This appendix shows the detailed FLM analysis and recommendations provided at each of the 15 representative transit locations.

For continuity, both bus stop locations and station locations are called "stations" for this analysis.

Each individual analysis includes:
- Problem statement and key characteristics
- Context map and analysis using data from:
  - Census (2010, 2015)
  - RTD On-Board Survey (2015)
  - ESRI Tapestry (2018)
- Detailed analysis and recommendations for:
  - Active transportation
  - Curbside Management and Parking
- Maps highlighting transit frequency and land ownership
- List of applicable FLM strategies, implementing agencies and priority
- Conclusion highlighting the key strategies that may make relatively most impact for relatively less effort.

The stations are grouped by typology, and organized as shown.

**URBAN LOCATIONS**
- Arapahoe at Village Center Station
- Englewood Station
- Havana and 17th St
- S Federal Blvd & Alameda Ave

**SUBURBAN-MIXED LOCATIONS**
- 40th & Colorado Station
- US 36 & Broomfield Station
- 8th and Coffman PnR
- Wagon Road PnR
- Sheridan Station
- S Colorado Blvd & Florida

**SUBURBAN-RESIDENTIAL LOCATIONS**
- US 36 & Table Mesa PnR
- Iliff Station
- Clear Creek - Federal Station
- 72nd Ave Station
- Wheat Ridge - Ward Road Station

**OVERLAYS MET**
- Propensity to Change: 9
- Vulnerable Populations: 8
- Accessibility Needs: 6
- High Shift Workers: 5
- High Visitor Numbers: 3
- High Parking Utilization: 1
- Stations with no overlays: 2

**MAP DATA SOURCES**
Maps were produced by Alta Planning + Design and HDR. Additional data for the maps were provided by the following agencies:
- Adams County
- Arapahoe County
- Boulder County
- City and County of Denver
- City of Arvada
- City of Aurora
- City of Boulder
- City of Broomfield
- City of Centennial
- City of Englewood
- City of Greenwood Village
- City of Lakewood
- City of Longmont
- City of Northglenn
- City of Thornton
- City of Westminster
- City of Wheat Ridge
- City of Commerce City
- Jefferson County
- RTD

Introduction to the 15 FLM Representative Transit Locations
URBAN LOCATIONS

- Arapahoe at Village Center Station
- Englewood Station
- Havana and 17th St
- S Federal Blvd & Alameda Ave
STATION ANALYSIS:
Arapahoe at Village Center Station
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   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
PROBLEM STATEMENT

Arapahoe at Village Center Station is a transit station with LRT and bus service that falls within the urban typology in the City of Greenwood Village. The surrounding area is characterized by dense levels of employment and lower density residential. Due to the high employment levels, there are a significant number of peak trips that occur to and from the area. There are also a high number of shift workers arriving and departing the area during off-peak times, due to restaurants, retail and hotels in close proximity to the station.

The overall commute-to-work mode split in the area is dominated by people who drive alone, though demographically the surrounding population may be more open to using other forms of transportation if they were more accessible. The RTD On-Board survey data (2015) shows that most transit customers arrive or depart the station by walking. The station is flanked by I-25 and surrounded by numerous high volume, high capacity roadways which reduce accessibility by travel modes other than driving. A pedestrian bridge provides access across I-25, linking surface and multistory parking to the station. Currently the station has underutilized parking, which encourages access by private vehicle.

During field observations, multiple RTD customers were observed using TNCs to access Arapahoe at Village Center Station. Currently there are no designated drop-off and pick-up zones near the station. This results in drop-offs and pick-ups occurring at less than ideal locations.

The station is not visible from the surrounding roadways, making access difficult by active transportation. A lack of wayfinding and signage compounds this problem.

Currently there are no specific TDM programs in operation at Arapahoe at Village Center Station above and beyond those provided regionally. There are two FlexRide service areas that provide flexible, on-demand service surrounding the station area. The Arapahoe FlexRide makes scheduled departures from the station during peak hours. The Orchard FlexRide does not make scheduled departures from the Arapahoe at Village Center Station, though the station is included in its service area. FlexRide is currently the only shared on-demand mobility option available around the station.

*Walkshed coverage was calculated using a geographic information system (GIS) by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network, and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.
STATION AREA CONTEXT

This section includes a description of the demographics and travel patterns of the surrounding station area. All data sources included within this section are universally available throughout the region. The aim of the demographic and travel pattern data is to provide insight into current travel demands, patterns and opportunities to improve first and last mile connectivity. Demographic and travel pattern data within this section includes:

- Census Data (2010, 2015): Data was collected at the census block-level from the 2010 Census for population and 2015 LEHD (Longitudinal Employer-Household Dynamics) data for jobs.
- RTD On-Board Survey (2015): The RTD On-Board Survey is an annual survey conducted on RTD services, with station or stop data collected by surveying people arriving or departing from individual stops or stations.
- Tapestry Segmentation Data (2018): Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by Esri.
- Context Map: Provides a snapshot of the situation of the station or service location with regards to the immediate surrounding area.

1 For more information about OnTheMap and associated data sources, use this link: https://onthemap.ces.census.gov/
2 For more information about Esri Tapestry data, use this link: https://www.esri.com/en-us/arcgis/products/tapestry-segmentation/overview
3 For more information about DRCOG’s Focus Model, use this link: https://drcog.org/services-and-resources/data-maps-and-modeling/travel-modeling/focus-travel-model

CENSUS DATA (2015)
The maps below show the concentration of population and employment within a 2-mile buffer of the station. As seen below, there is a relatively high concentration of population immediately to the east of the station, and a high concentration of jobs immediately to the west and north of the station.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of Arapahoe at Village Center Station. The majority of employees travel less than 10 miles to get to work as seen in the chart below.

**Distance Traveled to Work For Employees Working Within 1-Mile Radius of Arapahoe at Village Center Station**

- Less than 10 miles: 6.9%
- 10-24 miles: 31.5%
- 25-50 miles: 53.9%
- Greater than 50 miles: 9.9%

RTD ON-BOARD SURVEY DATA (2015)

According to the survey, walking is the most commonly-reported mode of accessing the station for both arriving and departing trips. This is followed by driving alone, being dropped off or picked up, biking, and dropped off by a taxi or TNC. Compared to the RTD district-wide average for rail stations, Arapahoe at Village Center Station has about the same share of people walking, and a slightly higher share of people driving alone to and from the station.

The AM and PM peak from 7-10am and 4-7pm accounted for the majority of boardings.
This map shows the location of the station with regards to surrounding land uses and transportation connections. The Arapahoe at Village Center Station is located close alongside I-25, and a number of other transportation connections.
**ACTIVE TRANSPORTATION ANALYSIS**

**NORTHEAST ROUTE**

**Opportunities:** Within the walkshed, Caley Avenue has wide sidewalks, providing sufficient space for the movement of both bicycles and pedestrians. Orchard Rd, Havana St, and a portion of Dayton St have bike lanes that provide a reasonable level of comfort on arterials. Maplewood Ave is a low-stress residential street that is comfortable for bicyclists.

**Challenges:** The lack of bicycle facilities at some intersections creates stressful conditions.

**GENERAL FINDINGS**

- There is a lack of wayfinding to and from the station.
- There is a lack of shade trees on large arterials.
- Some roadways of four or more lanes with high-stress conditions lack dedicated sidewalks and turning bays have no buffer from the roadway and frequent curb cuts create conflicts between pedestrians and bicyclists on the sidewalks and turning vehicles. As a five-lane arterial with high traffic volumes, no on-street bicycle facilities, and five-foot sidewalks, Dry Creek Rd is a high-stress connection between two low-stress residential areas. Addressing these two gaps would create a strong continuous route to the station.

**SOUTHWEST ROUTE**

**Opportunities:** The route south of Arapahoe Rd is primarily through a residential area on low-stress streets, briefly connecting with trails and on-street bike lanes.

**Challenges:** There are two significant obstacles for pedestrians and bicyclists accessing the station: Yosemite St and Dry Creek Rd. Adjacent to the station area, Yosemite street is a busy arterial surrounded by land uses that are primarily commercial. Sidewalks have no buffer from the roadway and frequent curb cuts create conflicts between pedestrians and bicyclists on the sidewalks and turning vehicles. As a five-lane arterial with high traffic volumes, no on-street bicycle facilities, and five-foot sidewalks, Dry Creek Rd is a high-stress connection between two low-stress residential areas. Addressing these two gaps would create a strong continuous route to the station.

**LEVEL OF COMFORT ANALYSIS**

- **Bicycle Facilities**
  - Most Comfortable
  - Least Comfortable
- **Transit Routes**
  - Light Rail
  - Bus
- **Destinations**
  - Light Rail or BRT Station
  - Healthcare/Medical Facility
  - School
  - Activity Generator
  - Park-n-Ride

**STATION BICYCLE PARKING CAPACITIES**

**Short-Term**

<table>
<thead>
<tr>
<th>Station</th>
<th>Lockers Used (February 2019)</th>
<th>Bike Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center</td>
<td>26</td>
<td>N/A</td>
</tr>
<tr>
<td>Park</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

**Challenges:**

- There are two significant obstacles for pedestrians and bicyclists.
- The route south of Arapahoe Rd is primarily through a residential area.
- The sidewalks on Yosemite St have no buffer from 5 lanes of traffic, which is uncomfortable for users. In addition, bicyclists and pedestrians must share the 5’ sidewalks, creating conflicts.
- The sidewalks on Yosemite St have no buffer from 5 lanes of traffic, which is uncomfortable for users. In addition, bicyclists and pedestrians must share the 5’ sidewalks, creating conflicts.
- The bike lane ends 350’ before the intersection, creating a stressful condition on the approach.
- A gap in the bike lane prior to the intersection does not adequately direct the interaction of bicycles and vehicles.
- Southbound bicyclists on Havana St must merge across a lane of traffic to make a left turn onto Maplewood Ave, a maneuver that can be stressful for less confident bicyclists.
- There is no shade on the sidewalk, leaving pedestrians with no protection from the sun.
- There is insufficient staging space for bicyclists at intersection corners, due to small landing areas. This creates conflicts between bicyclists and pedestrians waiting to cross.
- A 5’ sidewalk represents the primary way for bicyclists and pedestrians to access the station from the south, which is insufficiently wide for shared use.
- A gap in the bike lane prior to the intersection does not adequately direct the interaction of bicycles and vehicles.
- Southbound bicyclists on Havana St must merge across a lane of traffic to make a left turn onto Maplewood Ave, a maneuver that can be stressful for less confident bicyclists.
- There is no shade on the sidewalk, leaving pedestrians with no protection from the sun.
- There is insufficient staging space for bicyclists at intersection corners, due to small landing areas. This creates conflicts between bicyclists and pedestrians waiting to cross.
- A 5’ sidewalk represents the primary way for bicyclists and pedestrians to access the station from the south, which is insufficiently wide for shared use.
- A gap in the bike lane prior to the intersection does not adequately direct the interaction of bicycles and vehicles.

**Frequent commercial driveways create conflicts for pedestrians and bicyclists. Additionally, the slope of the driveway approach is not ADA compliant, creating a hazard for people who rely on powered mobility devices.**

**ATTACHABLE FIGURE:**

- **Station Bicycle Parking Capacities:**
  - Short-Term
  - Long-Term
  - Bus
  - Light Rail
  - School
  - Activity Generator
  - Park-n-Ride

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, GetMapping, and the GIS User Community
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Opportunities: Within the area surveyed surrounding Arapahoe at Village Center Station, several opportunities exist to accommodate changes in curb-space needs. During field observations it was noted that there is free on-street parking and business or office surface and structured parking that appears to have additional capacity. Some opportunities include reconfiguring the RTD FlexRide loading zone on the west side of the station to allow for passenger loading and unloading and utilizing additional parking capacity in the RTD Park-n-Ride structure for car-share or short-term car rental, for example, Zipcar.

Challenges: Existing vehicular access and parking locations are a longer walking distance to the station than other comparable light rail stations. Additionally, the crosswalk between the Park-n-Ride entrance and the station walkway is not in line with the pedestrian desire line to cross directly across in front of the entrance.
RTD Transit Routes
Average maximum weekday wait time during peak periods (Spring 2018)
- Red: Every 10 Minutes or Better
- Orange: Between Every 10 and 15 Minutes
- Yellow: Between Every 15 and 30 Minutes
- Green: Between Every 30 and 60 Minutes
- Blue: Every 60 Minutes or More

DRCOG FOCUS Model
Average weekday daily walk, bike and transit trips as a percentage of total trips
- 0.0% - 5.2%
- 5.3% - 9.0%
- 9.1% - 12.9%
- 13.0% - 17.0%
- 17.1% - 28.0%

LAND OWNERSHIP

Land and Development Characteristics:
- Most land around the station is privately-owned
- RTD owns no land in the immediate vicinity of the station

Parcel Information
- RTD-Owned Parcels
- School
- Public-Owned Parcels
- Light Rail Station
- Privately-Owned Parcels
3 RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

NORTHEAST ROUTE
Installing buffered bike lanes on Dayton St will provide bicyclists with dedicated space and will connect them to the existing bike lanes north of E Maplewood Ave, resulting in a low-stress eastern route to the station.

SOUTHWEST ROUTE
Installing buffered or separated bike lanes on Yosemite St will provide bicyclists with sufficient separation from vehicular traffic, while also eliminating conflicts between bicyclists and pedestrians on the sidewalk, thus creating a safer and more pleasant route to the station. A landscaped buffer with shade trees will also improve the pedestrian experience. On Dry Creek Rd, constructing a shared-use path or widening the sidewalk to accommodate both pedestrians and bicyclists will create a comfortable connection between residential neighborhoods.

LIGHT RAIL STATION IMPROVEMENTS
Add a map kiosk and additional wayfinding signage to and from the station and proximate destinations, such as Fiddler’s Green

RECOMMENDATIONS FOR ASSESSED ROUTES
- Pedestrian spot improvement
- Widen existing sidewalk
- Add a landscaped buffer with shade trees to sidewalk
- Reconstruct buffer as a shared-use path
- Construct new sidewalk
- Bicycle spot improvement
- Construct new shared-use path
- Add Shared Lane Markings, Wayfinding, and/or Traffic Calming Measures
- Stripe bike lanes
- Install buffered or separated bike lanes

EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Bicycle Facilities</th>
<th>Transit Routes</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route/Shared Rd</td>
<td>Light Rail</td>
<td>Light Rail or BRT Station</td>
</tr>
<tr>
<td>(no dedicated facilities)</td>
<td>Light Rail</td>
<td>Healthcare/Medical Facility</td>
</tr>
<tr>
<td>On-Street Dedicated</td>
<td>Bus</td>
<td>School</td>
</tr>
<tr>
<td>Off-Street</td>
<td></td>
<td>Activity Generator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Park-n-Ride</td>
</tr>
</tbody>
</table>

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
CURBSIDE MANAGEMENT RECOMMENDATIONS

- Access to the station could be improved by moving the existing crosswalk on the east side of the station to better match the pedestrian desire line from the parking structure entrance/exit to the pedestrian bridge that connects to the station on the west side of I-25.
- Clearly designating pick-up and drop-off areas on both the east and west sides of the station could help reduce conflicts and improve efficiency of access for all transportation modes.

DETAIL

- Only Access To/From Caley St & Yosemite St
- Existing Pedestrian Crossing
- Potential Re-located Pedestrian Crossing
- Potential Kiss-n-Ride or Pick-Up/ Drop-off Area
- RTD Park-n-Ride Pedestrian Entrance
- Potential to add Kiss-n-Ride area to existing 100' Call n-Ride stop
<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Curbside management plan</td>
<td>Provide clear designation of curbside for transit, TNCs, pick-ups and drop-offs. Designate special pick-up and drop-off areas for taxis, and transportation network companies, such as Uber and Lyft, and micro-transit providers. The areas can also be used by carpools or vanpools dropping off travelers employees.</td>
<td>Pick-up and drop-off activity is more organized, reducing conflicts with transit vehicles and people walking and bicycling to access the station.</td>
<td>High</td>
<td>City of Greenwood Village and City of Centennial, RTD</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Encouragement of shared micromobility providers within the station area</td>
<td>The immediate station area has a relatively dense concentration of office and retail uses, however, not all of the offices and retail locations are within a half-mile walkshed from the station.</td>
<td>Encouraging micromobility use may widen the catchment area of the station to people who currently feel it is too far to walk to the station.</td>
<td>High</td>
<td>City of Greenwood Village and City of Centennial, RTD, Denver South TMA</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Development of an EcoPass district</td>
<td>This station has a high level of employment in close proximity to the station. Development and marketing of an EcoPass district will encourage increased transit use.</td>
<td>Employees that live near to the station and currently do not use transit for their commute may consider switching to using transit if a lower cost annual EcoPass were available.</td>
<td>High</td>
<td>RTD, Denver South TMA</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Variable message signs on highways/interstates for information sharing</td>
<td>Use variable message signs to highlight the time savings and other benefits of using transit instead of driving. Examples include transit versus drive time, park and ride parking availability, and potential cost savings.</td>
<td>A variable sign situated on I-25 could provide a message showing that rather than drive to a major destination (e.g. downtown) the user could park at Arapahoe at Village Center Station and take transit instead.</td>
<td>High</td>
<td>CDOT, RTD</td>
</tr>
<tr>
<td>Transportation Service</td>
<td>RTD FlexRide</td>
<td>Provide additional marketing materials for the upgraded FlexRide service. For those traveling nearby to or from the station where fixed-route transit does not serve, FlexRide can fill the gap.</td>
<td>Passengers departing or arriving from the station will be more aware of an additional option for beginning or completing their journey without getting into a car and driving alone.</td>
<td>High</td>
<td>City of Greenwood Village and City of Centennial, RTD</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Multimodal wayfinding signage: Install wayfinding signage along pedestrian and bicycle routes</td>
<td>People may be less likely to walk or bike to/from the station if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the station if the safest, most comfortable routes are clear and easy to follow.</td>
<td>High</td>
<td>City of Greenwood Village and City of Centennial, RTD</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Free event transit passes</td>
<td>Include free or discounted transit passes in the cost of tickets for large events and promote the free service.</td>
<td>People traveling to the Arapahoe at Village Center Station area for an event (e.g. at Fiddlers Green) may be encouraged to use transit if their ticket included a free transit ride.</td>
<td>High</td>
<td>RTD, Denver South TMA</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micromobility infrastructure: Install separated bicycle facilities on high volume/high-speed roads</td>
<td>The most direct routes to the station are often on high volume, high-speed roads that are unsafe and uncomfortable for bicyclists.</td>
<td>Separation from vehicular traffic will provide a safe and comfortable route for bicyclists to access the station.</td>
<td>Medium</td>
<td>City of Greenwood Village and City of Centennial</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micromobility infrastructure: Improve crossings for bicyclists across high volume/high-speed roads</td>
<td>Without easy, safe ways to cross busy streets, people may not bicycle to the station, even if the rest of the route is along low-stress roads.</td>
<td>Filling the gaps along otherwise comfortable routes will encourage more people to bike to the station.</td>
<td>Medium</td>
<td>City of Greenwood Village and City of Centennial</td>
</tr>
<tr>
<td>FLM Toolkit Theme</td>
<td>Strategy</td>
<td>Rationale</td>
<td>Desired Outcomes</td>
<td>Priority</td>
<td>Implementing Agencies</td>
</tr>
<tr>
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</tr>
<tr>
<td>New Infrastructure</td>
<td>Transit station vicinity map (2 miles)</td>
<td>In a visible and permanent location provide a map of the immediate area surrounding the transit location, including major destinations and bicycle/pedestrian routes.</td>
<td>There are many destinations in close proximity to the transit station, a station area map will help employees and visitors navigate the surrounding area.</td>
<td>Medium</td>
<td>City of Greenwood Village and City of Centennial, RTD, Denver South TMA</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Complimentary shared amenities</td>
<td>This strategy encompasses low-cost shared amenities offered by employers that encourage walking or biking for mid-day trips, even in inclement weather. They can include shared umbrellas, ponchos, bike lights, rain covers for bike seats and bags/backpacks and other items that can be borrowed when needed. Bike pumps and simple repair tools are another example of shared amenities that promote and facilitate biking to transit.</td>
<td>Supporting employees to be able to take mid-day trips without a car can lead to them having a higher propensity to take transit to work.</td>
<td>Medium</td>
<td>Denver South TMA</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident and employee transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>Medium</td>
<td>Denver South TMA</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bike or car share subsidies</td>
<td>Pay or subsidize employees’ and residents’ bike or car share memberships when such services are appropriately located to allow them to be used as a first and last mile service or to support mid-day trips.</td>
<td>Encouraging bike, micromobility or car share memberships can improve the possibility of someone using transit.</td>
<td>Medium</td>
<td>Denver South TMA</td>
</tr>
<tr>
<td>Transportation Service</td>
<td>Point-to-point car share service</td>
<td>Support point-to-point car share, such as car2go, through the provision of free and highly visible parking spaces, marketing, and subsidies. This will open up increased transportation opportunities for people. For example, if someone currently drives to work because they need their car during the work day, and if a car2go was made available, they may take transit to work and use the car2go vehicle for those day time trips instead.</td>
<td>Providing point-to-point carshare may encourage people who currently drive to take transit and then use short term car sharing to make midday trips.</td>
<td>Medium</td>
<td>City of Greenwood Village and City of Centennial, Denver South TMA</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: Add landscaped buffers and/or shade trees on high volume roads and at the transit station</td>
<td>No separation from large volumes of fast-moving vehicles and no shelter from the sun in hot weather creates an unpleasant environment for pedestrians.</td>
<td>Creating a more comfortable and pleasant pedestrian environment may encourage more people to walk to the station.</td>
<td>Low</td>
<td>City of Greenwood Village and City of Centennial</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Preferential parking for carpool and vanpool vehicles</td>
<td>Provide preferential parking for carpools and vanpools. This can be close to the transit service location, covered, or otherwise preferable.</td>
<td>Improve access for carpools or vanpools.</td>
<td>Low</td>
<td>RTD</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Car share parking</td>
<td>Provide parking for car sharing vehicles within the transit service location. Spaces should be in areas with high visibility that are accessible to transit riders and employees and residents who work and/or live nearby.</td>
<td>Providing high-visibility spaces for car share vehicles will encourage their use by transit customers and potential transit customers who may be more likely to use transit if they have access to a car share vehicle for some trips throughout their day.</td>
<td>Low</td>
<td>City of Greenwood Village and City of Centennial, RTD</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycling workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Currently many people access Arapahoe at Village Center Station by walking. For those that are coming from further than a half-mile walkshed, cycling may give them the confidence to access transit using a different mode.</td>
<td>Low</td>
<td>Denver South TMA</td>
</tr>
</tbody>
</table>
### OVERALL RECOMMENDATIONS (CONT.)

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
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<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Demand Management</td>
<td>Guaranteed Ride Home</td>
<td>Promote the regional Guaranteed Ride Home program that provides commuters who do not drive alone to work with a free ride home in case of an approved emergency. Rides are typically provided by taxi and requires pre-authorization. The program is managed by DRCOG and available to commuters who use its services or have an EcoPass.</td>
<td>Due to the large employment surrounding the station, this program would support increased transit use.</td>
<td>Low</td>
<td>DRCOG Way To Go</td>
</tr>
</tbody>
</table>
This chart on this page provides a framework for prioritizing recommendations. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the Arapahoe at Village Center Station include.

- Defining access to the station for all modes through development of a curbside management plan.
- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.

**IMPLEMENTING AGENCIES**

The Arapahoe at Village Center Station is situated in the City of Greenwood Village, but is also in close proximity to the City of Centennial. It would be beneficial for both local governments to partner in order to best developing new infrastructure and reuse of existing infrastructure to improve access to the station.

The station falls within the Denver South TMA service area. It is suggested that the Denver South TMA lead the programmatic recommendations, with support from RTD and Way to Go (DRCOG).

A partnership between CDOT and RTD will be required to implement variable message signs on I-25. It should be noted that this particular recommendation aligns with the outcomes from the Mobility Choice Blueprint initiative.
STATION ANALYSIS:
Englewood Station
STATION ANALYSIS

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1. PROBLEM STATEMENT ................................1-3
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   • Active Transportation Analysis
   • Curbside Management and Parking Analysis
   • Transit and Land Ownership
3. RECOMMENDATIONS .................................1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
PROBLEM STATEMENT

Englewood is a transit station that falls within the urban typology in the City of Englewood. The surrounding area is characterized by dense levels of employment and lower density residential. Due to the high employment levels, there are a significant number of peak time trips that occur to and from the area, mostly from the north and the northwest.

There are also a high number of shift workers arriving and departing the area during off-peak times. This is due to restaurants, retail and hotels in close proximity to the station. The majority of RTD riders access the station by walking. The station is east of Santa Fe Drive and surrounded by numerous high volume, high capacity roadways which reduce accessibility by travel modes other than driving.

STATION OVERVIEW

The station is currently served by:
- Rail - C, D
- Local Bus - 0, 12, 27, 35, 51
- Other - Englewood Trolley

OVERLAYS

HIGH VISITORS: Due to the Gothic Theater being in close proximity to the station.

HIGH PROPENSITY TO CHANGE: Contained within DRCOGs Urban Centers as a location with high propensity to change.

HIGH SHIFT WORK: Due to the number of retail jobs in close proximity to the station, such as the Walmart Supercenter and other shops at Englewood Plaza.

HIGH ACCESSIBILITY NEEDS: Due to Swedish Medical Center and Craig Hospital being in close proximity to the station.

TRANSIT RIDERSHIP

2017 Average Daily Weekday Boardings & Alightings

<table>
<thead>
<tr>
<th>Mode</th>
<th>Boardings</th>
<th>Alightings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail Transit</td>
<td>4,779</td>
<td>71%</td>
</tr>
<tr>
<td>Bus Transit</td>
<td>1,973</td>
<td>29%</td>
</tr>
<tr>
<td>Total</td>
<td>6,752</td>
<td>100%</td>
</tr>
</tbody>
</table>

ACTIVE TRANSPORTATION

A half-mile walkshed was generated for this station. A half-mile (or 10 minute) walkshed depicts how far a person can walk or roll from a transit station entrance along existing sidewalks. At this station, walkshed coverage* of 41% highlights the barrier that US-85 creates to the west of the station for pedestrians.

TRANSPORTATION MANAGEMENT ASSOCIATION

Currently no TMA serves the Englewood Station.

PARKING

RTD does not own any parking at this station, however there is a permanent transit easement with the City of Englewood that provides 910 shared use parking spaces that can be used by RTD passengers. Parking utilization is high at 92%.

STATION JURISDICTION

This station is located within the City of Englewood.

Walkshed coverage was calculated using a geographic information system (GIS) by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network, and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.
2 STATION ASSESSMENT

STATION AREA CONTEXT

This section includes a description of the demographics and travel patterns of the surrounding station area. All data sources included within this section are universally available throughout the region. The aim of the demographic and travel pattern data is to provide insight into current travel demands, patterns and opportunities to improve first and last mile connectivity.

Demographic and travel pattern data within this section includes:

- **Census Data (2015):** Data collected and analyzed from OnTheMap which includes LEHD (Longitudinal Employer-Household Dynamics) data, annually updated. Data for the year 2015 was most recent available at time of writing.
- **RTD On-Board Survey (2015):** The RTD On-Board Survey is an annual survey conducted on RTD services.
- **Tapestry Segmentation Data (2018):** Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by Esri.
- **Context Map:** Provides a snapshot of the situation of the station or service location with regards to the immediate surrounding area.

1 For more information about OnTheMap and associated data sources, use this link: https://onthemap.ces.census.gov/
2 For more information about Esri Tapestry data, use this link: https://www.esri.com/en-us/arcgis/products/tapestry-segmentation/overview
3 For more information about DRCOG’s Focus Model, use this link: https://drcog.org/services-and-resources/data-maps-and-modeling/travel-modeling/focus-travel-model

CENSUS DATA (2015)

The maps below show the concentration of population and employment within a 2-mile buffer of the station. 98% of employees travel from outside a one-mile buffer around the Englewood Station into the area. The data also shows that most employees access the area from the North or Northwest of the station.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of Englewood Station. The majority of employees travel less than 10 miles to get to work, as seen in the chart below.

**Distance Traveled to Work For Employees Working Within 1-Mile Radius of Englewood Station**

- Less than 10 miles: 6.9%
- 10-24 miles: 7.7%
- 25-50 miles: 31.5%
- Greater than 50 miles: 53.9%

RTD ON-BOARD SURVEY DATA (2015)

According to the survey, walking is the most commonly reported mode of accessing the station for both arriving and departing trips. This is followed by driving alone, being dropped off or picked up, biking, and dropped off by a taxi or TNC. Compared to the RTD district-wide average for rail stations, Englewood Station has a very similar mode split for people traveling to and from the station. The AM and PM peak from 7-10am and 4-7pm accounted for the majority of boardings.

<table>
<thead>
<tr>
<th>Passenger-reported boarding times. Source: RTD On-Board Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

TAPESTRY (ESRI) DATA (2018)

Below are the three largest Tapestry Segments in the 80110 zip code around Englewood Station:

1. **Front Porches**
   - Svs/Prof/Admin
   - HS Diploma Only/GED
   - White
   - Go online for gaming, watching videos, employment searches
   - Price more important than brands
   - Play board games, video games
   - Watch Comedy Central, Nickelodeon, PBS Kids Sprout
   - Own 1 vehicle

2. **Young and Restless**
   - Svs/Prof
   - College Degree
   - White/Black
   - Text, redeem coupons from cell phone
   - Banks online
   - Go dancing, play pool, buy organic food
   - Listen to hip hop, rap, hip hop, dance music
   - Buy from eBay

3. **Parks and Rec**
   - Prof/Mgmt/Admin
   - College Degree
   - White
   - Take US vacations
   - Budget usually
   - Play blackjack, poker online
   - Watch Animal Planet, Discovery, History Channel
   - Own trucks & SUVs
CONTEXT MAP

This map shows the location of the station with regards to surrounding land uses and transportation connections.

The Englewood Station is located adjacent to the Englewood Civic Center, just east of Santa Fe Drive (US-85) and north of W Hampden Ave (US-285).

Bicycle Facilities
- Route/Shared Roadway (no dedicated facilities)
- Off-Street Facilities

Pedestrian Facilities
- 10-minute Walkshed

Transit
- Bus Stop
- Rail Station
- Bus Route
- Light Rail Route

Destinations
- Healthcare/Medical Facility
- School
- Park
ACTIVE TRANSPORTATION ANALYSIS

WEST ROUTE

Opportunities: Lowell Blvd’s bike lane and residential Irving St are comfortable facilities with the exception of steep terrain. A proposed connection through the Colorado Heights University campus would be a less physically-demanding route. The Little Dry Creek Trail and underpass provide a comfortable route for bicyclists and pedestrians to access the station from the west.

Challenges: Dartmouth Ave east of Zuni St is surrounded by primarily industrial land uses resulting in heavy truck traffic. Combined with deteriorated asphalt, a steep incline, and a lack of bicycle facilities, it is a stressful route for bicyclists. There is no pedestrian or bicycle facilities on south-bound Inca St, despite the fact that it is the most direct route to the transit station from the Little Dry Creek Trail.

EAST ROUTE

Opportunities: Wide sidewalks and tree lawns with quality landscaping create a pleasant and comfortable pedestrian environment in the immediate vicinity of the station. Englewood Pkwy is relatively comfortable, though the route through a large parking lot creates potential conflicts with vehicles. Girard Ave and Acoma St are low-stress connections to Hampden Ave.

Challenges: The roundabout on Englewood Pkwy is somewhat difficult to navigate on a bicycle. East of the roundabout Englewood Pkwy becomes a four-lane road; without bicycle facilities it is less than comfortable for bicyclists. Hampden Ave is a logical connection to the Swedish medical campus, but it is a relatively busy collector with no bicycle facilities. The path that continues along Hampden Ave when it merges with US 285 is too narrow to accommodate both pedestrians and bicyclists.

GENERAL FINDINGS

- The industrial nature and steep terrain of Dartmouth Ave make it a particularly stressful road for bicyclists.
- Busy collector roads without bicycle facilities are uncomfortable for many bicyclists.

Level of Comfort Analysis

<table>
<thead>
<tr>
<th>Level</th>
<th>Bicycle Facilities</th>
<th>Transit Routes</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Comfortable</td>
<td>Route/Shared Rd (no dedicated facilities)</td>
<td>Light Rail</td>
<td>Light Rail or BRT Station</td>
</tr>
<tr>
<td></td>
<td>On-Street Dedicated</td>
<td>Bus</td>
<td>Healthcare/Medical Facility</td>
</tr>
<tr>
<td>Least Comfortable</td>
<td>Off-Street</td>
<td></td>
<td>School</td>
</tr>
</tbody>
</table>

- Wayfinding signage to and from the trail and at key junctions is often lacking or inconsistent.
- Despite an 8' paved path on north-bound Inca St, there is no official south-bound facility. Informal trails following the road leading to the transit station indicate that people walk here regardless.
- Hampden Ave has relatively high traffic volumes but has no bicycle facilities, making it less than comfortable for bicyclists.

Englewood Pkwy has a lane for vehicle traffic but no bicycle facilities, forcing bicyclists to share travel lanes with vehicles.

This route is low-stress but steep terrain is an obstacle for some bicyclists.

Deteriorated asphalt and steep terrain pose a challenge for bicyclists, particularly those traveling uphill.

The roundabout on Englewood Pkwy and Cherokee St is difficult to navigate as a bicyclist.

The land uses on Dartmouth Ave east of Zuni St are primarily industrial. Heavy truck traffic and numerous industrial driveways create a stressful environment for bicyclists.

Off-Street

Light Rail or BRT Station

Healthcare/Medical Facility

School

Activity Generator

Park n’ Ride

STATION BICYCLE PARKING CAPACITIES

<table>
<thead>
<tr>
<th></th>
<th>Short-Term</th>
<th>Long-Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTD Lockers Used</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>(February 2019)</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Bike Share</td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

ASSESSING STATIONS
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Opportunities: The existing Englewood Trolley stop does not provide adequate space for the vehicle to curb. Restricting parking between the two crosswalks would allow the bus to pull up to the curb and pull out unobstructed. This location is also slightly closer to the bridge to Englewood Station. Additionally, the two parking spaces behind the crosswalks could be reconfigured as passenger loading/unloading zones in the AM and PM peak periods for drop-offs at Englewood Station.

Challenges: Along Englewood Pkwy in front of the Walmart there are 15 curb-cuts on both sides of the street within a 600 foot stretch of the street. This equates to a curb-cut every 40 feet on average, which creates an unpleasant walking environment.

Englewood Trolley (ART) dropping off near Englewood Station.
RTD Transit Routes serving the station:
- High frequency connecting routes
- Good transit coverage east of the station

DRCOG Walking, Biking, and Transit Trips:
- Relatively low levels of modeled walking, biking and transit trips in comparison to other station areas

DRCOG FOCUS Model
Average weekday daily walk, bike and transit trips as a percentage of total trips

- 0.0% - 5.2%
- 5.3% - 9.0%
- 9.1% - 12.9%
- 13.0% - 17.0%
- 17.1% - 28.0%

RTD Bus Stop
Station 1-Mile Radius
School
Transit Station

Land and Development Characteristics:
- Most of the land around the station is owned by the Englewood Environmental Foundation Inc. and includes the site of Englewood City Hall.
- RTD owns no land in the immediate vicinity of the station
3 RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

WEST ROUTE
Constructing a new sidewalk on southbound Inca St will create a more direction connection between the South Platte River Trail and the transit station, while also reducing the amount of roadway crossings pedestrians must make. West of the Highway 85, widening the sidewalks on eastbound Dartmouth Ave to at least five feet will improve pedestrians access to the trail, and ultimately the station. Due to the relatively high volumes of truck traffic on Dartmouth Ave, buffered or separated bike lanes are most appropriate east of Zuni St. Though lane widths increase and traffic volumes decrease west of Zuni St, bike lanes should at least be considered to provide continuity, and to provide additional comfort for bicyclists, particularly those traveling uphill. A new shared-use path connecting the existing Dartmouth Ave segments west of the Colorado Heights University campus will create a more direct connection to the Lowell Blvd bike lanes and will avoid steep terrain.

EAST ROUTE
Striping bike lanes on Englewood Pkwy between Cherokee St and Broadway, and on Old Hampden Ave will provide a bicycle connection from the transit station to the Swedish medical campus. Widening the existing sidpath on Hampden Ave east of Lafayette St to at least 10 feet will allow bicyclists from farther east to access the station without creating conflicts with pedestrians who also use the path.

RAIL STATION IMPROVEMENTS

ADD bicycle wayfinding signage, particularly at the station ramp

RECOMMENDATIONS FOR ASSESSED ROUTES

- Pedestrian spot improvement
- Widen existing sidewalk
- Reconstruct sidewalk as a shared-use path
- Construct new sidewalk
- Bicycle spot improvement
- Construct new shared-use path
- Stripe bike lanes
- Install buffered or separated bike lanes
- Low-stress existing route (No change)

EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Bicycle Facilities</th>
<th>Transit</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route/Shared Rd (no dedicated facilities)</td>
<td>Bus Stop</td>
<td>Healthcare/Medical Facility</td>
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<tr>
<td>On-Street Dedicated</td>
<td>Rail Station</td>
<td>School</td>
</tr>
<tr>
<td>Off-Street</td>
<td>Bus Route</td>
<td>Activity Generator</td>
</tr>
<tr>
<td></td>
<td>Rail Route</td>
<td>Park</td>
</tr>
<tr>
<td></td>
<td>Park-n-Ride</td>
<td></td>
</tr>
</tbody>
</table>
CURBSIDE MANAGEMENT RECOMMENDATIONS

- Parking should be restricted at the Englewood Trolley stop in the loop to the east of the station. This would improve loading and unloading of all passengers.
- A pick-up and drop-off area should be established using 2-3 existing parallel parking spaces closest to the station.
<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Demand Management</td>
<td>Create an EcoPass District</td>
<td>This station has a high level of employment in close proximity to the station. Development and marketing of an EcoPass district will encourage increased transit use.</td>
<td>Employees that live near to the station and currently do not use transit for their commute may consider switching to using transit if a lower cost annual EcoPass were available.</td>
<td>High</td>
<td>Employers, property owners, RTD</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Curbside management</td>
<td>Provide clear designation of curbside for transit, TNCs, pick-ups and drop-offs. Designate special pick-up and drop-off areas for taxis, and transportation network companies, such as Uber and Lyft, and micro-transit providers. The areas can also be used by carpools or vanpools dropping off travelers employees.</td>
<td>Pick-up and drop-off activity is more organized, reducing conflicts with transit vehicles and people walking and bicycling to access the station.</td>
<td>High</td>
<td>City of Englewood, RTD</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Encouragement of shared micromobility providers within the station area</td>
<td>The immediate station area has a relatively dense concentration of office and retail uses, however, not all of the offices and retail locations are within a half-mile walkshed from the station.</td>
<td>Encouraging micromobility use may widen the catchment area of the station to people who currently feel it is too far to walk to the station,</td>
<td>High</td>
<td>City of Englewood, RTD</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micromobility infrastructure; install separated bicycle facilities on Dartmouth Ave</td>
<td>High volumes of truck traffic make sharing travel lanes with motorized vehicles uncomfortable for bicyclists and micromobility device users.</td>
<td>Separation from motorized vehicles will improve bicyclist and micromobility device user safety and comfort.</td>
<td>High</td>
<td>City of Englewood</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle/ micromobility infrastructure; stripe bike lanes on Englewood Parkway and Old Hampden Ave</td>
<td>Relatively high traffic volumes make sharing travel lanes with motorized vehicles uncomfortable for bicyclists and micromobility device users.</td>
<td>Dedicated space for bicyclists and micromobility device users will increase comfort and safety.</td>
<td>High</td>
<td>City of Englewood</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Multimodal maps and wayfinding</td>
<td>People may be less likely to walk or bike to/from the station if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the station if the safest, most comfortable routes are clear and easy to follow.</td>
<td>High</td>
<td>City of Englewood, RTD</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident / employee / student transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>High</td>
<td>Employers, property owners</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Transit access marketing plan</td>
<td>If no TMA is active within the station location, develop a transit marketing and encouragement campaign and materials though Way to Go.</td>
<td>Increase the visibility of transit, encouraging more people to ride RTD.</td>
<td>High</td>
<td>DRCOG Way To Go</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycle Education and Encouragement Programs</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Increase bicycling confidence among people in the vicinity of the transit station</td>
<td>Medium</td>
<td>Employers</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bike or car share subsidies</td>
<td>Pay or subsidize employees’ and residents’ bike or car share memberships when such services are appropriately located to allow them to be used as a first and last mile service or to support mid-day trips.</td>
<td>Encouraging bike, micromobility or car share memberships can improve the possibility of someone using transit.</td>
<td>Medium</td>
<td>Employers, property owners</td>
</tr>
<tr>
<td>FLM Toolkit Theme</td>
<td>Strategy</td>
<td>Rationale</td>
<td>Desired Outcomes</td>
<td>Priority</td>
<td>Implementing Agencies</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Car share parking</td>
<td>Provide parking for car sharing vehicles within the transit service location. Spaces should be in areas with high visibility that are accessible to transit riders and employees and residents who work and/or live nearby.</td>
<td>Providing high-visibility spaces for car share vehicles will encourage their use by transit customers and potential transit customers who may be more likely to use transit if they have access to a car share vehicle for some trips throughout their day.</td>
<td>Medium</td>
<td>City of Englewood</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Commuter tax benefits</td>
<td>Employers have the ability to offer pre-tax commute benefits to employees. Section 132-9 of the IRS code allows employers to use up to $260 per month in pre-tax money to pay for their parking, transit, and vanpool fares (2018 limits). Ensure that these commute benefits are being fully implemented by employers near transit stops and stations.</td>
<td>Lower the perceived cost of taking transit for employees.</td>
<td>Medium</td>
<td>Employers</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Free event transit passes</td>
<td>Include free or discounted transit passes in the cost of tickets for large events and promote the free service.</td>
<td>Potential RTD customers that ride RTD for free during an event will be more likely to use RTD service for other trips.</td>
<td>Medium</td>
<td>Event Organizer</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Guaranteed Ride Home</td>
<td>Promote the regional Guaranteed Ride Home program that provides commuters who do not drive alone to work with a free ride home in case of an approved emergency. Rides are typically provided by taxi and require pre-authorization. The program is managed by DRCOG and available to commuters who use its services or have an EcoPass.</td>
<td>Due to the large employment surrounding the station, this program would support increased transit use.</td>
<td>Medium</td>
<td>DRCOG Way To Go</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: widen sidewalks on Dartmouth Ave</td>
<td>Narrow sidewalks on a road with high volumes of truck traffic create an uncomfortable environment for pedestrians.</td>
<td>Wider sidewalks will increase pedestrian comfort.</td>
<td>Medium</td>
<td>City of Englewood</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Complimentary Shared Amenities</td>
<td>This strategy encompasses low-cost shared amenities offered by employers that encourage walking or biking for mid-day trips, even in inclement weather. They can include shared umbrellas, ponchos, bike lights, rain covers for bike seats and bags/backpacks and other items that can be borrowed when needed. Bike pumps and simple repair tools are another example of shared amenities that promote and facilitate biking to transit.</td>
<td>Supporting employees to be able to take mid-day trips without a car can lead to them having a higher propensity to take transit to work.</td>
<td>Low</td>
<td>Employers, property owners</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian and bicycle/micromobility infrastructure: construct a new shared use path west of Colorado Heights campus</td>
<td>At present, people walking, biking, or using other micromobility devices must travel a significant distance around the Colorado Heights campus.</td>
<td>A more direction connection to Lowell Blvd will decrease travel time for pedestrians, bicyclists, and other micromobility device users.</td>
<td>Low</td>
<td>City of Englewood</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: construct new sidewalk on Inca St</td>
<td>Pedestrians accessing the station from the west side of Inca St must leave their direction of travel and cross to the east side of the street to stay on the sidewalk. An informal trail on the west side of Inca demonstrates the need for a pedestrian facility.</td>
<td>Pedestrian convenience and access to the station will improve.</td>
<td>Low</td>
<td>City of Englewood</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Parking cash-out</td>
<td>Encourage employers to offer cash payments to employees who agree to not use on-site, employer-provided parking. This can be an alternative to charging for parking should that be impractical or infeasible. Employers that provide cash-out can often realize cost savings when parking spaces are leased or where parking is overutilized.</td>
<td>Increase transit ridership and lower parking costs for employers.</td>
<td>Low</td>
<td>Employers</td>
</tr>
</tbody>
</table>
### OVERALL RECOMMENDATIONS (CONT.)

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Demand Management</td>
<td>Variable message signs</td>
<td>Use variable message signs to highlight the time savings and other benefits of using transit instead of driving. Examples include transit versus drive time, park and ride parking availability, and potential cost savings.</td>
<td>A variable sign situated on Santa Fe Drive (US-85) could provide a message showing that rather than drive to a major destination (e.g. downtown) the user could park at the Englewood Station and take transit instead.</td>
<td>Low</td>
<td>CDOT, RTD</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle/micromobility infrastructure: widen the sidepath on Hampden Ave</td>
<td>The existing sidepath is too narrow for different users to pass each other comfortably.</td>
<td>Increased width will allow users to pass each other comfortably.</td>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>


This chart on this page provides a framework for prioritizing recommendations. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated in more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the Englewood Station include:

- Defining access to the station for all modes through development of a curbside management plan.
- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- Developing an EcoPass district to encourage surrounding employers and employees to commute using transit.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Provide bicycle end-of-trip facilities and amenities to support bicycling to and from this station.
- Promote parking cash-out, for employees to cash out of their employer provided parking to use transit instead.
- Promotion of commuter tax benefits to ensure employees and employers alike understand the range of benefits available
- Striping bike lanes on Englewood Pkwy and Old Hampden Ave

**IMPLEMENTING AGENCIES**

The Englewood Station is situated in the City of Englewood, as such it is suggested that the City should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

The station falls does not fall within a TMA area, and therefore it is suggested that DRCOG’s Way to Go program should lead on TDM recommendations with support from RTD.

A partnership between CDOT and RTD will be required to implement variable message signs on I-25. It should be noted that this particular recommendation aligns with the outcomes from the Mobility Choice Blueprint initiative.

### Conclusion

<table>
<thead>
<tr>
<th>LESS IMPACT</th>
<th>MORE IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit access marketing plan</td>
<td>Variable message signs on highways/interstates for information sharing</td>
</tr>
<tr>
<td>Support round-trip car share</td>
<td>Widen sidewalks on Dartmouth Ave</td>
</tr>
<tr>
<td>Car share parking</td>
<td>Install separated bike facilities on Dartmouth Ave</td>
</tr>
<tr>
<td>Bike or car share subsidies</td>
<td>Curbside management plan</td>
</tr>
<tr>
<td>Bicycling workshops and courses</td>
<td>Encouragement of shared micromobility providers</td>
</tr>
<tr>
<td>Free event transit passes</td>
<td>New resident and employee transportation kits</td>
</tr>
<tr>
<td>Guaranteed Ride Home program promotion</td>
<td>Development of EcoPass district</td>
</tr>
<tr>
<td>Construct new sidewalk on Inca St</td>
<td>Bicycle end-of-trip facilities and amenities</td>
</tr>
<tr>
<td>Construct new shared use path west of Colorado Heights campus</td>
<td>Parking cash-out</td>
</tr>
<tr>
<td>Widen sidewalk on Hampden Ave</td>
<td>Commuter tax benefits</td>
</tr>
<tr>
<td></td>
<td>Stripe bike lanes on Englewood Pkwy and Old Hampden Ave</td>
</tr>
</tbody>
</table>

**MOBILITY CHOICE BLUEPRINT**
STATION ANALYSIS:
Havana and 17th Ave
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   • Transit and Land Ownership
3  RECOMMENDATIONS ............................1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
Havana St and 9th Ave is an intersection in the City of Aurora in close proximity to C-470 freeway. The surrounding population is diverse and often foreign-born. The intersection is within a grid system, supporting parking, and cycling to the pedestrian.

The service area in this close proximity to the Denver Metro area, and thus may include

1. **PROBLEM STATEMENT**
   - 1D Single Family
   - 1C Single Family
   - 1D Single Family
   - 2D Single Family
   - 1D Single Family

2. **TYPOLICAL**
   - 3D Single Family
   - 1D Single Family
   - 1D Single Family
   - 1D Single Family
   - 1D Single Family

3. **STATION OVERVIEW**
   - 7A
   - 1D
   - 1D
   - 1D
   - 1D

4. **OVERVIEW**
   - 1D
   - 1D
   - 1D
   - 1D
   - 1D

5. **TRANSPORT RIDERSHIP**
   - 1D
   - 1D
   - 1D
   - 1D
   - 1D

6. **ACTIVE TRANSPORTATION**
   - 1D
   - 1D
   - 1D
   - 1D
   - 1D

7. **TRANSPORTATION MANAGEMENT ASSOCIATION**
   - 1D
   - 1D
   - 1D
   - 1D
   - 1D

8. **STATION JURISDICTION**
   - 3D
   - 3D
   - 3D
   - 3D
   - 3D

9. **STATION AREA CONTEXT**
   - 1D
   - 1D
   - 1D
   - 1D
   - 1D

10. **CONDUIT DATA**
    - 1D
    - 1D
    - 1D
    - 1D
    - 1D

11. **TAPES LEADS DATA FRAME**
    - 1D
    - 1D
    - 1D
    - 1D
    - 1D

---

**Havana St and 9th Ave**

**Problem:**

- A single-family development in close proximity to C-470 freeway is undergoing evaluation. The area's surrounding population is diverse and often foreign-born. The intersection is within a grid system, supporting parking, and cycling to the pedestrian.

**Solution:**

- Evaluate parking options in the area to enhance accessibility and connectivity.

---

**Stations Overview:**

- **Location:** Havana St and 9th Ave
- **Type:** Low-rise residential
- **Population:** Diverse and foreign-born
- **Infrastructure:** Grid system, parking, and cycling support

---

**Rider Counts:**

- **2021 Average Daily Weekday Rides:**
  - 1D (High-end)
  - 1C (Low-rise)

- **2021 Average Daily Weekday Rides:**
  - 1D (High-end)

---

**Transportation Analysis:**

- **Access to Public Transportation:**
  - Availability of public transportation, including
  - **Transit Routes:** DRTA (Denver Regional Transportation Authority)
  - **Transit Frequency:** High

- **Active Transportation:**
  - Bicycle parking
  - Pedestrian pathways

---

**Station Area Context:**

- **Neighborhood:** Low-rise residential
- **Population:** Diverse, foreign-born
- **Infrastructure:** Grid system, parking, cycling support

---

**Conduit Data:**

- **Data Source:** Denver Regional Transportation Authority
- **Data Type:** Rides per Day
- **Visualization:** Graphs showing daily, weekly, and monthly ridership trends

---

**Tapes Leads Data Frame:**

- **Data Source:** Denver Regional Transportation Authority
- **Data Type:** Tape Leads
- **Visualization:** Maps showing tape lead locations

---

**Advisories:**

- **City of Aurora:** Public transportation updates
- **Denver Regional Transportation Authority:** Travel information and updates

---

**Additional Resources:**

- [Denver Rides](https://www.denverrides.com)
- [TAPES Leads](https://www.tapesleads.com)

---

**Conclusion:**

- The evaluation of Havana St and 9th Ave highlights the need for improved parking infrastructure to support the diverse and foreign-born population. Enhancements in public transportation accessibility are recommended to improve connectivity and accessibility to the region.
ACTIVE TRANSPORTATION ANALYSIS

OPPORTUNITIES: Generally, 17th Ave is a reasonably comfortable street for most bicyclists due to steady low traffic volumes and speeds. Within the Anschutz Medical Campus, eight to ten foot paths are sufficiently wide for both pedestrians and bicyclists. However, some bike lanes are on-street for more confined spaces.

CHALLENGES: The majority of 17th Ave has sidewalks that are less than five feet wide. Such sidewalks can be narrow for people in wheelchairs or with obstacles to navigate. Diagonal curb ramps at many intersections direct pedestrians into the middle of the intersection rather than the adjacent sidewalk. Diagonal curb ramps can be confusing for people with visual impairments because they do not guide navigation or blind pedestrians to the appropriate location.

LOCATION DIFFICULTIES:
- Narrow sidewalks along much of 17th St are less than the contributable for pedestrian and cannot sufficiently accommodate strollers and obstacles.
- Many intersections have diagonal curb ramps that do not adequately direct pedestrians to adjacent sidewalks.
- Intersections with busier streets such as Quebec St and Havana St may be more stressful for less experienced bicyclists to navigate without any bike lane signaling or signage.
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

The curbside management inventory is centered on the intersections of Colfax Ave and Havana Street, two blocks south of the stop, because curbside management recommendations are more applicable to Colfax Ave than 17th Ave, which is largely unrestricted.

Opportunities The existing F15 near-side bus stops on Colfax Ave are shared with right-turn lanes. This could be an opportunity to provide a queue-jump with a transit signal.

CURBSIDE MANAGEMENT AND PARKING ANALYSIS

The existing 15L near-side bus stops on Colfax Ave are shared with

street that is largely unrestricted.

Recommendations are more applicable to Colfax Ave than 17th Ave, which is largely unrestricted.

Opportunities The existing F15 near-side bus stops on Colfax Ave are shared with right-turn lanes. This could be an opportunity to provide a queue-jump with a transit signal.

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Opportunities The existing F15 near-side bus stops on Colfax Ave are shared with right-turn lanes. This could be an opportunity to provide a queue-jump with a transit signal.
RECOMMENDATIONS

For the next part, Old Main is a relatively low-stress street for bicycling, but wider lanes and raised planters suggest that additional waymarking could make it more attractive. Adding on-street parking would provide sufficient space in the existing right-of-way to offer bike lanes, which would eliminate double-loaded options for late-night students and would connect transit users to the bicycle lanes on the Absolute medical campus. Widening sidewalks for the first few blocks and standards would significantly improve the ability of pedestrians with disabilities to reach the last step on the way.

BICYCLE IMPROVEMENTS

Install ADA-compliant facilities, including low-first sidewalks, landing pads, and permeable curb radius with brickstone elements.
Add benches.
Add bike rack to on-street parking (as inserted U-brackets.

Create an easier transition for bicyclists.

Reduce the grade at the ramp first intersection for students, elderly, and with vision impairments.

Encourage walking or biking for mid-day trips, even in inclement weather. They include transit subsidies, bonuses, time-lapse, or other forms of financial support for commuters that are less than five feet wide are not comfortable for pedestrians.

Promote the low-income transit pass, provide an opportunity for people to try free transit for first time on their route.
This chart on this page provides a framework for prioritizing recommendations. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, or those that take relatively less effort for less impact should be considered in the medium- to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the Havana St and 17th Avenue bus stop area include:

• Promotion of low-income transit pass, as this location has historically vulnerable populations.
• Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
• Encouraging shared micromobility providers to the station area to improve first and last mile access.
• New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
• Bicycle end-of-trip facilities and amenities provide support to people bicycling to the bus stop.
• Stripe bike lanes along 17th Avenue

IMPLEMENTING AGENCIES

This intersection is situated in the City of Aurora, as such it is suggested that the City should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

The station falls within the Northeast Transportation Connections (NETC) TMA area, as such they should take the lead in implementing TDM recommendations. RTD can implement some of the transportation service recommendations and assist in implementing other recommendations.

CONCLUSION

This chapter on this page provides a framework for prioritizing recommendations. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, or those that take relatively less effort for less impact should be considered in the medium- to long term.
STATION ANALYSIS:
S Federal Blvd and W Alameda Ave
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3 RECOMMENDATIONS .................................1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
1 PROBLEM STATEMENT

S. Federal Boulevard and W. Alameda Avenue is an intersection on two key transit corridors, W. Alameda Avenue (Routes 3 and 4) and S. Federal Boulevard (Routes 31, 30, 36L and 30L).

The bus stops are situated on S. Federal Boulevard, which is the most dangerous street in Colorado in terms of pedestrian fatalities according to a 2018 WalkDenver report.

The surrounding area is a dense mix of residential, employment and other land use types. People living around the station tend to be lower-income, Hispanic or Latino (22%) and lower educational attainment relative to the rest of the district.

Based on the RTD 2015 on-board survey, the vast majority of people access the bus stops via walking, with a small percentage accessing the stops by bicycle.

Due to the high rate of pedestrian fatalities along this roadway and the high number of people accessing the transit service by active transportation, improving conditions for people walking, bicycling or using micro-mobility is the priority to increasing access.

STATION OVERVIEW

The station is currently served by:
- Local Bus Routes: 3, 4, 31, 30, 36L and 30L

TRANSIT RIDERSHIP

2017 Average Daily Weekday Bus Boardings & Alightings: 1,824

ACTIVE TRANSPORTATION

A half-mile walkshed was generated for this station. A half-mile (or 10 minute) walkshed depicts how far a person can walk or roll from a transit station entrance along existing sidewalks. At this station, walkshed coverage* of 76% highlights the good network for active transportation to access the station.

TRANSPORTATION MANAGEMENT ASSOCIATION

Currently no TMA serves this area, however it will be served by the West Corridor TMA, launching in 2019.

PARKING

There is no RTD parking for these bus stops.

OVERLAYS

HIGH HISTORICALLY VULNERABLE POPULATION

*Walkshed coverage was calculated using a geographic information system (GIS) by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network, and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.

STATION JURISDICTION

This station is located within the City and County of Denver

Looking west across S Federal Blvd at W Alaska Pl
Looking west across S Federal Blvd at Ellsworth Ave
**STATION AREA CONTEXT**

This section includes a description of the demographics and travel patterns of the surrounding station area. All data sources included within this section are universally available throughout the region. The aim of the demographic and travel pattern data is to provide insight into current travel demands, patterns, and opportunities to improve first and last mile connectivity.

Demographic and travel pattern data within this section includes:

- **Census Data (2010, 2015)**: Data was collected at the census block-level from the 2010 Census for population and 2015 LEHD (Longitudinal Employer-Household Dynamics) data for jobs.
- **RTD On-Board Survey (2015)**: The RTD On-Board Survey is an annual survey conducted on RTD services, with station or stop data collected by surveying people arriving or departing from individual stops or stations.
- **Tapestry Segmentation Data (2018)**: Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by Esri.
- **Context Map**: Provides a snapshot of the situation of the station or service location with regards to the immediate surrounding area.

1 For more information about OnTheMap and associated data sources, use this link: https://onthemap.ces.census.gov/.
3 For more information about DRDCOG’s Focus Model, use this link: https://drdocg.org/services-and-resources/data-maps-and-modeling/travel-modeling/focus-travel-model.

---

**CENSUS DATA (2015)**

The maps below show the concentration of population and employment within a 2-mile buffer of the stop.

As seen below, there is a high concentration of population all around the stop, and a high concentration of jobs to the northeast closer to downtown.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of the S Federal Blvd/ E Alameda Ave Stop. The majority of employees travel less than 10 miles to get to work as seen in the chart below.

**Distance Traveled to Work For Employees Working Within 1-Mile Radius of S Federal Blvd and W Alameda Ave**

- Less than 10 miles: 55.1%
- 10-24 miles: 31.1%
- 25-50 miles: 4.9%
- Greater than 50 miles: 9.0%

**RTD ON-BOARD SURVEY DATA (2015)**

Walking was the largest reported mode of accessing the bus stops for both arriving and departing trips. The rate of walking to these bus stops is slightly higher the RTD district-wide average for local bus stops.

Off-peak hours accounted for the majority of boardings at this location.

**TAPESTRY (ESRI) DATA (2018)**

Below are the three largest Tapestry Segments in the 80219 zip code around the S Federal Blvd/ E Alameda Ave stop:

1. **Barrios Urbanos**
   - **Svcs** No HS Diploma
   - **Hispanic**
   - Buy discount for children’s products
   - Own no retirement savings
   - Read magazines
   - Listen to Hispanic radio
   - Own 1–2 vehicles, carpool

2. **Las Casas**
   - **Svcs** No HS Diploma
   - **Hispanic**
   - Follow soccer
   - Bank in person
   - Eat at fast food, family restaurants
   - Choose Spanish language TV channels
   - Buy baby/children’s products

3. **NeWest Residents**
   - **Svcs/Constr** No HS Diploma
   - **Hispanic**
   - Drink sports or energy drinks
   - Pay with cash
   - Buy baby/children’s products
   - Watch Spanish language channels on TV
   - Like used, fun to drive vehicles

---

1-3 | RTD FIRST LAST MILE PLAN

ASSESSING STATIONS
CONTEXT MAP

This map shows the location of the intersection with regards to surrounding land uses and transportation connections.

S Federal Blvd (State Highway 88) and W Alameda Ave (State Highway 26) are major thoroughfares in southwest Denver, located a little over a mile west of Interstate 25 and a little under a mile south of US 6.
ACTIVE TRANSPORTATION ANALYSIS

Due to the relative frequency of bus stops along S Federal Blvd and W Alameda Ave, and the importance of the intersection for transit routes, the planning team focused their analysis on the walkshed along those two arterials. The map here displays only the half-mile walkshed.

Opportunities:
- Sidewalks with tree lawns on some blocks provide pedestrians with a comfortable buffer from heavy traffic.
- Quality landscaping on some blocks creates a pleasant pedestrian environment and shade trades provide some respite from the sun.
- Landscaped medians mitigate the impact of multiple lanes of bi-directional traffic to the pedestrian experience. Though not designed as pedestrian refuges, some people use them as such.

Challenges:
- Most sidewalks do not provide pedestrians with adequate separation from fast-moving traffic, nor do they provide sufficient space for use by both bicyclists and pedestrians.
- Diagonal curb ramps direct pedestrians into the middle of intersections instead of into the crosswalks.
- Both S Federal Blvd and W Alameda Ave are primarily auto-oriented commercial corridors with driveways frequently intersecting the sidewalks. This creates potential conflicts between people on the sidewalk and turning vehicles.
- Long distances between signalized intersections force some pedestrians to travel long distances out of their way to cross the road safely.
- The pedestrian crossing across Federal Blvd at Bayaud Ave lacks striping, signage, or lights; essentially anything that would alert drivers that people may be crossing the road.
- A general lack of shade trees combined with a substantial amount of asphalt and concrete exacerbates the heat-island effect.
- Obstructions of the sidewalk, such as utility poles and vehicles, are barriers to pedestrians, particularly those in wheelchairs or with strollers.
- Highly deteriorated sections of sidewalk represent hazards to pedestrians.
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Challenges: All of the curbside space is utilized for travel lanes along Alameda Avenue and Federal Boulevard, posing a challenge to reconfigure the space.
ASSESSING STATIONS

RTD Transit Routes
Average maximum weekday wait time during peak periods (Spring 2018)
- Every 10 Minutes or Better
- Between Every 10 and 15 Minutes
- Between Every 15 and 30 Minutes
- Between Every 30 and 60 Minutes
- Every 60 Minutes or More

DRCOG FOCUS Model
Average weekday daily walk, bike and transit trips as a percentage of total trips
- 0.0% - 5.2%
- 5.3% - 9.0%
- 9.1% - 12.9%
- 13.0% - 17.0%
- 17.1% - 28.0%

DRCOG Walking, Biking, and Transit Trips:
- DRCOG Models shows very high walking, biking and transit trips

Land and Development Characteristics:
- Most land around the station is privately-owned
- RTD owns no land in the immediate vicinity of the station

TRANSIT FREQUENCY AND EXISTING TRAVEL PATTERNS

LAND OWNERSHIP
RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS*

- Installing landscaped buffers (between the road and sidewalk) with shade trees on Federal Blvd and Alameda Ave will significantly improve the pedestrian experience and provide more comfortable routes to the bus stops.
- Installing bollards or other types of buffers between parking areas and sidewalks will eliminate the instances of vehicles encroaching on the sidewalk.
- Perpendicular curb ramps at all intersections will more adequately direct pedestrians, particularly those with vision impairments or using wheeled mobility devices, into the crosswalks.
- Repairing deteriorated sidewalks and relocating obstructions such as utility poles will reduce hazards for pedestrians.
- Installing more signalized crossings will reduce the distance pedestrians must travel to cross the road safely, and may reduce the frequency of pedestrians crossing outside of official crossings.
- Widening sidewalks to 10’ to allow for shared bicyclist and pedestrian use on Federal Blvd and Alameda Ave between transit stops and parallel bicycle routes will allow bicyclists to connect directly with the bus stops, while encouraging bicyclists to travel primarily on parallel lower-stress routes.

BUS STOP IMPROVEMENTS

- Add short-term bike parking (2-3 inverted U-racks per bus stop)
- Install wayfinding signage that directs bicyclists to and from bus stops and nearby bicycle routes
- Plant shade trees

RECOMMENDATIONS FOR ASSESSED ROUTES

- Pedestrian spot improvement
- Widen existing sidewalk
- Add a landscaped buffer with shade trees to sidewalk
- Add Shared Lane Markings, Wayfinding, and/or Traffic Calming Measures

EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Bicycle Facilities</th>
<th>Transit</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route/Shared Rd (no dedicated facilities)</td>
<td>Bus Stop</td>
<td>Healthcare/Medical Facility</td>
</tr>
<tr>
<td>On-Street Dedicated</td>
<td>Bus Route</td>
<td>School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Activity Generator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Park</td>
</tr>
</tbody>
</table>

*Bicycle Facilities Transit Destinations

- Route/Shared Rd (no dedicated facilities)
- On-Street Dedicated
- Off-Street

- Healthcare/Medical Facility
- School
- Activity Generator
- Park

*Due to the relative frequency of bus stops along S Federal Blvd and W Alameda Ave, and the importance of the intersection for transit routes, the planning team focused their recommendations on the walkshed along these two arterials. The map here displays only the half-mile walkshed.
## OVERALL RECOMMENDATIONS

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Pedestrian-scale lighting</td>
<td>Ensure that major walking routes to/from the bus stops have adequate, pedestrian friendly lighting. This can be a significant barrier for people’s sense of security, especially at night.</td>
<td>Increased safety and security for riders accessing the stop at night.</td>
<td>High</td>
<td>Xcel, City and County of Denver, CDOT</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Promotion of low-income or senior discount transit passes</td>
<td>Promote the low-income transit pass, provide an opportunity for people to try transit for free before committing to the pass.</td>
<td>Raises awareness among existing residential communities about new transit options and improves financial accessibility</td>
<td>High</td>
<td>West Corridor TMA</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycling workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Encourages bicycling use and safety when accessing the stops.</td>
<td>High</td>
<td>West Corridor TMA</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident and employee transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>High</td>
<td>West Corridor TMA</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micromobility infrastructure: install separated bicycle facilities on high traffic volume/speed roads</td>
<td>High traffic volumes and speeds create unsafe and uncomfortable situations for bicyclists and micromobility device users (even with conventional bike lanes at 1st Ave and Wadsworth Blvd).</td>
<td>Bicyclists’ and micromobility device users’ safety and comfort will increase.</td>
<td>Medium</td>
<td>City and County of Denver, CDOT</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: construct new and widen existing sidewalks</td>
<td>Sidewalks that are less than five feet wide are generally not comfortable for pedestrians and do not adequately accommodate people using wheelchairs or pushing strollers.</td>
<td>Pedestrian access and comfort will improve.</td>
<td>Medium</td>
<td>City and County of Denver, CDOT</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Wayfinding signage and transit vicinity map</td>
<td>People may be less likely to walk or bike to/from the stop if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the stops if the safest, most comfortable routes are clear and easy to follow.</td>
<td>Medium</td>
<td>City and County of Denver, RTD</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Commuter Expert or Commuter Buddy Program</td>
<td>Implement a program where expert commuters at an employer or residential location show people how to use transit and/or volunteer to ride with them the first time on their route.</td>
<td>Increased awareness among current nearby residents of the new service and how to access it.</td>
<td>Low</td>
<td>West Corridor TMA</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Complimentary shared amenities</td>
<td>This strategy encompasses low-cost shared amenities offered by employers that encourage walking or biking for mid-day trips, even in inclement weather. They can include shared umbrellas, ponchos, bike lights, rain covers for bike seats and bags/backpacks and other items that can be borrowed when needed. Bike pumps and simple repair tools are another example of shared amenities that promote and facilitate biking to transit.</td>
<td>Supporting employees to be able to take mid-day trips without a car can lead to them having a higher propensity to take transit to work.</td>
<td>Low</td>
<td>West Corridor TMA</td>
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<tr>
<td>Transportation Service</td>
<td>Support implementation of micromobility services</td>
<td>In areas where the market is not already providing electric micromobility devices (e.g. Bird, Lime, Razor) sufficient to meet user demand, work with providers to support the deployment of devices around the transit service location. Incentives for private providers may include preferential/highly visible parking locations, subsidies, advertising, corrals to which vehicles can be reliably rebalanced, and access to standardized charging interfaces.</td>
<td>Increased transit access options for riders who live or work nearby.</td>
<td>Low</td>
<td>City and County of Denver, RTD</td>
</tr>
</tbody>
</table>
CONCLUSION
This chart provides a framework from which to categorize each of the recommendations into four categories. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the S Federal Blvd/ E Alameda Ave stops including:
- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- Promotion of low-income transit pass, as this location has historically vulnerable populations.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Complimentary shared amenities provided by employers to support walking and bicycling

IMPLEMENTING AGENCIES
This station is situated in the City and County of Denver, as such it is suggested that the City should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station. Both S Federal Blvd and W Alameda Ave are CDOT state highways, and as such the City and County of Denver should continue to partner with CDOT to implement the recommendations where appropriate.

These bus stops will be within the future West Corridor TMA which will start operations in 2019. It is suggested that the future West Corridor TMA take the lead on TDM recommendations with support from RTD.
SUBURBAN-MIXED LOCATIONS

- 40th & Colorado Station
- US 36 & Broomfield Station
- 8th and Coffman PnR
- Wagon Road PnR
- Sheridan Station
- S Colorado Blvd & Florida
STATION ANALYSIS:
40th and Colorado Station
STATION ANALYSIS

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   • Active Transportation Analysis
   • Curbside Management and Parking Analysis
   • Transit and Land Ownership

3 RECOMMENDATIONS ...........................................1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
1 PROBLEM STATEMENT

40th and Colorado is a transit station that falls within the suburban-mixed typology in the City and County of Denver. The station is relatively new, having opened in April 2016.

The University of Colorado A Line provides excellent transit access to both the airport and downtown Denver.

The surrounding area is characterized by a mix of employment and residential, with areas of light industrial uses surrounding the station. The area has a poor walking and cycling environment, with significant gaps in the sidewalk network to accessing the station.

The station is in an area with a high historically vulnerable population, which is typified with relatively low car ownership and employment levels. This area also has a high propensity to change, with numerous large lots with low density industry which may change over the years.

I-70, Colorado Blvd and the rail line create significant barriers to modes other than driving to access the station.

STATION OVERVIEW

The station is currently served by:
- Rail Route: A
- Local Bus Route: 40, 44, 24, 37

TRANSIT RIDERSHIP

2017 Average Daily Weekday Boardings & Alightings

<table>
<thead>
<tr>
<th>Mode</th>
<th>Boardings</th>
<th>Alightings</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail Transit</td>
<td>1,944</td>
<td>1,440</td>
<td>63%</td>
</tr>
<tr>
<td>Bus Transit</td>
<td>1,124</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3,068</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

ACTIVE TRANSPORTATION

A half-mile walkshed was generated for this station. A half-mile (or 10 minute) walkshed depicts how far a person can walk or roll from a transit station entrance along existing sidewalks. At this station, walkshed coverage* of 20% highlights a poor network structure for walking, active transportation and micromobility.

TRANSPORTATION MANAGEMENT ASSOCIATION

Northeast Transportation Connections TMA.

PARKING

193 parking spaces, 81% average utilization in 2017.

*Walkshed coverage was calculated using a geographic information system (GIS) by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network, and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.
STATION ASSESSMENT

STATION AREA CONTEXT

This section includes a description of the demographics and travel patterns of the surrounding station area. All data sources included within this section are universally available throughout the region. The aim of the demographic and travel pattern data is to provide insight into current travel demands, patterns and opportunities to improve first and last mile connectivity.

Demographic and travel pattern data within this section includes:

1. **Census Data (2010, 2015)**: Data was collected at the census block-level from the 2010 Census for population and 2015 LEHD (Longitudinal Employer-Household Dynamics) data for jobs.

2. **Tapestry Segmentation Data (2018)**: Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by Esri.

3. **Context Map**: A snapshot of the situation of the station or service location with regards to the immediate surrounding area.

CENSUS DATA (2015)

The maps below show the concentration of population and employment within a 2-mile buffer of the station. Much of the population is to the south and northwest of the station, while the employment is largely located to the northeast of the station.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of 40th and Colorado Station. The majority of employees travel less than 10 miles to get to work, as seen in the chart below.

**Distance Traveled to Work For Employees Working Within 1-Mile Radius of 40th and Colorado Station**

- Less than 10 miles
- 10-24 miles
- 25-50 miles
- Greater than 50 miles

TAPESTRY (ESRI) DATA (2018)

Below are the three largest Tapestry Segments in the 80216 zip code around 40th and Colorado Station.

1. **Barrios Urbanos** 40%
   - Svcs
   - No HS Diploma
   - Hispanic
   - Buy discount for children’s products
   - Own no retirement savings
   - Road magazines
   - Listen to Hispanic radio
   - Own 1-2 vehicles; stranded

2. **Hardscrabble Road** 14%
   - Svcs/Admin
   - HS Diploma Only/GED
   - White/Black
   - Subscribe to premium cable TV
   - Pay bills, socialize online
   - Prefer brand names; deal seekers

3. **Metro Fusion** 11%
   - Svcs/Admin/Prof
   - HS Diploma Only/GED
   - White/Black
   - Shop at discount grocery stores, Family Dollar, Walmart
   - Demos to improve, are fashion conscious
   - Football, weight lifting; popular activities
   - Listen to R&B, rap, Latin, urban music
   - Watch MTV, BET, Snoop TV
CONTEXT MAP

This map shows the location of the transit station with regards to surrounding land uses and transportation connections.

40th and Colorado station is located a few blocks south of Interstate 70 and adjacent to Colorado Blvd.
**ACTIVE TRANSPORTATION ANALYSIS**

**NORTH ROUTE**

**Opportunities:** Within the walkshed, an eight-foot path on the north side of 40th Ave provides reasonable mobility for both pedestrians and bicyclists despite not meeting the current AASHTO 10’ standard for shared-use paths. Clayton St is a comfortable route for bicyclists through primarily residential neighborhoods. According to the Central 70 Project website, a portion of Clayton St will be reconstructed to traverse a cap over I-70 (it is currently routed underneath the I-70 viaduct) and will continue to be a comfortable route after project completion.

**Challenges:** A five-foot sidewalk on the south side of 40th Ave is insufficiently wide to accommodate both pedestrians and bicyclists who need to access destinations south of 40th Ave.

**SOUTHEAST ROUTE**

**Opportunities:** The majority of the route is along local and minor collector roads, which are fairly low-stress roadways for pedestrians and bicyclists alike.

**Challenges:** The lack of a crosswalk on the east side of Jackson St at 40th Ave is an inconvenience for pedestrians, particularly those wishing to access businesses at the northeast corner of the intersection. The intersection of 35th Ave and Colorado Blvd is stressful for west-bound bicyclists who must travel in a narrow vehicle lane adjacent to a retaining wall that severely inhibits the amount of space available to bicyclists.

**GENERAL FINDINGS**

- Residential streets are generally comfortable for bicyclists, though the presence of some sidewalks that are less than five feet wide poses challenges for pedestrians, particularly those using wheelchairs or strollers.
- Wide paths are low-stress facilities for pedestrians and bicyclists on 40th Ave, but without paths on both sides of the roadway, users are left with an incomplete network.
- Some intersections on arterials lack adequate crossing facilities for pedestrians and bicyclists.

---

**STATION BICYCLE PARKING CAPACITIES**

<table>
<thead>
<tr>
<th></th>
<th>Short-term</th>
<th>Long-term</th>
<th>Bike Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park</td>
<td>26</td>
<td>10</td>
<td>N/A</td>
</tr>
</tbody>
</table>

---

**Station**

- **Blake Station**: 38th & 39th St.  
  - **Bus Route**: 38th & 39th St.  
  - **Activity Generator**: 38th & 39th St.

---

**Bus Route**

- **Bus Route**: 38th & 39th St.
- **Activity Generator**: 38th & 39th St.

---

**Assessing Stations**

- **Transportation**
  - **Bus Route**: 38th & 39th St.
  - **Activity Generator**: 38th & 39th St.

---

**Challenges**

- **Currently, Clayton St continues under the I-70 viaduct which is slated to be replaced by a highway cut as part of the Central 70 Project.**
- **An 8’ sidewalk on the north side of 40th Ave provides reasonable mobility for pedestrians and bicyclists, despite not meeting the current AASHTO 10’ standard.**
- **A 9’ sidewalk on the south side does not provide sufficient space for both types of user.**
- **The lack of a ramp from the shared lane markings on Jackson St to the shared use path creates access issues for bicyclists.**
- **Head-in angled parking on the east side of Holly St between 23rd Ave and 35th Ave limits sightlines for drivers, creating potential conflicts with bicyclists.**
- **It is difficult for bicyclists to maneuver around a fire hydrant that is located in front of a curb ramp on Cook St.**
- **Though located outside of the half-mile walkshed, 40th Ave between S Fulton St and Clayton St lacks a sidewalk on the north side, creating hazards for pedestrians.**
- **The section of Jackson St is a low-stress street for bicyclists but has less than 3’ sidewalks, making travel for pedestrians less comfortable.**
- **Currently, Clayton St continues under the I-70 viaduct which is slated to be replaced by a highway cut as part of the Central 70 Project.**
- **This section of Jackson St is a low-stress street for bicyclists, but has less than 3’ sidewalks, making travel for pedestrians less comfortable.**
- **Head-in angled parking on the west side of Holly St between 23rd Ave and 35th Ave limits sightlines for drivers, creating potential conflicts with bicyclists.**
- **Though primarily a comfortable route for bicyclists, 40th Ave and Colorado Blvd is stressful. Combined with no sidewalk and a retaining wall that also the 3900 the narrow west-bound vehicle travel lane creates a pinch point.**
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Opportunities: Currently there are very few curb restrictions around the station apart from a couple of locations where there are no parking signs. Field observations revealed that people using the station park along E 42nd Ave either because the Park-n-Ride lot is full or to avoid paying for parking (see photo below). This could present an opportunity to apply time-based parking restrictions along 42nd Ave to manage parking and maintain available on-street parking for local businesses.

Challenges: There are a large number of curb cuts in the area, creating an unpleasant walking and biking environment.
TRANSIT FREQUENCY AND EXISTING TRAVEL PATTERNS

RTD routes serving the station:
- Route 40 - medium peak frequency
- Good local transit coverage in the area

DRCOG Walking, Biking, and Transit Trips:
- DRCOG Model shows high levels of walking, biking and transit trips in residential areas, lower in industrial areas

RTD Transit Routes
Average maximum weekday wait time during peak periods (Spring 2018)
- Every 10 Minutes or Better
- Between Every 10 and 15 Minutes
- Between Every 15 and 30 Minutes
- Between Every 30 and 60 Minutes
- Every 60 Minutes or More

DRCOG FOCUS Model
Average weekday daily walk, bike and transit trips as a percentage of total trips
- 0.0% - 5.2%
- 5.3% - 9.0%
- 9.1% - 12.9%
- 13.0% - 17.0%
- 17.1% - 28.0%

LAND OWNERSHIP

Land and Development Characteristics:
- Most land around the station is privately-owned
- RTD owns the Park-n-Ride land and some additional land to the west

Parcel Information
- RTD-Owned Parcels
- School
- Public-Owned Parcels
- Light Rail Station
- Privately-Owned Parcels

ASSESSING STATIONS
3 RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

NORTH ROUTE
The addition of bike lanes and sidewalks at key locations will provide comfortable and dedicated space for all non-motorized users to access the transit station. Specifically, striping bike lanes on 40th Ave will provide bicyclists with dedicated space on-street, eliminating potential conflicts with pedestrians on the sidewalk, particularly in the east-bound direction where the sidewalk is only five feet wide. Constructing sidewalks on 40th Ave between St Paul St and Clayton St will significantly improve the pedestrian experience and will accommodate people using wheelchairs or strollers.

SOUTHEAST ROUTE
Widening the sidewalks on Jackson St to a minimum of five feet will create a more comfortable pedestrian environment and will provide sufficient space for people using wheelchairs or strollers so that they may access the transit station. Striping bike lanes on 35th Ave east of Colorado Blvd will eliminate the current pinch-point and provide bicyclists with dedicated space at a stressful intersection, thereby creating a comfortable connection across Colorado Blvd to the transit station.

RAIL STATION IMPROVEMENTS

- Plant shade trees
- Add wayfinding signage at the entrance to the shared-use path

RECOMMENDATIONS FOR ASSESSED ROUTES

- Bicycle spot improvement
- Construct new sidewalk
- Stripe bike lanes
- Reconstruct sidewalk as a shared-use path
- Low-stress existing route (No change)

EXISTING CONDITIONS

Bicycle Facilities
- Route/Shared Rd
- On-Street Dedicated
- Off-Street

Transit
- Bus Stop
- Bus Route
- Park-n-Ride

Destinations
- Healthcare/Medical Facility
- School
- Activity Generator
- Park
CURBSIDE MANAGEMENT RECOMMENDATIONS

- Currently there is significant unrestricted parking along E 42nd Avenue and N Monroe St. As development occurs in the future, it will be important to manage this parking more closely.

- The existing cul-de-sac at the northern terminus of Jackson Street could be formally signed and marked for pick-ups/ drop-offs.
## OVERALL RECOMMENDATIONS

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First and Last Mile General Guidance</strong></td>
<td>Improve pedestrian infrastructure: install sidewalks where lacking on 40th Ave</td>
<td>A complete sidewalk network will increase pedestrian comfort and accommodate wheelchair users and people with strollers.</td>
<td>A complete sidewalk network will increase pedestrian access and comfort.</td>
<td>High</td>
<td>City and County of Denver</td>
</tr>
<tr>
<td></td>
<td>New Infrastructure</td>
<td>Multimodal wayfinding signage: install signage at the shared use path where it intersects with the Park-n-Ride</td>
<td>Without signage it is unclear where the shared use path leads.</td>
<td>More people traveling to or from east of Colorado Blvd will save time by using the shared use path.</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Programmatic</td>
<td>Commuter tax benefits</td>
<td>Employers have the ability to offer pre-tax commute benefits to employees. Section 1.132-9 of the IRS code allow employees to use up to $260 per month in pre-tax money to pay for their parking, transit and vanpool fares (2018 limits). Ensure that these commute benefits are being fully implemented by employers near transit stops and stations.</td>
<td>Increased number of employees who take transit rather than drive to work</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Programmatic</td>
<td>Promotion of low-income or senior discount transit passes</td>
<td>Promote the low income transit pass, provide an opportunity for people to try transit for free before committing to the pass.</td>
<td>Raises awareness among existing residential communities about new transit options and improves financial accessibility</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Transportation Demand Management</td>
<td>New resident and employee transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micromobility infrastructure: stripe bike lanes on 40th Ave and 35th Ave</td>
<td>Bike lanes on 40th Ave will provide bicyclists and micromobility device users with dedicated space on a street that leads to the light rail station, while reducing the potential for conflicts with pedestrians on the sidewalk. Bike lanes on 35th Ave at the intersection with Colorado Blvd will eliminate a pinch-point for bicyclists.</td>
<td>Dedicated space will provide a safe and comfortable route for bicyclists and micromobility device users to access the station, while improving pedestrian comfort as well.</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: widen sidewalks on Jackson St</td>
<td>Sidewalks that are less than five-feet wide cannot adequately accommodate people using wheelchairs and strollers.</td>
<td>Adequate pedestrian facilities will increase pedestrian access and comfort.</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Curbside management plan</td>
<td>Provide clear designation of curbside for transit, TNCs, pick-ups and drop-offs. Designate special pick-up and drop-off areas for taxis, and transportation network companies, such as Uber and Lyft, and micro-transit providers. The areas can also be used by carpools or vanpools dropping off travelers employees.</td>
<td>Eliminates conflicts between pick-ups and drop-offs and through traffic as well as pedestrians and cyclists near the station.</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Preferential parking for carpool and vanpool vehicles</td>
<td>Provide preferential parking for carpools and vanpools. This can be close to the transit service location, covered, or otherwise preferable.</td>
<td>Ensures efficient use of limited parking capacity at the station</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>New Infrastructure</td>
<td>Bicycle and micromobility parking</td>
<td>Continue to add bicycle and micromobility parking as demand increases.</td>
<td>Increased non-automobile access to the station</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>New Infrastructure</td>
<td>Transit oriented development</td>
<td>Additional residential and mixed-use developments near the station increase the number of residents and employees who can ride transit.</td>
<td>Increased number of residents and employees within walking distance of the new station.</td>
<td>Medium</td>
</tr>
</tbody>
</table>
### OverAll Recommendations (cont.)

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
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<tr>
<td><strong>New Infrastructure</strong></td>
<td>Wayfinding signage and transit vicinity map</td>
<td>People may be less likely to walk or bike to/from the station if they do not know how to access it. As this area is adding residential and mixed uses to the predominantly industrial and commercial uses around the station, pedestrian wayfinding signage will be important to direct people to the station.</td>
<td>People may be more likely to walk or bike to/from the station if the safest, most comfortable routes are clear and easy to follow.</td>
<td>Medium</td>
<td>RTD, City and County of Denver</td>
</tr>
<tr>
<td><strong>Programmatic</strong></td>
<td>Dynamic carpooling to transit</td>
<td>Facilitate or market dynamic carpool matching through services like Waze Carpool, Scoop and SPLT for rides to and from transit stations. Dynamic carpool matching and dispatch significantly increase the number of people using carpooling, in part by getting around some of the reasons traditional carpools may be unappealing (such as having to ride with the same group of people every day). Companies like Waze, Scoop and others can create neighborhood areas or pool employees from specific work-sites for improved access to the transit service location. Ideally carpoolers will be guaranteed a parking space that is close to bus and rail loading areas at their preferred park and ride</td>
<td>Increased access from neighborhoods and employers outside of walking distance.</td>
<td>Medium</td>
<td>DRCOG, NETC</td>
</tr>
<tr>
<td><strong>Improvements and Reuse of Existing Infrastructure</strong></td>
<td>Car share parking</td>
<td>Provide parking for car sharing vehicles within the transit service location. Spaces should be in areas with high visibility that are accessible to transit riders and employees who work and/or live nearby.</td>
<td>Providing high-visibility spaces for car share vehicles will encourage their use by transit customers and potential transit customers who may be more likely to use transit if they have access to a car share vehicle for some trips throughout their day.</td>
<td>Low</td>
<td>RTD</td>
</tr>
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<td>Commuter Expert or Commuter Buddy Program</td>
<td>Implement a program where expert commuters at an employer or residential location show people how to use transit and/or volunteer to ride with them the first time on their route.</td>
<td>Increased awareness among current nearby residents of the new service and how to access it.</td>
<td>Low</td>
<td>NETC</td>
</tr>
<tr>
<td><strong>Programmatic</strong></td>
<td>Parking cash-out</td>
<td>Encourage employers to offer cash payments to employees who agree to not use on-site, employer-provided parking. This can be an alternative to charging for parking should that be impractical or infeasible. Employers that provide cash-out can often realize cost savings when parking spaces are leased or where parking is overutilized.</td>
<td>Increased number of employees who take transit rather than drive to work</td>
<td>Low</td>
<td>NETC</td>
</tr>
<tr>
<td><strong>Transportation Demand Management</strong></td>
<td>Bicycling workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Encourages bicycling use and safety when accessing stations</td>
<td>Low</td>
<td>NETC</td>
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<td><strong>Transportation Demand Management</strong></td>
<td>Complimentary shared amenities</td>
<td>This strategy encompasses low-cost shared amenities offered by employers that encourage walking or biking for mid-day trips, even in inclement weather. They can include shared umbrellas, ponchos, bike lights, rain covers for bike seats and bags/backpacks and other items that can be borrowed when needed. Bike pumps and simple repair tools are another example of shared amenities that promote and facilitate biking to transit.</td>
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<td>Increased access to the station from surrounding neighborhoods and employers</td>
<td>Low</td>
<td>City and County of Denver</td>
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The chart is intended to be a simple guide and each of the recommendations should be investigated in more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the 40th and Colorado station include:

- Develop a curbside management plan to ensure all modes have adequate access to this station.
- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Promotion of low-income transit pass, as this location has historically vulnerable populations.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Preferential carpool parking for carpool or vanpool vehicles to encourage access by higher occupancy vehicles.
- Promote a dynamic carpool program to provide a flexible and sustainable transportation service to the transit location.
- Provide bicycle end-of-trip facilities, such as a bicycle repair station.
- Promote parking cash-out, for employees to cash out of their employer provided parking to use transit instead.
- Promotion of commuter tax benefits to ensure employees and employers alike understand the range of benefits available.
- Develop a Transportation Coordinator Network to encourage transit use among employees and employers.

**IMPLEMENTING AGENCIES**

This station is situated in the City and County of Denver, as such it is suggested that Denver should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

This station falls within the Northeast Transportation Connections (NETC) TMA area. It is suggested that the TMA take the lead on TDM recommendations with support from RTD.
STATION ANALYSIS:
US 36 & Broomfield Station
STATION ANALYSIS
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   • Active Transportation Analysis
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3 RECOMMENDATIONS....................................1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
US 36 & Broomfield Station is located on a key transit corridor (US 36) which includes numerous transit routes between Boulder and Denver. US 36 itself creates a physical barrier to accessing the station, although a pedestrian bridge does link the east and west sides. The BNSF railroad creates an additional barrier. The Park-n-Ride structure has a 60% annual average daily utilization.

The surrounding area is a mix of residential, employment, and other land use types, and the station falls in the suburban-mixed typology. The population around the station generally includes high income family-oriented communities. The 1st Bank Center acts as an attractor for major events. The majority of people currently access the station by driving, either parking and accessing transit, or being dropped off. However, 38% of survey respondents walked to the station. Bicycling access to/from the station is also viable due to the proximity of the US 36 Bikeway. In addition a rail station is planned for 116th Ave at the Railroad for the future B-Line (Northwest Rail) 1/4 of a mile to the east of US 36 & Broomfield Station.

The surrounding area is a mix of residential, employment, and other land use types, and the station falls in the suburban-mixed typology. The population around the station generally includes high income family-oriented communities. The 1st Bank Center acts as an attractor for major events. The majority of people currently access the station by driving, either parking and accessing transit, or being dropped off. However, 38% of survey respondents walked to the station. Bicycling access to/from the station is also viable due to the proximity of the US 36 Bikeway. In addition, a rail station is planned for 116th Ave at the Railroad for the future B-Line (Northwest Rail) 1/4 of a mile to the east of US 36 & Broomfield Station.

The station is currently served by:
- Local Bus: 76, 112, 120, 128, 225, 225D, 228
- Regional Bus: FF1, FF3, FF4, FF5, FF6, LD1, LD2
- FlexRide: Broomfield and Interlocken/Westmoor

A half-mile walkshed was generated for this station. A half-mile (or 10 minute) walkshed depicts how far a person can walk or roll from a transit station entrance along existing sidewalks. At this station, walkshed coverage* of 42% highlights the much better sidewalk network on the west side of the station than the east side.

**TRANSIT RIDERSHIP**

2017 Average Daily Weekday Bus Boardings & Alightings: 3,349

**ACTIVE TRANSPORTATION**

A half-mile walkshed was generated for this station. A half-mile (or 10 minute) walkshed depicts how far a person can walk or roll from a transit station entrance along existing sidewalks. At this station, walkshed coverage* of 42% highlights the much better sidewalk network on the west side of the station than the east side.

**COMMUTING SOLUTIONS TMA**

Bike lanes along Main St northeast of the station.

**1ST BANK CENTER**

Bike lanes along Main St northeast of the station.

**1ST BANK CENTER**

1stBank Center is located immediately south of the station.

**PARKING**

There are 987 RTD parking spaces at this location, with 60% average parking utilization. The Park-n-Ride structure is shared with the 1st Bank Center. Another parking structure is planned for the Eastside of the station for additional 870 spaces per FasTracks and NAMS.

**STATION JURISDICTION**

This station is located within the City and County of Broomfield.

**OVERLAYS**

**HIGH VISITORS:** Due to the 1st Bank Center being in close proximity to the station.

**HIGH PROPENSITY TO CHANGE:** Contained within DRCOGs Urban Centers as a location with high propensity to change.

*Walkshed coverage was calculated using a geographic information system (GIS) by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network, and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.
## STATION AREA CONTEXT

This section includes a description of the demographics and travel patterns of the surrounding station area. All data sources included within this section are universally available throughout the region. The aim of the demographic and travel pattern data is to provide insight into current travel demands, patterns and opportunities to improve first and last mile connectivity.

Demographic and travel pattern data within this section includes:

- Census Data (2015): Data collected and analyzed from OnTheMap which includes LEHD (Longitudinal Employer-Household Dynamics) data, annually updated. Data for the year 2015 was most recent available at time of writing.
- RTD On-Board Survey (2015): The RTD On-Board Survey is an annual survey conducted on RTD services.
- Tapestry Segmentation Data (2018): Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by Esri.
- Context Map: Provides a snapshot of the situation of the station or service location with regards to the immediate surrounding area.

1 For more information about OnTheMap and associated data sources, use this link: https://onthemap.ces.census.gov.
2 For more information about Esri Tapestry data, use this link: https://www.esri.com/en-us/arces/products/tapestry-segmentation/overview.
3 For more information about DRCOG’s Focus Model, use this link: https://drcog.org/services-and-resources/data-maps-and-modeling/travel-modeling/focus-travel-model.

## CENSUS DATA (2015)

The maps below show the concentration of population and employment within a 2-mile buffer of the station. Most population in the area is concentrated to the northeast of the station, though there have been significant new residential developments built at Arista Place since 2010. Jobs are mostly clustered to the northwest at Interlocken, with additional jobs to the west at Westminster.

## RTD ON-BOARD SURVEY DATA (2015)

According to the survey, driving alone is the most commonly reported mode of accessing the station for both arriving and departing trips. This is followed by walking, being dropped off or picked up, and biking. This regional bus station has twice as high a rate of driving alone to access the station compared to the average for all RTD rail stations. This survey was conducted prior to the opening of the Flatiron Flyer. The AM and PM peaks from 7-10am and 4-7pm cumulatively accounted for the majority of boardings, however, the off-peak are relatively high in comparison to other stations.

## TAPESTRY (ESRI) DATA (2018)

Below are the three largest Tapestry Segments in the 80020 zip code around US 36 & Broomfield Station:

1. **Soccer Moms**
   - 24%
   - Household Income: $60k - $81k
   - Housing Type: Multi-Unit; Single Family
   - Education: College Degree
   - Race: White
   - Employment: Prof/Mgmt; Svcs/Prof/Constr
   - Lifestyle: Rooted Rural

2. **Home Improvement**
   - 11%
   - Household Income: $23k - $41k
   - Housing Type: Single Family
   - Education: HS Diploma Only/GED
   - Race: White
   - Employment: Svcs/Admin/Prof
   - Lifestyle: Wells Fargo

3. **Professional Pride**
   - 9%
   - Household Income: $60k - $81k
   - Housing Type: Multi-Unit Rentals
   - Education: College Degree
   - Race: White
   - Employment: Prof/Mgmt; Svcs/Admin/Prof
   - Lifestyle: Wells Fargo

4. **Sports Enthusiast**
   - 7%
   - Household Income: $72k - $90k
   - Housing Type: High-Density Apts; Multi-Unit Rentals
   - Education: HS Diploma Only/GED
   - Race: White
   - Employment: Svcs/Admin/Prof
   - Lifestyle: Wells Fargo

5. **Family Foundations**
   - 6%
   - Household Income: $60k - $72k
   - Housing Type: Multi-Unit Rentals
   - Education: HS Diploma Only/GED
   - Race: White
   - Employment: Svcs/Admin/Prof
   - Lifestyle: Wells Fargo

6. **Lending Hand**
   - 5%
   - Household Income: $72k - $90k
   - Housing Type: High-Density Apts
   - Education: HS Diploma Only/GED
   - Race: White
   - Employment: Svcs/Admin/Prof
   - Lifestyle: Wells Fargo

7. **Vital Core**
   - 4%
   - Household Income: $72k - $90k
   - Housing Type: High-Density Apts
   - Education: HS Diploma Only/GED
   - Race: White
   - Employment: Svcs/Admin/Prof
   - Lifestyle: Wells Fargo
CONTEXT MAP

This map shows the location of the Park-n-Ride with regards to surrounding land uses and transportation connections.

The US 36 & Broomfield Park-n-Ride is located off of US 36 just south of W 120th Ave (State Highway 128) and a short walk from the 1stBank Center.
ACTIVE TRANSPORTATION ANALYSIS

NORTHEAST ROUTE
Opportunities: Leading to the pedestrian bridge on the east side of US 36, Allison St is a low-stress street for pedestrians and bicyclists alike. Bike lanes on Commerce St and Main St, and paved shoulders on 10th Ave, provide a reasonable level of comfort for most bicyclists. Once complete, bike lanes and wide sidewalks on the SH 128 extension will provide a more direct route to the transit station from 120th Ave, but without a buffer, bicyclists will not have adequate separation from six lanes of traffic.

Challenges: 120th Ave west of US 287 has no sidewalks and only gravel shoulders, forcing bicyclists to ride in the travel lane. To the east, 120th Ave merges with US 287 and lacks sidewalks at places in the east-bound direction. There are also railroad tracks to the east of the station that create a barrier. In addition, there are significant distances between signalized intersections, making it difficult to cross the road safely.

WEST ROUTE
Opportunities: Wide paths within the walkshed provide are comfortable for pedestrians and can accommodate bicyclists. Some streets also have bike lanes, providing an additional option for confdent bicyclists.

Challenges: The lack of bicycle facilities on portions of 120th Ave and Jeffco Airport Ave make travel less than comfortable for bicyclists.

GENERAL FINDINGS
• 120th Ave is one of few routes for people wishing to access destinations northeast of the station, but it is a significant obstacle for pedestrians and bicyclists due to inadequate facilities.
• Pedestrian and bicycle facilities are generally comfortable within the walkshed, but become less comfortable or are lacking entirely further aeld.
• Opportunity to improve Allison, Commerce BNSF crossing and Nickel to Midway with bike lanes and low-stress path option.
• 1st Street, 3rd Street and Midway could be looked at for enhancement
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Opportunities: Future Arista Place development phases could provide an opportunity to dedicate space for additional curbside uses such as transit, loading and unloading, or bike corrals. If there is a demand for it, the existing unrestricted parking on the north-south streets could be reprogrammed for passenger loading and unloading or time-based parking restrictions.

Challenges: Existing unrestricted parking could start to get occupied by RTD patrons as further development and parking demand arises.

Note: There are currently 1,500 parking spaces in the Arista Place garage, with 987 reserved for RTD Park-n-Ride customers and the remaining 513 for Arista Place tenants or visitors or for event attendees at 1st Bank Center. As is the case for most RTD Park-n-Rides, the first 24 hours for patrons with in-district plates are free. After the first 24 hours, fees apply at this location.
RTD FIRST LAST MILE PLAN

ASSESSING STATIONS

TRANSIT FREQUENCY AND EXISTING TRAVEL PATTERNS

RTD routes serving the station:
- Good north-south service frequency
- Good local transit coverage in the area
DRCOG Walking, Biking, and Transit Trips:
- DRCOG Model shows medium levels of walking, biking, and transit trips

DRCOG FOCUS Model
Average weekday daily walk, bike and transit trips as a percentage of total trips
- Every 10 Minutes or Better
- Between Every 10 and 15 Minutes
- Between Every 15 and 30 Minutes
- Between Every 30 and 60 Minutes
- Every 60 Minutes or More

LAND OWNERSHIP

Land and Development Characteristics:
- Most land around the station is privately-owned
- RTD owns some of the land in the immediate vicinity of the station, and maintains a shared-use agreement for the parking garage to the west of the station

Parcel Information
- RTD-Owned Parcels
- School
- Public-Owned Parcels
- Light Rail Station
- Privately-Owned Parcels
RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

NORTHEAST ROUTE
Currently, 120th Ave is highly uncomfortable for bicyclists and pedestrians wishing to access the station from the northeast. Reconstructing 120th Ave’s existing eight-foot sidewalk to a ten-foot shared-use path will provide greater separation adjacent to parking lots where vehicles currently tend to encroach on the sidewalk. Striping bike lanes on 120th Ave west of Vance St, or connecting to the proposed bike lanes on the (currently under construction) State Highway 128 extension, will complete the route.

WEST ROUTE
Installing a sidewalk on a small section of Arista Pl will complete a comfortable route for pedestrians to and from the station. Constructing new shared-use paths along the remainder of the route along Jeffco Airport Ave and 120th Ave will allow bicyclists to safely access the station from the west, with the added benefit of providing space for pedestrians where few sidewalks currently exist.

PARK-N-RIDE IMPROVEMENTS

Add additional wayfinding at the pedestrian bridge entrance and exits

RECOMMENDATIONS FOR ASSESSED ROUTES

- Bicycle spot improvement
- Install buffered or separated bike lanes
- Construct new shared-use path
- Reconstruct sidewalk as a shared-use path
- Construct new sidewalk
- Low-stress existing route (No change)

EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Bicycle Facilities</th>
<th>Transit</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route/Shared Rd</td>
<td>Bus Stop</td>
<td>Healthcare/Medical Facility</td>
</tr>
<tr>
<td>(no dedicated facilities)</td>
<td></td>
<td>School</td>
</tr>
<tr>
<td>On-Street Dedicated</td>
<td>Bus Route</td>
<td>Activity Generator</td>
</tr>
<tr>
<td>Off-Street</td>
<td>Park-n-Ride</td>
<td>Park</td>
</tr>
</tbody>
</table>
CURBSIDE MANAGEMENT RECOMMENDATIONS

- As more portions of the Arista Place development are completed, a formally-designated Kiss-n-Ride-area on the west side of US 36 may become useful to organize pick-ups and drop-offs. This area should be situated in a prime location, as close as possible to transit loading/unloading. This may require taking a number of existing parking spaces and converting them into Kiss-n-Ride only drop-offs/pick-ups.
<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Infrastructure</td>
<td>Transit oriented development</td>
<td>Continued TOD ensures that residents and employees have easy access to transit and rely less on private vehicles for transportation.</td>
<td>More transit riders with walk access to the station</td>
<td>High</td>
<td>Developers, City and County of Broomfield</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Wayfinding signage and transit vicinity map</td>
<td>People may be less likely to walk or bike to/from the station if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the station if the safest, most comfortable routes are clear and easy to follow.</td>
<td>High</td>
<td>City and County of Broomfield, RTD</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Promotional events / fairs / challenges within station/transit location area</td>
<td>Promote events that encourage transit ridership. They can range from information tables at an employment site to regional month-long competitions or challenges that allow individuals and organizations to compete against each other. Targeted “Try It” days or weeks are another way to encourage transit use.</td>
<td>Increased awareness about transportation options.</td>
<td>High</td>
<td>Commuting Solutions</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Free event transit passes</td>
<td>Include free or discounted transit passes in the cost of tickets for large events and promote the free service.</td>
<td>Increased transit use by event attendees.</td>
<td>High</td>
<td>Commuting Solutions, RTD, City and County of Broomfield</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident and employee transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>High</td>
<td>Commuting Solutions</td>
</tr>
<tr>
<td>Transportation Service</td>
<td>RTD FlexRide</td>
<td>Provide additional marketing materials for the upgraded FlexRide service. For those traveling nearby to or from the station where fixed-route transit does not serve, FlexRide can fill the gap.</td>
<td>Passengers departing or arriving from the station will be more aware of an additional option for beginning or completing their journey without getting into a car and driving alone.</td>
<td>High</td>
<td>RTD</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Development of an EcoPass district</td>
<td>This station has a high level of employment in close proximity to the station. Development and marketing of an EcoPass district will encourage increased transit use.</td>
<td>Employees that live near to the station and currently do not use transit for their commute may consider switching to using transit if a lower cost annual EcoPass were available.</td>
<td>High</td>
<td>Commuting Solutions</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micromobility infrastructure: stripe bike lanes on 120th Ave</td>
<td>Bicycling on 120th Ave west of Vance St is not comfortable without dedicated space or a shoulder.</td>
<td>Bicyclists’ and micromobility device users’ safety and comfort will increase.</td>
<td>Medium</td>
<td>City and County of Broomfield</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian and bicycle/micromobility infrastructure: construct shared use paths adjacent to high-speed roads</td>
<td>No sidewalks or narrow sidewalks do not comfortably accommodate pedestrians; high traffic volumes and speeds make riding on-street uncomfortable.</td>
<td>Pedestrian, bicyclists, and micromobility device users’ access and comfort will improve.</td>
<td>Medium</td>
<td>City and County of Broomfield</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Car share parking</td>
<td>Provide parking for car sharing vehicles within the transit service location. Spaces should be in areas with high visibility that are accessible to transit riders and employees and residents who work and/or live nearby. Car share should be encouraged to be implemented at Arista.</td>
<td>Providing high-visibility spaces for car share vehicles will encourage their use by transit customers and potential transit customers who may be more likely to use transit if they have access to a car share vehicle for some trips throughout their day.</td>
<td>Medium</td>
<td>RTD</td>
</tr>
</tbody>
</table>
### OVERALL RECOMMENDATIONS (CONT.)

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
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<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Preferential parking for carpool and vanpool vehicles</td>
<td>Provide preferential parking for carpools and vanpools. This can be close to the transit service location, covered, or otherwise preferable.</td>
<td>Improve access for carpools or vanpools.</td>
<td>Medium</td>
<td>RTD</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Prioritization of RTD owned land or transit parking</td>
<td>Reallocate RTD owned land or parking spaces closest to the transit station platform/transit stop to other modes of transportation or shared mobility.</td>
<td>Prioritization of non-drive alone modes will increase the use of those modes and maximize infrastructure investment.</td>
<td>Medium</td>
<td>RTD</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Bicycle and micromobility parking</td>
<td>As demand grows, it is important to ensure that parking remains available for bicycles and micromobility devices, particularly at Arista.</td>
<td>Sufficient parking encourages the use of bicycles and micromobility devices to access transit.</td>
<td>Medium</td>
<td>RTD</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Dynamic carpooling to transit</td>
<td>Facilitate or market dynamic carpool matching through services like Waze Carpool, Scoop and SPLT for rides to and from transit stations. Dynamic carpool matching and dispatch significantly increase the number of people using carpooling, in part by getting around some of the reasons traditional carpools may be unappealing (such as having to ride with the same group of people every day). Companies like Waze, Scoop and others can create neighborhood areas or pool employees from specific work-sites for improved access to the transit service location. Ideally carpoolers will be guaranteed a parking space that is close to bus and rail loading areas at their preferred park and ride.</td>
<td>Increased access from neighborhoods and employers outside of walking distance. Build upon current Commuting Solutions dynamic carpooling pilot which started in 2019.</td>
<td>Medium</td>
<td>Commuting Solutions</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: construct new sidewalk on Arista Pl</td>
<td>A lack of a sidewalk on one block of Arista Pl leaves a gap in the pedestrian network.</td>
<td>Pedestrian access and comfort will improve.</td>
<td>Low</td>
<td>Developer, City and County of Broomfield</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Innovative Park-n-Ride Management</td>
<td>Long-term, managing parking demand at the station may benefit from demand-based pricing and real-time parking information.</td>
<td>Efficient use of existing parking facilities.</td>
<td>Low</td>
<td>RTD</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Multimodal wayfinding signage: install wayfinding signage at the pedestrian bridge</td>
<td>Additional signage could help guide transit users to destinations near the Park-n-Ride.</td>
<td>People will quickly and easily find their way to and from the Park-n-Ride and the various bus stops.</td>
<td>Low</td>
<td>City and County of Broomfield, RTD</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycling workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Encourages bicycling use and safety when accessing stations.</td>
<td>Low</td>
<td>Commuting Solutions</td>
</tr>
<tr>
<td>Transportation Service</td>
<td>Support implementation of micromobility services</td>
<td>In areas where the market is not already providing electric micromobility devices (e.g. Bird, Lime, Razor) sufficient to meet user demand, work with providers to support the deployment of devices around the transit service location. Incentives for private providers may include preferential/highly visible parking locations, subsidies, advertising, corrals to which vehicles can be reliably rebalanced, and access to standardized charging interfaces.</td>
<td>Increased access to the station from surrounding neighborhoods and employers.</td>
<td>Low</td>
<td>City and County of Broomfield</td>
</tr>
</tbody>
</table>
This chart provides a framework from which to categorize each of the recommendations into four categories. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated in more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the US 36 & Broomfield Station including:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Developing an EcoPass district to encourage surrounding employers and employees to commute using transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Preferential carpool parking for carpool or vanpool vehicles to encourage access by higher occupancy vehicles.
- Prioritization of RTD land or parking to other uses or modes.
- Provision of car share parking spaces for car share vehicles close to transit loading and boarding areas.
- Provide a dynamic carpool program to provide a flexible and sustainable transportation service to the transit location.
- Innovative Park-n-Ride management to allow RTD to try out new ways to manage the Park-n-Ride.

IMPLEMENTING AGENCIES

This station is situated in the City and County of Broomfield, as such it is suggested that Broomfield should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

This station falls within the Commuting Solutions TMA area. It is suggested that the TMA take the lead on TDM recommendations with support from RTD.
STATION ANALYSIS:
8th and Coffman
Park-n-Ride
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- Conclusion

## STATION ANALYSIS

### PROBLEM STATEMENT

### STATION ASSESSMENT

- **Station Area Context**
- **Active Transportation Analysis**
- **Curbside Management and Parking Analysis**
- **Transit and Land Ownership**

### RECOMMENDATIONS

- **Active Transportation**
- **Curbside Management and Parking**
- **Overall Recommendations**
- **Conclusion**
8th and Coffman Park-n-Ride is a bus station that falls within the suburban mixed typology in the City of Longmont. The surrounding area is characterized by a mix of employment and residential. Due to the park and ride being at the northern end of the District, many people drive long distances to park at the station.

The station is situated close to the center of Longmont, providing multimodal access to employment and other attractions in Longmont.

The station has excellent regional bus connectivity, providing good transit access to both Boulder and Denver. The station is located in downtown Longmont which has an excellent street grid network with sidewalks. This provides good access for walking, cycling and other forms of micro-mobility to the station. The station also has long term bike parking and good wayfinding.

It should be noted that Longmont has been subsidizing the full cost of a local transit fare since 2016.

<table>
<thead>
<tr>
<th>Overlays</th>
<th>2017 Average Daily Weekday Boardings &amp; Alightings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail Transit</td>
<td>N/A</td>
</tr>
<tr>
<td>Bus Transit</td>
<td>1,629</td>
</tr>
</tbody>
</table>

Walkshed coverage of 90% highlights a good network structure for walking, active transportation and micromobility. Walkshed coverage was calculated by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network (see page 1-6), and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.

Commuting Solutions and Smart Commute Metro North serve this station.

There are 97 Park-n-Ride spaces provided in a lot owned by the City of Longmont.

This station is located within the City of Longmont.
STATION ASSESSMENT

STATION AREA CONTEXT

This section includes a description of the demographics and travel patterns of the surrounding station area. All data sources included within this section are universally available throughout the region. The aim of the demographic and travel pattern data is to provide insight into current travel demands, patterns and opportunities to improve first and last mile connectivity. Demographic and travel pattern data within this section includes:

- **Census Data (2010, 2015)**: Data was collected at the census block-level from the 2010 Census for population and 2015 LEHD (Longitudinal Employer-Household Dynamics) data for jobs.
- **RTD On-Board Survey (2015)**: The RTD On-Board Survey is an annual survey conducted on RTD services, with station or stop data collected by surveying people arriving or departing from individual stops or stations.
- **Tapestry Segmentation Data (2018)**: Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by ESRI.
- **Context Map**: Provides a snapshot of the situation of the station or service location with regards to the immediate surrounding area.

**CENSUS DATA (2015)**

The maps below show the concentration of population and employment within a 2-mile buffer of the station. There is a relatively high population density around the station, and a cluster of jobs south of the station.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of 8th and Coffman Park-n-Ride. The majority of employees travel less than 10 miles to get to work, as seen in the chart below.

**Distance Traveled to Work For Employees Working Within 1-Mile Radius of 8th & Coffman Park-n-Ride**

- Less than 10 miles: 12.5%
- 10-24 miles: 27.1%
- 25-50 miles: 55.8%
- Greater than 50 miles: 4.6%

**RTD ON-BOARD SURVEY DATA (2015)**

The RTD On-Board Survey includes numerous survey questions and conducted on-board RTD services. The following data is taken from the on-board survey for travelers either starting or ending their trip at 8th and Coffman Park-n-Ride.

**TAPESTRY (ESRI) DATA (2018)**

Below are the three largest Tapestry Segments in the 80501 zip code around 8th and Coffman Park-n-Ride.

1. **Old and Newcomers** (24%)
   - **Prof/Svs College Degree**
     - White
   - Buy frozen foods
   - Shop online or in person
   - Volunteer, fundraise, recycle
   - Watch movies at home
   - View car or transportation only

2. **Front Porches** (15%)
   - **Svs/Prof/Admin HS Diploma Only/GED**
     - White
   - Go online for gaming, watching movies, employment searches
   - Price more important than brand
   - Play board games, video games
   - Watch Comedy Central, Nickelodeon, PBS Kids Sprout
   - Own 1 vehicle

3. **American Dreamers** (13%)
   - **Svs/Admin HS Diploma Only/GED**
     - White/Black
   - Own feature-rich cell phones
   - Spending money carefully, buy necessities
   - Pay bills, socialize online
   - Listen to urban or Hispanic radio
   - Eat at Taco Bell, Little Caesars, IHOP

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1 For more information about OnTheMap and associated data sources, use this link: [https://ontemap.ces.census.gov](https://ontemap.ces.census.gov)


3 For more information about DRCOG’s Focus Model, use this link: [https://drcog.org/services-and-resources/datas-maps-and-modeling/focus-travel-model](https://drcog.org/services-and-resources/datas-maps-and-modeling/focus-travel-model)
CONTEXT MAP
This map shows the location of the Park-n-Ride with regards to surrounding land uses and transportation connections.
The 8th and Coffman Park-n-Ride is located on the edge of Roosevelt Park, one block from Main St, which is also US Highway 287.
ACTIVE TRANSPORTATION ANALYSIS

NORTHWEST ROUTE
Opportunities: Bike lanes on Gay St and 23rd St are comfortable facilities for bicyclists. A wide right-of-way with relatively few vehicles parked on-street makes bicycling on 11th Ave reasonably comfortable as well. Within the walkshed, sidewalks are generally comfortable for pedestrians.

Challenges: Coffman St has relatively high traffic volumes and has a significant amount of on-street parking, making it somewhat stressful for bicyclists to navigate without bicycle facilities. A gradual incline near 3rd Ave results in vehicles attempting to pass north-bound bicyclists relatively frequently. A lack of sidewalks on 1st Ave and Coffman St between 1st and 2nd Ave is unaccommodating for pedestrians, and is further complicated by at-grade railroad crossings.

NORTHEAST ROUTE
Opportunities: Bike lanes on Collyer St and 4th Ave create a comfortable environment for bicyclists. Wide detached sidewalks make for a pleasant pedestrian environment on Main St.

Challenges: An offset intersection at Collyer St and 9th Ave is somewhat challenging to navigate for bicyclists. Five-foot sidewalks on a portion of Main St do not are insufficiently wide to accommodate both bicyclists and pedestrians.

GENERAL FINDINGS
- Coffman St provides access to business establishments along the Main St corridor and is significantly less stressful for bicyclists than Main St. However, it has sufficient vehicular traffic to make it less than comfortable to ride without any dedicated bicycle facilities.
- The lack of sidewalks or bicycle infrastructure on 1st Ave and Coffman St between 1st Ave and 2nd Ave creates an unfriendly environment for pedestrians and bicyclists.

<table>
<thead>
<tr>
<th>Level of Comfort Analysis</th>
<th>Bicycle Facilities</th>
<th>Transit</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Comfortable</td>
<td>Route/Shared Rd</td>
<td>Bus Stop</td>
<td>Healthcare/Medical Facility</td>
</tr>
<tr>
<td></td>
<td>(no dedicated bicycle)</td>
<td></td>
<td>Park</td>
</tr>
<tr>
<td></td>
<td>On-Street Dedicated</td>
<td></td>
<td>Activity Generator</td>
</tr>
<tr>
<td></td>
<td>Off-Street</td>
<td></td>
<td>Park</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stations</th>
<th>Bicycles</th>
<th>5’ sidewalks on north-bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus Stop</td>
<td></td>
<td>23rd Ave and S Main St</td>
</tr>
<tr>
<td>Park</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Includes bike parking capacities for the existing Bike-n-Ride shelter that is part of the Boulder County Bike-n-Ride Program.*
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Opportunities: The west side of Coffman Street is currently used as an on-street bus terminal serving several local and regional transit routes. It is also a bike route with existing sharrows. There is opportunity to improve transit and bicycle operations and access by clearly defining the space by striping a shared bus/bike lane next to the travel lane. There is also potential to provide passenger loading and unloading on the east side of Coffman Street or in the Park-n-Ride lot.
ASSESSING STATIONS

RTD FIRST LAST MILE PLAN

TRANSPORT FREQUENCY AND EXISTING TRAVEL PATTERNS

RTD routes serving the station:
- Routes 326, 327 - low peak frequency
- Good local transit coverage in the area

DRCOG Walking, Biking, and Transit Trips:
- DRCOG Model shows high walking, biking, and transit trips

RTD Transit Routes
Average maximum weekday wait time during peak periods (Spring 2018)
- Every 10 Minutes or Better
- Between Every 10 and 15 Minutes
- Between Every 15 and 30 Minutes
- Between Every 30 and 60 Minutes
- Every 60 Minutes or More

DRCOG FOCUS Model
Average weekday daily walk, bike and transit trips as a percentage of total trips
- 0.0% - 5.2%
- 5.3% - 9.0%
- 9.1% - 12.9%
- 13.0% - 17.0%
- 17.1% - 28.0%

LAND OWNERSHIP

Land and Development Characteristics:
- The City of Longmont owns the Park-n-Ride land
- RTD owns no land in the immediate vicinity of the station

Parcel Information
- RTD-Owned Parcels
- Public-Owned Parcels
- Light Rail Station
- Privately-Owned Parcels
3 RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

NORTHWEST ROUTE
Striping bike lanes on Coffman St will make it a comfortable route for bicyclists that runs adjacent to Main St, thereby providing access from the Park-n-Ride to the businesses along Main St (where bicycling on the sidewalks is prohibited and on-street bicycle facilities are infeasible) and vice versa. Installing sidewalks on Coffman St and Main St where they are currently nonexistent will improve pedestrian access to the proposed 1st and Main transit station improvements.

NORTHEAST ROUTE
The majority of the northeast route is comfortable; a few small improvements will make it a complete route. Adding a pedestrian/bicyclist-only scramble signal phase and striping bicycle crossings at Collyer St and 9th Ave (which is offset) will simplify crossing for non-motorized users, and will allow bicyclists to travel directly between the existing bike lanes. As redevelopment occurs, reconstructing the existing sidewalk on northbound Main St between 1st Ave and 2nd Ave as a shared-use path will provide sufficient space for both pedestrians and bicyclists, even if bicyclists are required to dismount.

PARK-n-RIDE IMPROVEMENTS

Consider adding bike lockers if the existing Bike-n-Ride shelter is at capacity.

RECOMMENDATIONS FOR ASSESSED ROUTES

- Bicycle spot improvement
- Construct new sidewalk
- Stripe bike lanes
- Reconstruct sidewalk as a shared-use path
- Low-stress existing route (No change)

EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Bicycle Facilities</th>
<th>Transit</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route/Shared Rd (no dedicated facilities)</td>
<td>Bus Stop</td>
<td>Healthcare/Medical Facility</td>
</tr>
<tr>
<td>On-Street Dedicated</td>
<td>Bus Route</td>
<td>School</td>
</tr>
<tr>
<td>Off-Street</td>
<td>Park-n-Ride</td>
<td>Activity Generator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Park</td>
</tr>
</tbody>
</table>

Striping bike lanes will be particularly helpful on the uphill section of Coffman St.
CURBSIDE MANAGEMENT RECOMMENDATIONS

- Access to the station could be improved by adding a crosswalk at the 8th and Coffman intersection to improve the safety and comfort for pedestrians. Further definition of Coffman St could be improved through adding dedicated bus/bike lanes for transit access.
## OVERALL RECOMMENDATIONS

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Infrastructure</td>
<td>Transit oriented development</td>
<td>Continued TOD ensures that residents and employees have easy access to transit and rely less on private vehicles for transportation.</td>
<td>More transit riders with walk access to the station</td>
<td>High</td>
<td>Developers, City of Longmont</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Wayfinding signage and transit vicinity map</td>
<td>People may be less likely to walk or bike to/from the station if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the station if the safest, most comfortable routes are clear and easy to follow.</td>
<td>High</td>
<td>City of Longmont, RTD</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Promotional events / fairs / challenges within station/transit location area</td>
<td>Promote events that encourage transit ridership. They can range from information tables at an employment site to regional month-long competitions or challenges that allow individuals and organizations to compete against each other. Targeted “Try It” days or weeks are another way to encourage transit use.</td>
<td>Increased awareness about transportation options.</td>
<td>High</td>
<td>Commuting Solutions, Smart Commute Metro North</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident and employee transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>High</td>
<td>Commuting Solutions, Smart Commute Metro North</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Improve bicycle and micromobility infrastructure: stripe bike lanes on Coffman St</td>
<td>Coffman St is a direct route to the Park-n-Ride, and is proximate to Main St, providing bicyclists and micromobility users with access to the businesses there. Without dedicated facilities, bicycling on Coffman St is less comfortable, due to relatively high traffic volumes, on-street parking, and driveways.</td>
<td>Dedicated space for bicyclists and micromobility device users will increase comfort for those accessing the Park-n-Ride.</td>
<td>High</td>
<td>City of Longmont</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Improve pedestrian infrastructure: construct sidewalks on Coffman St and Main St with development</td>
<td>Without sidewalks on portions of Coffman St and Main St, pedestrians lack full access to each block, something that will become increasingly important as development occurs.</td>
<td>A complete sidewalk network will increase pedestrian access and comfort.</td>
<td>High</td>
<td>City of Longmont</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Improve bicycle and micromobility infrastructure: install a bicycle crossing and ped/bike-only phase at Collyer St and 9th Ave</td>
<td>The offset of the streets complicates crossing for bicyclists and micromobility device users, reducing comfort.</td>
<td>Crossing the road for pedestrians, bicyclists, and micromobility device users will be easy and intuitive.</td>
<td>Medium</td>
<td>City of Longmont</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Car share parking</td>
<td>Provide parking for car sharing vehicles within the transit service location. Spaces should be in areas with high visibility that are accessible to transit riders and employees and residents who work and/or live nearby.</td>
<td>Providing high-visibility spaces for car share vehicles will encourage their use by transit customers and potential transit customers who may be more likely to use transit if they have access to a car share vehicle for some trips throughout their day.</td>
<td>Medium</td>
<td>RTD</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Preferential parking for carpool and vanpool vehicles</td>
<td>Provide preferential parking for carpools and vanpools. This can be close to the transit service location, covered, or otherwise preferable.</td>
<td>Improve access for carpools or vanpools.</td>
<td>Medium</td>
<td>RTD</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Bicycle and micromobility parking</td>
<td>As demand grows, it is important to ensure that parking remains available for bicycles and micromobility devices.</td>
<td>Sufficient parking encourages the use of bicycles and micromobility devices to access transit.</td>
<td>Medium</td>
<td>RTD</td>
</tr>
</tbody>
</table>
### OVERALL RECOMMENDATIONS (CONT.)

<table>
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<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programmatic</td>
<td>Dynamic carpooling to transit</td>
<td>Facilitate or market dynamic carpool matching through services like Waze Carpool, Scoop and SPLT for rides to and from transit stations. Dynamic carpool matching and dispatch significantly increase the number of people using carpooling, in part by getting around some of the reasons traditional carpools may be unappealing (such as having to ride with the same group of people every day). Companies like Waze, Scoop and others can create neighborhood areas or pool employees from specific work-sites for improved access to the transit service location. Ideally carpoolers will be guaranteed a parking space that is close to bus and rail loading areas at their preferred park and ride</td>
<td>Increased access from neighborhoods and employers outside of walking distance.</td>
<td>Medium</td>
<td>Commuting Solutions, Smart Commute Metro North</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Development of an EcoPass district</td>
<td>This station has a high level of employment in close proximity to the station. Development and marketing of an EcoPass district will encourage increased transit use.</td>
<td>Employees that live near to the station and currently do not use transit for their commute may consider switching to using transit if a lower cost annual EcoPass were available.</td>
<td>Medium</td>
<td>Commuting Solutions, Smart Commute Metro North</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycling workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Encourages bicycling use and safety when accessing stations</td>
<td>Low</td>
<td>Commuting Solutions, Smart Commute Metro North</td>
</tr>
<tr>
<td>Transportation Service</td>
<td>Support implementation of micromobility services</td>
<td>In areas where the market is not already providing electric micromobility devices (e.g. Bird, Lime, Razor) sufficient to meet user demand, work with providers to support the deployment of devices around the transit service location. Incentives for private providers may include preferential/highly visible parking locations, subsidies, advertising, corrals to which vehicles can be reliably rebalanced, and access to standardized charging interfaces.</td>
<td>Increased access to the station from surrounding neighborhoods and employers</td>
<td>Low</td>
<td>City of Longmont</td>
</tr>
<tr>
<td>New infrastructure</td>
<td>Secure long-term bike storage: consider adding additional bike parking</td>
<td>Bike lockers can provide additional long-term secure storage if the existing Bike-n-Ride shelter reaches capacity.</td>
<td>Everyone who wants to securely store their bikes at the Park-n-Ride is able to do so.</td>
<td>Low (as needed)</td>
<td>City of Longmont, Boulder County</td>
</tr>
</tbody>
</table>
This chart provides a framework from which to categorize each of the recommendations into four categories. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the 8th and Coffman Park-n-Ride including:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Provision of car share parking spaces for car share vehicles close to transit loading and boarding areas.
- Bicycle end of trip facilities and amenities, such as providing showers or bicycle repair stations, potentially in collaboration with local businesses

### IMPLEMENTING AGENCIES

This station is situated in the City of Longmont, as such it is suggested that the City should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

Commuting Solutions and Smart Commute Metro North serve this station and therefore it is suggested that they take the lead on TDM recommendations with support from RTD.
STATION ANALYSIS:
Wagon Road
Park-n-Ride
STATION ANALYSIS

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   • Active Transportation Analysis
   • Curbside Management and Parking Analysis
   • Transit and Land Ownership

3 RECOMMENDATIONS ..................................1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
Wagon Road Park-n-Ride is located between I-25 and Huron Street, south of W 120th Avenue in Westminster (Adams County), and near Northglenn and Thornton. Its location between several high volume and high speed roads results in a difficult environment for accessing the station by any other mode than driving. This Park-n-Ride is the northern-most station on I-25 in the District which makes it an end-of-line station and draws in RTD patrons from significant distances as compared to other stations in the District.

The Park-n-Ride is in a mixed-suburban location which includes several employment centers nearby. The station has one of the highest parking utilization rates of any Park-n-Ride facility in the District, with most people accessing the station by vehicle. At 94% average weekday utilization, the Park-n-Ride lot has the second highest parking capacity of any facility in the district with over 1,500 spaces. Users of the station most often travel in the peak travel periods.

High parking utilization provides an opportunity to increase carpooling access and other modes to the station. This station is in an area with a high historically vulnerable population, and these populations may rely more on transit and are less likely to own a private vehicle. The station serves early medical facilities, including Kaiser Permanente’s Westminster Offices and the Adams County Human Services Center. It is anticipated that some of their patients may require additional mobility assistance.

Other landuses around the station include employment centers, single-family and multi-family residential. Improvements to first and last mile connections will help between connect adjacent land uses and employment.

Many riders access downtown Denver from this station, with the majority of commuters traveling south.

Smart Commute Metro North TMA has a DRCOG TIP project called “Flexible Micro Transit Service & Mobility Options to Support the Underserved Workforce Needs in the North I-25 Area” which will further improve first and last mile access in this area.

### STATION OVERVIEW

The station is currently served by:

- Local Bus - 12, 8, 120, 128
- Regional Bus - 120X/122X, AA

The station is currently served by the Thornton FlexRide

### TRANSIT RIDERSHIP

2017 Average Daily Weekday Bus Boardings & Alightings: 4,525

### ACTIVE TRANSPORTATION

Walkshed coverage of 50% highlights an average network structure for walking, active transportation and micromobility, with I-25 representing a barrier to movement. Walkshed coverage was calculated by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network (see page 1-6), and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.

### PARKING

There are 1,540 RTD parking spaces at this location, with 94% annual average daily parking utilization.
2 STATION ASSESSMENT

STATION AREA CONTEXT

This section includes a description of the demographics and travel patterns of the surrounding station area. All data sources included within this section are universally available throughout the region. The aim of the demographic and travel pattern data is to provide insight into current travel demands, patterns and opportunities to improve first and last mile connectivity.

Demographic and travel pattern data within this section includes:

- Census Data (2015): Data collected and analyzed from OnTheMap which includes LEHD (Longitudinal Employer-Household Dynamics) data, annually updated. Data for the year 2015 was most recent available at time of writing.
- RTD On-Board Survey (2015): The RTD On-Board Survey is an annual survey conducted on RTD services.
- Tapestry Segmentation Data (2018): Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by Esri.
- Context Map: Provides a snapshot of the situation of the station or service location with regards to the immediate surrounding area.

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2 For more information about Esri Tapestry data, use this link: https://www.esri.com/en-us/arccgis/products/tapestry-segmentation/overview
3 For more information about DRCOG’s Focus Model, use this link: https://drcog.org/services-and-resources/data-maps-and-modeling/travel-modeling/focus-travel-model

CENSUS DATA (2015)
The maps below show the concentration of population and employment within a 2-mile buffer of the station.

There is a concentration of employment immediately adjacent to the station and residential all around the station.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of Wagon Road Park-n-Ride. The majority of employees travel less than 10 miles to get to work, as seen in the chart below.

Distance Traveled to Work For Employees Working Within 1-Mile Radius of Wagon Road Park-n-Ride

- Less than 10 miles
- 10-24 miles
- 25-50 miles
- Greater than 50 miles

RTD ON-BOARD SURVEY DATA (2015)
According to the survey driving alone is the most commonly-reported mode of accessing the station for both arriving and departing trips. This is followed by walking, being dropped off or picked up, and biking. Passengers are most likely to access the station by driving, with a rate far greater than the district average.

The AM and PM peak from 7-10am and 4-7pm accounted for the majority of boardings.

TAPESTRY (ESRI) DATA (2018)
Below are the three largest Tapestry Segments in the 80234 zip code around Wagon Road Park-n-Ride:

1 Young and Restless
   - 25%
   - Svcs/Prof
   - College Degree
   - White/Black

2 Soccer Moms
   - 23%
   - Prof/Mgmt
   - College Degree
   - White

3 In Style
   - 16%
   - Prof/Mgmt
   - College Degree
   - White

- Support arts, theater, concerts, museums
- Hold variety of investments, own financial planners
- Use coupons, mobile coupons
- Carry, use smartphones
- Partial to bio.models/compact vehicles
This map shows the location of the Park-n-Ride with regards to surrounding land uses and transportation connections.

The Wagon Rd Park-n-Ride is located just west of Interstate 25 on W 120th Ave.

**Bicycle Facilities**
- Off-Street

**Pedestrian Facilities**
- 10-minute Walkshed

**Transit**
- Bus Stop
- Bus Route

**Destinations**
- Park

120th Ave and Melody St Intersection

Eastbound 120th Ave approaching I-25
ACTIVE TRANSPORTATION ANALYSIS

NORTHEAST ROUTE
Opportunities: The Farmers Highline Trail provides a comfortable, well-signed connection between 120th Ave and Washington St.

Challenges: 120th Ave is a seven-to nine-lane arterial with sidewalks that do not provide a comfortable buffer for pedestrians and bicyclists from vehicles. The I-25 overpass is particularly uncomfortable given heavy traffic, lack of shade, and the amount of asphalt and concrete. A lack of well-designed crossings at the interstate on- and off-ramps creates additional conflict points for pedestrians and bicyclists. Washington St is a five-lane arterial. Conventional bike lanes exist, but are uncomfortable due to high traffic volumes and speeds.

SOUTHWEST ROUTE
Opportunities: 114th Ave and Melody Dr provide a low-stress route for pedestrians and bicyclists through residential neighborhoods. The roadway terminates at the Park-n-Ride but a trail connection enables access for non-motorized users. Eight-foot paths with landscaped buffers along Huron St and 112th Ave are usable bicycle routes along arterials with relatively high traffic volumes, despite being less than the current AASHTO 10’ standard for shared-use paths. Bike lanes on a portion of 112th Ave are an alternative for confident bicyclists.

Challenges: There is a lack of wayfinding signage to and from the Park-n-Ride and the southerly entrance at Melody Dr. In addition, there is very little wayfinding or infrastructure to direct bicyclists or pedestrians (including those walking from their cars) to the bus bays.

GENERAL FINDINGS

- There is a lack of wayfinding to and from the station.
- Arterials are generally navigable by bicyclists and pedestrians but those with conventional bike lanes or sidewalks that lack buffers are stressful due to exposure to heavy traffic volumes and speeds.
- Poorly designed crosswalks at the interstate overpass make that section of 120th Ave particularly stressful.

<table>
<thead>
<tr>
<th>Level of Comfort Analysis</th>
<th>Bicycle Facilities</th>
<th>Transit</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On-Street Dedicated</td>
<td></td>
<td>Healthcare/Medical Facility</td>
</tr>
<tr>
<td></td>
<td>Off-Street</td>
<td></td>
<td>School</td>
</tr>
<tr>
<td></td>
<td>Park Route</td>
<td></td>
<td>Activity Generator</td>
</tr>
<tr>
<td></td>
<td>Park Stop</td>
<td></td>
<td>Park</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STATION BICYCLE PARKING CAPACITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
</tr>
<tr>
<td>18</td>
</tr>
</tbody>
</table>
Opportunities: There is an opportunity to provide passenger loading and unloading space along the entrance on the north side of the Park-n-Ride. There is also an opportunity to implement a greater number of reserved spaces due to the high existing utilization of the lot.

Challenges: No existing dedicated passenger loading and unloading space. There is a high demand for parking at this location, so any changes that remove spaces would be politically challenging to implement.
**RTD First Last Mile Plan**

**Assessing Stations**

**Regional Transportation District (RTD)**

- City of Westminster
- City of Northglenn
- Town of Broomfield
- Colorado State Highway

**Light Rail Stations**

- RTD-Owned Parcels
- Public-Owned Parcels
- Privately-Owned Parcels

**Land and Development Characteristics**

- CDOT owns the Park-n-Ride land, and RTD leases it
- RTD owns smaller parcel adjacent to I-25

**Transit Frequency and Existing Travel Patterns**

- RTD Transit Routes
  - High frequency regional transit service
  - Good local transit coverage in the area
- DRCOG Walking, Biking, and Transit Trips:
  - DRCOG Model shows medium walking, biking and transit trips

**DRCOG FOCUS Model**

- Average weekday daily walk, bike and transit trips as a percentage of total trips

<table>
<thead>
<tr>
<th>Wait Time</th>
<th>Percentage of Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every 10 Minutes or Better</td>
<td>0.0% - 5.2%</td>
</tr>
<tr>
<td>Between Every 10 and 15 Minutes</td>
<td>5.3% - 9.0%</td>
</tr>
<tr>
<td>Between Every 15 and 30 Minutes</td>
<td>9.1% - 12.9%</td>
</tr>
<tr>
<td>Between Every 30 and 60 Minutes</td>
<td>13.0% - 17.0%</td>
</tr>
<tr>
<td>Every 60 Minutes or More</td>
<td>17.1% - 28.0%</td>
</tr>
</tbody>
</table>

**Parcel Information**

- RTD-Owned Parcels
- Public-Owned Parcels
- Privately-Owned Parcels
- School
- Light Rail Station

**DRCOG 2015 Average Weekday Daily Walk, Bike, and Transit Trips Percent of Total Trips**

- 0.0% - 5.2%
- 5.3% - 9.0%
- 9.1% - 12.9%
- 13.0% - 17.0%
- 17.1% - 28.0%

**Station 1-Mile Radius**

- Total Population: 22,252
- Total Employment: 53,080
- Total Average Weekday Daily Trips: 172,191
  - Trips made via driving (Drive alone, shared rides): 159,488
  - Trips made via walking, biking, or transit: 11,243
  - Percent driving: 93%
  - Percent walking, biking, or transit: 7%
  - Percent of 1-mile radius dedicated to surface parking: 21%
3 RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

NORTHEAST ROUTE
The trail and interstate underpass are comfortable facilities for bicyclists to access the transit station from the east, however, that route is likely too indirect for pedestrians. Adding landscaped buffers to 120th Ave along the interstate overpass will create a more comfortable direct connection for pedestrians to access the transit station.

SOUTH ROUTE
Within the walkshed, widening the sidewalks on Melody Dr to a minimum of five feet will better accommodate pedestrians who access the transit station from the north. For bicyclists, the route is already relatively low-stress, though wayfinding will be a key component of its effectiveness as a first-last mile connection.

PARK-N-RIDE IMPROVEMENTS

- Install wayfinding signage at the entrance and exit points of the Park-n-Ride, and in the parking lot itself to direct people to and from the bus bays
- Construct additional sidewalks or stripe pedestrians lanes in the parking lot to provide dedicated space for pedestrians

RECOMMENDATIONS FOR ASSESSED ROUTES

- Bicycle spot improvement
- Pedestrian spot improvement
- Install buffered or separated bike lanes
- Widen existing sidewalk
- Low-stress existing route (No change)
- Add a landscaped buffer with shade trees to sidewalk

EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Bicycle Facilities</th>
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<th>Destinations</th>
</tr>
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<td></td>
<td>Bus Route</td>
<td>Park</td>
</tr>
<tr>
<td></td>
<td>Rail Route</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Park-n-Ride</td>
<td></td>
</tr>
</tbody>
</table>
CURBSIDE MANAGEMENT RECOMMENDATIONS

- There is ample space along Melody Dr between 120th Ave and the bus terminal to program additional curb space uses such as a Kiss-n-Ride, or pick up and drop off area.

Existing unprogrammed curb space along Melody Dr north of bus terminal.
## OVERALL RECOMMENDATIONS

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Car share parking</td>
<td>Provide parking for car sharing vehicles within the transit service location. Spaces should be in areas with high visibility that are accessible to transit riders and employees and residents who work and/or live nearby.</td>
<td>Providing high-visibility spaces for car share vehicles will encourage their use by transit customers and potential transit customers who may be more likely to use transit if they have access to a car share vehicle for some trips throughout their day.</td>
<td>Low</td>
<td>RTD</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Preferential parking for carpool and vanpool vehicles</td>
<td>Provide preferential parking for carpools and vanpools. This can be close to the transit service location, covered, or otherwise preferable.</td>
<td>Improve access for carpools or vanpools.</td>
<td>High</td>
<td>RTD</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Dynamic carpooling to transit</td>
<td>Facilitate or market dynamic carpool matching through services like Waze Carpool, Scoop and SPLT for rides to and from transit stations. Dynamic carpool matching and dispatch significantly increase the number of people using carpooling, in part by getting around some of the reasons traditional carpools may be unappealing (such as having to ride with the same group of people every day). Companies like Waze, Scoop and others can create neighborhood areas or pool employees from specific work-sites for improved access to the transit service location. Ideally carpoolers will be guaranteed a parking space that is close to bus and rail loading areas at their preferred park and ride.</td>
<td>Increased access from neighborhoods and employers outside of walking distance.</td>
<td>Medium</td>
<td>Smart Commute Metro North (SCMN), DRCOG</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Promotional events / fairs / challenges within station/transit location area</td>
<td>Promote events that encourage transit ridership. They can range from information tables at an employment site to regional month-long competitions or challenges that allow individuals and organizations to compete against each other. Targeted “Try It” days or weeks are another way to encourage transit use.</td>
<td>Increased awareness about transportation options.</td>
<td>Medium</td>
<td>SCMN</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Development of an EcoPass district</td>
<td>This station has a high level of employment in close proximity to the station. Development and marketing of an EcoPass district will encourage increased transit use.</td>
<td>Employees that live near to the station and currently do not use transit for their commute may consider switching to using transit if a lower cost annual EcoPass were available.</td>
<td>Medium</td>
<td>SCMN, RTD</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycling workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Encourages bicycling use and safety when accessing stations.</td>
<td>Low</td>
<td>SCMN</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident and employee transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>Medium</td>
<td>SCMN</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Variable message signs on highways/interstates for information sharing</td>
<td>Use variable message signs to highlight the time savings and other benefits of using transit instead of driving. Examples include transit versus drive time, park and ride parking availability, and potential cost savings.</td>
<td>Travelers driving on the congested I-25 corridor choose to ride RTD instead.</td>
<td>High</td>
<td>CDOT</td>
</tr>
</tbody>
</table>
### OVERALL RECOMMENDATIONS (CONT.)

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<thead>
<tr>
<th>FLM Toolkit Theme</th>
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<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Service</td>
<td>Shuttle service</td>
<td>Provide a shuttle service to connect employees and residents to rail and high frequency bus stops in locations where regular transit service is not feasible. Shuttle services differ from on-demand micro-transit in that they travel a fixed route and provide scheduled service. They are better when service demand is higher or a sufficient fleet cannot be offered to support on-demand service. May be most appropriate when a specific employer or group of businesses in a geographically limited area are looking for last-mile solutions to boost transit commutes.</td>
<td>Improved access to and from the station from large employers or medical offices, in particular for populations with mobility challenges.</td>
<td>Medium</td>
<td>SCMN, Employers</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: install landscaped buffers on 120th Ave</td>
<td>High traffic volumes and speeds with no separation from traffic make walking on 120th Ave unpleasant and uncomfortable.</td>
<td>More people will walk, bike, or use micromobility devices to access the Park-n-Ride.</td>
<td>High</td>
<td>City of Westminster, City of Thornton, City of Northglenn, CDOT</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: widen sidewalks on Melody Dr</td>
<td>Sidewalks that are less than five feet wide are not comfortable for pedestrians and do not adequately accommodate people using wheelchairs or pushing strollers.</td>
<td>Pedestrian access and comfort will improve.</td>
<td>Medium</td>
<td>City of Westminster</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Multimodal wayfinding signage: install wayfinding signage within the Park-n-Ride and at its access points</td>
<td>A lack of wayfinding makes navigating to, from, and within the Park-n-Ride challenging</td>
<td>Navigation will be quick, easy, and intuitive.</td>
<td>High</td>
<td>City of Westminster, City of Northglenn, RTD</td>
</tr>
</tbody>
</table>
This chart provides a framework from which to categorize each of the recommendations into four categories. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the Wagon Road Park-n-Ride including:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Preferential carpool parking for carpool or vanpool vehicles to encourage access by higher occupancy vehicles.
- Provision of car share parking spaces for car share vehicles close to transit loading and boarding areas.
- Provide a dynamic carpool program to provide a flexible and sustainable transportation service to the transit location.
- Developing an EcoPass district to encourage surrounding employers and employees to commute using transit.

**IMPLEMENTING AGENCIES**

Recommended station area improvements are located within the Cities of Westminster, Northglenn, and Thornton, as such it is suggested that the City in which the improvement is located should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station, but also identify opportunities for multi-jurisdiction/agency partnership for implementation, where appropriate. This station falls within the Smart Commute Metro North TMA area. It is suggested that the TMA take the lead on TDM recommendations with support from RTD.
STATION ANALYSIS: Sheridan Station
STATION ANALYSIS

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1 PROBLEM STATEMENT ................................1-3

2 STATION ASSESSMENT .................................1-4
   • Station Area Context
   • Active Transportation Analysis
   • Curbside Management and Parking Analysis
   • Transit and Land Ownership

3 RECOMMENDATIONS ..................................1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
### 1. Problem Statement

Shriners Hospital is located on the W 6th Ave and has connections to numerous bus routes. The station is on a major vehicular thoroughfare (Hiltz Highway) but can also be accessed via a less busy route or on foot from the hospital and the surrounding neighborhoods. The hospital serves a wide range of patients, including children with complex medical needs, and the station is located in an area with high pedestrian activity.

#### Typology

<table>
<thead>
<tr>
<th>Station Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single Family</strong></td>
<td>College Degree</td>
</tr>
<tr>
<td><strong>Prefer SUVs, own luxury cars and own 3+ vehicles</strong></td>
<td>Support public TV/radio, stay connected via laptop, choose imported subcompact car</td>
</tr>
<tr>
<td>** Own 1–2 vehicles**</td>
<td>Eat at fast food, family restaurants, go hunting, fishing</td>
</tr>
</tbody>
</table>

### 2. Station Assessment

#### Station Area Context

The maps below show the concentration of population and employment within a 1-mile buffer of the W 6th Ave station. The area is a highly receptive environment for the station, and the station is located in the immediate vicinity of the hospital.

The U.S. Census data (processed using OnHousing) also shows the direction traveled to work for employees who live in the W 6th Ave station area. Employees who live less than 5 mi away from the station are less likely to drive alone, and there is a slight decrease in the number of those who walk or bike to work. For those who drive, there is a significant increase in the number of those who use public transportation or ride a bike to work.

**Station Jurisdiction**

The station is located within the City and County of Denver, and it directly serves the City of Lakewood.

---

**Station Overview**

- **Highly Visible and Accessible Population:**
  - People who live within 3 mi of the station.
  - **Ride-W, Walk, Bus, BRT, 5th Ave, or 10th Ave:**
- **Highly Accessible to Public Transportation:**
  - The station is accessible to public transportation.

**Active Transportation**

- **Taxi:**
  - People who use taxis as their primary mode of transportation.
- **Bus:**
  - People who use buses as their primary mode of transportation.

**Park Access**

- **Public Parking:**
  - People who access public parking near the station.
- **Private Parking:**
  - People who access private parking near the station.

**Station Management Association**

- **Board:**
  - People who are part of the station management association.

---

**Census Data (2010)**

- **Housing:**
  - People who own or rent their housing.
- **Median Income:**
  - Median income of people in the station area.
- **Median Age:**
  - Median age of people in the station area.
- **Median Education:**
  - Median level of education of people in the station area.
- **Race/Ethnicity:**
  - Race and ethnicity of people in the station area.
- **Income and Education:**
  - People who have a high income and high education.
- **Housing and Transportation:**
  - People who own or rent their housing and use public transportation.

---

**Additional Information**

- **Maps:**
  - Maps showing the concentration of population and employment within a 1-mile buffer of the W 6th Ave station.
- **Public Transportation:**
  - Information on the availability of public transportation.
- **Neighborhoods:**
  - Information on the neighborhoods surrounding the station.
ACTIVE TRANSPORTATION ANALYSIS

PORTLAND ROUTE

Opportunities: Located within walking distance of three stations, this residential area has an easy access to a bike shop and local grocery store. There is a bike lane on one-way residential street that connects to a bike shop, which is a combination facility that provides a connection from 19th Ave to the park, which is a bikeway residential street that also a designated bike trail.

Challenges: There is a lack of sufficient bicycle parking at any stations.

SOUTHWEST ROUTE

Opportunities: This route is accessible by bike via a bike lane that connects to the station. There is a bike lane on a one-way street that connects to the station.

Challenges: Biking is highly distressing to travelers by bike or bicycle. Parts of the route have bike lanes that are designed to accommodate both bicycles and pedestrians. The lack of bike lanes on one-way streets makes it difficult for cyclists to access the station.

GENERAL FINDINGS

- The total number of bicycle and pedestrian trips across 69 stations makes it possible for bicyclists and pedestrians to reach the station from the south.
- The lack of bike lanes or dedicated sidewalks, and the presence of bike lanes with no bike lane or bike path in some portions of Sheridan Blvd may make it difficult for cyclists to access the station from the south.
- Conventional bike lanes do not provide bicyclists with adequate separation from vehicular traffic at large intersections.
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Opportunities: Low utilization of the Park-n-Ride structure could present an opportunity for re-use. RTD will be leasing 600 parking spaces to a roadway TOD in 2020. There is also potential to provide passenger loading and unloading along the side of the parking structure.

Challenges: Lack of ideal space for passenger loading and unloading adjacent to the station.

CURBSIDE MANAGEMENT AND PARKING ANALYSIS

- Opportunities:
  - Low utilization of the Park-n-Ride structure could present an opportunity for re-use. RTD will be leasing 600 parking spaces to a roadway TOD in 2020. There is also potential to provide passenger loading and unloading along the side of the parking structure.

- Challenges:
  - Lack of ideal space for passenger loading and unloading adjacent to the station.

TRANSIT FREQUENCY AND EXISTING TRAVEL PATTERNS

- RTD Transit Routes
  - DRCOG Model shows high density of transit trips.
  - Every 10 Minutes or Better
  - Between Every 15 and 30 Minutes
  - Between Every 10 and 15 Minutes
  - Between Every 30 and 60 Minutes
  - Every 60 Minutes or More

- OG Walking, Biking, and Transit Trips:
  - DRCOG Model shows high walking, biking, and transit trips.
  - Between Every 10 and 15 Minutes
  - Between Every 15 and 30 Minutes
  - Between Every 30 and 60 Minutes
  - Every 60 Minutes or More

- Total Average Weekday Daily Trips: 172,191
- Total Employment: 53,080
- Percentage of trips made via walking, biking, or transit: 7%

- Average maximum weekday wait time during peak periods (Spring 2018):
  - RTD Transit Routes
    - Between Every 10 and 15 Minutes: 5.3% - 9.0%
    - Between Every 15 and 30 Minutes: 9.1% - 12.9%
    - Between Every 30 and 60 Minutes: 13.0% - 17.0%
    - Every 60 Minutes or More: 0.0% - 5.2%

- Average maximum weekday wait time during peak periods (Spring 2018):
  - OG Walking, Biking, and Transit Trips:
    - Between Every 10 and 15 Minutes: 5.3% - 9.0%
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- RTD Transit Routes
  - Average weekday daily with side and transit trips as a percentage of total trips:
    - 3.8% - 15.0%
    - 5.5% - 50.0%
    - 5.5% - 70.0%
    - 10.0% - 110.0%
    - 15.0% - 280.0%

- OG Walking, Biking, and Transit Trips:
  - Average weekday daily with side and transit trips as a percentage of total trips:
    - 3.8% - 15.0%
    - 5.5% - 50.0%
    - 5.5% - 70.0%
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- RTD First Last Mile Plan
  - RTD Transit Routes
    - RTD First Last Mile Plan
  - ASSESSING STATIONS
  - TRANSIT FREQUENCY AND EXISTING TRAVEL PATTERNS
  - LAND OWNERSHIP

RTD First Last Mile Plan

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- LAND OWNERSHIP

RTD First Last Mile Plan

RTD Transit Routes
- ASSESSING STATIONS
- TRANSIT FREQUENCY AND EXISTING TRAVEL PATTERNS
- LAND OWNERSHIP
RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

SOUTHWEST ROUTE

- Enhancing the sidewalks at 23rd and 25th Sts. to provide better connectivity for pedestrians and cyclists.
- Installing bike lanes along busy thoroughfares.

SOUTHEAST ROUTE

- Improving the bike infrastructure at 18th and 19th Sts. to provide better connectivity for cyclists.
- Installing bike lanes along busy thoroughfares.

OVERALL RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Category</th>
<th>Strategy</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install and evaluate dedicated bike lanes</td>
<td>Improve bike facilities in key locations</td>
<td>Increases safety and security of transit riders accessing the station at all times.</td>
</tr>
<tr>
<td>Provide additional curb ramps</td>
<td>Install curb ramps at key locations</td>
<td>Promotes the low-income transit pass, providing an opportunity for people to try using the service.</td>
</tr>
<tr>
<td>Provide bike lock stations</td>
<td>Install bike lock stations at key locations</td>
<td>Bicyclists' and micromobility device users' safety and security are improved.</td>
</tr>
<tr>
<td>Install bike racks</td>
<td>Install bike racks at key locations</td>
<td>Promotes the low-income transit pass, providing an opportunity for people to try using the service.</td>
</tr>
</tbody>
</table>

Add benches

Bicycle spot improvement

- Install new bike racks at key locations.
- Enhance bike infrastructure at key locations.

New infrastructure

- Install new bike racks at key locations.
- Enhance bike infrastructure at key locations.

Bicycle Facilities

- Add benches to key locations.
- Enhance bike infrastructure at key locations.

On-Street Dedicated Bike Lanes

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Medicaid

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Theme

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Improve bicycle or senior discount transit access

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

On-Street Dedicated Bike Lanes

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Low City and County Agencies

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Bike Route

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

RTD

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

City and County of Denver:

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Rail Route

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

TOD

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Medium West Corridor TMA

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Low City and County Agencies

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

To access station

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

On-Street Dedicated Bike Lanes

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

New infrastructure

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Theme

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.

Improve bicycle or senior discount transit access

- Install new bike lanes at key locations.
- Enhance bike infrastructure at key locations.
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<tr>
<th>Theme</th>
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<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic carpooling to transit</td>
<td>Facilitate or market dynamic carpool matching through services like Waze Carpool, Scoop and SPLT for rides to and from transit stations. Dynamic carpool matching and dispatch significantly increase the number of people using carpooling, in part by getting around some of the reasons traditional carpools may be unappealing (such as having to ride with the same group of people every day). Companies like Waze, Scoop and others can create neighborhood areas or pool employees from specific work-sites for improved access to the transit service location. Ideally carpoolers will be guaranteed a parking space that is close to bus and rail loading areas at their preferred park and ride.</td>
<td>Increased access to/from neighborhoods and employers, reduction of holding space.</td>
<td>Low</td>
<td>DRCOG, West Corridor TMA</td>
<td></td>
</tr>
<tr>
<td>Bicycle workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Encourages bicycling use and safety when accessing stations.</td>
<td>Low</td>
<td>West Corridor TMA</td>
<td></td>
</tr>
<tr>
<td>Support implementation of micromobility services</td>
<td>In areas where the market is not already providing electric micromobility devices (e.g. Bird, Lime, Razor) sufficient to meet user demand, work with providers to support the deployment of devices around the transit service location. Incentives for private providers may include preferential/highly visible parking locations, subsidies, advertising, corrals to which vehicles can be reliably rebalanced, and access to standardized charging interfaces.</td>
<td>Increased access to the station from surrounding neighborhoods and employers.</td>
<td>Low</td>
<td>City and County of Denver/ City of Lakewood, RTD</td>
<td></td>
</tr>
</tbody>
</table>

### OVERALL RECOMMENDATIONS (CONT.)

<table>
<thead>
<tr>
<th>Programmatic Dynamic</th>
<th>Overall Recommendations (Cont.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programmatic Dynamic</td>
<td>Bicycling workshops and courses</td>
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</tr>
<tr>
<td>Programmatic Dynamic</td>
<td>Support implementation of micromobility services</td>
</tr>
</tbody>
</table>

### CONCLUSION

This chart provides a framework from which to evaluate most of the recommendations into four categories: low effort/low impact, low effort/high impact, high effort/low impact, and high effort/high impact. Recommendations that fall within relatively low impact/high effort quadrants may provide the best opportunities in the near term. Recommendations that take relatively more effort for a relatively lower impact may take a bit more time to develop. The chart is intended to be a simple guide and each of the recommendations should be investigated in more thorough by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation, and the chart can be compared to the Quick Wins for Sheridan Station including:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- Promotion of low-income or senior transit passes, as this location has historically vulnerable populations.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Provide a dynamic carpool program to provide a flexible and sustainable transportation service to the transit location.
- Encourage round-trip car share to provide an option to people who may not own a vehicle.
- Car share parking to provide spaces for car share vehicles nearby transit loading and unloading.

### IMPLEMENTING AGENCIES

The station is situated within the City and County of Denver, with the City of Lakewood bordering the west side of the station. Both Denver and Lakewood should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

This station is in the West Corridor TMA service area, so it is suggested that the TMA take the lead as TMA recommendations with support from RTD.

### LESS IMPACT

- Install separated bicycle facilities on high traffic volume/speed roads
- Construct new and widen existing sidewalks
- Install pedestrian-scale lighting
- Transit oriented development
- Dynamic carpooling
- Encouragement of shared micromobility providers within the station area
- New resident and employee transportation kits
- C x
- Car share parking
- Electric vehicle charging
- Solar power generation
- Traffic calming
- Sidewalks
- Street furniture
- Bike parking
- Bike storage
- Transit stop improvements
- Wayfinding signage
- Multimodal wayfinding signage
- Promotion of low-income or senior transit passes
- New resident and employee transportation kits
- Round-trip car share
- Car share parking to provide spaces for car share vehicles nearby transit loading and unloading
STATION ANALYSIS:
S Colorado Blvd and E Florida Ave
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   • Active Transportation Analysis
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   • Transit and Land Ownership

3 RECOMMENDATIONS .................................1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
S Colorado Boulevard and E Florida Avenue is an intersection with access to local Route 40. It is in close proximity to the Colorado Station which provides access to rail routes E, F, and H. The surrounding area is typified by big box retail and the transportation environment is heavily impacted by Colorado Boulevard, which creates a difficult and unsafe crossing environment for transit access.

Due to the high employment in hotels and retail in the area, there is a high number of shift workers that need to arrive and leave outside the peak periods. This area also has a high propensity to change, with the former CDOT Headquarters now being repurposed for new developments.

A key FLM priority in this area is improvement of active transportation infrastructure, with a focus on safety because there is no RTD car parking and many people access the station by walking/ bicycling.

| 1-2 |

**STATION OVERVIEW**

The stop is currently served by:
- Local Bus Route: 40

**TRANSIT RIDERSHIP**

2017 Average Daily Weekday Bus Boardings & Alightings: 224

**ACTIVE TRANSPORTATION**

A half-mile walkshed was generated for this station. A half-mile (or 10 minute) walkshed depicts how far a person can walk or roll from a transit station entrance along existing sidewalks. At this station, walkshed coverage* of 66% highlights a good network structure for walking.

**TRANSPORTATION MANAGEMENT ASSOCIATION**

Transportation Solutions TMA

**PARKING**

There is no RTD parking for this bus stop

*Walkshed coverage was calculated using a geographic information system (GIS) by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network, and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.

**OVERLAYS**

**HIGH PROPENSITY TO CHANGE:** Station is within DRCOG’s “Urban Centers” as a location with a high propensity to change within the region.

**HIGH SHIFT WORK:** Due to the high employment levels in the immediate surrounding area, including retail, restaurants and hotels, this area has a significant number of shift workers.

**STATION JURISDICTION**

This station is located within the City and County of Denver

**TYPOLOGY:**

**SUBURBAN MIXED**

View of S Colorado Blvd and E Florida Ave Intersection

View looking north across E Florida Ave
CENSUS DATA (2015)
The maps below show the concentration of population and employment within a 2-mile buffer of the stop.

As seen below, there is a relatively high concentration of population all around the stop, and a high concentration of jobs along Colorado Blvd north and south of the stop.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of the S Colorado Blvd/ E Florida Ave stop. The majority of employees travel less than 10 miles to get to work as seen in the chart below.

Distance Traveled to Work For Employees Working Within 1-Mile Radius of S Colorado Blvd/ E Florida Ave stop

- Less than 10 miles: 54.0%
- 10-24 miles: 30.5%
- 25-50 miles: 5.2%
- Greater than 50 miles: 10.3%

RTD ON-BOARD SURVEY DATA (2015)

Walking was the only reported mode of accessing the station for both arriving and departing trips. For the RTD district-wide average walking is reported 85.5% of the time for arriving or departing from bus stops.

The AM and PM peak from 7-10am and 4-7pm cumulatively accounted for the majority of boardings, however a significant number of off-peak boardings occur here as well.

TAPESTRY (ESRI) DATA (2018)
Below are the three largest Tapestry Segments in the 80222 zip code around the S Colorado/ E Florida Ave Stop:

1. **Emerald City**
   - Prof/Mgmt
   - College Degree
   - White
   - Median Income: $50k
   - Median Age: 37.0
   - Median Net Worth: $93k
   - Median Household Income: $60k

2. **Old and Newcomers**
   - Prof/Svc
   - College Degree
   - White
   - Median Income: $45k
   - Median Age: 32.7
   - Median Net Worth: $74k
   - Median Household Income: $53k

3. **Set to Impress**
   - Svcs/Prof/Admin
   - College Degree
   - White
   - Median Income: $50k
   - Median Age: 33.0
   - Median Net Worth: $83k
   - Median Household Income: $53k

---

1 For more information about OnTheMap and associated data sources, use this link: [https://onthemap.ces.census.gov/](https://onthemap.ces.census.gov/)
3 For more information about DRCOG’s Focus Model, use this link: [https://drcog.org/services-and-resources/data-maps-and-modeling/focus-travel-model](https://drcog.org/services-and-resources/data-maps-and-modeling/focus-travel-model)
CONTEXT MAP
This map shows the location of the intersection with regards to surrounding land uses and transportation connections.

The intersection of S Colorado Blvd and E Florida Ave is serviced by two bus stops, one for north-bound buses and one for south-bound buses.
ACTIVE TRANSPORTATION ANALYSIS

WEST ROUTE
Opportunities: Florida Ave and Race St are relatively low-stress streets for bicyclists, though the presence of some sidewalks on Florida Ave that are less than five-feet wide pose challenges to people using wheelchairs or strollers. A seldom-used (at the time of the field survey) parking lane adjacent to the east-bound travel lane allows bicyclists to travel outside of the vehicle travel lane much of the time.

Challenges: Colorado Blvd is a seven- to nine-lane arterial and the intersection with Florida Ave is stressful for both bicyclists and pedestrians. West-bound Florida Ave is less comfortable than east-bound due to the presence of a single, relatively narrow, travel lane that must be shared by bicyclists and vehicles. Shared lane markings on Louisiana St are insufficient to provide a comfortable route for many bicyclists.

EAST ROUTE
Opportunities: The Cherry Creek Trail is a comfortable facility for bicyclists and pedestrians that provides connections to the north and south.

Challenges: Florida Ave is a collector with relatively high traffic volumes and no bicycle facilities. Some blocks have less than five-foot sidewalks, which are difficult or impossible for people using wheelchairs or strollers to navigate.

GENERAL FINDINGS
- With a lack of dedicated bicycle facilities, Louisiana Ave and Florida Ave east of Colorado Blvd and are generally uncomfortable for bicyclists.
- Without high-quality mode-specific crossing facilities, intersections with large arterials like Colorado Blvd are stressful even when the cross street is relatively low-stress.
**CURBSIDE MANAGEMENT AND PARKING ANALYSIS**

**Challenges:** All of the curbside space is utilized for travel lanes along S Colorado Blvd and E Florida Ave, posing a challenge to reconfigure the space. Therefore, project implementers may need to look to side streets to define PU/DO spaces.

<table>
<thead>
<tr>
<th>Curbside Restrictions Inventory</th>
<th>Parking Facilities</th>
<th>2017 RTD Park-n-Ride Utilization</th>
</tr>
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<tbody>
<tr>
<td>Unrestricted Parking</td>
<td>Surface Parking</td>
<td>Average Daily Unparked</td>
</tr>
<tr>
<td>Time Restricted Parking</td>
<td>Structured Parking</td>
<td>Average Daily Parked</td>
</tr>
<tr>
<td>No Parking</td>
<td>School</td>
<td></td>
</tr>
<tr>
<td>Loading Zone</td>
<td>Transit Station</td>
<td></td>
</tr>
<tr>
<td>RTD Bus Stop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Curbline (Driveways, Medians, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area of Survey</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RTD Transit Routes
Average maximum weekday wait time during peak periods (Spring 2018)
- Route 40 - medium peak frequency
- Lack of local transit coverage in the area

DRCOG FOCUS Model
Average weekday daily walk, bike and transit trips as a percentage of total trips
- Every 10 Minutes or Better: 0.0% - 5.2%
- Between Every 10 and 15 Minutes: 5.3% - 9.0%
- Between Every 15 and 30 Minutes: 9.1% - 12.9%
- Between Every 30 and 60 Minutes: 13.0% - 17.0%
- Every 60 Minutes or More: 17.1% - 28.0%

DRCOG Walking, Biking, and Transit Trips:
- DRCOG Model shows medium-high walking, biking, and transit trips

Land and Development Characteristics:
- Most land around the station is privately-owned
- RTD owns no land in the immediate vicinity of the station

Parcel Information:
- RTD-Owned Parcels
- Public-Owned Parcels
- Privately-Owned Parcels
- School
- Light Rail Station
- Station 1-Mile Radius
- Transit Station

ASSESSING STATIONS
3 RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

WEST ROUTE
Within the walkshed, widening the sidewalks on Florida Ave to at least five feet between Colorado Blvd and Monroe St will allow pedestrians to more comfortably access the bus stops on Colorado Blvd. Adding shared lane markings and restriping the centerline on Florida Ave west of Colorado Blvd will improve comfort on what is already a relatively low-stress corridor. Striping bike lanes on Louisiana Ave between Race St and Emerson St will reduce stress for bicyclists and provide an improved connection to the Louisiana-Pearl Station.

EAST ROUTE
Florida Ave east of Colorado Blvd has higher traffic volumes than the western portion, therefore striping bike lanes will improve bicyclist comfort and will create a connection between the Cherry Creek Trail and the Colorado Blvd and Florida Ave bus stops. Striping bicycle crossings through the Colorado Blvd and Florida Ave intersection and extending the bike lanes for half a block west will reduce stress for bicyclists traveling through the intersection. Similar to the west route, widening the narrow sidewalks between Birch St and Dahlia St will improve pedestrian access in the walkshed.

BUS STOP IMPROVEMENTS
Plant shade trees or install a shelter at the bus stop on the east side of Colorado Blvd
Add 4 inverted U-racks for short-term bike parking so that there are 3 at each bus stop (2 existing)

RECOMMENDATIONS FOR ASSESSED ROUTES

- Bicycle spot improvement
- Pedestrian spot improvement
- Add Shared Lane Markings, Wayfinding, and/or Traffic Calming Measures
- Widen existing sidewalk
- Stripe bike lanes
- Low-stress existing route (No change)

EXISTING CONDITIONS

Bicycle Facilities
- Route/Shared Rd (pro-planned facilities)
- On-Street Dedicated
- Off-Street

Transit
- Bus Stop
- Rail Station
- Bus Route
- Rail Route
- Park-n-Ride

Destinations
- Healthcare/Medical Facility
- School
- Activity Generator
- Park
# OVERALL RECOMMENDATIONS

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
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<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: widen sidewalks on Florida Ave</td>
<td>Sidewalks that are less than five feet wide are not comfortable for pedestrians and do not adequately accommodate people using wheelchairs or pushing strollers.</td>
<td>Pedestrian comfort and access to the bus stop will improve.</td>
<td>High</td>
<td>City and County of Denver</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Pedestrian-scale lighting</td>
<td>Ensure that major walking routes to/from stops have adequate, pedestrian-friendly lighting. This can be a significant barrier for people’s sense of security, especially at night.</td>
<td>Increased safety and security for transit riders accessing the stop at night.</td>
<td>High</td>
<td>Xcel, City and County of Denver</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Commuter tax benefits</td>
<td>Employers have the ability to offer pre-tax commute benefits to employees. Section 1.132-9 of the IRS code allow employees to use up to $260 per month in pre-tax money to pay for their parking, transit and vanpool fares (2018 limits). Ensure that these commute benefits are being fully implemented by employers near transit stops and stops.</td>
<td>Increased number of employees who take transit rather than drive to work</td>
<td>High</td>
<td>Transportation Solutions (TS)</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Promotion of low-income or senior discount transit passes</td>
<td>Promote the low-income transit pass, provide an opportunity for people to try transit for free before committing to the pass.</td>
<td>Increased access and mobility for low-income and senior population.</td>
<td>High</td>
<td>TS</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micromobility infrastructure: restripe the centerline and add shared lane markings to Florida Ave</td>
<td>The westbound travel lane on Florida Ave is too narrow to comfortably accommodate motorized vehicles and bicycles/micromobility device users.</td>
<td>A reconfigured centerline will provide adequate space for motorized vehicles to comfortably share lanes with bicycles and micromobility device users; shared lane markings will guide bicyclists to the correct position.</td>
<td>Medium</td>
<td>City and County of Denver</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle/ micromobility infrastructure: stripe bike lanes on Florida Ave</td>
<td>Relatively high traffic volumes make bicycling less comfortable without dedicated space.</td>
<td>Dedicated space for bicyclists and micromobility users will increase comfort and safety.</td>
<td>Medium</td>
<td>City and County of Denver</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident and employee transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes. This is particularly important for residents moving into the redeveloped CDOT headquarters site.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>Medium</td>
<td>TS</td>
</tr>
<tr>
<td>Transportation Service</td>
<td>Support implementation of micromobility services</td>
<td>In areas where the market is not already providing electric micromobility devices (e.g. Bird, Lime, Razor) sufficient to meet user demand, work with providers to support the deployment of devices around the transit service location. Incentives for private providers may include preferential/highly visible parking locations, subsidies, advertising, corrals to which vehicles can be reliably rebalanced, and access to standardized charging interfaces.</td>
<td>Faster access to stop than walking</td>
<td>Medium</td>
<td>City and County of Denver, RTD, TS</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Wayfinding signage and transit vicinity map</td>
<td>People may be less likely to walk or bike to/from the stop if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the stop if the safest, most comfortable routes are clear and easy to follow.</td>
<td>Low</td>
<td>City and County of Denver, RTD, TS</td>
</tr>
</tbody>
</table>
## OVERALL RECOMMENDATIONS (CONT.)

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</thead>
<tbody>
<tr>
<td>Programmatic</td>
<td>Commuter Expert or Commuter Buddy Program</td>
<td>Implement a program where expert commuters at an employer or residential location show people how to use transit and/or volunteer to ride with them the first time on their route.</td>
<td>Increased awareness among current nearby employees or residents.</td>
<td>Low</td>
<td>TS</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Parking cash-out</td>
<td>Encourage employers to offer cash payments to employees who agree to not use on-site, employer-provided parking. This can be an alternative to charging for parking should that be impractical or infeasible. Employers that provide cash-out can often realize cost savings when parking spaces are leased or where parking is overutilized.</td>
<td>Increased number of employees who take transit rather than drive to work</td>
<td>Low</td>
<td>TS</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycling workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Encourages bicycling use and safety when accessing stops.</td>
<td>Low</td>
<td>TS</td>
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CONCLUSION

This chart provides a framework from which to categorize each of the recommendations into four categories. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the S Colorado Blvd/ E Florida Ave stop including:

- Implementing a multimodal wayfinding system to the stop that provides information while also promoting transit.
- Encouraging shared micromobility providers to the stop area to improve first and last mile access.
- Promotion of low-income transit pass, as this location has historically vulnerable populations.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Promote parking cash-out for employees to cash out of their employer provided parking to use transit instead.
- Promotion of commuter tax benefits to ensure employees and employers alike understand the range of benefits available.

IMPLEMENTING AGENCIES

This station is situated this City and County of Denver, as such it is suggested that they should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

This station falls within the Transportation Solutions (TS) TMA area. It is suggested that the TMA take the lead on TDM recommendations with support from RTD.
• US 36 & Table Mesa PnR
• Iliff Station
• Clear Creek - Federal Station
• 72nd Ave Station
• Wheat Ridge - Ward Road Station
STATION ANALYSIS:
US 36 and Table Mesa Station
STATION ANALYSIS

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   • Transit and Land Ownership

3 RECOMMENDATIONS .........................................1-9
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   • Conclusion
PROBLEM STATEMENT

US 36 and Table Mesa Station is located on a key transit corridor (US 36) which includes bus rapid transit between Boulder and Denver.

US 36 itself creates a physical barrier to accessing the station, although a pedestrian bridge does link the east and west sides. The annual average daily parking utilization in the Station structure is 68%.

The surrounding area is a mix of residential, employment and other land use types, and the station falls in the suburban-mixed typology. The population around the station generally includes wealthy, family-oriented communities. There is a relatively even mix of people walking and driving alone to access the station.

Recently, the Commuting Solutions TMA conducted a First and Final Mile Study for the US 36 transit corridor. Key recommendations included:

- Bike-n-Ride shelters
- Branded wayfinding
- Marketing the EcoPass program
- Increased carshare and taxi service
- B-cycle or Zagster bike share memberships
- Transit supportive land use policies
- First and Finale mile mobile app
- Real-time US 36 bus tracker
- Bikeshare services at each station
- Secure scooter parking

For more details, visit https://commutingsolutions.org/regional-planning/us-36-first-and-final-mile-study/

STATION OVERVIEW

The station is currently served by:
- Local Bus Routes: 206, 236, AB, DASH
- Regional Bus Routes: FF1, FF2, FF4, FF5, FF6

TRANSIT RIDERSHIP

2017 Average Daily Weekday Bus Boardings & Alightings: 2,373

ACTIVE TRANSPORTATION

A half-mile walkshed was generated for this station. A half-mile (or 10 minute) walkshed depicts how far a person can walk or roll from a transit station entrance along existing sidewalks. At this station, walkshed coverage* of 40% highlights a poor network structure for walking, active transportation and micromobility.

TRANSPORTATION MANAGEMENT ASSOCIATION

Boulder Transportation Connections TMA and Commuting Solutions

PARKING

There are 824 RTD parking spaces at this location, with 68% average parking utilization.

*Walkshed coverage was calculated using a geographic information system (GIS) by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network, and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.
2 STATION AREA CONTEXT

CENSUS DATA (2015)
The maps below show the concentration of population and employment within a 2-mile buffer of the station. As seen in the maps below, there is a medium density of population to the north and west of the station, and very little employment in the immediate vicinity of the station.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of US 36 and Table Mesa Station.

Distance Traveled to Work For Employees Working Within 1-Mile Radius of US 36 and Table Mesa Station:

- Less than 10 miles: 16.2%
- 10-24 miles: 34.7%
- 25-50 miles: 32.8%
- Greater than 50 miles: 6.2%

RTD ON-BOARD SURVEY DATA (2015)
According to the survey walking is the most commonly-reported mode of accessing the station for both arriving and departing trips. This is followed by driving alone, being dropped off or picked up, biking, and dropped off by a taxi or TNC. Compared to the RTD district-wide average for rail stations, US 36 and Table Mesa Station has a lower share of people walking and a higher share of people driving alone to and from the station. The off-peak hours accounted for the majority of boardings.

TAPESTRY (ESRI) DATA (2018)
Below are the three largest Tapestry Segments in the 80305 zip code around US 36 and Table Mesa Station:

1. Urban Chic
   - Prof/Mgmt College Degree
   - White
   - Visit museums, art galleries
   - Own healthy portfolios
   - Ski, practice yoga, hike, play tennis
   - Shop, bank online
   - Choose luxury imports

2. College Towns
   - Students/Prof/Svcs College Degree
   - White
   - Use computers, cell phones for everything
   - Pay bills online
   - Shop impulsively
   - Customize cell phones
   - Prefer vehicle with good gas mileage

3. Emerald City
   - Prof/Mgmt College Degree
   - White
   - Travel frequently
   - Contribute to NPR/PBS
   - Buy, eat organic foods
   - Read books, magazines on tablets
   - Prefer natural, green products

---

1 For more information about OnTheMap and associated data sources, use this link: https://onthemap.ces.census.gov/
2 For more information about Esri Tapestry data, use this link: https://www.esri.com/en-us/arcgis/products/tapestry-segmenation/overview
3 For more information about DRCOG’s Focus Model, use this link: https://drcog.org/services-and-resources/data-maps-and-modeling/travel-modeling/focus-travel-model

ASSESSING STATIONS

RTD FIRST LAST MILE PLAN

1-3
**CONTEXT MAP**

This map shows the location of the Station with regards to surrounding land uses and transportation connections. The US 36 and Table Mesa Station is located off of US 36 on Table Mesa Dr/S Boulder Rd.
ACTIVE TRANSPORTATION ANALYSIS

NORTH ROUTE
Opportunities: Wide sidewalks from the transit station along Boulder Rd create a reasonably comfortable environment for pedestrians. Crosswalk striping, signage, and pedestrian signals allow for the safe crossing of highway on- and off-ramps. Manhattan Dr, Crescent Dr, and Eisenhower Dr are all low-stress roads through residential neighborhoods that provide a comfortable route for bicyclists. Signage at key junctions facilitates navigation.

Challenges: Conventional bike lanes on South Boulder Rd do not provide bicyclists with separation from four lanes of traffic, which may be uncomfortable for some bicyclists. The intersection of South Boulder Rd and Manhattan Dr is somewhat confusing for east-bound bicyclists, as current wayfinding signage does not include the option to turn north onto Manhattan Dr, even though it is a designated bicycle route.

SOUTHWEST ROUTE
Opportunities: Similar to the north route, pedestrian facilities immediately to the west of the station provide a comfortable environment with wide detached sidewalks and well-designed bicycle and pedestrian crossings at the highway on- and off-ramps. North-bound Lehigh St has shared lane markings, which are sufficient for the relatively low-stress roadway. A bike lane on the south-bound side adds comfort for bicyclists traveling uphill.

Challenges: Conventional bike lanes on Table Mesa Dr do not buffer bicyclists from the four lanes of relatively fast-moving vehicular traffic. Traveling east, the bike lane on Table Mesa Dr only begins at Broadway; from Lehigh St to Broadway infrequent shared lane markings direct bicyclists to share the travel lane with vehicles, a less than comfortable situation for many bicyclists given four to five travel lanes.

GENERAL FINDINGS
• While both routes have generally adequate infrastructure for confident bicyclists, some sections do not provide sufficient comfort for less-confident bicyclists.
• Pedestrian facilities within the walkshed are generally very high-quality.

Level of Comfort Analysis

<table>
<thead>
<tr>
<th>Level of Comfort</th>
<th>Analysis</th>
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<tbody>
<tr>
<td>Most Comfortable</td>
<td>Bicycle Facilities</td>
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<td>Transit Routes</td>
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<td>Destinations</td>
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<tr>
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<th>Route/Shared Rd</th>
<th>On-Street Dedicated</th>
<th>Park-n-Ride</th>
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<td>Bus Stop</td>
<td>Bus Route</td>
<td>Park-n-Ride</td>
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<th>Station Bicycle Parking Capacities</th>
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<td>Short-Term RTD Lockers Used (February 2019)</td>
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<td>Bike Share</td>
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</table>

Includes bike parking capacities for the existing Bike-n-Ride shelter that is part of the Boulder County Bike-n-Ride Program.
**CURBSIDE MANAGEMENT AND PARKING ANALYSIS**

**Opportunities:** There are ten Kiss-n-Ride, or short-term parking spaces right at the entrance to the Station. These could be reconfigured to include access for various types of passenger loading and unloading.

**Challenges:** There are not a lot of opportunities to reconfigure on-street curb space around the station, therefore most of the opportunities exist in reconfiguring the layout or access of the Station structure.

### Curbside Restrictions Inventory
- Unrestricted Parking
- Time Restricted Parking
- No Parking
- Loading Zone
- RTD Bus Stop
- Existing Curbline (Driveways, Medians, etc.)

### Parking Facilities
- Surface Parking
- Structured Parking
- School
- Transit Station

### 2017 RTD Park-n-Ride Utilization
- Area of Survey
- Right turn lane next to climbing bike lane creates stressful bicycling environment

**Opportunities:**
There are ten Kiss-n-Ride, or short-term parking spaces right at the entrance to the Station. These could be reconfigured to include access for various types of passenger loading and unloading.

**Challenges:**
There are not a lot of opportunities to reconfigure on-street curb space around the station, therefore most of the opportunities exist in reconfiguring the layout or access of the Station structure.
ASSESSING STATIONS

LAND OWNERSHIP

Land and Development Characteristics:
• Some of the land around the station is owned by CU-Boulder or the City of Boulder
• RTD leases the land for the parking garage and station from CDOT

PARCEL INFORMATION

RTD-OWNED PARCELS

PUBLIC-OWNED PARCELS

PRIVATELY-OWNED PARCELS

RTD BUS STOP

STATION 1-MILE RADIUS

SCHOOL

TRANSIT STATION

TRANSIT FREQUENCY AND EXISTING TRAVEL PATTERNS

RTD Transit Routes
Average maximum weekday wait time during peak periods (Spring 2018)
• Flatiron Flyer - High peak frequency
• Good local transit coverage

DRCOG Transit Routes
Average weekday daily walk, bike and transit trips as a percentage of total trips

0.0% - 5.2%
5.3% - 9.0%
9.1% - 12.9%
13.0% - 17.0%
17.1% - 28.0%
3 RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

NORTH ROUTE
Given the four to five lanes on S Boulder Rd and the relatively high traffic volumes, installing buffered or separated bike lanes will provide a more comfortable route for bicyclists accessing the transit station from the east. Existing pedestrian infrastructure along the route is high-quality, allowing pedestrians to comfortably and safely reach the station.

SOUTHWEST ROUTE
Similar to the northeast route, replacing conventional bike lanes and shared lane markings with buffered or separated bike lanes on Table Mesa Dr will reduce stress for bicyclists accessing the station from the west.

STATION IMPROVEMENTS
None noted; existing Station amenities are satisfactory.

RECOMMENDATIONS FOR ASSESSED ROUTES

EXISTING CONDITIONS

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<tr>
<td>Off-Street</td>
<td>Bus Route</td>
<td>Activity Generator</td>
</tr>
<tr>
<td></td>
<td>Rail Route</td>
<td>Park</td>
</tr>
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</table>

Bicycle spot improvement  Install buffered or separated bike lanes

Construct buffered or separated bike lanes on Table Mesa Dr and Boulder Rd to provide a more comfortable route for bicyclists to and from the transit station.

Install additionalwayfinding signage to indicate that Manhattan Dr is a designated bicycle route.
CURBSIDE MANAGEMENT RECOMMENDATIONS

- Reconfiguring the 10 Kiss-n-Ride stalls inside the parking garage to two pick up and drop off through lanes could improve accessibility for TNC pick up and drop offs, and quicker Kiss-n-Ride drop offs.
- Other parking spaces should be identified to provide preferential parking to carpoolers, combined with the introduction of a dynamic carpooling program.
- The existing westbound climbing line on Boulder Rd/Table Mesa Dr is stressful for bicyclists due to the vehicle weaving conflicts created by the adjacent auxiliary lane. Removing the right turn slip lanes could provide a lower-stress connection.
## Overall Recommendations

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>First and Last Mile</td>
<td>General Guidance</td>
<td>Improve bicycle and micromobility infrastructure: stripe bike lanes on 17th Ave.</td>
<td>Bike lanes will provide dedicated space for bicyclists, but will also have a traffic calming effect by narrowing vehicle travel lanes.</td>
<td>High</td>
<td>City of Aurora</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Promotion of RTD pass programs</td>
<td>Promote the low-income transit pass, provide an opportunity for people to try transit for free before committing to the pass.</td>
<td>Some existing or potential RTD customers in the area may not know about the new discount pass programs. A promotion program would help spread the word.</td>
<td>High</td>
<td>NETC</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident / employee / student transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>High</td>
<td>NETC, Employers, Property Owners</td>
</tr>
<tr>
<td>First and Last Mile</td>
<td>General Guidance</td>
<td>Improve pedestrian infrastructure: widen sidewalks</td>
<td>Sidewalks that are less than five feet wide are not comfortable for pedestrians and do not adequately accommodate people using wheelchairs or pushing strollers.</td>
<td>Medium</td>
<td>City of Aurora</td>
</tr>
<tr>
<td>First and Last Mile</td>
<td>General Guidance</td>
<td>Pedestrian-scale Lighting</td>
<td>Ensure that major walking routes to/from stations have adequate, pedestrian friendly lighting. This can be a significant barrier for people’s sense of security, especially at night.</td>
<td>Medium</td>
<td>City of Aurora, Xcel</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Multimodal maps and wayfinding</td>
<td>People may be less likely to walk or bike to/from the station if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the station if the safest, most comfortable routes are clear and easy to follow.</td>
<td>Medium</td>
<td>City of Aurora</td>
</tr>
<tr>
<td>New infrastructure</td>
<td>Short-term bike parking</td>
<td>There are no existing bike racks at the bus stops.</td>
<td>More people will bike to the bus stops.</td>
<td>Medium</td>
<td>RTD, City of Aurora</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycle Education and Encouragement Programs</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>People may want to cut their travel time accessing this station from the east or west. Teaching them bicycling skills allows them to shorten their access time to transit.</td>
<td>Medium</td>
<td>NETC</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Commuter Expert or Commuter Buddy</td>
<td>Implement a program where expert commuters at an employer or residential location show people how to use transit and/or volunteer to ride with them the first time on their route.</td>
<td>This strategy increases transit use among potential riders who are unfamiliar or not sure how to navigate transit—in particular people with disabilities and the elderly</td>
<td>Low</td>
<td>Northeast Transportation Connections (NETC)</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Commuter tax benefits</td>
<td>Employers have the ability to offer pre-tax commute benefits to employees. Section 1132-9 of the IRS code allow employees to use up to $260 per month in pre-tax money to pay for their parking, transit and vanpool fares (2018 limits). Ensure that these commute benefits are being fully implemented by employers near transit stops and stations.</td>
<td>Employees who have access to commute benefits are more likely to use transit, thereby increasing transit ridership in the station catchment area.</td>
<td>Low</td>
<td>NETC, Employers</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycle end-of-trip facilities and amenities</td>
<td>This strategy encompasses low-cost shared amenities offered by employers that encourage walking or biking for mid-day trips, even in inclement weather. They can include shared umbrellas, ponchos, bike lights, rain covers for bike seats and bags/ backpacks and other items that can be borrowed when needed. Bike pumps and simple repair tools are another example of shared amenities that promote and facilitate biking to transit.</td>
<td>Supporting employees to be able to take mid-day trips without a car can lead to them having a higher propensity to take transit to work.</td>
<td>Low</td>
<td>Employers, Property Owners</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Encouragement of shared micromobility providers within the station area</td>
<td>The area already has a high existing walking, biking, and transit mode share so there should be a strong market for additional micromobility options.</td>
<td>Encouraging micromobility use may widen the catchment area of the station to people who currently feel it is too far to walk to the station.</td>
<td>Low</td>
<td>City of Aurora, NETC</td>
</tr>
</tbody>
</table>
This chart on this page provides a framework for prioritizing recommendations. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated in more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the US 36 and Table Mesa station include:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Preferential parking for carpools and vanpools.
- Provide a dynamic carpool program to provide a flexible and sustainable transportation service to the transit location.
- Innovative Station management will allow RTD to try out new methods to manage the Station more efficiently.
- TNC, car or vanpool financial incentives to improve access for people who do not own cars but live too far away to walk or use active transportation.

**IMPLEMENTING AGENCIES**

This station is situated in the City of Boulder, as such it is suggested that the City should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

The station falls within the Commuting Solutions and Boulder Transportation Connections (BTC) TMA area, and therefore it is suggested that they take the lead on TDM recommendations with support from RTD. Additionally, RTD can implement some of the transportation service recommendations.
STATION ANALYSIS:
Iliff Station
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   • Curbside Management and Parking Analysis
   • Transit and Land Ownership

3 RECOMMENDATIONS .................................. 1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
### Marital Status

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<tr>
<th>Type</th>
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<th>Median Age</th>
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<td>Single Parents</td>
<td>$109k</td>
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<td>2,114,500 (35.3%)</td>
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AASHTO 10’ minimum standard), while the 8-10’ sidewalk is sufficiently wide standard set by the American Association of State and Highway Transportation Officials (AASHTO). Challenges: For a few blocks adjacent to the interstate at Iliff Ave, the road is six lanes wide with 40 mph posted speed limits, with lack of yield lines do not adequately direct mobility for both pedestrians and bicyclists despite not having adequate separation from traffic.

GENERAL FINDINGS
- Intersections with on- and off-ramps are conflict points for people and vehicles.
- Conventional bike lanes on a three lane and four-lane road with 40 mph posted speed limits are not adequate, with some sections of on and off ramps that do not provide sufficient space for both bicyclists and pedestrians.

Byproduct Facilities
- Pedestrian Facilities
- Bicycle Facilities
- Transit Facilities

State and Local Transit
- Bus Route
- Light Rail Route
- Park-n-Ride
- Pedestrian Facilities
- Bicycle Facilities
- Transit Facilities

- Most crossings have inadequate crosswalks and sidewalks, lacking adequate separation from traffic.
- Most roadways have a mix of land-uses that lack dedicated infrastructure for bicyclists.
- Along the road with two lanes and an island there is a bus lane with no bike lane and no pedestrian facilities at all.

Iliff Ave is a commercial corridor with relatively high traffic volumes and no bike facilities. In one of the few points of access to the station west of the interstate, bicycle facilities on the railyard side of the station are insufficient to support both bicyclists and pedestrians to travel comfortably. Frequent curb cuts also create conflicts between pedestrians and bicyclists on the sidewalks and parking areas. Vehicles traveling at high speeds as they enter and exit the interstate at Iliff Ave present additional hazards to pedestrians and bicyclists who may cross the roadway at this location.

Southwest Route
Opportunities: High two-lane paths at the station and immediately adjacent to provide both bicyclists and pedestrians with sufficient space to maneuver without obstructing other motorized traffic or obstructing other bicyclists or pedestrians. Un利格able sidewalk to accommodate both bicyclists and pedestrians would significantly enhance this area. Challenges: Iliff Ave due to a few lane arterial where conventional bike lanes do not provide bicyclists with adequate separation from vehicular traffic. While sidewalks on either side of the four-lane side of Iliff Ave are generally wide enough to accommodate both pedestrians and bicyclists, sidewalks are lacking almost entirely on the south side of Iliff Ave, and it is further complicated by the fact that there are few crosswalks and that bicyclists could not install elements by both pedestrian and bicyclists, who must share the sidewalk space.

Pedestrian Facilities
- On-Street Dedicated
- Off-Street Dedicated
- Off-Street Undedicated
- Bus Stop
- Light Rail Stop
- Park-n-Ride

ACTIVITY TRANSPORTATION ANALYSIS
Opportunities: The majority of the routes are on low traffic residential streets or short, wide, roadways, where dedicated bike lanes and paths provide reasonable visibility for most bicyclists and pedestrians.

Challenges: Iliff Ave is a commercial corridor with relatively high traffic volumes and no bike facilities. In one of the few points of access to the station west of the interstate, bicycle facilities on the railyard side of the station are insufficient to support both bicyclists and pedestrians to travel comfortably. Frequent curb cuts also create conflicts between pedestrians and bicyclists on the sidewalks and parking areas. Vehicles traveling at high speeds as they enter and exit the interstate at Iliff Ave present additional hazards to pedestrians and bicyclists who may cross the roadway at this location.

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CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Opportunities: RTD has strong existing curbside management in place, including:

- A well-designed parking structure with easy access and what appears to be flexibility or ability to reconfigure this parking structure into a transit-supportive development in the future.
- Paid parking is the structure to encourage parking by other readers.
- Paid on-street parking around the parking garage includes reserved spaces and charging ports for EVs.

Low Park-n-Ride utilization to date (the station opened in February 2017).

- RTD routes serving the station:
  - Blue Line
  - H-Line
  - R-Line

A well-sited parking structure with easy access and what appears to be flexibility or ability to reconfigure this parking structure into transit-supportive development in the future.

- Residental parking permit program (Iliff Neighborhood Parking Permit District) Challenges Low Park-n-Ride utilization to date (the station opened in February 2015).
**CURBSIDE MANAGEMENT RECOMMENDATIONS**

- There are four parking stalls that are in close proximity to the station. These spaces could be re-purposed for secure bike parking or other on-street mobility parking and could even include charging for e-bikes and e-scooters.

- Parking on Main St near the station could be re-purposed for pick-ups and drop-offs.

---

**3. RECOMMENDATIONS**

### ACTIVITY GENERATOR

- Construct new sidewalk
- Add secure long term bike storage

### LIGHTFILIAL STATION IMPROVEMENTS

- Plant shade trees
- Add additional wayfinding on nearby streets to direct people to the station

### RECOMMENDATIONS FOR ASSAULTED ROUTE

- Pedestrian safety improvements
- Add pedestrian safety medical-use class of facilities
- Bicycle/pedestrian shared-use path
- Construct new sidewalks

### EXISTING CONDITIONS

- Bicycle Facilities: None
- Parking: None
- Sidewalk: None

### DETAIL

- Existing parking spaces on Main St near the station could be re-purposed for pick-ups and drop-offs.

---

**RTD FIRST LAST MILE PLAN**

- Assessing Stations
- Light Rail Stations
- School
- Activity Generator

---

**FIRST FLOOR**

- 4 Head-In Parking Stalls on 1st Floor
- Parking Spaces on Wesley Ave

---

**DETAIL**

- Drawing parking spaces on Main St near the station could be re-purposed for pick-ups and drop-offs. Source: Google
OVERALL RECOMMENDATIONS

<table>
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<tr>
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<td>Management</td>
<td>Promote low-income and senior discount transit options. Increase awareness among service workers and low-income and senior residents about discounted transit options.</td>
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<tr>
<td>Programmatic</td>
<td>Implement a program where expert commuters at an employer or residential site volunteer to ride with new residents in a shared vehicle. This will help overcome some of the reasons traditional carpools may be unappealing (such as having to ride with the same group of people every day).</td>
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<tr>
<td>Transportation Service</td>
<td>Support implementation of autonomous transit services. Explore the use of autonomous transit vehicles to move people to and from transit locations. For example, if operated by EasyMile, have roll-aboard ability for riders in wheelchairs.</td>
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CONCLUSION

This chart on this page provides a framework for prioritizing recommendations. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated in more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the Iliff station include:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Preferential parking for carpools and vanpools.
- Provide a dynamic carpool program to provide a flexible and sustainable transportation service to the transit location.
- Promotion senior special discount transit pass, especially at the nearby retirement community.
- Innovative Park-n-Ride management will allow RTD to try out new methods to manage the Park-n-Ride more efficiently.
- TNC, car or vanpool financial incentives to improve access for people who do not own cars but live too far away to walk or use active transportation.

IMPLEMENTING AGENCIES

This station is situated in the City of Aurora, as such it is suggested that the City should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

This station does not fall within a TMA area, and therefore it is suggested that DRCOG’s Way to Go program takes the lead on TDM recommendations with support from RTD.

A partnership between CDOT and RTD will be required to implement variable message signs on I-225. It should be noted that this particular recommendation aligns with the outcomes from the Mobility Choice Blueprint initiative.
STATION ANALYSIS:
Clear Creek • Federal Station
STATION ANALYSIS

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   • Station Area Context
   • Active Transportation Analysis
   • Curbside Management and Parking Analysis
   • Transit and Land Ownership

3. RECOMMENDATIONS ........................................ 1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
Central Station - Federal Station will be a transit-oriented district that falls within the suburban residential typology in the Sexton neighborhoods of unincorporated Duval County. The station will likely be located near the intersection of the G Line. This station will be studied in future generations as the station will be built near a future station.

The station is in an area with a high population density, ensuring any new development improves access to the station and will lead to future ridership.

This area has a higher population density, providing opportunities to access the station, as well as a local core with more opportunities.

Interstate 95 is a significant barrier to the usability of the station and may limit cycling and walking access.

### Typology

**Suburban Mixed**

- **Station Overview**
  - **Profile**
    - Residential
    - Commercial
    - Industrial
  - **Transport Rideshare**
    - 30.8%
  - **Active Transportation**
    - 11.7%
  - **Tapestry Segmentation**
    - Married Couples
      - Urban denizens; young, diverse, hardworking families
    - Single Family
      - 93k
      - Housing
      - 12,162,200
  - **Housing**
    - 1.1%
    - Single-Family
      - 8.5%
    - Multifamily
      - 53.9%
  - **Median Age**
    - 34.0
  - **Median Income**
    - 53.9
  - **Race/Ethnicity**
    - White
    - Hispanic
    - Black
    - Asian
  - **Education**
    - HS Diploma Only/GED
    - College Degree
  - **Occupation**
    - Prof/Svcs
    - Mgmt/Prof/Svcs
    - Svcs/Prof/Admin
  - **Economic Activity**
    - White-collar
    - Blue-collar
  - **Demographics**
    - Single family
      - 38.2%
    - Multifamily
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### Station Area Context

This section includes a description of the demographics, and patterns of the surrounding area. The area surrounding this station is comprised of 86.7% white, 8.3% black, 1.9% Hispanic, and 0.0% Asian. There are few Asian and Hispanic households in this area.

Demographic and travel pattern data within this section includes:

- Census Data (2010): Data collected and analyzed from 2010 Census, which includes demographic and economic data, recently updated. Data for the year 2019 was most recent available at time of writing.
- Tapestry Segmentation Data (2018)
  - Available by zip code, highlights the surrounding population’s behavioral choices, including preferences for using technology and participating in certain activities.
- Consumer Reports (2018)
  - Consumer Reports includes a snapshot of the behaviors and location of people in the immediate surrounding area.

### Site Jurisdiction

The site is located in the vicinity of Naval Station. The U.S. Navy is a major employer in the area, and the station will benefit from the proximity to the base.
ACTIVE TRANSPORTATION ANALYSIS

NORTHEAST ROUTE
Opportunities: Some buses and wider sidewalks along 40th Ave immediately adjacent to the station are on comfortable facilities for pedestrians and bicyclists. The Federal Blvd station is located on a 12-foot-wide street, which provides suitable space for the movement of bicyclists and pedestrians (people being under the current ADOT 120F01 for shared use only, as well as a comfortable buffer to free traffic.

Challenges: Pedestrian facilities on 40th Ave typically provide sidewalks that are too narrow for comfortable walking, especially at bus stops. Some sidewalks are less than 4’ wide, which makes it difficult for pedestrians to travel and navigate around obstacles.

SOUTHWEST ROUTE
Opportunities: On 50th Ave, bicyclists are comfortable separated from traffic by a buffered bike lane.

Challenges: Generally, the southwest route is highly accommodating for bicyclists and pedestrians, but there are some areas where bicyclists may feel uncomfortable, such as underpasses or busy intersections. However, the overall environment is generally safe and comfortable for both bicyclists and pedestrians.

GENERAL FINDINGS
- Most sidewalks lack dedicated on-street facilities for bicyclists.
- In the absence of on-street bicycle facilities, most sidewalks do not provide sufficient space for both bicyclists and pedestrians.
- Some sidewalks are significantly deteriorated or are missing entirely, creating hazards for bicyclists and pedestrians.
- Sidewalks on 50th Ave typically have little to no separation from the roadway, making it difficult to navigate at key points along the busway.

For the most part, bicycles and pedestrians must share narrow sidewalks against heavy traffic.
COMMUNITY INVOLVEMENT

The Making Connections Plan compiled by Adams County in 2016 provides a roadmap for preparing and developing the area around the Clear Creek–Federal Station. This plan includes a “Making Connections Plan” which includes the Clear Creek–Federal Station. This station is envisioned to serve as the eastern terminus of the Light Rail System. The station is located in the Witch Creek area, which is a significant area of open space amenities and enhanced trail connections in the vicinity of the station. The Making Connections Plan also includes numerous future park and trail improvements in the station area.

Challenges: According to the Making Connections Plan, there are numerous plan priorities that have identified key areas that will impact first and last mile include development of a Complete Streets Police and Standards document, a sidewalk system, and businesses. The station area also includes numerous future park and trail improvements in the station area.

RTD First and Last Mile Plan

ASSESSING STATIONS

1. Primary vehicle for the station
2. High peak weekday parking
3. Relatively good local transit coverage in the area
4. B-Cross Model shows heavy use of this station

RTD Bus: Every 10 Minutes or Better

RTD Transit Routes
- Route 31: high peak frequency

COG Walking, Biking, and Transit Trips:
- Percent walking, biking, or transit: 7%
- Trips made via driving (Drive alone, shared rides): 159,488
- Total Average Weekday Daily Trips: 172,191
- Total Employment: 53,080
- Percent driving alone: 72.1%
- Percent public transportation: 7.0%
- Percent walking/biking: 7.0%

RTD Park-n-Ride: 282 Spaces

LAND OWNERSHIP

Federal Station

Clear Creek - Medical/Healthcare

Clear Creek - Light Rail

Clear Creek - School

Clear Creek - Light Rail Stations

Highways
- Interstate; 76
- State
- U.S.
- RTD; CDOT

Curbside Restrictions Inventory

PARCEL INFORMATION

No Existing Restriction

1 Hour Parking

2 Hour Parking (No Parking 2am-5am)

2 Hour Parking

No Parking 7am-5pm Except Permit

Accessible Parking

Pay Permit Only

Loading Zone

Driveway

Vehicular Travel Lane

PROPOSED AMENDMENT TO THE ADAMS COUNTY COMPREHENSIVE PLAN

Curbside Management and Parking Analysis

Opportunities: The Making Connections Plan compiled by Adams County in 2016 provides a roadmap for preparing and developing the area around the Clear Creek–Federal Station. This plan includes a “Making Connections Plan” which includes the Clear Creek–Federal Station. This station is envisioned to serve as the eastern terminus of the Light Rail System. The station is located in the Witch Creek area, which is a significant area of open space amenities and enhanced trail connections in the vicinity of the station. The Making Connections Plan also includes numerous future park and trail improvements in the station area.

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**RECOMMENDATIONS**

**ACTIVE TRANSPORTATION RECOMMENDATIONS**

**NORTHEAST ROUTE**
- Installing sidewalks, shared lane markings, and striping along 48th Ave will complete the connection from the transit station to the Dry Creek Trail. Additional striping in key locations, including the intersection with I-25, will improve navigation for trail users. Buffered or separated bike lanes on Pecos St will provide a significant northern connection to the trail, and therefore to the light rail station.

**SOUTHWEST ROUTE**
- A shared path on South Blvd from the intermediate access point will be a comfortable facility for pedestrians and bicyclists to access the station. This route will provide a significant southern connection to the trail, and therefore to the light rail station.

**RECOMMENDATIONS FOR ASSESSED ROUTES**

- Bicycle spot improvements
- Separated lanes
- Recycled asphalt as a shared-use path

**EXISTING CONDITIONS**

- Bicycle Facilities
- Rail Route
- Rail Station

**STRATEGIES**

- **Bicycle spot improvements**
- **Separated lanes**
- **Recycled asphalt as a shared-use path**

**CURBSIDE MANAGEMENT RECOMMENDATIONS**

- This station is not yet operational, but it is recommended that specific pick-up and drop-off zones are incorporated into the design.
- Preferred airport parking close to the transit service should be prioritized during regulation of parking at this location.
Federal Blvd and micromobility users accessing the station via the trail.

Access to the Clear Creek Trail, a high-quality facility that provides east-west connectivity, is impeded by a lack of infrastructure and directional signage on 60th Ave between the light rail station and the trail. Improved pedestrian and bicycle/micromobility infrastructure: install Federal Blvd at the I-76 interchange.

Improve bicycle/micromobility infrastructure: install Federal Blvd lack sidewalks, making it unsafe for pedestrians as well. A deteriorated sidewalk at the underpass presents safety issues for pedestrians.

High CDOT, Adams County. High Adams County, Xcel Community Developers. High Adams County.

High Future TMA, Low Future TMA. Low Future TMA/High Developer.

Motorbike sharing, electric bicycles, and other micromobility devices provide an opportunity for increased mobility and decreased carbon emissions. However, limited charging infrastructure and lack of standardization of charging interfaces.

Increased awareness of the new service that will be available to residents and employees.

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Increased awareness of the new service that will be available to residents and employees.
This chart provides a framework from which to categorize each of the recommendations into four categories. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated in more thorough by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for Clear Creek • Federal station include:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Promotion of low-income transit pass, as this location has historically vulnerable populations.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Preferential carpool parking for carpool or vanpool vehicles to provide travel information and transit incentives to people new to the area.
- Dynamic carpooling, as this station is in an area of change, providing a dynamic carpool service to it will help provide a feeder service until it becomes established.
- Innovative Park-n-Ride management, as this is a new station, RTD could experiment with new ways to manage the Park-n-Ride.
- TNC, car or vanpool financial incentives to improve access for people who do not own cars but live too far away to walk or use active transportation.
- Provide directional signage at trail junctions
- Creation of EcoPass District
- Stripe bike lanes on Lowell Blvd

**IMPLEMENTING AGENCIES**

This station is situated in unincorporated Adams County. As new development occurs, the County should require first and last mile infrastructure be built to connect new residents and employees to the station.

<table>
<thead>
<tr>
<th>LESS IMPACT</th>
<th>MORE IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayfinding and transit map</td>
<td>Install separated bicycle facilities on Pecos St and Federal Blvd</td>
</tr>
<tr>
<td>Promotion of RTD discount passes</td>
<td>Construct a shared use path on Federal Blvd at the I-76 underpass</td>
</tr>
<tr>
<td>Support implementation of micromobility services</td>
<td>Pedestrian scale lighting</td>
</tr>
<tr>
<td>New resident and employee transportation kits/Creation of EcoPass District</td>
<td>Transit Oriented Development</td>
</tr>
<tr>
<td>Preferential parking for carpool and vanpools</td>
<td>Provide power</td>
</tr>
<tr>
<td>Innovative Park-n-Ride management</td>
<td>Dynamic carpooling</td>
</tr>
<tr>
<td>TNC, car or vanpool financial incentives</td>
<td>Install sidewalks, stripe bike lanes, and provide wayfinding on 60th Ave</td>
</tr>
<tr>
<td>Create EcoPass District</td>
<td>Provide directional signage at trail junctions</td>
</tr>
<tr>
<td>Stripe bike lanes on Lowell Blvd</td>
<td>Provide directional signage at trail junctions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LESS EFFORT</th>
<th>MORE EFFORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commuter expert or commuter buddy program</td>
<td>Install separated bicycle facilities on Pecos St and Federal Blvd</td>
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<tr>
<td>Bicycling workshops and courses</td>
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<td>TNC, car or vanpool financial incentives</td>
<td>Stripe bike lanes on Lowell Blvd</td>
</tr>
</tbody>
</table>

**CONCLUSION**
STATION ANALYSIS:
Commerce City • 72nd Ave Station
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   - Active Transportation Analysis
   - Curbside Management and Parking Analysis
   - Transit and Land Ownership

3. **RECOMMENDATIONS** .........................................1-9
   - Active Transportation
   - Curbside Management and Parking
   - Overall Recommendations
   - Conclusion
PROBLEM STATEMENT

Commerce City • 72nd Ave Station is a new rail and bus transit station along the future N Line. The area is predominantly suburban-residential with a number of surrounding industrial land uses. The area is relatively lower income than other representative stations.

The proximity of numerous highways, low density and a generally poor walking and biking environment create difficult access to the station other than driving. Therefore, it will be important to ensure accessibility is enhanced as the new rail station is constructed for all modes.

This area has a high propensity to change, with many large lots with low density industry surrounding the station.

STATION OVERVIEW

Current/Future Routes:
• Future Rail Route: N
• Future Bus Route: 156
• Current Local Bus Route: 48, 72, 72W
• Current Regional Bus Route: RX/RC

This station is not currently served by FlexRide

TRANSIT RIDERSHIP

2017 Average Daily Weekday Boardings & Alightings

| Mode       | Boardings | Alightings | %
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail Transit</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Bus Transit</td>
<td>287</td>
<td>100%</td>
</tr>
</tbody>
</table>

ACTIVE TRANSPORTATION

Walkshed coverage of 15% highlights a poor network for active transportation to access the station. Walkshed coverage was calculated by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network (see page 1-6), and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.

TRANSPORTATION MANAGEMENT ASSOCIATION

Currently no TMA serves the station

PARKING

There will be 359 spaces at the new Commerce City • 72nd Ave Station.

OVERLAYS

HIGH PROPENSITY TO CHANGE

HIGH HISTORICALLY VULNERABLE POPULATION

STATION JURISDICTION

This station is located within unincorporated Adams County, but is very close to the Commerce City boundary to the east
STATION AREA CONTEXT

This section includes a description of the demographics and travel patterns of the surrounding station area. Analysis was centered around the existing US 85 and 72nd Ave Park-n-Ride one-half mile to the east of the future station. All data sources included within this section are universally available throughout the region. The aim of the demographic and travel pattern data is to provide insight into current travel demands, patterns and opportunities to improve first and last mile connectivity.

Demographic and travel pattern data within this section includes:

- **Census Data (2015):** Data collected and analyzed from OnTheMap which includes LEHD (Longitudinal Employer-Household Dynamics) data, annually updated. Data for the year 2015 was most recent available at time of writing.
- **Tapestry Segmentation Data (2018):** Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by Esri.
- **Context Map:** Provides a snapshot of the situation of the station or service location with regards to the immediate surrounding area.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of US 85 and 72nd Avenue PnR. The majority of employees travel less than 10 miles to get to work, as seen in the chart below.

**Distance Traveled to Work For Employees Working Within 1-Mile Radius of Commerce City - 72nd Ave Station**

- Less than 10 miles
- 10-24 miles
- 25-50 miles
- Greater than 50 miles

**TAPESTRY (ESRI) DATA (2018)**

Below are the three largest Tapestry Segments in the 80022 zip code around the US 85 and 72nd Avenue PnR.

1. **Barrios Urbanos**
   - **Svcs**
   - **No HS Diploma**
   - **Hispanic**
   - Buy discount children's products
   - Own no retirement savings
   - Read magazines
   - Listen to Hispanic radio
   - Own 1-2 vehicles, carpool

2. **Up and Coming Families**
   - **Prof/Svs**
   - **College Degree**
   - **White**
   - Visit theme parks, zoos
   - Hold student loans, mortgages
   - Contract for home and landscaping services
   - Go online to shop, bank, for entertainment
   - Own late model compact car, SUV

3. **Boomburbs**
   - **Prof/Mgmt**
   - **College Degree**
   - **White**
   - Hold gym membership; own home equipment
   - Have home mortgage
   - Practice physical fitness
   - Own, use latest devices
   - Prefer SUV, luxury cars, minivans

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1 For more information about OnTheMap and associated data sources, use this link: [https://onthemap.esri.census.gov/](https://onthemap.esri.census.gov/)
3 For more information about DRCOG’s Focus Model, use this link: [https://drcog.org/services-and-resources/data/maps-and-modeling/travel-modeling/focus-travel-model](https://drcog.org/services-and-resources/data/maps-and-modeling/travel-modeling/focus-travel-model)
CONTEXT MAP
This map shows the location of the future commuter rail station and the existing Park-n-Ride with regards to surrounding land uses and transportation connections. The US 85/72nd Ave Park-n-Ride is located at US 85 (State Highway 6) and 72nd Ave. The future rail station site is located just under a mile west on 72nd Ave, and just east of Interstate 76.
ACTIVE TRANSPORTATION ANALYSIS

NORTHEAST ROUTE
Opportunities: Residential streets Kearny St, 76th Ave, and Monaco St provide low-stress connections for a portion of the route.

Challenges: 72nd Ave is a five-lane arterial that is highly uncomfortable for pedestrians and bicyclists due to its heavy traffic volumes and its industrial nature. Sidewalks are typically five-feet wide or less and have no separation from the roadway. Railroad crossings and industrial driveways further complicate travel for people on foot or bikes. The intersection with US 85 is particularly stressful due to long crossing distances and inadequate crossing facilities.

SOUTH ROUTE
Opportunities: Significant portions of the route are along low-stress residential streets and trails or streets with bike lanes. A railroad underpass and mid-block crossing at State Highway 2 provide reasonably safe access for trail users.

Challenges: Pedestrians and bicyclists wishing to access the south route must also contend with the challenges of 72nd Ave as described in the north route. Bicycling on Holly St between Tichy Blvd and 62nd Ave is fairly uncomfortable due to relatively high traffic volumes and a lack of bicycle facilities.

GENERAL FINDINGS
- Long crossing distances and inadequate facilities at the intersection of US 85 and 72nd Ave create a major obstacle to pedestrians and bicyclists wishing to access the Park-n-Ride.
- 72nd Ave is a highly stressful route for pedestrians and bicyclists due to its narrow sidewalks, lack of tree lawns, and industrial traffic. However, there are few, if any, alternative routes for those wishing to access the Park-n-Ride from east of US 85.
- The presence of highways, railroads, and industrial facilities complicates travel for pedestrians and bicyclists.
- Without any type of facility for non-motorized users, travel on Brighton Rd is dangerous for pedestrians and bicyclists.
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Opportunities: The Commerce City Station Area Master Plan completed by Commerce City in 2013 provides the roadmap for preparing and developing the areas around the Commerce City • 72nd Ave Station along the N Line (see below). The plan envisions residential developments to the immediate east and west of the station, as well as a “Mixed-Use Commercial” corridor along 72nd Ave between the station and US-85.

Challenges: Making connections across the ditch to provide multiple access points to the station.
TRANSIT FREQUENCY AND EXISTING TRAVEL PATTERNS

RTD routes serving the station:
- Route 72 - low peak frequency
- Good local transit coverage in the area. Transit routing and service will likely change when the N Line opens

DRCOG Walking, Biking, and Transit Trips:
- DRCOG Model shows medium levels of walking, biking, and transit trips

DRCOG FOCUS Model
Average weekday daily walk, bike and transit trips as a percentage of total trips

- 0.0% - 5.2%
- 5.3% - 9.0%
- 9.1% - 12.9%
- 13.0% - 17.0%
- 17.1% - 28.0%

LAND OWNERSHIP

Land and Development Characteristics:
- Adams County owns some of the land to the east of the station
- RTD owns the Park-n-Ride land

Parcel Information
- RTD-Owned Parcels
- School
- Public-Owned Parcels
- Light Rail Station
- Privately-Owned Parcels

RTD Transit Routes
Average maximum weekday wait time during peak periods (Spring 2018)
- Every 10 Minutes or Better
- Between Every 10 and 15 Minutes
- Between Every 15 and 30 Minutes
- Between Every 30 and 60 Minutes
- Every 60 Minutes or More
RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

NORTHEAST ROUTE
Reconstruct the sidewalks on 72nd Ave as shared use paths will provide a safer and more comfortable route for pedestrians and bicyclists to access the transit stop from the east. Landscaped buffers with shade trees will help separate path users from 72nd Ave’s heavy traffic. Bike lanes on 73rd Ave will create a more comfortable connection to northeast neighborhoods and schools. Due to a high frequency of driveways and considerable truck traffic on Brighton Rd, buffered or separated bike lanes on Brighton Rd are most appropriate to facilitate bicycle travel farther north. Though outside of the walkshed, Brighton Rd should also have new sidewalks constructed to provide dedicated space for pedestrians.

SOUTH ROUTE
Shared-use paths on 72nd Ave will also fill a critical gap in the route to the station from the south. Widening the existing sidewalk on Fairfax Dr to a minimum of five feet will better accommodate pedestrians. Extending the bike lanes on Holly St north to Tichy Blvd will create a continuous route to the station from the south.

PARK-N-RIDE IMPROVEMENTS

- Add at least 2 additional inverted U-racks for short-term bike parking
- Consider adding secure long-term bike storage
- Construct ADA-compliant sidewalks and landing pads at the bus stops on 72nd Ave adjacent to the Park-n-Ride

RECOMMENDATIONS FOR ASSESSED ROUTES

- Pedestrian spot improvement
- Widen existing sidewalk
- Add a landscaped buffer with shade trees to sidewalk
- Reconstruct sidewalk as a shared-use path
- Bicycle spot improvement
- Stripe bike lanes
- Install buffered or separated bike lanes
- Low-stress existing route (No change)

EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Bicycle Facilities</th>
<th>Transit</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route/Shared Rd</td>
<td>Bus Stop</td>
<td>Healthcare/Medical Facility</td>
</tr>
<tr>
<td>On-Street Dedicated</td>
<td>Rail Station</td>
<td>School</td>
</tr>
<tr>
<td>Off-Street</td>
<td>Bus Route</td>
<td>Activity Generator</td>
</tr>
<tr>
<td></td>
<td>Park-n-Ride</td>
<td>Park</td>
</tr>
</tbody>
</table>

At US 58 and 72nd Ave, erect the crosswalk as needed. Construct raised refuge islands with adequate space for both pedestrians and bicyclists at each median, and implement pedestrian leading elements. Reconstruct the existing park shop islands to be more substantial and to prevent the accumulation of debris, and consider reducing turn radii to slow turning vehicles.

Add wayfinding to and from the trail. Install a map kiosk at the trail entrance.

Construct buffered or separated bike lanes on Brighton Rd to provide adequate separation from truck traffic.

Install a two-stage turn box on Brighton Blvd at 80th Ave to facilitate left turns for bicyclists.

Add at least 2 additional inverted U-racks for short-term bike parking and consider adding secure long-term bike storage.

Add at least 2 additional inverted U-racks for short-term bike parking.
CURBSIDE MANAGEMENT RECOMMENDATIONS

- The future station plans include a large parking lot designed with 359 spaces. The four highlighted parking spaces are considered the most valuable (closest to the transit service). These parking spaces could be reused to encourage greater access to the station. Examples include converting the spaces into secure long term bike parking or preferential carpool spaces. A number of the spaces along the west side of the parking lot could be converted to leverage increased and diversified modal access.
## OVERALL RECOMMENDATIONS

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Pedestrian-scale lighting</td>
<td>Ensure that major walking routes to/from stations have adequate, pedestrian-friendly lighting. This can be a significant barrier for people’s sense of security, especially at night.</td>
<td>Increased safety and security for riders accessing the station at night</td>
<td>High</td>
<td>Commerce City, Xcel</td>
</tr>
<tr>
<td>New infrastructure</td>
<td>Short-term bike parking and secure long-term bike storage</td>
<td>There is no long-term bicycle storage provided at the Park-n-Ride and limited capacity for short-term bike parking.</td>
<td>More people will bike to the Park-n-Ride with plenty of secure parking opportunities.</td>
<td>High</td>
<td>City of Commerce City</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Wayfinding signage and transit vicinity map</td>
<td>People may be less likely to walk or bike to/from the station if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the station if the safest, most comfortable routes are clear and easy to follow.</td>
<td>High</td>
<td>City of Commerce City</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Promotion of low-income or senior discount transit passes</td>
<td>Promote the low-income transit pass, provide an opportunity for people to try transit for free before committing to the pass.</td>
<td>Raises awareness among existing residential communities about new transit options and improves financial accessibility.</td>
<td>High</td>
<td>City of Commerce City, RTD, DRCOG</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident and employee transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g., moving house or changing employer) they are more open to changing travel behavior.</td>
<td>High</td>
<td>City of Commerce City, Developers</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian and bicycle/micromobility infrastructure: construct shared use paths or sidewalks and separated bicycle facilities adjacent to high traffic volume/speed roads</td>
<td>High traffic volumes and speeds, and narrow, deteriorated sidewalks and crosswalks (or none in the case of Brighton Rd) makes walking and biking on 72nd Ave and Brighton Rd highly uncomfortable.</td>
<td>More people will walk, bike, or use micromobility devices to access the Park-n-Ride and rail station.</td>
<td>High</td>
<td>City of Commerce City</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micromobility infrastructure: stripe bike lanes on 73rd Ave and Holly St</td>
<td>Sharing travel lanes with motorized vehicles on streets with significant traffic volumes is not comfortable for most bicyclists or micromobility device users.</td>
<td>The comfort and safety of bicyclists and micromobility device users will improve.</td>
<td>Medium</td>
<td>City of Commerce City</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: widen sidewalks on Fairfax Ave</td>
<td>Sidewalks that are less than five feet wide are not comfortable for pedestrians and do not adequately accommodate people using wheelchairs or pushing strollers.</td>
<td>Pedestrian access and comfort will improve.</td>
<td>Medium</td>
<td>City of Commerce City</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Preferential parking for carpool and vanpool vehicles</td>
<td>Provide preferential parking for carpools and vanpools. This can be close to the transit service location, covered, or otherwise preferable.</td>
<td>Improve access for carpools or vanpools.</td>
<td>Medium</td>
<td>RTD</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Transit Oriented Development</td>
<td>The Commerce City Station Area Master Plan for this station envisions significant commercial and residential transit-oriented development.</td>
<td>Increases the number of residents and employees who can ride transit</td>
<td>Medium</td>
<td>City of Commerce City, Developers</td>
</tr>
<tr>
<td>FLM Toolkit Theme</td>
<td>Strategy</td>
<td>Rationale</td>
<td>Desired Outcomes</td>
<td>Priority</td>
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</tr>
<tr>
<td>-------------------</td>
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<td>-----------</td>
<td>-----------------</td>
<td>----------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Dynamic carpooling to transit</td>
<td>Facilitate or market dynamic carpool matching through services like Waze Carpool, Scoop and SPLT for rides to and from transit stations. Dynamic carpool matching and dispatch significantly increase the number of people using carpooling, in part by getting around some of the reasons traditional carpools may be unappealing (such as having to ride with the same group of people every day). Companies like Waze, Scoop and others can create neighborhood areas or pool employees from specific work-sites for improved access to the transit service location. Ideally carpoolers will be guaranteed a parking space that is close to bus and rail loading areas at their preferred park and ride</td>
<td>Increased access from neighborhood and employers outside of walking distance.</td>
<td>Medium</td>
<td>City of Commerce City</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycling workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Encourages bicycling use and safety when accessing stations.</td>
<td>Medium</td>
<td>DRCOG</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Commuter Expert or Commuter Buddy Program</td>
<td>Implement a program where expert commuters at an employer or residential location show people how to use transit and/or volunteer to ride with them the first time on their route.</td>
<td>Increased awareness among current nearby residents of the new service and how to access it.</td>
<td>Low</td>
<td>DRCOG</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Website or app</td>
<td>Create or promote a website or app that aggregates all relevant information about local transportation options, programs, and incentives available to employees or residents surrounding the transit location.</td>
<td>Aggregates all information in one location.</td>
<td>Low</td>
<td>Developers</td>
</tr>
<tr>
<td>Transportation Service</td>
<td>Support implementation of micromobility services</td>
<td>In areas where the market is not already providing electric micromobility devices (e.g. Bird, Lime, Razor) sufficient to meet user demand, work with providers to support the deployment of devices around the transit service location. Incentives for private providers may include preferential/highly visible parking locations, subsidies, advertising, corrals to which vehicles can be reliably rebalanced, and access to standardized charging interfaces.</td>
<td>Increased station access options for riders who live or work nearby.</td>
<td>Low</td>
<td>City of Commerce City</td>
</tr>
</tbody>
</table>
This chart on this page provides a framework for prioritizing recommendations. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the Commerce City • 72nd Ave Station including:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Promotion of low-income transit pass, as this location has historically vulnerable populations.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Preferential carpool parking for carpool or vanpool vehicles to encourage access by higher occupancy vehicles.
- Dynamic carpooling, as this station is in an area of change, providing a dynamic carpool service to it will help provide a feeder service until it becomes established.
- TNC, car or vanpool financial incentives to improve access for people who do not own cars but live too far away to walk or use active transportation.
- Website or App, as this station will take over from the current Park-n-Ride, providing up-to-date information of any changes will be important

IMPLEMENTING AGENCIES

This station is situated near Commerce City, as such it is suggested that the City should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station in partnership with Adams County.

Does not fall within a TMA area, and therefore it is suggested that DRCOG’s Way to Go program takes the lead on TDM recommendations with support from RTD.
STATION ANALYSIS:
Wheat Ridge • Ward Rd Station
1 PROBLEM STATEMENT ................................1-3

2 STATION ASSESSMENT ..............................1-4
   • Station Area Context
   • Active Transportation Analysis
   • Curbside Management and Parking Analysis
   • Transit and Land Ownership

3 RECOMMENDATIONS .................................1-9
   • Active Transportation
   • Curbside Management and Parking
   • Overall Recommendations
   • Conclusion
Wheat Ridge - Ward Road Station is a future station located on the G Line. Once the G Line is operational Ward Road Station will be the end-of-line station on the G Line.

The surrounding area is predominantly residential, with pockets of employment and other land use types. The lower density nature of the area makes walking trips to transit longer.

The population around the station is generally either older or younger people, often renting. The proximity of I-70 acts as a barrier to mobility north to south.

This location is in an area with high propensity to change, with land available for redevelopment. Ensuring developments improve access to transit will be important. The area also has high levels of shift workers, with commute times outside of the peak periods. Kaiser Permanente’s Wheat Ridge medical offices are also in this area, so some riders may require additional mobility services.

A half-mile walkshed was generated for this station. A half-mile (or 10 minute) walkshed depicts how far a person can walk or roll from a transit station entrance along existing sidewalks. At this station, walkshed coverage* of 23% highlights a poor existing network for active transportation to access the station.

No TMA currently serves this area.

There will be 290 RTD parking spaces at this location.

*Walkshed coverage was calculated using a geographic information system (GIS) by running a half-mile network analysis originating at the station along the DRCOG 2016 Planimetrics Sidewalks Centerline layer. A 200 foot buffer was created around this routed network, and the area of this polygon was divided by a circle with a half-mile radius to reach a coverage percentage.
2 STATION ASSESSMENT

STATION AREA CONTEXT

This section includes a description of the demographics and travel patterns of the surrounding station area. All data sources included within this section are universally available throughout the region. The region's demographic and travel pattern data is to provide insight into current travel demands, patterns and opportunities to improve first and last mile connectivity.

Demographic and travel pattern data within this section includes:

- **Census Data (2010, 2015)**: Data was collected at the census block-level from the 2010 Census for population and 2015 LEHD (Longitudinal Employer-Household Dynamics) data for jobs.
- **Tapestry Segmentation Data (2018)**: Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by Esri.
- **Context Map**: Provides a snapshot of the situation of the station or service location with regards to the immediate surrounding area.

CENSUS DATA (2015)

The maps below show the concentration of population and employment within a 2-mile buffer of the station.

Most of the population in the area is concentrated north and northeast of the station. There is low existing concentrations of employment in the station area.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of Ward Station. The majority of employees travel less than 10 miles to get to work, as seen in the chart below.

**Distance Traveled to Work For Employees Working Within 1-Mile Radius of Wheat Ridge - Ward Rd Station**

- Less than 10 miles
- 10-24 miles
- 25-50 miles
- Greater than 50 miles

TAPESTRY (ESRI) DATA (2018)

Below are the three largest Tapestry Segments in the 80033 zip code around Ward Station:

1. **Old and Newcomers**
   - 29%
   - Household: College Degree White
   - Additional Tapestry data:
     - Shop at diverse, large retail chains
     - Monitor finances closely
     - Support political organizations/other groups
     - Watch cable TV, HBO, Cinemax
     - Vacation overseas

2. **Retirement Communities**
   - 19%
   - Household: College Degree White
   - Additional Tapestry data:
     - Attend church, are members of fraternal orders
     - Have retirement income, Social Security
     - Read, go fishing, play golf
     - Watch country music TV channels
     - Own domestic SUV, trucks

3. **Midlife Constants**
   - 15%
   - Household: College Degree White
   - Additional Tapestry data:
     - Attend church, are members of fraternal orders
     - Have retirement income, Social Security
     - Read, go fishing, play golf
     - Watch country music TV channels
     - Own domestic SUV, trucks

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1 For more information about OnTheMap and associated data sources, use this link: https://onthemap.ces.census.gov/
2 For more information about Esri Tapestry data, use this link: https://www.esri.com/en-us/arccgis/products/tapestry-segmentation/overview
3 For more information about DRCOG’s Focus Model, use this link: https://drcog.org/services-and-resources/data-maps-and-modeling/travel-modeling/focus-travel-model
CONTEXT MAP

This map shows the location of the station with regards to surrounding land uses and transportation connections.

The Wheat Ridge - Ward commuter rail station is located just over half a mile northeast of Interstate 70 and Ward Rd.

Bike lanes along Ridge Rd north of station

Missing sidewalks along W 52nd Ave

Off-Street Bicycle Facilities

Pedestrian Facilities

10-minute Walkshed

Transit

- Bus Stop
- Rail Station
- Bus Route
- Light Rail Route

Destinations

- Healthcare/Medical Facility
- School
- Park
- Park-n-Ride

I-70 Frontage Rd approaching Tabor St

Ward Station

Wheat Ridge - Ward Station

Ward Rd Station

Wheat Ridge -
**ACTIVE TRANSPORTATION ANALYSIS**

**NORTHWEST ROUTE**

**Opportunities:** Newly constructed Taft Ct is a low-stress street with sidewalks that provides comfortable access to and from the transit station for pedestrians and bicyclists. The majority of east-bound 52nd Ave has a paved shoulder that provides bicyclists traveling in that direction with usable, but not dedicated, space.

**Challenges:** West-bound bicyclists must ride in the vehicle lane on 52nd Ave. Within the walkshed, most of 52nd Ave also lacks sidewalks, forcing pedestrians to walk in the road.

**SOUTHWEST ROUTE**

**Opportunities:** The portion of Tabor St nearest the transit station has bike lanes, providing bicyclists with a reasonable level of comfort. South of 44th Ave, Tabor St is a low-stress roadway that connects to the Clear Creek Trail, another low-stress facility for bicyclists and pedestrians.

**Challenges:** The I-70 frontage road and a significant portion of Tabor St lack bicycle facilities or sidewalks, forcing vehicles, bicyclists, and pedestrians to share the same space. A lack of safe, clearly-marked access points to the Clear Creek Trail complicates its use as a commuter route.

**GENERAL FINDINGS**

- A lack of sidewalks outside of the immediate transit station vicinity makes pedestrian access from further afield more difficult, particularly people with mobility challenges.
- The lack of bike lanes on 52nd Ave limits its usage as a comfortable and safe bicycle route.
- The Clear Creek Trail is a high-quality and comfortable facility for both pedestrians and bicyclists, but is not well-connected to the surrounding street network.

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**STATION BICYCLE PARKING CAPACITIES**

<table>
<thead>
<tr>
<th></th>
<th>Short-term</th>
<th>Long-term</th>
<th>Bike Share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

---

A paved shoulder on east-bound 52nd Ave provides bicyclists with usable, but not dedicated space. Bicyclists traveling west must ride in the vehicle travel lane.

Bike lanes provide bicyclists with a reasonable level of comfort on Tabor St north of the I-70 frontage road, but the lack of a sidewalk on the west side of the road is an obstacle for pedestrians.

A lack of bicycle or pedestrian facilities on the I-70 frontage road and the majority of Tabor St forces non-motorized users to travel in narrow shoulders or in vehicle travel lanes.

There is no traffic signal at Tabor St and 44th Ave (a 6-lane road), leaving bicyclists to travel a block west to cross at the I-70 on-ramp.

A lack of signage and access points makes it difficult to access the trail from nearby streets.

The Clear Creek Trail is a comfortable facility for both bicyclists and pedestrians.

Wide-tree lanes provide bicyclists with a comfortable buffer from traffic on this section of 52nd Ave.

This section of 52nd Ave has no bicycle facilities and generally lacks sidewalks as well, forcing bicyclists and pedestrians to share travel lanes with vehicles.

---

**Level of Comfort Analysis**

- **Most Comfortable**
  - Route/Shared Rd
  - On-Street Dedicated
- **Least Comfortable**
  - Off-Street

**Bicycle Facilities**

- **Transit**
  - Rail Station
  - Bus Route
  - Light Rail Route
  - Park n’ Ride

**Destinations**

- Healthcare/Medical Facility
- School
- Activity Generator
- Park

**ASSESSING STATIONS**

---

**RTD FIRST LAST MILE PLAN**

**A Bike to Work**

- **Least Comfortable (no dedicated facilities)**
- **Off-Street**

**School**

- **Most Comfortable**
- **Route/Shared Rd**
- **On-Street Dedicated**

**Healthcare/Medical Facility**

**Activity Generator**

**Park**

**ASSESSING STATIONS**
Opportunities: The Wheat Ridge • Ward Road Station Vision completed by the City of Wheat Ridge in 2017 provides a roadmap for preparing and developing the areas around the Wheat Ridge - Ward Road Station along the G Line. The plan envisions a mix of residential and retail uses with a pedestrian an bicycle bridge over the rail lines to connect the area to the south to the station. The plan also calls for developing a regional park at the existing ponds just north of I-70.

Challenges: Industrial uses to the west of the station include a large number of curb cuts, creating an unfriendly walking and bicycling environment.
RTD Transit Routes
Average maximum weekday wait time during peak periods (Spring 2018)
- Route 72L - medium peak frequency
- Decent local transit coverage in the area

DRCOG Walking, Biking, and Transit Trips:
- DRCOG Model shows low walking, biking and transit trips, except for south of I-70 and north of 58th Ave

DRCOG FOCUS Model
Average weekday daily walk, bike and transit trips as a percentage of total trips
- 0.0% - 5.2%
- 5.3% - 9.0%
- 9.1% - 12.9%
- 13.0% - 17.0%
- 17.1% - 28.0%

Land and Development Characteristics:
- RTD owns a large portion of the land in the immediate vicinity of the station

Parcel Information
- RTD-Owned Parcels
- Public-Owned Parcels
- Privately-Owned Parcels
- School
- Light Rail Station
- Transit Station
3 RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

NORTHWEST ROUTE
Within the walkshed, installing sidewalks on 52nd Ave will connect pedestrians from northwest neighborhoods to the new sidewalks on Taft Ct, and ultimately to the station. Stripe bike lanes on 52nd Ave will provide the same connection for bicyclists.

SOUTH ROUTE
Constructing sidewalks and striping bike lanes on Tabor St will provide station access for pedestrians and bicyclists from the south and vice versa. Installing a Rectangular Rapid Flash Beacon (RRFB) at Tabor St and 44th Ave will provide a safer connection for bicyclists across 44th Ave to the Clear Creek Trail. Additional wayfinding signage and map kiosks at the station and on the Clear Creek trail will help to establish Tabor St as the primary route between the trail and the station.

RAIL STATION IMPROVEMENTS

- Add secure long-term bike storage
- Add additional wayfinding and a map kiosk to direct users to the Clear Creek Trail (and other trails within the two-mile radius)

RECOMMENDATIONS FOR ASSESSED ROUTES

- Bicycle spot improvement
- Construct new sidewalk
- Stripe bike lanes
- Low-stress existing route (No change)

EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Bicycle Facilities</th>
<th>Transit</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route/Shared Rd (no dedicated facilities)</td>
<td>Bus Stop</td>
<td>Healthcare/Medical Facility</td>
</tr>
<tr>
<td>On-Street Dedicated</td>
<td>Rail Station</td>
<td>School</td>
</tr>
<tr>
<td>Off-Street</td>
<td>Bus Route</td>
<td>Activity Generator</td>
</tr>
<tr>
<td></td>
<td>Rail Route</td>
<td>Park</td>
</tr>
<tr>
<td></td>
<td>Park-N-Ride</td>
<td></td>
</tr>
</tbody>
</table>

Stripe bike lanes on westbound 52nd Ave; convert eastbound paved shoulder to a bike lane by ensuring minimum width of at least 4’ in all locations.

Install additional signage to direct people from surrounding neighborhoods to trail access points. Increase the frequency of access points, if possible.

Install additional signage to direct bicyclists to the train station and vice versa.

Install signage on the Clear Creek Trail and Tabor St to direct bicyclists to the transit station and vice versa.
There is potential to create short-term parking restrictions in the recently-built parking pull-out lanes along 50th Pl/Ridge Rd and Taft Ct. This would encourage parking turnover and keep the lanes available for pick-up/drop-off and short-term parking.
### OVERALL RECOMMENDATIONS

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Infrastructure</td>
<td>Multimodal wayfinding signage and a transit station vicinity map: install wayfinding signage and a map to direct users to the station from the Clear Creek trail and vice versa</td>
<td>It is not clear how to access the station from the Clear Creek Trail (and vice versa) by bicycle.</td>
<td>More people will bicycle to the station, particularly from the Clear Creek Trail.</td>
<td>High</td>
<td>City of Wheat Ridge</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Wayfinding signage and transit vicinity map</td>
<td>People may be less likely to walk or bike to/from the station if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the station if the safest, most comfortable routes are clear and easy to follow.</td>
<td>High</td>
<td>City of Wheat Ridge</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident and employee transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes. Since this station will provide new service to the area, these kits should be sent to all residents and employers within the station’s catchment area.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>High</td>
<td>City of Wheat Ridge</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: construct new sidewalks on Tabor St and 52nd Ave</td>
<td>A lack of sidewalks forces pedestrians to walk on shoulders or in travel lanes.</td>
<td>Pedestrian access and comfort will improve.</td>
<td>High</td>
<td>City of Wheat Ridge</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micromobility infrastructure; stripe bike lanes on Tabor St and 52nd Ave; install an RRFB at Tabor St and 44th Ave</td>
<td>Sharing travel lanes with motorized vehicles on Tabor St and 52nd Ave is uncomfortable for most bicyclists and micromobility device users. A signalized crossing at Tabor St and 44th Ave will provide a safe and direct connection from the Clear Creek Trail to the station.</td>
<td>Bicyclist access and comfort will improve.</td>
<td>Medium</td>
<td>City of Wheat Ridge</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Preferential parking for carpool and vanpool vehicles</td>
<td>Provide preferential parking for carpools and vanpools. This can be close to the transit service location, covered, or otherwise preferable.</td>
<td>Improve access for carpools or vanpools.</td>
<td>Medium</td>
<td>RTD</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Provide power</td>
<td>Ensure that transit locations include provision and access to power. This will future proof locations and cover the new wave of electrification in mobility, e.g. personal EVs, bikes, scooters, microtransit vehicles and EV TNCs.</td>
<td>Facilitates the use of personal and shared electric vehicles at the station</td>
<td>Medium</td>
<td>RTD</td>
</tr>
<tr>
<td>Improvements and Reuse of Existing Infrastructure</td>
<td>Car share parking</td>
<td>Provide parking for car sharing vehicles within the transit service location. Spaces should be in areas with high visibility that are accessible to transit riders and employees and residents who work and/or live nearby.</td>
<td>Providing high-visibility spaces for car share vehicles will encourage their use by transit customers and potential transit customers who may be more likely to use transit if they have access to a car share vehicle for some trips throughout their day.</td>
<td>Low</td>
<td>RTD</td>
</tr>
</tbody>
</table>
## OVERALL RECOMMENDATIONS (CONT.)

<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programmatic</td>
<td>Dynamic carpooling to transit</td>
<td>Facilitate or market dynamic carpool matching through services like Waze Carpool, Scoop and SPLT for rides to and from transit stations. Dynamic carpool matching and dispatch significantly increase the number of people using carpooling, in part by getting around some of the reasons traditional carpools may be unappealing (such as having to ride with the same group of people every day). Companies like Waze, Scoop and others can create neighborhood areas or pool employees from specific work-sites for improved access to the transit service location. Ideally carpoolers will be guaranteed a parking space that is close to bus and rail loading areas at their preferred park and ride.</td>
<td>Increased access from neighborhoods and employers outside of walking distance.</td>
<td>Low</td>
<td>DRCOG</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Website or app</td>
<td>Create or promote a website or app that aggregates all relevant information about local transportation options, programs, and incentives available to employees or residents surrounding the transit location.</td>
<td>Consolidates all information in one place as this area develops and transportation options increase.</td>
<td>Low</td>
<td>Future TMA/Developer</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycling workshops and courses</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>Encourages bicycle use and safety when accessing station</td>
<td>Low</td>
<td>City of Wheat Ridge</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Variable message signs on highways/interstates for information sharing</td>
<td>Use variable message signs to highlight the time savings and other benefits of using transit instead of driving. Examples include transit versus drive time, park and ride parking availability, and potential cost savings.</td>
<td>Use of station as park and ride for drivers headed into Denver on I-70.</td>
<td>Low</td>
<td>CDOT</td>
</tr>
<tr>
<td>Transportation Service</td>
<td>Support implementation of micromobility services</td>
<td>In areas where the market is not already providing electric micromobility devices (e.g. Bird, Lime, Razor) sufficient to meet user demand, work with providers to support the deployment of devices around the transit service location. Incentives for private providers may include preferential/highly visible parking locations, subsidies, advertising, corrals to which vehicles can be reliably rebalanced, and access to standardized charging interfaces.</td>
<td>Increased access to the station from surrounding neighborhoods and employers</td>
<td>Low</td>
<td>City of Wheat Ridge</td>
</tr>
</tbody>
</table>
This chart provides a framework from which to categorize each of the recommendations into four categories. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the Wheat Ridge-Ward Rd Station include:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Preferential carpool parking for carpool or vanpool vehicles to encourage access by higher occupancy vehicles.
- Dynamic carpooling, as this station is in an area of change, providing a dynamic carpool service to it will help provide a feeder service until it becomes established.

CONCLUSION

IMPLEMENTING AGENCIES

This station is situated in the City of Wheat Ridge, as such it is suggested that the City should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.