region.

Table 3-4: E-Bike Best Practices

Consideration	Practice	Source
Pilot Study	Allowing e-bikes on certain facilities during a trial period while collecting data to assess safety, trail experience	Larimer County Natural Resources

¹⁷ <https://assets.bouldercounty.org/wp-content/uploads/2019/11/e-bikes-recommendation-bocc-11-13-2019.pdf>

¹⁸ https://www.fcgov.com/bicycling/files/fort-collins-e-bike-pilot-program-draft-report_march-2020.pdf?1586191761

¹⁹

https://ppms.trec.pdx.edu/media/project_files/NITC_RR_1041_North_American_Survey_Electric_Bicycle_Owners.pdf

	impacts, public opinion, and trail etiquette awareness.	
Trail access	Class 1 and 2 e-bikes are allowed on all shared-use trails (hard or soft surface) that are open to non-motorized biking on state lands.	Colorado Parks and Wildlife
Regulating speeds	15 mph trail speed limit for all trail users, with “High Traffic Bicycle Slow Zones” on certain trail segments.	City of Fort Collins

Electric Scooters (E-Scooters)

E-scooters are most common as part of a shared system. Other micromobility devices, such as e-skateboards, are most commonly owned individually. How these devices are classified by law varies by place. As of 2019, e-scooters were excluded from the State of Colorado’s definition of a “toy vehicle”, authorizing their use on roadways and affording them the same rights as e-bikes.



Above: Person riding an electric scooter in City Park in Fort Collins

Access

In shared systems, scooters typically are more expensive on a per ride basis than a standard bike; however, some companies offer reduced fares based on income (more information in **Table 3-5**). When accessible to all community members, scooters can provide a transportation option that fills crucial gaps, especially for those without the ability to drive or without access to a vehicle. NFRMPO partners should factor accessibility considerations into any future decisions related to shared e-scooter programs.

Mobility

E-scooter designs that are adaptive to a variety of mobility needs are becoming more and more popular (wide tires, three wheels, and/or a seat for stability, etc.). Providing adaptive e-scooter options should be an essential part of any shared e-scooter program. For older adults and individuals with certain disabilities or other mobility difficulties, e-scooters may provide a mobility and independence option that e-bikes cannot. E-scooters can extend the travel range

of pedestrians, effectively making key destinations, such as grocery stores or bus stops, more accessible.

Safety

The technology and geometry of e-scooters is ever-changing, impacting their safety. Studies have found that the majority of e-scooter crashes occur on sidewalks and e-scooter injuries are most likely to occur due to potholes, cracks, or other infrastructure such as signposts or curbs. E-scooter riders suffer more injuries per mile than bike riders, but bike riders are three times more likely to be hit by a motor vehicle.²⁰ Planning partners in the region should continue to monitor the safety considerations associated with e-scooters and make decisions that promote safe use.

Best Practices

The best practices highlighted in Table 3-4 may refer to either or both personal and shared e-scooter ownership models. These practices may be helpful for local agencies when considering their individual approach to micromobility and may serve as a basis for achieving consistency across the region.

Table 3-5: E-Scooter Best Practices

Consideration	Practice	Source
Deployment in underserved areas (shared-system only)	The City of Portland, OR requires a minimum of 100 shared scooters, or 20 percent of the fleet to be deployed in historically underserved neighborhoods each day.	Portland Bureau of Transportation (PBOT)
Pricing and Payment (shared-system only)	Through its permit applications, Washington D.C. requires dockless scooter and bike providers to offer a cash payment option, and the ability to be located and unlocked without a smartphone.	Washington D.C. DOT
	The Spin/Bird Access program provides anyone	SPIN/Bird

²⁰ <https://www.iihs.org/news/detail/most-e-scooter-rider-injuries-happen-on-sidewalk-study-finds>

	<p>who is enrolled or eligible for a government assistance program, a discount on e-scooter or e-bike rental.</p>	
<p>Regulating Speeds</p>	<p>E-scooters are required to be slowed to 8 mph in designated Slow Zones and walked through Dismount Zones on CSU’s main campus. Using geofencing technology²¹, the scooters will slow or stop themselves safely when entering these zones.</p>	<p>Colorado State University (CSU)</p>
	<p>If operated on the sidewalk, it shall be the rider’s responsibility to operate at the maximum speed limit of 6 mph.</p>	<p>City of Aurora, CO</p>
	<p>E-scooter motors shall cease to provide assistance when it reaches a speed of 15.5 mph</p>	<p>City of Aurora, CO</p>
<p>Parking Requirements</p>	<p>Parking is permitted upright on the sidewalk against the curb, beside bike parking, and other designated areas. Parking is not permitted if it blocks or impedes the pedestrian zone, fire hydrants, bus benches, use of window/sign displays or building access, use of a bike rack or news rack, or access to transit/loading/disabled parking zone, street furniture, curb ramps, entryways, or driveways</p>	<p>City of Fort Collins</p>

²¹ Geofencing technology triggers a pre-programmed action when a device or tag enters or exits a virtual boundary.

Riding on roadways	Treat e-scooters the same as bicycles. Riding is permitted in bike lanes and on roadways as far to the right as practicable.	City of Fort Collins
	Authorized shared mobility devices may operate in the roadway if the maximum speed limit of the roadway does not exceed 30 mph. They may operate where speed limits exceed 30 mph if a bike lane is present.	City of Aurora, CO
Riding on sidewalks and trails	Riding on sidewalks is permitted outside of Dismount Zones. Riding on Natural Area or Parks trails is not permitted.	City of Fort Collins
Data reporting	Operators are required to report detailed data with the City on a quarterly basis related to usage, theft, crashes, origins, destinations, complaints, downloads, payment method, discount program utilization, and more.	City of Aurora, CO

Other Micromobility Devices

Most other micromobility devices are still classified by the state as toy vehicles and cannot be operated on public roadways, restricting their use to sidewalks, trails and shared-use paths, depending on local regulations. This “catch-all” category of micromobility devices is rapidly changing, with categories blending into one another. Communities should evaluate many of the access, mobility, and safety considerations laid out for e-bikes and e-scooter in this chapter.



Above: Individuals practicing riding motorized e-boards. Image credit: Park City

These devices may be commonly referred to as Electric Personal Assistance Mobility Devices (EPAMD), Personal Mobility Devices, or Portable Mobility Devices. These terms often refer to a self-balancing, two to four-wheeled device, that is not greater than 25 inches wide, designed to transport only one person, with an electric propulsion system averaging less than 750 watts (1 horsepower), the maximum speed of which, when powered solely by a propulsion system on a paved level surface, is no more than 12.5 miles per hour.

Best Practices

The best practices highlighted in Table 3-5 may refer to either or both personal or shared ownership models. These practices may be helpful for local agencies when considering their individual approach to micromobility and may serve as a basis for achieving consistency across the region.

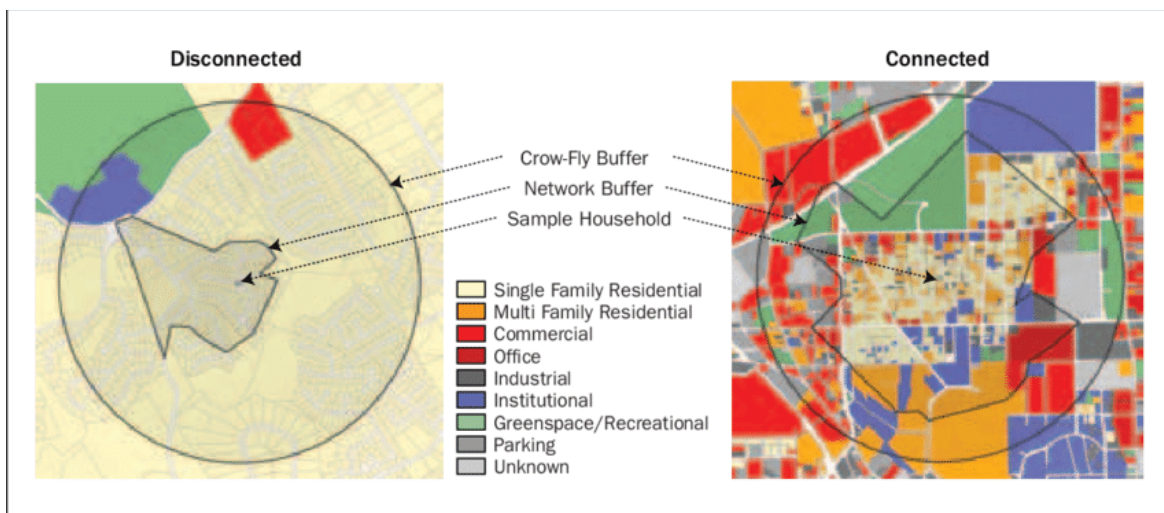
Table 3-6: Best Practices for Other Micromobility Devices

Consideration	Practice	Source
Riding on roadways	Treat e-skateboards as e-scooters and e-bikes. Riders shall be granted all the rights and shall be subject to all the duties and responsibilities applicable to the driver of a motor vehicle under the laws of the state and the traffic ordinances of the city.	City of Norfolk, VA
Riding on sidewalks or trails	Any person riding a skateboard, toy vehicle, or similar device shall yield right-of-way to pedestrians.	City of Denver
Facility design	Where possible, a minimum sidewalk/path width of 60” allow two wheelchairs space to pass one another.	2010 ADA Standards for Accessible Design (ADAG)
Dismount zones	Riding skateboards is prohibited on sidewalks in designated dismount zones in the Old Town areas using thermoplastic pavement signage.	City of Fort Collins

Land Use and Urban Form

Land use and transportation are inseparably intertwined. The number of destinations within a walkable or bikeable distance is a major factor in choosing to walk or bike. **Figure 3-10** illustrates how districts with homogenous zoning or land uses can increase the average trip length, while districts with a mix of land uses can decrease trip lengths by putting more destinations within a walkable or bikeable distance of more people. While a certain area may have comfortable walking or biking facilities, where may be no destinations within walking or biking distance.

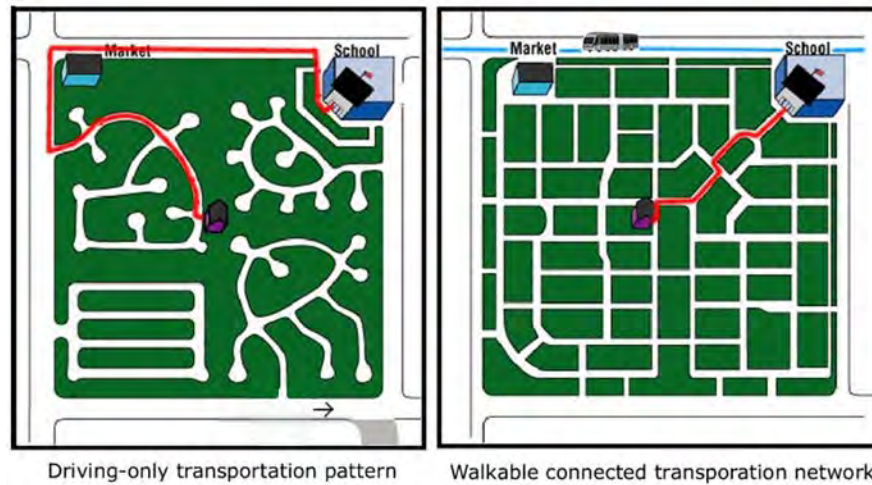
Figure 3-10: Land Use and Network Connectivity Comparison



Above: With a combination of mixed land uses and connected transportation networks, more destinations become accessible via a short walk or bike ride. Image credit: Patrick M Condon

Land use patterns also influence the pattern and form of the transportation network. For instance, many older districts were developed with connectivity and walkability front of mind. These are often characterized by a grid-like street layout, with many access points and redundancy in the route a driver, bicyclist, or pedestrian can take to access a destination. In contrast, many newer residential districts are more car-oriented; often characterized by winding, “loop and lollipop”, or cul-de-sac patterns that may inhibit direct access to destinations. **Figure 3-11** below illustrates how these different street layouts impact travel distance.

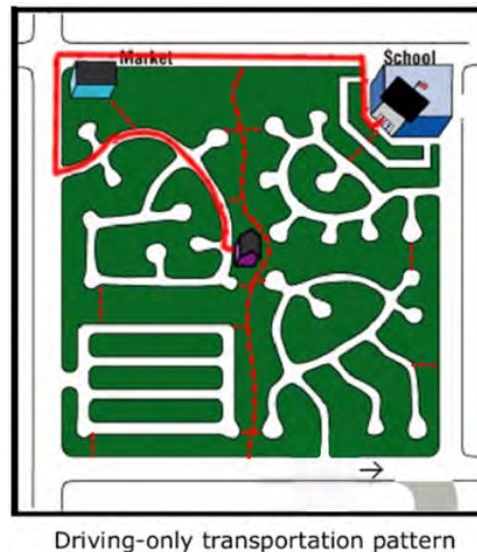
Figure 3-11: Street Network Layout Comparison



Above: The red lines demonstrate the shortest walking or biking distance from a home to a school given different street layouts. Image credit: Center for New Urbanism (CNU).

Figure 3-12 demonstrates how improvements can be made within an existing winding street pattern to improve bikeability and walkability. Short connector trails can dramatically reduce walking distances and can often be accommodated in narrow and/or otherwise undevelopable tracts of land.

Figure 3-12: Active Mode Connections within a Disconnected Roadway Network



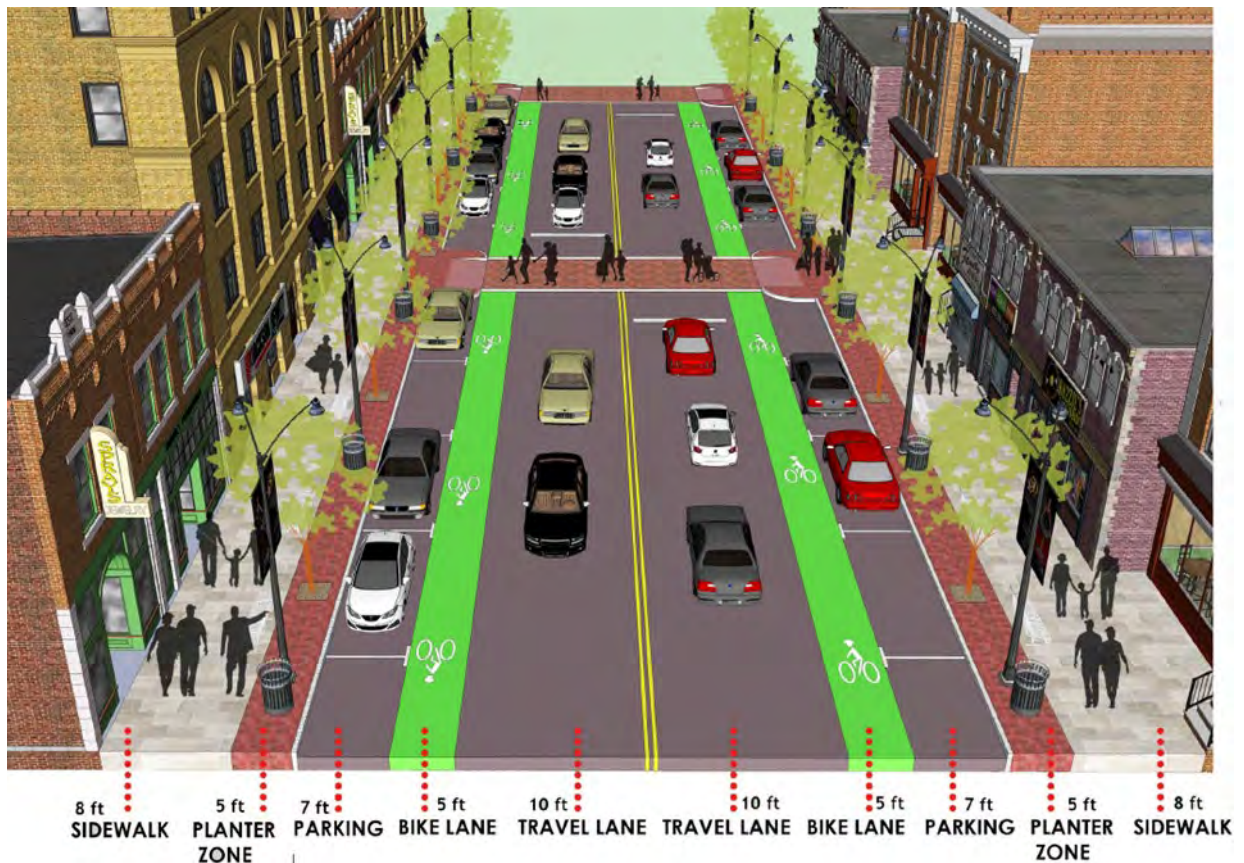
Above: Dashed red lines demonstrate active transportation connections to improve connectivity and access in an otherwise disconnected transportation network. Image Credit: CNU

Complete Streets

Complete Streets are streets designed to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. The adoption of a Complete Streets policy by communities encourages the routine design and operation of the entire right-of-way to enable safe access for all users.

Within the North Front Range region, Berthoud, Fort Collins, Greeley, Loveland, and CDOT have adopted Complete Streets policies. Other communities have referenced the concept of Complete Streets in a local plan and may have a variation or component of Complete Streets policies in local standards. NFRMPO staff are available to discuss how Complete Streets policies or principles can be incorporated into local processes.

Figure 3-13: Complete Streets Cross Section



Above: Complete Streets Cross Section demonstrates how space can be allocated in high-use areas where various travel modes interact on a regular basis.

Chapter 4: Regional Active Transportation Corridors (RATC)

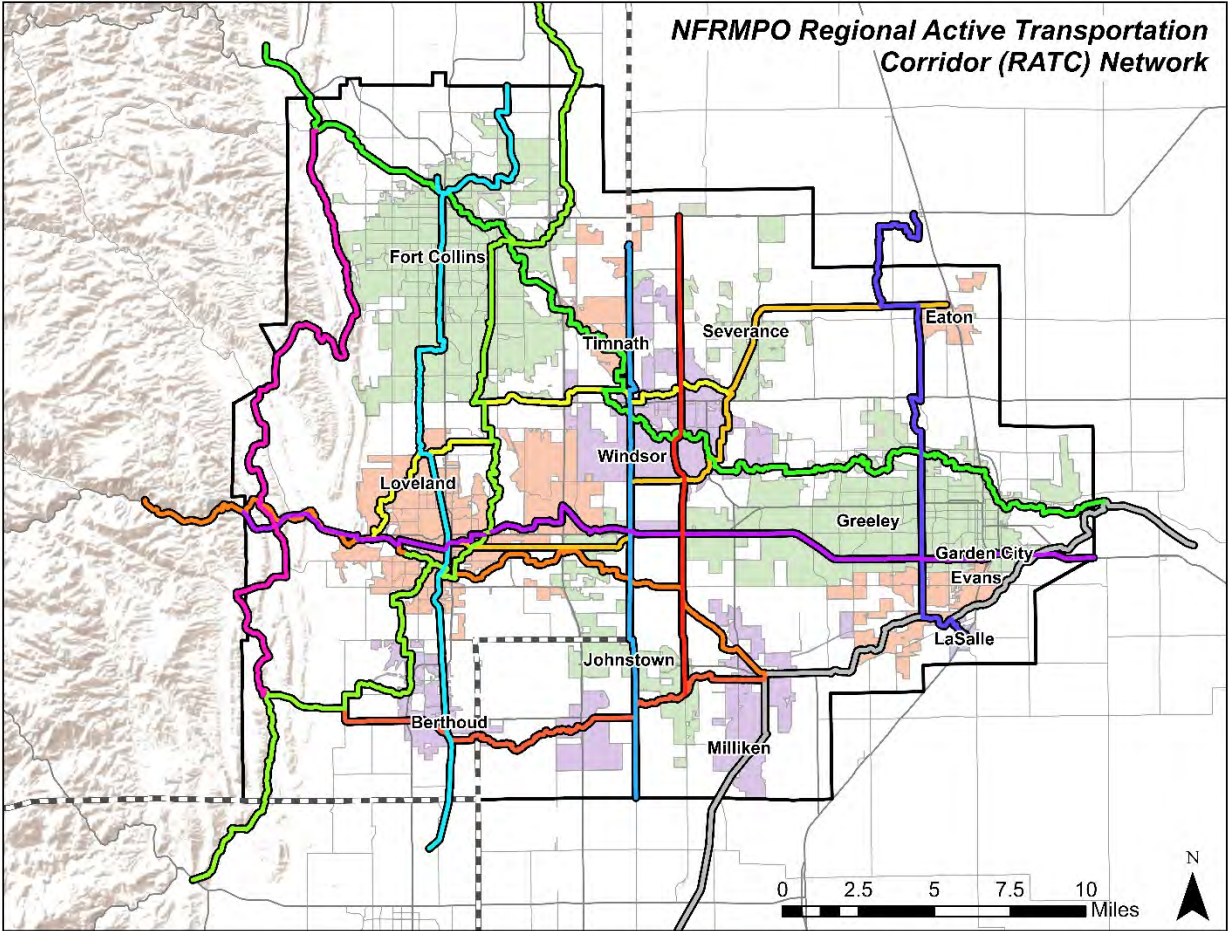
The RATC network was originally adopted in the NFRMPO's *2013 Regional Bicycle Plan* as the 'Regional Bicycle Corridors,' and have been carried forward and reaffirmed through several subsequent planning efforts, including the *2040 RTP*. Collectively, these corridors were conceived to one day serve as the spine for bicycle travel between and through the local communities. The corridors were identified based on a series of selection criteria focused on consistency with local/regional/state planning efforts, multimodal connectivity, economy and tourism, access to key destinations, obstacles to implementation, and public input.

Following the *2040 RTP*, the importance of these corridors was validated and their visions carried forward in the *2016 Non-Motorized Plan*. They were referred to as the 'Regional Non-Motorized Corridors' for their capacity to accommodate pedestrian travel were adopted in the *2045 RTP*.

In the *2021 Regional Active Transportation Plan*, these corridors were carried forward and renamed to 'Regional Active Transportation Corridors'. These corridors were adopted in the *2050 RTP*.

A major component of *ATP* development focused on engagement around these corridors. Through various tools and meetings, feedback from the public and updates from local agencies were collected to refine preferred and alternative, key local connections and critical gaps, and major barriers and opportunities for completion. These efforts largely reinforced the importance of these regional corridors but also highlighted the need for more localized considerations that maximize safe and equitable access to them. These needs and considerations are identified in the individual corridor-level maps and segment-level narratives later in this section. The updated RATC network is shown in **Figure 4-1** and **Table 4-1**. **Figure 4-2** shows the RATC Build-Out Status as of 2026.

Figure 4-1: NFRMPO Regional Active Transportation Corridor (RATC) Network



Legend

#1, South Platte American Discovery	#5, North Loveland/Windsor	#11, US-34 Parallel
#2, Little Thompson River	#6, Poudre River Trail	#12, Carter Lake/Horsetooth Foothills
#3, Big Thompson River	#7, Front Range Trail West	#13, Johnstown/Severance
#4, Great Western/Johnstown/Loveland	#8, BNSF Fort Collins/Berthoud	
	#9, Johnstown/Timnath	
	#10, Eaton/LaSalle	

NFR Region
 County Line

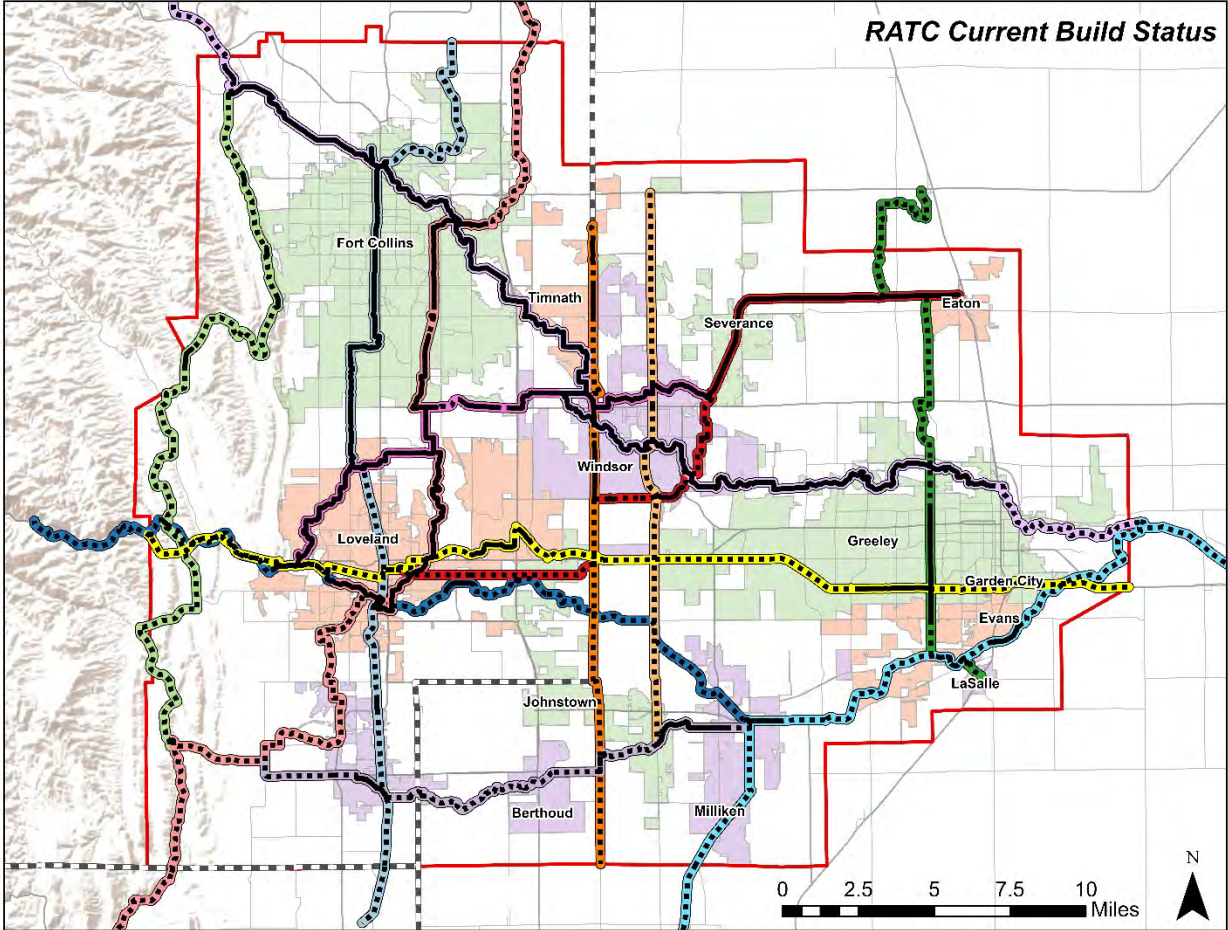
March 2026
Sources: NFRMPO



Table 4-1: NFRMPO Regional Active Transportation Corridor Network

Corridor	Name
RATC-1	South Platte/American Discovery
RATC-2	Little Thompson River
RATC-3	Big Thompson River
RATC-4	Great Western/ Johnstown, Loveland
RATC-5	North Loveland/Windsor
RATC-6	Poudre River Trail
RATC-7	Front Range Trail West
RATC-8	BNSF Fort Collins/Berthoud
RATC-9	Johnstown/Timnath
RATC-10	Eaton/LaSalle
RATC-11	US-34 Parallel
RATC-12	Carter Lake/ Horsetooth Foothills Corridor
RATC-13	Johnstown/Severance

Figure 4-2: RATC Current Build-Out Status



Legend

Build Status

- Existing; Interim
- Proposed
- NFR Region
- - - County Line

May 2026
Sources: NFRMPO

North Front Range
Metropolitan
Planning
Organization

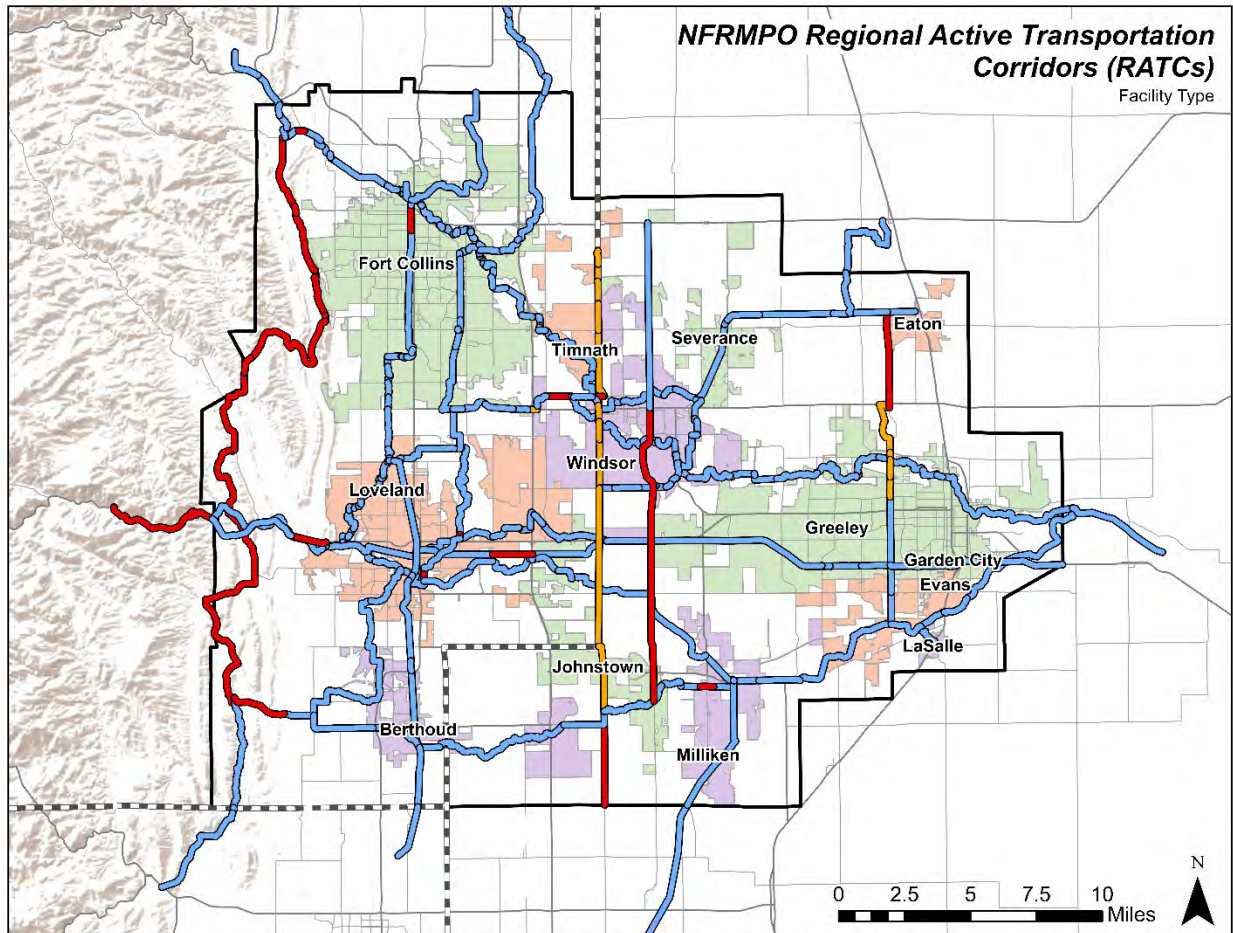
The corridors are not labeled or categorized as recreation-, school-, or commuter-oriented due to the complex and ever-changing nature of how trips are made and how these facilities are used. Part of any trip, regardless of purpose, that can be converted to an active mode helps the region achieve its transportation and air quality targets. Each of these corridors has the capacity to serve a variety of trip types, especially as population growth continues, local connections are built out, and emerging micromobility solutions extend active mode trip lengths.

Throughout this section, interim and alternative alignments are identified for many proposed segments. Identification and development of one alignment does not preclude development

of an alternative. Parallel alignments are encouraged and can complement one another in their ability to connect more community members to transportation and recreation opportunities.

The RATC Network consists of sections that are envisioned to have separate facilities (shared-use path or trail), roadway/on-road facilities (bike lanes or bikeable shoulders), and combined facilities (both on-road and separated). **Figure 4-3** shows the vision for facility types across the RATC Network. Chapter 3 summarizes more detailed guidance on what regional and/or high-use facilities like the RATC Network should ultimately look like. Upon build-out the preferred RATC Network will consist of 300.0 miles with separate facilities, 51.1 miles with roadway facilities, and an additional 24.1 miles with combined facilities. Many RATC segments may have existing combined facilities that do not meet a standard for carrying regional bike and pedestrian traffic.

Figure 4-3: Build-Out Facility Type across the RATC Network



Legend

- Facility Type
- Combined
- Roadway
- Separated
- County Line
- NFR Region

March 2026
Sources: NFRMPO



RATC Crossing Considerations

There are dozens of crossing treatments that can be applied and combined to improve safety and mobility for bicycles and pedestrians where off-street facilities cross the roadway network or at on-street intersections. For the RATC network, a non-exhaustive list of treatments have been divided into four generalized levels based on the intensity and investment required (Level 1 being low and Level 4 being high). These categories were devised based on guidance from the Federal Highway Administration (FHWA), National Highway Research Program (NCHRP), and National Association of City Transportation Officials (NACTO).

Many of these treatments can and should be used in combination with other, potentially unlisted strategies. Final design should be appropriate for the design user based on engineering judgment and local context. The design user should be chosen to assume continued growth in trends such as electric bikes (e-bikes). Design users were discussed further in **Chapter 3**. The lowest acceptable level of crossing treatment that would be acceptable upon build-out of the various crossings along the RATC network is identified in **Figure 4-3**. In some locations, crossings are identified for facilities that do not yet exist. For others, higher level treatments are identified than what currently exists on that facility. Some facilities are already built to their final design, which is indicated on the map. Treatment levels are assigned based on a combination of factors which include traffic volumes, posted speed limit, number of travel lanes, local agency plans, and other local context. If a crossing type is not identified at a location (local roads, alleys, driveway access, etc.), it can be assumed a Level 1 crossing would be appropriate until further study is done. Although unlabeled, these crossings may still pose significant barriers to mobility along or across an RATC.

Level 1 (Low)

Pavement markings, signage, and basic improvements to existing signalized infrastructure. This can include standard signal infrastructure at signalized and unsignalized intersections.

- Crosswalk markings
- Bike lane color markings (green)
- Advanced Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
- Crossing warning signs
- In-streets pedestrian crossing signs (State Law: Stop for Pedestrians in Crosswalk Sign)/"Gateway Treatment"
- No turn on red sign
- All-way stop signs



Above: Marked Crosswalk at the Loveland Transit Center

Level 2 (Medium)

More advanced warning systems, pavement treatments, physical features, detection technology, and flashing beacons. These can include midblock crossing infrastructure, such as beacons and flashing lights that are not considered traffic signals.

- Active warning beacon/ Rapid flashing beacon
- Dynamic speed feedback signs

- Internally illuminated crossing signs
- Median refuge island
- Raised crosswalk
- Leading or protected bike/ped signal phase
- Bike or pedestrian scramble
- Bike box
- Two-stage bicycle turn queue box
- Curb extensions
- Curb radius reduction
- Nighttime lighting
- Bike lane extension through intersection
- Passive bicycle signal detection
- Hardened centerline



Above: Bike Box on Laurel Street in Fort Collins

Level 3 (High)

Major infrastructure that separates and protects active modes, including bike/ped specific signals. Level 3 improvements are often classified as if they are located at a midblock location. Some of these treatments may equate to Level 1 treatments if they are already incorporated and not specifically focused on active modes.

- Protected intersection
- Dedicated intersection
- Pedestrian Hybrid Beacon (PHD) or signal
- Roundabout



Above: Pedestrian Hybrid Beacon (PHD) in Greeley

Level 4 (Separation)

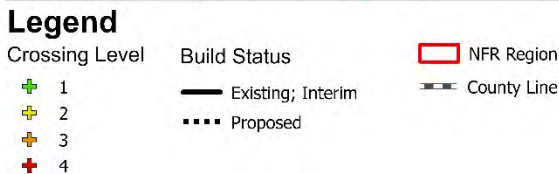
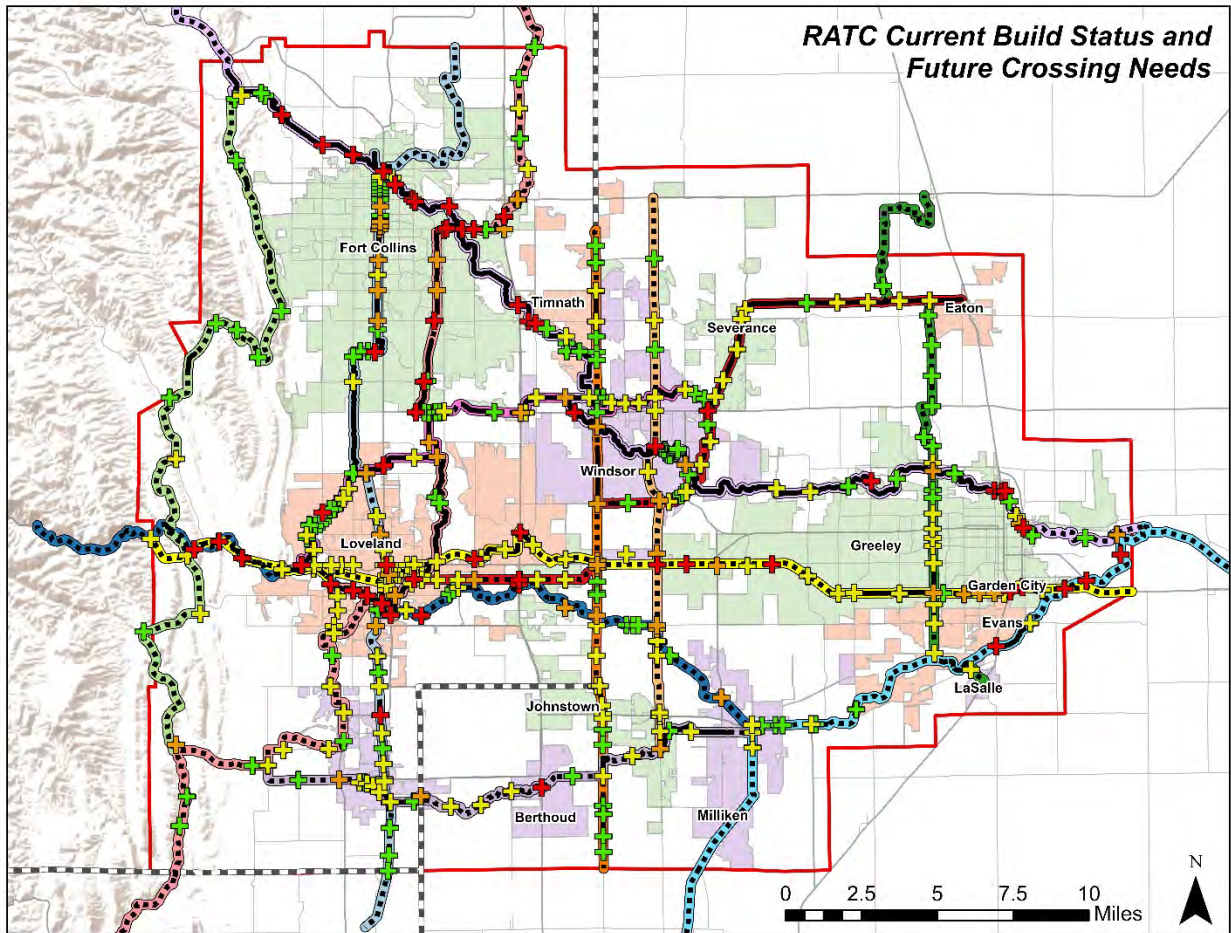
Level 4 is reserved exclusively for grade-separated crossings. Underpass and overpasses are typically the highest-intensity treatment, but often the only treatment that will eliminate modal conflicts at intersections and across interchanges.

- Grade-separated crossing (underpass or overpass)



Above: Underpass at Shields Street in Fort Collins

Figure 4-4: RATC Roadway Crossing Needs



May 2026
Sources: NFRMPO



RATC Corridor Profiles

The following section describes each of the 13 corridors with a map and several corresponding tables detailing the individual segments. Each segment in the corridor map is described as:

- **Existing**- the segment exists and adequately serves regional usage. Only minimal improvements are necessary.
- **Interim**- The segment exists and is usable for some user types but would benefit from moderate to significant improvements to improve accessibility. These improvements may include facility widening, increased separation or protection from vehicle traffic,

upgrading from on-street to off-street facilities, paving, or improved access agreements with managers of the facility.

- **Proposed-** The segment does not exist but has been identified in at least one local planning document. The status of these segments within the local planning process range widely from conceptual to prioritized with local funding allocated.

Each corridor map is supported with relevant data about current and forecasted conditions. The accompanying tables include:

Corridor-Level Information

- **Corridor narrative-** A descriptive vision for the entire corridor, including highlights of its relevance regionally, statewide, and/or nationally.
- **Current and forecasted conditions**
 - Total length (miles)- Existing or Interim (2023) and Build-Out (2050)
 - Miles on-street: Existing (2023) and Build-Out (2050)
 - Miles off-street: Existing (2023) and Build-Out (2050)
 - Population within a ½ mile- Existing (2023) and Build-Out (2050)
Source: NFRMPO Land Use Allocation Model
 - Jobs within a ½ mile- Existing (2023) and Build-Out (2050)
Source: NFRMPO Land Use Allocation Model
 - Schools within a ½ mile- Existing (2023) and Build-Out (2050)
Source: 2020 CDOE School Locations
 - Transit stops within a ½ mile- Existing (2023) and Build-Out (2050)
Source: 2020 Transit Stops from various service providers
- **Planning references-** A list of the most recent and/or relevant plan citations from impacted agencies referencing this corridor with a code (letter) for use in referencing each corridor segment. For agencies with multiple plans referencing the corridor, the most current and/or relevant plan is listed.

Segment-Level Information

- **Segment ID-** Segment identifier corresponding to the corridor map.
- **Jurisdictions-** The agencies with current or future (based on Growth Management Areas) jurisdiction over the area of the segment.
- **Description-** A narrative overview of the segment with acknowledgement of local planning, projects, and opportunities.
- **Key local connection needs-** Future infrastructure necessary for community members to access the corridor. Other RATC segments are excluded from this

section, as well as areas with sufficient local infrastructure to important destinations.

- **Crossing needs-** The minimum acceptable infrastructure needed for the segment to serve regional traffic upon build-out, based on the four levels described in the previous section. If crossings are identified at locations with existing infrastructure, it is to signify the minimum level of additional enhancements that will be necessary in the future.
- **Preferred alignment-** The proposed alignment that maximizes connectivity, opportunities, and overall appeal.
- **Alternative alignment-** Segment alignment that may prove more feasible.

Figure 4-5: South Platte/American Discovery Trail Build Status

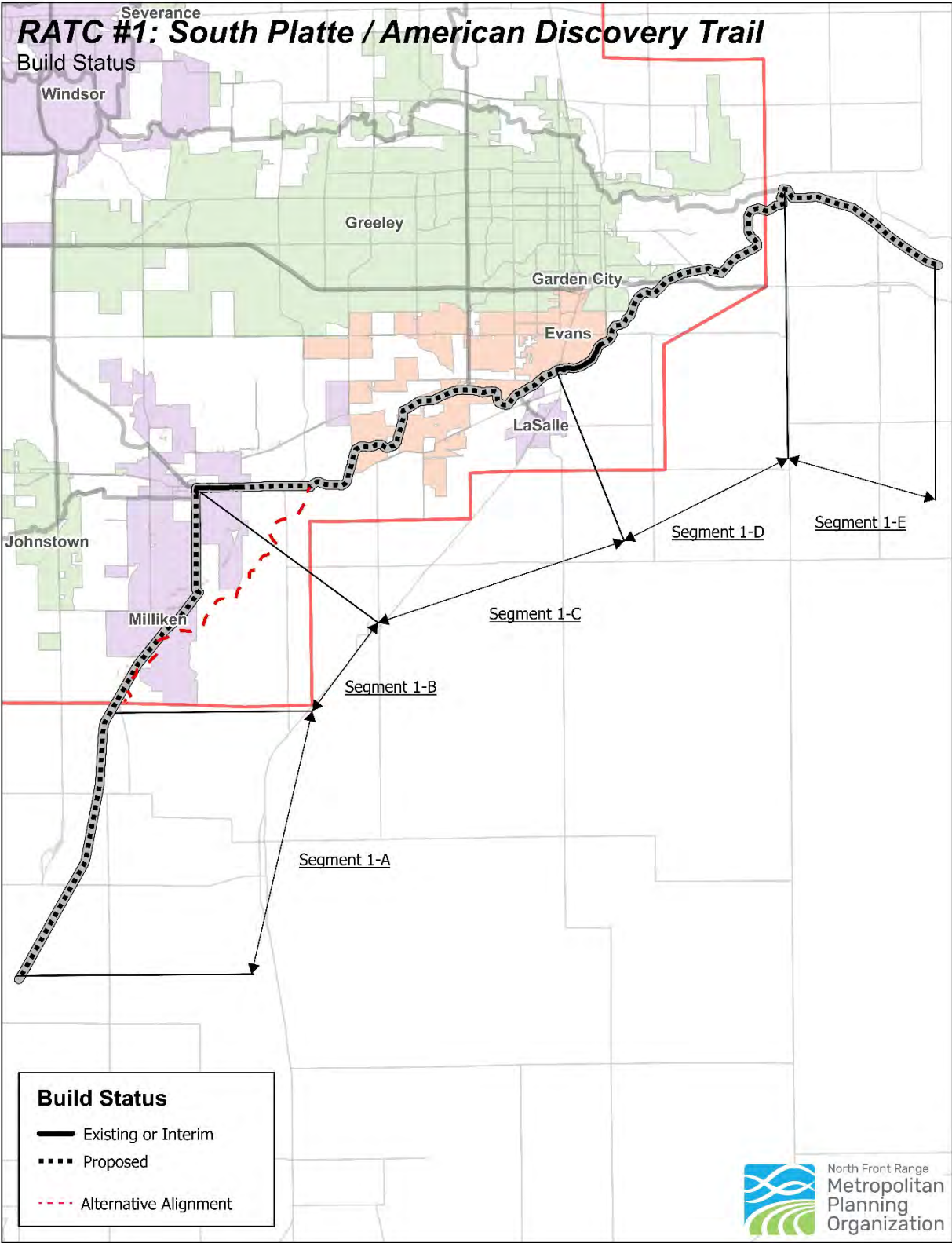
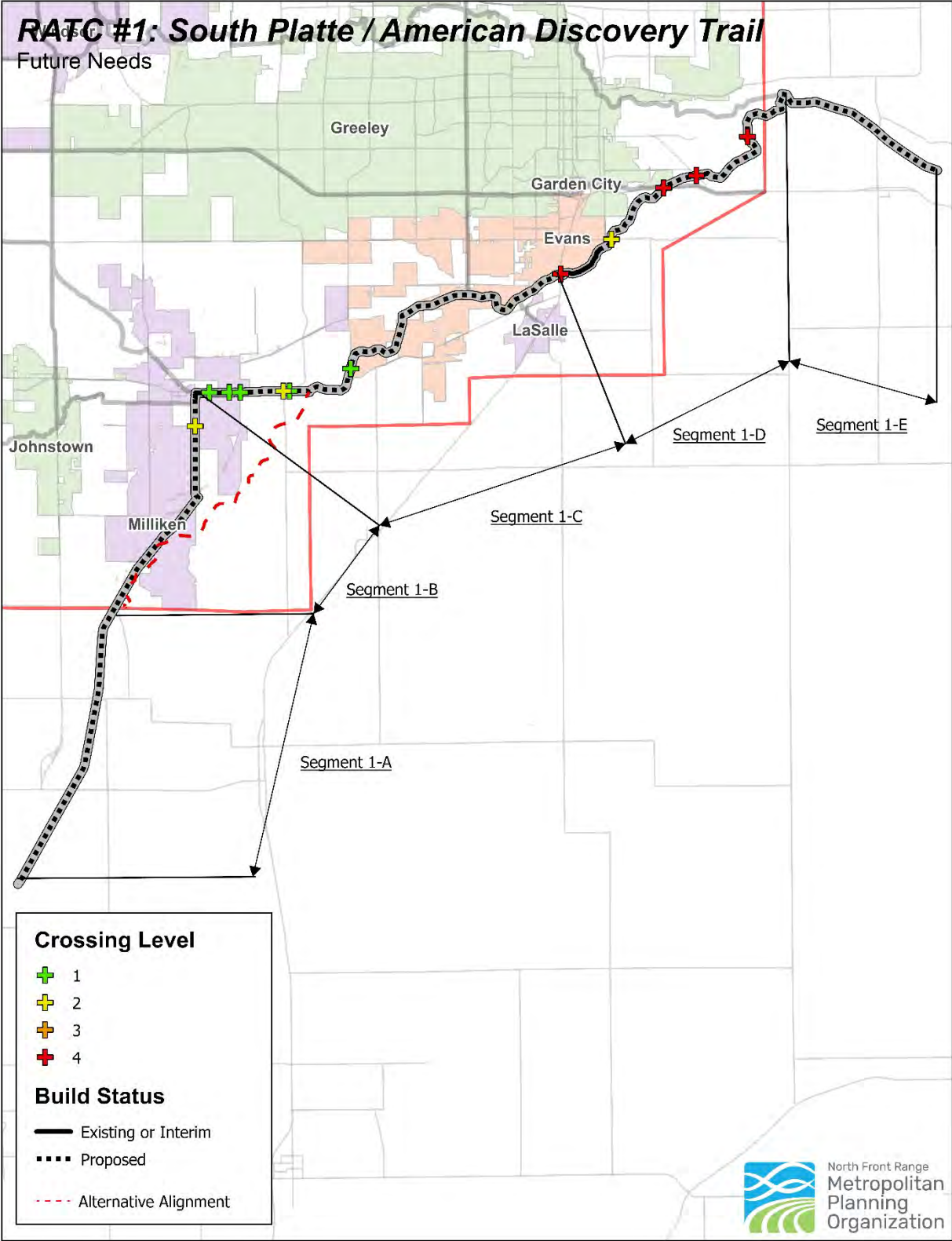


Figure 4-6: South Platte/American Discovery Trail Future Needs



RATC #1: Corridor-Level Information

Corridor Description	Planning References
<p>The South Platte River flows through the southeast portion of the NFRMPO region. This corridor will showcase and improve access to a river corridor of statewide significance, opening recreation opportunities in areas with otherwise poor access to public open lands. The corridor not only represents a future connection between NFRMPO communities and its neighbors to the south, but a statewide (Colorado Front Range Trail) and national recognized corridor (American Discovery Trail). The corridor is widely referenced by our member governments as a shared-use trail along the river corridor ultimately connecting with the Poudre River Trail (RATC #6) east of Greeley.</p>	<p>CPW- Colorado Front Range Trail (2002) DOLA – Wildcat Trail Conceptual Master Plan (2015) Firestone – Parks, Trails, & Open Space Master Plan (2020) Milliken – Milliken Comprehensive Plan Update (2023) Evans – Multimodal Transportation Master Plan (2022) Weld County – 2045 Weld County Transportation Plan (2020) Greeley – Greeley Trails Master Plan (2025)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
2.13	33.45	0	0	2.13	33.45	5,151	18,457	1,884	1,884	2	6	2	2
<p>Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.</p>													

RATC #1: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
1-A	South of the NFRMPO Region	Proposed and Existing	Separated	Weld County, Firestone	Communities south of the NFRMPO region such as Brighton, Dacono, Firestone, and Frederick have contributed large segments of the Front Range Trail (East). As the trail extends north from its existing northern terminus at WCR24 to the NFRMPO boundary, the trail will pass through two Transportation

					Planning Regions (DRCOG, Upper Front Range TPR). The major gaps to fill are SH60 in Milliken to the current northern terminus, Dacono to Fort Lupton, Fort Lupton to SH7 in Brighton, and SH7 to E-470. South of E-470, the trail exists all the way to Chatfield State Park in Littleton.
Key Local Connection Needs		None Identified- Outside NFRMPO Planning Area			
Crossing Needs		None Identified- Outside NFRMPO Planning Area			
1-B	NFRMPO Boundary to SH60	Proposed	Separate	Thompson River Parks and Recreation District (TRPR), Weld County, Xcel Energy	The trail will enter the NFRMPO region from the south near the confluence of the St. Vrain and South Platte Rivers. The southernmost part of this segment will follow an abandoned railway line and easement owned by Xcel Energy and other private property owners. The trail will then parallel WCR23 (Alice Avenue) northward towards east Milliken. The segment is known locally as the Wildcat Trail for its proximity to the Wildcat Mound River Bluffs, which contain large deposits of shell fossils from roughly 80 million years ago. Trail development will need to consider eagle nesting habitat and wetlands. The Wildcat Trail Conceptual Trails Master Plan was completed in 2015 to assess opportunities and considerations along this segment.
Key Local Connection Needs		None Identified			
Crossing Needs		Level 2: WCR46/Inez Boulevard			

1-C	SH60 to US85	Proposed and Existing	Separate	Milliken, Evans, LaSalle, Weld County	East of the Thompson Recreation Parks and Recreation (TRPR) Center, this section will require significant intergovernmental cooperation as much of the section is currently unincorporated but lies within the Growth Management Area (GMA) of either Milliken or Evans. This section is the most critical to achieving regional connectivity in a part of the NFRMPO region without many existing options. There are several potential alignments that could take advantage of undevelopable land in the South Platte River or Big Thompson River riparian areas, county road right-of-way, or Union Pacific Railroad right-of-way.
Key Local Connection Needs		Along 77 th Avenue to West Evans and West Greeley, 49 th Street			
Crossing Needs		Level 1- S Traders Lane, WCR25, Union Pacific Railroad (x2); Level 2- SH60; Level 3- 35 th Avenue			
1-D	US85 to Poudre River	Proposed and Existing	Separate	Evans, Greeley, Weld County	This segment contains Riverside Park in Evans, one of the region’s premier outdoor recreation areas with access to the South Platte River, a popular destination for various river-related activities. Northeast of Riverside Park, this corridor could continue to follow the river, take advantage of existing public right-of-way along nearby roads, or a combination of both. US34, US34 Business, and Weld County Parkway/WCR47, where adequate space for two trail underpasses may already exist, pose the largest obstacles to

					connecting RATCs #1 And #6 near the confluence.
Key Local Connection Needs	East Evans via 37 th Street (WCR54), Southeast Greeley, East Memorial Neighborhood				
Crossing Needs	Level 2- E 37 th St; Level 4- US34, US34 Business, Weld County Parkway/WCR47				
1-E	East of NFRMPO Region	Proposed	Separated	Weld County, Kersey	The cities of Greeley and Evans and the Town of Kersey have discussed possibilities for a trail connection that could serve as a segment of either or both RATC #1 and RATC #11.
Key Local Connection Needs	None Identified- Outside NFRMPO Planning Area				
Crossing Needs	None Identified- Outside NFRMPO Planning Area				

Figure 4-7: Little Thompson River Build Status

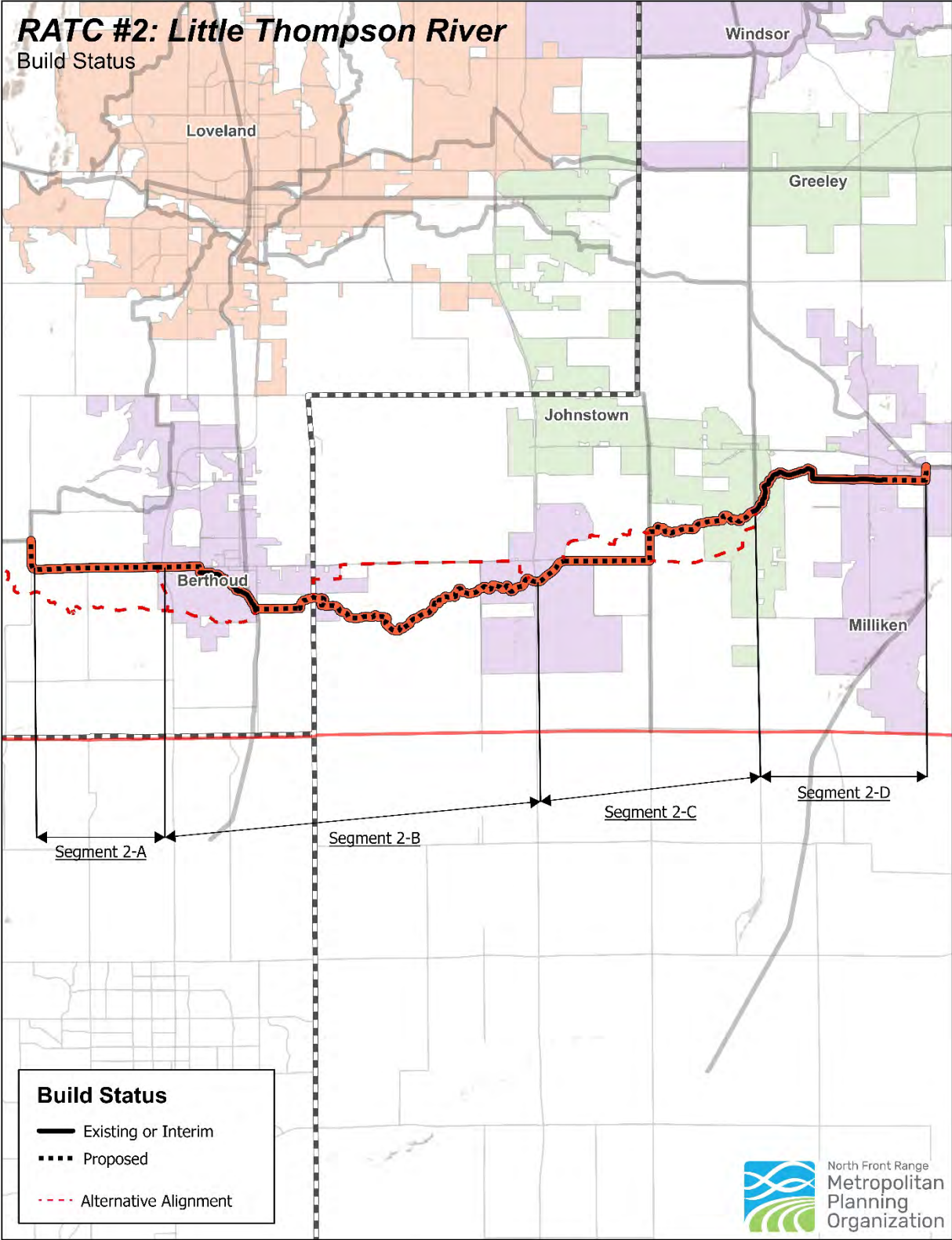
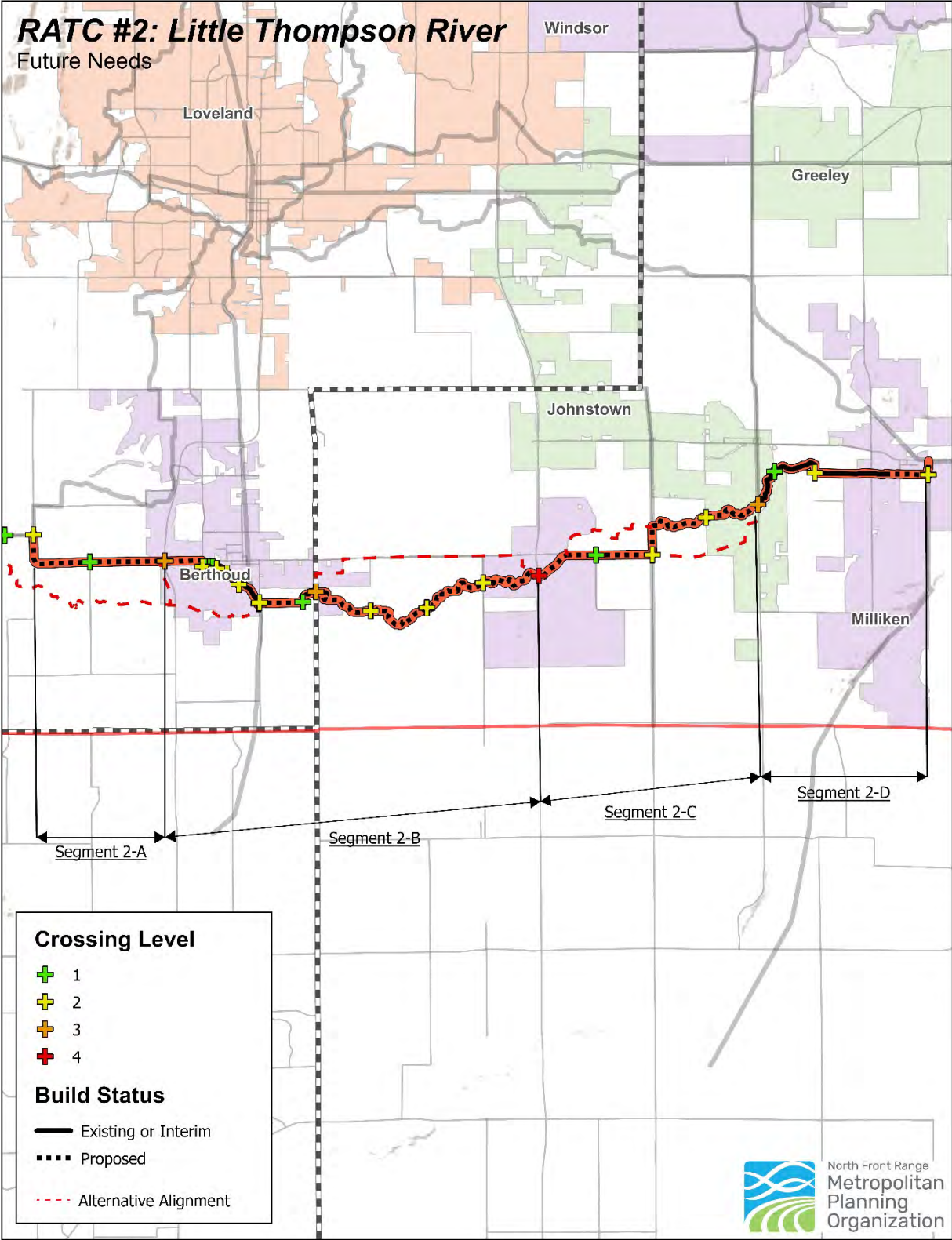


Figure 4-8: Little Thompson River Future Needs



RATC #2: Corridor-Level Information

Corridor Description	Planning References
<p>The Little Thompson River Trail provides a regional connection across the southern portion of the NFRMPO region. This historically-identified corridor connects both Larimer and Weld County with access to popular destinations like Carter Lake, The Front Range Trail (West), I-25/SH60 Park-n-Ride, and Downtown Milliken. The preferred alignment for this corridor follows county road right-of-way east from Carter Lake, connects into Berthoud’s existing trail system, and continues east following the Little Thompson River corridor and county roads to Milliken, where it meets with RATCs #1 and #3. Alternatively the westernmost segments of the corridor could follow a combination of Dry Creek and the Little Thompson River riparian areas; however, much of this alignment is privately owned.</p>	<p>Larimer County – Larimer on the Move Transportation Plan (2025) Berthoud- Berthoud Trails Master Plan (2022) Johnstown – Johnstown Updated Land Use Framework Plan (2019) Milliken- Milliken Comprehensive Plan Update (2023)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
2.57	20.4	.51	0	2.07	20.56	9,067	35,241	3,195	4,677	6	6	2	2
<p>Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.</p>													

RATC #2: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
2-A	LCR8E to US287	Proposed	Separated	Larimer County, Berthoud	The westernmost segment would connect with RATC #7 near the intersection of LCR8E and LCF23. From this point, the corridor would follow LCR8 towards its intersection with US287, where it would require an enhanced crossing to continue towards Berthoud’s existing trail system. There are several alternative alignments in

					this area, but their feasibility is still to be determined.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- S LCR21; Level 3- US287			
2-B	US287 to I-25	Proposed and Existing	Separated	Berthoud, Johnstown, Weld County	From US287, this segment would follow SH56 before connecting into Berthoud’s existing trail system, which will take users by several parks and schools, with local connections to Old Town Berthoud as well. The corridor will connect with RATC #8 and head east towards undeveloped areas near the Growth Management Area (GMA) boundaries between Berthoud and Mead. The corridor will cross I-25 under the Little Thompson River bridge, where it will also make an important multimodal connection with the Berthoud Mobility Hub.
Key Local Connection Needs		RATC #7 via LCR17, Downtown Berthoud via SH56			
Crossing Needs		Level 1- Sioux Drive, Bein Street, Common Drive, BNSF Railroad, LCR6C; Level 2- LCR17, 10th Street, 8th Street, 5th Street, First Street/LCR15, WCR3, WCR5, WCR7; Level 3- County Line Road; Level 4- I-25			
2-C	I-25 to WCR17	Proposed	Separated	Berthoud, Johnstown, Weld County	On the east side of I-25 trail and wildlife underpass, the preferred alignment would continue east on the south side of WCR44, leveraging development plans in the area and showcasing the rolling hills in western Weld County. At WCR 13, it would be coterminous with RATC #9 until the Little Thompson River. The corridor will continue along the Little Thompson River until it intersects with RATC #13 at WCR17.
Key Local Connection Needs		Along SH60			

Crossing Needs		Level 1- WCR11, Great Western Railroad; level 2- WCR13, WCR 15; Level 3- WCR17			
2-D	WCR17 to S Alice Avenue	Proposed and Existing	Separated	Johnstown, Milliken	<p>From the intersection of WCR17 and WCR46.5, cross the GWRR tracks and constructed to the intersection of WCR19 and WCR46.5, where intersection enhancements will be necessary. From there, it connects to an existing segment of crusher fine trail along the south side of WCR46.5 to Green Street. Along Green Street, a future trail could continue east to S Alice Avenue where it would connect with RATC #1. Local enhancements to the street network can better connect this corridor to downtown Milliken. Alternative alignments to Green Street should be considered as opportunities arise with proposed development to the south.</p>
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- Great Western Railroad; Level 2- WCR19 and WCR46.5, S Alice Avenue (WCR23)			

Figure 4-9: Big Thompson River Build Status

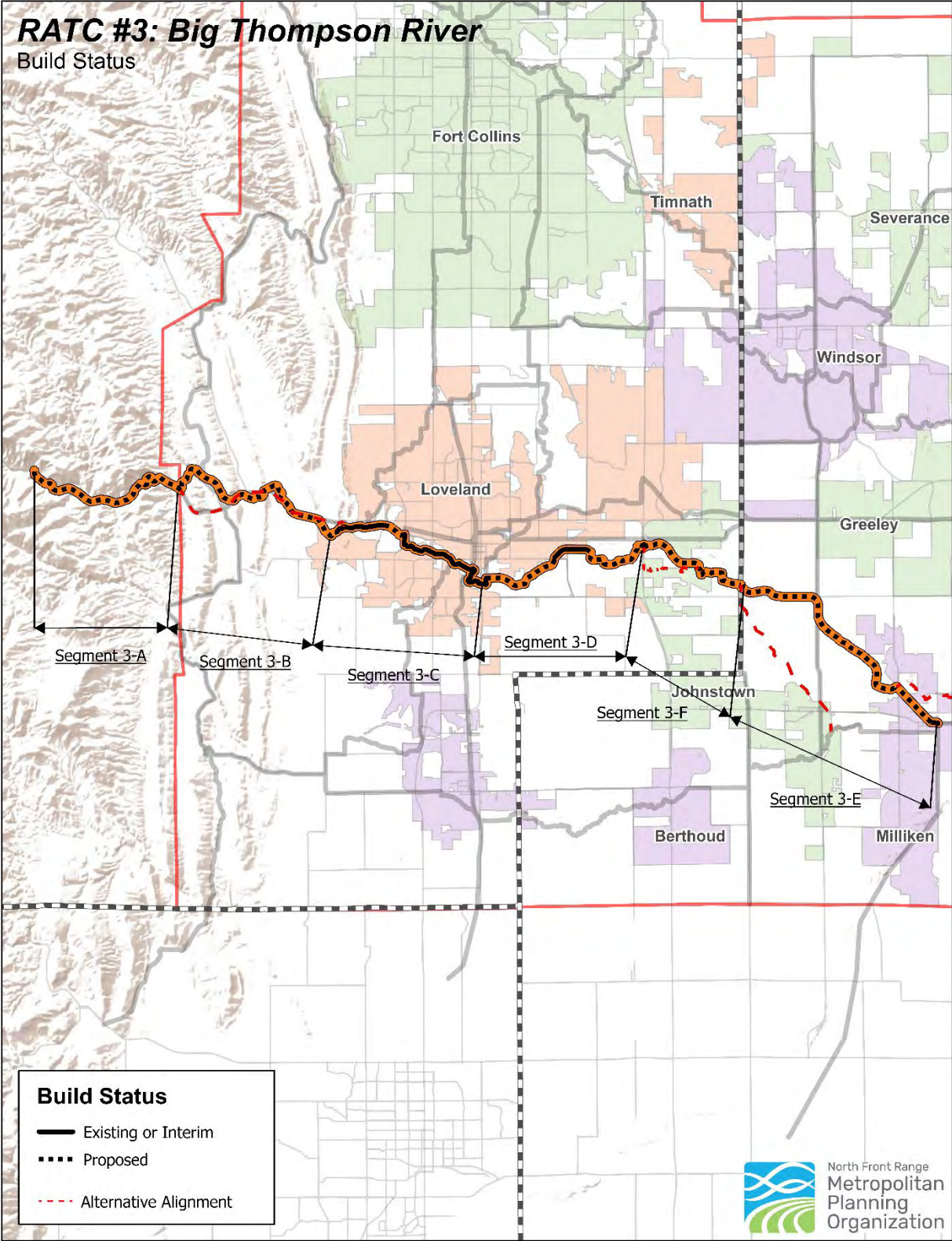
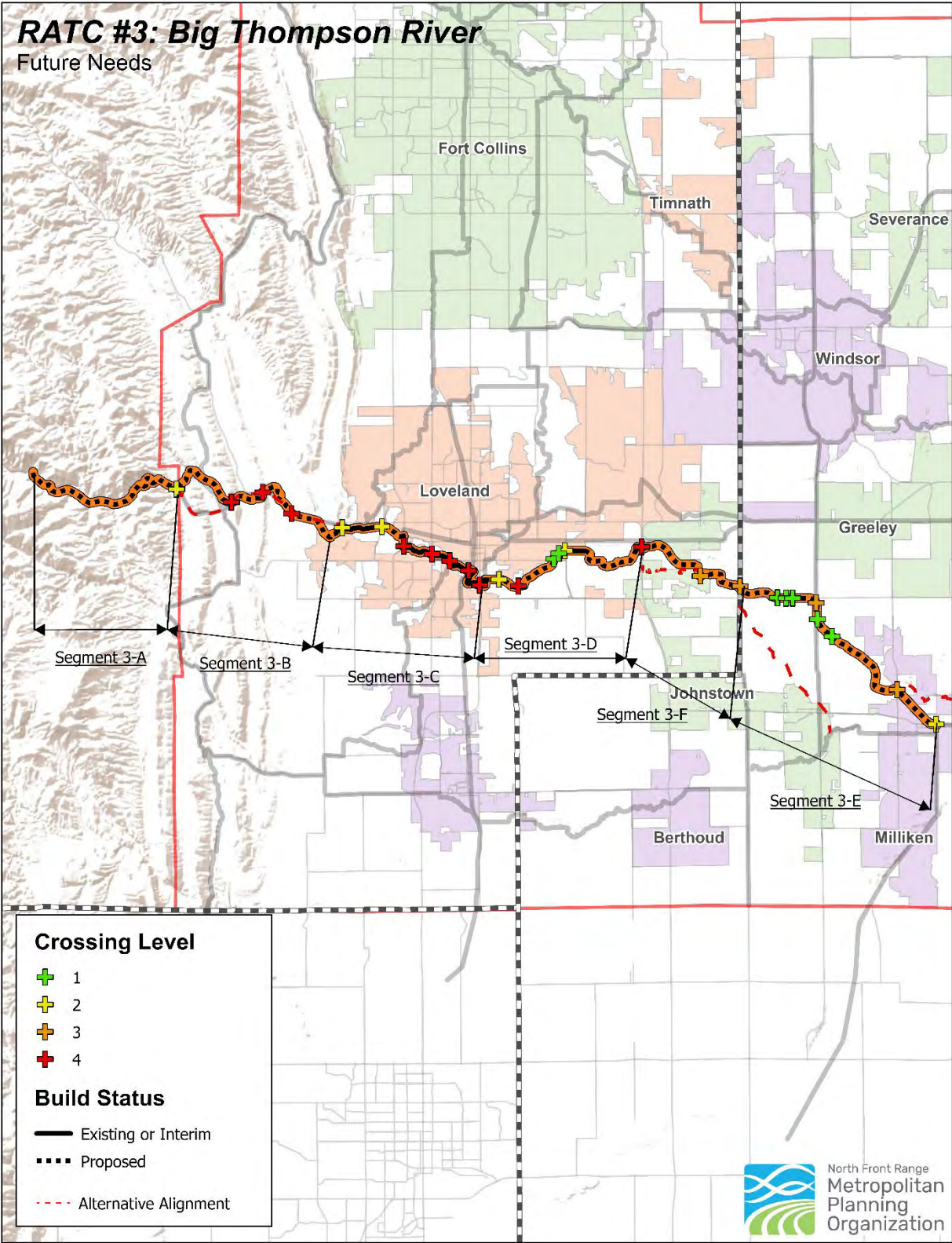


Figure 4-10: Big Thompson River Future Needs



RATC #3: Corridor-Level Information

Corridor Description	Planning References
<p>The Big Thompson River Trail provides a regional connection across the south-central portion of the NFRMPO region. This corridor connects both Larimer and Weld County with access to destinations like Downtown Loveland via RATCs #7 and #8, Devil’s Backbone Open Space, and Downtown Milliken.</p> <p>Future considerations in developing this corridor should also consider the vision for RATC #11 in the area between the NFRMPO Boundary (The Dam Store/ LCR31D) and Rossum Drive. There is opportunity for these two RATCs to be combined and/or serve as complementary alignments depending on engineering and cost constraints.</p>	<p>Larimer County – Larimer on the Move Transportation Plan (2025)</p> <p>Loveland- Connect Loveland Transportation Master Plan (2023)</p> <p>CDOT- US34 Planning and Environmental Linkages (PEL) Study (2019)</p> <p>Johnstown- Johnstown Updated Land Use Framework Plan (2019)</p> <p>Milliken- Milliken Comprehensive Plan Update (2023)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
5.67	32.07	0	4.9	5.67	27.17	15,907	49,051	13,630	18,467	6	8	21	22
<p>Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.</p>													

RATC #3: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
3-A	West of NRMPO Region	Proposed	Separated	CDOT, Larimer County	Although the topography of the canyon limits possibilities for a shared-use path, there is still interest from some planning partners and the public in pursuing opportunities to create an off-street corridor west of Loveland’s current City boundary and in the canyon.
Key Local Connection Needs		None Identified- Outside of NFRMPO Planning Region.			
Crossing Needs		None Identified- Outside of NFRMPO Planning Region.			

3-B	NFRMPO Boundary to Rossum Drive	Proposed and Existing	Separated	Larimer County, Loveland, CDOT	If there is opportunity for this corridor to follow city- and county-owned land tracts, the trail would follow the Big Thompson River and take advantage of the various bike/ped and wildlife crossings that would be accommodated within the US34 PEL Recommended Alternative where US34 bridges cross the river. This segment of RATC #3 can support additional regional soft-surface trail development connecting the existing trail network at Devil’s Backbone Open Space with future trails at Skyline Natural Area. This segment is a crucial link in completing the roughly 15-mile recreation loop between various open lands. Rossum Drive serves as the western terminus of RATC #11.
Key Local Connection Needs		Skyline Natural Area			
Crossing Needs		Crossing Needs: Level 2- Rossum Drive; Level 4- US34 near Fawn Hollow Motel, US34 near Fireside Cabins RV Park, US34 near Wild Lane			
3-C	Rossum Drive to 8 th Street SE	Existing	Separated	Loveland	This segment is complete and provides safe biking and walking access for the southwest side of Loveland. This segment intersects with RATCs #5 and #8 and shares part of its alignment with RATC#7.
Key Local Connection Needs		Downtown Loveland			
Crossing Needs		Level 2- Namaqua Avenue			
3-D	8 th Street SE to I-25	Proposed and Existing	Separated	Loveland, Larimer County, CPW, CDOT	This segment will extend east along 8th Street as RATC #7 continues north. This segment will connect a growing part of east Loveland and several parks, natural areas, and State Wildlife

					Areas (SWAs). Ultimately, this segment will include an underpass at Boise Ave and Boyd Lake Ave when it is extended south to SH402. This segment will cross I-25 using the underpass accommodated during reconstruction of the I-25 bridge over the Big Thompson River.
Key Local Connection Needs		S Madison Avenue, Wrybill Avenue, SH402 via S Boyd Lake Avenue			
Crossing Needs		Level 1: E First Street, Saint John Place; Level 2- Saint Louis Avenue, Sculptor Drive; Level 4- S Boise Avenue, I-25			
3-E	I-25 to County Line Road	Proposed	Separated	Johnstown, Larimer County	<p>This segment will use a shared-use paths on the east side of the NE Frontage Road bridge to get south of the Big Thompson River. Depending on future development in the area, this segment will either continue paralleling the NE Frontage Road to connect into existing trails in the Thompson River Ranch Development, or continue along the river corridor to LCR3. The trail will require crossing considerations at Riverwalk Circle and will continue to follow the northern edge of development until reaching County Line Road.</p> <p>A key local connection to RATC #3 along this segment is the 2534 district on the north side of the Great Western Railroad, where few multimodal connections currently exist. This could be facilitated via facilities along the SE/NE Frontage Road or via a conservation easement along a drainage easement on the western edge of 2534.</p>

Key Local Connection Needs		2534 District			
Crossing Needs		Level 3- LCR3, County Line Road			
3-F	County Line Road to Little Thompson River Trail	Proposed	Separated	Weld County, Milliken	<p>At County Line Road, this Corridor will intersect with RATC #9, where significant infrastructure will be necessary, such as a grade-separated crossing with paths bringing connection to County Line Road. From this point, the alignment will depend on a combination of development, road improvements, and working relationships with railroad and irrigation/ditch companies. One alignment would involve paralleling the Hillsboro Ditch into downtown Johnstown and connecting to the Little Thompson Trail near the YMCA. The preferred alignment would follow WCR52 until it intersects with RATC #13 at WCR 17. It would be coterminous with RATC #13 via WCR17 until the Union Pacific Railroad. It would follow the Union Pacific Railroad alignment into downtown Milliken or the confluence of the Big Thompson and Little Thompson Rivers.</p> <p>Although less feasible due to significant land acquisition, this corridor could continue east along the Big Thompson River towards its confluence with the South Platte River.</p>
Key Local Connection Needs		Mad Russian Neighborhood, Downtown Milliken			
Crossing Needs		Level 1- WCR15, Great Western Railroad, Union Pacific Railroad (x2), WCR52; Level 2- SH60; Level 3- WCR17, SH257			

Figure 4-11: Great Western/Johnstown/Loveland Build Status

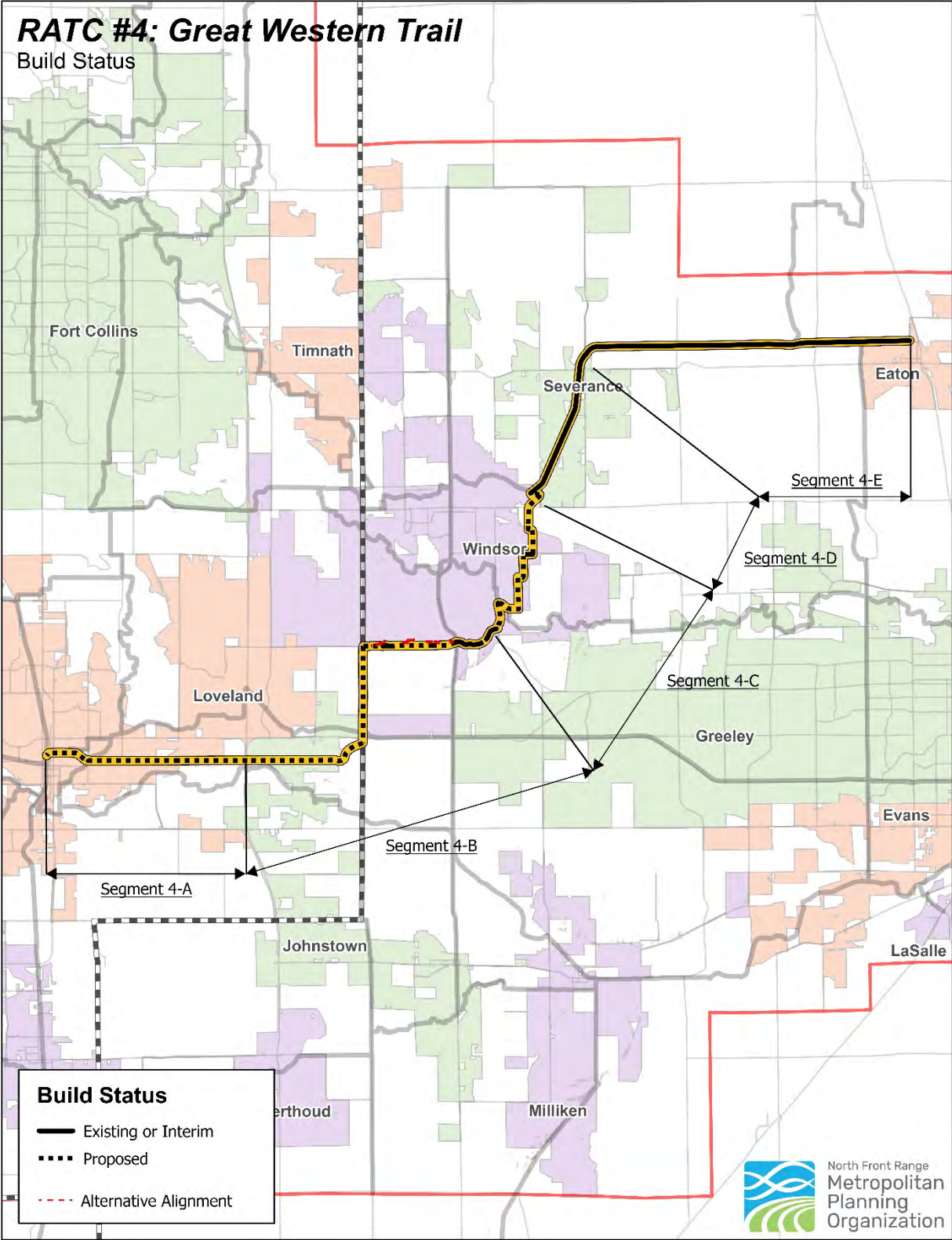
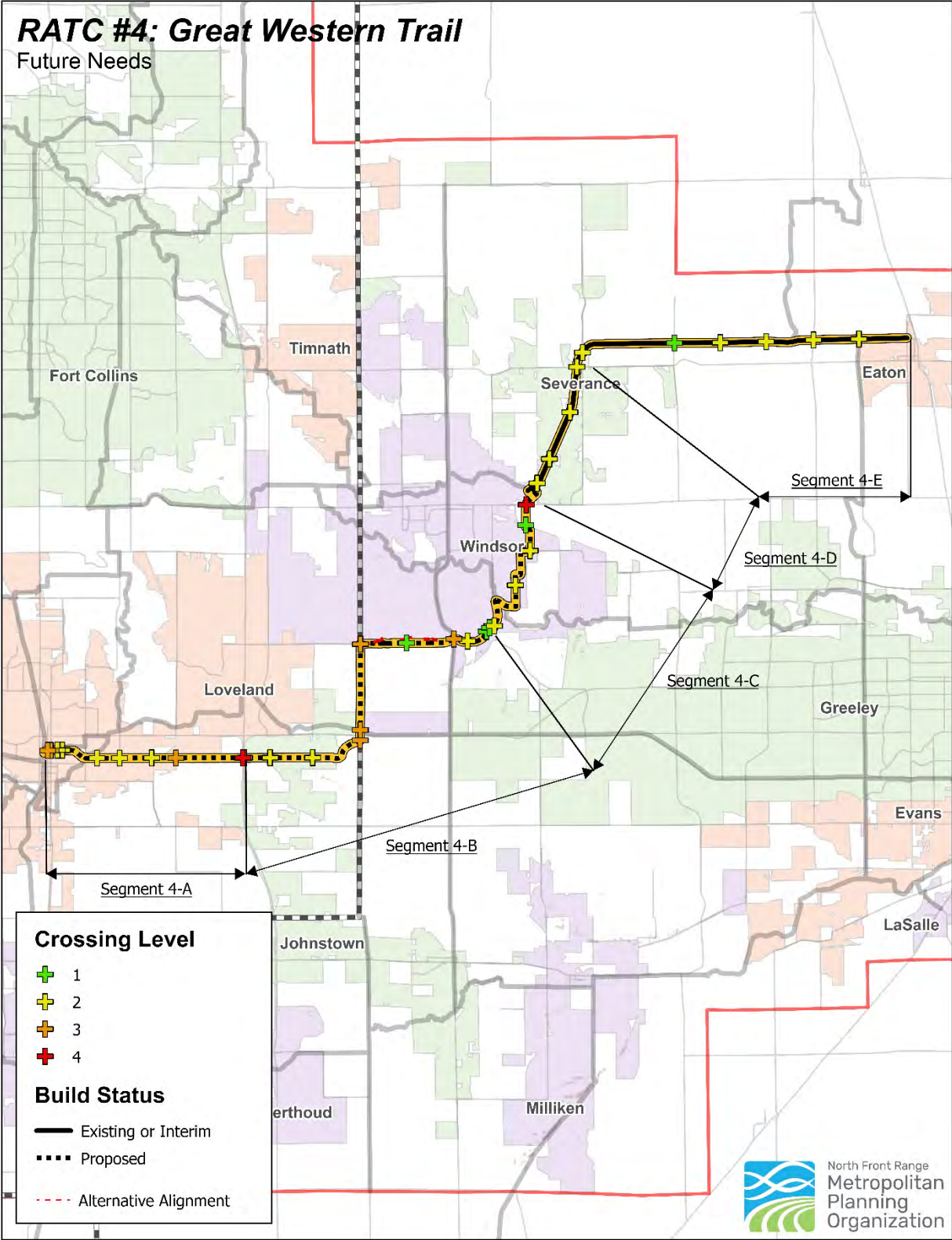


Figure 4-12: Great Western/Johnstown/Loveland Future Needs



RATC #4: Corridor-Level Information

Corridor Description	Planning References
<p>The Great Western Trail Corridor follows the alignment of the Great Western Railroad that once connected Loveland to Eaton. The backbone of the corridor is the 11.7-mile mixed-use recreational trail that connects the towns of Windsor, Severance and Eaton utilizing the abandoned rail bed of the Great Western Railroad (preserved right-of-way through the provisions of the federal “Rails to Trails” legislation). The remainder of the corridor would connect to and cross the Poudre River Trail corridor (RATC #6), Windsor’s community trail network, and follow the remaining active railway (Rails-with-Trails) into Loveland’s active transportation network. This corridor provides critical rural access from the northeast portion of the NFRMPO region into the region’s core.</p> <p>The Great Western Trail preserves and celebrates a significant piece of Northern Colorado’s history: the sugar beet industry that flourished for most of the 20th Century and gave roots to the communities that are thriving across the region today.</p>	<p>Windsor- Windsor Open Space and Trails Strategic Plan(2022) Loveland- Connect Loveland Transportation Master Plan (2023) Severance- Severance Transportation Master Plan (2021) Weld County – 2045 Weld County Transportation Plan (2020) Eaton- Eaton Comprehensive Plan (2020)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
10.44	27.34	0	3.63	10.44	23.69	25,766	64,948	6,696	37,044	8	11	0	32
Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.													

RATC #4: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
4-A	Downtown Loveland to I-25	Proposed	Separated and Roadway	Loveland	This segment will connect downtown Loveland to I-25 via on- and off street facilities parallel to the Great Western Railroad. This would connect community members and visitors to and from

					<p>the Centerra district. The western terminus of this corridor would be at the BNSF Railroad (RATC #8), The segment would extend east, passing by the historic Great Western Railroad Depot. There is some publicly owned and private developable land along the corridor that could accommodate a shared-use path. Between Boyd Lake Avenue and I-25, it is likely this corridor would be facilitated by enhanced bike lanes or bikeable shoulders along LCR20E as development drives the improvement of the roadway. Bike lanes currently exist across I-25 on the LCR20E bridge.</p> <p>Note: This corridor could connect with Loveland’s Front Range Passenger Rail (FRPR) station depending on the stations’ final location.</p>
Key Local Connection Needs		Loveland Sports Park			
Crossing Needs		Level 2- W 10th Street, Washington Avenue, Monroe Avenue, Boise Avenue, Denver Avenue, Sculptor Drive; Level 3- Boyd Lake Avenue, Lincoln Avenue, Cleveland Avenue; Level 4- I-25			
4-B	I-25 to SH257	Proposed and Existing	Separated and Combined	Johnstown, Windsor	<p>East of I-25, this segment will continue paralleling the Great Western Railroad until it reaches WCR13, where it will turn north to an enhanced intersection at US34 and WCR13, This intersection also serves as the junction of RATCs #4, #9, and #11. The US34 PEL Study Recommended Alternative calls for a protected crossing signal or</p>

					underpass/overpass at WCR13 and US34. Once across US34, this segment would share alignment with RATC #9 north to Crossroads Boulevard. Along Crossroads Boulevard, this segment would utilize some existing path or future paths to be constructed as development in the area intensifies.
Key Local Connection Needs		2534 District			
Crossing Needs		Level 1- New Liberty Road, Montauk Lane, WCR15; Level 2- SH257, Skys End Drive, 7th Street/WCR17; Level 3- NE Frontage Road, County Line Road, US34, Crossroads Blvd			
4-C	SH257 to SH392	Proposed and Existing	Separated	Windsor	With an enhanced crossing at Sh257, this segment will cross the Poudre River and continue north through the Great Western 2nd Annexation property and Future Legends Baseball and Softball Complex where the trail will be constructed alongside development. The trail will then cross the Great Western Railroad and parallel the Consolidated law Ditch to SH392, where it will pass under the roadway via an existing box culvert.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1-Poudre Trail Drive, Great Western Railroad; Level 2- Kodak Drive, Eastman Park Drive; Level 4- SH392			
4-D	SH392 to WCR23	Proposed and Interim	Separated	Windsor, Weld County, Severance	Once across SH392, this segment will continue north paralleling the Consolidated Law Ditch and then west along the Greeley #2 Canal for a short stretch before meeting the existing termini of the Greeley #2

					Canal Trail and Great Western Trail. This segment will then continue northeast along the existing, soft-surface alignment. This segment will be paved as funding becomes available and local connections will be created or enhanced as development occurs along the trail. Crossing enhancements have been made at all county roads, but additional considerations may be necessary as vehicle traffic increases. A trailhead will be constructed at the corner of Railroad Avenue and 3rd Avenue. This segment will be paved in sections as development occurs along the corridor and other funding is identified in built out areas.
Key Local Connection Needs		Along 1st Street/WCR23, Along 4th Avenue/WCR74			
Crossing Needs		Level 2- WCR21, WCR70, WCR72, 4th Avenue/WCR74, 1st Street/WCR23			
4-E	1 st Street/WCR23 to Cheyenne Avenue	Existing	Separated	Severance, Weld County, Eaton	This segment will continue northeast and cross Roulard Lake via a historic trestle bridge. This segment has also benefited from recent crossing enhancements at county roads but will likely need further safety considerations. This segment may also benefit from paving when funding becomes available. Additional enhancements could be made in Eaton to connect more community members to the corridor. At Cheyenne Avenue, the trail will terminate at a future park and trailhead. This section has received TAP and CPDHE funding.

Key Local Connection Needs	To and across WCR74, Eaton Country Club Neighborhood
Crossing Needs	Level 1- WCR27; Level 2- WCR29, WCR31, WCR33, WCR35, WCR25

Figure 4-13: North Loveland/Windsor Build Status

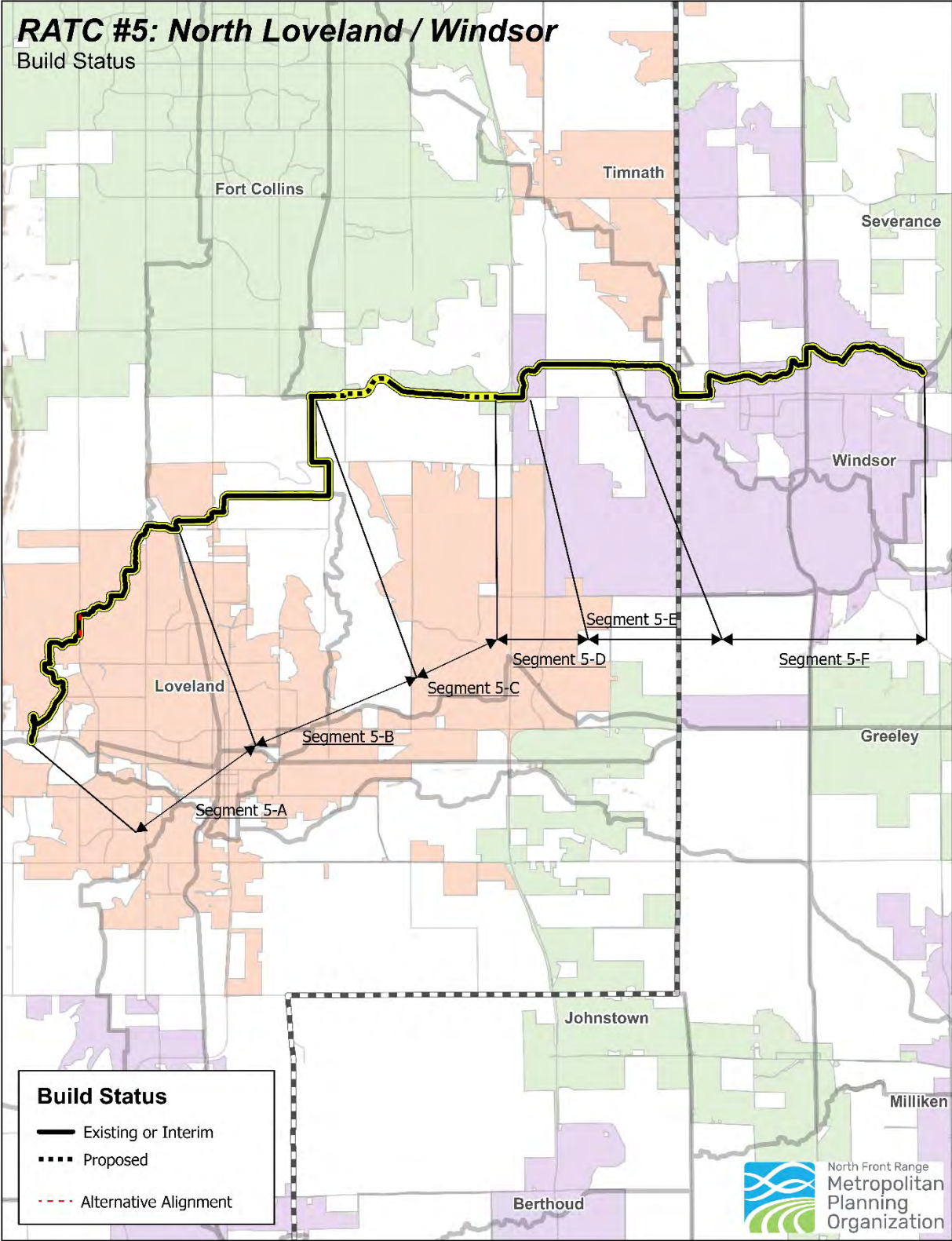
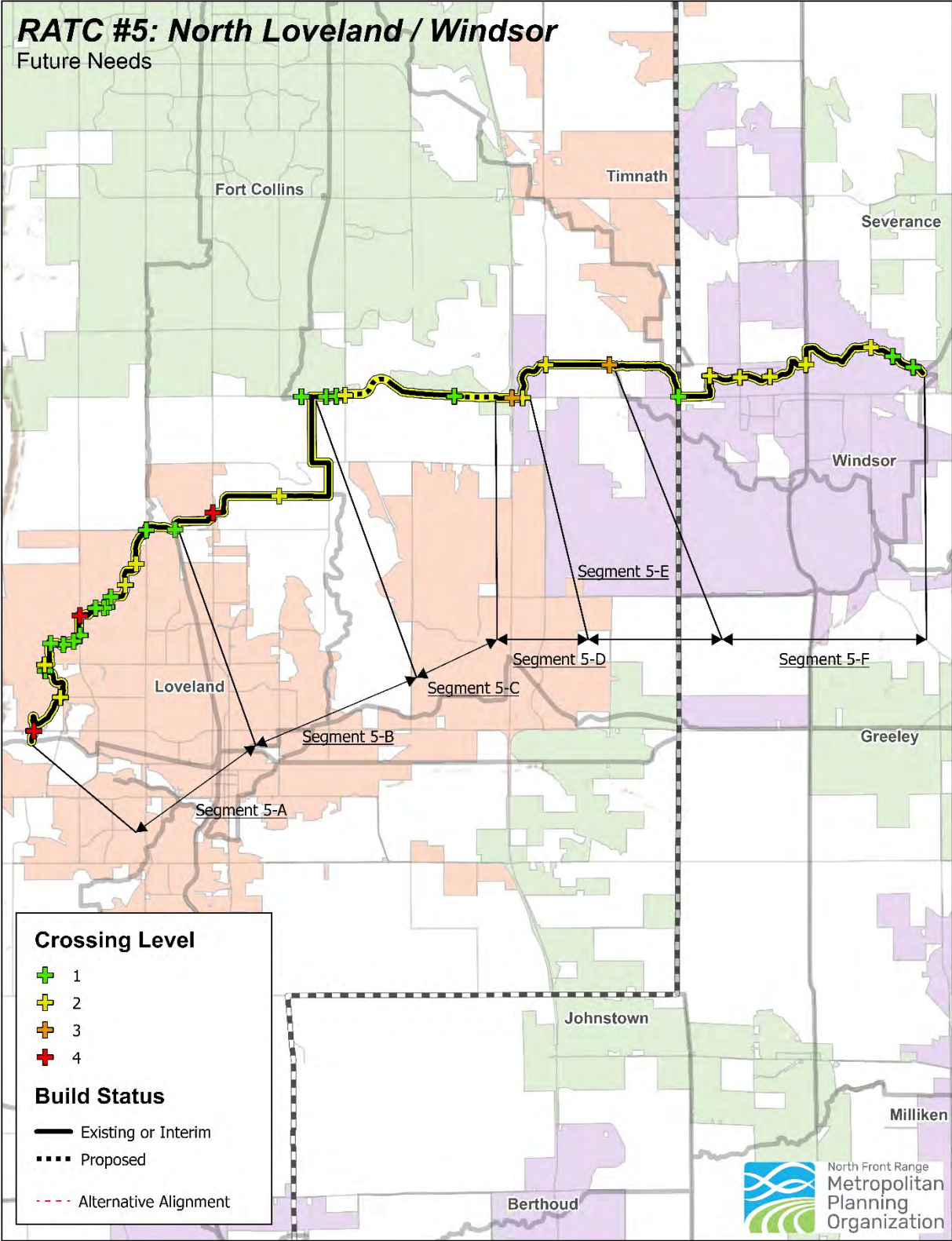


Figure 4-14: North Loveland/Windsor Future Needs



RATC #5: Corridor-Level Information

Corridor Description	Planning References
<p>The North Loveland to Windsor corridor will support bicycle travel from the Great Western Trail in Windsor, across the Larimer-Weld County line, into the southern portion of Fort Collins, the Front Range Trail (RATC #7) and the western arc of Loveland’s Recreation Trail. This Corridor will provide a crucial connection across I-25 in an area where separated crossings are 7.5 miles apart (Poudre River Trail to Kendall Parkway – both to be completed by 2023). With few options for a grade-separated crossing of I-25 in this area, the I-25 and SH392 interchange is an important connection for all users in this rapidly growing part of the region. East-west connectivity from North Loveland and South Fort Collins to Windsor is severely limited by lakes, reservoirs, I-25, and other topographic and built environment barriers. Kechter Road and Crossroads Boulevard are less direct routes and provide facilities for more confident cyclists.</p>	<p>Loveland- Connect Loveland Transportation Master Plan (2023) Larimer County - Larimer on the Move Transportation Plan (2025) Fort Collins - Fort Collins Strategic Trails Plan (2025) Windsor- Windsor Open Space and Trails Strategic Plan(2022)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
21.05	21.6	1.69	1.48	20.12	21.05	9,067	70,406	3,195	13,795	9	9	14	14
<p>Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.</p>													

RATC #5: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
5-A	Big Thompson River to BNSF Railroad	Existing	Separated	Loveland	This segment of the corridor is complete except for a trail underpass of Wilson Avenue. This underpass will create a safe, separated crossing in a high-speed area with a history of fatal crashes. Additional at-grade crossing improvements will be necessary at the intersection of Taft Avenue and 57th Street when the 57th Street is widened. This segment

					terminates at BNSF railroad, the conceptual alignment for RATC #8.
Key Local Connection Needs		Dakota Ridge Natural Area			
Crossing Needs		Level 1- Atwood Drive, New Castle Drive, W 35 th Street; Level 3- 57 th Street; Level 4- Wilson Avenue			
5-B	BNSF Railroad to the Colorado Front Range Trail	Existing	Separated	Loveland, Larimer County	Recent trail investments through the Copper Ridge residential development have closed the only remaining gap in this segment. This segment plays an important role in connecting community members in the 57th Street/US287 area to retail, recreation, and local and regional transit opportunities.
Key Local Connection Needs		Along 57th Street, along US287, Alpine Vista Village			
Crossing Needs		Level 2- E LCR30			
5-C	Colorado Front Range Trail to Timberline Road	Proposed and Existing	Separated	Larimer County, Fort Collins	This segment was completed in 2019 between the Boyd Lake State Park entrance along LCR11C and the Union Pacific Railroad (UPRR) at SH392, in part with grant funding from CDOT and GOCO. According to the 2025 Fort Collins Strategic Trails Plan, this section of the corridor is classified as a mid-term priority. The plan estimates mid-term priorities to be completed in 17-30 years. Crossing enhancements will be needed at the intersection of SH392 and Timberline Road to provide a safe connection across these arterial roadways.
Key Local Connection Needs		RATC #8 via Carpenter Road			
Crossing Needs		Level 1- Union Pacific Railroad; Level 2- Carpenter Road/SH392; Level 4- Timberline Road			

5-D	Timberline Road to SW Frontage Road	Proposed and Existing	Separated and Combined	Fort Collins	According to the 2025 Fort Collins Strategic Trails Plan, build out of this segment will consist of a shared-use path along the north side of SH932/Carpenter Road east to the SW Frontage Roads, accompanied by buffered on-street bike lanes. The shared-use path will take advantage of large tracts of publicly owned land near Fossil Creek Reservoir.
Key Local Connection Needs		Harmony Transfer Center/Poudre River Trail			
Crossing Needs		None Identified.			
5-E	SW Frontage Road to Westgate Drive/SH392	Existing	Separated, Combined, and Roadway	Fort Collins, Windsor	This segment currently consists of striped bike lanes and sidewalks with automatic and pedestrian-activated crossing signals. Signal and intersection improvements will be needed at the SH392 and SW Frontage Road intersection to transition bicyclists and pedestrians between facilities. Similar improvements will be necessary at Westgate Drive for multi-phased turns/crossings.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 2- Westgate Drive; Level 3- I-25			
5-F	SH392 to the Poudre River Trail	Existing	Separated, and Roadway	Windsor, Larimer County	Along Westgate Drive there are bike lanes and shared-use path between SH392 and LCR5. Users must navigate two roundabouts along Westgate Drive. Improved signage and/or pavement markings may be necessary at both roundabouts to improve legibility and awareness along all modes. Along LCR32E, 5-6

					foot-wide bikeable shoulders exist between LCR5 and LCR3. East of LCR3, users transition to/from a shared-use path at the northwestern edge of River Bluffs Open Space. Signage, signal, and/or pavement marking improvements at the intersection of LCR3 and LCR32E would improve safety for all modes navigating the area. Within River Bluffs Open Space, this segment shares alignment with RATC #6.
Key Local Connection Needs	None Identified.				
Crossing Needs	Level 2- LCR5; Level 3- LCR3				
5-G	Poudre River Trail to Great Western Trail	Existing	Separated	Larimer County, Windsor	This segment traces the eastern edge of Kyger Reservoir to the intersection of WCR13 and SH392, where users cross east-west via an activated signal. The trail exists east to the Great Western Trail (RATC#4) via the Greeley #2 Canal, Windsor Lake, and various neighborhoods. This segment relies on several at-grade crossings. These crossings should be assessed as area traffic increases to ensure they safely accommodate bicyclists and pedestrians. Until RATC#4 is extended south, this segment provides the only shared-use path connecting community members in and around Eaton and Severance to other parts of the region.
Key Local Connection Needs	7th Street across SH392/Main Street, Along 15th Street, Along Walnut Street.				
Crossing Needs	Level 2- N 17th Street, N 15th Street, SH257/7th Street, Hollister Lake Road				

Figure 4-15: Poudre River Trail Build Status

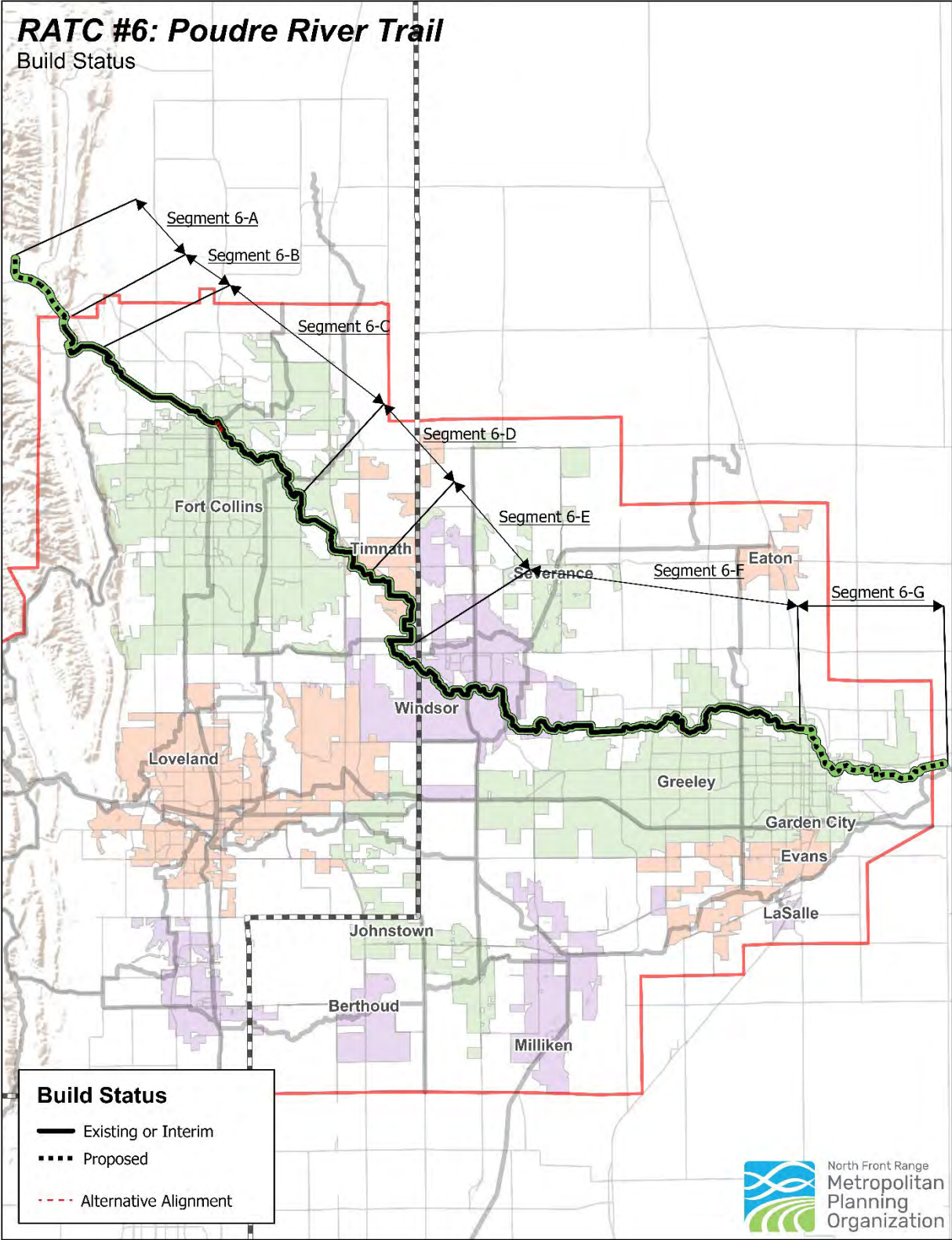
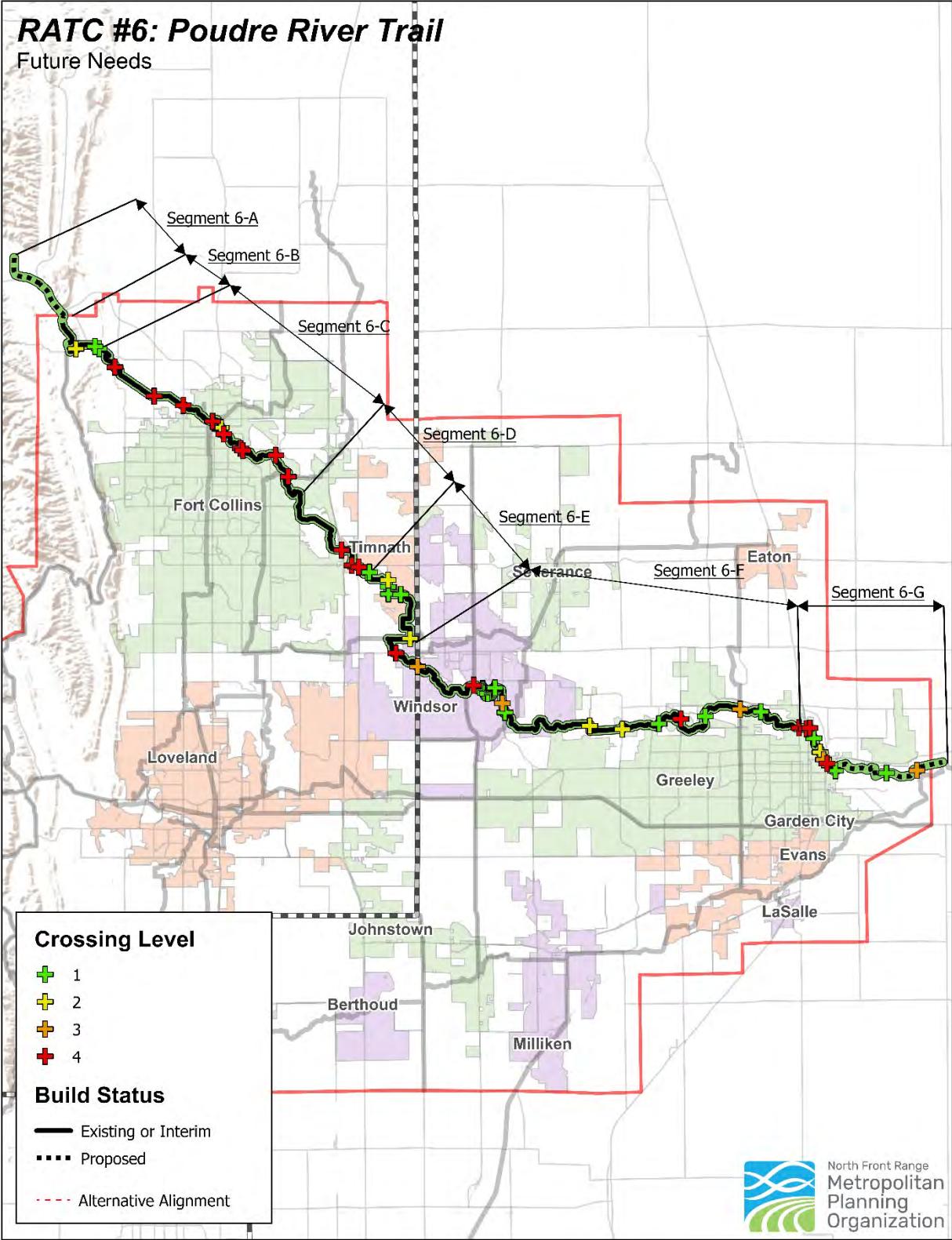


Figure 4-16: Poudre River Trail Future Needs



RATC #6: Corridor-Level Information

Corridor Description	Planning References
<p>The Poudre River Trail Corridor is a nationally recognized bicycle and pedestrian corridor. Within the NFRMPO region, the vision for this corridor is a 51-mile contiguous trail between Watson Lake State Wildlife Area (SWA) in Bellvue and the Poudre River’s confluence with the South Platte River east of Greeley. The interagency collaboration required to complete this corridor has built the model for all other Northern Colorado corridors. Consistent local investment has brought in millions of dollars in state and federal grants. Only one gap remain between Fort Collins and Windsor, and this gap will be complete by Spring 2026.</p> <p>The corridor traverses the Cache la Poudre National Heritage Area and is recognized as the backbone of the Colorado State Park’s Front Range Trail through Northern Colorado. There is an extensive network of formal and informal soft-surface trails serving various purposes along this corridor. There is opportunity to expand and improve this network and to set an example for possible amenities along other RATCs such as mountain bike skills parks, formalized racing courses and soft-surface trail networks, riverfront parks, interpretive signage, and more.</p>	<p>Larimer County – Larimer on the Move Transportation Plan (2025) Fort Collins – Fort Collins Strategic Trails Plan (2025) Windsor- Windsor Open Space and Trails Strategic Plan(2022) Timnath- Timnath Transportation Plan Update (2024) Weld County – 2045 Weld County Transportation Plan (2020) Greeley – Greeley Trails Master Plan (2025)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
41.34	54.49	.22	0	41.12	54.49	51,883	95,696	47,124	69,464	12	13	82	92
Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.													

RATC #6: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
6-A	North of the NFRMPO Region	Proposed	Separated	Larimer County, CDOT	According to the 2025 Larimer County Larimer on the Move Transportation Plan, this segment

					will leave the NFRMPO region north of Watson Lake SWA and head towards the intersection of US287 and SH14 (Ted's Place), near the mouth of the Poudre River Canyon. Construction timing for this segment is dependent on the future of the Glade Reservoir (NSIP) project.
Key Local Connection Needs		None Identified- Outside NFRMPO Planning Area			
Crossing Needs		None Identified- Outside NFRMPO Planning Area			
6-B	NFRMPO Boundary to Rist Canyon Road	Proposed and Interim	Separated	Larimer County	A .5-mile trail gap currently exists between the Watson lake SWA entrance, and the riverside trail segment east of Watson Lake. To accommodate regional trail usage, the .6-mile existing trail segment would need to be widened.
Key Local Connection Needs		Along Rist Canyon Road to Bellvue			
Crossing Needs		None Identified.			
6-C	Rist Canyon Road to CSU Environmental Learning Center (ELC)	Existing	Separated	Larimer County, Fort Collins	This 12.1-mile segment is completed, with at-grade road and driveway crossings only existing near LaPorte, Bellvue, Taft Hill Road, and Linden Street. All other roadway crossings are grade separated. The Taft Hill Road and Linden Street crossings may need to be separated in the future. This is the most heavily used segment of the Poudre River Trail. This segment of trail has dozens of local connections to neighborhoods, schools, natural areas and parks, business districts, and other

					destinations. The CSU Environmental Learning Center (ELC) is a very popular location for trail users to park, but it is not currently designated as a trailhead that can support the amount of parking necessary. The ELC would benefit from expanded trailhead amenities and parking to support high trail demand.
Key Local Connection Needs		Northeast Fort Collins, North College Avenue			
Crossing Needs		Level 1- Gateway Drive, McConnell Drive; Level 2- Linden Street; Level 4- Taft Hill Road			
6-D	CSU ELC to Signal Tree Drive	Existing	Separated	Fort Collins, CDOT, Timnath	This segment of trail is completed, with grade-separated crossings at I-25, Harmony Road, and LCR5. This segment provides bicycle/pedestrian access to the Arapaho Bend Natural Area in Fort Collins and Weitzel Park in Timnath. Local connections to this segment are critical to safe active transportation access for current and future Timnath community members.
Key Local Connection Needs		North Timnath via LCR5, Downtown Timnath			
Crossing Needs		None Identified.			
6-E	Signal Tree Drive to LCR32E/Jacoby Road	Proposed and Existing	Separated	Timnath, Windsor	This segment contains the final gap in the corridor between Fort Collins and Greeley. This corridor utilizes existing trail through the Timnath Ranch neighborhood, terminating just north of the Greeley #2 Canal and Timnath Reservoir Outlet Confluence. This gap is anticipated to be complete

					by Spring 2026. To the south, the trail will cross Greeley #2 Canal, continue through unincorporated Larimer County, and meet County Road 32E/Jacoby Road in Windsor at a pedestrian crossing with a traffic signal.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 2- Jacoby Road/LCR32E			
6-F	LCR32E/Jacoby Road to Island Grove Regional Park	Existing	Separated	Windsor, Weld County, Greeley	With the exception of bike lanes for a short stretch along 95th Ave in Greeley, this 21.7-mile segment exists entirely as a shared-use path with a combination of at-grade and grade-separated roadway and railroad crossings. As roadway traffic increases, crossing enhancements (including grade separation where appropriate) will improve the trail user experience when crossing County Line Road, SH257, 95th Ave, 83rd Ave, 71st Ave, 35th Ave, and 25th Ave. This segment will benefit from improvements creating important local connections along County Line Road and Walnut Street in Windsor, and F Street, 35th Avenue, and 83rd Avenue in Greeley.
Key Local Connection Needs		Connection to Highland Hills/Highland Meadows neighborhoods; SH 257 (Poudre Trail Rd to south side of Poudre River Bridge); Larson Trail along F Street			
Crossing Needs		Level 1 – Poudre Trail Drive; Level 2 – WCR25, 83rd Avenue; Level 3 – County Line Road, SH257, 35th Avenue, 25th Avenue; Level 4 – 11th Avenue			
6-G	Island Grove Regional Park	Proposed	Separated	Greeley, Weld County	East of Island Grove Regional Park, significant infrastructure is needed

	to South Platte River				for grade-separated crossings of two 8th Avenue (US85 Business) bridges, Union Pacific Railroad (UPRR), and US85. There will be significant development along this alignment, including a wastewater treatment facility and two proposed metro districts with a focus on parks and recreation. The proposed alignment may need to be rerouted around the wastewater treatment facility.
Key Local Connection Needs		East Memorial Neighborhood, Downtown Greeley			
Crossing Needs		Level 1- N 6th Avenue, Ash Avenue, Fern Avenue; Level 2- 5th Street; Level 3- E 8th Street, WCR47/ Weld County Parkway; Level 4- 11th Avenue, US85 Business, UPRR, US85			

Figure 4-17: Front Range Trail West Build Status

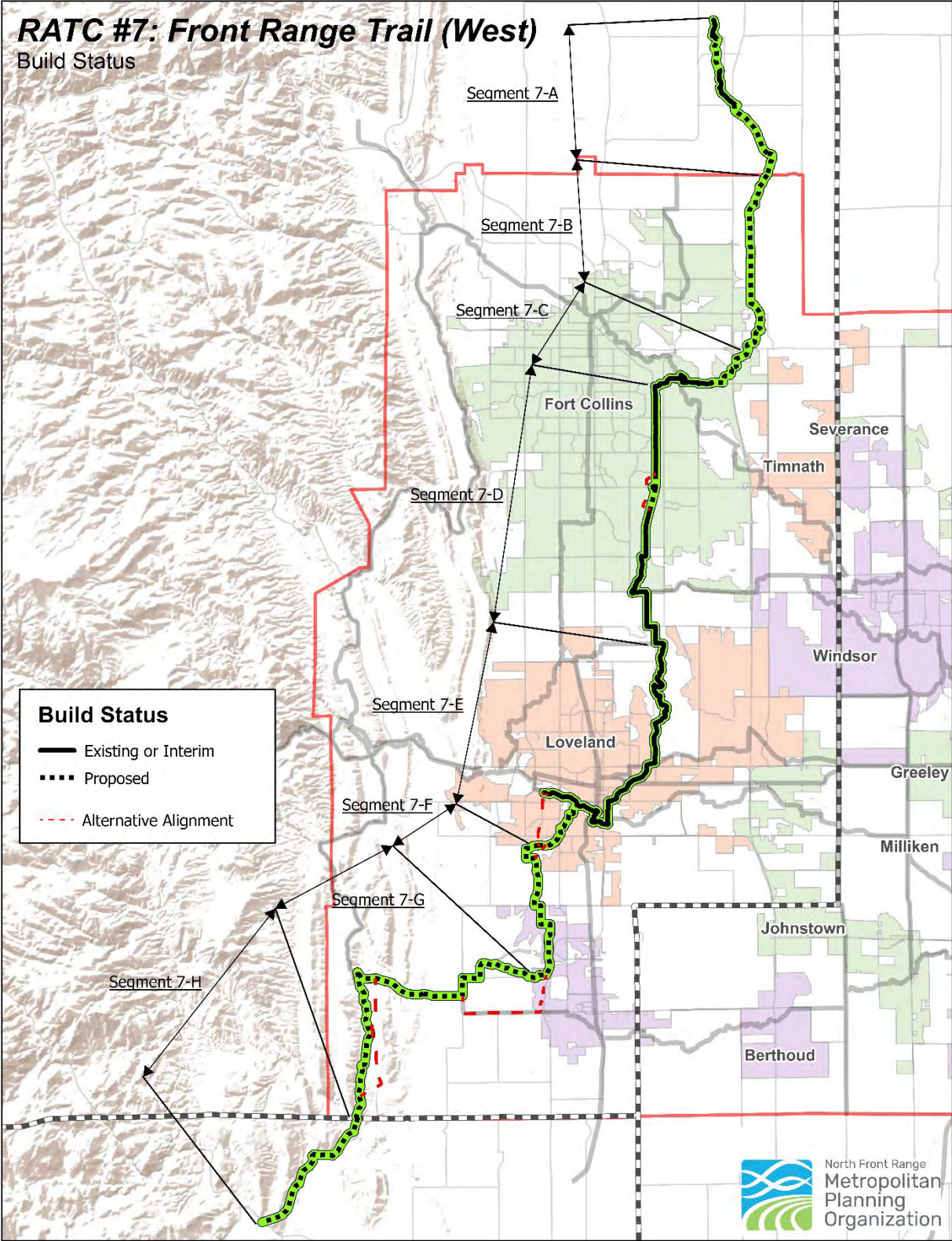
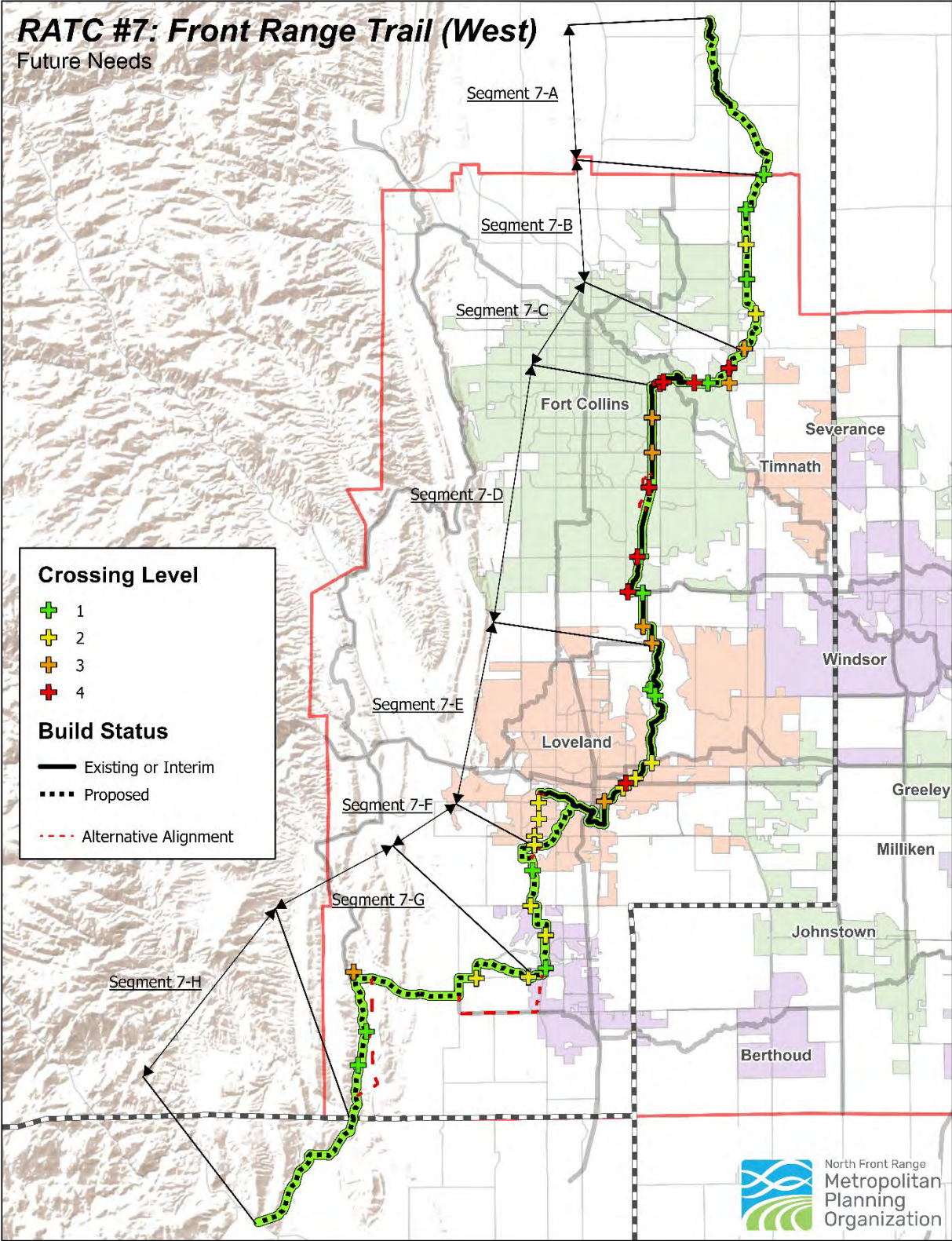


Figure 4-18: Front Range Trail West Future Needs



RATC #7: Corridor-Level Information

Corridor Description	Planning References
<p>Colorado State Parks recognizes the majority of this corridor as the western leg of the Colorado Front Range Trail in the NFRMPO region. This RATC is already constructed in Fort Collins and Loveland from the Poudre River Trail (RATC#6) to the Big Thompson River Trail (RATC #3), with the exception of one gap near Harmony Road in Fort Collins. This gap will be completed in Spring 2027. The completed corridor will connect Wellington, Fort Collins, Loveland, and Berthoud to Boulder County. The alignment between the Poudre River Trail and Wellington (segments 7-a, 7-B, and part of 7-C) is recognized by Colorado State Parks as an alternative Front Range Trail alignment to ultimately terminate in Cheyenne, Wyoming.</p>	<p>Larimer County – Larimer on the Move Transportation Plan (2025) Berthoud- Berthoud Trails Master Plan (2022) Loveland- Connect Loveland Transportation Master Plan (2023) CDOT- US34 Planning and Environmental Linkages (PEL) Study (2019) Fort Collins – Fort Collins Strategic Trails Plan (2025) Timnath- Timnath Transportation Plan Update (2024) CSU- Colorado State University ARDEC Campus Infrastructure Masterplan (2018)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
20.89	56.96	1.47	4.54	19.42	52.42	49,638	87,665	32,613	45,824	18	19	81	82
<p>Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.</p>													

RATC #7: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
7-A	North of NFRMPO Region	Existing and Proposed	Separated	Wellington, Larimer County, CSU, City of Thornton	This segment would enter/leave the NFRMPO region at LCR 56 on the east side of I-25. Much of the land in this area is publicly owned by the State of Colorado, the CSU Agricultural Research, Development, and Education Center (ARDEC). Through this section, trail development will need to consider

					<p>potential conflicts with livestock, irrigation pivot systems, spraying operations, and irrigation ditch maintenance activity.</p> <p>The trail would be constructed to connect with the existing trail in Meadows Open Space in Wellington and continue under I-25 via an existing trail underpass passing through the Wellington Town Core on nearly two miles of existing shared-use path. From Wellington, the ultimate vision for this corridor is to Connect to Cheyenne, WY. As the capital of Wyoming and northern capstone of the Front Range, it is an important destination for regional and cross-country touring cyclists. The corridor would create a viable complement and alternative to the Transamerica Route that opts for the western slope.</p>
Key Local Connection Needs		None Identified- Outside NFRMPO Planning Area.			
Crossing Needs		None Identified- Outside NFRMPO Planning Area.			
7-B	NFRMPO Boundary to SH14	Proposed	Separated	Larimer County, CSU, Fort Collins, Timnath	<p>This segment would roughly follow Box Elder Creek and the Larimer and Weld Canal with enhanced crossings necessary at SH14 and five county roads. This segment continues through CSU ARDEC. Some land in this section is publicly owned by the City of Thornton. East-West connections along county roads and along I-25 overpasses will be important to ensure residents and visitors in the vicinity will have safe access to the corridor.</p>
Key Local Connection Needs		Across I-25 along Richards Lake Road, Mountain Vista Drive, and Vine Drive			

Crossing Needs		Level 1- LCR56, Douglas Road/LCR54, Mountain Vista Drive/LCR50; Level 2- Richards Lake Road/LCR52, Vine Drive/LCR48; Level 3- SH14			
7-C	SH14/East Mulberry Street to the Power Trail	Existing and Proposed	Separated	Fort Collins	This segment requires significant crossing infrastructure at I-25 and a minimum crossing signal enhancements at SH14 and Prospect Road. In Fort Collins, the trail will connect to the Poudre River Trail near the CSU Environmental Learning Center and follow the existing Poudre River Trail and Spring Creek Trail alignments to the northern terminus of the Power Trail at Edora Park.
Key Local Connection Needs		Old Town Timnath via LCR5 or community trails, RATC#9/County Line Road			
Crossing Needs		Level 1- Prospect Road; Level 4- I-25			
7-D	Power Trail to Boyd Lake State Park	Existing and Proposed	Separated	Fort Collins, Larimer County, Loveland, CPW	This segment of the trail is complete aside from a one-mile section on either side of Harmony Road. This gap and the Power Trail underpass at Harmony Road are under construction and is anticipated to be complete in Spring 2027. The 2025 Fort Collins Strategic Trails Plan identifies Drake Road and Horsetooth Road as future grade-separated crossings. In 2025, The City of Fort Collins installed an overpass over the Union Pacific Railroad to connect to the Mail Creek Trail. This will provide additional trail access to Southeast Fort Collins.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 4- Harmony Road			
7-E	Boyd Lake State Park	Existing and Proposed	Separated and Roadway	CPW, Loveland	This segment of trail is complete between Boyd Lake State Park and Washington Avenue, with the exception

	to Ryan Gulch Reservoir				of a few short on-road sections that could be improved with enhanced signage, additional pavement markings, or increased separation from vehicle traffic. Part of this segment shares alignment with RATC #3.
Key Local Connection Needs		Intersection of 14th Street SW and S Taft Avenue, River's Edge Natural Area			
Crossing Needs		Level 1- Denver Avenue, Level 2- Boise Avenue, 14th Street SW			
7-F	Ryan Gulch Reservoir to LCR10	Proposed	Separated	Loveland, Berthoud	This segment of trail will travel between Ryan Gulch Reservoir and Bud Mielke Reservoir and continue south via a trail easement as part of the Water's Edge addition to Loveland. From Water's Edge, the trail will pass through Eagle Vista Natural Area and across a stream into the Fancher conservation easement before reaching LCR14. Crossing improvements will be necessary at LCR14 before the trail enters the Heron Lakes Development, where it will be constructed by the developer south to Bridgeport Road. The trail will then enter land owned by the Town of Berthoud that is designated for a future park.
Key Local Connection Needs		RATC #8 via W LCR16, RATC#8/Campion via LCR14			
Crossing Needs		Level 1 – W LCR16, LCR10E; Level 2- LCR14, Heron Lake Parkway, LCR19E			
7-G	LCR10 to NFRMPO Boundary	Proposed	Separated and Roadway	Berthoud, Larimer County	This segment turns west towards Carter Lake. The alignment will generally follow LCR10, pass near Hertha Reservoir, and continue along LCR8E, sharing alignment with RATC#2 to Carter Lake. At Carter Lake, the segment will turn south to follow the St. Vrain Canal and through the site of the Red-Tail Ridge Open Space.

Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- N LCR23E, Bennett Road, Lakota Ridge Road; Level 2- LCR10, LCR23; Level 3- Saint Vrain Canal Road			
7-H	South of NFRMPO Region	Proposed	Separated	Boulder County	From the Larimer-Boulder County Line, the trail could continue to SH66, where a local trail segment will head west into Lyons, a regional trail segment will head south towards the City of Boulder (Lyons-to-Boulder Trail), and another regional trail segment will go southeast towards Longmont (St. Vrain Greenway). This corridor could also connect to the envisioned Rocky Mountain Greenway, which would link the State’s four National Wildlife Refuges (NWRs): Rocky Mountain Arsenal NWR, Two Ponds NWR, Rocky Flats NWR, and Rocky Mountain National Park.
Key Local Connection Needs		None Identified- Outside NFRMPO Planning Area			
Crossing Needs		None Identified- Outside NFRMPO Planning Area			

Figure 4-19: BSNF Fort Collins/Berthoud Build Status

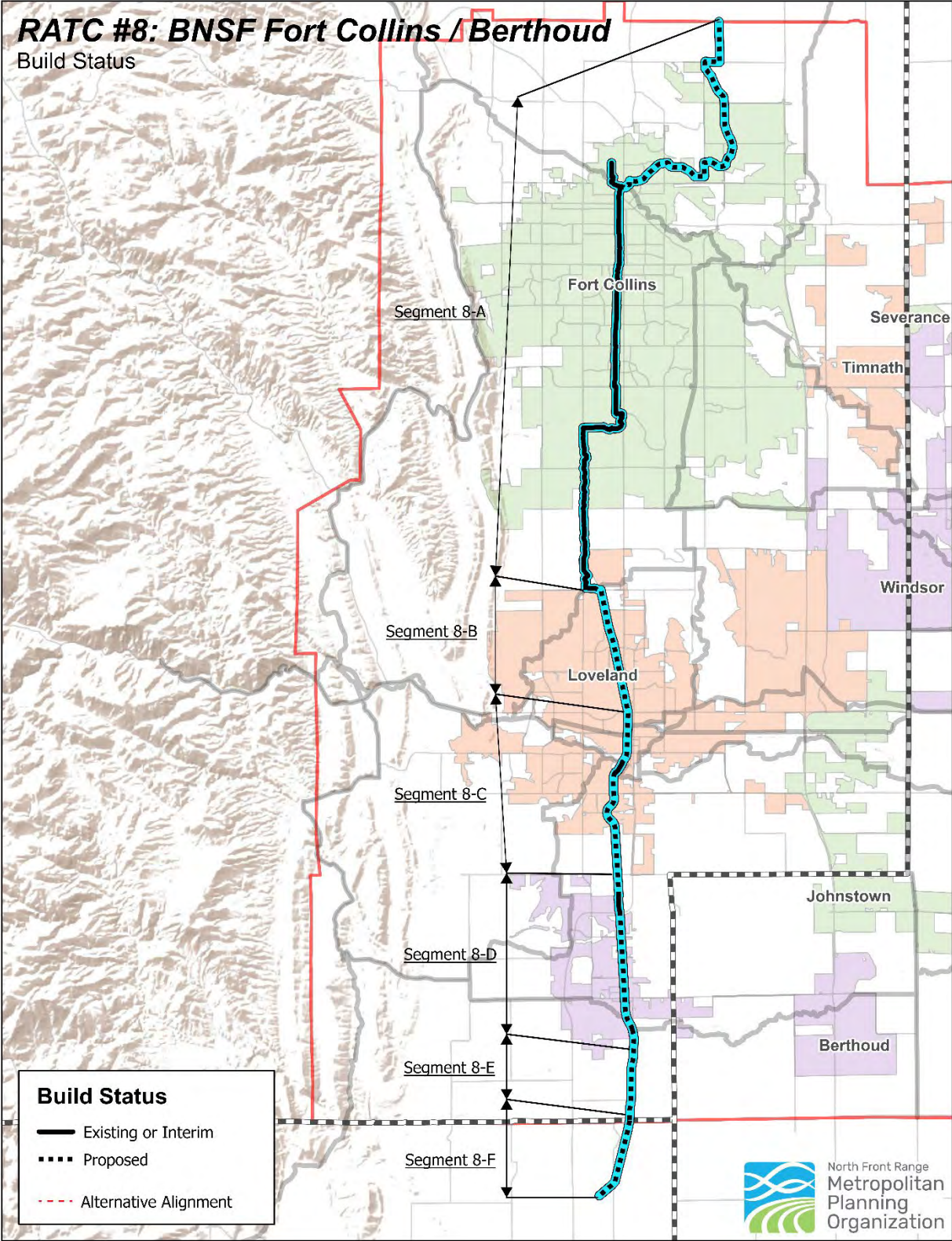
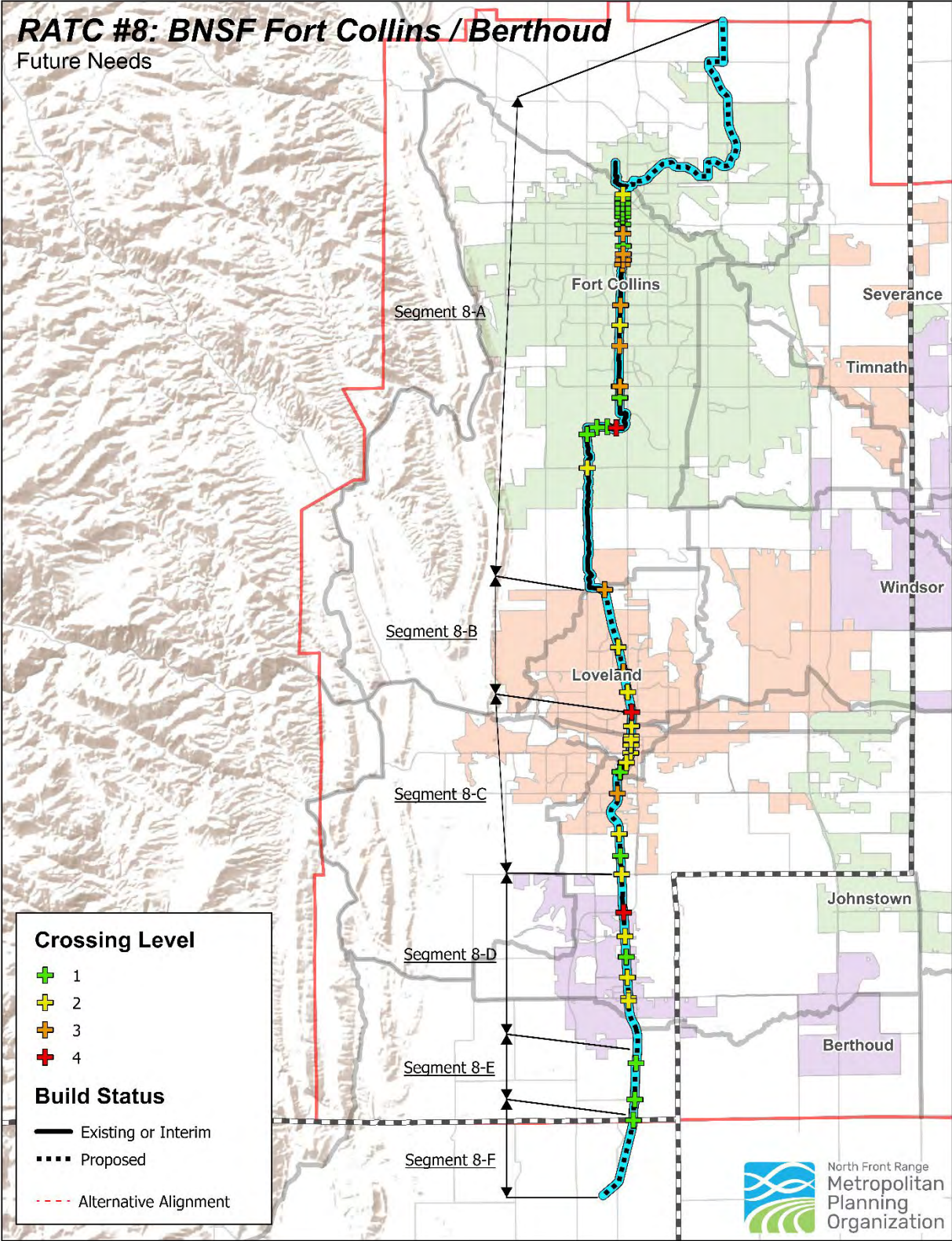


Figure 4-20: BNSF Fort Collins/Berthoud Future Needs



RATC #8: Corridor-Level Information

Corridor Description	Planning References
<p>The historical Burlington Northern Santa Fe (BNSF) railway runs through Fort Collins, Loveland, Larimer County, and Berthoud. This corridor parallels the railway (Rails-with-Trails) to provide multimodal access to the downtown cores of three communities. South of 57th Street in Loveland, trail development along much of the rail corridor is only in conceptual phases and is highly dependent on future access and easement conversations with BNSF.</p> <p>The BNSF Railroad has been selected as the proposed alignment for Front Range Passenger Rail (FRPR). FRPR would provide a new travel option for Colorado Front Range community members and visitors between Fort Collins and Pueblo. RATC #8 could complement this FRPR alignment, enhancing ridership and economic activity by providing additional multimodal connectivity in areas lacking options currently.</p>	<p>Larimer County – Larimer on the Move Transportation Plan (2025) Fort Collins – Fort Collins Strategic Trails Plan (2025) Loveland- Connect Loveland Transportation Master Plan (2023) Berthoud- Berthoud Trails Master Plan (2022) CDOT- US34 Planning and Environmental Linkages (PEL) Study (2019)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
13.04	35.73	.98	.98	12.07	34.75	44,962	137,488	47,659	85,944	16	28	138	182
Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.													

RATC #8: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
8-A	North of the NFRMPO Region	Proposed	Separated	Wellington, Larimer County	This segment begins at LCR60 west of the BNSF Railway in Wellington which will provide an additional active transportation connection between Wellington and Fort Collins. The corridor ties into the Town of Wellington’s trail network at LCR60 and provides a direct trail connection between Wellington and CSU. This

					segment would enter/leave the NFRMPO region at LCR56.
Key Local Connection Needs		None Identified- Outside NFRMPO Planning Area			
Crossing Needs		None Identified- Outside NFRMPO Planning Area			
8-B	LCR56 to Poudre River Trail	Existing and Proposed	Separated	Larimer County, Fort Collins	Once this segment enters the NFRMPO region, it continues towards Old Town Fort Collins and provides crucial active transportation access to Northeast Fort Collins which is growing rapidly. This segment is classified as a near term priority in the Fort Collins Strategic Trails Plan. The plan estimates near term priorities to be completed in 9-15 years. Trail development will need to consider how the corridor interacts with the nearby Larimer and Weld Canal and No. 8 Outlet Ditch and where the corridor will cross these waterways.
Key Local Connection Needs		North College Avenue Neighborhoods			
Crossing Needs		Level 1- Vine Drive, Redwood Street, Douglas Road, LCR52, LCR54, LCR56; Level 3- Mountain Vista Drive; Level 4- Timberline Road			
8-C	Poudre River Trail to 57 th Street	Existing	Separated and Roadway	Fort Collins, CSU, Larimer County, Loveland	This segment makes connections with RATCs #5 and #6, as well as with several local trails and destinations. Important future local connections include improvements along 57th Street and two enhanced connections to the CSU South Campus. Locally, individual sections of this corridor segment are known as the Mason Trail, Fossil Creek Trail, and the Long View Trail. This segment connects to several natural areas, open spaces, business districts, neighborhoods, and provides crucial active transportation access to

					CSU. The northernmost section of this segment through Old Town Fort Collins provides a great example of low stress, on-street bicycle facilities.
Key Local Connection Needs	Fort Collins Bike Co-op, CSU Veterinary Teaching Hospital, west and east along 57th Street, Coyote Ridge				
Crossing Needs	Level 3- 57th Street				
8-D	57 th Street to US34	Proposed	Separated	Loveland	With an enhanced crossing at 57th Street and Duffield Avenue, RATC #8 could follow the edge of development east of Duffield Avenue and Trailwood Drive, transitioning into the BNSF right-of-way near Dry Creek and 43rd Street. The trail would make several at-grade road crossings alongside the railroad before reaching the BNSF underpass at US34.
Key Local Connection Needs	None Identified.				
Crossing Needs	Level 2- 37th Street, Garfield Avenue; Level 3- 29th Street; Level 4- US34				
8-E	US34 to 42 nd Street SW	Proposed and Existing	Separated	Loveland, Larimer County	Near US34, the BNSF right-of-way becomes constrained. This segment would make much needed connections to downtown Loveland, Fairgrounds Park and RATC #7, as well as RATC #4. East-west active transportation enhancements could create new multimodal options for community members in south Loveland, including the small, unincorporated community of Campion.
Key Local Connection Needs	West Loveland via Arkins Branch, RATC #7 via W LCR16, RATC #7 via LCR14				
Crossing Needs	Level 1- 35th Street SW; Level 2- W 10th Street, W 7th Street, W 6th Street, W 4th Street, W 1st Street, Railroad Avenue, 14th Street SW, W LCR16, W LCR14/SH60				

8-F	42 nd Street SW to Little Thompson River	Proposed and Existing	Separated	Berthoud, Larimer County	This segment could take advantage of an existing rail underpass of BSNF and several at-grade crossings before arriving in Old Town Berthoud. The corridor would intersect RATC #2. The segment would benefit from enhanced east-west connections along local and major roadways.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- LCR10; Level 2- LCR10E, Bunyan Avenue, SH56, Welch Avenue, LCR15; Level 4- US287			
8-G	Little Thompson River to NFRMPO Boundary	Proposed and Existing	Separated	Berthoud, Larimer County	From RATC #2, this corridor would continue south along the BSNF alignment or LCR15 towards Larimer County-Boulder County line. Some publicly-owned land along LCR15 could pose an opportunity for an alignment on the east side of LCR15, especially given the limited space between the BNSF right-of-way and structures on either side.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- LCR15A, LCR2E, County Line Road			
8-H	South of NFRMPO Region	Proposed and Existing	Separated	Boulder County	<p>Although existing Boulder County and Longmont long-term trail plans do not call for a trail in this area, most of the land along the BNSF rail line between the Boulder County Line and the City of Longmont is county-owned open space or has a county conservation easement. These characteristics could make RATC #8 an appealing interregional connection.</p> <p>Note: The NFRMPO and its member agencies have not engaged with</p>

					Boulder County regarding this alignment.
Key Local Connection Needs	None Identified- Outside NFRMPO Planning Area				
Crossing Needs	None Identified- Outside NFRMPO Planning Area				

Figure 4-21: Johnstown/Timnath Build Status

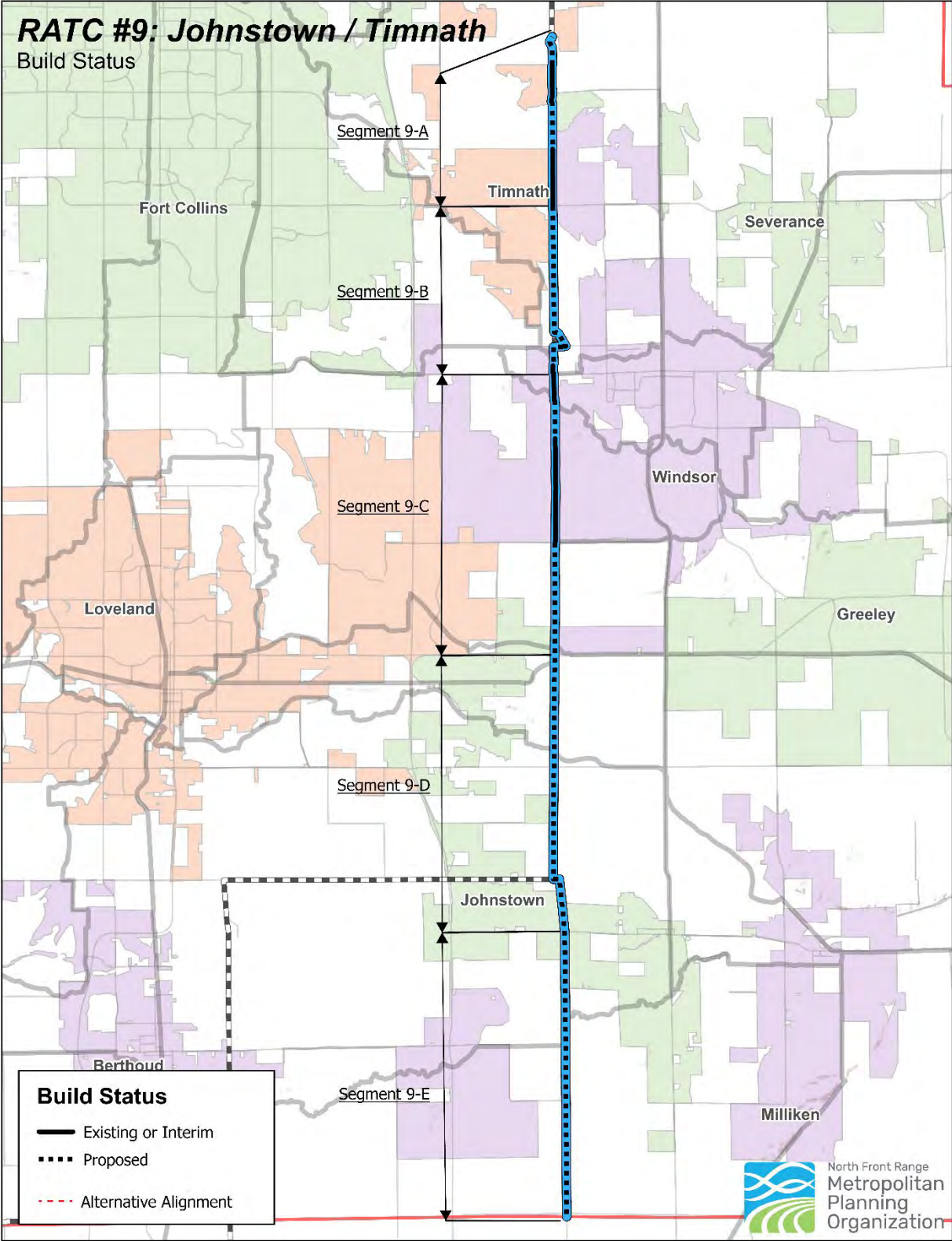
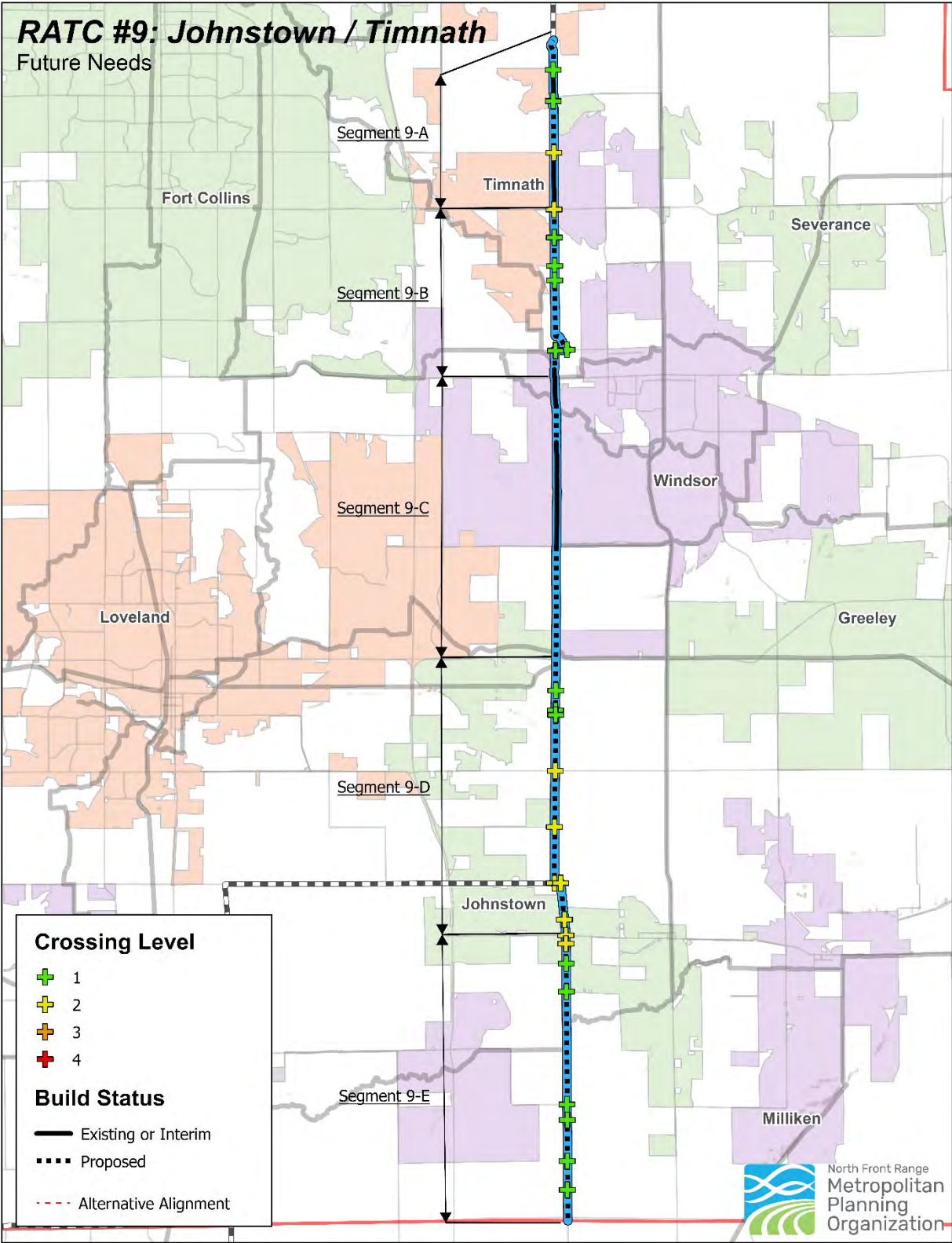


Figure 4-22: Johnstown/Timnath Future Needs



RATC #9: Corridor-Level Information

Corridor Description	Planning References
<p>The Johnstown to Timnath Corridor serves as a north-south connection down the heart of the NFRMPO Region. The corridor connects Timnath, Windsor, Johnstown, Berthoud, Larimer County and Weld County with dedicated bike lanes, bikeable shoulders, and/or shared-use paths. The corridor strategically follows County Line Road (WCR13, LCR1, Latham Parkway, Colorado Blvd) to create crucial intersections with six RATCs, provide multimodal access in the fastest growing area within the NFRMPO region: Little Thompson River Trail (RATC #2), Big Thompson River Trail (RATC #3), Great Western Trail (RATC #4), US34 Parallel (RATC #11), Poudre River Trail (RATC #6), and the North Loveland to Windsor corridor (RATC #5). This corridor also connects various local trail networks.</p> <p>Timing for the build-out of this corridor is heavily dependent on impending residential and commercial development along County Line Road. Many segments of this corridor may have combined on-road and off-road facilities to cater to various user types and comfort levels. For on-road segments, a minimum of 6’ shoulders should be provided. 4’ shoulders are only acceptable at pinch points where topographical challenges or other constraints make 6’ width infeasible. In these instances, signage is important. Separated shared-use paths are preferable wherever possible and transitions to-from the road right-of-way should be designed with careful consideration.</p>	<p>Timnath- Timnath Transportation Plan Update (2024)</p> <p>Windsor- Windsor Open Space and Trails Strategic Plan(2022)</p> <p>CDOT- US34 Planning and Environmental Linkages (PEL) Study (2019)</p> <p>Johnstown – Johnstown Updated Land Use Framework Plan (2019)</p> <p>Weld County – 2045 Weld County Transportation Plan (2020)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
4.14	21.46	4.14	17.32	4/07	17.33	12,596	41,259	1,913	8,217	0	2	0	0
<p>Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.</p>													

RATC #9: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
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9-A	Prospect Road to Harmony Road	Proposed, Interim, and Existing	Combined	Timnath, Severance, Windsor	The northern terminus of this corridor is at Prospect Road, approximately two miles east of the Poudre School District middle/high school on Prospect Road east of I-25 as well as the Front Range Trail (RATC#7). This segment is located within the Timnath and Windsor GMAs. Improvements to the roadway in the Timnath GMA will be driven by development and will include 7'-wide bike lanes and 10'-wide detached sidewalks. Improvement to the roadway within the Windsor GMA will include a minimum 6'-wide bike lanes and 6'-wide detached sidewalks.
Key Local Connection Needs		RATC #7 via Prospect Road			
Crossing Needs		Level 1- Wildwing Drive, Wildshore Drive; Level 2- LCR40/WCR76/E Horsetooth Road			
9-B	Harmony Road to SH392	Proposed and Existing	Combined	Timnath, Windsor	This segment is located within the Timnath and Windsor GMAs. Crossing and turn movement considerations for active modes will be necessary at WCR68.5 and across the Greeley #2 Canal. The segment will take advantage of a new trail around Kyger Reservoir and recent enhancements to the signal at County Line Road and SH392.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- Wheatfield Lane, E LCR36, Great Western Railroad, Jacoby Road (x2)			
9-C	SH392 to US34	Existing and Proposed	Combined	Windsor, Johnstown	The Town of Windsor completed a shared-use path and bike lanes along Colorado Boulevard connecting the Poudre River Trail to SH392. Similar improvements will be made to Crossroads Boulevard along with a roundabout at Crossroads Boulevard

					and Colorado Boulevard. Between Crossroads Boulevard and US34, the corridor will be on-road, with potential for transition to a shared-use path near the US34 and Colorado Boulevard intersection. This intersection is a crucial node for RATCs #4, #9, and #11. The US34 PEL calls for a “protected crossing signal or underpass/overpass” to accommodate these corridors.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 3- Poudre River Trail, Crossroads Boulevard, US34			
9-D	US34 to SH60	Proposed	Combined	Johnstown, Weld County	Between US34 and LCR14/WCR50, this corridor is likely to be comprised of 7’ bike lanes/bikeable shoulders. Sidewalks or a shared-use path may be provided as development occurs along this segment. South of LCR14/WCR50, this corridor is likely to include bike lanes and a shared-use path as development is proposed near the Johnstown town core in the short-term, including a large community park. The discontinuity of the corridor at these intersections should be addressed with crossing enhancements when improvements are made. Bike and pedestrian enhancements will be necessary at the signalized intersection of Colorado Boulevard and SH60.
Key Local Connection Needs		Future Regional Park near Johnstown Reservoir, Centerra Mobility Hub, Downtown Johnstown			
Crossing Needs		Level 1- Union Pacific Railroad, Great Western Railroad (Southernmost), WCR56; Level 2- WCR54/LCR18, WCR52/LCR16, WCR50/LCR14, Ballentine Boulevard, SH60; Level 3- Great Western Railroad (Northernmost)			

1-E	SH60 to NFRMPO Boundary	Proposed	Combined	Johnstown, Weld County	South of SH60, this corridor is likely to be comprised of 7' bike lanes and shared-use path as development occurs along this segment. There are significant residential development and two schools along this segment which increases the importance of this corridor for safe routes to school purposes. At a minimum, bikeable shoulders should continue along Colorado Boulevard as far as possible to accommodate bike travel for rural subdivisions and the rapidly growing Town of Mead.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- Great Western Railroad (x2), WCR46, WCR42 (x2), WCR40; Level 2- Carlson Boulevard			

Figure 4-23: Eaton/LaSalle Build Status

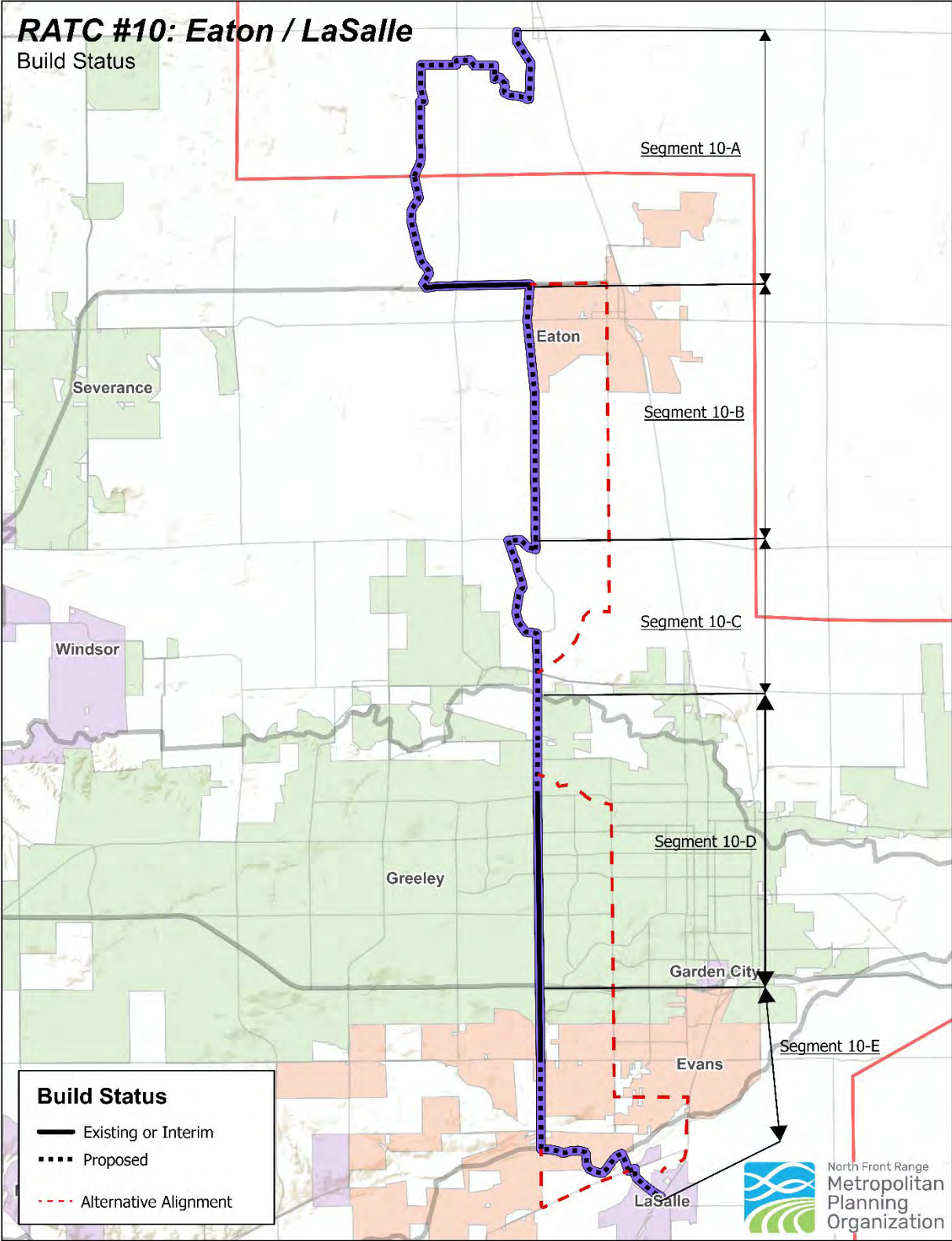
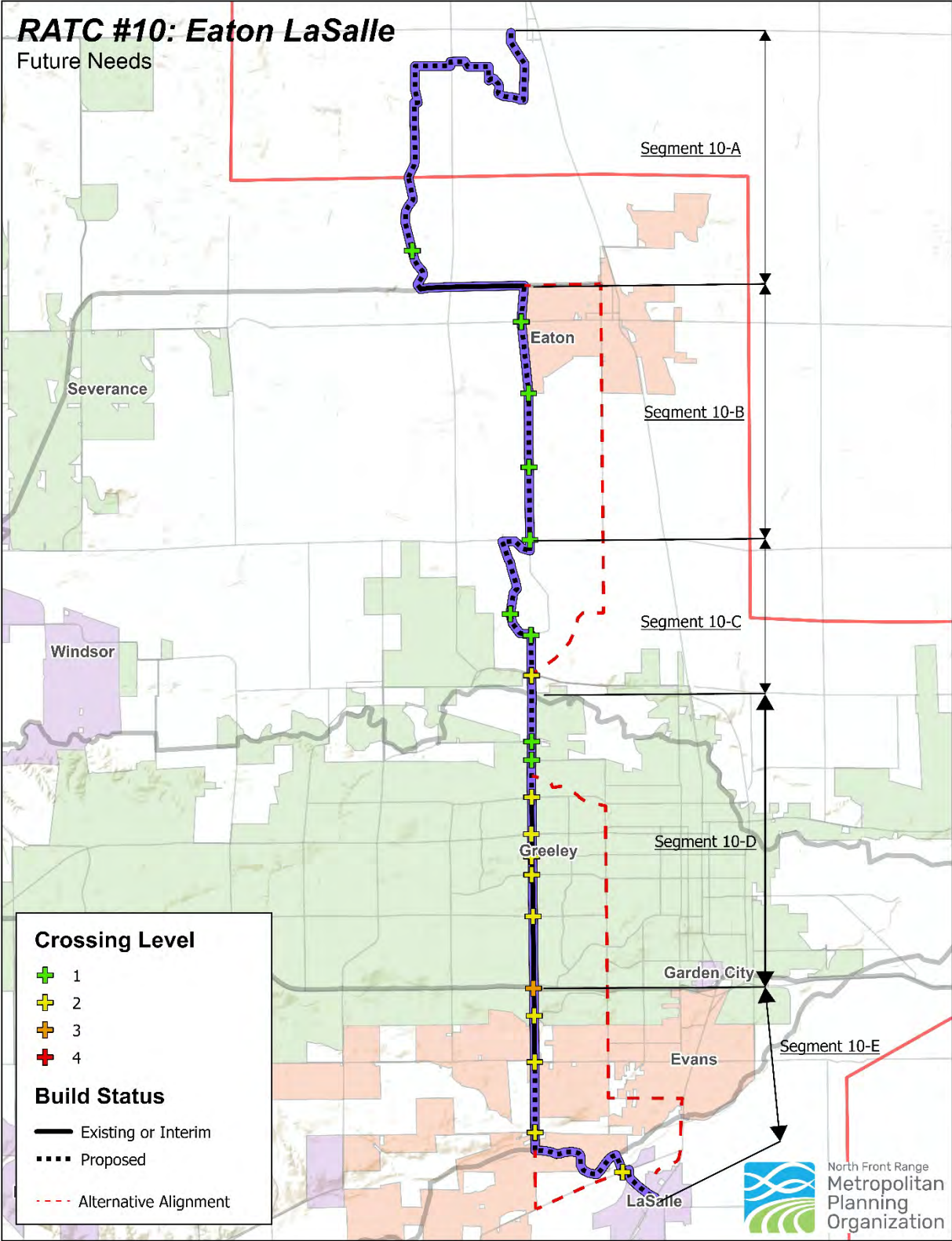


Figure 4-24: Eaton/LaSalle Future Needs



RATC #10: Corridor-Level Information

Corridor Description	Planning References
Much of the eastern portion of the NFRMPO region currently lacks safe, designated corridors for active transportation. The Town of LaSalle is currently isolated from the rest of the NFRMPO region by the South Platte River. In the 2018 LaSalle Comprehensive Plan, community members identified trail connections along and across the river as a top community priority. This corridor can also address identified desire for north-south multimodal connectivity in the eastern part of the region to access destinations and amenities such as the Greeley Evans Transit (GET) system, AIMS Community College, the University of Northern Colorado (UNC), West Greeley, and various retail centers.	<p>Weld County – 2045 Weld County Transportation Plan (2020)</p> <p>Greeley – Greeley Trails Master Plan (2025)</p> <p>Evans – Multimodal Transportation Master Plan (2022)</p> <p>LaSalle – LaSalle Comprehensive Plan (2018)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
5.04	22.57	0	7.78	5.04	14.78	20,298	41,243	9,237	11,846	8	12	53	57
<p>Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.</p>													

RATC #10: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
10-A	Ault to Great Western Trail	Proposed	Separated	Ault, Weld County	Although the majority of this segment is north of the NFRMPO boundary, it provides a key local connection to another Northern Colorado community. GOCO funding was secured in 2017 by the Town of Ault to plan the “Loop to Gateway Trail” connecting the Ault Town Core to the Great Western Trail. This segment will parallel the Eaton Ditch and provide much needed recreation and multimodal transportation options to the northeast quadrant of the NFRMPO.

Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- WCR76			
10-B	Great Western Trail to SH392	Existing and Proposed	Separated and Roadway	Eaton, Weld County	This segment will be completed when WCR35 is widened to rural 3-lane collector standards between 2026-2035, which include a minimum 6'-wide shoulder. This segment would also benefit from enhanced signage. Ultimately, this segment may be better served on WCR37; however, road expansion on WCR37 is not expected until 2036-2045. Regardless of alignment, crossing enhancements will be necessary.
Key Local Connection Needs		Eaton Town Core			
Crossing Needs		Level 1- WCR74, WCR72, WCR70, SH392; Level 2- WCR33, WCR35			
10-C	SH392 to Poudre River Trail	Proposed	Combined	Weld County, Greeley	According to the 2025 Greeley Trails Master Plan, this segment south of SH392 could be a shared-use path through the subdivision north of Seeley Lake, continuing east of Seeley Lake, and finally paralleling WCR35/35th Avenue south of the Poudre River Trail. In the interim, this segment may be served by bikeable shoulders along WCR35 when the road is upgraded. Ultimately, this segment may be best served along WCF37 and the potential realignment of O street. The roundabout at WCR35 and O Street will need on- and/or off-street enhancements to better accommodate active modes.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- AA Street, 35th Avenue; Level 2- O Street			

10-D	Poudre River Trail to US34	Interim and Proposed	Combined and Separated	Greeley	A high density of access points along this corridor make achieving a low level of traffic stress (LTS) for bikes challenging. This corridor continues straight south of 35th Avenue via on-street infrastructure or shared-use paths. Although 35th Avenue has wide sidewalks in some areas, infrastructure along the corridor is inconsistent and contains dozens of access points for driveways, parking lots, and local streets. This segment is important from a Safe Routes to School perspective and can provide safe and direct north-south connectivity between communities where no connectivity currently exists.
Key Local Connection Needs		None Identified.			
Crossing Needs		Level 1- F Street, C Street; Level 2- 4th Street, 13th Street, 20th Street; Level 3- US34			
10-E	US34 to LaSalle	Interim and Proposed	Separated	Greeley, Evans, LaSalle	Similar to segment 10-D, this segment also has a high density of access points along 35th and 23rd Avenues. Shared-use paths are preferred, but some sections may most realistically be served by enhanced bike lanes and sidewalks, especially in the short-term. This segment requires a crossing of the South Platte River. The preferred alignment of this corridor should account for the feasibility of a river crossing, direct access to RATC #1 for LaSalle community members, and scenic and recreational value. Opportunities should be explored in conjunction with design of the 35th Avenue/WCR35 crossing of the South

					Platte River and work on the US85 and/or UPRR crossings of the river.
Key Local Connection Needs	East Evans via 37th Street				
Crossing Needs	Level 2- 29th Street, 37th Street, 49th Street, WCR394				

Figure 4-25: US34 Parallel Build Status

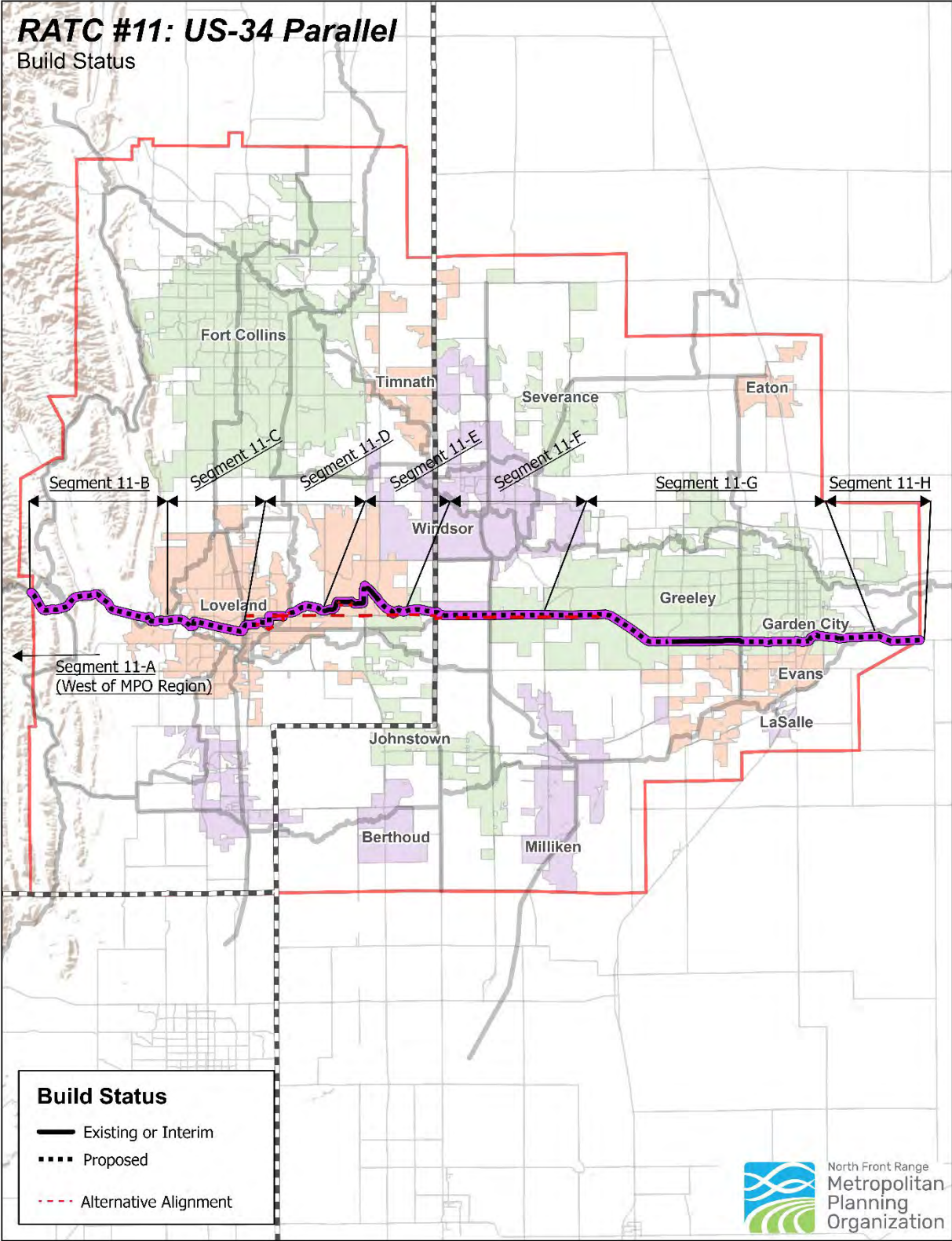
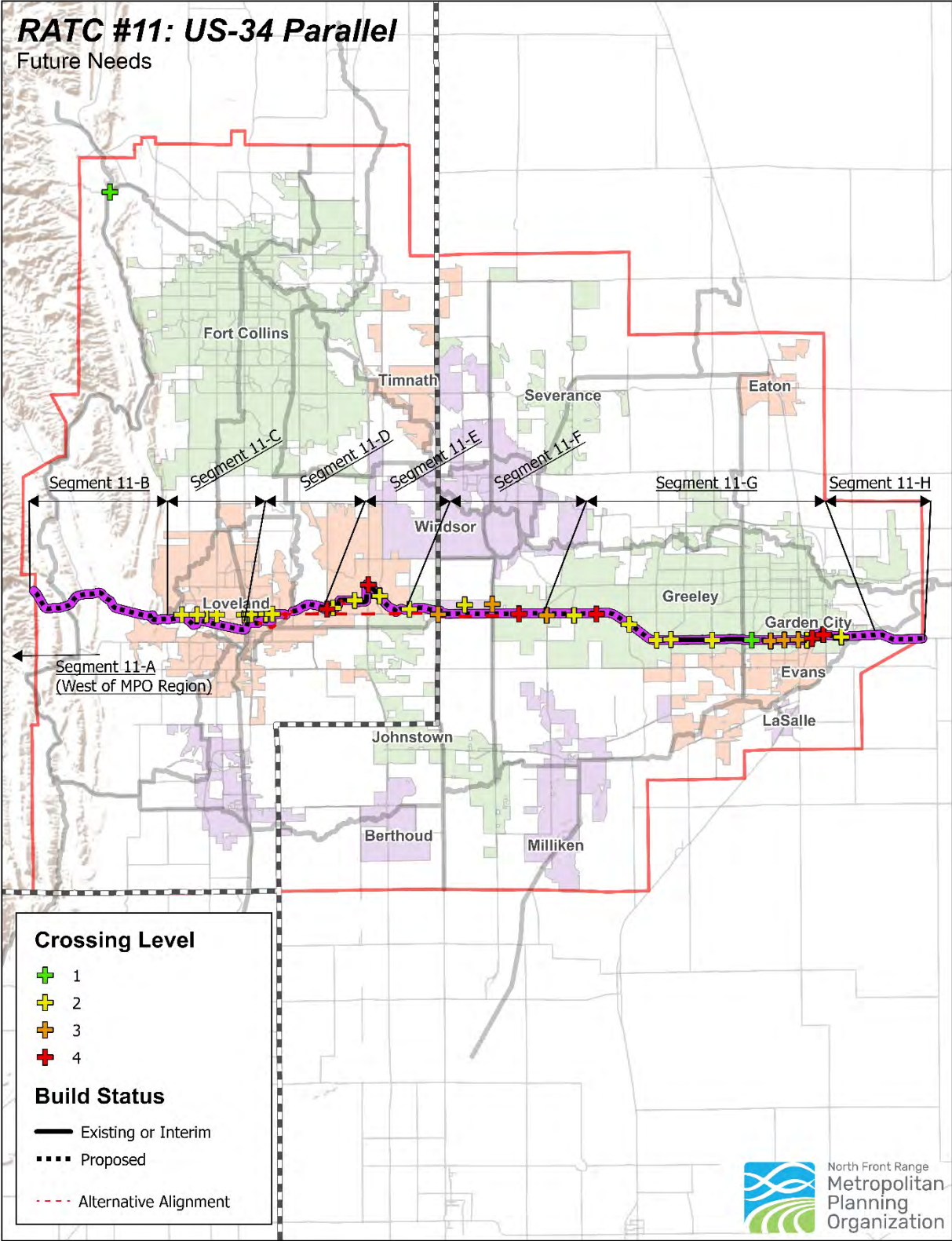


Figure 4-26: US34 Parallel Future Needs



RATC #11: Corridor-Level Information

Corridor Description	Planning References
<p>The US34 Corridor is the only RATC to primarily parallel a highway on the State system. The Colorado Transportation Commission’s Bike and Pedestrian Policy Directive 2602.0 and subsequent State Statute 43-1-120 codify the accommodation of bicyclist and pedestrians on the state highway system. A shared-use trail safely separated from the highway, could connect Greeley and Evans to Johnstown and Loveland. The corridor would leverage, but is not limited to, CDOT’s right-of-way. This corridor is identified in CDOT’s US34 Planning and Environmental Linkages (PEL) Study as an element to be implemented or accommodated in the Recommended Alternative. The facility type will vary across this corridor. Level of Traffic Stress (LTS) for bicyclists will likely be high for cyclists in constrained areas where the facilities will be on-road. Segment visions for this corridor are divided to match the US34 PEL Recommended Alternative segments as closely as possible.</p> <p>Future Considerations in developing this corridor should also consider the vision for RATC #3 in the area between the NFRMPO Boundary (The Dam Store/ LCR31D) and Rossum Drive. There is opportunity for these two RATCs to be combined and/or serve as complementary alignments depending on engineering and cost constraints.</p>	<p>Loveland- Connect Loveland Transportation Master Plan (2023) CDOT- US34 Planning and Environmental Linkages (PEL) Study (2019) Greeley – Greeley Trails Master Plan (2025)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
5.27	35.65	0	1.35	5.27	35.65	27,949	133,339	45,707	70,438	7	15	53	135
Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.													

RATC #11: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description

11-A	West of the NFRMPO Region	Interim	Roadway and Separated	CDOT, Larimer County	In Connect Loveland, the vision for a shared-use path along US34 extends as far west as the Dam Store at LCR31D, which is very close to the NFRMPO boundary. From this point, US34 enters the narrow and steep Big Thompson Canyon. Repairs and improvements to US34 following the historic Fall 2013 floods included wider shoulders for safer biking in the narrow Big Thompson Canyon. Although the topography of the canyon limits possibilities for a shared-use path, there is still interest from some partners in pursuing opportunities to create an off-street corridor west of Loveland’s current City boundary.
Key Local Connection Needs		None Identified- Outside NFRMPO Planning Area			
Crossing Needs		None Identified- Outside NFRMPO Planning Area			
11-B	NFRMPO Boundary to RATC #5	Proposed and Existing	Separated	CDOT, Loveland	It is important that active transportation facilities along US34 extend this west of Loveland to provide multimodal connectivity to popular recreation amenities and future destinations such as Skyline Natural Area, Devil’s Backbone Open Space, Glade Park, and the Big Thompson River. In the short-term, consistent shoulders of 8’ in width are preferred in this section, with a minimum width of 6’. Although pedestrian facilities may not be feasible along this entire segment for several years, a shared-use path should be prioritized to connect Skyline Natural Area and Devil’s Backbone Open Space whenever the Skyline trail network is completed and opened.

					Beginning at Rossum Drive, this section runs concurrently with RATC #4: The Big Thompson River Trail. This segment intersects with the Southern Terminus of RATC #5: North Loveland/Windsor
Key Local Connection Needs	Skyline Natural Area				
Crossing Needs	Level 2- LCR29, Rossum Drive				
11-C	RATC #5 to Lincoln Avenue	Proposed and Existing	Separated	Loveland	This segment remains concurrent with the Big Thompson River Trail until Wilson Avenue. This segment is called the Loveland Urban Segment in the US34 PEL. In Connect Loveland, the corridor runs through a pedestrian focus area. The segment is concurrent with RATC #4: The Great Western Trail beginning at Railroad Avenue.
Key Local Connection Needs	None Identified				
Crossing Needs	Level 2- Namaqua Avenue, Wilson Avenue, Van Buren Avenue, Taft Avenue; Level 3- Cleveland Avenue, Lincoln Avenue				
11-D	Lincoln Avenue to Rocky Mountain Avenue	Proposed and Existing	Separated	Loveland	This segment runs concurrently with the Great Western Trail alignment until Monroe Avenue. At Monroe Avenue, RATC #11 runs adjacent to 11th street to Madison Avenue where the corridor continues northward to US34. The corridor will continue on the southern portion of US34 to the Front Range Trail (RATC #7). This segment crosses US34 at an existing underpass and runs concurrently with RATC #7 to Denver Avenue. At Denver Avenue, the corridor continues as the Centerra Trail to Boyd Lake Avenue. The corridor will follow the Loveland and Greeley Canal to Rocky Mountain Avenue.

Key Local Connection Needs		None Identified			
Crossing Needs		Level 1- 11th Street; Level 2- Washington Avenue, Monroe Avenue, Madison Avenue, Denver Avenue, Boyd Lake Avenue			
11-E	Rocky Mountain Avenue to Colorado Boulevard	Proposed and Existing	Separated	Loveland, Johnstown	This segment runs south and east of the Medical Center of the Rockies and continues under I-25 via the Centerra Mobility Hub. This corridor provides access to Bustang’s North Line which provides service to Denver Union Station. East of I-25, the corridor continues along the north side of Kendall Parkway and the Promenade Shops at Centerra. The corridor continues along the Union Pacific Railroad to the Greeley & Loveland Canal where it will continue to Colorado Boulevard/WCR13 where it intersects with RATC #9: Johnstown/Timnath corridor. This segment provides access to a variety of commercial destinations in Centerra and the 2534 District.
Key Local Connection Needs		None identified			
Crossing Needs		Level 2-Centerra Parkway			
11-F	Colorado Boulevard to SH257	Proposed	Separated	Johnstown, Windsor, Weld County	At Colorado Boulevard/County Line Road, RATC #11 intersects with RATC#9 and RATC #4 which are running concurrently across US34. RATC #11 continues along the Great Western Railway to WCR15 where the corridor continues eastward to Aims Community College Public Safety Institute. The corridor intersects with RATC #13 at WCR17 and continues eastward to 131st Avenue. The corridor

					crosses US34 at the proposed 131st Avenue Mobility Hub then continues eastward along the southern edge of the US34 corridor. This segment provides multimodal connections via the proposed 131st Avenue Mobility Hub. This segment is called the Johnstown-Greeley Segment in the US34 PEL.
Key Local Connection Needs	None Identified				
Crossing Needs	Level 2- WCR15; Level 3- WCR17. SH257; Level 4- US34				
11-G	SH257 to South Platte River	Proposed and Existing	Separated	CDOT, Greeley, Evans, Garden City	<p>This segment would be comprised of a shared-use path paralleling US34. Of all the proposed segments across the RATC network, this segment contains the highest density of conflict points between travel modes. The US34 PEL calls for accommodation of enhanced crossings across US34 at Promontory Parkway, 95th Avenue, 83rd Avenue, 71st Avenue, 65th Avenue, 47th Avenue, Reservoir Road (grade-separated crossing), 23rd Avenue and 17th Avenue (grade-separating crossing), as identified in the City of Greeley Bicycle Master Plan (2015) and the Greeley Parks, Trails and Open Lands Master Plan (2016). Some sections of this segment may be constructed alongside development in West Greeley.</p> <p>Considerations at the US34/US85 interchange (Spaghetti Junction) will need to be coordinated with the US34/US85 project (a separate effort). This segment is called the Greeley Expressway Segment in the US34 PEL. Because of the complexity of this</p>

					interchange, grade-separation is highly preferred. There may be opportunity to parallel a canal on the north and east side of the interchange. This corridor will intersect, and likely terminate at RATC #1, the South Platte River.
Key Local Connection Needs	Downtown Greeley via Union Pacific Railroad, East Memorial Neighborhood, #3 Canal Trail to East Greeley, 11th Avenue to UNC, 50th Avenue to Aims Community College				
Crossing Needs	Level 1- Sunset Memorial Cemetery Access Road; Level 2- Promontory Parkway, 83rd Avenue, 71st Avenue, 65th Avenue, 47th Avenue, 8th Avenue; Level 3- 35th Avenue, 23rd Avenue, 11th Avenue, E 27th Street; Level 4- 95th Avenue, US85 Business, US85				
11-H	East of NFRMPO Region	Proposed	Separated	Weld County, Kersey	Connections between Kersey and Greeley/Evans are being discussed. Although an alignment along the South Platte River provides an opportunity, possibilities along the US34 corridor should be considered as feasibility analyzed.
Key Local Connection Needs	None Identified- Outside of NFRMPO Planning Area				
Crossing Needs	None Identified- Outside of NFRMPO Planning Area				

Figure 4-27: Carter Lake/Horsetooth Foothills Build Status

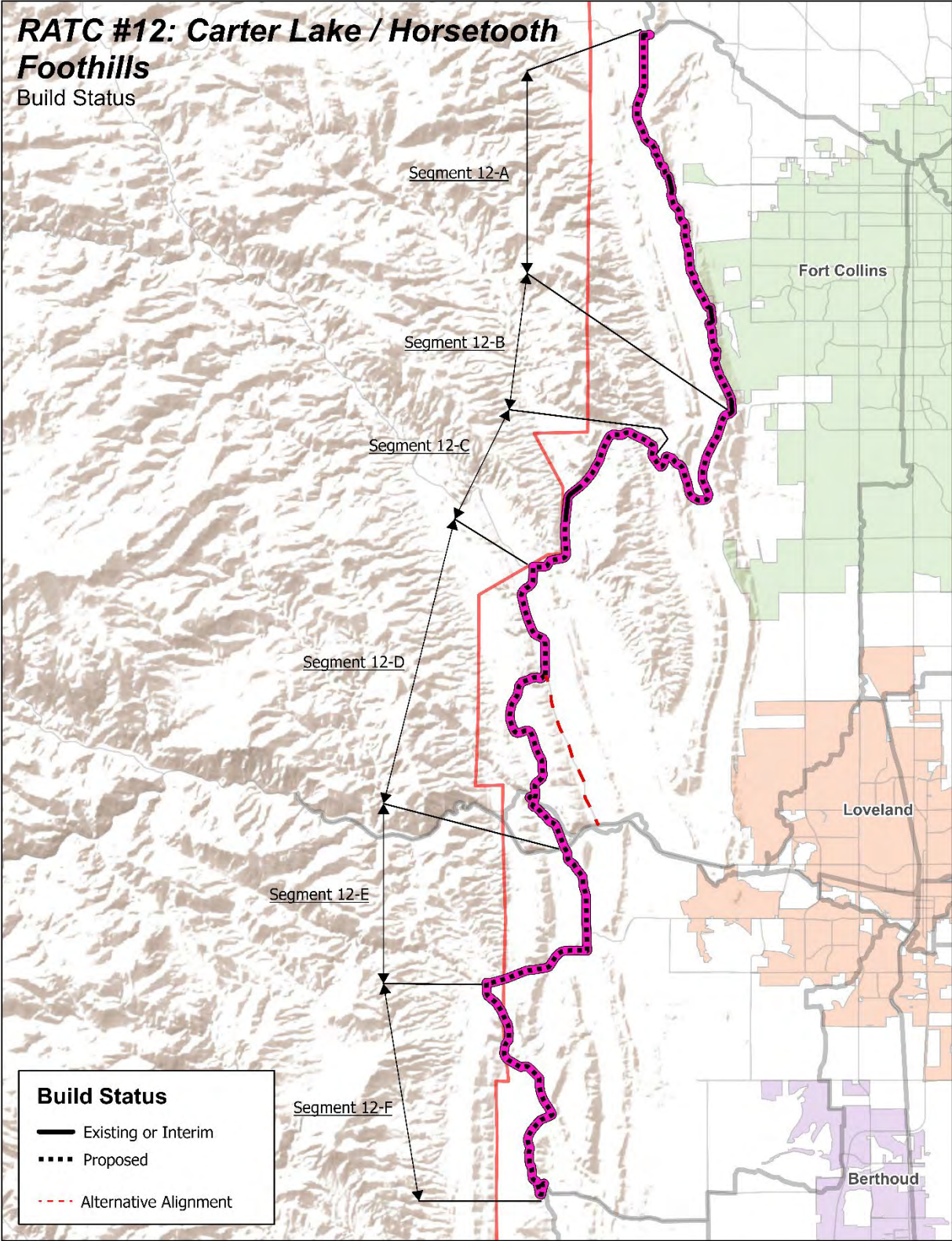
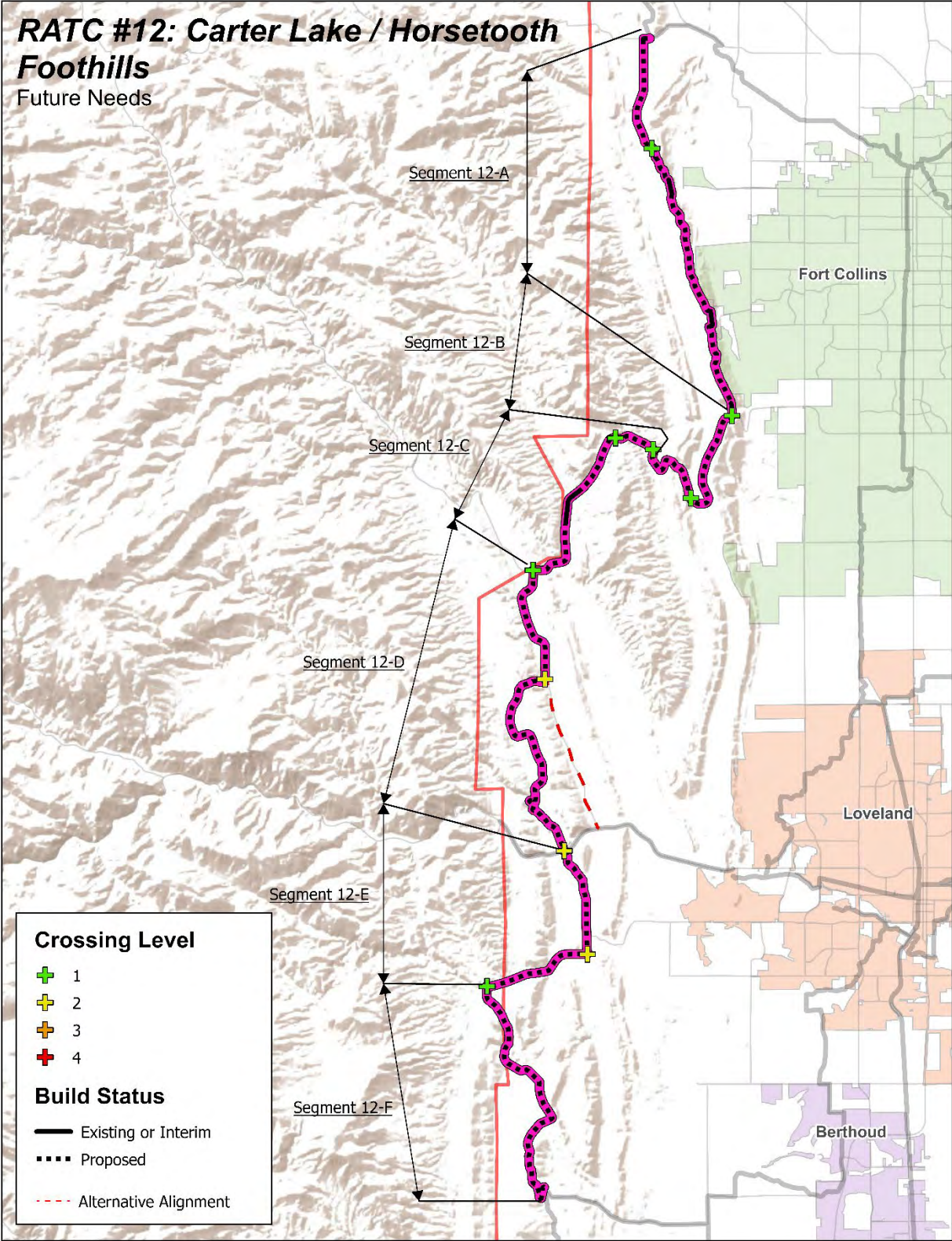


Figure 4-28: Carter Lake/Horsetooth Foothills Corridor Future Needs



RATC #12: Corridor-Level Information

Corridor Description	Planning References
<p>The Carter Lake/Horsetooth Foothills Corridor is predominantly a recreational bicycling corridor that provides access to the many city, county, and state parks and trailheads of the foothills in the western portion of the NFRMPO region. North to south, the corridor uses segments of Rist Canyon Road, LCR23/Centennial Drive, LCR38E, LCR29/Buckhorn Road, LCR29, LCR18E/Pole Hill Road, LCR31, and LCR8E. The corridor frequently accommodates bicycle and running races/group events and is heavily trafficked by recreators of all types throughout the year. Various sections of this corridor would benefit from shoulder widening and related improvements. Providing minimum 4’-wide shoulders should be the ultimate vision along the entirety of this corridor. These improvements should be made on segments labeled “proposed” when the roadway is scheduled for improvement or significant maintenance. Strategic local connections to Berthoud, Loveland, and Fort Collins are recognized for safe access to this corridor. With nearly 2,500 feet of climb north to south, sharp drop-offs, winding curves, blind corners, this corridor is characterized by areas where ample room for error is necessary for travelers moving at widely varying speeds.</p>	<p>Larimer County – Larimer on the Move Transportation Plan (2025)</p>

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
1.39	31.35	1.39	31.35	0	0	944	7,535	916	2,418	0	0	1	1

Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.

RATC #12: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
12-A	Poudre River Trail	Proposed and Existing	Roadway	Larimer County	Referred to as “The Dams” by bicyclists and distance runners, this segment traverses the four dams on the northern

	to LCR38E				and eastern sides of Horsetooth Reservoir and is the most heavily used segment of the corridor among all user types. The 7.7-mile segment contains scenic vistas, picnic and rest areas, restrooms, hiking and mountain biking trails, and other amenities. Shoulder improvements are needed along various parts of this segment.
Key Local Connection Needs		Along Dixon Canyon Road			
Crossing Needs		Level 1- LCR52E, LCR48C, LCR38E			
12-B	LCR38E to Shoreline Drive	Proposed	Roadway	Larimer County	This segment contains several curving sections where larger shoulders would provide a safer experience for the motorist and bicyclist, including the section approaching the heavily used South Bay Marina and Campground. The segment terminates at the heavily used Shoreline Drive that provides access to Horsetooth Reservoir for boaters and campers making slow turning movements across bicycle traffic.
Key Local Connection Needs		None Identified			
Crossing Needs		Level 1- Shoreline Drive			
12-C	Shoreline Drive to Buckhorn Road	Proposed and Existing	Roadway	Larimer County	Part of this segment has adequate shoulders, but widths are inconsistent. Conflict areas such as the entrance to Horsetooth Mountain Open Space and the intersection of Buckhorn Road and LCR38E are identified for signage improvements. Other conflict area exist where narrow shoulders exist alongside guardrails.
Key Local Connection Needs		None Identified			

Crossing Needs		Level 1- Red Cliff Road, Buckhorn Road			
12-D	Buckhorn Road to US34	Proposed	Roadway	Larimer County, CDOT	The corridor is routed away from LCR25E and LCR27 to LCR29 to ensure the bicyclist does not have to ride along US34 to take the lane to make turning movements. Users can ride straight across US34 along LCR29 to minimize conflicts with fast-moving traffic, but improved signage at this intersection could improve safety. This segment takes users by Sunrise Ranch, Green Ridge Glade Reservoir, the Big Thompson River, and other amenities. Northbound cyclists heading up the hill to Green Glade Reservoir are accommodated with a wide climbing shoulder, although it ends abruptly. Climbing shoulders like this one would be beneficial across the corridor where steep inclines cause low bicycle speeds. Conflict areas exist over the narrow bridge near the Masonville Post office and locations where narrow shoulders exist alongside guardrails.
Key Local Connection Needs		None Identified			
Crossing Needs		Level 2- LCR29, US34			
12-E	US34 to Pole Hill Road	Proposed	Roadway	Larimer County	This section has narrow shoulders and the intersection of Carter Lake Road/LCR29 and 1st Street/LCR20 can be a conflict point for turning bicycles and vehicles heading to/from southwest Loveland.
Key Local Connection Needs		None Identified			
Crossing Needs		Level 2- Pole Hill Road			

12-F	Pole Hill Road to LCR31	Proposed	Roadway	Larimer County	This section has narrow shoulders and the intersection of Pole Hill Road/LCR18E and LCR31 can be a conflict point for vehicles and cyclists due to the steep grade of LCR31 and setback of the stop sign. Two locations along this segment are identified for signage improvements.
Key Local Connection Needs		None Identified			
Crossing Needs		Level 1- LCR31			
12-G	LCR31 to LCR8E	Proposed	Roadway	Larimer County	This section has narrow shoulders and several pinch points where cyclists must take the lane to allow safe clearance from guardrails, especially over dams and around corners.
Key Local Connection Needs		None Identified			
Crossing Needs		Level 3- LCE8E/Saint Vrain Canal Road			

Figure 4-29: Johnstown/Severance Build Status

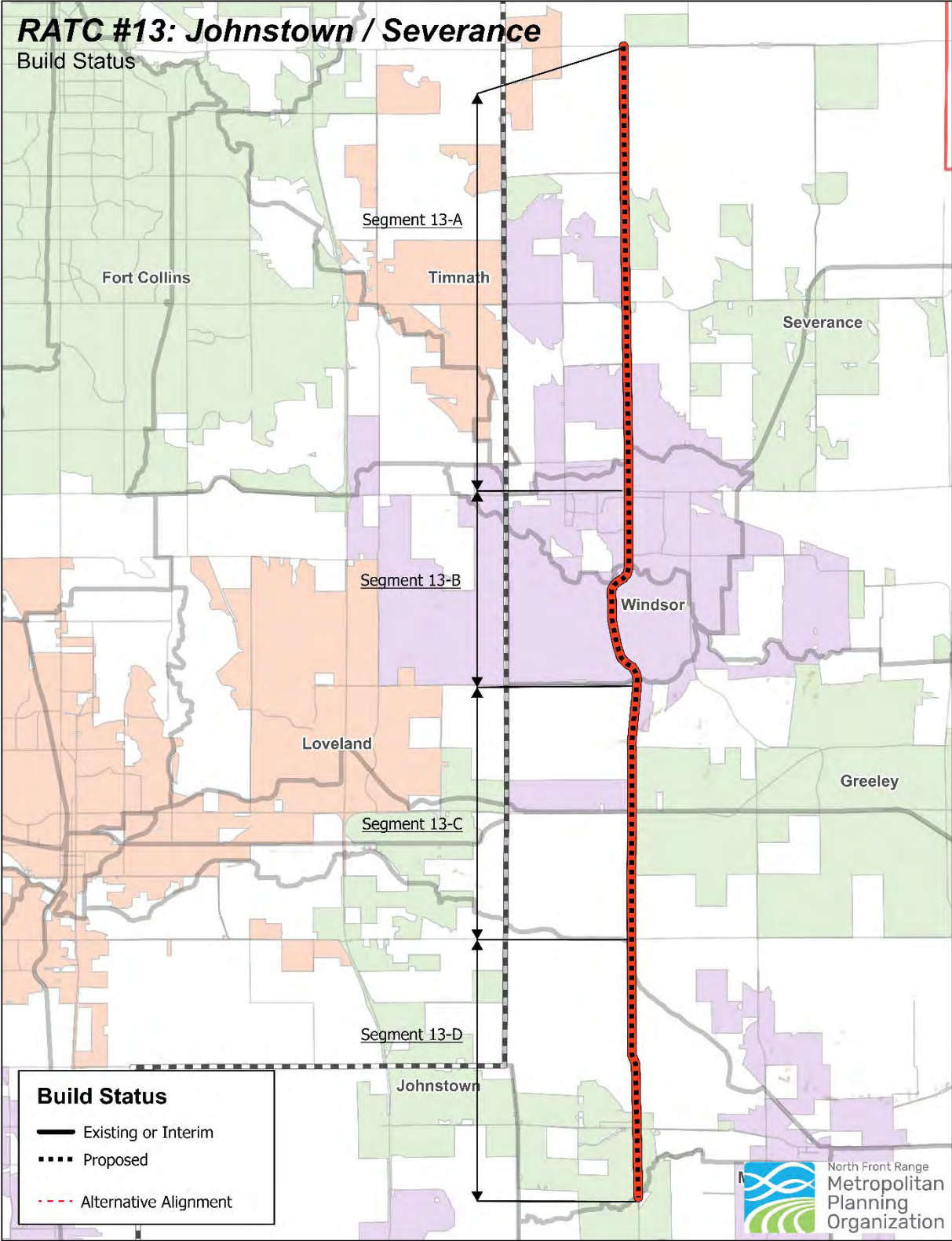
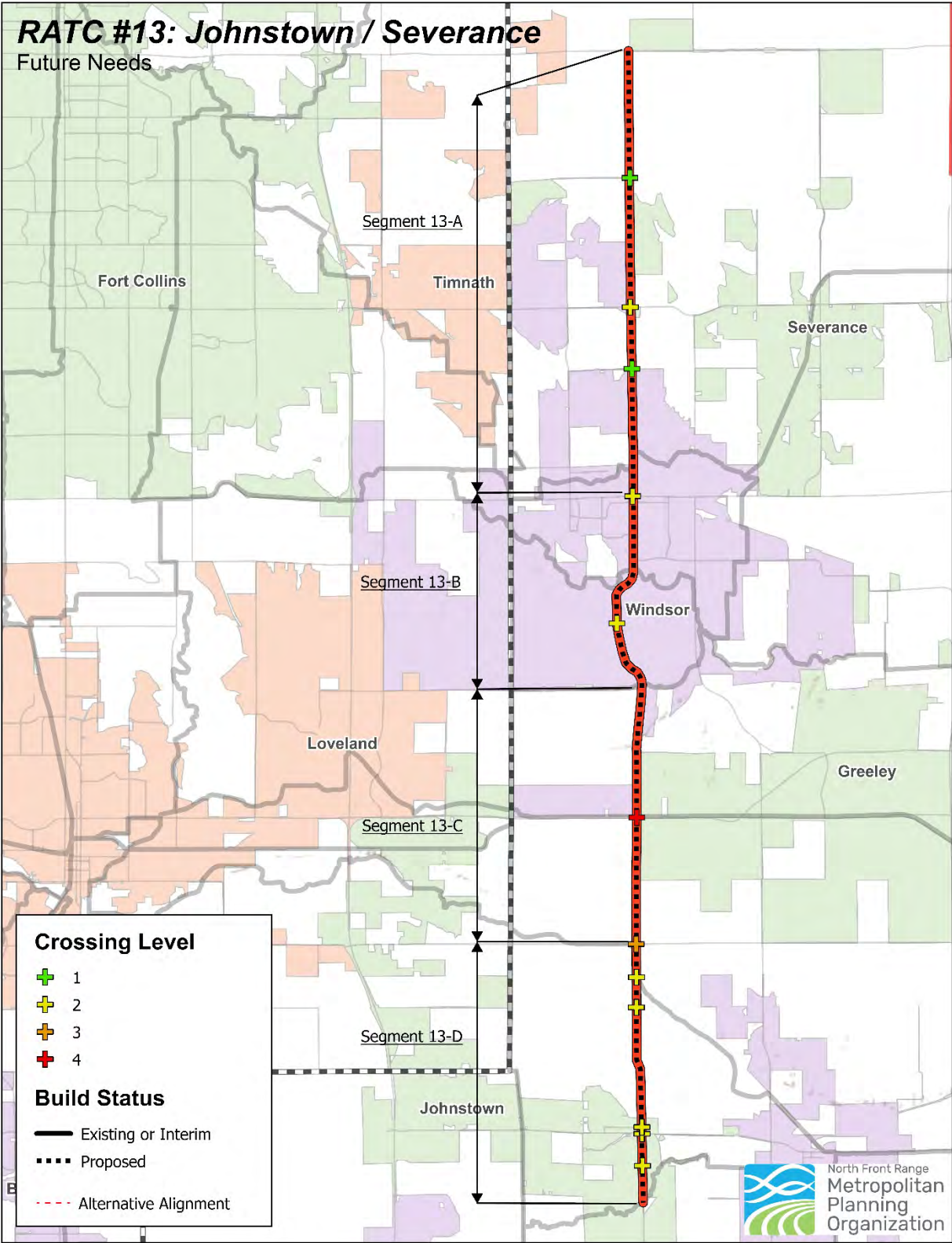


Figure 4-30: Johnstown/Severance Future Needs



RATC #13: Corridor-Level Information

Corridor Description	Planning References
The Johnstown to Severance Corridor serves as a key north-south connection in the rapidly growing central portion of the NFRMPO region. The corridor connects Johnstown, West Greeley, Windsor, Weld County, and Severance with dedicated bike lanes and shared-use paths. The corridor follows WCR17 (Parish Avenue, 7th Street) beginning in Johnstown until WCR17’s terminus at SH392 in Windsor. From here, the corridor continues along SH257 to the corridor’s northern terminus at SH14. Timing for the build-out of this corridor is heavily dependent on anticipated development along WCR17 and US34.	Severance- Severance Transportation Master Plan (2021) Windsor Open Space and Trails Strategic Plan(2022) Greeley – Greeley Trails Master Plan (2025) Weld County – 2045 Weld County Transportation Plan (2020) Johnstown- Johnstown Updated Land Use Framework Plan (2019)

Total Length (Miles)		On-Street Miles		Off-Street Miles		Population within ½ mile		Jobs within ½ mile		Schools within ½ mile		Transit Stops within ½ miles	
2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050
0	18.37	0	11.37	0	7	19,871	54,909	5,960	10,854	5	5	2	2
Note: On-Street and Off-Street Miles may add up to more than the Total Length if RATC has segments within “combined” on- and off-street facilities. 2020 schools and transit stops were used for 2050 calculations. 2020 figures for existing facilities also include interim facilities.													

RATC #13: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
13-A	SH14 to SH392	Proposed and Existing	Separated and Roadway	Severance, Windsor	The northern terminus of this corridor is at SH14 near the Windsong Estate Event Center. The corridor traverses near Windsor Reservoir and continues on SH257 to SH392/Main Street in Windsor. The corridor runs concurrently with RATC #5 across Windsor Lake before continuing to SH392/Main Street. This segment provides bicycle pedestrian access to Windsor Lake via the Windsor Lake Loop Trail and the rest of the Town of Windsor’s trail system.

Key Local Connection Needs		None Identified			
Crossing Needs		Level 1- WCR78, WCR72; Level 2- WCR74, SH392			
13-B	SH392 to Crossroads Boulevard	Existing	Roadway	Windsor	From SH392, the corridor will continue along WCR17 until the southern terminus in Johnstown. This segment is identified in the Town of Windsor’s Open Space and Trails Strategic plan as an on-street bike route. This segment provides access to downtown Windsor and Eastman Park. This segment has existing bicycle lanes along 7th Street. This segment would benefit from additional separation between bicycle lanes and vehicles and wider sidewalks for pedestrians.
Key Local Connection Needs		Walnut Street			
Crossing Needs		Level 2- Crossroads Boulevard, WCR64			
13-C	Crossroads Boulevard to WCR54	Proposed	Roadway and Separated	Windsor, Greeley, Weld County, Johnstown	This segment crosses through the WCR17 and US34 intersection which is slated for significant development both north and south of US34 along WCR17. This segment is identified in the City of Greeley’s 2025 Trails Master Plan as a recommended off-street trail corridor. This area of the NFRMPO region is anticipated to see significant population and job growth. The corridor build out timing is dependent on development in the area. The corridor intersects with RATC#11: US34 Parallel which will provide additional connectivity to the rest of the Regional Trail Network. This segment provides access to the Aims Community College Public Safety Institute which is located

					near the intersection of WCR17 and US34.
Key Local Connection Needs	Arroyos Del Sol Natural Area, Greeley/Loveland Canal Trail, Mobility Hub at 131st Avenue.				
Crossing Needs	Level 3- WCR54; Level 4- US34				
13-D	WCR54 to Little Thompson River Trail	Proposed and Existing	Separated	Johnstown	The segment continues along WCR17 through Downtown Johnstown to its southern terminus at the Little Thompson River Trail south of Downtown. This segment is identified as a neighborhood trail in the Town of Johnstown’s 2008 Transportation Master Plan. The plan also requires a 10-foot sidewalk and bike path along every arterial (including WCR17). This segment provides crucial north/south bicycle and pedestrian connections to Downtown Johnstown.
Key Local Connection Needs	SH60				
Crossing Needs	Level 2- UPRR, WCR52, Charlotte Street, SH60/1st Street, Centennial Drive				

Chapter 5: Action Steps

The Action Steps identified in this Chapter should be prioritized over the next four years (one plan cycle) to improve active transportation in the NFRMPO region. Action Steps are broken into the following categories: Safety, Monitoring, Land Use and Urban Form, Local Assistance, and Funding. With each Action Step, responsible agencies/partners are identified. Additional recommendations, suggestions, and other guidance are spread across corresponding sections of the ATP.

Safety

Support efforts to expand educational programs such as the Bicycle Friendly Driver course (City of Fort Collins and Bicycle Colorado) to other local agencies.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Work with local agencies to conduct locally specific analysis of bike/ped crashes, near miss, and other emerging safety issues.

Responsibility: NFRMPO Staff

Monitor the implementation of actions to prevent harmful crashes involving pedestrians identified in the USDOT Pedestrian Safety Action Plan and get involved where appropriate.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Encourage local agencies to work with law enforcement to enforce laws related to walking and bicycling safety with a focus on aggressive behavior from drivers, speeding, and code violations.

Responsibility: NoCo Bike & Ped Collaborative

Support local Safe Routes to School programs and provide assistance as needed.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Develop a regionwide Safe Routes to School Strategy and Regional School Site Analysis to determine which schools/areas are in most need of SRTS resources.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Seek out opportunities for multidisciplinary coordination among regional partners including planning, engineering, public health, school district, and law enforcement agencies to address walking and bicycling safety and identify future regional approaches to safety.

Responsibility: NFRMPO Staff

Monitoring

Share collected count data with the CDOT statewide database, as well as the Rails-to-Trails Conservancy's (RTC) nationwide database.

Responsibility: NFRMPO Staff, Local Agency Staff

Continue purchasing permanent counters to be installed, managed, and maintained by local agencies.

Responsibility: NFRMPO Staff

Explore options to create a regional, public-facing dashboard of count data.

Responsibility: NFRMPO Staff

Assign a Bicycle Level of Traffic Stress (LTS) to all roads within the NFRMPO region and incorporate Bicycle LTS into project scoring and prioritization.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative, TAC and Council

Incorporate future active transportation facilities into the NFRMPO's RTDM network to improve forecasting and allow active transportation-specific scenario planning using Bicycle LTS.

Responsibility: NFRMPO Staff, Local Agency Staff

Encourage and support more local participation in the [PlacesForBikes City Rating](#) system and League of American Bicyclists' [Bike Friendly America](#) program.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Improve regional active transportation facility dataset to distinguish striped, buffered, and protected bike lanes; Identify designated bicycle routes that meet a standard definition; and identify the varying qualities of soft-surface trails (surface type and width)

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Generate a public-facing, interactive, mobile-friendly map of the regional low stress bike network. Explore opportunities to incorporate the map into existing apps or web maps.

Responsibility: NFRMPO Staff, TAC, NoCo Bike & Ped Collaborative, other Local Agency Staff

Explore opportunities to acquire location-based app data on bicycle travel patterns, such as Strava Metro or Streetlight datasets.

Responsibility: NFRMPO Staff

Explore opportunities to purchase a “data bike” to collect quantitative pavement condition data

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Land Use and Urban Form

Continue offering technical assistance in the review of local development plan proposals.

Responsibility: NFRMPO Staff

Review and update existing development requirements to ensure bicycle and pedestrian connectivity and access is accommodated in new areas.

Responsibility: Local Agency Staff

Evaluate opportunities in underutilized areas that lack connectivity through connector trails, etc.

Responsibility: Local Agency Staff

Local Assistance

Work with local planning partners and other community leaders to evaluate access to active transportation infrastructure and identify potential solutions.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Develop an Active Transportation Assistance Program to:

- Support community and organizational commitments and pledges to improve active transportation, including membership and advancement within the:
 - The AARP [Age-Friendly Network of States and Communities](#)
 - The League of American Bicyclists' [Bicycle Friendly America Program](#)
 - [Main Street America](#) and creating a Main Street Program

- Conduct infrastructure audits (walking, biking, transit) to identify areas for improvement and train local leaders to conduct audits on their own;
- Assist with identification of grant opportunities and submitting grant applications for active transportation infrastructure and program improvements;
- Assist with review of existing local codes and policies, identification of best practices updates or adjustments to those codes and policies, and development of local complete street policies;
- Host periodic training sessions (in-person, webinars, web training videos) to address areas of interest identified by planning partners;
- Improve and maintain ongoing feedback mediums such as online mapping and feedback tools (Community Remarks, Esri Crowdsourc Reporter, etc.); and
- Explore opportunities to host and/or promote regional classes and trainings to improve individual confidence and comfort walking and biking, with a focus on virtual formats and a recording archive.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Funding

With each NFRMPO Call for Projects, identify opportunities to:

- Encourage applications representing a more diverse range of project types that are highly consistent with the intent of each funding program;
- Emphasize the important of projects that support mode shift away from single-occupant vehicle (SOV) travel; and
- Better align funding decisions with NFRMPO target achievement.

Responsibility: NFRMPO Staff, TAC, Planning Council, NoCo Bike & Ped Collaborative

Improve communication between groups with parallel missions (NoCo Bike & Ped Collaborative, Weld County Mobility Committee [WCMC], Larimer County Mobility Committee [LCMC], etc.) to identify opportunities to combine funding sources and prioritize projects with multi-faceted benefits (bikeability, ADA compliance, independent living, etc.)

Responsibility: NFRMPO Staff, Committee Leadership

Continue to regularly update the Regional Active Transportation Corridor (RATC) 10-Year Project Pipeline with cost estimates to position the NFRMPO region more competitively to pursue and respond to various funding opportunities.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative, TAC

Seek out funding opportunities for regional active transportation education, trainings and events.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Wayfinding

Continue leading the effort to identify wayfinding signage needs and connecting to All RATCs through a shareable and editable online interactive mapping platform, such as Community Remarks or ArcGIS Crowdsource Reporter. Individual mapping should be supplemented with in-person workshops along the network to field test and refine the initial recommendations.

Responsibility: NFRMPO Staff, NoCo Bike & Ped Collaborative

Appendix A: Resource Library

The resources listed in this section are organized into topic areas (listed below) for ease of navigation. Many of the resources are listed in one topic area have applicability to other topic areas. NFRMPO staff are available to help filter resources down based on the context of a specific project.

- **Rural/Small Town**
- **Urban**
- **Bikeways**
- **Bike Parking**
- **Signalization and Intersections**
- **Pedestrian**
- **Accessibility and Mobility**
- **Maintenance**
- **Roadway**
- **Complete Streets**
- **Design Flexibility**
- **Measurement and Monitoring**
- **Quick Win and Tactical Urbanism**
- **Infrastructure and Safety Audits**
- **Resilience and Response**
- **Local and State Policies and Standards**

Rural / Small Town

- Small Town and Rural Multimodal Networks (FHWA 2016) - https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf
- Colorado Downtown Streets (DOLA, CDOT, CDPHE 2020) - https://drive.google.com/file/d/1-e25iz08Sry8JVX7aFGxy15_a-JoguGu/view?authsuer=0

Urban

- Urban Street Design Guide (NACTO 2013) - <https://nacto.org/publication/urban-street-design-guide/>
- Urban Bikeway Design Guide (NACTO 2011) - <https://nacto.org/publication/urban-bikeway-design-guide/>

- Transit Street Design Guide (NACTO 2016) - <https://nacto.org/publication/transit-street-design-guide/>

Bikeways

- Bikeway Selection Guide (FHWA 2019) - <https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-07/fhwasa18077.pdf>

Supplementary Documents:

- [Traffic Analysis and Intersection Considerations to Inform Bikeway Selection \(FHWA 2021\) - https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/FHWA-SA-21-010_Traffic_Analysis_Intersection_Considerations.pdf](https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/FHWA-SA-21-010_Traffic_Analysis_Intersection_Considerations.pdf)
- [On-Street Motor Vehicle Parking and the Bikeway Selection Process \(FHWA 2021\) - https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/FHWA-SA-21-009_On_Street_Motor_Vehicle_Parking.pdf](https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/FHWA-SA-21-009_On_Street_Motor_Vehicle_Parking.pdf)
- [Guide for the Development of Bicycle Facilities: 5th Edition \(AASHTO 2024\) - https://store.transportation.org/item/collectiondetail/267](https://store.transportation.org/item/collectiondetail/267)
- [Separated Bike Lane Planning and Design Guide \(FHWA 2015\) - https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/separated_bikelane_pdg/separatedbikelane_pdg.pdf](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/separated_bikelane_pdg/separatedbikelane_pdg.pdf)
- [Rethinking Streets for Bikes: An Evidence-Based Guide to 25 Bike-Focused Street Transformations \(NITC, University of Oregon 2019\) - http://rethinkingstreets.com/](http://rethinkingstreets.com/)
- [BIKESAFE: Bicycle Safety Guide and Countermeasure Selection System \(FHWA\) - http://www.pedbikesafe.org/bikesafe/](http://www.pedbikesafe.org/bikesafe/)

Bike Parking

- [Essentials of Bike Parking, Selecting and Installing Bicycle Parking that Works \(APBP 2015\) - https://www.apbp.org/Publications](https://www.apbp.org/Publications)
- [FHWA University Course on Bicycle and Pedestrian Transportation Lesson 17: Bicycle Parking and Storage \(FHWA 2006\) - https://www.fhwa.dot.gov/publications/research/safety/pedbike/05085/pdf/lesson17lo.pdf](https://www.fhwa.dot.gov/publications/research/safety/pedbike/05085/pdf/lesson17lo.pdf)

Signalization and Intersections

- [Manual on Uniform Traffic Control Devices \(MUTCD\) \(FHWA 2023\) - https://mutcd.fhwa.dot.gov/kno_11th_Edition.htm](https://mutcd.fhwa.dot.gov/kno_11th_Edition.htm)
- [Guide to Improve Pedestrian and Bicyclist Safety at Intersections – NCHRP Report 926 \(TRB 2020\) - https://www.nap.edu/catalog/25808/guidance-to-improve-pedestrian-and-bicyclist-safety-at-intersections](https://www.nap.edu/catalog/25808/guidance-to-improve-pedestrian-and-bicyclist-safety-at-intersections)

- Don't Give Up at the Intersection: Designing All Ages and Abilities Bicycle Crossings (NACTO 2019) - <https://nacto.org/publication/urban-bikeway-design-guide/dont-give-up-at-the-intersection/>
- Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations (USDOT 2018) - https://safety.fhwa.dot.gov/ped_bike/step/docs/STEP_Guide_for_Improving_Ped_Safety_at_Unsig_Loc_3-2018_07_17-508compliant.pdf

Pedestrian

- Guide for the Planning, Design, and Operation of Pedestrian Facilities (AASHTO 2004) - <https://highways.dot.gov/safety/pedestrian-bicyclist/safety-tools/43-guide-planning-design-and-operation-pedestrian>
- PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System (FHWA) - <http://www.pedbikesafe.org/pedsafe/>
- How to Develop a Pedestrian Safety Action Plan (FHWA 2009) - <https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/fhwasa0512.pdf>
- Pedestrian Safety Guide for Transit Agencies (FHWA 2008) - <https://highways.dot.gov/safety/pedestrian-bicyclist/safety-tools/pg-24-43-pedestrian-safety-guide-transit-agencies>

Accessibility and Mobility

- Americans with Disabilities Act Guidelines (ADAAG) (United States Access Board 2002) - <https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/background/adaag>
- Public Right-of-Way Accessibility Guidelines (PROWAG) – Proposed accessibility guidelines for pedestrian facilities in the public right-of-way (United States Access Board 2011) - <https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines>
- Engaging People with Disabilities in Street Planning and Design (Toole Design 2020) - <https://tooledesign.com/insights/2020/07/toole-designs-resource-guide-for-engaging-people-with-disabilities/>

Maintenance

- Guide for Maintaining Pedestrian Facilities for Enhanced Safety (FHWA 2013) - https://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwasa13037/fhwasa13037.pdf
- Winter Bike Lane Maintenance: A Review of National and International Best Practices (Alta Planning and Design 2014) –

- <https://altago.com/wp-content/uploads/winter-bike-riding-white-paper-alta.pdf>
- Improving Pedestrian and Bicycle Connectivity During Rehabilitation of Existing Bridges (PBIC 2016) - http://www.pedbikeinfo.org/cms/downloads/PBIC_WhitePaper_Bridges.pdf
- Incorporating On-Road Bicycle Networks into Resurfacing Projects (FHWA 2016) - https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/resurfacing/resurfacing_workbook.pdf

Roadway

- The Green Book: A Policy on Geometric Design of Highways and Streets 7th Edition (AASHTO 2018) - <https://aashtojournal.org/2018/09/28/aashto-releases-7th-edition-of-its-highway-street-design-green-book/>

Complete Streets

- Complete Streets Local Policy Workbook (Smart Growth America 2013) <https://smartgrowthamerica.org/resources/complete-streets-local-policy-workbook/>
- Complete Streets Implementations: A Resource Appendix (Smart Growth America) - https://smartgrowthamerica.org/wp-content/uploads/2016/09/Implementing-Complete-Streets-Policy_Brief-Guidebook.pdf
- Complete Streets Policies at the Local Level: Model comprehensive plan language, model local ordinance, and model local resolution (ChangeLab Solutions 2014) <https://www.changelabsolutions.org/product/complete-streets-policies-local-level>
- Elements of a Complete Streets Policy (Smart Growth America 2018) - <https://smartgrowthamerica.org/resources/elements-complete-streets-policy/>
- Rethinking Streets: An Evidence-Based Guide to 25 Complete Street Street Transformations (NITC, University of Oregon 2019) - <http://rethinkingstreets.com/>
- Streetmix: Street Layout Visioning Tool - <https://streetmix.net/>

Flexibility

- Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts (FHWA 2016) - https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/multimodal_networks/fhwahep16055.pdf
- Bicycle and Pedestrian Facility Design Flexibility Memorandum (FHWA 2013) - https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_flexibility.cfm

- Transforming Street and Sidewalk Management from a Liability into an Opportunity (Passport and Smart Cities Dive 2020) - <https://resources.industrydive.com/transforming-street-and-sidewalk-management-from-a-liability-into-an-opportunity?ignoremxtracking=mxtrue&mxcp=0cee738d-2986-4240-a1cb-8c4861c1443e&omt=1&result=success>

Measurement and Monitoring

- Guidebook for Developing Pedestrian and Bicycle Performance Measures (FHWA 2016) - https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/performance_measures_guidebook/pm_guidebook.pdf
- Trail User Survey Workbook: How to Conduct a Survey and Win Support for Your Trail (Rails-to-Trails Conservancy 2005) - <https://www.railstotrails.org/resourcehandler.ashx?name=trail-user-survey-workbook-how-to-conduct-a-survey-and-win-support-for-your-trail&id=3543&fileName=UserSurveyMethodology.pdf>
- Pedestrian and Bicycle Crash Analysis Tool (PBCAT) (PBIC) - http://www.pedbikeinfo.org/pbcats_us/
- Guide to Bicycle and Pedestrian Count Programs (Portland State University) - https://trec.pdx.edu/sites/default/files/IBPI_Guide_to_Bicycle_%26_Pedestrian_Count_Programs_0.pdf
- Conducting Bicycle and Pedestrian Counts: A Manual for Jurisdictions in Los Angeles County and Beyond (Southern California Association of Governments) - http://media.metro.net/projects_studies/call_projects/images/metroscag_bikepedcounttrainingmanual.pdf
- Bicycle and Pedestrian Data Collection Manual (MnDOT) - <https://www.dot.state.mn.us/research/reports/2017/201703.pdf>
- Bicycled and Pedestrian Count Programs: Summary of Practice and Key Resources (PBIC) - https://www.pedbikeinfo.org/cms/downloads/PBIC_Infobrief_Counting.pdf

Quick Win and Tactical Urbanism Projects

- Quick Builds for Better Streets: A New Project Delivery Model for U.S. Cities (PeopleForBikes 2016) - https://b3cdn.net/bikes/675cdae66d727f8833_kzm6ikutu.pdf
- Tactical Urbanist's Guide to Materials and Design Version 1.0 (Street Plans Collaborative 2016) - <https://issuu.com/streetplanscollaborative/docs/tu-guide-to-materials-and-design-v1>
- The Open Streets Guide (Street Plans Collaborative and Alliance for Biking & Walking 2012) - <https://issuu.com/streetplanscollaborative/docs/openstreetsproject>

- Asphalt Art Guide: How to Reclaim Roadways and Public Infrastructure with Art (Bloomberg Associates 2019) - <https://issuu.com/streetplanscollaborative/docs/asphalt-art-guide>
- Arts, Culture and Transportation: A Creative Placemaking Field Scan (Smart Growth America 2017) - <https://smartgrowthamerica.org/resources/arts-culture-transportation-creative-placemaking-field-scan/>

Infrastructure and Safety Audits

Walking Audits

- Walk Audit Tool Kit and Leader Guide (AARP 2016) - <https://www.aarp.org/livable-communities/getting-around/info-2014/aarp-walk-audit-tool-kit.html>
- Audit Tools [Guidelines, Prompt Lists, Checklists, and more] (PBIC) - https://www.pedbikeinfo.org/resources/resources_details.cfm?id=5085
- Sidewalks and Streets Survey: Tips, Tools, and Resources for Organizers (AARP 2017) - <https://createthegood.aarp.org/content/dam/aarp/ctg/pdf/2019/sidewalks-streets.pdf>
- Tips of Leading a Walk Audit (Mark Fenton 2003) - <http://markfenton.com/resources/TipsLeadingWalkAuditFenton.pdf>
- Do A Walk Audit: Forms and Templates (Victoria Walks) - https://www.victoriawalks.org.au/Walking_audit/
- How to Conduct a Walk Audit in Your Community – Quick Video Guide for Assessing Your Neighborhood Walkability (America Walks) - <https://americawalks.org/how-to-conduct-a-walk-audit-in-your-community-quick-guide-for-assessing-your-neighborhood-walkability/>
- Virtual Walk Audits: The Good, the Bad & the Ugly (Ian Thomas, Project for Public Places 2020) - <https://www.pps.org/article/virtual-walk-audits-the-good-the-bad-and-the-ugly-of-walkability-accessibility>

Road Safety Audits

- Pedestrian Road Safety Audit Guidelines and Prompt Lists (FHWA 2020) - https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa20042.pdf

Resilience and Response

- Streets for Pandemic Response and Recovery (NACTO 2020) - https://nacto.org/wp-content/uploads/2020/09/Streets_for_Pandemic_Response_Recovery_Full_20-09-24.pdf

- Rethinking Streets During COVID-19: An Evidence-Based Guide to 25 Quick Redesigns for Physical Distancing, Public Use, and Spatial Equity (NITC, SCI, University of Oregon 2021) - <http://rethinkingstreets.com/>
- Local Actions to Support Walking and Cycling During Social Distancing Dataset (PBIC 2020) - http://pedbikeinfo.org/resources/resources_details.cfm?id=5209
- COVID-19 Local Action Tracker (National League of Cities 2020) - https://covid19.nlc.org/resources/covid-19-local-action-tracker/?cmp=EMC-DSM-NLC-LC-HOMFAM-202000401_LivableCommunities_SC4N_899300_1315603-040120-F4-Covidtracker-Text-CTRL-4474632&encparam=OPoKpRs/Z4yCGK43kJPcejXKSOPCQDeakRRsB1lOSBg13zE/l%2B/8N9MZr80sGTJ
- COVID-19 Livable Streets Response Strategies (Mike Lydon 2021) - <https://docs.google.com/spreadsheets/d/1tjam1v0NLUWkYedla4dVOL49pyWIPlyGwRB0DOnm3Ls/edit#gid=2048567740>
- Planning Considerations for Walking and Rolling to School in Fall 2020 (PBIC 2020) - http://pedbikeinfo.org/cms/downloads/Planning%20considerations%20for%20walking%20and%20biking%20to%20school%20in%20fall%202020_FINAL.pdf
- Re-envisioning School Streets: Creating More Space for Children and Families (PBIC 2020) - http://www.pedbikeinfo.org/cms/downloads/2161_PBIC_InfoBrief_SchoolStreets.pdf

Local and State Policies and Standards

Elevating Bicycle and Pedestrian Opportunities in Colorado -

“...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.” (CDOT 2017)

- Policy Directive 1602.0 - <https://www.codot.gov/programs/bikeped/documents/1602-0-policy-bike-pedestrian>
- Procedural Directive 1602.1 - <https://www.codot.gov/programs/bikeped/documents/1602-1-2013-bicycle-and-pedestrian-policy>
- Larimer County Urban Area Street Standards (LCUASS) (Larimer County 2021) - <https://www.larimer.org/engineering/standards-and-guides/urban-area-street-standards>

Appendix B: Outreach and Engagement Summary

The outreach methods and feedback received are described throughout this Appendix. Overall, NFRMPO staff promoted the ATP all throughout the NFRMPO's outreach season in 2024 and 2025. The NFRMPO conducted a virtual survey to support the ATP. This survey opened on February 21, 2024, and closed on September 27, 2024. There were 262 responses in total from 19 different zip codes.

In-Person Events and Presentations

Northern Colorado Mobility Committee (NCMC)

I would bike more if....

- Downtown had better lighting
- I had an e-bike
- If I had a bike
- If my kid could ride with me
- There was more connectivity over entire network
- I didn't live on US34
- If I had a bike but I am too old anyway
- Trails connected from Severance to Promontory
- I had a good bike, more time, and there was less traffic or congestion
- I don't ride and won't ride
- I knew how
- Commute distances to Longmont, Denver and Colorado Springs were shorter
- I didn't have so many meetings in different places
- I didn't have to carry so much stuff to and from work
- I didn't have to go down US287
- There was more respect for bikers
- It was as efficient as driving
- It made pick-off and drop off kids and family more efficient
- There were more events for first time riders

I would walk or roll more if...

- I had more time
- There were more shade and lighting at night
- I took breaks or a lunch during work hours
- If my community had more sidewalks

- There were more safe crosswalks
- I was more disciplined, or I had a walking buddy
- If the sidewalks weren't in bad shape in many areas in Greeley
- If the paths were connected safely
- I had more time
- I had more time and safer paths
- I lived in the country
- I had more time and fewer meetings in multiple locations

What do you see as the largest barrier to safer and more reliable biking & walking in your community?

- Safe connections between trails and city
- Funding and legislative commitment
- Lack of sidewalks
- Cleaned sidewalks for wheelchairs
- Greatest barrier is unmanaged growth and thinking of active transportation as an afterthought
- Others on the road
- Traffic (speed), congestion on walkways, no paths, animals
- Not enough safe connections
- Education for drivers and safety signage
- In Greeley, there are not enough barriers and bike lanes for safe riding, and sidewalks are in poor condition
- Lack of sidewalks and bike lanes. Distracted drivers
- Not enough disconnected paths trail, bike lanes
- More long-distance bike trails
- Cultural perception
- Safety regarding homelessness, crime
- Distracted drivers. Safety for riding with family

NFRMPO staff gave informational presentations to the following groups:

- Loveland Transportation Advisory Board
- Greeley Active Transportation Stakeholders Group
- Larimer County Mobility Committee
- Weld County Mobility Committee
- Weld County Active Living
- US34 Technical Advisory Committee (TAC)
- NoCo Bike & Ped Collaborative

NFRMPO staff attending the following events to promote the ATP:

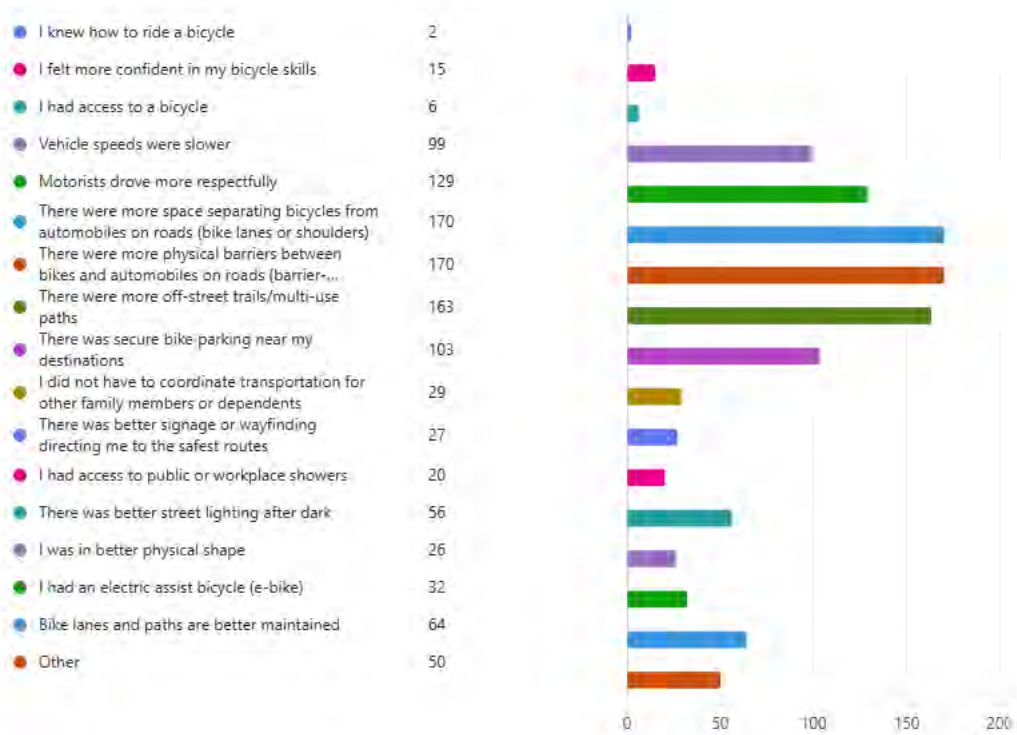
- Fort Collins Transportation Projects Fair
- Loveland Transportation Projects Fair

Digital Engagement

Active Transportation Plan Survey

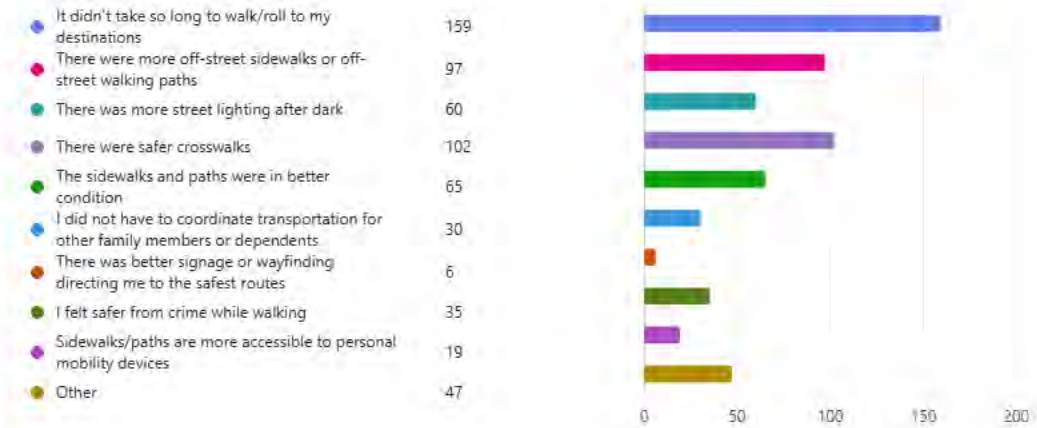
I would ride a bicycle more if:

4. I would ride a bicycle more if: (Choose all that apply)



I would walk or roll more if:

9. I would walk or roll more if: (Choose all that apply)



Do you have any additional comments pertaining to Active Transportation?

Table AB-5-1: Do you have any additional comments pertaining to Active Transportation Responses

ID	Responses
1	The reason the car has dominated transportation is because it is the best transportation available for maximum efficiency, independence, and load. You can tell because cars dominate transportation.
2	This isn't a large metropolitan area. We are comparatively sparsely populated area where everything and everyone is spread out. It is a waste of taxpayer money building more transport infrastructure. Fix the roads and stop wasting everyone's money.
3	I would like to see city planning with less dependence on cars for transit. More parking garages and emission-free shuttles near more streets closed to cars, especially downtown. More encouragement of working from home when possible, and alternate work schedules to reduce rush hour congestion. Also, busses to major events in Denver (concerts, sporting events, conventions) offered for a price comparable to gas+parking.
4	Is there any flexibility to improve lighting on transit both on the vehicle and in the cabin? Increased restroom access?

ID	Responses
5	Buffered bike lane, traffic calming, and bulb outs on south Boardwalk
6	We need much more traffic calming (narrower streets, speed bumps, raised crosswalks, etc) to bring down vehicle speeds and make cycling/walking/rolling safer.
7	I have chosen to not have a car so walking, biking and taking the bus (or asking my grown children for a ride) are my only modes of transportation. I appreciate what is already in place here and look forward to improvements.
8	Even in Fort Collins with relatively good walking and cycling infrastructure automobiles still rule this town. Please help to carve out more and more dedicated space and infrastructure for active modes in our region.
9	Transit just isn't feasible until there are MANY more stops and more frequent stops.
10	I'm so culturally ingrained to drive instead of take public transportation
11	The only times I have ridden transit are when my bus pass is heavily subsidized by work or school
12	Thank you to all staff working diligently to improve our active modes network. Automobile infrastructure proves challenging to navigate for many including me especially because of the noise, lights and fumes that come from the road and struggles with driving. It certainly demonstrates in my mind a structural problem, and I am happy to see it being addressed through public transit and walking/rolling improvements. I also hope to see more educational/encouraging imagery around the buses like the Zero Fare for Better Air posters that will help with public awareness of transit benefits so that all mobility projects can be aided by the public sphere.
13	I would PLEASE like to advocate for a dedicated bike lane going northbound on shields between Mulberry and Mountain. Currently, the bike lane is shared with cars and the speeds in these residential areas are out of control. My child goes to Lincoln and CAN NOT safely bike to school on Shields. I would also like to see wider sidewalks for easier access to mountain ave off of Shields. I can not safely walk to Beavers market without fear of my life or my children's life. Take out the turn lane (north bound) on shields and put in a dedicated bike lane. I've been emailing the city about this for years. AT MINIMUM, we need speed checks and active police presence on shields. I have seen several traffic accidents and our neighbor had their brick fence run in by a car. The drivers are becoming more and more wreck-less on this street and we need to hold them accountable for fast driving in a residential zone.

ID	Responses
14	Please keep TransFort/Max fare free!
15	Fort Collins is pretty good, but we can do better! Especially make sure bicycle connectivity is provided for all projects. One sad example is the new development on College south of Red Tail Hawk open space. How can this project have been approved without access to the Fossil Creek bicycle trail?? Another example is access from the new developments on the SE side of town. That area is a bicycle wasteland.
16	I'm a huge supporter and user of active transport modes! Thank you for putting this together!
17	I ride a bike regularly. I find that most destinations on my bike take a third of the time to reach my destination over public transportation.
18	Would like to see more security on busses and at transit centers.
19	I have a bus stop in front of my house, yet I can still bike anywhere faster and walk almost as fast. For example, to get to a medical appointment it was 1 h 47 min by bus, 1 h 48 min walking, and 30 min by bicycle (dangerous route) & 9 min driving. Infrequent transit is not useful. Also Loveland does not maintain the stop, I have to shovel it myself so people have access to the stop.
20	I use the Bustang to Denver once a month or so, would use it a lot more if there were later busses back to FoCo.
21	Cities should be built for people, not cars. My family tries to walk and bike as much as possible, but we've had numerous close calls from drivers who don't pay attention, don't care, or are aggressive.
22	Public buses mainly transport homeless people. I would never let a child on one.
23	Fundamental problems are that streets are too wide, speed limits are too high, not enough separate infrastructure (e.g. protected bike lanes), and really tiny (3') or nonexistent sidewalks in many places. We need protected bike lanes, more sidewalks, and above all traffic calming/road diets. Also please fund Sunday and evening service on Transport as well as more frequent service on heavily used routes!
24	My concern I'd vehicular speeds in school zones are too high
25	There is no bus stop near Zeigler Road and my Rigden Farm home near Zeigler Road. I worry that when I am no longer able to drive, I will have to rely on my daughter to take me to grocery shop. It quite a long

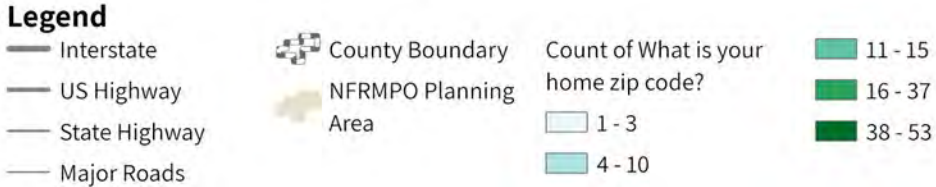
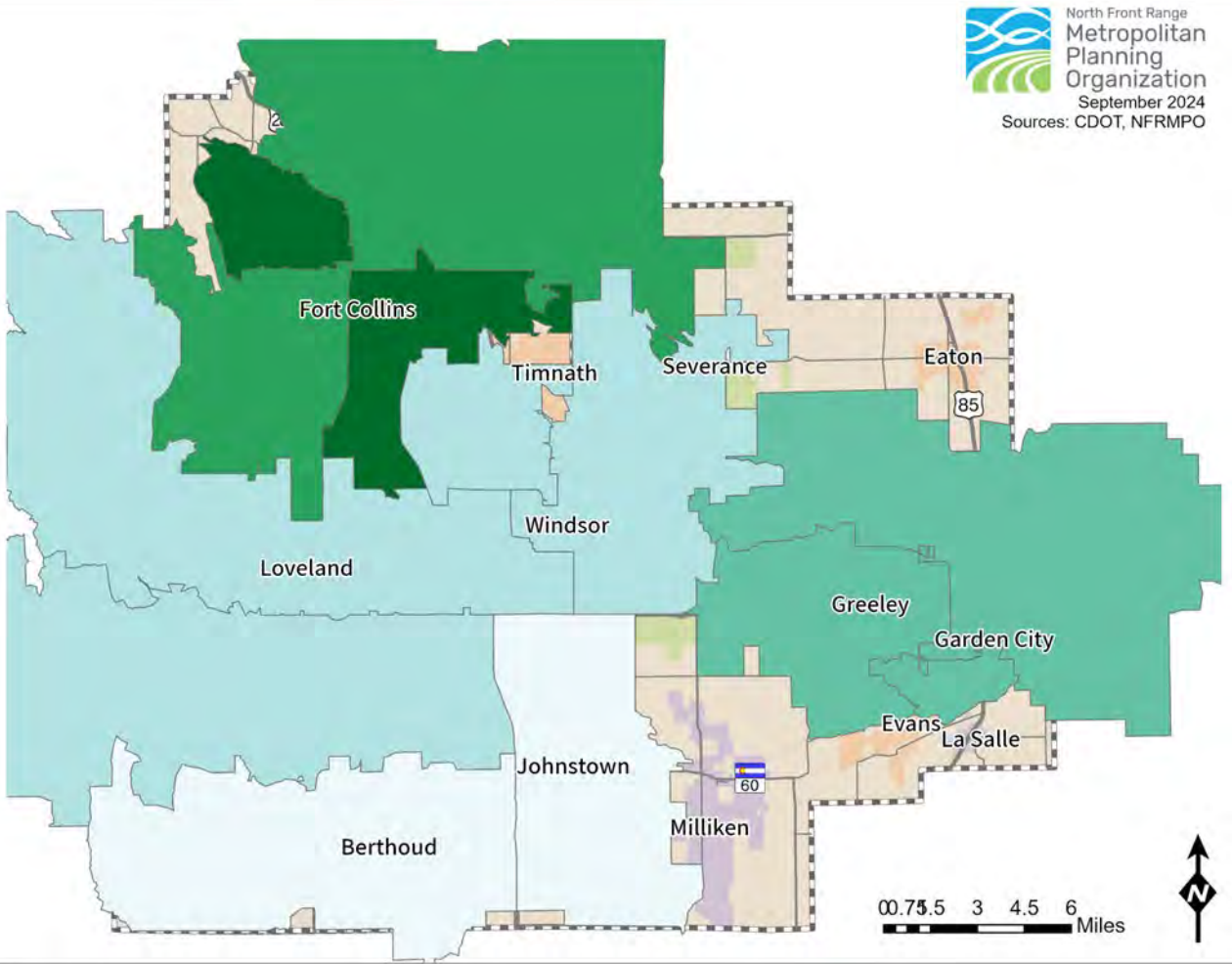
ID	Responses
	walk to King's Sooper's and Target from my condo. I live in the Rigden Corners. Rigden Corners was a Habit For Humanity housing complex, so a lot of lower income senior residents still live there.
26	I would use more Transit if there were better facilities to carry bikes on buses (less chance of bike damage). More signalized crosswalks on busy arterials would be helpful.
27	Get rid of parking minimums! If we want people to walk, bike, or take transit more, then we need to stop subsidizing motorized vehicle use to the extent that we do.
28	We need a commuter rail for the Front Range.
29	Increase fines on drivers endangering cyclists and pedestrians more and actually enforce the laws.
30	Side walks need to be cleared of snow in the winter to make walking feasible and safe.
31	I am incredibly grateful for the transition to fare-free rides in Fort Collins.
32	Transfort has good service coverage but the connectivity and frequency are poor
33	I live in Nelson Farm, which is pretty central for mid-town. To take a bus to campus or north of campus requires a transfer and takes up to an hour. So the main barrier I have is that there aren't enough lines that run frequently enough. I would ride a bus to Old Town on the weekend to go out at night if there were regular buses that went down Lemay and went direct to Old Town.
34	More frequent transportation out of the city (airport, Boulder, Denver) would make me more likely to take transit.
35	Two way stops need to be evaluated. Roundabouts, RFBs, Hawk signals and other intersection control features would make active transportation (and all forms of transportation) safer.
36	I'd like to see more investment in fixed rail infrastructure. Both streetcar investments in our downtowns, and commuter rail to the Denver Metro Area
37	I am HERE for walking, biking, transit, and whatever else we can do to make travelling easier and less dependent upon cars. I think that building communities to be walk/bike/transit-able (including denser development and more mixed development, and fewer parking spots, meaning things ARE in walk/bike distance) is a way to make living more affordable. It's far cheaper to buy and maintain a bike than it is a car, especially when there is transit to take you to the farther places.

ID	Responses
38	Affordable train service would be great, it's just a matter of getting it built without waiting for decades of studies to be completed.
39	More service from Fort Collins to Denver destinations such as red rocks please!
40	<p>* Road designs should slow traffic in primarily residential/business areas (i.e. less lanes, narrower lanes, tree lined, traffic calming measures, etc.) Save the big multi-lane nonsense for arterial roads away from pedestrians and cyclists. [Looking at you, Horsetooth Rd.. what even is the point of that bike lane?] *</p> <p>Walking/cycling paths should avoid interacting with car traffic as much as possible, but when crosswalks are necessary, they should prioritize people, not cars. Our bike rides are often twice as long as they need to be solely because we get stuck at lights that prioritize car traffic and there is no safe way around. * Public transit *needs* to be faster than taking a car or no one will ever choose it over a car. This means more routes and running more often, but could also mean closing off high-pedestrian areas like Old Town to cars. * This is a beer town! More safe non-car routes to breweries please! Public transit should run late in these cases.. though proper bike paths would be just as good. Mostly, keep up the good work! Loving all the talk about reducing car dependency and making this town even better!</p>
41	Locally, focus on making the core/most used routes more frequent and reliable. Work on getting faster and more frequent transit options to Denver or at least Longmont to connect to other areas.
42	Please focus on pedestrian and bike infrastructure improvements.
43	I believe safe, active modes of transportation should be a priority as the area continues to grow. Thank you for doing this work!
44	Transfort needs more cover bike shelters along routes, including in the CSU campus on the 2/7 route. Stop putting hostile architecture benches in the shelters without backs or bars in between seats- it's a terrible look for the community. Reinstate service to some of the cancelled routes like route 11/12 even if running smaller buses. Run smaller buses on route with less demand rather than cutting service completely.
45	I used to take the MAX bus daily to commute to my office on CSU Main Campus. My new office is at the CSU Foothills Campus and the bus route is no longer a reasonable commute option for me (route takes way too long compared to driving)
46	I want to stress the fact that busses are not clean, but most of: run later and earlier PLEASE.

ID	Responses
47	I live on the outskirts of town, and work downtown. there is no route that will take me to work in under an hour, and no way to get home since i get off after 9pm. if there were these options, i would be more likely to ride the bus
48	There are private bus companies providing general public transportation to economical locations/events. With so many businesses providing on-line shopping and delivery services, there is actually less need for public transportation. The Northern Colorado I-25 Improvement Plan showed that 98% of VMT's are taken by vehicle and only 2% are taken by public transportation; therefore, it is wrong to spend the same amount of money attempting to accommodate the need for public transportation, which goes from fixed points to other fixed points and is very expensive to extend flexibility. Use common sense and respect for the taxpayers dollars and where they are spent. Limited government is always best; however, there should be exceptions for the disabled.
49	More multi-use paths and more bus routes on the SE end of town that went later (most businesses close at 8 or later - so if I have a closing shift I can't get home on the bus) are the 2 biggest things for me. Harmony and Ziegler is a bustling area of Fort Collins with schools, a library, a large open shopping area, and MANY businesses and only 1 bus goes there! If the bus route on Drake/Ziegler went to Harmony instead of stopping at Horsetooth, or if ANY North/South routes went to Harmony instead of Horsetooth other than the MAX, that would be SO much better.
50	In nearly every instance, a private car is the most efficient choice.
51	Appreciate all efforts to provide more active transportation options and routes, especially trails.
52	I wish there had been better options under biking and walking for frequency. I wanted to have 'occasionally' as an option, or 'once or twice a month' instead of once or twice a week. Very hard to actually gauge how to answer.
53	No, thank you for the work you do
54	I live in Greeley, and while I think we're making progress, there's just no way to justify green/active transportation as a mom with two kids (with separate drop-offs, no school buses, and too young for public buses solo). I can drop off both kids and get to my office by car all in under 30 minutes; I don't have a comparable active way to do so.
55	Don't use it personally

ID	Responses
56	I like riding bike paths and look forward to any new ones. I live in Loveland and enjoy riding up to Fort Collins trails. Also like the Poudre River Trail from Windsor to Greeley. Looking forward for the connection between FC and Windsor.
57	Question how full is the large bus that travels between Greeley and Fort Collins? Would it be better for environment if we used smaller buses until big are needed?
58	I would not take transit.
59	Having sidewalks or bike lanes along busy streets would be helpful.
60	I would ride way more on the weekend but the busses hardly run on the weekend
61	When the bike racks are full on the bus and you can't take the bus you intended because you have a bike it is very inconvenient and discouraging
62	I take the RTD to work in Denver and I love it. If Greeley had more routes that ran more often I would use the bus here for in town shopping and recreation. Currently I drive to Brighton to pick up RTD but if there was a bus I could take to connect to an RTD route I would take it instead of driving
63	Evenings and Sundays would be a nice addition. I could still use my bus pass and not have to pay each way.
64	I recently moved to Greeley and have been pleasantly surprised by the cycling infrastructure (I'm an avid cyclist) especially after having lived in Fort Collins for a few years. I do not ride to work at the moment (the weather this summer has been a big part of it) but I've also yet to find an ideal route from home to work. My street, which has a bike lane, dead ends at an industrial plant where there is no choice but to go around, eliminating the most direct route. There are alternate options, but both add significant mileage in order to stay on roads with bike lanes. While that doesn't bother me if I'm riding just to ride, it hasn't been appealing from a commute standpoint. Otherwise I'd be riding to work regularly!
65	Fort Collins should bring back Sunday Service.

Figure AB-1: Active Transportation Plan Response Rate by ZIP Code



Other Key Stakeholders

Additional Meetings and Conversations

- Town of Berthoud Planning Staff
- City of Evans Community Development Staff
- City of Fort Collins Parks Planning and Development Staff
- City of Fort Collins FC Moves Staff
- City of Greeley Transportation Planning Staff
- City of Greeley Natural Areas & Trails Department
- Town of Johnstown Planning Staff

- Larimer County Engineering Staff
- Larimer County Natural Resources Staff
- Weld County Public Works Staff
- City of Loveland Public Works Staff
- City of Loveland Open Lands Staff
- Town of Windsor Open Space and Trails Staff
- Town of Severance Planning Staff
- Town of Timnath Community Development Staff
- Town of Wellington Staff

Draft ATP Public Comment Period

The public comment period opened on March 20, 2026 and closed on April 20, 2026. The NFRMPO received five comments from community members and local agency staff. The comments included wording recommendations, updates on the RATC vision plans, and recommendations for further action steps in Chapter 5.

Appendix C: Wayfinding Guidance

This section includes guidance on active transportation wayfinding adapted from the City of Fort Collins. In 2015, the City of Fort Collins adopted a [Bicycle Wayfinding Network Master Plan](#), creating a wayfinding template and guiding principles for application along the City's trail and bikeway system. Although the Plan was specific to bicycles, much of the guidance is appropriate for other active modes. The City agreed to share their wayfinding documentation with the NFRMPO to distribute to member communities. This turnkey solution allows NFRMPO member agencies employ the basic elements, adapt templates to the local context, and apply their own branding.

The vision for wayfinding across the Regional Active Transportation Corridor (RATC) network is signage infrastructure that provides consistent messaging to RATC users no matter where they are but allows for unique local branding that complements and highlights local context and character. The following guidance offers principles to inspire confidence in users and guide them across neighborhoods, communities in a relatively seamless experience.

Wayfinding Elements, Placement and Technical Guidance Memo

Fundamental Wayfinding Elements

The following sign typologies are recommended for the local and regional bicycle network. Unless noted otherwise, all wayfinding elements are oriented and scaled for the bicycle user.

Fundamental Navigational Elements

The fundamental family of signs which provide cyclists with navigational information consists of decision, confirmation, and turn signs. The function, content, and placement of each are described below.



Above: Fundamental on-street wayfinding tools. Credit: City of Fort Collins

Decision Sign

Function and content: Decision signs clarify route options at junctions where more than one potential route exists. Decision signs include system branding elements, space for up to three destinations, distances to destinations in miles and/or time (based on 10 mph or 6 minute per mile travel speed) and may include the route or path name.

Per the FHWA’s Standard Highway Sign Manual, the standard three-line decision sign for both on- and off-street bicycle facilities is formatted horizontally at 18 inches high by 30 inches wide.²² Many municipalities have three line decision signs that are formatted vertically at 24 inches wide by 30 or 36 inches tall by omitting the bicycle symbol from each separate line and including a single bike symbol at the top of the sign. Regardless of



Above: Decision Sign example. Credit: City of Fort Collins

²² Sign width is not standardized by the USDOT in the Manual for Uniform Traffic Control Devices (MUTCD).

orientation, six inches of vertical space per destination line is generally provided to allow for the two inch minimum text height.

Placement: Detailed in the following section

Confirmation Sign

Function and Content: Confirmation signs are placed after a turn movement or intersection to reassure cyclists that they are on the correct route. Signs include a system brand mark and may include the route or path name.

For both on- and off-street bike routes, the minimum size of 24” wide by 18” high should be used.

Placement: Detailed in the following section



Confirmation Sign example. Credit: City of Fort Collins

Turn Sign

Function and Content: Turn signs are used when only one route option exists to indicate a change in route direction. Signs include a system brand mark, route or pathway name and directional arrow.

Standard D1-1 series signs may be used to indicate turns. Standard turn arrow signs (M5 and M6 series) may also be used in conjunction with bike route signs to clarify turn movements. Similar to decision signs, a minimum height of 6” should be used and width may vary according to destination length.

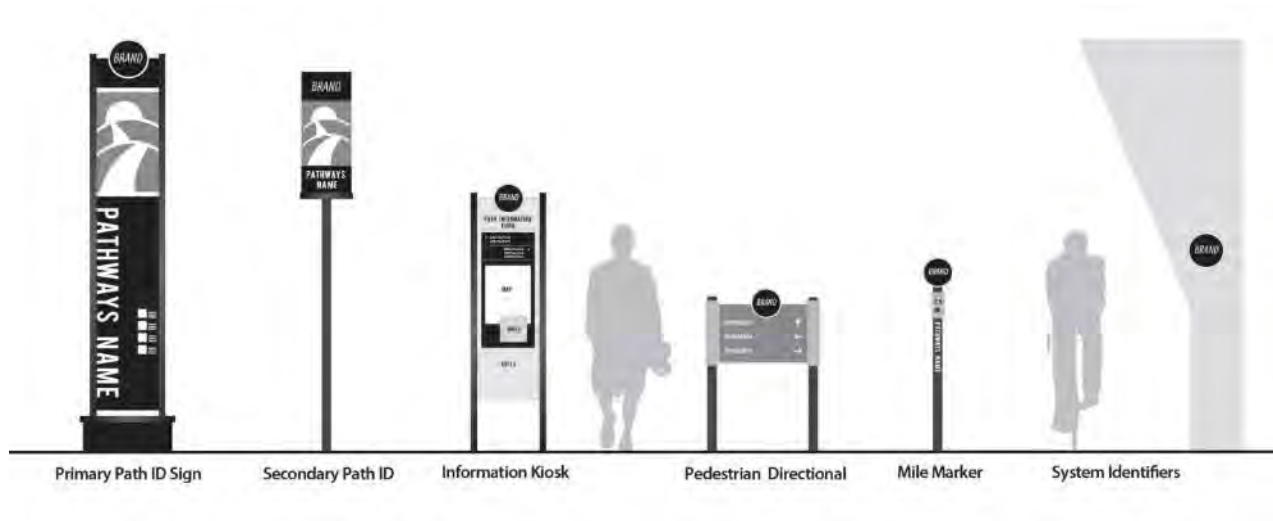


Above: Turn sign example. Credit: City of Chicago, IL

Placement: Detailed in the following section

Supplemental Wayfinding Elements

A robust wayfinding system for active modes includes additional elements to orient, inform, and inspire confidence in the facility user. These elements can vary widely in character. They can come in the form of a standard sign, pavement marking, public art, and more.



Above: Supplemental Wayfinding Elements ad examples. Credit: City of Fort Collins.

Mile Markers

Function and Content: Mile markers enable pathway users to measure distances travelled and provide pathway managers and emergency response personnel with reference points to identify field issues such as maintenance needs or locations of emergency events. Mile markers include the system brand mark, distance in whole number miles or decimal miles when less than one mile and may include path name and jurisdiction.



Placement: Mile markers should be placed every ¼ to ½ mile along the pathway network. Mile markers may be installed on one side of a pathway, back-to-back. Point zero should begin at the southern and westernmost terminus points of a pathway. Mile numbering should be reset at zero as a pathway crosses a jurisdictional boundary. Distances along on-street routes should be included within mile measurements.

Above: Mile marker example. Credit: Town of Milliken

Primary Pathway Identity Sign

Function and Content: Primary pathway identification signs are oriented and scaled for vehicle drivers and serve as the initial welcome and identification of primary pathway access points. Signs include the system brand mark, pathway name, and local jurisdiction identity/logo.



Placement: Signs should be located at trailheads or regional pathway access points. Care should be taken to maintain site lines between roadways and entries at trailhead locations.

Above: Primary Pathway Identity Sign. Credit: Town of Milliken

Secondary Pathway Identity Sign

Function and Content: Secondary pathway identity signs are oriented and scaled for pedestrian and bicycle network users and serve as the initial welcome and identification of secondary pathway access points. Signs include the system brand mark, pathway name and local jurisdiction identity/logo.

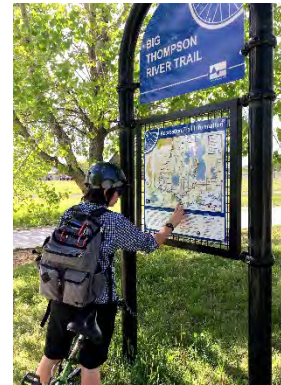


Placement: Signs should be located at pathway access points visible from adjacent bicycle facilities.

Above: Secondary Pathway Identity Sign. Credit: Town of Milliken

Information Kiosk

Function and Content: Kiosks provide a clearing house of information at a more detailed level than other elements. Kiosks include orientation map graphics indicating the on- and off-street route and connections, major geographic features, destinations rules and responsibilities, emergency and pathway manager contact information and jurisdiction logo.



Above: Information Kiosk example. Credit: City of Loveland

Placement: Kiosks should be located at major pathway system access points and set back from the edge of the path travelway to provide areas to dwell and consider the information. Per accessibility guidelines, kiosks should be placed at a distance greater than three feet from the pathway edge to provide clear circulation areas and avoid the creation of a potential physical obstacle from the bicycle travelway.

System Identifiers

Function and Content: System identifiers present opportunities to add the system brand mark or logo to existing features to expand visibility at an affordable rate. Identifiers may include vinyl wraps, adhesive graphics, sign toppers, and pavement markings with system name or brand mark.



Above: System Identifier example. Credit: Capital District Transportation Committee

Placement: Identifiers may be placed at each jurisdiction’s discretion based on need for augmented system visibility.

Wayfinding Element Placement

The various elements of the wayfinding family should be located in a consistent and logical manner within and across communities. Signs may be mounted to existing or new wayfinding sign posts. Focusing efforts at the following locations can address a majority of the navigational issues requiring clarification by bike network users:

- On-street route intersections
- Gaps in path network
- Path-path intersections
- Path-roadway intersections
- Off-street and on-street transitions

- Pathway access points
- Typical setback and frequency

On-street Wayfinding Element Placement

On-street wayfinding element placement recommendations are provided below. However, engineering judgement and a review of the existing site conditions should also be used on a case-by-case basis to determine the specific placement of each sign.

Decision Signs

The distance of a decision sign from a turn or transition is determined by design speed, site lines and slope. Decision signs should be placed along the right-of-way in places where the cyclist can see an upcoming sign from an appropriate distance given the design speed and physical context.

On busy streets with center turn lanes or left turn pockets, signs should be placed further from the intersection to decrease the possibility of conflicting cyclist/motorist movements while preparing for a left turn. The location of the sign should exceed the stopping distance needed by the fastest expected travel speed, but should not be placed so far in advance that the relevance of the sign is lost or forgotten.

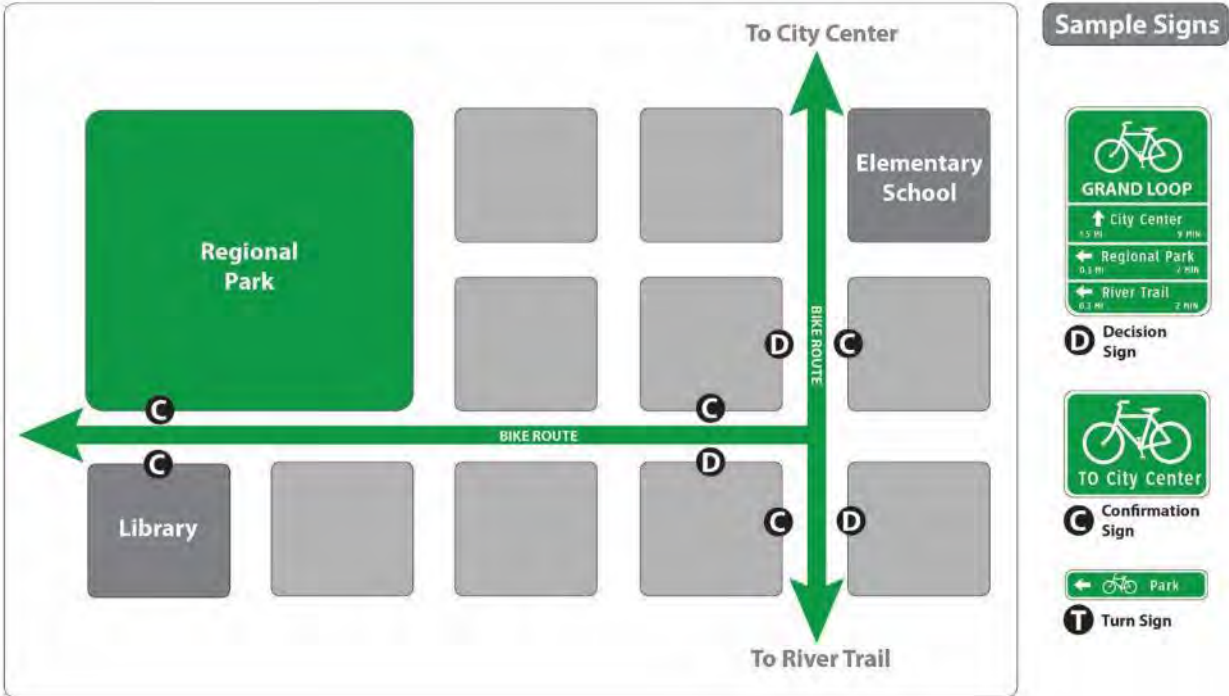
Confirmation Signs

Confirmation signs provide reassurance of direction after decision points and along long routes with no intervening destinations or decision points. At decision points, the sign should be placed 50 to 100 feet after the intersection or turn. Confirmation signs should not occur after every intersection and should be prioritized at complex intersections. Complex intersections include those having more than four approaches, non-right angle turns, roundabouts, or indirect routing.

Along routes in developed areas with few decision points, confirmation signs should be placed every two or three blocks for reassurance. Where less reassurance is needed (for example, less developed areas, low volume streets or separated pathways) confirmation signs should be placed roughly every 0.5 miles.

Turn Signs

Turn signs should be placed at points prior to the turning action to provide cyclists advance notice of a change in direction. Signs may also be used in conjunction with a decision sign at complex intersections warranting additional information.



Above: Typical placement scenario showing a decision sign being located prior to an intersection of two bicycle facilities. A confirmation sign is provided after the turn movement as well as periodically along the route for reassurance.

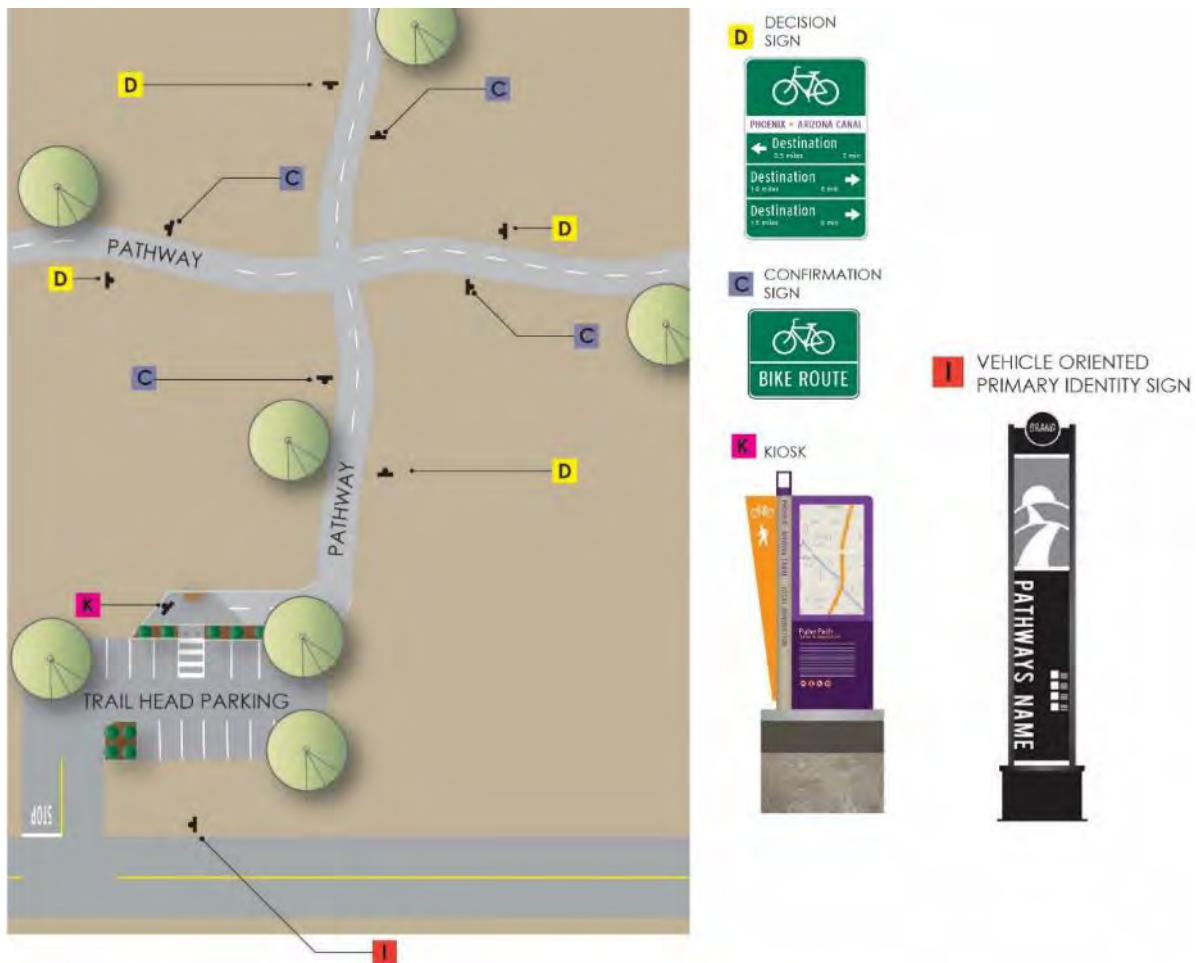
Off-street Wayfinding Element Placement

Pathway Access Points

Major pathway access points or trailheads should be identified via primary identity signs. Primary identity signs should be oriented towards approaching vehicles. Care should be taken to not obstruct site lines between the roadway and entry points or driveways. Pathway system access points not providing vehicle parking should utilize the secondary bicycle sign. As an option, kiosk signs with orientation maps may be placed at developed trailheads or access points.

Path-Path Intersection

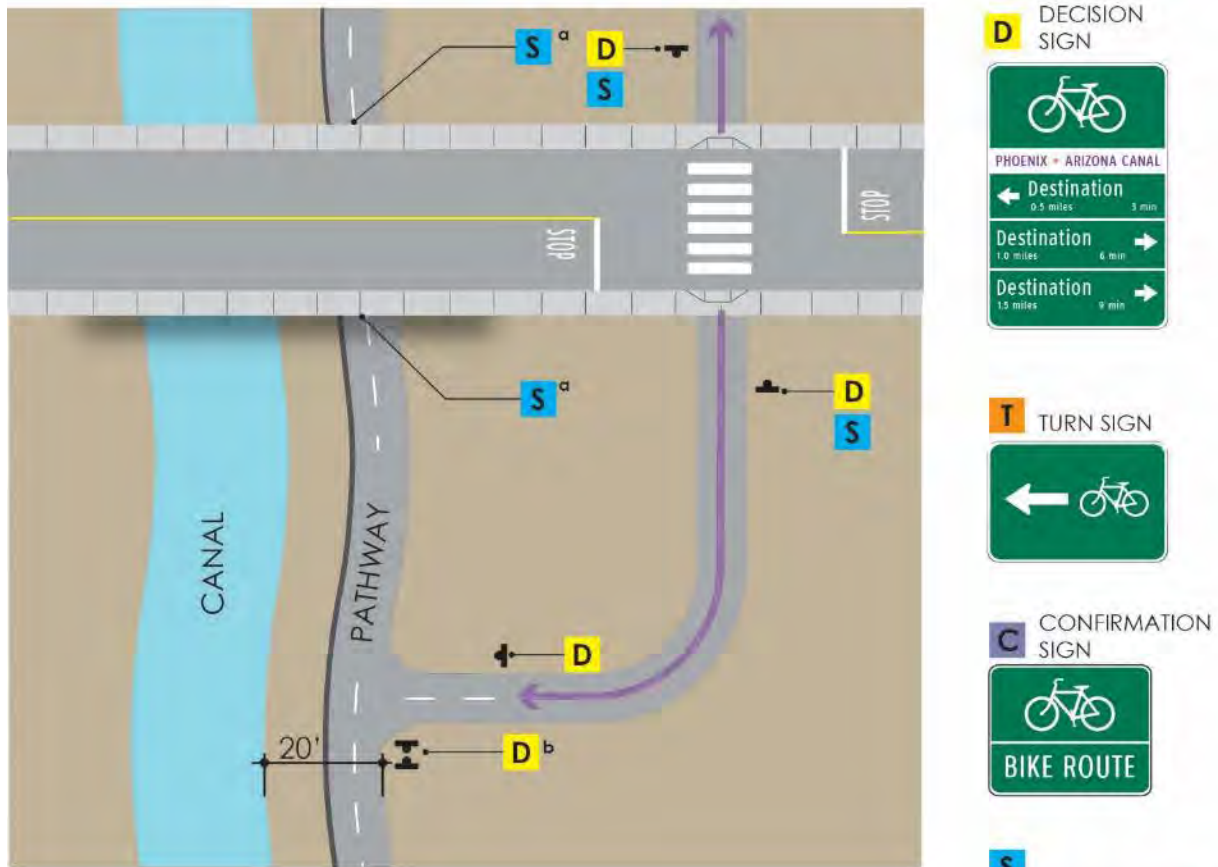
When pathways intersect each other, multiple destinations are likely. Thus, decision signs should be placed prior to the intersection. As an option, confirmation signs may be placed after intersections to reinforce that the user did indeed make the correct movement.



Pathway Access Branches

Connections and access points between the off-street and on-street network may result in path branches between the facilities. At such junctions, it is important to inform cyclists of where the alternative route option goes. This may be done via decision signs located at junctions.

Grade separated roadway crossings would benefit from applying street name sign blades to crossing improvements such as bridge infrastructure.

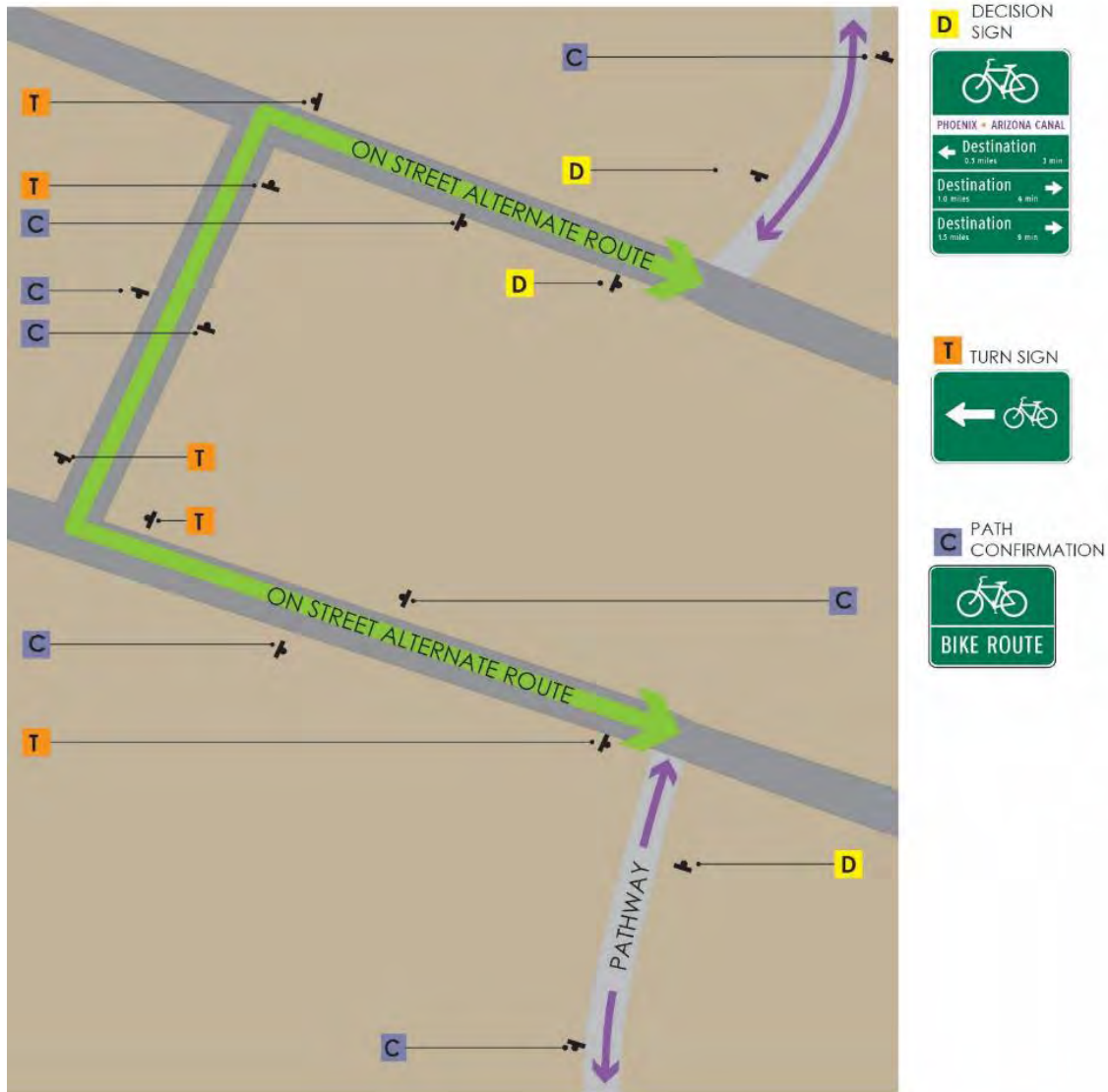


NOTES:

- a. MOUNT TO UNDERSIDE OF BRIDGE
- b. OK TO MOUNT TWO SIGNS PER POLE. SIGNS TO BE PLACED PERPENDICULAR TO DIRECTION OF TRAVEL.

Gap in Path Network

Where gaps in the off-street bicycle network exist, pathway users may be routed to on-street bicycle facilities to provide improved connectivity. The typical pattern for wayfinding signs includes a decision sign prior to the intersection of route options, followed by an optional confirmation sign. Turn signs should be placed to reinforce the route in locations where only one route option exists.



Off-street / On-street Transition

When transitioning from an off-street facility to an on-street facility, it is important to advise travelers of their route options. In this scenario, decision signs direct cyclists to their

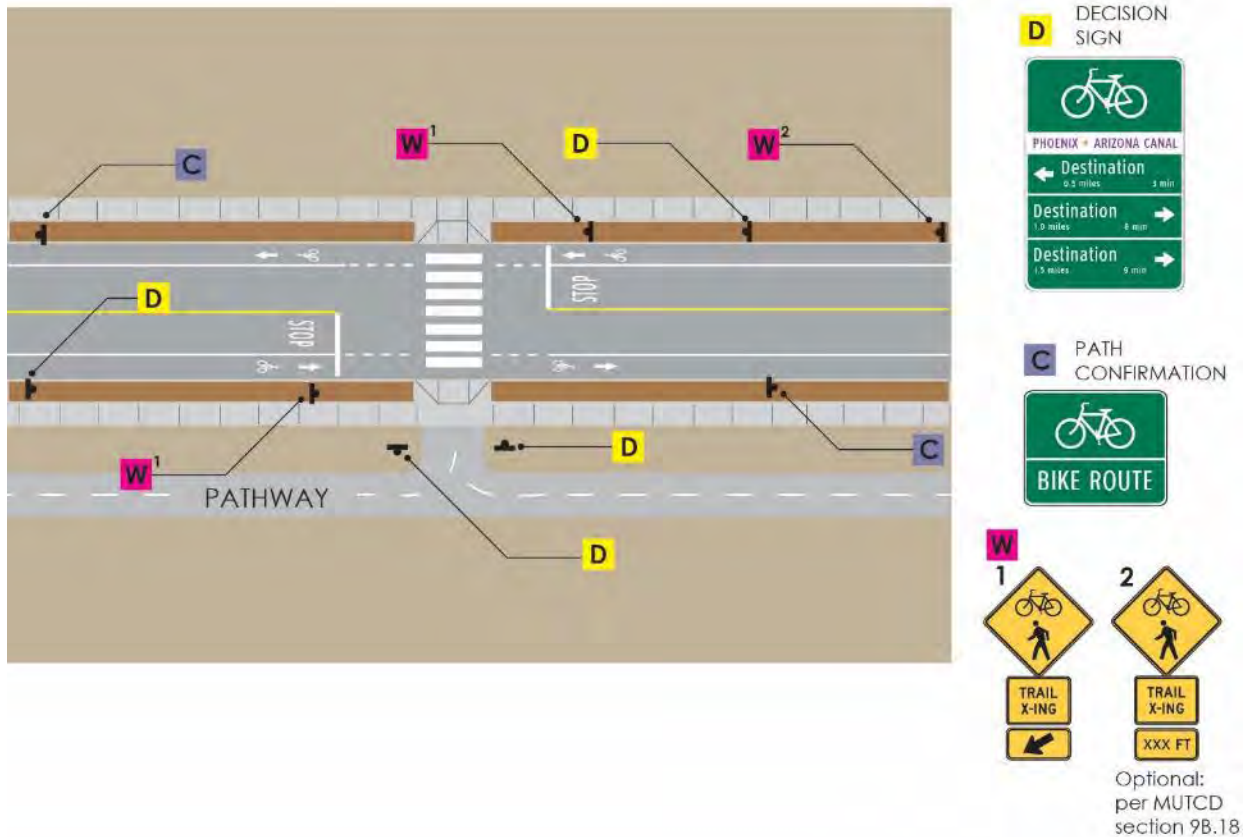
destination choices while confirmation signs reinforce that the user is on a designated facility after a turn movement is made.

Decision signs should also be placed at the entry to the off-street bicycle network. Once on the off-street bicycle network, confirmation signs are optional.

Vehicle oriented bicycle and pedestrian crossing warning signs should be placed in advance of crosswalks. In urban areas, signs should not be placed within four feet of a crosswalk in order to maintain visibility of those intending to cross the roadway.

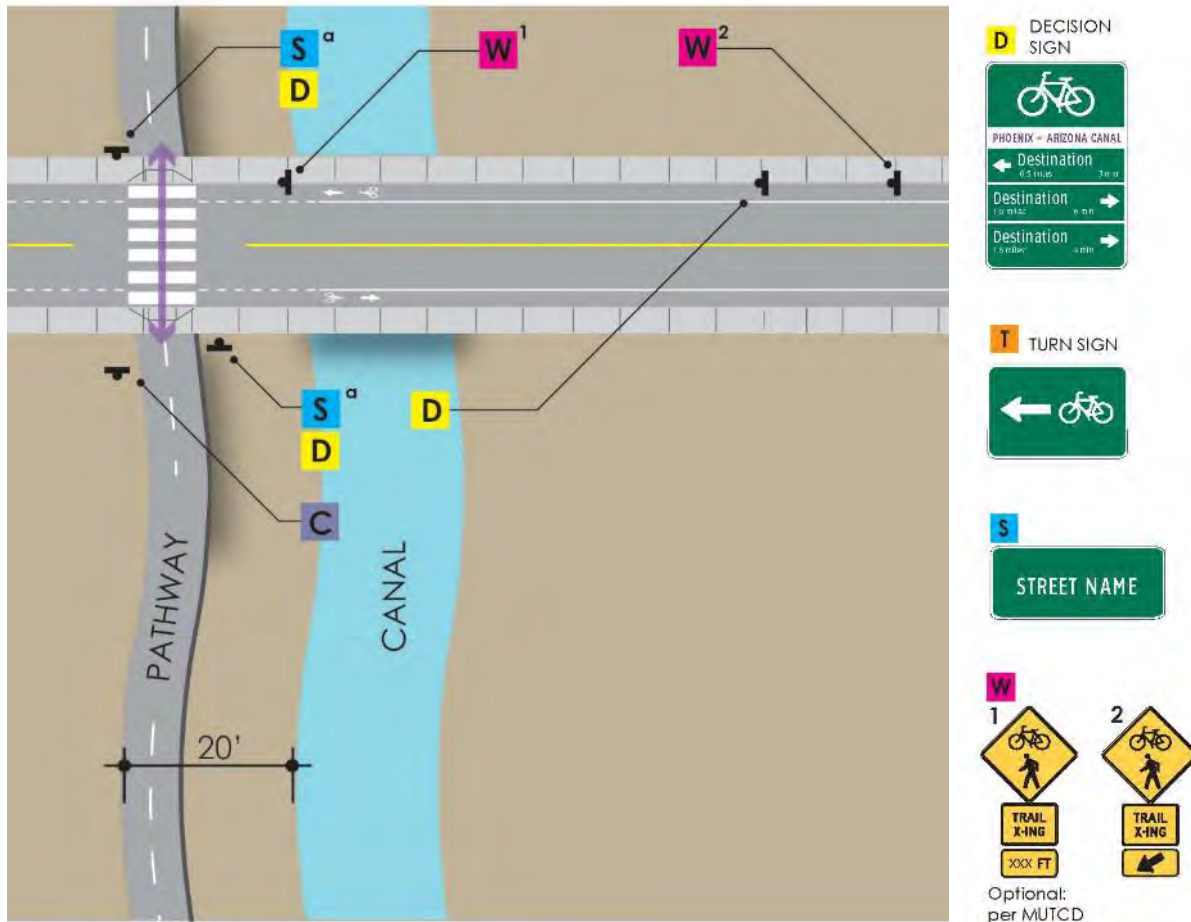
Advance warning signs are optional per the MUTCD. If they are used, their placement should provide needed time for detection, recognition, decision, and reaction. Table 2C-4 in the MUTCD provides guidance for advance warning sign placement based on vehicle speeds.

On-street directional signs leading to the pathway network should not obscure other roadway signs. They should be spaced according to roadway travel speeds with faster roadways warranting wider spacing. Guidelines for the placement of advance warning signs based on perception-response time may be found within Table 2C-4 of the MUTCD.

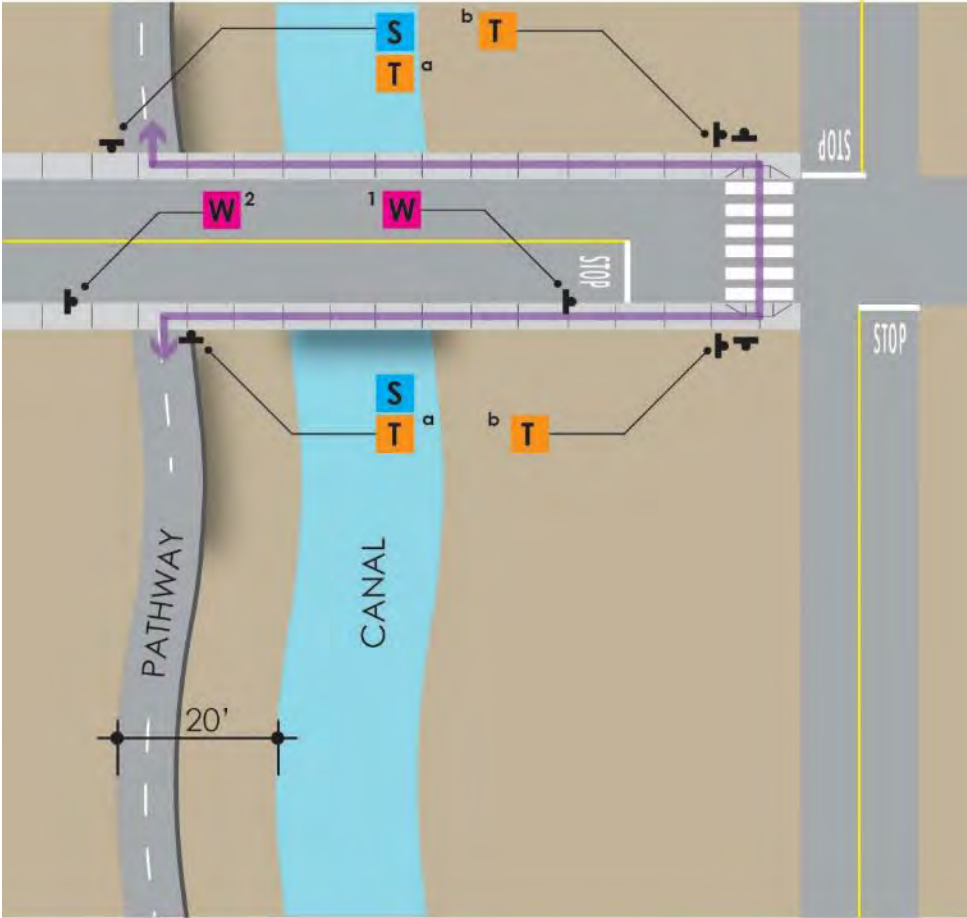


Path-Roadway Intersection

Pathway users should be directed to cross roadways only where improvements such as curb ramps, crosswalk striping, and warning signs exists. If the cross street has bicycle facilities such as bike lanes, a bicycle boulevard, or cycle track, a decision sign should be placed prior to the intersection to inform cyclists of their route options. If a cyclist oriented stop sign is present, it should not be obscured by the wayfinding sign. Decision signs may be topped with street name sign blades to enhance one’s awareness of their location. As an option, confirmation signs may be placed at pathway entries to assure cyclists that they are on a bicycle facility.



Oftentimes, direct travel via mid-block roadway crossings is not provided for. Instead pathway users are expected to divert to the nearest improved or signalized intersection. In this scenario, turn signs should be used to direct cyclists to the intersection with safety improvements. Again street name blades may be mounted above decision signs to reinforce location.



D DECISION SIGN



T TURN SIGN



S



W



Optional:
per MUTCD

Destination Selection and Prioritization

The process of selecting and prioritizing the destinations to include on wayfinding should include input from a stakeholder committee representing system users, stewardship groups/agencies, advocates, schools/school districts, business community/chamber of commerce in each community.

A consistent approach to selecting destinations to be included on wayfinding elements is necessary given the multitude of potential destinations. Signs should follow the same approach throughout the region so that the system is clear and predictable. Destinations and their names should be referred to consistently until they are reached.

Potential destinations for inclusion on signs should be categorized into four levels. These levels are explained in detail in **Table AC-1** and **Figure AC-1**. For on-street and off-street regional pathways, Level 1 destinations should receive first priority, followed by Level 2 and then 3. Level 4 destinations should only be included when other destinations are not present to fill available slots on a sign. local routes typically serve shorter trips within their immediate community. Signs on such facilities may prioritize Level 2-4 destinations recognizing that longer, regional trips are more likely to occur via the regional pathway network.

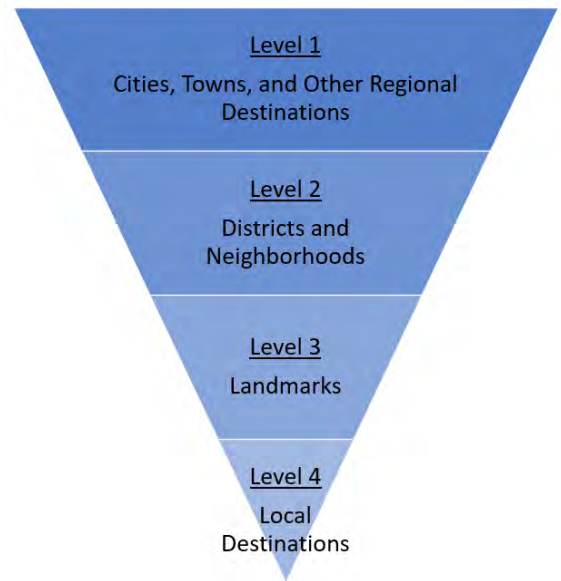
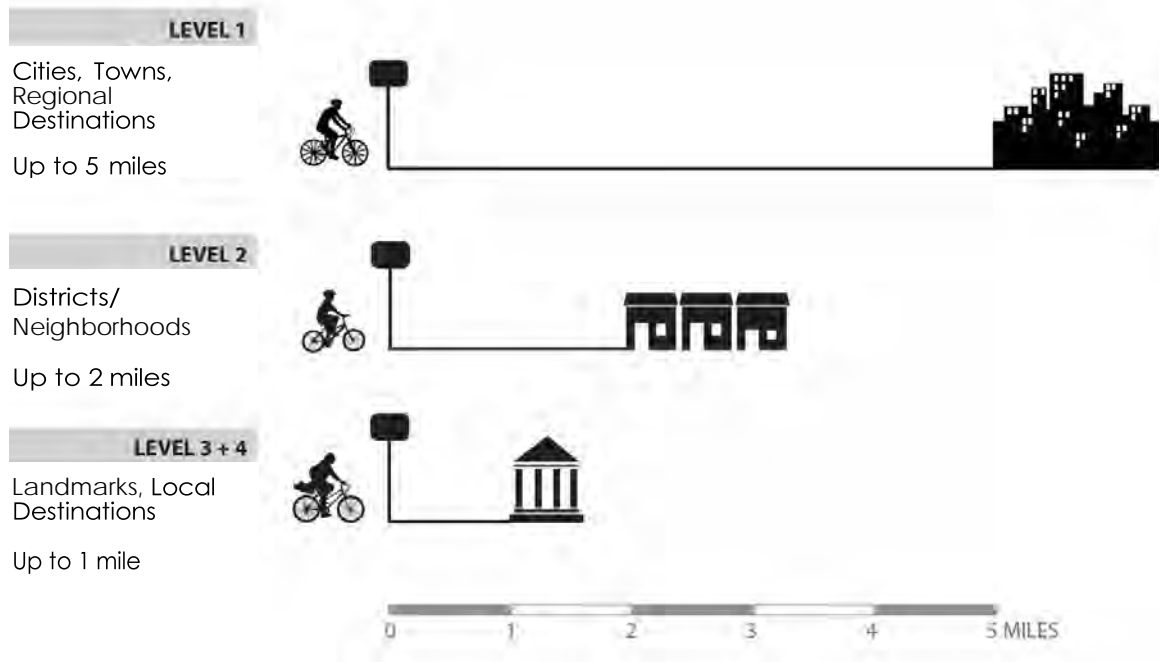


Table AC-1: Wayfinding Destination Categorization

<p>Level 1 – Cities, Towns, and Other Regional Destinations</p>
<p>Level 1 destinations include regional destinations accessed via the system, either within the community or in neighboring communities. Highlighting nearby cities/towns provides large scale geographic orientation for users, especially those making regional trips. Level 1 destinations provide “pull through” destinations for users who are travelling significant distances as well as a full range of attractions and services. Appropriate facilities should exist to the destination if it is included on the system. Level 1 destinations should be included on directional signs and orientation signs.</p>
<p>Level 2 – Districts and Neighborhoods</p>
<p>Level 2 destinations provide a finer grain of navigational information than Level 1 destinations by directing users to comprehensible districts and neighborhoods. These may be city centers, historic, commercial, cultural, or educational districts, or neighborhoods with a distinct name and character. Emphasis should be placed on districts providing a mix of services. Neighborhoods not directly on the system should be included on directional signs and orientation signs.</p>
<p>Level 3 – Landmarks</p>
<p>Level 3 destinations are specific landmarks or major attractions which generate easily or commonly accessed by an active mode. Landmarks could include transit stations, major tourist venues, regional parks, open spaces and post-secondary educational institutions. Level 3 destinations should be signed up to 1 mile away.</p>
<p>Level 4 – Local Destinations</p>
<p>Level 4 destinations are local destinations such as civic buildings, parks, high schools, shopping centers, and healthcare facilities. They are typically present on signs in low density areas where few other destinations are present or along pathways not connecting higher priority (Level 1-3) destinations.</p>

Figure AC-1: Maximum Suggested Signing Distances Based on Destination Level



Distances may be measured either to a destination boundary or center, as long as the approach is consistent throughout the region. Cities (level 1 destinations) typically have a well-defined edge and thus should be measured to boundary lines. Districts (level 2 destinations) are less defined in terms of their boundaries and thus should be measured to their centers. Level 3 and 4 destinations are typically specific addresses and thus distances should be measured to the main entrance of their specific location. If a level 3 or 4 destination is large or has several access points, distance should be measured to the point at which the user will arrive at the destination.

Destination Selection Criteria

Level 1 – Cities, Towns, and Other Regional Destinations

Level 1 destinations should include nearby towns, cities, and other large regional destinations such as state or county parks/open spaces if the system extends past a city or town.

Level 2 – Districts and Neighborhoods

Districts and neighborhoods may be included on signs if the area has been formally established by resolution or ordinance of the appropriate local agency or if the district has developed and implemented its own internal wayfinding sign plan. Examples of districts include: city centers, university districts and arts districts. Neighborhoods having historic character or otherwise significantly contributing to the culture and vibrancy of a city may also be signed.

Level 3 - Landmarks

Landmarks included within the inventory have been sorted between levels 3 and 4. Level 3 landmarks have regional importance and can reasonably be expected to be in operation for years to come. Level 3 destinations include:

Businesses and Services

- **Medical Facility** - Hospitals, veterans services providers, and clinics may be considered if the facilities meet all of the following criteria:
 - Service is provided 24 hours a day, 7 days a week.
 - Emergency department facilities and services are provided.
 - The facility is licensed or approved for definitive medical care by an appropriate State authority.
- **Shopping Center** - A group of shops, retail stores, and/or restaurants that is regionally significant in size with respect to the size of the community or area of the region
- **Visitor Center** - A facility having the primary purpose of providing information and tourist support services. Must be approved by the State Department of Community and Economic Development.

Education

- **College/University** - An educational institution that is nationally accredited and grants degrees.
- **Public 2 Year College** - An educational institution that is nationally accredited and grants degrees.

Entertainment and Culture

- **Historic Site** - A structure or place of historical, archaeological, or architectural significance listed on the National Register of Historic Places.
- **Museum** - A facility of national or regional significance exhibiting works of artistic, historic, or scientific value.
- **Performing Arts Venue** - A facility focused on the enjoyment of the performing arts and providing a minimum capacity of two hundred seats.
- **Botanical Garden or Zoo** - Accredited institution, where plants and/or animals are kept and cared, while also offering public education.

Public Facility

- **Recreation or Community Center** - Publicly owned buildings offering places to recreate, learn, and/or gather.

- **Library** - A repository for literary and multi-media materials, such as books, periodicals, newspapers, recordings, films, and electronic media, kept and systemically arranged for use and reference.
- **Park/Open Space** – Publicly owned National, State, and Regional parks.
- **Pathway** – Named regional facilities built for transportation and recreation purposes and used by both cyclists and pedestrians.
- **Transit Center** – Passenger terminals facilitating access to multiple bus lines.

Sports Facility

- **Golf Course** - A facility open to the public and offering at least eighteen holes of play. Miniature golf courses and driving ranges are not considered a level 3 landmark.
- **Stadium or Arena** – A permanent facility used for the primary purpose of presenting organized sporting events. Includes county and state fairgrounds
- **Sports Complex** – A facility open to the public that commonly holds sporting events on multiple fields, such as baseball or softball tournaments

Level 4 – Local Destinations

Extending the wayfinding system to include local destinations may be useful in lower density areas or on more rural routes where Level 1-3 destinations are not present. Each community is unique but, generally, larger civic institutions such as libraries, museums, or community centers will take precedent over specific local services and visitor accommodations.

Businesses and Services

- **Medical Facility** - Licensed facilities that provide emergency or urgent care services. Need not be open 24 hours per day, seven days per week.
- **Shopping Center** – A group of shops, retail stores, and/or restaurants that is significant mainly on a local level, with respect to the size of the community or area of the region

Community Facilities

- **Cemetery** - A large public park or ground laid out expressly for the interment of the dead.

Education

- **Primary School** – Public schools providing elementary school level education to students generally aged six through eleven. Private schools may be considered on a case by case basis

- **Secondary School** – Public schools providing high school level education to students generally aged eleven through eighteen. Private schools may be considered on a case by case basis

Entertainment and Culture

- **Museum** – A facility of local recognition exhibiting works of artistic, historic, or scientific value to the general public.
- **Performing Arts Venue** - A facility focused on the public’s enjoyment of the performing arts and having a capacity of less than two hundred seats.

Public Facility

- **Civic Building** - City hall, courthouse, fire or police station.
- **Local Park** - Publicly owned local parks.
- **Post Office** – Official federal postal service center.

Sports Facility

- **Golf Course** - A facility open to the public and offering fewer than eighteen holes of play. Miniature golf courses and driving ranges may be considered.
- **Sports Field** – A permanent facility used for the primary purpose of presenting and practicing local organized sports.
- **Public Pool, Swimming Area, or Waterpark** – A facility open to the public for water recreation. The facility may already be referenced if it is part of a recreation or community center

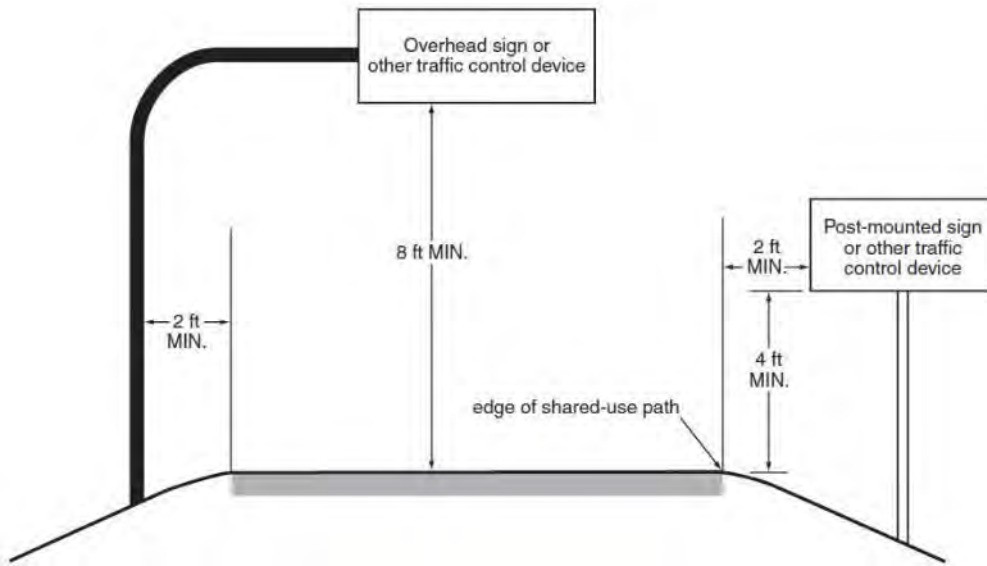
In situations where two destinations of equal significance and distance may be properly designated and the two destinations cannot appear on the same sign, the two names may be alternated on successive signs. If a facility ends abruptly, signs should signify “End of Trail” or “End of Route” as the lowest priority after all other possible destinations, up to 1 mile before the facility ends.

Additional Technical Guidance

A variety of standards and guidelines influence both sign design and placement of wayfinding elements in Fort Collins. The following provides information related to national standards for wayfinding signage.

In general, regulatory and warning signs are a higher priority than wayfinding signs. Care should be taken to not obscure priority information. This includes providing a typical spacing

of no less than 75 feet between signs along off-street pathways. This distance is based on travel speeds and thus is generally greater for on-street systems.



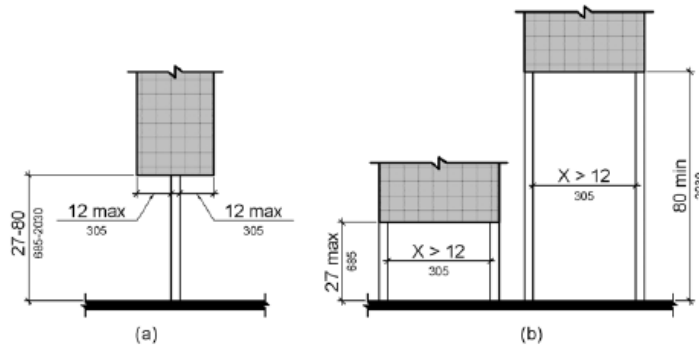
Minimum Sign Clearances on Shared-Use Paths

Accessibility Standards

As wayfinding systems often relate to accessible routes or pedestrian circulation, it is important to consider technical guidance from the ADA so that signs and other elements do not impede travel or create unsafe situations for pedestrians and/or those with disabilities. The Architectural and Transportation Barriers Compliance Board provides guidance for accessible design for the built environment. Standards which should be considered when designing and placing wayfinding signs includes the following:

Vertical Clearance

Vertical clearance should be a minimum of 80 inches high or maximum of 27 inches when signs protrude more than 12 inches from the sign post or support structure.



Post-Mounted Objects

Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches, the lowest edge of such sign or

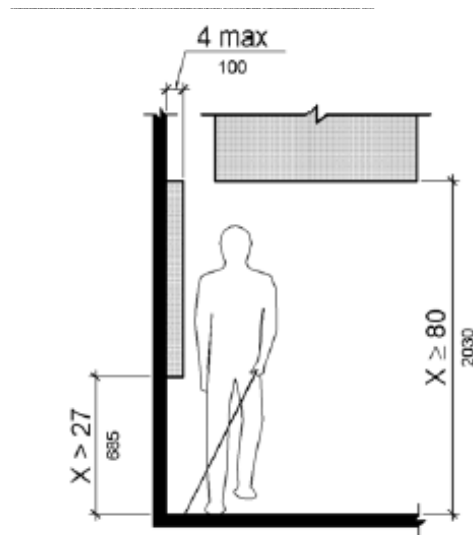
obstruction should be 27 inches maximum or 80 inches minimum above the finish floor or ground.

Protruding Objects

Objects with leading edges more than 27 inches and not more than 80 inches above the finish floor or ground should protrude 4 inches maximum horizontally into the circulation path.

Required Clear Width

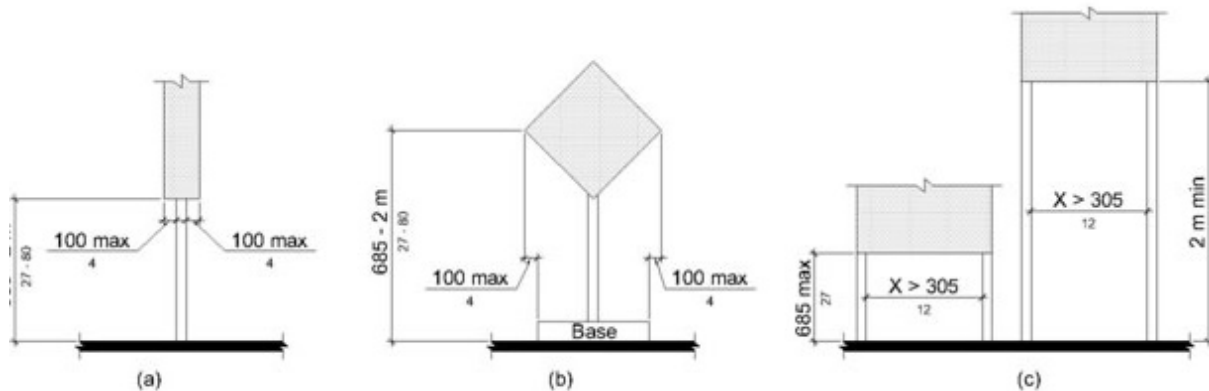
Protruding objects shall not reduce the clear width required for accessible routes. Generally this requirement is met by maintaining four feet minimum clear width for maneuvering. This requirement applies to both sidewalks and pedestrian circulation paths.



Limits of Protruding Objects

Shared Use Paths

Accessibility standards for shared use paths are currently being developed. Proposed standards address post mounted objects. Where objects are mounted on free-standing posts or pylons and the objects are 27 inches minimum and 80 inches maximum above the finish surface, the objects should overhang pedestrian circulation paths 4 inches maximum measured horizontally from the post or pylon base. The base dimension should be a minimum of 2.5 inches thick. Where objects are mounted between posts or pylons and the clear distance between the posts or pylons is greater than one foot, the lowest edge of the object should be 27 inches maximum or 80 inches minimum above the finish surface.



Current proposed standards for post mounted objects along shared use paths.

AASHTO Guide for the Development of Bicycle Facilities

The Guide for the Development of Bicycle Facilities by the American Association of State Highway Transportation Officials, or AASHTO, provides information on the physical infrastructure needed to support bicycling facilities. The AASHTO guide largely defers to Part 9 of the Manual on Uniform Traffic Control Devices (MUTCD) for basic guidelines related to the design of wayfinding systems for bicycles (see page 16). Additional information provided by AASHTO regarding wayfinding is as follows:

- Many communities find that a bicycle wayfinding system enhances other encouragement efforts by providing a visible invitation to new bicyclists and encouraging current bicyclists to explore new destinations.
- Bicycle wayfinding signs along do not improve safety or rider comfort and should supplement other infrastructure improvements so that conditions are favorable for bicycling.
- Guide signs may be used to designate continuous routes that are composed of a variety of facility types and settings.
- Wayfinding guidance may be used to provide connectivity between two or more major bicycle facilities, such as a street with bike lanes and a shared use path.
- Wayfinding may be used to provide guidance and continuity in a gap between existing sections of a bikeway, such as a bike lane or shared use path.
- Road/path name signs should be placed at all path-roadway crossings to help users track their locations.
- Reference location signs (mile markers) assist path users in estimating their progress, provide a means for identifying the location of emergency incidents, and are beneficial during maintenance activities.
- On a shared use path, obstacles, including signs, should be placed no closer than 24 inches from the near edge of the travel way and no more than 6 feet away. For pole mounted signs, the lowest edge of the sign shall be 4 – 5 feet above the existing ground plane.

Manual on Uniform Traffic Control Devices (MUTCD)

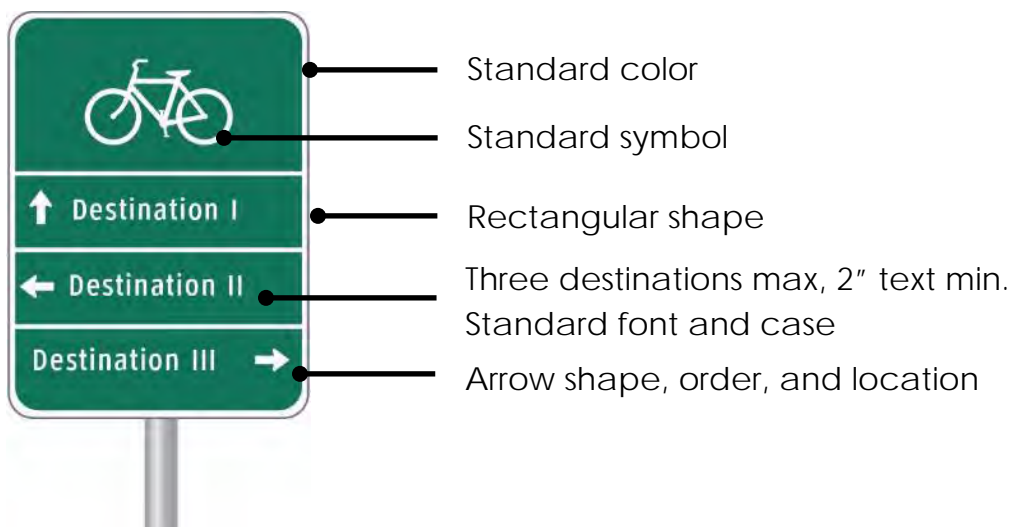
Bicycle Sign Standards

The Manual on Uniform Traffic Control Devices, or MUTCD, is a document issued by the Federal Highway Administration of United States Department of Transportation. The MUTCD specifies the standard for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel. The MUTCD was established in order to achieve uniformity and consistency in traffic control devices (wayfinding signage is considered a traffic control device) so that information would be readily recognized and understood by travelers. Both on-street and off-street bicycle facilities are required to follow the standards within the MUTCD.



Per the MUTCD, devices should be designed so that:

- Size, shape, color, composition, lighting or retro-reflection, and contrast are combined to draw attention to the devices; simplicity of message combine to produce a clear meaning.
- Legibility and size combine with placement to permit adequate time for response.
- Uniformity, size, legibility, and reasonableness of the message combine to command respect.



Standard MUTCD compliant directional or decision sign

Sign Arrangement

The MUTCD also recommends the arrangement and amount of text, or legend, on each section of each sign:

- Guide signs should be limited to no more than three lines of destinations, which include place names, route numbers, street names, and cardinal directions.
- A straight ahead location should always be placed in the top slot followed by the destination to the left and then the right. If two destinations occur in the same direction, the closer destination should be listed first followed by the farther destination.
- Arrows shall be depicted as shown above for glance recognition, meaning straight and left arrows are to be located to the left of the destination name, while an arrow indicating a destination to the right shall be placed to the right of the destination name. The approved arrow style must be used.
- 19 characters (including spaces) in titlecase should be considered a maximum length for a single destination title. 10-14 characters (including spaces) in titlecase should be considered an ideal maximum length for a single destination title.
- In situations where two destinations of equal significance and distance may be properly designated and the two destinations cannot appear on the same sign, the two names may be alternated on successive signs.
- Approved fonts include the Federal Series (series B, C, or D), also known as Highway Gothic. Clearview is also currently approved for use, however the FHWA is considering rescinding the use of Clearview.
- A contrast level of 70% needs to be achieved between foreground (text and graphics) and background.

Appendix D: Bicycle Parking Resources

This section includes basic guidance on bicycle parking considerations for cities, towns, and businesses from the Association Pedestrian and Bicycle Professionals (APBP) and the Federal Highway administration (FHWA). For more comprehensive guidance on bicycle parking, local agencies should refer directly to resources such as APBP's [Essentials of Bike Parking, Selecting and Installing Bicycle Parking that Works](#) and the [FHWA University Course on Bicycle and Pedestrian Transportation Lesson 17: Bicycle Parking and Storage](#) and [Bicycle Parking Guidelines, 2nd Edition](#).

Adequate bicycle parking is a crucial, and often overlooked component of a complete bicycle network. Studies have shown bicyclists tend to purchase less per visit at businesses but make more frequent visits than a motorist.²³ Creating safe, secure, attractive bicycle parking near destinations encourages bicycle ridership by instilling confidence and sense of belonging in bicyclists. A community installing bicycle racks must consider the duration users will lock a bicycle to the rack. Users parking for more than two hours will most likely value security and shelter over the convenience and ease of short-term parking.

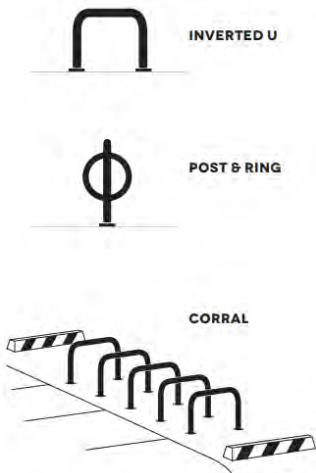
Short Term Parking

- Should be visible from and close to the entrance it serves.
 - A benchmark of 50 feet or less is recommended.
- Shelters reduce the demand for users to bring wet bicycles into buildings.
- Lighting improves the safety and security of the user and the bicycle.
- Racks should be secured properly and located in view of the public.
- While the number of racks necessary to serve the population, perceived demand may be lower than the demand which develops once quality parking appears.

Long Term Parking

- Users are typically willing to trade a degree of convenience for weather protection and increased security.
- Since users will leave bicycles unattended for hours an increased number of parking spaces will be needed to accommodate users throughout the day.
- Bicycle lockers, enclosures, or a room in a building may be necessary to fulfill long term parking demand.

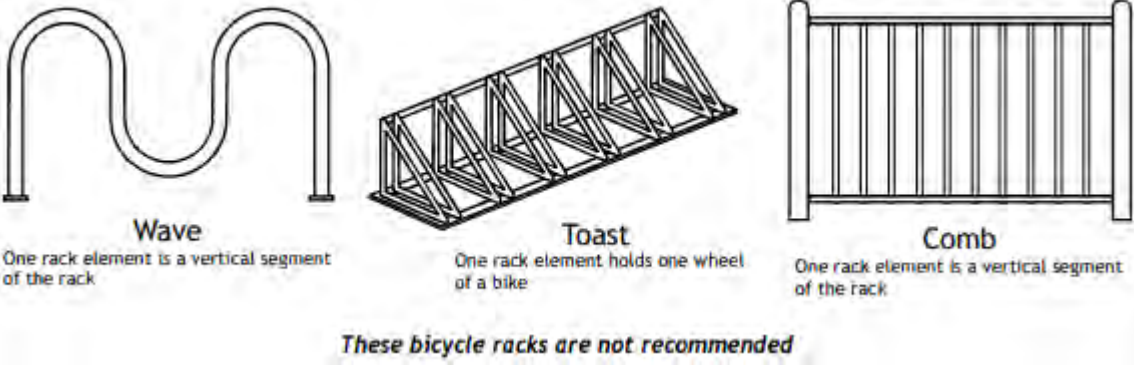
²³ Clifton, et. al. Consumer Behavior and Travel Choices: A Focus on Cyclists and Pedestrians. Department of Civil and Environmental Engineering. Portland State University. August 1, 2012. http://nacto.org/docs/usdg/consumer_behavior_and_travel_choices_clifton.pdf



Above: High quality short-term bike parking examples. Credit: APBP



Above: Secure bike shelter at University Ave MAX Bus Station on CSU Main Campus in Fort Collins. Paid registration is required for access. Credit: CSU



Above: Examples of bike parking designs that are not recommended due to lack of functionality, intuitiveness, limited storage capacity, or potential for damage to the bike. Credit: FHWA

Table AD-1: Performance Criteria for Bike Parking

Criteria	Details
Supports bike upright without putting stress on wheels	The rack should provide two points of contact with the frame—at least 6” apart horizontally. Or, if a rack cradles a bicycle’s wheel, it must also support the frame securely at one point or more. The rack’s high point should be at least 32”.
Accommodates a variety of bicycles and attachments	The racks recommended on page 6 (“racks for all applications”) serve nearly all common bike styles and attachments—if installed with proper clearances (see placement section). Avoid designs and spacing that restrict the length, height, or width of bicycles, attachments, or wheels.
Allows locking of frame and at least one wheel with a U-lock	A closed loop of the rack should allow a single U-lock to capture one wheel and a closed section of the bike frame. Rack tubes with a cross section larger than 2” can complicate the use of smaller U-locks.
Provides security and longevity features appropriate for the intended location	Steel and stainless steel are common and appropriate materials for most general-use racks. Use tamper-resistant mounting hardware in vulnerable locations. Rack finish must be appropriate to the location (see materials and coatings section).
Rack use is intuitive	First-time users should recognize the rack as bicycle parking and should be able to use it as intended without the need for written instructions.
Source: APBP	

Local and Regional Best Practices

Bike Parking Program

City of Fort Collins

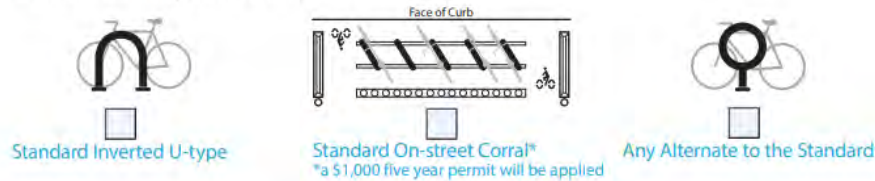
The City of Fort Collins offers bike parking guidance on their website and accepts bike parking suggestion locations by individuals and businesses through the Access Fort Collins website and smartphone app or bike corrals through a PDF application. The City also offers temporary bike racks for events. [Learn more here.](#)

City-Funded Bike Parking Application Program

City of Denver Department of Transportation & Infrastructure (DOTI)

DOTI accepts applications from Property Owners and Businesses for city-funded bicycle parking. The applications are reviewed throughout the year as they are received. The applications limits the type of bicycle parking to ensure usability and consistency across the City. Residents can also suggest locations through the same webpage. [Learn more here.](#)

What type of rack is requested? Please check one of the following (please note that Denver Public Works will not install an alternate to the standard bicycle rack or corral).



Above: A snapshot of the acceptable bike parking types that will be funded by Denver DOTI

Bicycle Parking Quantity

Humboldt County Association of Governments (HCAOG) Bike Parking Sourcebook: Sample Policies, Municipal Codes, & Programs

Among other guidance, the [HCAOG Bike Parking Sourcebook](#) advises that the amount of bicycle parking needed in a specific area depends on various factors, including type occupancy, location and proximity to streets conducive to heavy bicycle traffic, and the adjacent and nearby businesses. HCAOG suggests the following bike parking amounts based on land use. The list is non-exhaustive, and the amounts serve as a starting point and should be adjusted up or down based on local context:

- **Multi-Family Residential:** two bicycle parking spaces per dwelling unit.
- **Commercial (all zones):** bicycle spaces numbering 30 percent of motor vehicle spaces otherwise required.
- **Public Facilities (such as municipal offices, parks, swimming pools, museums, parks, auditoriums, churches and similar uses):** provide bicycle spaces numbering 30 percent of the motor vehicle parking normally required or immediately available to the facility.
- **Public and Private Schools (K-12):** provide bicycle spaces numbering 85 percent of peak enrollment. For post-secondary, provide spaces at least 50 percent of peak enrollment.
- **Employee Specific Parking:** Provide one bicycle space for every two employees during the heaviest work shift in addition to bicycle parking otherwise required for visitors/patrons. This parking may be located separately from the public parking but shall be at least as convenient as employee motor vehicle parking.

Appendix E: Count Program Guidance

The prevailing practice for collecting short-duration bicycle and pedestrian traffic data has been to focus on targeted locations where interest in travel patterns is the highest. Although this non-random site selection may not yield a statistically representative regional estimate on facility usage, it provides a more efficient use of limited data collection resources (e.g., random samples could possibly result in many locations with low or very low non-motorized use).

Why Count?

Count data can be applied in a variety of ways. Some of the applications commonly cited by local agencies performing counts in the NFRMPO region include:

- To estimate facility or community usage and demand
- To justify the need for improvements or additional facilities
- To quantify the impact of new investments along a corridor (and compare it with neighboring corridors)
- To support grant applications
- To understand trailhead or access point usage patterns
- To plan maintenance activities around the busiest times
- To understand the impact of special events (races, festivals, etc.) or abnormal periods (COVID-19, unseasonable weather, etc.)

General Count Location Selection

Short-duration counts (with mobile counters) and long-duration counts (with permanently installed counters) can complement one another. Long-duration counts are great at locations where data is desired on trends over long periods of time. Short-duration counts are more often used to answer more specific questions. NFRMPO staff are available to assist with location selection.

Although the following criteria were developed as recommendations for short-duration count location selection, they can also apply to permanent long-duration count location selection:

- Pedestrian and bicycle activity areas or corridors (downtowns, near schools, parks, etc.);
- Representative locations in urban, suburban, and rural locations;
- Key corridors that can be used to gauge the impacts of future improvements (i.e. corridors of regional significance);
- Locations where counts have been conducted historically;

- Locations where ongoing counts are being conducted by other agencies through a variety of means, including videotaping;
- Gaps, pinch points, and locations that are operationally difficult for bicyclists and pedestrians (potential improvement areas);
- Locations where either bicyclist and/or pedestrian collision numbers are high; and
- Select locations that meet as many of the criteria as possible.

The number of count locations will depend on the available budget and the planned uses of the count data. For most regions getting started with counting active mode users, a count program is best developed by working with other key stakeholders interested in collecting and using this data. By discussing needs and budgets, this group can identify and prioritize short- and long-duration count locations. **Table AE-1** summarizes counter placement recommendations for the Regional Active Transportation (RATC) Network and other shared-use paths with high usage and/or serving regional traffic.

Table AE-1: Counter Placement Recommendations for Regional and High-Usage Facilities

Permanent Counts	
Consideration	Guidance
Spacing	Rural = 5 miles, Suburban = 2 miles, Urban/Park = 1 mile, or between major access points
Short-Duration Counts	
Consideration	Guidance
Spacing	Rural = 5 miles, Suburban = 2 miles, Urban/Park = 1 mile, or between major access points
Duration	1-2 weeks minimum
Period	April - October (year round if facilities are well-maintained)
Timing	Before and after construction or improvement of a facility, a typical week across each season, during special events

Site-Specific Positioning Considerations

Once general locations have been identified, the most suitable counter positioning should be determined. The NBPD Project recommended the following guidance for counter positioning:

General

- Point away from direct sunlight
- Narrower paths are usually better for counter accuracy
- Test cellular network coverage if automatic data upload is desired
- Be discrete where possible

- Consider vegetation growth and other potential activity within the sensor's line of sight
- Avoid gathering spots

Based on surrounding uses

- For multi-use paths and parks, locations near the major access points are best.
- For on-street bikeways, locations where few if any alternative parallel routes are best.
- For traditional downtown areas, a location near a transit stop or in the center of downtown is best.
- For shopping malls, a location near the main entrance and transit stop is best. Count at one access point.
- For employment areas, either on the main access roadway or near off-street multi-use paths is best. Count at one access point, typically a sidewalk and street.
- For residential areas, locations near higher density developments or near parks and schools are the best. Count at one access point, typically a sidewalk or street.

In many cases, these recommended counter-positioning locations will result in the highest non-motorized traffic volumes. Given limited data collection resources and specific data uses, this focus on high-use locations may be appropriate. However, one should recognize that these high-use locations might represent a biased estimate of use levels and trends. High or low usage may only be indicative of the presence or absence of infrastructure. A high count on one route may not necessarily indicate adequate infrastructure; it may just mean that particular route is the only option. Conversely, a low count does not mean there is not demand; it may mean the existing infrastructure is not viewed as safe. This relates to the saying, "You do not determine the demand for a bridge by the number of people swimming across the river."

Data Collection and Analysis

Many count systems allow for automatic data upload to web-based service that allows users to log into a paid account and analyze data in a variety of ways. Other count systems require manual data collection or the user has opted for manual data collection to save money. Regular manual data collection can be incorporated into normal maintenance activities by local agency staff. Once the data has been collected, the most commonly produced reports include:

- Daily averages by week, month, or year
- Daily averages by weekday and weekend day
- Hourly time series across an average weekday or weekend day

- Year-to-year comparison: daily averages annually or monthly
- Average mode split (bicycles vs pedestrians)
- Daily counts compared with weather

Different types of reports are appropriate for different formats such as table, line graph, bar graph, or pie chart. NFRMPO staff are available to assist with count data analysis and report production. Prior to analysis, the data must be cleaned and checked for quality.

Quality Check Procedures

Periodically ensuring counters functional and are accurately and consistently monitoring bicycle and/or pedestrian patterns is an important part of any count program. Some count systems with automatic data upload capabilities are able to perform automated tests and flag abnormal counts daily. Alternatively, manual quality checks should be conducted whenever data is collected before reporting any summaries.

The following procedures are adapted from the Non-Motorized Traffic Data Quality Control Procedures used by CDOT and methods used within the NFRMPO bicycle and pedestrian count program. Although the following checks help flag abnormalities in the dataset, those abnormalities may not necessarily be inaccuracies. Additional context about the site, such as time of day, weather conditions, special events, maintenance activities, and other factors should be considered as possible contributors to abnormal counts.

Consecutive Zeros Check

For warmer weather months (April 1 to October 30), any count site exhibiting more than two continuous days of zero values may be a candidate for inspection or maintenance.

Consecutive zero days are common in the colder weather months and recent weather events should be taken into consideration.

Data Gaps

Counts should be flagged if there is more than one hour of missing data in a 24-hour reporting period. If a counter fails to record or transmit data, it may signify a failing battery or otherwise faulty power supply.

Maximum Daily Total Check

The user can choose to flag counts that are abnormally high, exceeding a maximum daily threshold. For permanent sites, a good starting point is to flag any daily count that is more than 3 times the previous year's average daily traffic (ADT) value. These counts can be examined further to determine and removed if necessary. The threshold can be adjusted as needed.

Directional Split

If your counter distinguishes user direction of travel, it is important to check for abnormal splits. Most count sites (other than bike lanes) will capture close to a 50/50 directional split between the primary and secondary direction of travel. This can vary by site and the “normal” split should be adjusted accordingly if accurate historic data is available. If 50/50 is considered normal, any count site exhibiting a direction split greater than 70/30 should be flagged for further analysis or count verification.

Interquartile Range (IQR)

This check uses a statistical algorithm to identify suspect values on a quarterly/seasonal basis. This formula specifies the maximum deviation from typical conditions based on statistical parameters. If daily counts exceed the IQR then they will be removed from the data set. The maximum recommended analysis period is 3 months within the same/similar season, due to the significant variations in counts between seasons. The interquartile range (IQR) formula is:

$$IQR = 2.5(Q_3 - Q_1) + Q_3$$

Where: Q_3 = Third quartile of quarterly data

Q_1 = First quartile of quarterly data

If daily counts exceed the IQR then they will be removed from the data set.

Manual Validation and Adjustment

After performing checks such as the ones listed in the previous section, going to the site for a manual validation or verification count can be helpful in diagnosing why the counts are abnormal. This can also be done on a semi-regular basis as good practice. If any of the following practices are used, it is important to note them and include what assumptions were made before distributing the data.

Adjustment Factors

Most counters will slightly undercount based on their sensitivity setting, physical characteristics of the count site, travel patterns at the site (many people walking side by side), or other factors. Other counters may overcount for various reasons. Performing a manual count at the site and comparing it to the abnormal data the counter is collecting can help

identify the extent to which a counter is undercounting. The longer these validation counts, the better. If after a validation count, it is determined the counter is undercounting users by 5 percent, an adjustment factor of 1.05 can be applied to count totals (recorded count multiplied by 1.05) to inflate them to a more realistic estimate.

Reference Counter Association (RCA)²⁴

Reference Counter Association (RCA) is a technique of using data from other count locations to validate, reconstruct, and/or extrapolate count data at another counter (target counter) location where information is missing, incomplete, or inaccurate. Compared with the target counter, potential reference counters include counters within close proximity, same user type(s), similar facility type. Correlation tests can be used to determine how similar the sites actually are on an hourly and/or daily basis. Correlations where $r \geq .80$ indicate good reference counter candidates. Once reference counters have been identified and estimation model can be build using regression and/or ratio analysis. The results can then be used for:

- **Validation and Reconstruction** – flagging counts that are abnormal according to the estimation model, or missing altogether, and substituting in estimation model values
- **Extrapolation** – taking a short-term count (at least two weeks) at a target counter location and using the estimation model to make long-term estimates

For simple applications, less advanced variations of RCA can be employed by generating a reference factor for the target counter compared with the reference counters (as explained above) on days when count values are known for all counters. The reference counter represents the ratio of the target count value to the average of the reference counters for a given day. This reference factor can then be applied for reconstruction or extrapolation (as explained above). This method should only be employed for “order of magnitude” estimations and should be used cautiously since it is less statistically sound than a true estimation model.

Additional Resources

The list below covers additional resources which outline the proper selection of non-motorized count locations.

[Guide to Bicycle and Pedestrian Count Programs](#) (Portland State University)

[Conducting Bicycle and Pedestrian Counts: A Manual for Jurisdictions in Los Angeles County and Beyond](#) (Southern California Association of Governments)

²⁴ Adapted from guidance by Barrett Hedges, Head of Data Services at Eco-Counter.

[Bicycle and Pedestrian Data Collection Manual \(MnDOT\)](#)

[Bicycled and Pedestrian Count Programs: Summary of Practice and Key Resources \(PBIC\)](#)