



PLANNING COMMISSION MEETING

7:00 PM

June 22, 2023

Planning Commission meeting packets are prepared several days prior to the meeting. This information is reviewed and studied by the Commissioners eliminating lengthy discussions to gain a basic understanding. Timely action and short discussion on agenda items does not reflect lack of thought or analysis on the part of the Planning Commission.

Public comment on agenda items may only be made in person.

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1. **CALL TO ORDER**
2. **PLEDGE OF ALLEGIANCE**
3. **ROLL CALL**
4. **ADDITIONS TO OR DELETIONS FROM THE AGENDA**
5. **PUBLIC HEARINGS**
 - A. **A RESOLUTION TO ADOPT THE BIKE AND PEDESTRIAN MASTER PLAN AS A PART OF THE TOWN OF PARKER TRANSPORTATION MASTER PLAN**

Applicant:	Town of Parker
Location:	Townwide
Department:	Community Development, Jeremiah Fettig
6. **PLANNING COMMISSION ITEMS**
7. **STAFF ITEMS**
8. **ADJOURNMENT**



Planning Commission Staff Report

Planning Commission Date:	06/22/2023
Town Council Date:	07/17/2023
Hearing Type:	A resolution to adopt the Bike and pedestrian Master Plan as a part of the Town of Parker Transportation Master Plan.
Location:	Townwide
Project Planner:	Jeremiah Fettig, Associate Planner Mary Munekata, Senior Planner
Applicant:	Town of Parker
Executive Summary:	Bicycling and walking are not only great recreational pastimes, but are also important means of travel for many people in Colorado communities – including Parker. The new Bike and Pedestrian Master Plan (the ‘Plan’) will serve as the Town’s policy document and ‘road map’ to support existing Town documents ensuring the construction of safe, comfortable and connected bike and pedestrian infrastructure. This Plan includes analysis of the existing active transportation network and provides recommendations for improving the Town’s trail, sidewalk and bike lane systems.
Staff Recommendation:	Approval

RECOMMENDED MOTION

“I move the Planning Commission recommend Town Council adopt the Bike and Pedestrian Master Plan as a Part of the Parker Transportation Master Plan.”

ALTERNATIVE MOTIONS

“I move the Planning Commission deny the adoption of the Bike and Pedestrian Master Plan as a Part of the Parker Transportation Master Plan.”

“I move the Planning Commission vote to continue the public hearing to adopt the Bike and Pedestrian Master Plan.”

I. BACKGROUND/DISCUSSION

The draft Bike and Pedestrian Master Plan (the Plan) has been prepared as an element of the Town of *Parker Transportation Master Plan*. The new Plan includes recommendations to establish a consolidated approach to bike and pedestrian mobility and replaces the Town’s current Bike Lane Plan adopted in 2005.

Community engagement and public participation have been integral elements of the planning process throughout the preparation of the draft Bike and Pedestrian Master Plan. Community feedback has helped shape the development of the Plan’s goals, strategies and recommendations. Community engagement opportunities have been on-going throughout the process including in-person open houses, a virtual open house, Let’s Talk Parker project website, two (2) public surveys, articles in the Talk of the Town, and an online interactive mapping tool.

The Plan supports and references existing Town documents including the Transportation Master Plan, Complete Streets Policy, Roadway Design & Construction Criteria Manual, and the Construction Specifications and Design Considerations for Parks, Trails, and Streetscapes. Additionally, the Bike and Pedestrian Master Plan is expected to:

- Align Town policy and regulations with the community’s vision & goals for an active transportation system
- Provide guidance for future development of the bike and pedestrian infrastructure
- Advance interconnectivity of the bike and pedestrian transportation network
- Improve mobility choices and opportunities for walking and biking
- Identify gaps in infrastructure to effectively allocate resources
- Enhance the overall quality of life for Parker residents

Plan Study Area

The Plan study area includes the Town Planning Area established in the *Parker 2035 Master Plan* and considers connections to the regional system and adjoining communities.

Planning Process & Approach

The Community Development Department Planning Division led the development of this plan along with an interdisciplinary team of key staff from multiple Town Departments including Parks, Recreation and Open Space, Engineering/Public Works, Communications and GIS.

Planning and engineering consultant Toole Design was commissioned to complete a townwide bike network analysis. This analysis measured the Level of Traffic Stress which provided vital information regarding the comfortability of biking in Parker and associated challenges and opportunities to improve the network.

The planning approach included the following main components, all of which have informed the development of this plan and specific chapters:

- **Data Collection, Existing Conditions and Analysis**
- **Community Engagement**
- **Visions, Goals and Strategies**
- **Recommendations and Implementation**

Plan Vision & Goals

The new community vision and goals seek to align with the visions of the *Parker 2035 Master Plan* and the *Transportation Master Plan* more closely.

The Town of Parker’s Bike and Pedestrian Master Plan’s vision is ‘to be a community where bicycling, walking and rolling are comfortable, safe and convenient and provide multimodal transportation options and a network for people of all ages and abilities’

Goals

The Goals and Strategies stated below are the guiding framework of the Bike and Pedestrian Master Plan. Parker will continue to develop a robust interconnected bike and pedestrian transportation network that links destinations and is safe, comfortable, and accessible for users of all ages and abilities.

- **Goal 1: Policy** – Develop policies, standards and specifications to promote biking and pedestrian mobility in Parker.
- **Goal 2: Accessibility** – Promote and enhance accessibility for all users to encourage people to bicycle or walk to work, shops and services.
- **Goal 3: Connectivity** – Create connectivity between trails, sidewalks and bike lanes allowing for safe and efficient bicycle and pedestrian movement.
- **Goal 4: Health & Safety** – Provide a safe and comfortable bike and pedestrian network that adds to Parker’s healthy lifestyle and quality of life.
- **Goal 5: Increase Use** – Increase usage of the multimodal transportation network to expand travel choices and, where feasible, provide residents with an alternative to vehicular transportation, especially for local travel.
- **Goal 6: Implementation** – Ensure planning processes and funding are allocated on a consistent basis to grow the active transportation network.

Bike and Pedestrian Master Plan Components

The Bike and Pedestrian Master Plan is an active transportation visioning and policy document to guide future planning and investments in the Town. The Plan features four (4) chapters:

- **Chapter 1: Introduction to the Plan**

- **Chapter 2: Biking and Walking in Parker Today and in the Future**
- **Chapter 3: Community Engagement**
- **Chapter 4: Bike and Pedestrian Improvement Toolbox**

Recommendations

The recommendations presented in the Plan focus on the goals and strategies as the methods by which the Town of Parker will accomplish the advancement and promotion of safe and efficient bicycle and pedestrian travel. Recommendations were developed by analyzing community input, best practices and assessing local needs.

Implementation

The Bike and Pedestrian Master Plan is a living document that will require periodic updating to reflect progress made, consider potential additional strategies and respond to unforeseen opportunities and challenges.

II. PARKER 2035 MASTER PLAN

[Parker 2035 Master Plan | Town of Parker - Official Website](#)

MASTER PLAN CONSISTENCY	
Master Plan Designation	Choose an item. ☒ Consistent ☐ Inconsistent
Master Plan Character Discussion	The Bike and Pedestrian Plan builds upon a foundation of existing master plans (examples include <i>Parker 2035 Master Plan</i> , <i>Transportation Master Plan</i> , <i>Open Space, Trails and Greenways Master Plan</i>) and policy documents (<i>Complete Streets Policy</i> , <i>Town of Parker Pedestrian Crossing Treatment Guidelines</i>), adopted by the Town. These existing plans and policies provide a framework to improve and enhance the quality of life for residents and visitors of Parker, through specific goals and strategies. The implementation of the adopted goals and strategies seek to improve multimodal facilities and opportunities.
Consistent Goals/Strategies/Policies	<u>Parker 2035 Master Plan</u> The Bike and Pedestrian Master Plan is consistent with the Parker 2035 Master Plan because it includes goals and recommendations to improve the quality of life for Parker residents, expand the active transportation system and ensure biking and walking are accessible modes of transportation. Chapter 6: Land Use (Goal 1): Growth shall be appropriately directed and site-planned to sustain our community's needs as we grow. <u>Strategy 1.F:</u> Develop land use patterns that are compatible with and support a

variety of transportation opportunities and or choices.

Chapter 7: Community Appearance and Design (Goal 1): Our community's streets and walkways will be planned, built and maintained as safe and attractive public spaces.

Strategy 1.E: Parker Road pedestrian underpasses shall be enhanced to ensure they are safe, attractive, and accessible.

Chapter 10: Transportation (Goal 2): The Town will plan for transportation and land use in an integrated, safe and efficient manner.

Strategy 2.D: The Town will ensure that transportation for pedestrians, bicycle, and automobiles is adequately provided throughout the Town.

Strategy 2. E: Ensure the Town's Complete Streets Policy is utilized in the prioritization, design and construction of all town-wide transportation facilities.

Chapter 10: Transportation (Goal 5): Provide an interconnected system of bikeways, walkways and trails within Town and to the regional network to encourage non-driving modes of transportation.

Strategy 5.A: Implement the strategies in the 'Bike Lane Plan'.

Strategy 5.B: Implement the trail strategies adopted in the 'Open Space, Trails and Greenways Master Plan'.

Strategy 5.C: Enhance street standards to adequately allow for non-driving modes of transportation.

Transportation Master Plan

The Bike and Pedestrian Master Plan is consistent with the Transportation Master Plan as it focuses on the improvement of multimodal choice, opportunity and facilities.

Policy 1: Integration: Coordinate land use planning, transportation planning and management, economic initiatives and capital investments to result in a transportation system and land uses that support and enhance each other.

Policy 2. Multi-Modal: Provide an integrated multi-modal transportation system that

	maximizes mode choice and mobility for all users. Policy 5: Health: Provide a transportation system that offers opportunities for physical activity and healthy lifestyles. Policy 6. Safety: Plan, design and implement transportation infrastructure that affords safe travel for all users. <u>Open Space, Trails and Greenways Master Plan</u> The Bike and Pedestrian Master Plan is consistent with the Open Space, Trails and Greenways Master Plan. It includes recommendations and strategies to further the adopted goals, specifically, those identified in this section. Goal 1 (Trails): Improve connectivity of the trail system within the Town and to the regional trail system. Goal 5 (Trails): Integrate the needs of diverse user and modes of transportation within the trail system. Strategy 5.2: Interconnect trails, sidewalks, bike lanes, and other transportation modes to allow access to services, employment, and other citizens needs to create an integrated transportation system. Goal 8 (Trails): Develop trail loops throughout the Town using a combination of trails, sidewalk systems and bike lanes, where appropriate. Goal 8 (Open Spaces): Plan open space and the built environment together to allow both uses to enhance the other.
Staff Analysis	Through the vision, goals, strategies and recommendations of this Plan, the Town of Parker has the potential to be a great bicycling and walkable community. The benefits of implementing the Plan's recommendations will further advance Parker's multimodal active transportation network and work to help connect people to places in the community.

III. CONCLUSION

The Bike and Pedestrian Master Plan will provide future guidance for the Town regarding active transportation decisions and investments for the Town of Parker. The benefits of implementing the Plan's recommendations will further advance Parker's multimodal active transportation network and work to help connect people to places in the community.

Staff recommends that the Planning Commission recommend Town Council adopt the Bike and Pedestrian Master Plan.

IV. ATTACHMENTS

1. Draft Bike and Pedestrian Master Plan

Report Approved By: Bryce Matthews, Assistant Director - Planning

Adoption Draft 5/31/2023

2023

Bike and Pedestrian Master Plan



Town of Parker

Adoption Date: TBD

Resolution #: TBD

Acknowledgements

The Town would like to thank all who were involved in this project for your assistance and valuable input!

This project would not have been possible without the participation of the citizens during the public outreach process and the commitment from our project partners.

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Executive Summary

The Plan has been developed as a supplement to the Town of Parker *Transportation Master Plan*. The new bike and pedestrian master plan (the Plan) incorporates the Town's current 2005 *Bike Lane Plan* and includes recommendations to develop a consolidated bike and pedestrian master plan. This Plan works to create a more walk and bike friendly Town of Parker. The Plan identifies opportunities to improve the active transportation network and is an initiative to remove barriers that may prevent more people from walking and bicycling whether out of necessity or recreation.

Based on citizen feedback, the Toole Design network analysis, and sound planning principles, the Plan provides tools to achieve higher rates of walking and bicycling, improve safety and to create a comfortable, low-stress bicycle and pedestrian network for all users. Project input was used to inform the development of this Plan and should also be used during the Town's budgeting processes and for development of the Capital Improvement Program to complete recommended projects. Outcomes from this Plan may result in an improved active transportation system connecting people from their front doors to the community's destinations – furthering Town goals to improve the quality of life for Parker residents and visitors. Implementing the Plan's recommendations is meant to create a more connected, healthier, socially equitable and economically resilient community.

Appendices are also included with this Plan and include further analysis and public engagement information, which supported the development of the Plan.

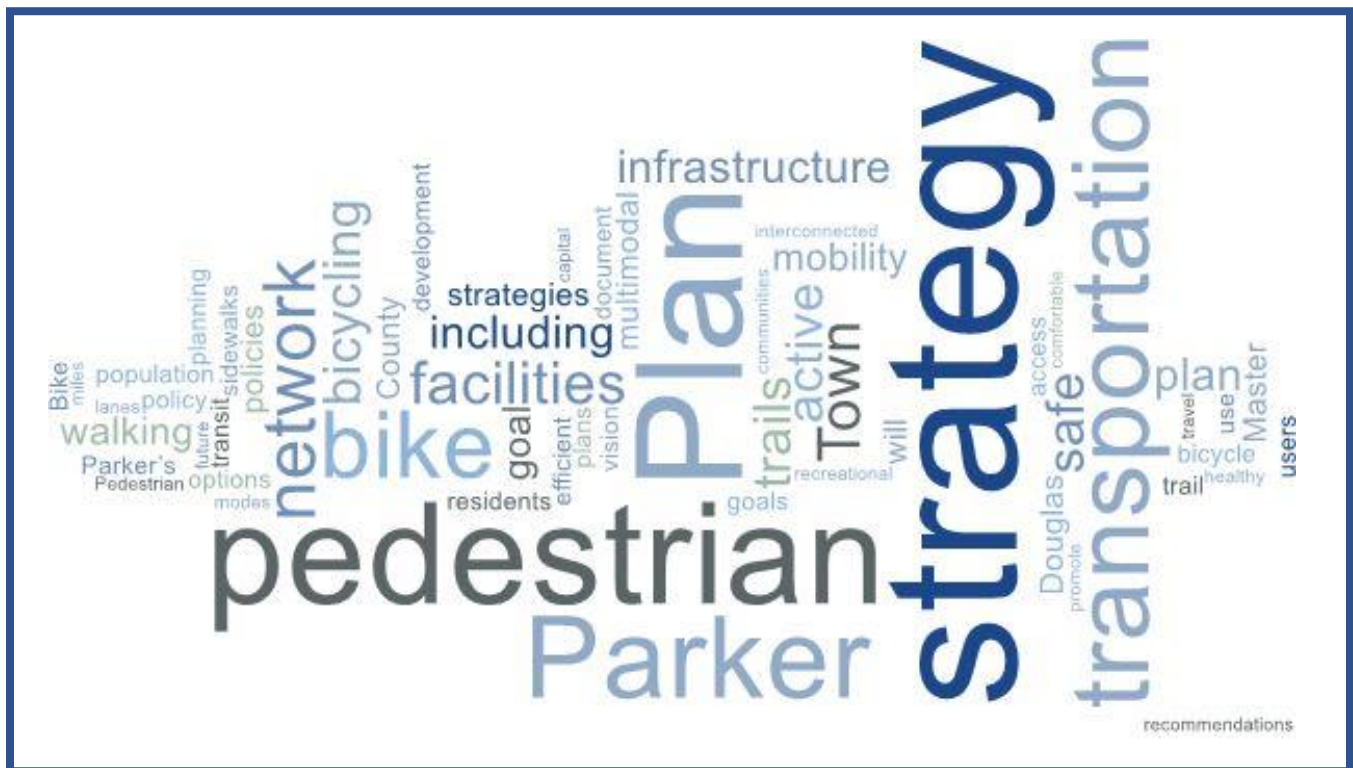


Figure 1: Community Engagement Feedback Themes

Chapter 1: Introduction to the Plan

Why Plan for Bikes and Pedestrians?

Bicycling and walking are not only great recreational pastimes but are also important means of travel for many people in Colorado communities – including Parker. The Town of Parker continually plans for and constructs diverse transportation options including bicycling, walking, rolling (e.g. skateboarding, rollerblading, scooting, wheelchair users), public transit and automobiles. The Bike and Pedestrian Master Plan ('Plan') will serve as the Town's policy document and 'road map' to support safe, comfortable and connected bike and pedestrian infrastructure while promoting transportation equity.

The Town has an extensive sidewalk and trail system, which can be enhanced by providing bike lanes on public streets and parallel trails to allow bicyclists to move safely between trails, public streets and Town destinations. This Plan is a continuation of our community's commitment that trails, sidewalks and bike lanes are integral to the Town and its transportation system, as well as our commitment to provide a variety of transportation options.



Figure 2: Downtown Parker Connectivity

Source: Town of Parker

Transportation is the second-largest cost after housing for a typical household according to The Center for Neighborhood Technology's Housing and Transportation. Communities with walkable streets and convenient access to jobs, transit and a wide variety of businesses are more efficient, affordable and sustainable. Parker's suburban development style creates opportunities for improving the active transportation network and options.

The Plan promotes and provides for active transportation in our community, while furthering Parker's vision of an enhanced interconnected bicycling and walking network. A robust active transportation network for our residents

Active transportation is any means of getting around by that which is powered by human energy, usually involving walking and bicycling, but also including other non-motorized forms of transportation, such as the use of wheelchairs, rollerblades/skates, or skateboards.

and visitors provides transportation options and promotes health and recreation. Additionally, the Plan will detail where additional bike lanes and active transportation facilities are needed and how they can be connected to the Town's existing trail system.

The Bike and Pedestrian Master Plan is focused on bicycling and pedestrian multimodal facilities and network improvements that enhance safety, comfortability and access. The Plan provides recommendations and implementation strategies on improving the active transportation network including trails, sidewalks, bike lanes and crossings. The Plan seeks to achieve the following:

- **Align** Town policy and regulations with the community's vision and goals for an active transportation plan
- **Provide** guidance for future development and capital investment in bike and pedestrian infrastructure
- **Advance** interconnectivity of the bike and pedestrian transportation network
- **Improve** transportation and mobility choices and opportunities for walking and biking
- **Identify** gaps in infrastructure
- **Enhance** the overall quality of life for Parker residents

This Plan draws upon other Town plans and policies for bicycle and pedestrian mobility and incorporates existing Town goals and strategies with new goals and strategies to create a single comprehensive master planning document that further supports multimodal transportation in Parker and integrates the vision from the Parker 2035 Master Plan and Transportation Master Plan – ***“Parker will develop and sustain a safe, convenient, and efficient transportation system incorporating various modes of travel including automobiles, public transportation, bicycles, and pedestrians.”***



Figure 3: Downtown Parker Connectivity

Source: Town of Parker

Plan Study Area

The Plan study area includes the Town Planning Area established in the *Parker 2035 Master Plan* and considers connections to the regional system and adjoining communities. The Town's Planning Area is outlined in red, while the Town's Boundary is outlined with a blue line in the map below. Shaded areas located outside of the red line are either unincorporated Douglas or Arapahoe Counties.

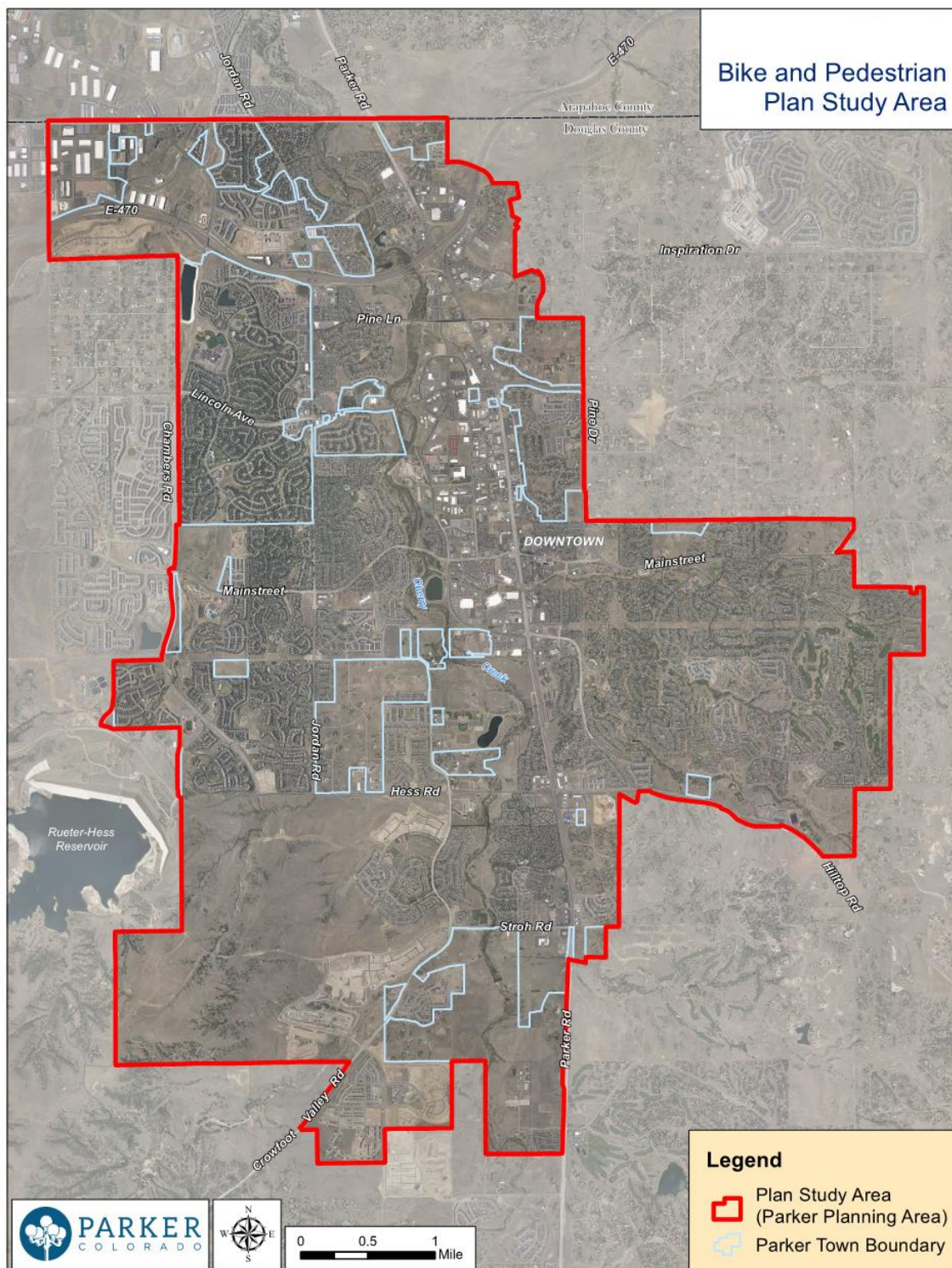


Figure 4: Plan Study Area Map

Parker's Context – Yesterday and Today

The Town of Parker was incorporated in 1981 with a population of 285 residents. Located in northeastern Douglas County approximately 20 miles southeast of Denver, Parker is a relatively young and fast-growing community in Colorado. Both Parker and Douglas County are popular destinations. Parker encompasses a land area of 22.4 square miles within the municipal boundary. The Town has experienced significant growth from a population of 6,000 in 1990 to 58,512 in 2020 (U.S. Census Bureau – 2020). The anticipated population at residential build-out based on town estimates is approximately 80,000 – 100,000 by 2050.

Active Transportation Health Benefits

In 2022 Douglas County came in as the 3rd healthiest county in the US in 2022 report from U.S. News & World Report released in collaboration with the Aetna Foundation. Source: <https://www.usnews.com/news/healthiest-communities/rankings>). Douglas County, Colorado was ranked as the 2nd healthiest county in America, in both 2021 and 2020.



Douglas County is among the healthiest in America – again – according to U.S. News and World Report

This year's analysis included equity factors and a look at comorbidities related to increased risk from COVID-19

Posted on June 27, 2022 in 2022, Breaking News, Public Health

Share   



Figure 5: Douglas County News Article on Healthiest Counties Ranking

Source: Douglas County

Parker takes pride in its recreational amenities that are geared toward providing the community with an active and healthy lifestyle. Douglas County and Parker are aging – both physically (the built environment) and demographically (citizens) and the importance of promoting and providing active recreational amenities and transportation options is even more important than ever especially as citizens desire to age in place.

Transportation can also be a ‘vehicle’ to wellness. It’s well known that the built environment directly influences physical activity through the bike and pedestrian transportation system. Improving Parker’s active transportation system (walking and bicycling) will make healthy living in our community more attainable.



Figure 6: Wellness Benefits

Source: [transportation.gov](https://www.transportation.gov)

The Town’s investments in affordable and varied multimodal options, such as sidewalks, trails, bike lanes, bike-share programs and other similar infrastructure provides improved access, comfort, safety and exercise opportunities to our citizens and visitors. A well developed and connected active transportation network for bikes and pedestrians is not only fundamental for transportation and recreation purposes, but other benefits include improving the physical and mental health for our citizens, reducing emissions, improving the local economy and enhancing Parker’s quality of life.

Town Council Strategic Goals

In 2016, the Town Council adopted the *Town of Parker Strategic Plan* which included six (6) strategic goals to guide the Town in serving our residents into the future. The following goals support the visions, mission and strategic goals of the Council. They are also overarching goals relevant to this plan and of which this plan was built from.



Supporting the Active Community:

Parker’s parks and recreational opportunities are often ranked among our community’s most valuable assets. Parker is home to state-of-the-art recreational facilities and parks. Acting as partners in community wellness, we support lifelong recreation opportunities and amenities both indoors, including our fitness activities, multi-use trails and beautiful open spaces.”



Foster Community Creativity and Engagement

“History, arts and culture are significant contributors to our hometown feel. We embrace community creativity and encourage our residents to be active partners in the cultural arts and enrichment opportunities. Our residents love to create, explore and participate in community activities, and cultural events ranked among the top five most highly-rated Town services in our recent Citizen Survey.”



Enhance Economic Vitality:

"Parker will be an area leader for economic growth by supporting the development of thriving businesses and industry. We will play a critical role in shaping quality of life, creating a sense of place, and providing fiscal stability for the community."



Promote a Safe and Healthy Community:

"Parker will promote the public health and safety of our community by protecting our residents' welfare through prevention services and a safe transportation network. Parker fosters a feeling of personal safety and security through a visible, responsive public safety presence and a proactive focus on prevention, intervention and safety education."



Innovate with Collaborative Governance:

"Parker will support transparency, accountability, and fiscal sustainability by using innovative techniques to optimize performance. We engage in regional relationships and governing partnerships, including our education, fire, water providers and governmental agencies. Parker employs a high quality, dedicated workforce to support these goals."



Develop a Visionary Community through Balanced Growth:

"Parker will demonstrate our commitment to balanced growth, community development and infrastructure using a visionary plan for a sustainable future. We support a healthy, future-focused community with exceptional services and a hometown feel. Parker supports well-planned development and excellent infrastructure."

Bike and Pedestrian Master Plan Vision and Goals

The Town of Parker's Bike and Pedestrian Master Plan's vision is *'to be a community where bicycling, walking and rolling are comfortable, safe and convenient and provide multimodal transportation options and a network for people of all ages and abilities'*

The Goals and Strategies stated below are the guiding framework of this Bike and Pedestrian Plan. The recommendations presented in this Plan focus on these strategies as the methods by which the Town of Parker will accomplish the advancement and promotion of safe and efficient bicycle and pedestrian travel. Parker will continue to develop a robust interconnected bike and pedestrian transportation network that links destinations and is safe, comfortable, and accessible for users of all ages and abilities.



Goal 1: Policy: *Develop policies, standards and specifications to promote biking and pedestrian mobility in Parker.*

Strategy 1a: Continue to evaluate and update Town bicycle and pedestrian facility requirements and standards to align with best practices.

Strategy 1b: Require the improvement, expansion and enhancement of the bike and pedestrian network, including bike lanes, pathways, trails and other active transportation amenities with new development and redevelopment projects.

Strategy 1c: Implement the recommendations of this plan to increase bike and pedestrian mobility.

Strategy 1d: Enhance bicycle and pedestrian policies utilizing best practices.

Strategy 1e: Utilize transportation planning best practices to promote sustainability and the physical, social and economic advancement of the Town.

Strategy 1f: Ensure future land use does not degrade existing multimodal network.



Goal 2: Accessibility: *Promote and enhance accessibility for all users to encourage people to bicycle or walk to work, shops and services.*

Strategy 2a: Create a system that meets the needs of all users.

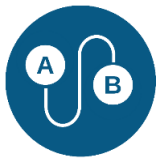
Strategy 2b: Prioritize facility improvements in areas that lack or need improved facilities to provide mobility options for those who rely more heavily on bicycling and walking for most of their trips.

Strategy 2c: Continue to maintain Town owned bike and pedestrian facilities in good condition for accessibility and use by all users regardless of age and ability.

Strategy 2d: Continue to enforce maintenance of private, HOA and Metro District owned bike and pedestrian facilities.

Strategy 2e: Create bike and pedestrian systems that are accessible without automobile use for initial access.

Strategy 2f: Strive to create a community inclusive of complete streets pursuant to the Town of Parker Complete Streets Policy.



Goal 3: Connectivity: *Create connectivity between trails, sidewalks and bike lanes allowing for safe and efficient bicycle and pedestrian movement.*

Strategy 3a: Develop and maintain a low stress townwide multimodal system of facilities through appropriate planning, policies and standards.

Strategy 3b: Provide internal pedestrian connections and direct access to neighboring land uses, schools, trails, transit centers, including employment and commercial centers.

Strategy 3c: Use this plan in coordination with the *Opens Space, Trails and Greenway Master Plan* in the design of future roadway construction or reconstruction to improve bike and pedestrian connectivity.

Strategy 3d: Ensure the active transportation network is linked to local destinations, amenities and transit facilities.

Strategy 3e: Implement the bike and pedestrian transportation projects identified in the *Parker Transportation Master Plan* and other adopted plans.



Goal 4: Safety and Health: *Provide a safe and comfortable bike and pedestrian network that adds to Parker's healthy lifestyle and quality of life.*

Strategy 4a: Design and develop bikeway and pedestrian facilities to meet national best practices.

Strategy 4b: Seek ways to improve trail wayfinding and etiquette signage.

Strategy 4c: Incorporate ways to better track bike and pedestrian crash data.

Strategy 4d: Reduce and minimize pedestrian crossing distances at intersections to the greatest extent practicable.



Goal 5: Increase Usage: Increase usage of the multimodal transportation network to expand travel choices and, where feasible, provide residents with an alternative to vehicular transportation, especially for local travel.

Strategy 5a: Promote bicycling, walking and rolling for recreation and health through events, social marketing, and dissemination of information such as bike maps, biking and walking tips, and a comprehensive way-finding sign program to community destinations.

Strategy 5b: Increase the number of people walking and using bikes for recreation, health and utilitarian trips by ensuring active transportation network facilities are well maintained, comfortable, accessible and easy to use.

Strategy 5c: Promote destinations that are accessible by active transportation, neighborhood services (churches, schools, parks and recreation areas).



Goal 6: Implementation: *Ensure planning processes and funding are allocated on a consistent basis to grow the active transportation network.*

Strategy 6a: Prioritize capital infrastructure dollars based on recommendations of this Plan.

Strategy 6b: Focus capital investment where demand is highest.

Strategy 6c: Seek interdepartmental opportunities to coordinate bike and pedestrian projects with other infrastructure and capital projects.

How the Plan was Developed

The Community Development Department Planning Division led the development of this plan along with an interdisciplinary team of key staff from multiple Town Departments including Parks, Recreation and Open Space, Engineering/Public Works, Communications and GIS. Coordination and collaboration with other departments is essential to a successful plan.

Toole Design was commissioned to complete a townwide bike comfortability analysis. This analysis provided vital information that guided the Plan and its recommendations. The entire Toole Design analysis and maps can be found in the appendix of this document.

The planning approach included the following main components, all of which have informed the development of this plan and specific chapters:

- Data Collection, Existing Conditions and Analysis
- Community Engagement
- Visions, Goals and Strategies
- Recommendations and Implementation

This Plan is a continuation of the Town's commitment that trails, sidewalks and bike lanes are an integral part of our community's transportation system, as well as providing a variety of multimodal options.

Relationship with Other Plans, Studies and Documents

Several existing Town reports, studies, policies and plans relevant to multimodal transportation planning in Parker have been reviewed for alignment with this plan. The documents reviewed are discussed below and their relevant goals and strategies for bicycling and pedestrian facilities have been considered in this Plan to further those initiatives and inform this Plan.

Town Master Plan: Parker 2035 Changes and Choices (2014, last update 2022):

The *Parker 2035 Master Plan* is a policy framework for decisions that affect the physical, social and economic environment of the Town. Specifically, the transportation chapter supports a multimodal transportation system with the following relevant goals and strategies:

Chapter 6: Land Use (Goal 1): Growth shall be appropriately directed and site-planned to sustain our community's needs as we grow.

Strategy 1.F: Develop land use patterns that are compatible with and support a variety of transportation opportunities and or choices.

Chapter 7: Community Appearance and Design (Goal 1): Our community's streets and walkways will be planned, built and maintained as safe and attractive public spaces.

Strategy 1.E: Parker Road pedestrian underpasses shall be enhanced to ensure they are safe, attractive, and accessible.

Chapter 10: Transportation (Goal 2): The Town will plan for transportation and land use in an integrated, safe and efficient manner.

Strategy 2.D: The Town will ensure that transportation for pedestrians, bicycle, and automobiles is adequately provided throughout the Town.

Strategy 2. E: Ensure the Town's Complete Streets Policy is utilized in the prioritization, design and construction of all town-wide transportation facilities.

Chapter 10: Transportation (Goal 5): Provide an interconnected system of bikeways, walkways and trails within Town and to the regional network to encourage non-driving modes of transportation.

Strategy 5.A: Implement the strategies in the 'Bike Lane Plan'.

Strategy 5.B: Implement the trail strategies adopted in the 'Open Space, Trails and Greenways Master Plan'.

Strategy 5.C: Enhance street standards to adequately allow for non-driving modes of transportation.

Parker Transportation Master Plan (2014):

The *Parker Transportation Master Plan* is the Town's first consolidated long-range transportation plan that is focused on Parker's transportation network, mobility choices and travel efficiency. This plan envisions more than roads, it also recommends projects that help to create a more balanced transportation system. This plan provides policy guidance, transportation goals, strategies and prioritizes projects. As a living document, the plan is an element of the Parker 2035 Master Plan. The following are relevant policies:

Policy 1: Integration: Coordinate land use planning, transportation planning and management, economic initiatives and capital investments to result in a transportation system and land uses that support and enhance each other.

Policy 2. Multi-Modal: Provide an integrated multi-modal transportation system that maximizes mode choice and mobility for all users.

Policy 5: Health: Provide a transportation system that offers opportunities for physical activity and healthy lifestyles.

Policy 6. Safety: Plan, design and implement transportation infrastructure that affords safe travel for all users.

Open Space, Trails and Greenways Master Plan (2010):

The *Parker Open Space, Trails and Greenways Master Plan* is an element of the Parker 2035 Master Plan, and serves as a guide to assess, preserve and manage the Town's open space and trail corridors.

The Town places a high value on its open spaces, greenways, and trails. The Plan reflects the community's vision that "open space and trails go beyond community amenities and are interwoven into the places we live, work and play." The following are the relevant goals and strategies from this Plan:

Goal 1 (Trails): Improve connectivity of the trail system within the Town and to the regional trail system.

Goal 5 (Trails): Integrate the needs of diverse user and modes of transportation within the trail system.

Strategy 5.2: Interconnect trails, sidewalks, bike lanes, and other transportation modes to allow access to services, employment, and other citizens needs to create an integrated transportation system.

Goal 8 (Trails): Develop trail loops throughout the Town using a combination of trails, sidewalk systems and bike lanes, where appropriate.

Goal 8 (Open Spaces): Plan open space and the built environment together to allow both uses to enhance the other.

Parker Road Corridor Plan (2019):

Parker Road is a major regional CDOT highway that runs north to south through the entire Town, operating as both a transportation connector and a transportation barrier. The *Parker Road Corridor Plan* was adopted as an element of the *Parker 2035 Master Plan* in 2019 and was developed to provide a roadmap that coordinates both the Town's and CDOT's policies and programming to inform transportation investments and land development approvals.

The plan recommends additional sidewalk and trail connectivity on both sides of Parker Road to provide safe bicycle and pedestrian access in the Town. The plan encourages public and private investment partnerships for more sidewalk and trail connectivity.

The plan also acknowledges gaps in the network due to development occurring prior to sidewalk and trail requirements in the Town. Due to leapfrog development patterns, gaps in infrastructure exist. As new development occurs, sidewalks and missing gaps will be completed. The Town continues to add sidewalks incrementally through the Town's sidewalk gap program. Lastly, intersection improvements should be leveraged to also address pedestrian and bicycle mobility comfort and economic development opportunities.

Complete Streets Policy and Supporting Documents (2018):

The *Parker Complete Streets Policy* adopted in 2018 promotes a multimodal approach to street design and construction while recognizing that vehicular travel will continue to be the dominant mode of travel in Parker.

The Policy's vision is for the Town of Parker to "plan, design, construct and maintain interconnected transportation facilities that are safe, comfortable, and accessible for users of all ages and abilities." The Policy commits to context sensitivity design for diverse users, inclusion in future development and complete streets best practices. The Policy includes implementation strategies and evaluation metrics. Figure 7 is a graphic from the *Complete Streets Policy* illustrating examples of bike lanes and buffered bike lanes and other multimodal transportation options representing a "complete street".

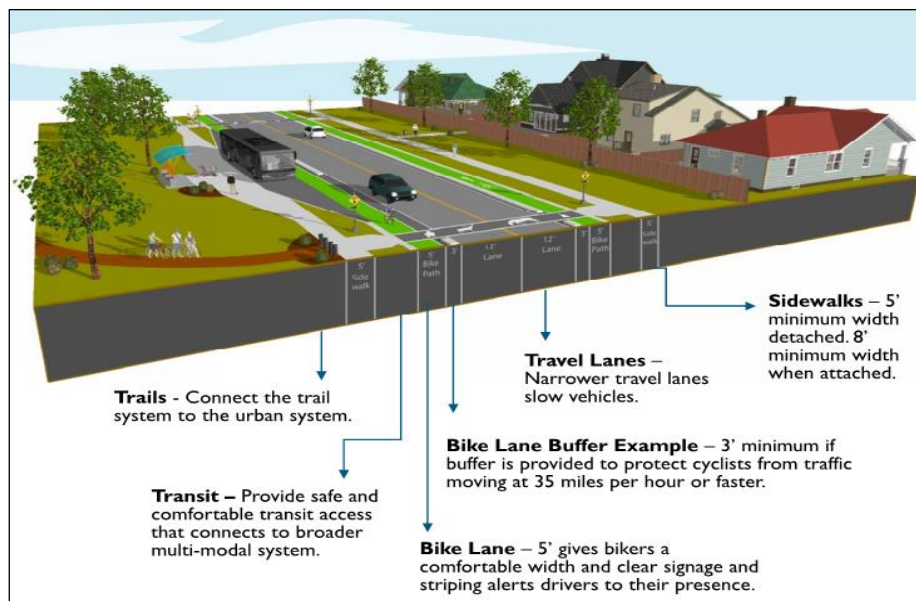


Figure 7: Components of a Complete Street - Suburban Context

Chapter 2: Biking and Walking in Parker Today and in the Future

Bicycle and Pedestrian Network

The primary study area for this plan encompasses the Parker Planning Area boundary as shown in Map 1 in Chapter 1, while considering beyond Parker's boundaries for regional connections and connectivity with Douglas County and other neighboring jurisdictions. See Figure 4 – General Study Area Map. The bicycle and pedestrian network is made up of three components:

1. Trails;
2. Sidewalks; and
3. Bike lanes

Trails. The Town's Open Space, Trails and Greenways Master Plan defines trails as a transportation or recreational route used by non-motorized alternative transportation to the automobile such as walking, bicycling, horseback riding or rolling. The following are descriptions of the Town's typical trails from the *Construction Specifications and Design Considerations for Parks, Trails, and Streetscapes*, last revised in 2008.

- Regional Trails are typically concrete and a minimum width of 10 feet in width and connect
- Local Trails are typically concrete and a minimum of 8 feet in width and are used to connect local destinations and neighborhoods

Sidewalks. In addition, Parker offers a robust network of sidewalks to connect neighborhoods to parks, trails, open space and other amenities. The Town's *Roadway Design and Construction Criteria Manual* (2020) requires sidewalks with all new development and defines them as:

- Sidewalks are typically concrete and 5 – 8 feet in width and can be multiuse/shared

Bike Lanes. The Town of Parker trail system provide a foundation and backbone for bicycle movement, however once a bicyclist leaves the trail, they must be able to move freely to destinations within the Town. Bike lanes are one of many tools the Town uses to accomplish this. The presence of bike lanes creates a higher level of confidence for bicyclists by providing a portion of the road or transportation corridor that is reasonably safe and reserved for only bicycle use. Roadway bike lanes should accommodate intermediate and expert riders, these lanes are not appropriate for young bicycle riders and novice bicycle riders.

Per the National Association of City Transportation Officials (NACTO), bike lanes are defined as;

“A portion of the roadway that has been designated by striping, signing, and pavement markings for preferential and exclusive use by 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 are typically:
 - A portion of the paved road that is designated by striping, signing and pavement marking for the exclusive use of bicycles;
 - A parallel 8'-10' wide separated lane or trail; or



Figure 8: Left: Bike Lane on Hess Road-Parker, Right Sharrow Example

Source: Google Maps, Google

A wide shoulder (2-4 feet) can be used to support bicycle use. The American Association of State Highway and Transportation Officials (AASHTO) roadway standards recommend 5' wide bike lanes. Paved shoulders and sharrows should only be implemented when no other options are available due to significant constraints on the existing roadway.

Existing Active Transportation Infrastructure

Parker's existing network of bike lanes, hard and soft surface trails and multimodal bridges and underpasses is summarized below in Table 1.

Table 1: Summary of Project Area Multimodal Facilities:

Multimodal Type	Description	Total
Bike Lanes	There are 13.7 miles of roadway bicycle lanes within the Plan Study Area. In addition to the on-street bike lanes, bicyclists can use the local trail system. 40.8 miles of roadway bike lanes are proposed.	13.7 miles
Hard Surface Trails	A total of 107 miles of hard surface (concrete or asphalt) trails for recreation & non-motorized transportation currently exists within the Plan Study Area. Most trails in Parker are multiuse corridors allowing for various activities such as walking and running, bicycling, skateboarding, rollerblading and other non-motorized activities including equestrians.	107 miles
Soft Surface Trails	In addition to the 107 miles of hard surface trails, there are 19.7 miles of soft surface (crusher fines, dirt or gravel) trails.	19.7 miles
Pedestrian Bridges, Underpasses of Roads and Water Crossings	In the Plan Study Area, there are 69 pedestrian crossings. These include overpasses, underpasses, and bridge crossings adjacent to or along the roadway. The total includes 24 underpasses and 45 pedestrian bridges.	69 crossings

The Active Transportation map (Figure 9) on the next page illustrates the Town's overall network of all bicycle and pedestrian infrastructure including bike lanes, sidewalks, trails, trailheads, parks and schools in Parker.

Active Transportation Overview Map

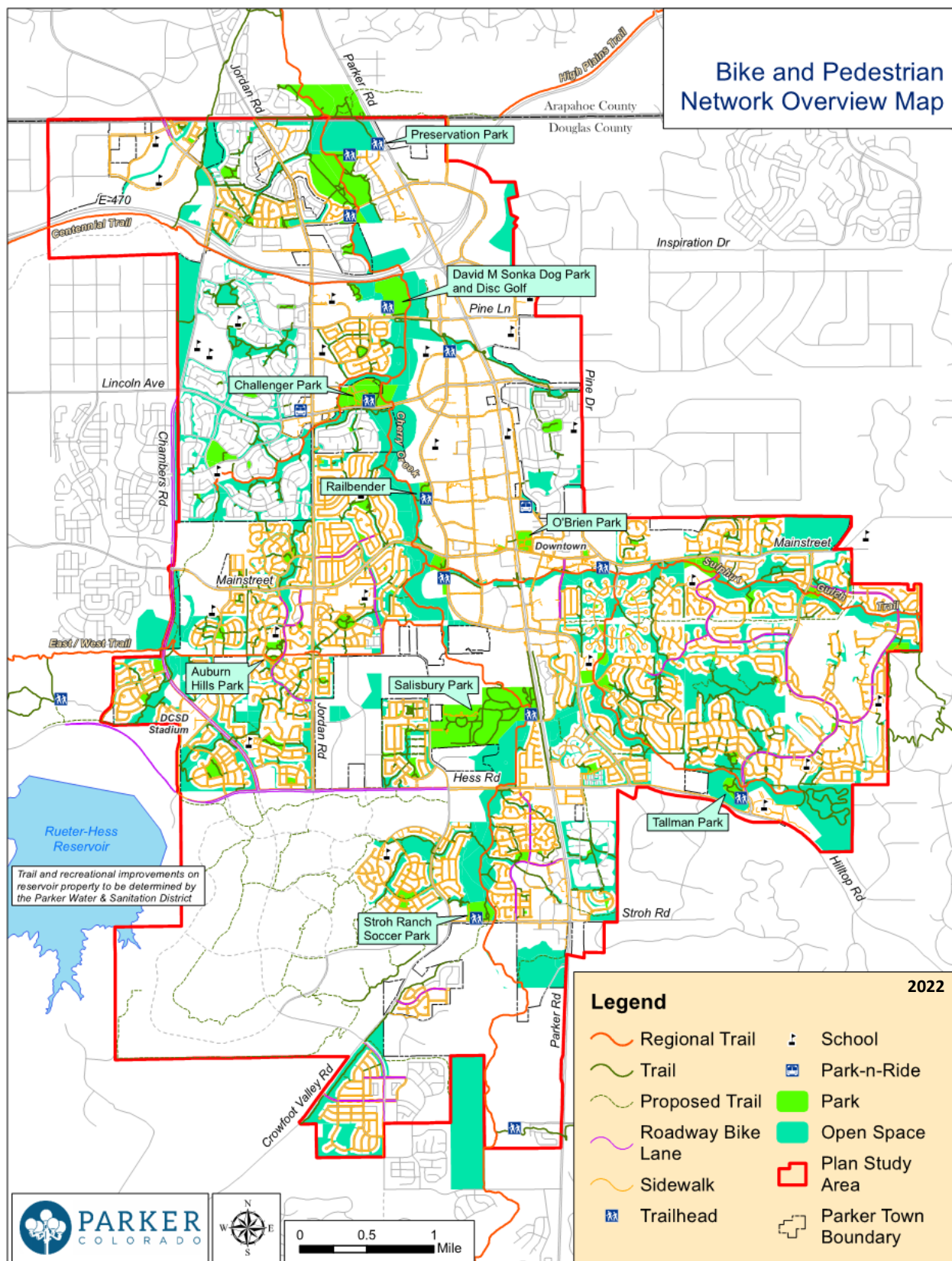


Figure 9: Active Transportation Overview Map

Past and current leadership value Parker's trail and open space amenities. Parker has an extensive active transportation network, but gaps remain in that active transportation network. When these gaps are filled, the active transportation network will better connect residents, visitors and workers to daily destinations conveniently and comfortably. Some developments occurred prior to the Town's incorporation when sidewalks were not required, creating gaps in the network. The Town continues to work on constructing missing trail and sidewalk gaps on public lands when possible.

Gaps & Barriers

Parker is an auto-centric bedroom community with suburban style development patterns requiring a vehicle to accomplish almost all errands and trips. However, the Town has policy and regulatory requirements to ensure that all new development includes bike and pedestrian facilities and connections to adjacent developments.

Gaps in the system exist for many different reasons. Some sidewalk and trail gaps are caused by undeveloped properties since sidewalks and trails are not required to be constructed until the time of development. Others exist along Parker Road because CDOT did not construct sidewalks with previous roadway improvements, while some others are caused by infrastructure project limits and infrastructure construction timing.

Major roadway corridors such as Parker Road, Lincoln Avenue, Hess Road and Hilltop Road are significant barriers to cross and access primary destinations. High vehicle speeds and traffic volumes combined with limited space dedicated to walking and biking creates stressful, uncomfortable and potentially unsafe conditions along major corridors in Parker. These conditions diminish people's willingness to walk and bike to community destinations that are otherwise accessible by foot or bike in terms of travel time. These issues should be addressed by looking at improving connectivity gaps and pedestrian crossings, including potentially improved street design, pedestrian refuge islands, walk times and enforcement.

Through the redevelopment of outdated buildings occurs, Parker can create more compact neighborhoods, pedestrian-friendly spaces, and mixed-use places where many activities of daily living can be easily accessible and within bicycling, walking, and rolling distance.

The 5-Minute Walk

The 5-minute walk, also known as the pedestrian shed or walk shed, is the building block of walkable neighborhoods and communities. The 5-minute walk is defined as the willingness for pedestrians to walk before considering driving for daily necessities. Destinations are close by; routes are direct and convenient along with being comfortable and desirable. The walk shed is approximately a quarter mile radius and varies with development patterns such as traditional neighborhoods with gridded streets versus conventional suburban street layouts that are more auto-centric dependent. However, planning for an even more sustainable Parker and shifting economic trends, the 5-minute walk may need to evolve into the concept of the 15-minute city.

The 15-Minute City

The 15-minute city principal is defined as a community where all residents are able to access daily needs (work, housing, food, health, education, and culture & recreation) within the distance of a 15-minute walk or bike ride. This may be achieved through a mix of land uses, design diversity and density. This provides the potential of more opportunities for choices, services and a thriving neighborhood. As mentioned in Chapter 1, re-imagining local communities this way has the potential for significant mental health and well-being benefits. The close proximity of daily necessities also promotes sustainable urban living and a healthier environment.

Parker Walk Score

A walk score defines how walkable a community is by primarily looking at walking routes to destinations and amenities. According to [walkscore.com](https://www.walkscore.com), walk scores measure the walkability of any address or community by

analyzing walking routes to nearby destinations and amenities. **Parker has a walk score of 21 out of 100 reflecting it is a car-dependent community where doing almost all errands require a car.** For comparison, the Town of Castle Rock, CO has a walk score of 11 out of 100. Based on Parker’s score, there is significant room to improve walkability and connectivity between commercial and residential neighborhoods through enhancements to existing and well-planned future infrastructure. Walk Score rankings and descriptions are as follows:

Walk Score®	Description
90-100	Walker's Paradise Daily errands do not require a car.
70-89	Very Walkable Most errands can be accomplished on foot.
50-69	Somewhat Walkable Some errands can be accomplished on foot.
25-49	Car-Dependent Most errands require a car.
0-24	Car-Dependent Almost all errands require a car.

Figure 10: Walk Score Rankings

Source: Walkscore.com

Parker Bike Score

According to Walk Score, a Bike Score measures whether a community is good for biking. A Bike Score is calculated by measuring bike infrastructure (lanes, trails, etc.), hills, destinations and road connectivity, and the number of bike commuters. Based on this, **Parker is somewhat bikeable with a Bike Score of 44 out of 100.** In comparison to Parker, the Town of Castle Rock has a bike score of 40 out of 100. By making more thoughtful investment into the bicycling network and facilities, Parker can improve the bike score. Parker currently has limited bike lane infrastructure, affecting the current Bike Score. Bike Score rankings and descriptions are as follows:

Bike Score	Description
90-100	Biker's Paradise Daily errands can be accomplished on a bike.
70-89	Very Bikeable Biking is convenient for most trips.
50-69	Bikeable Some bike infrastructure.
0-49	Somewhat Bikeable Minimal bike infrastructure.

Figure 11: Bike Score Rankings

Source: Walkscore.com

Network and Connectivity Analysis

This section describes how adopted policies and plans have shaped the active transportation network in Parker. The Town consulted with Toole Design to conduct an analysis of Parker's existing active transportation network and connectivity. This analysis helped shape and drive the outcomes of this Plan and will guide future decisions and considerations for improving the active transportation network.

Roadway Design and Construction Criteria Manual (2020)

The *Roadway Design and Construction Criteria Manual* determines the typical cross sections for new roadways in Parker. The Town's Engineering/Public Works Department uses this document when considering new roadways and reconstruction for expansion of existing roadways. A review of the Town of Parker's current policies and programs included the Town's 2015 revision of street standards, where new principal arterial and major collector roadway classifications were added that includes 5-foot bike lanes on both sides of the road. Also new in 2015 was the addition of 5-foot bike lanes to arterials, non-residential collectors, and residential collectors. In addition, pedestrian crossing criteria was added to arterial, residential boulevard collector, residential collector, and non-residential collector roadways. All the adopted roadway sections include sidewalk facilities to improve mobility and access.

Transportation Master Plan (2014)

The 2014 *Parker Transportation Master Plan* (TMP) analyzed bicycle and pedestrian sheds. In the TMP, the methodology included assumptions and bike and pedestrian shed maps to identify places that "are walkable and bikeable for the average person from major town destinations." Those assumptions are as follows:

- The average cyclist would ride, on average, 10 miles per hour.
- The average cyclist would have two trip lengths that would be deemed appropriate for trips of different contexts – 10 minutes and 30 minutes.
- Most cyclists would feel comfortable riding on local streets, trails, sharrows, and bike lanes.
- The average pedestrian can comfortably walk 3.1 miles per hour.
- Most pedestrians would deem a 5 or 15 minute walk a comfortable walking distance (distances within these timeframes were analyzed).
- Pedestrians would feel comfortable walking on local streets, trails and sidewalks which form the basis for the pedestrian network.

Parker Parks, Recreation & Open Space Master Plan

This plan includes high-level policy recommendations for parks, trails, recreational facilities and preserving open space. These amenities contribute to the active transportation network and the Town's overall high-quality of life.

Toole Design Analysis

The bicycling and pedestrian spatial analysis from Toole Design has helped to inform this plan. The full memo and analysis from Toole Design can be found in Appendix A. The spatial analysis includes the Bike Network Analysis (BNA) completed by Toole. The BNA evaluates how areas within the Town are connected via a low-stress bicycle network (made up of existing low-stress bike lanes, trails, protected bike lanes, and low-traffic neighborhood streets). The BNA uses the results of the Level of Traffic Stress (LTS) analysis to create the low stress bicycle network (ranked as LTS 1 and LTS 2) and the high stress bicycle network (ranked as LTS 3 and LTS 4).

Level of traffic stress analysis identifies the stress of street networks for people bicycling based on the built environment, traffic speed and traffic volume characteristics. The graphic below (Figure 12), depicts the four main groups of bicycling comfort, from low stress tolerance to high stress tolerance.



Figure 12: Types of Bicyclists and Traffic Stress Tolerance

Source: Toole Design

Table 2: Street Characteristic Assumptions (Toole Design Analysis)

Parker Functional Classification	Design Speed	Travel Lanes per Direction	On-Street Parking	Parking lane width*	Bike lane width (where present)	ADT
Principal Arterial	50 mph	3	No	N/A	5 ft	28,000
Arterial and Major Collector	45 mph	2	No	N/A	5 ft	17,000
All other Collector Types (Residential, Residential Boulevard, Non-Residential)	35 mph	1	Yes, w/low parking flag	8 ft	5 ft	6,500
Local	30 mph	1	Yes	8 ft	None	1,500

The LTS analysis determines bicycling comfort level by roadway facility type and the following variables; traffic speed, number of total travel lanes, average daily traffic volume (ADT), presence and width of on-street parking and presence of a centerline – as illustrated in Table 2 above. The result of this analysis concludes that:

- Streets with speeds above 25 miles per hour and with traffic volumes above 1,500 to 3,000 vehicles per day are considered “high stress” if they do not have any sort of dedicated bikeway (e.g., bike lanes or protected bike lanes).
- Streets with two or more lanes per direction (or on streets with only one lane per direction when speeds exceed 30 miles per hour), streets are usually only considered “low stress” if they have protected bike lanes. To achieve more low stress facilities the Town should consider the implementation of dedicated bikeways where appropriate.

In addition, Toole Design developed trip potential maps utilizing the following six categories: parks, schools, employment, transit, retail and grocery related trips. The consolidated map in Figure 13 created by Toole Design is a composite map reflecting those six categories and their trip potential. Trip potential is represented in the map using color range gradient from light blue to dark purple as follows:

-
- Light blue indicates less trip potential for biking and walking.
 - Dark purple indicates the greatest trip potential for biking and walking.

Based on this analysis, projects should be focused in the darker purple areas as improvements in these areas will more likely lead to higher levels of walking and bicycling activity and trail usage.

The areas with the highest trip potential include:

- Jordan Road and Lincoln Avenue intersection – a more intense commercial destination area
- Cottonwood Drive and Parker Road intersection – a more intense commercial destination area
- Parker’s Downtown along Mainstreet and Parker Road – as a regional destination, the ability to improve biking and walking exists
- As a lighter shade of purple, the Parker Road corridor – opportunities for enhancement include completing the missing gaps in the multiuse trail along Parke Road.

Composite Biking and Walking Trip Potential Map

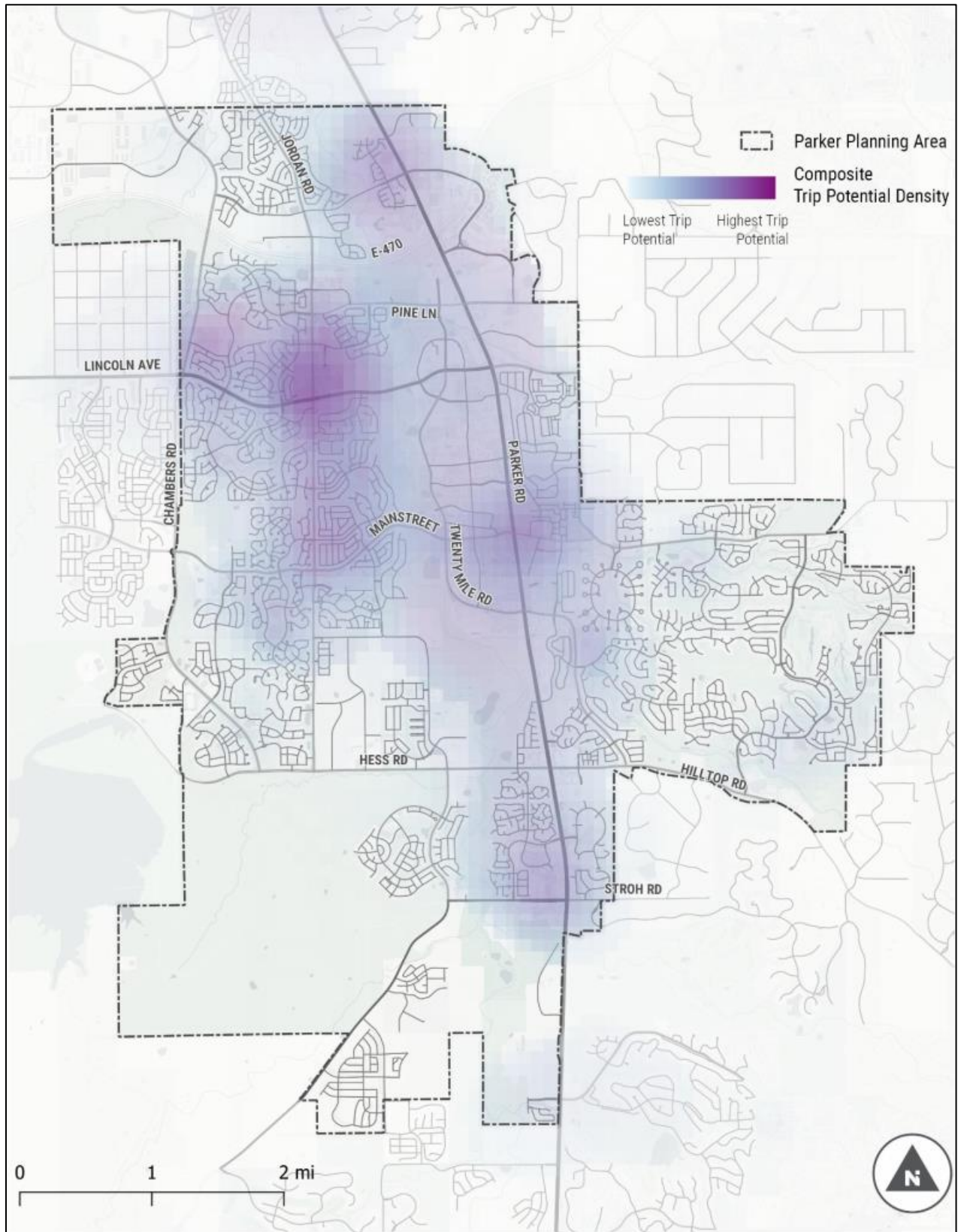


Figure 13: Composite Biking and Walking Trip Potential Map

Surrounding Jurisdictions & Coordination

The Town of Parker is adjacent to developed and developing jurisdictions. Because of this, it is important when planning for active transportation to coordinate with these jurisdictions to improve local and regional connectivity. To promote an integrated multimodal bike and pedestrian network in Parker, the Town should review and consider multimodal transportation plans of surrounding jurisdictions. Coordination is an important step in the collaborative planning process to identify potential impacts, additional projects, and funding partnerships. By coordinating with surrounding jurisdictions, the goals for improving continuity and for developing an interconnected network of active transportation is more attainable.

The following are resources from surrounding jurisdictions for consideration:

- **Douglas County:** *Douglas County 2040 Transportation Plan, Douglas County Bicycling Map, Parks, Trails and Open Space Master Plan, Advancing Lincoln Avenue*
- **Arapahoe County:** *Arapahoe County 2040 Transportation Plan, Bicycle/Pedestrian Master Plan*
- **Elbert County:** *Elbert County Comprehensive Plan, West Elbert County Transportation Master Plan*
- **City of Aurora:** *Bicycle and Pedestrian Master Plan*
- **City of Centennial:** *Transportation Master Plan, Trails and Recreation Plan*
- **City of Castle Pines:** *Master Transportation Plan, Parks and Recreation Comprehensive Plan 2017, Final Trails Master Plan*
- **Town of Castle Rock:** *Transportation Master Plan, Parks and Recreation Master Plan*
- **City of Lone Tree:** *2040 Transportation Master Plan, Walk & Wheel Report, Advancing Lincoln Avenue*

Summary

Integrating bike lanes into the existing and future transportation network of the Town of Parker will increase the connectivity, access and safety of residents who use their bicycles for recreation and transportation. Current and interim adjacent trails will remain and be improved in conjunction with the goals and strategies of this Plan and the *Open Space, Trails and Greenways Master Plan*. The combination of existing and proposed trails and bike lanes can ensure that local and regional linkages between different communities are appropriate, seamless and safe, and that this network can allow residents to live an active and healthy lifestyle.

Chapter 3: Community Engagement

Public Outreach

Community outreach and education was an important element of the Town's Bicycle and Pedestrian Master Plan process. Outreach provided the planning team with community input about where enhancements are needed to improve walking and bicycling in the community, and what the public's priorities and interests are. This information is combined with the data-driven analysis in the previous chapters to identify needed improvements in Parker's active transportation network.

With the development of any plan, the Town completes robust public outreach to inform plans during the planning process. Public feedback was analyzed, and common themes were developed to help guide the planning process and drafting of the Plan. Feedback is used by the Town to assess existing conditions, determine system needs and apply best practices for trail, open space and greenways development. The culmination of feedback from various outreach events is used to inform the plan. Finally, this feedback is used to develop recommendations for improvements and enhancements to the active transportation network. A summary of public engagement process below.

The public involvement process kicked off in August of 2021 and continued through the entire process of developing the plan and included several opportunities for participation including:

- **Open Houses**
- **Outreach Events**
- **Farmers' Market**
- **Bike to Work Day**
- **Online Outreach**
- **Surveys**
- **Public Draft Review**



Open Houses

- **March 8, 2022** at the Parker Fieldhouse. Informational boards were presented to attendees to visualize existing bike and pedestrian conditions and consider strategies for improvement. A public participation map was provided for attendees to mark up and leave comments on missing trail connections, crossings and anything relating to the active transportation network.
- **March 9, 2022** virtual online meeting held, where staff presented an overview of the project, next steps and how the public can get involved, followed by a live question and answer session. The presentation was posted to the project website.
- **December 6, 2022** at the PACE Center. Informational boards were presented providing a draft vision, goals, plan components, project outcomes and example recommendations.

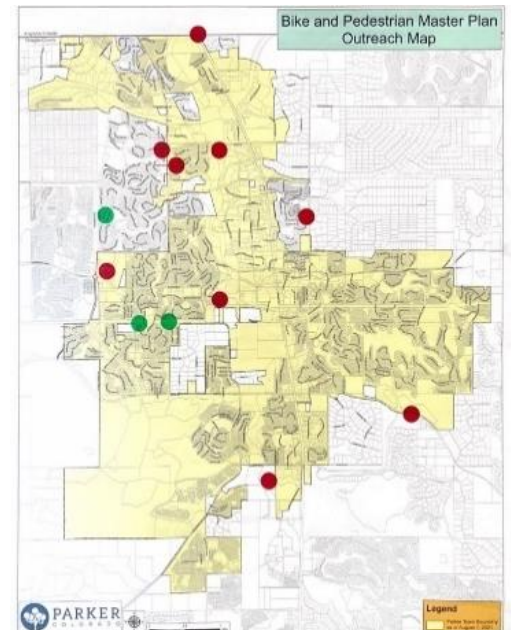


Figure 14: Photos from Open House

Source: Town of Parker

Outreach Events

- **August 16, 2021** – Town booth map exercise at the Parker Farmer’s Market.
- **September 22, 2021** – Bike to Work Day Town booth promotion of the Bike and Pedestrian Plan.
- **June 22, 2022** – Bike to Work Day Town booth promoting the Bike and Pedestrian Plan.



Online Outreach

Several tools were used to engage the public online. Parker community members were invited to comment on the existing walking and bicycling conditions in the Town through two online surveys and an online interactive mapping tool. These online tools were available through the project website, www.parkeronline.org/bikeandpedplan. The project website was routinely updated with relevant project information. The question-and-answer surveys collected general information about walking and bicycling in Parker, while the online mapping tool enabled respondents to comment on specific locations. Social media was also used extensively to advertise how the public could get involved in the planning process. The online initiatives and information gathered further influenced the drafting and recommendations identified in the Plan.

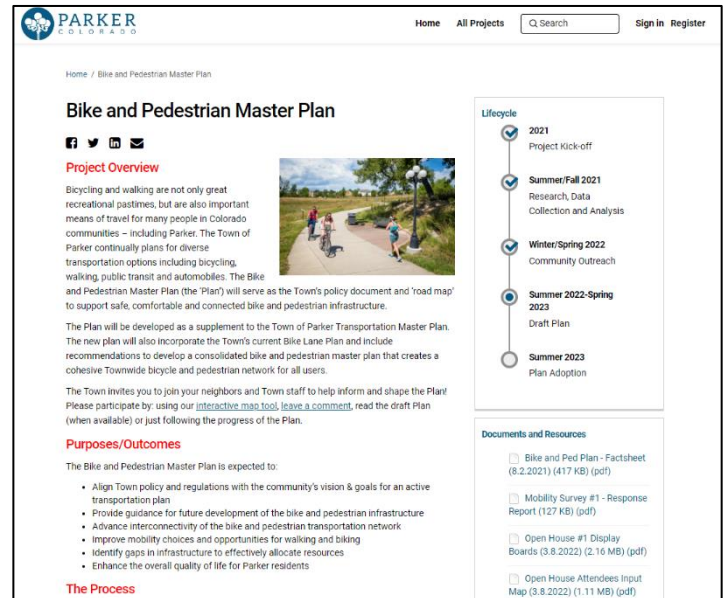
- **Project Website.** The project website was used as the primary portal of information about the Bicycle and Pedestrian Master Plan and served as the primary platform for the public to provide input.
- **Public Input Map.** The online interactive mapping tool was hosted on the project website and provided an opportunity for the public to submit precise location comments about bicycle and pedestrian concerns and ideas.
- **Surveys.** Two project surveys were developed to discern and analyze the major trends and issues related to walking and biking in Parker and to identify key community values and priorities.
- **Traditional Publication.** Articles were included in the Town publications, which were mailed to residents in Parker, to direct the public to the project website.

- **Digital Media.** Social media platforms were used to push information about the project and the online input tools.

Project Surveys

Two online surveys were conducted via the Town of Parker's website. The survey focused on gathering public input from residents regarding the importance of walking and biking in the community, frequency of these activities today, difficulties or barriers to walking or biking, and suggestions for improvements. The project surveys were developed to discern and analyze the major trends and issues related to walking and biking in Parker and to identify key community values and priorities. Respondents were asked questions about their transportation habits and demographic information.

The following are the key takeaways from the mobility surveys (full results in appendix).



- **Survey No. 1 (August 31 – September 24, 2022)**
- **Survey No. 2 – Final Mobility Survey (March 8 – April 8, 2022)**

Key Mobility Survey Takeaways

- Respondents felt active transportation (biking and walking) is very important and believe the active transportation network should be improved
- Citizens are active and enjoy biking and walking frequently
- Top four purposes for walking in Parker are for fitness or exercise, enjoying nature, family/social time and walking pet or pushing a stroller
- Top four purposes for biking in Parker are for fitness or exercise, transportation to a local destination, enjoying nature and family/social time
- Barriers for walking more include difficulty crossing roadways or intersections, gaps in sidewalks and trails and distances to destinations
- Barriers for biking more today include other difficulty crossing roadways or intersections, gaps in sidewalks or trails

Parker Community Survey

The Town of Parker conducts a bi-annual community survey that gives residents an opportunity to provide feedback to the Town on what is working well and what is not. This is an important tool because these survey results have been tracked by the Town over the years and help Town leadership identify opportunities, challenges, and priorities as the community grows and maintains our high quality of life.

A key takeaway has been respondents cited improvements to infrastructure (public transportation, bike lanes and trails, sidewalks, etc.) be designed to improve mobility around the community. Community Survey results related

to active transportation for the years 2013, 2015, 2017, and 2021. Overall, survey respondents have indicated that overtime, ease of bicycling and walking has decreased in Parker.

Table 3: Parker Community Survey Bicycling and Pedestrian Overview

Bi-Annual Parker Community Survey Characteristics Comparison*				
Historical question relating to bike and pedestrian activity in Parker (results include only responses of excellent and good)	2013	2015	2017	2021
Ease of bicycle travel in Parker	78%	77%	73%	72%
Ease of walking in Parker	79%	78%	73%	74%
*Exception: Survey not completed in 2019				

Public Comment and Themes

Public input throughout the project has helped to inform the development of this plan. Also, bike and pedestrian comments in the Parker Land Development Ordinance Modernization project have been incorporated to further inform this plan. Common themes from feedback are summarized below. All comments have been included in the appendix of this Plan for further reference:

- **Connectivity.** Missing gaps in sidewalks, trails, bike lanes, etc. More/better connectivity to destinations. Add connections to Reuter Hess Reservoir.
- **Access.** Destinations, barriers to getting to destinations.
- **Crossings.** Difficult crossings, missing crossings, feel unsafe at crossings.
- **Connections.** Particularly at High Plains Trail.
- **Infrastructure.** Wider trails. Separate pedestrian paths. Bike maintenance stations. Eliminate dangerous curves and intersections. More bike parking facilities. Separated bike lanes. Four-foot soft surface shoulders on each side of paved trails. Trail striping down middle to separate/delineate.
- **Education.** Biking and walking safety and etiquette; signage/kiosks.
- **Positives.** We love our trails! Great job on trails.

Participants most “liked”:



- Love the ease of the Sulphur Gulch trail's underpasses to travel East/West across all the commercial areas
- We love our trails, especially Cherry Creek Trail
- Love the path to the Parker Recreation Center

Participants most “disliked”:



- Poor bike and ped access to southwest corner of 20-Mile and Parker Road (Kohl's Center)
- No safe route from Cherry Creek trail to the hospital, Sierra Middle School, or to Pine Lane Elementary School
- Add bike lanes to Jordan Road (x3)



Figure 15: Left: Pedestrian and Bicyclists using Cherry Creek Trail (Source: Town of Parker), Middle: Kieffer's Crossing under Parker Road at Mainstreet (Source: Town of Parker), Right: Jordan Road (Source: Google Maps)

Online Conversation Summary

1,100

PROJECT VISITORS

52

INTERACTIVE MAP PINS

27

PLAN IDEAS



Figure 16: Online Public Participation Overview

Source: Town of Parker

Chapter 4: Bike and Pedestrian Improvement Toolbox

This Chapter provides an overview of a variety of tools including recommendations for expanding and improving Parker’s bicycle and pedestrian infrastructure. The recommendations are based on community input, opportunities identified throughout the Town, best practices, and policy considerations to accomplish the Plan’s goals and objectives.

The tools and recommendations provide guidance and general considerations for advancing projects and will result in the following benefits:

- **Achieve greater access to safe and seamless walking and bicycling**
- **Improved health and social connectivity**
- **Enhanced recreational amenities**
- **Opportunities for economic benefits**

Multimodal Level of Service (MMLOS)

The *Parker Transportation Master Plan* recommends integrating MMLOS as way to achieve one of the plan’s guiding principles to “create a multimodal network that allows people of any age or ability to be comfortable driving, walking, bicycling or using transit.” MMLOS is defined by NACTO as an evaluation method used to rate various transportation modes and impacts. MMLOS can be used to analyze the tradeoffs of various street designs in terms of their effects on auto, transit, bicycle, and pedestrian users and their perceptions of the quality of service – assessing how well a street serves the needs of all of its users.

Using bicycle and pedestrian MMLOS will help the Town to determine impacts and needed improvements to the multimodal transportation system. MMLOS metrics should be incorporated into the Town’s *Roadway Design and Construction Criteria Manual*. Also, the Town can leverage MMLOS by adding to existing facilities and constructing new facilities.

Bicycle Facility Considerations

Generally, all roads are, or have the opportunity to be bikeways, except for limited access highways (e.g. E-470 and Parker Road). The type of bicycle facility will vary depending on the roadway type and usage. Below describes the types of bike lane facilities for consideration as well as current Town roadway classifications and sample cross sections. Bike lanes are typically located on both sides of the road and carry bicyclists in the same direction as adjacent motor vehicle traffic. Bike lanes are recommended to be five feet wide, however widths may vary depending on context and constraints.

The following are types of bike lanes and other infrastructure considerations for the Town.

Types of on-Street Bike Facilities*

- | | |
|-----------------------------------|---|
| ➤ On-Street Striped | ➤ Shared Lane Markings or Sharrows |
| ➤ Buffered or Protected | ➤ Shoulder |
| ➤ Cycle Track or Separated | |

*Source: Urban Bikeway Design Guide (NACTO)

On-Street Striped Bike Lanes

On-street striped bike lanes provide a dedicated space within the roadway for bicyclists to ride. Bike lanes use lane striping to delineate the bikeway to physically separate bicyclists from motor vehicles.

Buffered or Protected Bike Lanes

Buffered bike lanes are conventional bike lanes paired with a designated buffer space, separating the bike lanes from the adjacent motor vehicle travel lanes and/or parking lanes, providing more comfortable conditions for bicyclists. This facility type is appropriate on roadways with high motor vehicle traffic volumes and speeds, adjacent to parking lanes

Cycle Track or Separated Bike Lanes

A cycle track is an exclusive bike facility that combines the user experience of a physically separated path with an on-street infrastructure of a conventional bike lane. In situations where on-street parking is allowed, cycle tracks are located to the curb-side of parking (in contrast to on-street striped bike lanes). Cycle tracks may be one way or two ways, at street level, sidewalk level or at an intermediate level.

Shared Lane Markings or Sharrows

Shared Lane Markings (SLMs), or “sharrows,” are road markings used to indicate a shared lane environment for bicycles and automobiles. Among other benefits shared lane markings reinforce the legitimacy of bicycle traffic on the street, recommend proper bicyclist positioning, and may be configured to offer directional and wayfinding guidance. The shared lane marking is a pavement marking with a variety of uses to support a complete bikeway network; it is not a facility type and should not be considered a substitute for bike lanes, cycle tracks, or other separation treatments.

Shoulder

Paved shoulders provide separated space for bicyclists and also provide vehicle safety benefits and space for vehicles to pull out of the travel lane. Shoulder facilities should only be considered if no other treatments are available.

Roadway and Bicycle Design Elements

- | | |
|--|--|
| ➤ Arterial Roadway Cross Section | ➤ On-street Vehicle Parking |
| ➤ Non-Residential Collector Cross Section | ➤ Intersections |
| ➤ Shared Roadways/Local Streets | ➤ Access Management |
| | ➤ Off-street Bicycle Parking |
| | ➤ Off-street Bicycle Facilities |

The following describes the Town of Parker current roadway classifications and design characteristics relating to bike facilities.

Arterial roadways carry a higher volume of traffic with greater speeds. Two types of additional bike lane options for arterials include a wider outside travel lane to provide more room for bicyclists, or a detached dedicated bike lane running parallel to the roadway, similar to a protected bike lane. Each has advantages and limitations for providing safe and efficient bike travel. Below is the Town’s current arterial cross section.

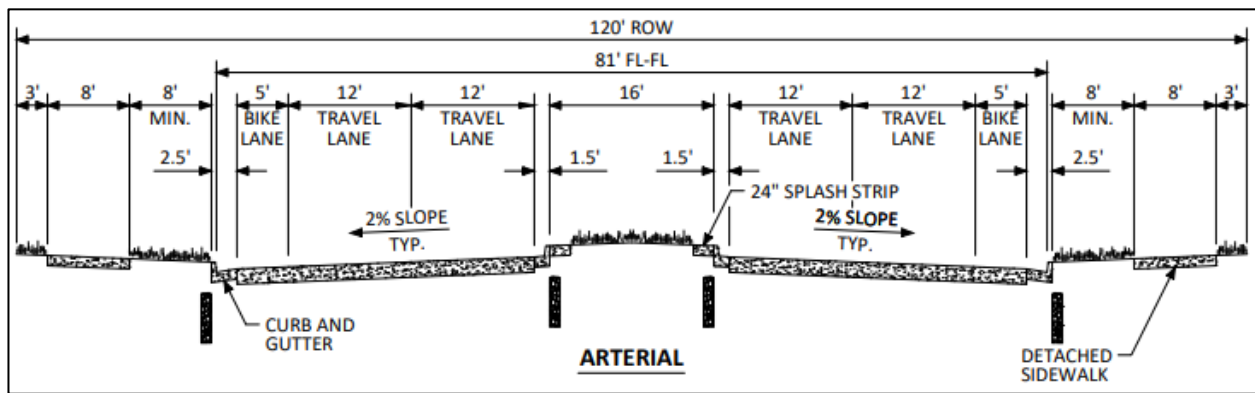


Figure 17: Parker Arterial Roadway Cross Section

Non-residential and major collectors are appropriate roadways for bicycle facilities. The Town's non-residential collector cross section is shown below.

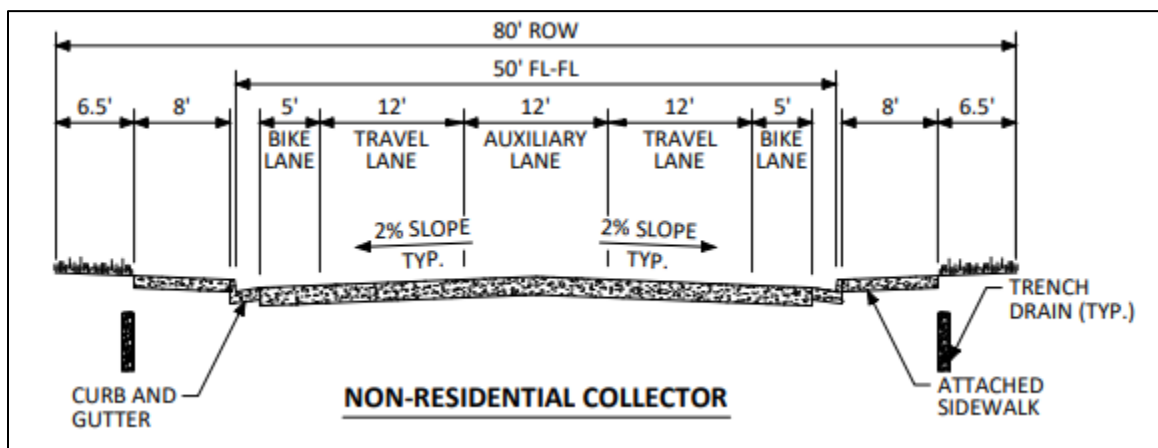


Figure 18: Parker's Non-Residential Collector Roadway Cross Section

Shared Roadways/Local Streets (striping)

Striped 4 to 6-foot bike lanes should be used to encourage more bike use. Residential collectors, residential boulevard collectors and non-residential collectors that have limited access and that connect with major and regional bike trails can be striped to encourage users who can navigate bike lanes that are immediately adjacent to roadways. Bike lanes on local streets are generally not needed nor appropriate due to low traffic levels.

On-street Parking

On-street parking creates conditions for conflicts by forcing bicyclists to ride between moving traffic and parked cars. The bike lane should be a minimum of 5 feet to allow motorists to open car doors without forcing bicyclists to swerve out into traffic for a bike lane and parking lane. If on-street parking is necessary for new construction, it is recommended to use parking cut-outs to accommodate parking along the street.

Intersections/Crossings

Bike lane locations and bike lane striping at intersections is dependent on the type of intersection that is crossed, the types of turns allowed, center turn lane characteristics and the location of pedestrian crosswalks. The residential collector and residential boulevard collector streets that are identified in this plan for potential bike lanes have a variety of intersection conditions. Bike lane striping to direct bicyclists through these intersections

should follow the standard safety guidelines as presented in AASHTO Guide for the Development of Bicycle Facilities (2012).

Access Management

On collector streets where bike lanes are proposed it is recommended that driveways with access to the street should be limited and/or consolidated to protect bicyclists from side entering traffic. Replacing center-turn lanes with raised or landscaped medians is also recommended as a means of providing clear and safe turn lanes for bicyclists as is provided in the standard section for residential boulevard collectors in the *Parker Roadway Design and Construction Criteria* (2020).

Off-street Bicycle Parking

Bicycle parking is an important supporting element for promoting bicycling. Bicyclists need a safe and convenient place to park or store their bicycles along or at the end of most trips. The Town requires bicycle parking with commercial and multi-family development projects. More creative bicycle parking facilities are needed, especially in the downtown area.

Off-street Bicycle Facilities

Where appropriate, consideration may be given to widening existing sidewalks along roadways to become multi-use paths as an alternative to adding on-street bicycle lanes to roadways.

Recommended Bike Facilities

The existing and recommended bike lanes map from the 2005 *Bike Lane Plan* has been updated to include newly identified roadway bike lane opportunities and now includes roadway bike lanes that have been implemented since 2005. The Existing and Recommended Bike Lane Map (Figure 18) identifies two types of bike lane improvements – roadways within the adopted Parker Planning Area and roadways outside of the Parker Planning Area.

Bike Facilities (lanes and sharrows) within the Parker Planning Area

New and proposed roadways that have not been engineered and designed yet should be built using the *Roadway Design and Construction Criteria Manual* including bike lanes and sidewalks. Bike lane improvements to roadways within the Parker Planning Area may include adding two 5-foot bike lanes during reconstruction of roadways, re-striping of roads creating a wider outside lane, or the construction of a parallel trail.

Example roadways that can be improved with added bike lanes include:

- Canterbury Parkway
- Riva Ridge Drive
- Roadways between Mainstreet and the Park-n-Ride at Long's Way (Victorian Way, Summerset and Long's Way)
- Lincoln Avenue
- Mainstreet (west of Twenty-Mile Road)
- Pine Drive (north of Mainstreet to Inspiration Drive)
- Pine Drive (south of Hilltop Road to Parker Road)
- Jordan Road
- Hess Road missing connection to County system Great Plain Way to Double Angel Road
- Crowfoot Valley Road missing connection to County system north to Stroh Road

Bike Facilities (lanes and sharrows) Outside the Parker Planning Area

Bike lanes located outside the Town's adopted Planning Area require cooperation and coordination between adjoining jurisdictions outside the such as Arapahoe and Douglas Counties, the cities of Castle Rock, Castle Pines, Centennial, Lone Tree, Aurora, the E-470 Authority and Colorado Department of Transportation. These bike lane developments target roadway connections outside the Town of Parker to connect with other bike lanes and trails that are either existing or proposed by other agencies and entities to ensure bike lane connectivity and destinations for public use.

Example bike lane connections include the following:

- Pine Drive north of Inspiration Drive into Douglas and Arapahoe County
- Pine Lane east of Parker Road to Pine Drive
- Chambers Road as it connects north into Arapahoe County
- Mainstreet west into Douglas County
- Crowfoot Valley Road south into Douglas County
- Stroh Road east of Town Boundary into Douglas County
- Sundown Trail south of Hilltop Road to Stroh Road

Parker Road

Through further evaluation and analysis with stakeholders including CDOT, it was decided that roadway bike lanes on Parker Road were not feasible. Since the adoption of the *Bike Lane Plan*, an off-street multiuse paired trail along Parker Road in coordination with CDOT is being constructed. Several segments have been completed, with more under construction or planned for future construction subject to funding availability.

Existing and Recommended Bike Lanes

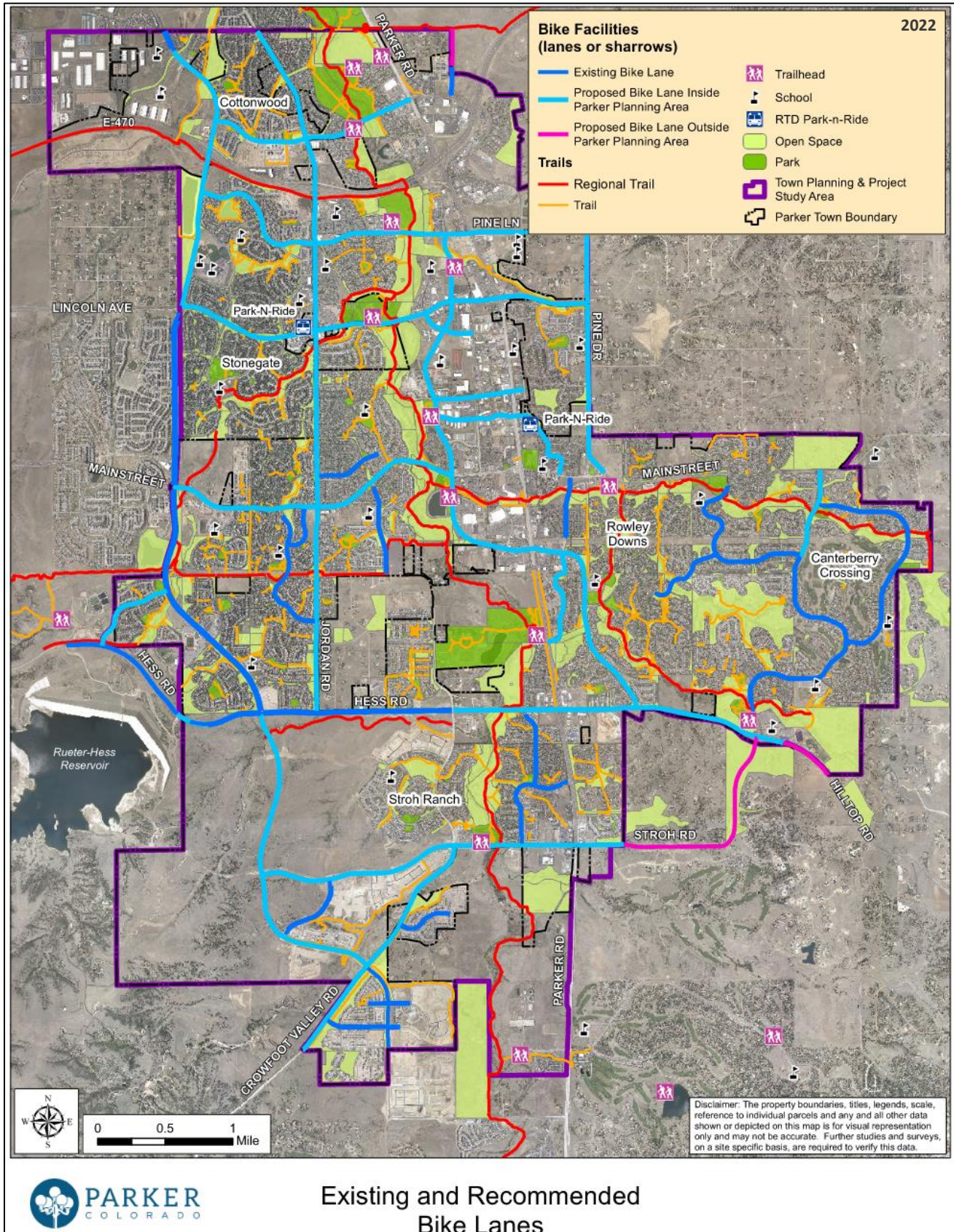


Figure 19: Existing and Recommended Bike Lanes Map

Pedestrian Facility Considerations

Pedestrian walkways are generally a portion of the public right-of-way that provides a dedicated space for pedestrians, separated from the roadway area for traveling on foot. This can be attached or detached sidewalks, trails, or parallel tracts such as multiuse or shared trails or paths. Sidewalks and walkways are used for a variety of reasons including transportation, recreation and health benefits and should be designed to be continuous, safe, accessible and aesthetically pleasing to attract users. Parker is mindful of pedestrian movement and access; this section highlights potential pedestrian facility enhancement considerations.

The following have been identified as different types of pedestrian facilities enhancement considerations by the Town:

Types of Facilities

- Sidewalks
- Shared Use or Multiuse Trails
- Pedestrian Crossings

Sidewalks

As stated above, sidewalks provide a dedicated space for pedestrians to travel. The Institute of Transportation Engineers (ITE) guidelines recommend a minimum width of five feet for a sidewalk or walkway which allows two people to walk side by side or pass comfortably. However, wider sidewalks should be installed in downtown areas, near schools, transit stops, or anywhere that high concentrations of pedestrians exist. Sidewalks are planned, required, and constructed with all development in Parker.

Parker has many multi-lane, high-speed arterial and collector roadways that travel north/south and east/west through the city. For pedestrians to be comfortable walking along these corridors, wide, buffered sidewalks should be available on both sides of the road. As a mitigation effort to reduce gaps in the sidewalk network, the Town has a limited annual sidewalk gap fund for some projects.

Shared Use Paths or Multiuse Trails

The Town of Parker offers two different types of trails – local and regional. Local trails connect destinations to other bike and pedestrian facilities and regional, which connect Parker to major destinations in Parker and the surrounding area. Many local trails are eight feet in width, but new preferences are for ten-foot widths. Regional trails are typically a minimum of ten feet in width.

Accompanying soft surface side path trails are located adjacent to local and regional trails. Side paths are typically separated by three to five feet of grass between hard surface trails. The preferred widths are eight feet to allow for diverse users, especially in high use areas.

Shared use paths, also called multiuse trails, allow for two-way, off-street use by pedestrians, bicyclists, skaters, rollerbladers, scootering, wheelchair users, joggers, and other non-motorized users. To enable two-way travel, shared use paths should be a minimum width of eight feet wide, with a preferred width of ten to twelve feet with wider paths constructed where volumes are expected to be high.

The growth experienced in Parker including our trail usage, the Town may need to consider wider trails at the time of new development. In addition to wider trails, in high-volume areas, separate paths for bicycles and pedestrians may be necessary at some point due to the diversity of trail users and the interactions between them.

Pedestrian Crossings

Signalized intersections are typically the preferred crossing location for pedestrians since traffic is stopped in one direction and motorists generally expect crossing pedestrians. However, vehicular turning speed, visibility, crossing distance, and signal timing can be great barriers for pedestrians on roadways that are designed to primarily accommodate vehicular traffic. The Plan is supportive of town-wide implementation of the adopted Town of Parker Pedestrian Crossing Treatment Guidelines.

- **Crosswalks:** Crosswalks should be designed to offer as much comfort and protection to pedestrians as possible. Historically, many crosswalks were designed using inadequate, narrow striping, setbacks, deviations from the pedestrian walkway, and considerable crossing distances. Intersection crossings should be kept as compact as possible, facilitating eye contact by moving pedestrians directly into the driver's field of vision. The majority of vehicle-pedestrian incidents involve a driver who is turning. The Town should ensure all signalized crossings are striped and signed to reinforce yielding of vehicles turning during a green signal phase. For enhanced pedestrian safety, providing a protected left turn phasing or leading pedestrian interval may help reduce conflicts with pedestrians crossing parallel to vehicular traffic. This includes a red arrow when the pedestrian crossing signal is activated. In downtown areas, additional crosswalk treatments including different paint, materials and designs can be used in downtown areas to make streets more welcoming.



Figure 20: Painted Sidewalk Examples

Source: transpo.com

- **Curb Ramps:** Curb ramps are important accessibility features because they provide an easy route for pedestrians and people with disabilities to safely transition from a curbed sidewalk or pedestrian path to a roadway crosswalk. Directional curb ramps are preferred by the Colorado Department of Transportation (CDOT) per their *Curb Ramp Designers Resource* Version 1.2, 2019. Directional curb ramps are ramps that provide a direct (straight line) connection onto the roadway without requiring any pedestrian turning movements.
- **Stop Lines:** Stop lines in advance of an intersection are solid white lines across driving lanes, signaling where motorists are to stop, to not impede crosswalks. Stop lines improve pedestrian comfortability when placed further back from a crosswalk. When yielding vehicles stop too close to crosswalks, they create unsafe and uncomfortable pedestrian crossing conditions. A pedestrian crossing directly in front of a vehicle is more uncomfortable than crossing where a larger gap between them exists.



Figure 21: Stop Bar example of enhanced pedestrian comfortability at crossing Source: Google Maps



Figure 22: Stop bar example of decreased pedestrian comfortability at crossing Source: Google Maps

- **Curb Extensions:** Curb extensions, or curb bulb outs, are expansions of the curb into the parking lane, and reduce the crossing distance and exposure time for pedestrians and bicyclists. These tools improve pedestrian safety and comfortability when crossing roadways by narrowing the crossing distance, slowing traffic with a narrower travel lane and also increasing the driver's visibility and awareness of pedestrians. Curb extensions are appropriate in Parker's downtown and may be utilized in other parts of the Town.
- **Median Refuge Islands:** Median refuge islands reduce the exposure time experienced by a pedestrian in an intersection. They are generally applied at locations where speeds and volumes make crossing challenging, or where three or more lanes of traffic make pedestrians feel exposed or unsafe in the intersection. It's important to reduce the crossing distance when feasible for high-volume and wide intersections. Median refuge islands have been proven to improve safety and comfortability of pedestrians.
- **Pedestrian Bridges and Underpasses:** Pedestrian bridges and underpasses allow for the uninterrupted flow of pedestrian movement separate (either above or below) from vehicle traffic. These types of facilities are most appropriate over highways and high speed, and high-volume arterials. Bridges and underpasses should only be used when necessary to cross significant barriers.
- **Mid-Block Crossings:** Mid-block crossings typically consist of a marked crossing area, signage, and other roadway design elements to slow or stop traffic. The approach to designing crossings at unsignalized locations depends on an evaluation of vehicular traffic, line of sight, pathway traffic, use patterns, vehicle speed, road type, road width, and other safety issues. The types of mid-block crossing improvements recommended include the addition of beacons, as well as curb extensions and pedestrian refuge islands.
- **Pedestrian Hybrid Beacons:** Pedestrian Hybrid Beacons (PHBs) are designed to help pedestrians safely cross busy or higher-speed roadways at midblock crossings. These beacons consist of two red lenses above a single yellow lens. PHBs are used to improve non-motorized crossings of major streets in locations where side-street volumes do not support installation of a conventional traffic signal, and where the distance between marked crossings is long. PHBs are most appropriate in areas of heavy traffic with multiple travel lanes (roadways with four lanes or more). The Town has a couple of mid-block crossing with pedestrian hybrid beacons located on Jordan Road north of E-470 and on Jordan Road near Pine Lane. The Town should identify other appropriate locations for mid-block crossing enhancements.

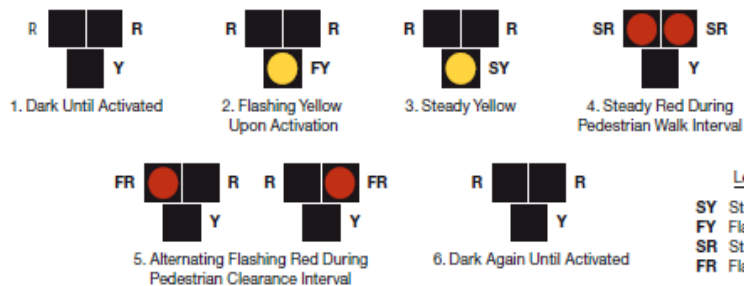


Figure 24: PHB Display Sequence

Source: Federal Highway Administration (FHWA)

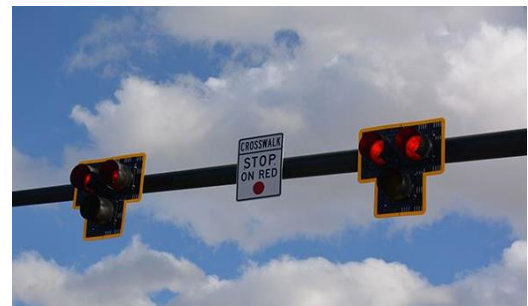


Figure 23: PHB on Jordan Road north of E-470

Source: Town of Parker

- Flashing Beacons:** Rectangular Rapid Flash Beacons (RRFBs) use an irregular flashing pattern to alert drivers to yield where pedestrians and/or bicyclists are crossing at a marked crosswalk and have been shown to drastically improve motor vehicle yielding compliance over no beacon. RRFBs can be either user or sensor activated, and are appropriate on three lane roads, or two-lane roads with high traffic volumes and speeds where gaps in traffic are infrequent.



Figure 25: Rectangular Rapid Flash Beacons (RRFBs)

Source: National Association of City Transportation Officials (NACTO)

Plan Recommendations

The following provides specific recommendations for implementing this Plan to achieve the goals and vision of creating a community with a continuous fabric of complete streets and smaller blocks that include accessible and connected sidewalks, trails and bike infrastructure. To ensure this Plan will be effective, implementation of the recommendations, whether short term or longer term, must be completed to reach the desired active transportation improvement outcomes.

The following recommendations have been assigned near term, mid-term and long-term action or implementation years. **Near term items are to be accomplished in 3 years or less, mid-term action items should be accomplished in 3-10 years and long-term recommendations accomplished after 10 years.** Additionally, the priorities each have a ranking of low, medium and high. The priority rankings are dependent on market trends, development and phasing of development/projects, project cost and ease of implementation. Implementing the Plan's recommendations will make Parker a more walk and bike friendly community. Ultimately leading Parker to becoming a healthier and a more socially equitable, economically resilient community.

Goal 1: Policy: Develop policies, standards and specifications to promote biking and pedestrian mobility in Parker.

Recommendations	Priority	1-3 years	3-10 years	10+ years	Cost
1. Continue to evaluate and update policies regarding electric mobility devices, e-bikes, scooters and other motorized equipment.	Low-Med	x	x	x	\$
2. Update maps every two years analyzing missing links and adding new destinations.	High	x			\$
3. Updates to Roadway Design and Criteria Manual will consider best practices for pedestrian and bicycle facilities.	High	x			\$
4. Evaluate and update sidewalk and bike lane standards to align with best management practices.	High	x			\$
5. Review and recommend changes to the Town's pedestrian crossing policy for multimodal improvements.	High	x			\$
6. Assess and analyze multimodal transportation improvements to intersections and roadways where high demand land uses exist.	High	x			\$
7. Evaluate multimodal best practices from the Colorado Department of Transportation, Denver Regional Council of Governments, National Association of City Transportation Officials and American Association of State Highway and Transportation Officials when developing and updating policies, standards and specifications.	Med		x		\$
8. Use Town tools such as events, Talk of the Town and website to educate public on bicycle and pedestrian safety.	High	x			\$
9. Adopt policies, standards, and specifications to meet the needs of all modes and users, including children, families, the aging, and those with mobility impairments.	High	x			\$

10. Implement the Town's Complete Street Policy to ensure streets are designed and operated to enable safe use and support mobility for all users.	High	x			\$
11. Analyze what Denver Regional Council of Governments and other agencies do to increase active transportation usage.	Med		x		\$

Goal 2: Accessibility: Promote and enhance accessibility for all users to encourage people to bicycle or walk to work, shops and services.

Recommendations	Priority	1-3 years	3-10 years	10+ years	Cost
1. Continue to construct directional ramps to the maximum extent practicable, ensuring ramps direct pedestrians directly across intersections.	High	x			\$
2. Provide more bicycle parking Townwide and encourage more creative designs, especially in the downtown area.	High	x			\$
3. Evaluate and update local and regional trail cross sections including, widths and additions of soft surface parallel companion trails.	Low		x		\$\$
4. Evaluate sidewalk widths where connections to local and regional trails exists.	Low		x		\$\$
5. Evaluate enhancing an at grade trail crossing of Parker Road at the Indian Pipe Lane traffic light.	High	x			\$
6. Evaluate adding a grade-separated trail crossing of Parker Road between Twenty Mile Road/Hilltop Drive and Pine Drive/Indian Pipe Lane.	Med	x			\$-\$\$\$
7. Evaluate the width and conditions of trails and sidewalks especially in high use areas to determine where revised trail design, maintenance and improvements may be necessary.	Low		x		\$
8. Ensure future land use changes enhance the multimodal network.	High	x			\$

Goal 3: Connectivity: Create connectivity between all trails, sidewalks and bike lanes allowing for safe and efficient bicycle and pedestrian movement.

Recommendations	Priority	1-3 years	3-10 years	10+ years	Cost
1. Consider and research feasibility to build grade separated crossings where regional trails cross arterials roads and to connect important destinations such as schools, parks and public amenities: a. Oak Gulch Trail crossing Motsenbocker Road b. Lemon Gulch Trail under or over Crowfoot Valley Road c. Lemon Gulch Trail from Crowfoot Valley to Chambers Road d. Newlin Gulch Trail under Hess Road e. Kinney Creek under Parker Road f. High Plains Trail/Jordan Road g. High Plains Trail/Chambers Road	High	x	x		\$\$-\$\$\$

2. Use this plan in coordination with the Open Space, Trails and Greenway Master Plan when reviewing future developments to ensure bike and pedestrian connections are made.	High	x			\$
3. Complete missing trail connections list from the Open Space, Trails and Greenway Master Plan.	High		X		\$-\$\$\$
4. Continue to periodically update Opens Space, Trails and Greenway Master Plan and maps to address missing trail connections.	High	x			\$
5. Evaluate and add bike lanes: a. Priority bike lanes on Plaza Drive, Heirloom Parkway, Clubhouse Drive b. Seek opportunities for other additional bike lanes	High	x			\$-\$\$
6. Ensure road reconstruction projects are developed using the Roadway Design and Construction Criteria Manual roadway section that include sidewalks and bike lanes as a baseline for design and also following complete street policy, to the maximum extent practicable.	High	x	x	x	\$
7. Ensure sidewalks and bike lanes are constructed with all development and roadways.	High	x	x	x	\$
8. Establish clear multimodal requirements in Land Development Ordinance for developments and redevelopments.	High	x			\$
9. Complete sidewalk gap on the west side of Hilltop Road along the Preston Hill/Rampart Station subdivision.	Low		x		\$-\$\$\$
10. Complete sidewalk gap along east side of Hilltop Road between Tallman Drive and Hidden River Lane.	Low		x		\$-\$\$\$

Goal 4: Safety and Health: Provide a safe and comfortable bike and pedestrian network that adds to Parker’s healthy lifestyle and quality of life.

Recommendations	Priority	1-3 years	3-10 years	10+ years	Cost
1. Create a regional trail crossing evaluation program (5-year evaluation) for arterial roadway crossings and implement findings from evaluation for enhanced user safety.	High	x	x		\$-\$\$
2. For future development of new trails and new roadways, ensure trails crossing collector roadways are managed with crosswalks and other safety technology.	High	x	x	x	\$-\$\$
3. Enhance pedestrian infrastructure at important intersections– enhanced crosswalks, additional signage regarding yielding to pedestrians, pedestrian refuge islands and other best practices. The Community Development and Engineering/Public Works Departments to coordinate locations for improvements.	High	x			\$-\$\$
4. Ensure sufficient trail etiquette signage exists on trails to optimize trail safety.	Low	x			\$
5. Provide pedestrian protected left turns at lights when the crossing signal is activated in high pedestrian activity areas	Med	x	x	x	\$\$-\$\$\$

such as schools, downtown and parks as traffic signals are replaced and upgraded.					
6. Consider amending turn radius profiles at intersections with higher bicycle and pedestrian users, with the goal to improve pedestrian comfortability.	Med		x		\$-\$
7. Retrofit existing roadways to accommodate bike lanes to the greatest extent practicable.	Med		x		\$-\$-\$
8. To ensure minimal disruption to the area, during roadway reconstruction, maintenance and restriping projects add recommended bike lanes and shoulders to the greatest extent practicable. a. When shoulders are used, signage and markings are needed	High	x			\$-\$-\$
9. Collect bike and pedestrian crash data and complaints to better inform the location and type of needed safety improvements.	Low	x			\$

Goal 5: Increase Usage: Increase Usage: Increase usage of the multimodal transportation network to expand travel choices and, where feasible, provide residents with an alternative to vehicular transportation, especially for local travel.

Recommendations	Priority	1-3 years	3-10 years	10+ years	Cost
1. Require the improvement, expansion and enhancement of the bike and pedestrian network with new development and redevelopment projects.	High	x			\$
2. Seek opportunities to implement pilot projects such as: a. Temporary bollards for bump outs to shorten pedestrian crossings b. Temporary bollards or striping used for bike lanes less than 5 feet c. Temporary bollards or striping used for bike shoulders d. Temporary parklets e. Temporary pilot projects for traffic calming f. Seasonal pilot projects – bring in bikes, scooters, shut down a road for a short period time. The Community Development and Engineering/Public Works Departments to coordinate locations for improvements.	Med		x		\$-\$
3. Collect pedestrian counts and other pedestrian data for priority intersections in Town such as: a. Indian Pipe Lane and Parker Road b. Parker Road and Mainstreet c. Parker Road and Cottonwood Drive d. Hilltop Road/Twenty Mile Road and Parker Road e. Lincoln Avenue and Jordan Road f. Twenty Mile Road and Mainstreet g. Parker Road Traffic Signals	High	x			\$
4. Provide bike facilities on downtown streets with new development and redevelopment.	High		x		\$

5. Designate bike route(s) using signage, wayfinding, mapping and other tools to create a high-quality, low stress bicycling environment.	Low		x		\$
6. Ensure sidewalk gap funding is prioritized annually.	Med	x			\$
7. Evaluate creating an annual bike lane improvement program.	Med	x			\$-\$\$\$
8. Monitor and count trail user data to determine network improvement opportunities.	High	x			\$

Goal 6: Implementation: Ensure planning processes and funding are allocated on a consistent basis to grow the active transportation network.

Recommendations	Priority	1-3 years	3-10 years	10+ years	Cost
1. Implement active transportation projects recommended in the Parker Road Corridor Plan. a. Complete Parker Road sidewalk/multiuse trail through Town b. Improve pedestrian and bicycle crossings at intersections including Cottonwood Drive, Mainstreet, Pine Lane, Pine Drive and Indian Pipe Lane	Med			x	\$-\$\$\$
2. Implement trails best practices when planning new trails and evaluating revisions to cross sections.	High	x			\$
3. Implement Parker Road Corridor Plan recommended multimodal transportation action lists items.	Med		x		\$-\$\$\$
4. Implement maximum distance between pedestrian crossings on a roadway based on current best practices.	High	x			\$
5. Implement multimodal level-of-service (MMLOS) recommendations from the Town's Transportation Master Plan.	High	x	x	x	\$\$
6. Complete bike and pedestrian projects from Parker Transportation Master Plan recommendations list.	High	x	x	x	\$-\$\$\$
7. Expand and prioritize the Sidewalk Gap Program in the Capital Improvement Program to increase funding to construct new and complete missing gaps in the trail, sidewalk and bike lane system where demand is the highest until all sidewalk gaps are eliminated.	High	x	x	x	\$\$-\$\$\$
8. Strategically phase larger infrastructure projects such as trail corridors, bike routes or pedestrian bridges.	High	x	x	x	\$
9. Capital infrastructure projects should ensure street design follows complete streets policy to greatest extent practicable.	High	x	x	x	\$-\$\$\$

\$ = Low Cost: \$0-\$250,000

\$\$ = Medium Cost: \$250,000-\$500,000

\$\$\$ = High Cost: \$500,000+

Conclusion

The Town has historically done well building trails and sidewalks. Through the vision, goals, strategies and recommendations of this Plan, the Town of Parker has the potential to be a great bicycling and walkable community. Parker needs great on-street bikeways to complement its trail and sidewalk network where possible. In order to achieve this, Parker should commit to constructing the above recommended bicycle and pedestrian projects over time as resources are available. Many projects can be accomplished in the short-term, while others may require more time and additional policy and funding solutions.

The benefits of implementing the Plan's recommendations will further advance Parker's multimodal active transportation network and work to help connect people to places in the community.

Appendices

Appendix A: Toole Design Network Analysis Report

Appendix B: Detailed Online Public Engagement Summary Report