Bicycle Parking and Accessibility Plan

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Introduction

The Regional Transportation District (RTD) supports multimodal access to transit for all users and aims to ensure that bike access is as safe and convenient as possible. Today, RTD provides parking for approximately 2,000 bikes with 540 bike racks and 750 bike lockers at Park-n-Rides (PnRs), light rail (LRT) stations, and transit transfer centers. RTD also allows customers to bring their bikes on buses and trains. However, despite these accommodations, the bike access to transit mode share remains low District-wide relative to other modes of access.

In some areas of the District, demand for transporting bicycles on transit vehicles is greater than the bike carrying capacity. Current space limitations suggest that the ability to add significant bike capacity on transit vehicles is limited in the foreseeable future, thus providing the alternative of improved options for accommodating bikes at transit facilities is essential. Focused and targeted improvements to bike infrastructure and programs are cost-effective ways to not only facilitate the sustainability benefits of transit-supportive development, but also potentially reduce the rates of bikes on board vehicles.

Nationwide, the number of people who traveled to work by bike increased approximately 60 percent over the last decade, and the City and County of Denver’s bike commute mode share more than doubled. By making transit facilities more attractive to and convenient for bicyclists, RTD can capitalize on these increases in bike commuting and accommodate a new generation of transit users.
The Plan will help RTD meet many of its goals by meeting the present and future transportation needs of the District through providing accessible and cost-effective transportation service.

Improved accessibility, the provision of secure bike parking, and other targeted measures have the potential to increase the number of customers biking to RTD and to improve customer satisfaction and safety for biking customers. The RTD Bike Parking and Accessibility Plan (the Plan) is focused on doing just that. This document is to be used by the RTD Board of Directors and staff in guiding project prioritization to improve bike accessibility throughout the system.

The Plan has three core goals:

1. Identify cost-effective solutions for improving bike access and mobility

2. Increase the mode share percentages of transit patrons bicycling to RTD transit facilities

3. Improve customer satisfaction and safety for customers biking to RTD transit facilities

Plan Process

This District-wide Plan focused on the 90 RTD PnRs, LRT stations, and transit transfer facilities in place as of December 2013. To guide the development of this Plan, an RTD Internal Working Group (IWG) was formed and consulted throughout the project. The IWG included representatives from the following RTD Departments: Bus Operations, Capital Programs, Communications, Planning, Rail Operations, and Safety, Security and Facilities.

RTD Bike Parking Program and Facility Assessment

RTD has provided bike parking at transit facilities for the past 30 years. There are a variety of bike parking options available at RTD's facilities in the form of bike racks, bike trees, bike lockers, and Bus-Bike Shelters (secure bike parking shelters). As part of this Plan, bike parking and access were assessed at 90 transit facilities. Key observations about the bike parking program and findings from the facility assessments are shown in Table ES-1.

RTD has developed policies and guidelines to support overall facility planning with applicability to bike parking and access. These documents dictate the type, quantity, and location of bike parking, as well as provisions for well-designed bike access to facilities. Observations about these documents, as they influence this Plan, include:

- The guidelines state that all facilities, regardless of whether they have auto parking, should have bike parking.
- Generally, RTD guidelines and design criteria documents are unified in stating that all types of bike parking should be conveniently located at RTD transit facilities in a way that minimizes conflicts with other transportation modes.
Executive Summary

Access guidelines state that "bike access, circulation and parking, and storage design shall be included with the facility and integrated with adjacent bike routes and pedestrian paths."

Guidelines reference a requirement that lockers be placed at least 250’ from a station, station area, or patron gathering area (except with RTD written approval), but the RTD Bus Transit Facility Design Guidelines and Criteria also recommends placement to be no further than the closest non-ADA parking space, and "conveniently located." In many cases, the 250’ distance requirement would result in lockers being placed off of RTD property, in an inconvenient location, and further than the closest non-ADA parking space.

Customer Behavior and Preferences

In 2013, as a complement to this plan, RTD conducted an online Bike-Transit User Survey to explore barriers for customers biking to and parking at transit facilities. Additionally, outcomes from RTD’s 2011 Customer Satisfaction onboard survey informed this Plan’s development. Some key findings are as follows:

- A significant percentage of RTD customers are traveling three miles or less—a typical bikeable distance—to PnRs or light rail stations.
- Customers that park a bike at an RTD facility indicate low satisfaction with the parking—including the availability of parking, security of parking, and the availability of information about bike parking.

<table>
<thead>
<tr>
<th>Bike Parking Program Element</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Types</td>
<td>As of December 2013, RTD provided approximately 500 bike racks, 24 bike trees, and 750 bike lockers throughout the District. Of all the facilities visited during the development of this Plan, 60 percent offered both bike racks and lockers, 21 percent had just bike racks, and 13 percent had no bike parking at all.</td>
</tr>
<tr>
<td>Parking Condition</td>
<td>Provide clear, consistent policy and guidance for the planning and design of bike facilities; clarifying, revising, and compiling existing policies and procedures into a new resource to guide the design and implementation of bike facilities.</td>
</tr>
<tr>
<td>Bike Lockers</td>
<td>While the number of bike lockers has increased over the years, lease rates have decreased from a system-wide high of 71 percent in 2008 to 39 percent in 2013. A handful of transit facilities, however, have a 75 percent or higher lease rate. The locker rental process requires a fee, an in-person application, a valid form of identification, and a lock.</td>
</tr>
<tr>
<td>Secure Bike Parking</td>
<td>Four Bus-Bike shelters (also known as bike corrals, or secure bike parking) have successfully been installed in Boulder County in recent years. These shelters provide long-term, secure, and weather-protected bike storage and are accessible via a swipe card entry to those registered for the program. Registration is currently free and can be completed online.</td>
</tr>
<tr>
<td>B-cycle</td>
<td>Many of Denver’s 84 B-cycle stations and Boulder’s 38 stations are located near RTD facilities and/or transit stops; four stations are co-located with RTD transit facilities.</td>
</tr>
<tr>
<td>Parking Placement</td>
<td>Most of the bike parking facilities are very convenient with respect to customers finding and using the parking. In general, bike parking on RTD facilities is located in intuitive locations. However, at some of the larger PnR lots, getting to the bike parking or boarding areas by bike can be difficult, particularly for new users that may be unfamiliar with each site.</td>
</tr>
<tr>
<td>Wayfinding Signage</td>
<td>The vast majority of existing bike-related signage at RTD transit facilities indicates dismount zones at transit plazas or loading areas, but there are a few facilities that do include signage that directs bicyclists to adjacent paths and/or bike parking.</td>
</tr>
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</table>
Executive Summary

The two most important factors in deciding whether to bike to transit are the perception of secure bike parking and availability of bike lanes to/from transit facilities. The least important factors were logistical issues such as hygiene, attire, and B-cycle access.

When asked “If RTD added a bus-bike shelter to your preferred transit stop, how likely would you be to use it?” over 70 percent indicated they were very likely or somewhat likely to use the shelter. Only a small percentage of bike-transit users indicated that they would not use a secure bike parking shelter because they need their bikes with them during the day for other trips.

A cited barrier to using RTD-provided bike racks and lockers includes a lack of parking availability and uncertainty about how the locker system works.

Customers bring bikes with them on a bus or a train for two reasons: 1) the need for a bike to complete a portion of the trip from a transit facility because it is too far to walk; and 2) the need for a bike for other trips during the day.

Recommendations

This Plan provides a broad range of system-wide recommendations to improve safety, access, ease of use, and mobility for bicyclists. The recommendations draw upon the needs identified during the field assessments and online survey, discussions with the IWG, and a review of national best practices. They are designed to work together to make bicycling to RTD facilities an enjoyable, safe, and comfortable experience.

Recommendations include physical infrastructure, policy, and programmatic improvements and are organized into the following six areas:

1. Policies to Encourage Bike Access
2. Increase and Improve Bike Access to Transit
3. Modify and Enhance Bike Parking
4. Enhance Bike Marketing
5. Tracking and Evaluating
6. Implementation

Table ES-2 summarizes the recommendations and identifies the existing need and Plan goals that they address. Many of the recommendations can be implemented in the near-term, while others will require more coordination or implementation time. See Appendix C for implementation guidance.
1. Policies to Encourage Bike Access

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Description</th>
<th>Existing Need Addressed</th>
<th>Plan Goal(s) Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Set a District-wide Bike Access Goal</td>
<td>Set a bike access goal of five percent, roughly doubling existing percentages, to be reached by 2025.</td>
<td>Relatively low bike access mode share and lack of a formal goal for RTD to work towards.</td>
<td>Bike mode share</td>
</tr>
</tbody>
</table>

1.2 Unified Bike Guidelines and Policy Document | Provide clear, consistent policy and guidance for the planning and design of bike facilities; clarifying, revising, and compiling existing policies and procedures into a new resource to guide the design and implementation of bike facilities. | Lack of wayfinding signage and pavement marking guidelines; existing determination for bike parking needs based on limited factors; and existing classification of bike lockers as "publicly accessible receptacles," requiring lockers to be placed at least 250' from the station, station area, or patron gathering area. | Bike mode share, Cost-effective solutions, Customer satisfaction and safety |

2. Increase and Improve Bike Access to Transit

<table>
<thead>
<tr>
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<th>Plan Goal(s) Addressed</th>
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<tbody>
<tr>
<td>2.1 Install Wayfinding Signage and Pavement Markings on RTD Property</td>
<td>Provide wayfinding signage for bicyclists; reevaluate sign design; provide pavement markings to mitigate conflict areas.</td>
<td>Non-intuitive routing for bicyclists at some transit facilities, particularly considering large parking lots and the mixing of other modes of travel.</td>
<td>Bike mode share, Cost-effective solutions, Customer satisfaction and safety</td>
</tr>
</tbody>
</table>

2.2 Coordinate with Other Property Owners to Improve Connectivity to Transit | Where there are gaps, work with local jurisdictions, the Colorado Department of Transportation (CDOT), developers, or other property owners to identify needed improvements and provide bike facilities and/or wayfinding signage to connect RTD facilities to local bike networks. | Existing gaps in bike networks leading to transit facilities; lack of wayfinding from existing bike trails and on-street networks to RTD facilities. | Bike mode share, Customer satisfaction and safety |

2.3 Increase B-cycle Stations at RTD Facilities | Work with Denver and Boulder Bike Sharing to co-locate more B-cycle stations at RTD facilities to improve bike access and alleviate some demand for bringing bikes on buses and trains. | Few B-cycle stations co-located with RTD facilities; a potential to satisfy the customer need for having a bike at the end of their trip; a potential to reduce bikes on transit. | Bike mode share, Cost-effective solutions |

2.4 Develop a First and Final Mile Strategic Plan | Develop a broader plan to improve transit access for bicycles, pedestrians, car share, and transit shuttles. | The size of RTD’s service area and the varying land uses and connectivity at facilities requires appropriate and strategic first and final mile solutions. | Bike mode share, Cost-effective solutions, Customer satisfaction and safety |

Table ES-2. Needs, Goals, and Recommendations
## Executive Summary

### 3. Modify and Enhance Bike Parking

<table>
<thead>
<tr>
<th>Recommendation</th>
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<th>Existing Need Addressed</th>
<th>Plan Goal(s) Addressed</th>
</tr>
</thead>
</table>
| 3.1 Fix Damaged Bike Parking and Remove Abandoned Bicycles | Fix damaged bike parking and remove all abandoned bikes from the system. | Damaged equipment is aesthetically unappealing and creates a sense that bikes are vulnerable to theft, while also removing parking capacity. | Bike mode share  
Cost-effective solutions  
Customer satisfaction and safety |
| 3.2 Install Covered Bike Racks | Cover bike racks by moving racks underneath or inside an existing structure, or providing free-standing cover. | A lack of widespread covered facilities in the District; covered facilities protect bikes from weather elements and provide additional visibility for parking. | Cost-effective solutions  
Customer satisfaction and safety |
| 3.3 Install Secure Bike Parking Shelters | Evaluate transit facilities for secure bike parking opportunities and install where feasible and appropriate; consider District-wide branding as “Bike-n-Ride” shelters; coordinate with partners about operations and maintenance. | Demand for secure, high-capacity bike parking is growing region-wide; shelters could provide bike parking program branding and visibility. | Bike mode share  
Customer satisfaction and safety |
| 3.4 Improve Bike Lockers | Create online lease process; evaluate design; and evaluate locker types. | Current system for leasing a bike locker is onerous for both RTD and its customers; current bike lockers are opaque and some within RTD consider them a security risk; on-demand lockers provide flexibility for users. | Bike mode share  
Cost-effective solutions  
Customer satisfaction and safety |

### 4. Enhance Bike Marketing

<table>
<thead>
<tr>
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</thead>
</table>
| 4.1 Develop a Campaign in Conjunction with B-cycle | Develop a campaign in conjunction with Denver and Boulder Bike Sharing to encourage riders to complete the first and final mile of their trips with bike share. | A potential to reduce bikes on transit; a potential to attract more riders to RTD by providing a low-cost access option. | Bike mode share  
Cost-effective solutions  
Customer satisfaction and safety |
| 4.2 Develop Campaign to Promote Bicycling to RTD Facilities | Expand the public’s knowledge of RTD’s bike program through a public information campaign; sponsor a program to target specific transit facilities as needed (Bike to RTD Day). | Lack of widespread public understanding of RTD bike parking options; potential to reduce demand for auto parking. | Bike mode share  
Cost-effective solutions |
| 4.3 Bike Parking Incentive | Provide an incentive for customers who want to store a bike at both ends of their trip; could be in the form of a discount for customers who rent two lockers. | A potential to reduce bikes on transit; increasing customer satisfaction for those who want a bike at both ends of their trip. | Cost-effective solutions  
Customer satisfaction and safety |
| 4.4 Improve Bike Locker Identification | Investigate options for better bike locker identifications/ markings and informative signage about the locker program. | Lack of widespread public understanding of RTD bike parking options and the bike locker process. | Cost-effective solutions  
Customer satisfaction and safety |
## Executive Summary

### 5. Tracking and Evaluating

<table>
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<tr>
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<tbody>
<tr>
<td><strong>5.1 Conduct More Frequent Counts of Bike Rack Use</strong></td>
<td>Establish a regular cycle to conduct a count of bike rack usage which can be incorporated into regular PnR auto parking usage counts, or performed separately.</td>
<td>Frequent and consistent data about RTD’s bike parking system use is not currently available; thus, it is difficult to match supply and demand.</td>
<td>Cost-effective solutions; Customer satisfaction and safety</td>
</tr>
<tr>
<td><strong>5.2 Conduct Annual Bike-Transit User Customer Satisfaction Survey</strong></td>
<td>Repeat the 2013 Bike-Transit User Customer Survey each year to track progress and use patterns.</td>
<td>Data will provide timely results of effects of improvements that are made at transit facilities as well as help track trends over time, respond to customer needs, and prioritize additional improvements.</td>
<td>Customer satisfaction and safety</td>
</tr>
<tr>
<td><strong>5.3 Track Bike Thefts on RTD Property</strong></td>
<td>Adjust the RTD crime database to specify bike theft and vandalism as new categories.</td>
<td>Some customers perceive safety issues in parking their bike at transit facilities.</td>
<td>Cost-effective solutions; Customer satisfaction and safety</td>
</tr>
<tr>
<td><strong>5.4 Solicit Feedback from Bicyclists</strong></td>
<td>Examine the possibility of developing a bike program app or crafting a Twitter hashtag to allow users to provide quick feedback about bike issues at RTD facilities. Consider establishing a bike focus group for polling about overall customer satisfaction with the Bike Program.</td>
<td>Overall customer satisfaction with bike program is relatively low.</td>
<td>Cost-effective solutions; Customer satisfaction and safety</td>
</tr>
</tbody>
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### 6. Implementation

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>6.1 Establish an Inter-Departmental RTD Bike Access Implementation Team</strong></td>
<td>Establish an RTD bike access implementation team to evaluate and direct implementation of capital improvements, maintenance, and customer service related to biking to RTD.</td>
<td>Lack of existing cohesive group within RTD to implement this Plan or other bike program elements.</td>
<td>Cost-effective solutions</td>
</tr>
</tbody>
</table>

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*Figure ES-2. Wave Racks at an RTD Facility*
The Regional Transportation District (RTD) supports multimodal access to transit for all users and aims to ensure that bike access is as safe and convenient as possible. RTD has a long and evolving history of accommodating bicyclists at its transit facilities. Today, RTD provides parking for approximately 2,000 bicycles with 540 bike racks and 750 bike lockers at Park-n-Rides (PnRs), light rail (LRT) stations, and transit transfer centers. RTD also allows customers to bring their bikes on buses and trains.

However, despite these accommodations, the bike access to transit mode share remains low District-wide relative to other modes of access. Improved accessibility, the provision of secure bike parking, and other targeted measures have the potential to increase the number of customers biking to RTD. Growing the bike access mode share—currently between two and three percent District-wide—is important to RTD, and one of the primary reasons for the development of the RTD Bike Parking and Accessibility Plan (the Plan).

The development of this Plan is timely. Nationwide, the number of people who traveled to work by bike increased roughly 60 percent over the last decade, and the City and County of Denver’s bike commute mode share more than doubled. Additionally, recent research shows that younger generations are driving less and prefer a range of transportation options. By making transit facilities more attractive to and convenient for bicyclists, RTD can capitalize on these increases in bike commuting and accommodate a new generation of transit users.
The Plan is focused on improving conditions for bicyclists in the areas of bike accessibility and bike parking. Improving accessibility means that people who bike can get to transit facilities easily and safely. Improving bike parking means that when those people get to RTD, they have an adequate space in which to park their bike. Inadequate bike parking and fear of theft are major deterrents to bike transportation. As such, transit patrons are more likely to use a bike for accessing transit if they are confident that they will find convenient and secure bike parking. And those patrons are more likely to leave their bike at an RTD facility, instead of bringing it onboard a bus or train, if the parking is perceived to be secure.

In some areas of the District, demand for transporting bicycles on transit vehicles is greater than the bike carrying capacity. Current space limitations suggest that adding significant bike capacity on transit vehicles is not viable in the foreseeable future, thus providing the alternative of improved options for accommodating bikes at transit facilities is essential. Focused and targeted improvements to bike infrastructure and programs are cost-effective ways to not only facilitate the sustainability benefits of transit-supportive development but also to potentially reduce the rates of bikes on board vehicles.

Growth in RTD ridership, progress in completing the FasTracks system, the cost of providing automobile parking, and growth in regional bike commuting point to taking action on improving RTD’s bike access and parking. Doing so can help RTD mitigate future demands for auto parking, while also helping the region meet mobility and air quality goals. Additionally, these types of improvements have the potential to increase transit ridership by:

- Extending the distance that customers can travel to reach transit stops and stations without an automobile
- Offering additional amenities to customers, thereby improving the experience
- Improving the overall attractiveness of transit, thus encouraging bicyclists and drivers who do not typically use transit to perceive it as a viable option

Implementation of this Plan will help RTD meet many of its goals referenced in the 2015 Adopted Budget by meeting the present and future transportation needs of the District through providing accessible and cost-effective transportation service.

Figure 1. Rider Waiting to Board LRT Train
Plan Purpose and Scope

The purpose of this Plan is to define strategies to increase the number of transit patrons that bike to and park at RTD facilities. This document is to be used by the RTD Board of Directors and staff in guiding project prioritization to improve bike accessibility throughout the system. The Plan process included the following tasks:

- District-wide existing conditions assessment of RTD-provided bike parking and access to existing PnRs, LRT stations, and transit transfer facilities
- Evaluation of RTD policies and guidelines related to bike parking and access
- Survey of RTD bike-transit users
- Research of US best practices in bike parking at transit facilities
- Preparation of recommendations to improve the Bike Program and bike access to RTD services

The aforementioned recommendations support this Plan’s three core goals:

1. Identify cost-effective solutions for improving bike access and mobility
2. Increase the mode share percentages of transit patrons bicycling to RTD transit facilities
3. Improve customer satisfaction and safety for customers biking to RTD transit facilities

Study Area

This District-wide Plan focused on the 90 PnRs, LRT stations, and transit transfer facilities in place as of December 2013 (Figure 2).1 A full set of transit facility site maps is included in Appendix A, see example in Figure 3. These maps include the following characteristics of the facility and its surrounding area:

- Bike parking types and capacity
- Bike network including facility types
- Land uses
- Municipality
- Population

Internal Coordination

To guide the development of this Plan, an RTD Internal Working Group (IWG) was formed and consulted throughout the project. The IWG included representatives from the Bus Operations, Capital Programs, Communications, Planning, Rail Operations, and Safety, Security and Facilities Departments. The IWG met three times:

- Initial Meeting - Plan purpose, overview of the RTD bike program, bike parking best practices from around the world
- Interim Meeting - Summary of field visits, summary of US case studies, results of RTD bike-transit customer survey, proposed transit facility typologies
- Final Meeting - Review of issues and opportunities, presentation of draft recommendations

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1 Note that one additional facility, Market Street Station, has since closed.
Study Area Transit Facilities
RTD Bicycle and Parking Accessibility Plan

- **Bus Only**
- **Combination Bus and Light Rail**
- **Light Rail Only**
- **Light Rail**
- **RTD Boundary**

Figure 2. Study Area Transit Facilities
Report Organization

The Plan is organized into seven chapters:

- **Chapter 1: Introduction** introduces the project purpose and scope.
- **Chapter 2: System Overview and Planning Context** provides an overview of the RTD system, bike-related trends, and the planning context for the Plan recommendations.
- **Chapter 3: Bike Parking Program** provides an overview of RTD's bike program, including policies, guidelines, and standards.
- **Chapter 4: Bike-Transit Customer Feedback** describes the planning process and methodology used to analyze existing bike parking and accessibility and identify key issue areas.
- **Chapter 5: Existing Facility Assessment** reviews the results of a customer survey conducted to complement this Plan.
- **Chapter 6: Case Studies** provides case studies of U.S. best practices in bike parking.
- **Chapter 7: Recommendations** provides system-wide recommendations for RTD to implement.
SYSTEM OVERVIEW AND PLANNING CONTEXT
RTD System

RTD was created in 1969 by the Colorado General Assembly to develop, operate, and maintain a mass transportation system for the benefit of the now 2.8 million people within its 2,340 square mile service area. This area includes 40 municipalities in all or parts of eight counties: the City and County of Denver, the City and County of Broomfield, the counties of Boulder and Jefferson, the western portion of Adams and Arapahoe Counties, the northern portion of Douglas County, and small portions of Weld County. RTD currently provides both bus and LRT service, including 138 fixed-route bus services and 48 miles of LRT which accommodate over 102 million annual boardings.

FasTracks

In 2004, voters approved a 0.4 percent sales and use tax initiative to fund the FasTracks Program. FasTracks is a regional rapid transit expansion that consists of nine rail lines (new or extended); one bus rapid transit (BRT) line; redevelopment of Denver Union Station (DUS); a new Commuter Rail Maintenance Facility; an expanded LRT maintenance facility; and the Free MetroRide bus circulator. When complete, FasTracks will add approximately 93 miles of commuter rail, 28 miles of LRT, and 18 miles of BRT to the system (Figure 4).
Figure 4. FasTracks Progress Map (2014)
Significant progress has been made on the FasTracks Program since the passage of the ballot initiative in 2004. In April 2013, the West Rail Line opened for service eight months ahead of schedule and on budget. A total of 81 miles of rapid transit are currently under construction: the Eagle Project (consisting of the East Rail Line, the Gold Line, and a portion of the Northwest Rail Line), I-225 Rail Line, North Metro Rail Line (to 124th Avenue), and the US 36 BRT Line. With the exception of the North Metro Rail Line, which is scheduled for opening in 2018, all of these projects are anticipated to open for service in 2016. The Southeast Rail Extension is currently seeking Federal funding and, if secured, is planned to open in 2019. RTD is evaluating every funding possibility to complete the remainder of the FasTracks projects.

The full build out of FasTracks will bring over 50 new stations online. Of these stations, 31 will include PnRs with a total of 21,000 additional auto parking spaces. In order to maximize ridership and RTD’s investment in infrastructure, it will be important that access to and accommodations at these facilities is safe for all modes of travel. This Plan does not specifically evaluate bicycle parking needs at these future stations, but should serve as a guide for providing bike parking and safe access. The recommendations in Chapter 7 provide a starting point for RTD discussions related to access and bike parking at future transit facilities.

Regional Trends and Transit Use Characteristics

The Denver metro population has rapidly expanded: between 1990 and 2010, regional population increased by 52 percent. During that same period, RTD experienced a 79 percent growth in transit ridership. As the region grows and changes, we see aging populations and younger generations becoming increasingly interested in alternatives to driving. What’s more, biking is on the rise regionally and nationally. According to the US Census, the number of people in the United States who traveled to work by bike increased approximately 60 percent over the last decade. In the City and County of Denver, the bike commute mode share more than doubled in that time. The 2014 Downtown Denver Partnership annual commuter survey indicates that bike to work trips to downtown Denver increased 43 percent from 2013 to 2014.

RTD Use Characteristics

In addition to other data collection efforts, RTD regularly conducts two surveys to help understand customer travel patterns: a periodic on-board survey and an annual license plate survey.1

1 The annual license plate survey provides addresses registered to the vehicles parked at RTD PnRs, which allows RTD to understand the origins of those auto trips.
Travel Distance to Transit

The Federal Transit Administration (FTA) indicates that the average person will bike up to three miles to access transit. The 2011 On-board Customer Satisfaction Survey results show that a significant percentage of RTD customers are traveling three miles or less to PnRs or light rail stations: 56 percent of bus passengers and 41 percent of light rail passengers.

RTD also conducts an annual license plate survey at all PnRs. Results of the 2013 survey indicated that of all customers driving to and parking at PnRs, an average of 17 percent have an origin point within two miles of the PnR at which they parked, although the percentages vary by municipality.

Access to Transit

The 2011 On-board Survey results show that transit access differs for bus and rail service. Averaged throughout the District, bike access to bus is slightly higher than to LRT (three percent versus two percent). However, when the survey results are evaluated for individual bus service classes, the story is slightly different: Regional bus services boast a nearly eight percent bike access mode share and Boulder Local bus service sees nearly five percent of riders arriving by bike. At this time, RTD does not have statistically-significant access mode share data by individual LRT station or PnR.

Customer Satisfaction

The 2011 on-board survey also measured customer satisfaction. Customers that parked a bike at an RTD facility were asked to rate their satisfaction with several aspects of bike parking. The resulting satisfaction ratings were low. These questions and the resulting ratings (where one is “very poor” and five is “excellent”) are shown below.

- Availability of parking spaces for bikes (bus customers: 3.65, LRT customers: 3.48)
- Security of your parked bike at bus stop/PnR/light rail station (bus customers: 3.5, LRT customers: 3.04)
- Availability of information on bike parking and traveling on buses/trains with bikes (bus customers: 3.53, LRT customers: 3.41)

The overall satisfaction of bus customers was rated at 4.2 and LRT at 4.11. In addition to having an overall lower bike access mode share, LRT stations have lower customer satisfaction ratings than PnR facilities, particularly with regard to security of bike parking.
Bikes on Transit Vehicles

RTD is experiencing growing demand for carrying bikes on buses.¹ Every three years RTD conducts a one-day count of all bikes loaded onto buses. These counts show that between 2000 and 2013 bike-bus boardings increased by 136 percent. Bike boardings on Regional buses are growing more than other bus services and saw a 302 percent increase in this same timeframe. This is an issue because in some areas of the District, demand for transporting bikes on both bus and LRT vehicles is greater than the capacity. Current space limitations suggest that adding significant bike capacity on transit vehicles is limited for the foreseeable future.

Summary

The substantial number of existing transit patrons within biking distance of RTD facilities presents an opportunity to shift how people access transit in the region. While present bike access mode share is relatively low for both bus and LRT service, it is higher on certain lines/routes, demonstrating the potential for increases District-wide given appropriate action. Customer satisfaction with existing bike facilities, including the number of parking spaces, security of bike parking, and availability of information on bike policies/parking, is low relative to other aspects of transit and lowest for LRT customers. Finally, with the opening of new FasTracks projects, anticipated ridership growth, and changing travel behavior, it is likely that demand for bringing bikes on transit will rise, even though carrying capacity is limited and in some cases, already strained. This Plan will help RTD address these issues.

¹ There is no corresponding information for the number of bikes brought on LRT vehicles.
Bike Parking Program
Chapter 3  
Bike Parking Program

The following chapter provides an overview of RTD’s bike parking program, relevant policies, and guidelines.

Bike-n-Ride Program Overview

Bike parking is just one element of the overall RTD Bike Program (Bike-n-Ride) and will be discussed in this chapter. The other key elements are:

**Bike on Bus:** All RTD buses (except the 16th Street Free MallRide and the Free MetroRide) are equipped with front-mounted racks that can hold two bikes. If the rack is full, transit patrons with bikes may request to bring the bike inside the bus, but this is solely at the discretion of the bus operator. For regional coach buses, RTD permits transit riders to load their bikes in baggage bins if space is available.

**Bike on Light Rail:** Four bikes are allowed per LRT vehicle, two per front and back door (except in the first car which can carry only two bikes because the operator’s door cannot be blocked). Unlike many large U.S. transit agencies, there are no time restrictions for when bikes can be on board, however bike boarding can be denied or a customer may be asked to deboard at any time due to overcrowding of either bikes and/or passengers.
Bike Parking Program

RTD has provided bike parking at transit facilities for the past 30 years. There are a variety of bike parking options available at RTD’s facilities in the form of bike racks, bike trees, bike lockers, and Bus-Bike Shelters.

Bike Racks

In the early 1980s, bike racks were available at most PnRs. It is now standard practice for inverted-U racks (Figure 6) to be installed at RTD transit facilities where space is available, but other types of racks are also provided: circle racks, wave racks (Figure 7), art racks, and bike trees (Figure 8).

There is no current bike rack usage information available as a District-wide census is not regularly conducted in representative weather months.

Challenges: Security and Exposure

While bike racks are optimal for short-term use in highly-visible and busy locations, they are not an ideal form of bike parking at more remote PnRs that lack the regular foot traffic and visibility of urban transit facilities. Bike racks render bikes exposed to weather, vandalism, and theft. It is recommended that RTD evaluate opportunities for providing covered bike racks and secure bike parking shelters where possible, as discussed in Chapter 7.
**Bike Lockers**

RTD began installing bike lockers at transit facilities in the early 1990s. The first lockers were installed at the Boulder Transit Center (BTC) in February 1990. An additional 20 lockers were installed at the BTC and 18 were included in the Table Mesa PnR remodel in 1992. The locker system was expanded over time, and by 2000, approximately 500 bike lockers were available District-wide.

**History: First Come, First Served Lockers**

In October 2000, RTD instituted a six-month pilot program to test the viability of offering bike lockers on a first-come, first-served basis at several stations along the Southwest Rail Line. Initially 35 bike lockers were converted to first-come, first-served lockers. These lockers were not assigned to specific transit customers but were kept unlocked until a customer with an RTD-issued lock parked their bike. The patron only locked the locker for the duration they needed to store the bike so all other times the locker would be unlocked and available to other patrons.

The pilot project was successful and by 2004 there were 118 first-come, first-served lockers, primarily at LRT stations. However, in June 2008, all first-come, first-served lockers were converted back to lease-only for security reasons. All lockers are now locked at all times; if a locker is not leased, it is locked with an RTD-owned lock.

**Current Program**

RTD currently provides approximately 750 bike lockers throughout the District (Figures 9 and 10). RTD charges a $30 fee for a six-month lease for a bike locker. There is also one-time $20 fee for an RTD-issued lock, which customers are required to use. Customers must call RTD to ask if there are any lockers available.

To lease a locker for the first time, customers are required to submit the initial lease form in person and show a valid form of identification at one of three RTD customer service locations (Civic Center Station, DUS, or the BTC). This form’s information must be entered manually by RTD Customer Care staff. After a customer turns in an initial lease form, they are given a key for their RTD-issued lock. An RTD Safety, Security and Facilities staff member then replaces the RTD-owned lock with the customer’s lock.

1. The RTD-issued lock was a one-time fee of $15 at the start of the bike locker program.
2. Implementation of this lease fee occurred in 2009 and the decision was based on a survey of other US transit agencies. Through this survey, RTD discovered that most agencies that offer bike lockers charge a fee of some kind. The fee is seen to regulate the use of the lockers by discouraging infrequent users that are less willing to pay for a locker they rarely use, making more lockers available for regular users that could easily justify the cost.

**Figure 9. Horizontal Bike Lockers**
Bike Locker Lease Trends

Bike locker usage information is not available as that would require a time- and resource-intensive procedure involving unlocking all lockers District-wide to determine the presence of a bike. However, RTD began tracking bike locker lease rates in 2006. While the number of lockers has increased from about 450 in 2006 to 750 in 2013, lease rates have decreased from a system-wide high of 71 percent in 2008 to 39 percent in 2013. As shown in Figure 11, lease rates dipped significantly after the 2009 institution of the $30 lease fee mentioned previously.

The average bus-only facility lease rate in summer 2013 was at 41 percent, while LRT facility lease rates were slightly lower, at 37 percent (Table 1). Although bus and light rail facilities track similarly in trend lines, locations with a 75 percent or higher lease rate were primarily at the following LRT facilities:

- Alameda Station
- Denver Union Station
- Evans Station
- Jefferson County Government Center-Golden Station
- Lakewood-Wadsworth Station
- Littleton/Downtown Station

Given that the West Rail Line opened just a few months before this trend analysis was completed, the 45 percent lease rate is notable. Among bus-only facilities, the US 36 Corridor PnRs stand out as having the highest bike locker lease rates.

Locker lease trends show that there are varying levels of demand across the District. This information should be used to direct funds to facilities that can gain the most utility from those funds.
Challenges: Accessibility

Use of RTD’s bike lockers is dependent on users pre-registering, paying for, and having access to lockers at their desired transit facilities, thereby limiting their accessibility and overall use. Because the existing registration process can only be completed in-person and the locker program is not well advertised, RTD’s lease rates are low. Additionally, the bike locker program is not geared toward people seeking secure bike parking on a short-term basis (e.g., several times a year). Many transit agencies around the country are in a similar situation with low bike locker lease rates, and some are responding with a shift to electronic, on-demand lockers and/or secure bike parking facilities. For these reasons, it is recommended that RTD evaluate the potential of not only an online bike locker lease system, but also explore the possibility of using electronic, on-demand lockers (see Chapter 7).
Bus-Bike Shelters

Boulder County has piloted secure bike parking shelters at transit facilities and stops within their jurisdiction. These shelters, which are sometimes called bike corrals, are currently branded as “Bus-Bike” shelters and offer an enclosed and covered area for parking (see Figure 12). These shelters provide long-term, secure, and weather-protected bike storage and are accessible via a swipe card entry to those registered for the program. Riders can secure their bikes with individual locks for added security within the shelter.

Four Bus-Bike shelters are currently in service in Boulder County at the following locations:

- 8th and Coffman PnR
- Table Mesa PnR
- 28th Street and Iris bus stop
- Boulder Transit Center

The Bus-Bike shelter program is currently administered by Boulder County and the shelters are free to use after registering.

Louisville has secured funding to place an additional Bus-Bike shelter at the US 36-McCaslin PnR/BRT station on the north side of US 36. Similarly, Boulder County is also expanding their Bus-Bike shelter program at Boulder Junction in Boulder, which will be a new RTD bus facility and a terminus for the US 36 BRT Line. RTD has been coordinating with local jurisdictions along the US 36 BRT Line corridor to find and preserve space for this type of bike shelter at all existing US 36 PnRs/future BRT stations.

Challenges: District-wide Expansion

This type of secure bike parking has yet to be implemented by RTD, though conceptual plans for shelters were developed as part of the Northwest Corridor Bicycle and Pedestrian Accessibility Study (DRCOG, 2014). Because these shelters have yet to be implemented by RTD and the existing shelters are administered by Boulder County, creating a seamless, region-wide program will require appropriate infrastructure and organizational structure. This type of bike parking may be appropriate at other transit facilities around the District, though roles and responsibilities regarding funding, siting, maintenance, and operations will need to be defined if the program is to expand.
Bike Lids

RTD previously tested the use of “bike lids” at several facilities (see Figure 13), but this type of bike parking was rejected due to structural failure (exposure to sun and cold caused some lids to crack) and security reasons (items can be inserted into the lid because of the opening at the bottom). There are no current plans to use bike lids at any RTD facility in the future.

Bike Share

Bike share programs offer bikes that can be rented and returned flexibly in a wide area. The modern bike share system is a relatively recent concept that, as of early 2014, had expanded to over 600 cities in approximately 52 countries around the globe. Bike share has experienced major successes since its inception, most notably when co-located with transit facilities, and has greatly improved first and final mile connections that are often barriers to using transit.

The largest benefit of bike share is that it provides patrons with an additional travel option to and from transit facilities without requiring bike space on crowded trains and buses.

Both Denver and Boulder have bike share systems (Figure 14). Denver and Boulder Bike Sharing are non-profit organizations that provide and manage the B-cycle systems within their respective municipalities. RTD often works with both organizations and sometimes donates space on RTD facilities for B-cycle stations, but RTD does not administer the programs.

Challenges: Co-location of B-cycle Stations at RTD Facilities

While many of Denver’s 84 B-cycle stations and Boulder’s 38 stations are located near RTD facilities and/or transit stops, only four stations are co-located with RTD transit facilities. This is primarily due to limited funding availability on the part of the nonprofit organizations. The lack of co-location and B-cycle stations adjacent to RTD facilities is a potential missed opportunity for meeting RTD’s goals of enhanced bike accessibility and parking. It is recommended that RTD evaluate the potential to increase the number of B-cycle stations at its transit facilities, as discussed in Chapter 7.
RTD Bike Parking and Access Standards, Policies, and Guidelines

RTD has developed policies and guidelines to support overall facility planning with applicability to bike parking and access. These documents dictate the type, quantity, and location of bike parking facilities, as well as provisions for well-designed bike access to facilities. Relevant design criteria and guidelines that will be discussed here include the following documents:

- RTD Light Rail Design Criteria (2005)

Relevant text from these documents is summarized in the sections that follow.

Bike Parking Guidelines

Generally, RTD guidelines and design criteria documents are unified in stating that all types of bike parking should be conveniently located at RTD transit facilities in a way that minimizes conflicts with other transportation modes. The RTD Bus Transit Facility Design Guidelines and Criteria specifically indicate that:

“[Both bike racks and lockers] should be located close enough to passenger loading areas to facilitate use. Ideally this location would be no further than the closest non-ADA parking space, as well as be a well-lit location, near moderate to high patron activity zones in order to increase the perception of a safe locker area and increase the sense of security of the user and their equipment.”

Figure 14. Denver B-cycle Station

Photo Source: Denver B-cycle
**Bike Racks**

The RTD-preferred type of bike rack is the inverted-U style rack. For bike rack placement, the guideline documents align in stating that bike parking is less likely to be used if it is not conveniently located. Though no bike racks are to be located on light rail platforms, bike racks “shall be located as close to passenger loading areas as possible without interfering with passenger or vehicle movement.” When bike racks are not located in close proximity to passenger loading areas, they should be placed in a well-lit location.

**Bike Lockers**

In relation to placing bike lockers, three of the four documents also reference RTD’s safety and security guidelines with respect to “publicly accessible receptacles.” Publicly accessible receptacles are any receptacle with a void space that the public can access, such as trash receptacles and newspaper boxes. At this time, according to RTD Safety, Security and Facilities staff, bike lockers also fall into this category. The guidelines are very specific in the placement of these receptacles and indicate that:

“Publicly accessible receptacles shall not be placed within 250 feet of a station, station area or patron gathering area for outside locations. For enclosed areas, parking structures, underground, or below grade transit stations, facilities, structures and tunnels, placement of publicly accessible receptacles is strictly prohibited.”

Exceptions can be considered with written approval from RTD.

**Bike Corrals and Bikestations**

Only the bus facility guidelines mention bike corrals and bikestations. The document states that these types of bike parking “shall be provided to accommodate the large number of bikes in a more attractive manner than expansive groups of racks and lockers.” Bike corrals and bikestations are defined in the guidelines as follows:

"Bike corrals are sheltered and secured enclosures that can accommodate a large number of bikes efficiently and are designed to include a self-controlled access equipped with a smart-card or card-key locking mechanism."

"Bikestations are bike corrals that are staffed by parking attendants and offer other services and amenities. For example, a bikestation could provide transit passengers access to bike parking as well as bike repairs, bike rentals, bike accessories, transit pass sales, restrooms, changing stalls, etc."

According to the guidelines, bike corrals and bikestations are to be placed at sites with high bike traffic and the size, location, and design will be site-specific and shall be determined in conjunction with the RTD Planning Department. Though these bike parking types are present in the RTD guidelines, they have not been considered previously for implementation. This plan aims to move this concept forward in the future as bike parking demand grows at transit facilities.
Table 2. RTD Bus Transit Facility Design Criteria: Guidance on Bike Parking at Transit Facilities

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>U-Racks</th>
<th>Bike Lockers (# doors)</th>
<th>Bike Corral/ Bikestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus stop served by frequent bus service</td>
<td>1 to 2</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Satellite bus park-n-ride ≤ 25 auto spaces</td>
<td>1 to 2</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Satellite bus park-n-ride &gt; 25 ≤ 50 auto spaces</td>
<td>2</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Standard bus park-n-ride ≤ 100 auto spaces</td>
<td>4</td>
<td>4</td>
<td>n/a</td>
</tr>
<tr>
<td>Urban bus park-n-ride &gt; 100 ≤ 300 auto spaces</td>
<td>5</td>
<td>6</td>
<td>n/a</td>
</tr>
<tr>
<td>Standard bus park-n-ride &gt; 300 auto spaces</td>
<td>6 to 10</td>
<td>10 to 20</td>
<td>Potential Bike Corral</td>
</tr>
<tr>
<td>Major Transfer Facility/New Transit Center Concept</td>
<td>10 to 15</td>
<td>24 to 40</td>
<td>Potential Bike Corral or Bikestation</td>
</tr>
</tbody>
</table>

**Bike Parking Types and Quantities**

The documents indicate in various ways that all facilities, regardless of whether they have auto parking, should have bike parking, however, the criteria for determining the appropriate types and quantities of bike parking at a transit facility vary. The RTD Facility Maintenance Criteria/Equipment Manual Final indicates that, "Initially, only two bike lockers shall be installed at a PnR until the need for additional bike lockers has been justified." The bus facility criteria provide general guidelines for bike parking based upon the size of the transit facility (Table 2). The document also states that the parking recommendations will be adjusted for a proposed site based on other factors including: level of transit service, surrounding land use, population demographics and density, and proximity to bikeway facilities.

Specific to bike racks at LRT stations, the guidelines specify that, "Except at the downtown Denver stations, space shall be provided for racks for at least ten bikes if possible at every station."

**Bike Access Guidelines**

Three of RTD’s four guideline documents specifically call out the need for bike access and signage to create or enhance bike connections to transit facilities. The RTD Bus Transit Facility Design Guidelines and Criteria bus facility guidelines specifically state that, “Bike access, circulation and parking, and storage design shall be included with the facility and integrated with adjacent bike routes and pedestrian paths.” While signage is discussed generally in RTD’s documents, guidance for signage on RTD property is detailed in the RTD Transit Access Guidelines. It reads:

- Adequate signage should be provided directing cyclists to designated bike routes as well as markers showing distances to popular destinations (including transit nodes) and intersecting routes.
- Adequate signage at station entrances should provide bike locker information and signify their presence on the site.
Impact of Guidelines and Standards

While many of the aforementioned documents provide adequate guidance for RTD and others to implement well-designed bike parking and access facilities, the policies and practices related to bike parking placement are inconsistent.

Challenge: 250’ Requirement

While all documents reference the 250’ requirement for the placement of bike lockers, the RTD Bus Transit Facility Design Guidelines and Criteria also recommends placement to be no further than the closest non-ADA parking space, and “conveniently located.” It also states that bike lockers may be placed closer than 250’ from a station with written RTD approval.

As illustrated in Figure 15, this 250’ distance requirement is problematic for many reasons:

- It can result in lockers not being allowed on RTD property
- It can mean less usage of lockers if placed in inconvenient, poorly-lit, or poorly-visible locations
- It can make installation difficult, as coordination with another property owner would be required

As indicated previously, exceptions can be made with written approval although there are no formal criteria for doing so. To help resolve the issue, it is recommended that RTD revisit the spacing requirements for bike lockers and evaluate the possibility of using a differently designed bike locker, as discussed in Chapter 7.

Challenge: Determining Appropriate Type and Location of Bike Parking

As shown in Table 2, RTD provides general guidelines for providing quantities and types of bike parking based upon the size of the transit facility. These guidelines indicate that bike parking quantities should be adjusted for a proposed site per the threshold factors including level of transit service, surrounding land use, population demographics, density, and proximity to bikeway facilities based upon the site and surrounding area. However, the main determinant for grouping transit facilities is by automobile parking quantities. While there is a relationship between automobile parking and bike parking, it is not necessarily the one indicated in the table. In some cases, having less automobile parking could increase demand for other types of access modes, such as by bike.
## Guideline

<table>
<thead>
<tr>
<th>Guideline</th>
<th>RTD Responsibility</th>
<th>Non-RTD Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-street bike lanes should be considered for street connections to/from RTD PnR facilities.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>On routes where it is imprudent to implement on-street bike lanes, multi-use paths should be considered to enhance bike access.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Adequate signage should be provided directing cyclists to designated bicycle routes as well as markers showing distances to popular destinations (including transit nodes) and intersecting routes.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Standard RTD symbols and lettering should be used for easier identification on signs directing riders to/from bikeways to/from transit stops.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Bicycle trail and route information should be placed on station area maps to inform riders of the nearby cycling amenities.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>RTD and/or local jurisdictions should provide wayfinding signage on bicycle paths/routes in the vicinity of the transit station.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Bicycle parking facilities should be located in a well-lit and highly visible area to enhance overall security.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Bike lockers should be located in moderately- to high-trafficked areas “no further than the closest non-ADA parking space” subject to limitations of locating “publicly accessible receptacles” per safety and security concerns.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Adequate signage at station entrances should provide bicycle locker information and signify their presence on the site.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Signs should be provided indicating proper bike boarding procedures for light rail trains and connecting buses to aid first-time users and heighten awareness of available bike-on-transit options.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Biking information kiosks should be provided at heavily utilized locations to provide regional bicycle maps and locker information to increase the visibility of nearby cycling amenities.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Bicycle racks should be located within a convenient walk distance of transit boarding platforms in well lit and highly trafficked areas.</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Table 3. Transit Access Guidelines: Bike Parking and Access Roles and Responsibilities
To provide appropriate bike parking, it is recommended that RTD revise the methodology for determining quantities and types of bike parking at individual transit facilities, as discussed in Chapter 7.

Summary

There are a variety of bike parking options available at RTD facilities in the form of bike racks, bike trees, bike lockers, and Bus-Bike Shelters, which offer benefits and challenges to both the user and to RTD. Regarding bike parking and access, RTD has developed policies and guidelines to support overall facility planning. These documents dictate the type, quantity, and location of bike parking facilities, as well as provisions for well-designed bike access to facilities.

Summary

There are a variety of bike parking options available at RTD facilities in the form of bike racks, bike trees, bike lockers, and Bus-Bike Shelters, which offer benefits and challenges to both the user and to RTD. Regarding bike parking and access, RTD has developed policies and guidelines to support overall facility planning. These documents dictate the type, quantity, and location of bike parking facilities, as well as provisions for well-designed bike access to facilities.

Generally, RTD guidelines and design criteria documents are unified in stating that all types of bike parking should be conveniently located at RTD transit facilities in a way that minimizes conflicts with other transportation modes. However, the policies and practices related to bike parking placement are inconsistent and should be clarified.

Figure 15. Demonstration of 250’ Bike Locker Siting Requirement Applied at the Table Mesa Station

Table Mesa Station
BIKE-TRANSIT CUSTOMER FEEDBACK
In February 2014, as part of this Plan process RTD conducted an online survey and invited respondents to participate through RTD’s website, social media accounts, and emails to local bike organizations and to bike locker lease holders. A total of 1,389 people answered the survey. Respondents were screened for bike usage and access. Those who never ride a bike and/or do not have access to a bike were not included in the results. Related to the Plan’s purpose, the survey looked to explore:

- Behaviors related to bike locker and rack usage
- Barriers to locker/rack usage
- Factors impacting bicyclists’ decision to ride a bike to or park a bike at transit facilities
- Interest in Bus-Bike shelters

Overall, the survey results showed that the lack of adequate and secure bike parking as well as the need for bike facilities (bike lanes, trails, etc.) were the major barriers to riding a bike to transit. These data indicate that there may be an opportunity to increase biking to transit if infrastructure is put into place to support and encourage it. While improving the bike network off of RTD property is outside of RTD’s jurisdiction, providing standards for secure bike parking at transit facilities is a major part of providing the infrastructure necessary to encourage people to bike to transit.
Barriers to Biking to Transit

The survey attempted to ascertain why a transit customer would or would not ride a bike to access transit with the question, "When deciding to ride a bike to an RTD station or stop, how important is each of the following factors?" Results indicated that safety issues, both getting to the transit facility and leaving a bike at the facility, appear to be more important than logistical issues, such as attire and hygiene (Figure 16).

The need for bike lanes or trails were the second and fourth most important factors, respectively, in deciding to ride to an RTD stop or station. This illustrates that safe bike connectivity to transit is highly important to transit customers and provision of such may increase the number of customers biking to transit as opposed to driving and using auto parking that is expensive to build and maintain.

To help break down these barriers, it is recommended that RTD develop a campaign to promote biking to RTD facilities and should coordinate with adjacent property owners and local jurisdictions to improve connectivity to stations (see Chapter 7 for additional information on these recommendations).
Bike Parking

Survey respondents listed the need for secure bike parking as the most important factor in deciding to ride to an RTD stop or station, with nearly 70 percent indicating this factor was “very important.” Of respondents who do park their bikes at transit stops or stations, the vast majority (71 percent) lock their bike to a bike rack. Bike locker use is less common, with only 18 percent of cyclists who bike to transit using them. A cited barrier to using RTD-provided bike racks and lockers included a lack of parking availability and uncertainty about how the locker system works.

The survey included a question about Bus-Bike shelters with a photo and description of the shelter. The question asked, “If RTD added a bus-bike shelter to your preferred transit stop, how likely would you be to use it?” The reaction to the shelters was very positive: over 70 percent indicated they were very likely or somewhat likely to use the shelter. Thus, RTD should evaluate existing and future transit facilities for the appropriateness of installing Bus-Bike shelters.

Finally, results also showed that customers bring bikes with them on a bus or a train and do not park at a station for two primary reasons: 1) the need for a bike to complete a portion of the trip from a transit facility because it is too far to walk, and 2) the need for a bike for other trips during the day. While this does not point to bike parking as a solution, bike share may be a viable option for these customers. It is recommended that RTD work to locate more B-cycle stations at RTD facilities and should develop a campaign to promote riding B-cycles to RTD facilities (see Chapter 7).

Summary

The RTD survey results indicate that security and safety concerns, both with getting to the transit facility and leaving a bike at the facility, appear to be more important than logistical issues, such as attire and hygiene. The survey illustrates that bike connectivity to transit is highly important to transit customers and provision of such may increase the number of customers biking to transit. Respondents also listed the need for secure bike parking as the most important factor in deciding to ride to an RTD stop or station. Therefore, efforts to improve connections to and parking at transit facilities could help improve RTD’s customer satisfaction rate. These efforts are explained further in Chapter 7.
Chapter 5
Existing Facility Assessment

Work for this Plan included an assessment of existing RTD-provided bike parking as well as bike access to 90 transit facilities District-wide. Given the size of the RTD bike parking program, it is important to understand the state of existing bike parking assets in order to use public funds in the most useful and efficient manner and keep the District’s assets in a state of good repair. Similarly, having this base understanding of existing bike access to RTD facilities is essential to being able to prioritize and target areas for improvement. This chapter provides a summary of the results of the assessment.

Facility Assessment Process

In December 2013, project team members visited 90 PnRs, light rail stations, and transit transfer facilities within the RTD system to document the quality, type, location, condition of bike parking, and number of abandoned bikes on RTD property. The assessment also included an evaluation of safety and access for people who bike. Using a standard conditions report form (see Appendix B), team members collected data via handheld tablet, which included taking geo-tagged photos for each facility. This information was transferred into a Geographic Information System (GIS) database.
Bike Parking

At the end of 2013, there was capacity for nearly 2,000 bikes at the 90 facilities. This number included:

- About 500 bike racks that can hold over 1,000 bikes
- About 750 bike lockers
- 24 bike trees holding 240 bikes
- 2 Bus-Bike shelters

These capacities are presented by transit facility in Figure 17. As the map shows, quantities and types of bike parking vary by facility but LRT stations generally have more bike parking.

Parking Types

Of all the facilities visited, 60 percent offered both bike racks and lockers, 21 percent had just bike racks, and 13 percent had no bike parking at all. The majority of the locations that lack bike parking are rural (e.g., Genesee Park and Pinery PnRs) though a few are more central locations where space is limited for placing bike parking (e.g., Garrison and Lamar Stations).

While RTD’s current bike locker standard is a single rectangular unit with two compartments made of molded fiberglass reinforced plastic composite material, older lockers were found to be made of different material types including fiber board, metal, and plastic. The fiber board lockers are the oldest locker type and were found at 12 facilities.
Bicycle Parking and Accessibility Plan  •  2015

Chapter 5: Existing Facility Assessment

Bicycle Parking Capacity
RTD Bicycle and Parking Accessibility Plan

Figure 17. Bicycle Parking Capacity at RTD Transit Facilities
**Condition**

Bike parking is generally in good condition, however, several issues were noted at individual locations. Bike rack damage was primarily in the form of rusting but in some locations the racks were becoming unsecured at the base (Figure 18). Damage to lockers included seam cracks and evidence of water pooling. The older, fiber board lockers showed the most signs of damage. Figure 19 shows an extreme but illustrative example of the state of some of the lockers.

**Signage**

Each transit facility was evaluated for two types of signage: bike locker signs and wayfinding signs.

**Bike Locker Signage**

As noted in Chapter 3, over the years bike lockers have changed from having no lease fee to a $30 lease fee and the RTD-issued lock changed price from $15 to $20. Additionally, some lockers were first-come, first-served but then transitioned to lease-only. The variety of signage on the bike lockers tracks this history as older signs are still present in some locations (Figures 20 and 21).

In 2011, RTD attempted to standardize bike locker signage with a simple green sign (Figure 22) but it offers minimal information, is small, sometimes placed in low visibility portions of the locker (e.g., on a locker panel right against a wall), and has been removed in some locations. Due to the confusion and uncertainty in using its bike lockers, RTD should work to improve bike locker identification.
Wayfinding Signage

Wayfinding signs are intended to direct bicyclists to the best routes. In the context of a transit facility, bike wayfinding signage may include direction to bus and train loading areas, bike parking, and/or nearby trails. While the vast majority of existing bike-related signage at RTD transit facilities indicates dismount zones at transit plazas or loading areas (Figures 23 and 24), some West Rail Line stations, the Nine Mile Station on the Southeast Rail Line, and the Littleton-Mineral Station on the Southwest Rail Line were exceptions.
Figures 25 through 27 document signage at these station locations that directs bicyclists to adjacent paths as well as bike parking. The inclusion of wayfinding signage for bicyclists at transit facilities is a good step towards making bicycling to and from transit safe and convenient.

Bike Parking and Boarding Area

Accessibility

Bicyclists, like motorists, look for convenient and secure parking. Bike parking located in well-lit, well-traveled areas will deter theft and vandalism. If bike parking is not in a secure and convenient location, bicyclists will instead make use of the closest stationary object by locking bikes to signs, railings, or trees, which may interfere with pedestrian and ADA circulation.

Within the data collection form, facilities were marked by convenience on a scale of excellent to poor (see Appendix B for the data collection format). Most of the facilities have good or excellent convenience with respect to customers finding and using bike parking. However, there are bike parking accessibility challenges related to lockers at C470/S. University Blvd PnR, Colorado Station, and the 30th and Downing Station. For example, Figure 28 shows encroaching juniper bushes at the 30th and Downing Station that limit the use of those lockers.
To minimize bike/pedestrian/auto/bus conflicts, connections from transit facility entrances to boarding areas and bike parking should be safe and intuitive. In general, bike parking on RTD facilities is located in intuitive locations near boarding areas. However, at some of the larger PnR lots, getting to the bike parking or boarding areas by bike can be difficult, particularly for new users that may be unfamiliar with the site. Routing people on bikes through large parking lots without intentional and legible pavement markings or signs can cause conflicts with autos, pedestrians, and buses.

As an example, the Wagon Road PnR in Westminster is a sizable surface lot with 1,540 auto parking spaces. The parking lot is connected to a series of paved multiuse trails and has two other formal entrances for motorists. Adding bicycle lanes or shared lane markings to connect the multiuse trails to the bus stops may increase safety and comfort for bicyclists.

Within the District, other sites with similar accessibility concerns include:

- County Line Station
- Dayton Station
- I-25 and Broadway Station
- Lincoln Station
- Littleton-Downtown Station
- Littleton-Mineral Station

Local Access to Transit Facilities

Work for the Plan included mapping of existing bike lanes, paths, and trails within one mile of each transit facility (see Appendix A). The goal of this effort was to better understand the bike connectivity of each facility, which directly affects potential access by bike and bike parking demand at each facility. Though the connectivity information was not formally analyzed as part of this plan, it should be used by RTD in coordination with local governments to identify where bike access improvements may be most useful. The majority of these improvements would ultimately be the responsibility of the local jurisdiction(s) to implement but should be supported and encouraged by RTD.

Abandoned Bikes

During site visits the presence of abandoned bikes left locked to racks was noted. These bikes take up bike parking capacity, can be unsightly, and may give the impression that bikes are vulnerable to theft and vandalism. An abandoned bike is defined as a bike that is missing essential parts and/or shows signs of decay from being left outside for a long period of time (Figure 29). More than 20 bikes were found abandoned at 10 transit facilities. RTD should publish its abandoned bike policy online and regularly remove abandoned bikes.
Summary of Parking and Accessibility Issues

Although the site assessments found relatively few transit facilities with major bike parking accessibility issues or damage, adjustments could be made to many locations to improve movement for bicycles on site and to reduce conflict areas. Many of the transit issues can be addressed in a targeted manner without major financial investment. Efforts to add coordinated signage that directs patrons to and from the nearest major bike facility will help to improve the experience for riders accessing RTD facilities by bike. These improvements are explained further in Chapter 7.
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To make the most appropriately innovative recommendations for improving RTD bike access and parking, an understanding of national best practices is needed. This chapter highlights specific programs or actions from three exemplary transit agencies that could be applicable to RTD. Information is based on interviews with representatives from Bay Area Rapid Transit (BART, San Francisco), Massachusetts Bay Transportation Authority (MBTA, Boston), and Los Angeles County Metropolitan Transportation Authority (LA Metro, Los Angeles).

Bike Locker Program

BART’s bike locker program provides 1,640 bike lockers. Thirty percent of these lockers are traditional keyed bike lockers, which require users to lease a locker for a specified period of time (three months or one year) for their own exclusive use. The other 70 percent of lockers are electronic and on-demand, which require bicyclists to obtain an access card and can be used on an hourly, first-come first-served basis.

Traditional lockers cost users $15-$25 for three months or $30-$40 per year, with an additional refundable key deposit. Electronic on-demand lockers require users to purchase a BikeLink card for $20 which has $20 of rental value. Locker use costs five cents per hour. The electronic on-demand lockers are battery powered, though solar power components have recently been added in order to reduce the frequency at which locker batteries need to be exchanged. According to BART, on weekdays at the 14 busiest stations,
75 percent of the electronic on-demand lockers are in use (Figure 30). Although electronic on-demand lockers are between two and four times more expensive to provide than traditional lockers, BART plans to expand them at seven new stations with no immediate plans to install traditional lockers. Program managers have the ability to collect utilization information (occupancy rates, duration of stay, etc.) from each locker. These data and subsequent analysis allow BART to understand how the lockers are being used and to be strategic in future system expansion and enhancements.

Covered and Secure Bike Parking

MBTA offers bike ports at some of their stations. Bike ports are covered bicycle racks with capacity to park 12 bicycles (Figure 31). There are 50 bike ports in the MBTA system, located at major bus, subway, and commuter rail stations. Bike ports are free to use, and the equipment cost (including shipping and handling) to MBTA is approximately $16,000. MBTA does not keep track of how often bike port racks are used.

Additionally, MBTA provides Pedal & Park facilities that are similar to Boulder County’s Bus-Bike shelters (Figure 32). Pedal & Park facilities are enclosed, limited access areas with high capacity bicycle parking racks with space for 50 to 150 bicycles. In addition to being limited access, each Pedal & Park facility has video surveillance for added security. Bicyclists interested in using a Pedal & Park facility must complete a free registration with the MBTA to obtain their Bike CharlieCard, which grants them access to the Pedal & Park facilities.

MBTA's decision on where to place the Pedal & Parks at transit facilities was based on existing bike parking demand, population density in the vicinity of the transit facility, and locations where there were high rates of bike thefts. Since their institution, the Pedal & Parks have been used moderately, but use is growing. In discussion with MBTA staff, a strong ongoing marketing and education campaign is recommended for success with this type of bike parking.

As RTD expands the region's secure bicycle parking and looks for optimum security technologies, MBTA's Pedal & Park facilities should be used as an example.
Bike Parking Siting Guidance

LA Metro’s Design Criteria requires that bike parking (lockers and racks) be integrated into the station area plaza and be within 50 feet of a station entrance as to be directly accessible to the station. They also require that bike parking be visible to passers-by, include Closed Captioning Television cameras and natural surveillance, and be lit appropriately. Lockers are to be installed no further than the nearest accessible automobile parking space.

Similarly, the Washington Metropolitan Area Transit Authority’s (WMATA’s) Station Site and Access Planning Manual states that bike racks should be placed in visible areas and should not impede pedestrian movements. For bike lockers, the only siting guidance in the manual is that lockers should not be placed below structures or within parking garages. The manual refers to the Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines for bike parking siting and selection.

In comparison, RTD’s current siting guidelines are not as specific as LA Metro’s in siting distance for bike racks, indicating that “Bike racks shall be located as close to passenger loading areas as possible without interfering with passenger or vehicle movement” (see section 5.2.1 of the RTD Bus Transit Facility Design Guidelines and Criteria). One key difference between both LA Metro’s and WMATA’s policies and RTD’s is related to bike lockers. RTD’s guidelines (see Chapter 3) state that bike lockers “shall not be placed within 250 feet of a station” except with written approval due to RTD’s security requirements for publically accessible receptacles.

Summary

Though the context is unique to the Denver region, the challenges that RTD faces are not unique. Transit agencies across the county have found ways to improve bike locker processes, install covered bike parking, and provide siting guidance that leads to good design. RTD should draw upon these agencies’ experiences to implement the recommendations provided in the following chapter.
Chapter 7

Recommendations

This chapter provides a broad range of system-wide recommendations to improve safety, access, ease of use, and mobility for bicyclists. The recommendations will help RTD meet the three core goals of this plan:

- Identify cost-effective solutions for improving bike access and mobility
- Increase the mode share percentages of transit patrons bicycling to RTD transit facilities
- Improve customer satisfaction and safety for customers biking to RTD transit facilities

The recommendations draw upon the needs identified during the field assessments and online survey, discussions with the IWG, and national best practices. They are designed to work together to make bicycling to RTD facilities an enjoyable, safe, and comfortable experience.

Recommendations include infrastructure, policy, and programmatic improvements and are organized into the following six areas:

1. Policies to Encourage Bike Access
2. Increase and Improve Bike Access to Transit
3. Modify and Enhance Bike Parking
4. Enhance Bike Marketing
5. Tracking and Evaluating
6. Implementation

Information on prioritizing and funding these recommendations is provided in Appendix C.
1. Policies to Encourage Bike Access

1.1 Set a District-wide Bike Access Goal

As discussed in Chapter 2, RTD’s 2011 data shows that bike access to bus transit is three percent and to LRT is nearly two percent. RTD should set a bike access goal of five percent, roughly doubling the existing percentages, to be reached by 2025, for both bus and rail facilities to spur the agency to make bike accessibility improvements a higher priority and to encourage more trips to RTD facilities by bike. RTD can use this goal to measure progress and make adjustments over time.

1.2 Unified Bike Guidelines and Policy Document

Numerous documents guide RTD’s facility access and design policies. In some areas related to bike parking and access, the documents are aligned but other areas are inconsistent. In order to meet multimodal goals, RTD should provide clear, consistent policy and guidance for the planning and design of bike facilities. This will involve clarifying, revising and compiling existing policies and procedures into a new resource to guide the design and implementation of bike facilities. Some examples of areas to be covered in the new document include, but are not limited to, the following: wayfinding signage and pavement markings, bike parking types and specifications, bike parking siting, determination of quantities and types of bike parking, and abandoned bike policies and procedures. Specific actions within this category are discussed in Recommendations 1.2.1 through 1.2.3.

1.2.1 Develop Wayfinding Signage and Pavement Marking Guidelines

RTD should develop bike signage and pavement marking guidelines, either as a stand-alone document or part of the recommended Unified Bike Guidelines document, to provide safe wayfinding through RTD facilities. While the Manual on Uniform Traffic Control Devices (MUTCD) guidelines for signs and symbols has limited guidance for multimodal interactions at transit facilities, this should be a basis for the development of RTD’s pavement marking guidelines.

1.2.2 Revise Methodology for Determining Quantities and Types of Bike Parking

As discussed in Chapter 3, the primary determination for bike parking needs at facilities is currently tied to the amount of auto parking. While reference is made in current guidelines to other factors such as surrounding land use, population densities, and proximity to bikeway facilities, etc., these factors are not commonly considered in determining bike parking quantities at transit facilities. Thus a more robust method is needed for decision-making in this area for both existing and future transit activities.

Existing Transit Facilities

RTD’s existing facilities should be evaluated for appropriate levels of bike parking. For existing facilities, some transit agencies are able to determine appropriate bike parking quantities by reviewing bicycle mode of access data for a specific facility and applying that specific mode of access percentage to AM peak period boardings at that facility to determine the number of bike parking spaces to provide. RTD’s facility-level data does not support this type of analysis. However, results of regularly-conducted customer satisfaction surveys provide system-wide bicycle mode of access percentages. The data are also
broken down into a percent of those survey respondents that park their bike at the station. Therefore, a methodology should be developed with an internal RTD team that starts with applying a percentage based on the customer satisfaction survey data to AM peak period boardings at a specific facility. This number would then be increased based on the existing bike parking usage at that facility (see Recommendation 5.1).

Future Transit Facility Planning

Future rail station, transit transfer centers, and PnR facilities should be evaluated to determine opening day and future bike parking quantities using:

1. Projected AM peak boardings
2. Anticipated bike parking usage patterns based on types of trips (traditional 9 am to 5 pm commuting, students attending school, night and weekend trips to entertainment, etc.)
3. Surrounding land uses
4. Existing and planned roadway and bike facility connectivity
5. Major barriers
6. Real or perceived security/theft issues
7. Frequency of transit services provided
8. Employment and population density
9. Bike parking usage at transit facilities with similar surrounding land uses and roadway connectivity patterns
10. Available space

This methodology should be further developed and finalized with an internal RTD team, see Recommendation 6.1.

1.2.3 Revisit Classification of Bike Lockers as “Publically Accessible Receptacles”

RTD currently classifies bike lockers as “publically accessible receptacles” that must adhere to the stringent siting policies similar to trash receptacles and newspaper boxes. However, they are not truly publicly accessible. As previously mentioned, all bike lockers are locked at all times regardless of their lease status. Furthermore, leasing a locker requires that a customer present themselves in person with a valid ID. Other transit agencies, including Washington Metropolitan Area Transit Authority (WMATA, Washington, DC) and Metropolitan Transit Authority (MTA, New York City) have spent significant time considering transit security issues; RTD could benefit from interviewing representatives from both organizations.
2. Increase and Improve Bike Access to Transit

2.1 Install Wayfinding Signage and Pavement Markings on RTD Property

At some transit facilities, especially at larger PnRs, the route from the surrounding bike network to bike parking and transit boarding areas is not intuitive or obvious. This is partially due to confusing parking lot zones where bicyclists, pedestrians, buses, and personal vehicles often mix, but is also due to a lack of wayfinding signage.

Improving wayfinding signage and pavement markings can help to mitigate potential conflicts and improve operations for all users. Furthermore, the implementation of a coordinated signage program will encourage reliable and uniform access to all of RTD’s transit facilities, thus expanding the appeal of transit services to a wider audience which can increase ridership. This recommendation could be an easy win for RTD because these relatively small investments could provide meaningful improvements to the user experience.

Therefore, in conjunction with Recommendation 1.2.1, it is recommended that RTD:

- Provide signage that directs bicyclists to bike parking from facility entrances.
- Reevaluate wayfinding design to be more graphically-pleasing and clear for users.
- Provide signage and/or pavement markings that mitigate conflict areas.
- Provide signage that indicates connections to local trails that is consistent and recognizable (Figure 33).
- Provide pavement markings (e.g. sharrows) and/or bike lanes through transit facilities to bike parking and/or boarding areas (Figure 34).

Figure 33. Existing Wayfinding Signage

Figure 34. Parking Lot Bike Facilities at Colorado State University
2.2 Coordinate with Other Property Owners to Improve Connectivity to Transit

Outside of its facilities, RTD has no jurisdiction to build or change infrastructure. However, transit facilities are sometimes in the vicinity of regional trails or local bike facilities that do not directly connect to RTD facilities. Where there are gaps, RTD should work with local jurisdictions, the Colorado Department of Transportation, developers, or other property owners to identify needed improvements and provide bicycle facilities and/or wayfinding signage to connect RTD facilities to local bicycle networks. The site facility maps included in Appendix A can provide a starting point for identifying key connection improvements.

2.3 Increase B-cycle Stations at RTD Facilities

Bike sharing is a convenient way for transit users to complete the first and final mile of a transit trip without bringing a bike with them on a bus or train. RTD should work with Denver and Boulder Bike Sharing to co-locate more B-cycle stations at RTD facilities as to improve bike access and alleviate some demand for bringing bikes on buses and trains.

2.4 Develop a First and Final Mile Strategic Plan

Although the recommendations in this Plan can be implemented in the next one to six years, it is recommended that RTD develop a broader plan to improve transit access for other transportation modes (pedestrian, car share, transit shuttles, etc.). Given the size of RTD’s service area and the varying land uses and connectivity surrounding different transit facilities, it is important to evaluate each site for the appropriate first and final mile solution.

3. Modify and Enhance Bike Parking

3.1 Fix Damaged Bike Parking and Remove Abandoned Bicycles

The transit facility assessments showed that the majority of bike parking within the system is in good working condition. However, the abandoned bikes and broken lockers or racks throughout the system are aesthetically unappealing and create a sense that bikes are vulnerable to theft, while also removing parking capacity. RTD should fix damaged bike parking and remove all abandoned bikes from its system.

3.2 Install Covered Bike Racks

Where possible, bike racks should be protected from the weather. Covered facilities can add an attractive element to the facility design while providing necessary protection from the sun and moisture that can damage a bike, and protection from weather exposure that makes riding inconvenient and messy. Covering bike racks could be as simple as moving the racks underneath or inside an existing structure or inside structured parking areas (Figures 35 and 36). RTD can also provide free-standing cover if it is not possible to take advantage of an existing structure (Figure 37).

3.3 Install Secure Bike Parking Shelters

The demand for secure, high capacity, shared bike parking, such as Bus-Bike shelters, is growing region-wide. These are generally appropriate for locations where there is sufficient demand of at least 20 bikes and available space at the facility. This could occur at transit facilities where the potential for bike access mode share is highest, and at locations where existing bike parking volumes and/or thefts are highest (the data gathered from implementing Recommendation 5.1 will help make this determination).
In addition to the four Bus-Bike shelters already in operation, US 36 corridor municipalities and stakeholders are working to find funding to implement this type of shelter at all US 36 BRT stations. Other organizations such as Northeast Transportation Connections have approached RTD about the possibility of installing these shelters at some East Rail Line stations. In addition to these locations, RTD should evaluate existing and future transit facilities for applicability of this type of bike parking and install where feasible and appropriate. Additionally, RTD should consider the recommendations included in the 2014 Northwest Corridor Bicycle and Pedestrian Accessibility Study (Denver Regional Council of Governments) including District-wide branding of the shelters as “Bike-n-Ride” and decision-making about the operations and maintenance of such facilities.

3.4 Improve Bike Lockers

3.4.1 Create an Online Bike Locker Lease Process

The current system for leasing a bike locker is onerous for both RTD and its customers. RTD should improve customer service by offering locker leases on RTD’s website. This online system should be tied to a database that would allow bike locker availability to be posted online in real time.

3.4.2 Evaluate Design

As shown in Chapter 5, the current bike lockers in place throughout the RTD system are opaque. As a result, some within RTD might consider them a security risk. To mitigate security concerns, RTD should evaluate bike locker designs that allow a locker to be inspected without having to be unlocked and opened.
3.4.3 Evaluate Type

RTD should explore the possibility of using electronic on-demand lockers. These lockers provide high security for trips that are not routine, i.e. taken regularly such as commuter trips. Electronic on-demand lockers are used in other North American cities like San Francisco and Vancouver. For bicyclists without consistent travel schedules or those who work multiple jobs, on-demand lockers are more practical and attractive. Furthermore, an easy-to-use, on-demand locker with no commitment may be more appealing to potential users than the longer-term commitment of a conventional locker lease. While traditional lockers have one user only at a given time period, electronic lockers can be used by multiple people which lowers the price per use. RTD would need to investigate power and cold-weather issues associated with electronic lockers to determine their applicability.

4. Enhance Bike Marketing

The primary methods that RTD uses to communicate with its bicycling customers are the RTD website, advertisements, social media, and notices on RTD property. The website provides information on the Bike-n-Ride Program, including information for bikes on rail and buses, bike parking, bike locker rental, and using B-cycle. Though the communication means are varied, the program largely targets existing RTD customers and, in particular, those who already know about bicycling to an RTD facility. RTD should develop and implement multi-faceted communications and marketing initiatives specifically targeted to potential bicycling customers. Coordination with local bike advocacy organizations such as BikeDenver and Bicycle Colorado, in addition to Registered Neighborhood Organizations and other community groups is encouraged. Specific actions follow.

4.1 Develop a Campaign in Conjunction with B-cycle

For those customers in Boulder or central Denver that need a bike at the end of their transit trip or for other trips during the day, bike sharing could be a viable option as opposed to bringing a bike on the bus or train. RTD should develop a campaign in conjunction with Denver and Boulder Bike Sharing to encourage RTD riders to complete the first and final mile of their transit trips with bike share for rides that begin or end in the current B-cycle service areas.

4.2 Develop Campaign to Promote Bicycling to RTD Facilities

Biking instead of driving to transit provides ancillary benefits to RTD by reducing the demand for the construction of costly auto parking. RTD’s Communications Department can help expand the public knowledge of RTD’s bike program through a campaign that encourages the use of bike parking at transit facilities and ensures that customers understand what bike parking options are available.

Other benefits of biking that may be appropriate for a Bike-to-RTD campaign include:

- Biking to RTD can be an enjoyable, low cost and healthy alternative to driving.
- The cost of purchasing and operating a bike is much less than that for a car.
- Biking to transit gives you almost the same schedule flexibility as driving.
- Biking for a 1.5 mile trip to transit is likely as fast as driving, and provides a similar level of independence.
Bike to RTD Day

RTD should sponsor a program to target specific transit facilities for encouraging customers to bike to RTD. This could be a roving program traveling between facilities perhaps on a monthly basis in good weather months. Temporary secure bike parking could be provided. A multiple day or weeklong program may be necessary, at first, to attract the attention of RTD customers.

4.3 Bike Parking Incentive

RTD should provide an incentive for customers who want to store a bike at both ends of their trip. This would allow the customer to avoid bringing a bike on a bus or train but still provide the option of a bike at their destination end of the trip. The incentive could be in the form of a discount for customers who rent two lockers.

4.4 Improve Bike Locker Identification

As mentioned, RTD surveys show that customer satisfaction with bike parking is low, partially due to the perception that not enough information is available about bike parking. Bike lockers should be immediately recognizable as a bike parking option. What’s more, once recognized as bike parking, information about how to use the lockers should be more apparent. RTD should investigate options for more informative, visible, and attractive bike locker identifications/markings to be installed at locker locations. Examples of this type of signage are shown in Figures 38 and 39.
5. Tracking and Evaluating

The following recommendations aim to improve how RTD tracks and evaluates the effectiveness of its bike program. For example, improved parking counts, better vandalism/theft reporting, and gathering feedback from customers will help the agency receive meaningful and timely feedback about the bike program and the ever-changing demands for bike parking.

5.1 Conduct More Frequent Counts of Bike Rack Use

Frequent and consistent data about RTD’s bike parking system use is not currently available. With just an annual survey, there isn’t enough information to provide adaptive changes. Improving the frequency and consistency of counts and tracking system-wide trends related to bike parking use will help RTD manage fluctuating bike parking needs. RTD should establish a regular cycle to conduct a count of bike rack usage which can be incorporated into regular PnR auto parking usage counts, or performed separately.

5.2 Conduct Annual Bike-Transit User Customer Survey

The Bike-Transit User Customer Survey was the first of its kind and was conducted in 2013 as part of this Plan’s effort to capture user attitudes about RTD’s bike parking facilities and bike accessibility to transit. Additionally, it aimed to determine key barriers to biking to transit or parking a bike at a transit facility. It is recommended that RTD repeat this survey each year to track progress and use patterns.

5.3 Track Bike Thefts on RTD Property

RTD employs a database to track crimes at transit facilities. The database breaks out categories of crime but does not currently break out bike theft. RTD should adjust its crime database to specify bike theft, vandalism, and theft of accessories as new theft categories. Reports should be pulled quarterly to determine if specific transit facilities have more theft than others in order to target dynamic security improvements at those locations.

5.4 Solicit Feedback from Bicyclists

As a means to solicit grassroots feedback from system users, RTD should examine the possibility of developing a bike program mobile app or crafting a Twitter hashtag (such as #RTDBike) that would allow users to provide quick feedback about problematic sites, abandoned bikes, needed repairs, access issues, safety concerns, or other issues.

Receiving regular feedback from customers is a key way to determine if bike parking and access improvements to transit are having a positive effect. For example, as the recommendations of this plan are implemented from year to year, an annual survey will be a key way to determine customer reception of those improvements. It is also a way for customers to provide feedback on additional improvements needed or issues that need to be addressed. There is currently no other way to find out this type of information.
RTD may also consider establishing a bicycle focus group for electronic and face-to-face polling about overall customer satisfaction with the Bike Program, to measure the impact of future marketing initiatives, and discuss policy and infrastructure changes. This group would establish a connection between RTD to the regional bicycling community and provide an evaluation of proposed bike programs from a customer perspective.

6. Implementation

6.1 Establish an Inter-Departmental RTD Bike Access Implementation Team

In order to implement these recommendations, the input and assistance of a variety of internal RTD staff members will be needed. Establish an inter-departmental RTD bicycle access implementation team to direct and evaluate implementation of capital improvements, maintenance, and customer service for bicycle facilities and programs. This team would include members from a range of RTD departments and divisions. The group would not only discuss process and policy changes but would also work through the details of implementation of these recommendations.

Conclusion

This document provides RTD with a comprehensive overview of its bike parking program and current bike-transit accessibility. Through a series of early action, short-, and medium-term recommendations contained in this Plan, RTD can improve its rate of transit access by bike, decrease the rate of bikes on board transit, and improve the experience of biking to and parking at RTD facilities. Appendix C contains details about potential implementation timelines and funding sources for the recommendations in this Plan.
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