

Final
March
2023

GREELEY



on the go

**2045
Transportation
Master Plan**





Executive Summary

Greeley on the Go transportation vision:

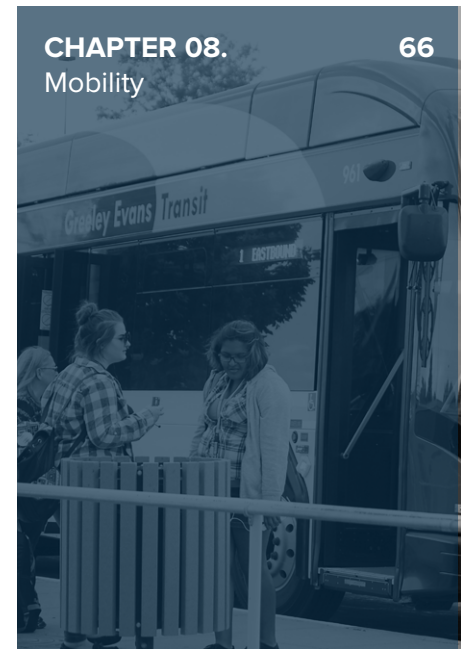
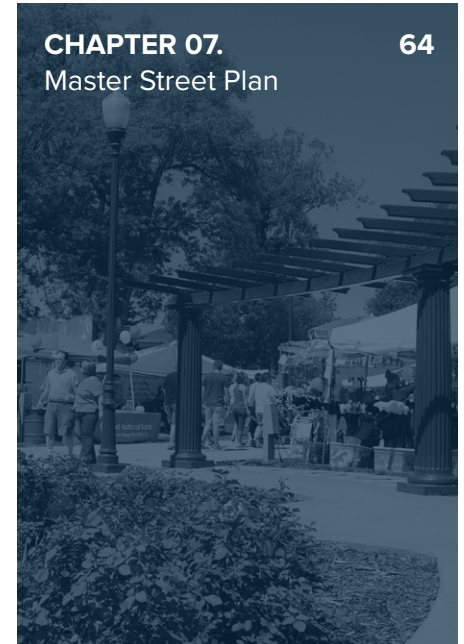
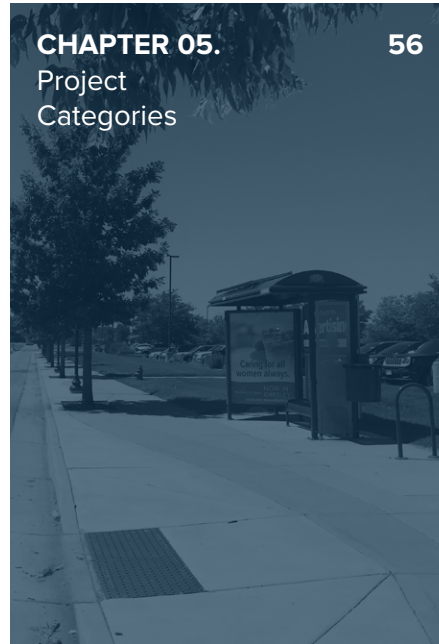
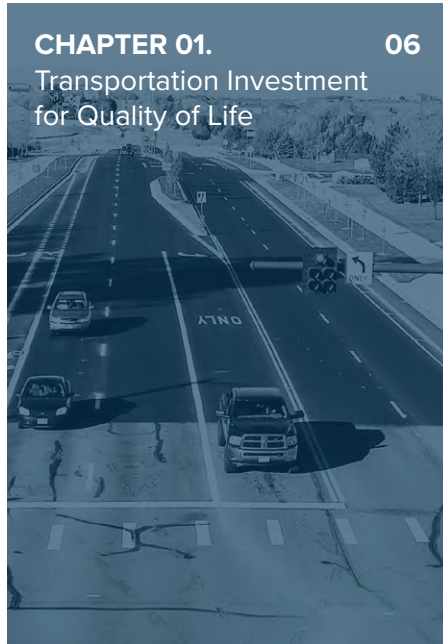
An ample, easy, and connected transportation system providing seamless mobility to enrich lives and promote economic vitality.

The City of Greeley initiated the Greeley on the Go Transportation Master Plan process in 2021 to update the 2035 Comprehensive Transportation Plan (adopted in 2011). Through extensive community outreach, analysis of existing conditions, forecasts for growth and future land use, and an exploration of emerging mobility options, the city has developed a 2045 mobility network that emphasizes multimodal connectivity to meet current and future travel demand. Moreover, Greeley on the Go emphasizes investment in priority areas and corridors through near-term (10-year) enhancements that will promote multimodal connectivity across the City of Greeley. Connected transportation networks will provide community members with access to a variety of resources and allow for comfortable travel options by multiple modes. This strategic investment in a multimodal transportation network will achieve the Greeley on the Go transportation vision by fostering a livable community attractive to both current and new residents as well as businesses seeking to have a presence in a city where employees can live, work and play. The plan seeks to create an improved transportation system that will aid the economic development of the City of Greeley.

The key differences between the current and proposed transportation plan begin with the establishment of plan goals – safety, multimodal network, equity & health, economic vitality, environment & technology, and funding & strategic investments. Additionally, the new plan is focused on urban design geared towards vibrant and inviting neighborhoods with great public spaces to go to and not just spaces to pass through.

The new plan provides for flexibility for integrated mobility options (walking, rolling, biking, transit, and driving), readies the City of Greeley to deploy transportation technology and, increases community connectivity as the City of Greeley continues to grow.

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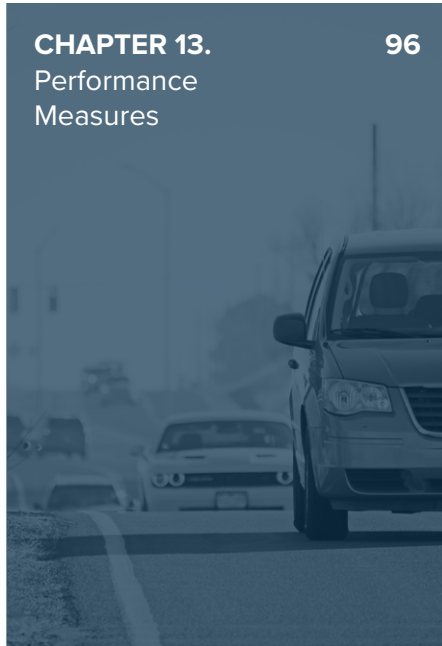
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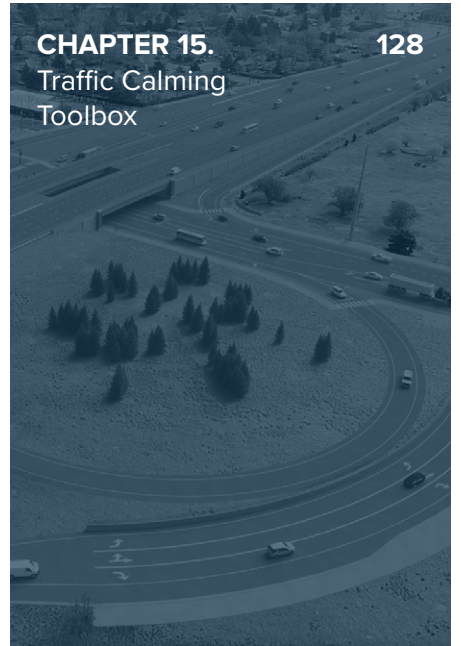
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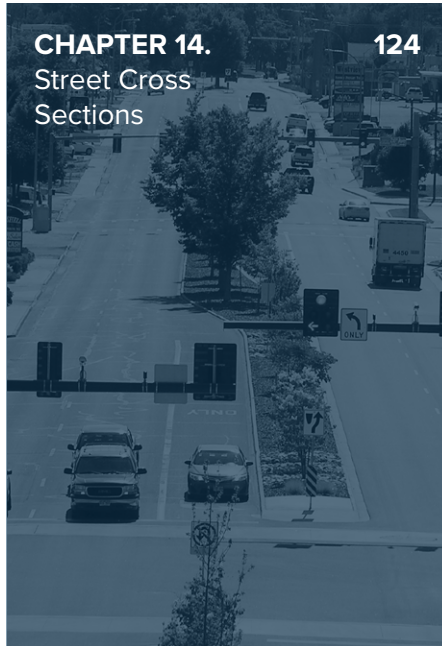
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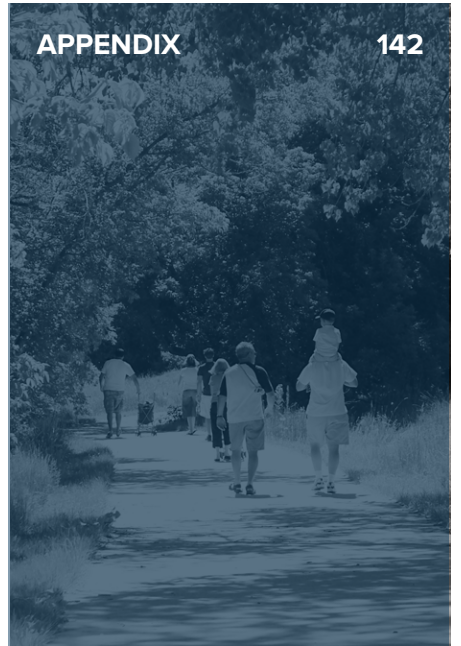
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CHAPTER 01

Transportation Investment for Quality of Life

Transportation Investment for Quality of Life

The City of Greeley initiated the *Greeley on the Go* Transportation Master Plan process in 2021 to update the 2035 Transportation Plan. Through community outreach, analysis of existing conditions, forecasts for growth and future land use, and an exploration of emerging mobility options, the city has identified a 2045 mobility network that emphasizes multimodal connectivity that meets current and future travel demand. Moreover, *Greeley on the Go* emphasizes investment in priority areas and corridors through near-term (10-year) enhancements that will promote multimodal connectivity in key locations.

Connected transportation networks provide community members with access to a variety of resources and allow for comfortable travel options by multiple modes.

By investing in a multimodal transportation network that fulfills the *Greeley on the Go* transportation vision that is described in this Transportation Master Plan, the city is also investing in fostering a livable community that is attractive to both new residents and businesses seeking to have a presence in locations where employees can both live and work.



TMP Then & Now

Greeley 2035 Comprehensive Transportation Plan

Issues

Sustainability

Congestion

Quality-of-life

Funding

Growth and development

Fundamental Elements of Each Plan

Projects developed based on overall network

Planning to move people with vehicles

No performance measures for continued evaluation of system

Individual, segmented pedestrian, bike, transit, & roadway projects

Technology minimally discussed

Introduction of roundabouts as a new traffic control device

Greeley on the Go 2045 Transportation Master Plan

Goals

Safety

Economic vitality

Multimodal network

Environment & technology

Equity & health

Funding & strategic investments

Projects developed based on priority areas and corridors

Planning to move people with vehicles, transit, and active transportation

Performance measures for continued evaluation of system

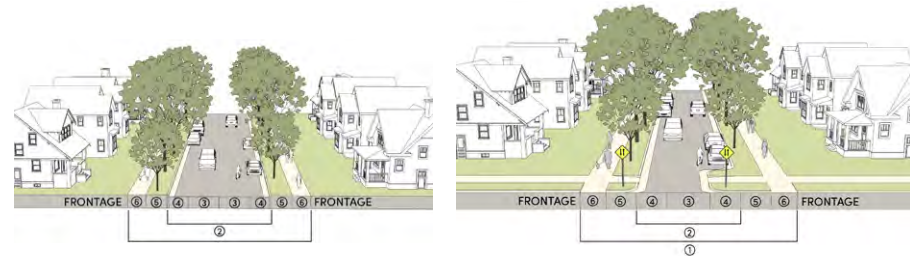
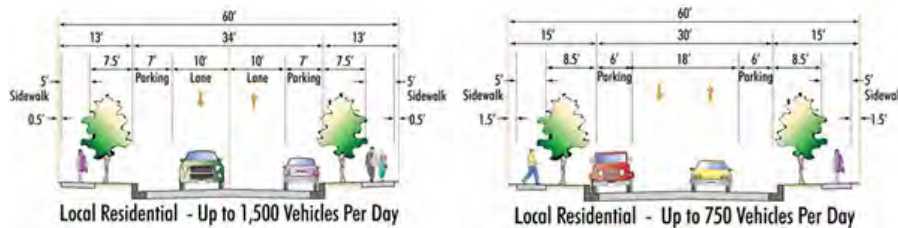
Projects holistically consider people walking, rolling, biking, taking transit, and driving

Proactive discussion of evolving transportation technology

Roundabouts prevalent & incorporated as frequent intersection treatment

- + Urban design focus & vibrant, complete streets oriented
- + New traffic calming toolbox
- + Online story map

New and Updated Roadway Cross Sections





WHAT WE'VE HEARD SO FAR

A summary of the online survey and intercept team feedback (July 2021)



Equity Issues:

- 63% of those who do not have a car are more likely to use public transit.
- 63% of those who do not have a car are more likely to walk or bike.
- 34% of those who do not have a car are more likely to use public transit.
- 59% of those who do not have a car are more likely to walk or bike.
- 16% of those who do not have a car are more likely to use public transit.

Rankings of the City's current transportation system

Mode	Current	Desired
Public Transit	3.5	4.5
Bike Paths	3.8	4.8
Walking Paths	4.2	5.2
Overall Satisfaction	3.2	4.2

¿LO QUE HEMOS ESCUCHADO HASTA AHORA

Un resumen de la encuesta en línea y el equipo de interceptación de comentarios (julio 2021)



Temas de Equidad:

- 63% de quienes no tienen un carro son más propensos a usar el transporte público.
- 63% de quienes no tienen un carro son más propensos a caminar o usar bicicleta.
- 34% de quienes no tienen un carro son más propensos a usar el transporte público.
- 59% de quienes no tienen un carro son más propensos a caminar o usar bicicleta.
- 16% de quienes no tienen un carro son más propensos a usar el transporte público.

Clasificación del sistema de transporte actual de la ciudad

Modo	Actual	Deseado
Transporte Público <td>3.5<td>4.5</td></td>	3.5 <td>4.5</td>	4.5
Caminos para Bicicleta <td>3.8<td>4.8</td></td>	3.8 <td>4.8</td>	4.8
Caminos para Caminar <td>4.2<td>5.2</td></td>	4.2 <td>5.2</td>	5.2
Satisfacción General <td>3.2<td>4.2</td></td>	3.2 <td>4.2</td>	4.2

WHERE DO YOU LIVE & WORK? ¿DÓNDE VIVE Y TRABAJA?



Rankings of the City's current transportation system

Mode	Current	Desired
Public Transit	3.5	4.5
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CHAPTER 02

Vision and Goals

Vision and Goals

Greeley on the Go Vision

The vision for the Greeley 2045 Transportation Master Plan, *Greeley on the Go*, was developed through coordination between city staff, key stakeholders and community members. As a growing community in the Colorado Front Range, Greeley is seeking to ensure all community members can comfortably travel using a variety of modes and that the future transportation network supports a strong local economy and helps foster a high quality of life. The vision for transportation in Greeley is for:

An ample, easy, and connected transportation system providing seamless mobility to enrich lives and promote economic vitality.

Mobility Goals

To achieve this vision, goals were established for seven areas of community life that are either directly related to transportation or are impacted by transportation:

-  **Safety**
-  **Multimodal Network**
-  **Equity and Health**
-  **Economic Development**
-  **Environment and Technology**
-  **Funding and Strategic Investments**
-  **Land Use and Transportation Connection**



GOALS AND SUPPORTING OBJECTIVES

1. Safety

1.1 Create a transportation system that is accessible and safe for the entire community and focused on people.

- 1.1.0** Work towards eliminating all transportation-related fatalities and injuries across all modes by identifying high-crash or high-risk locations and programming safety treatments.
- 1.1.1** Implement traffic calming elements such as reduced street width, curb bulb-outs, raised pedestrian crossings to help reduce traffic speeds and improve safety.
- 1.1.2** Conduct safety analyses for all modes when making land-use and capital improvement decisions.

2. Multimodal Network

2.1 Create and maintain a safe, connected, local and regional layered multimodal transportation network that offers a variety of transportation choices.

- 2.1.1** Prioritize people within a multimodal transportation system to improve community placemaking by connecting neighborhoods and activity centers.
- 2.1.2** Establish corridor and/or specific city subarea goals for mode prioritization.
- 2.1.3** Improve citywide trail access and connectivity.

2.2 Expand and improve existing mobility choices that connect and strengthen the region, city, and neighborhoods.

- 2.2.1** Improve the pedestrian and bicycle experience by prioritizing sidewalks, bike facilities, and crossings around bus stops, parks, schools, grocery stores, public lands, activity centers, and in identified focus areas.
- 2.2.2** Promote comfortable street environments focused on people with streetscape elements such as street trees, detached sidewalks, and other features.
- 2.2.3** Strive towards becoming a 15-min city with ample connections. Ensuring connectivity throughout Greeley regardless of which area of the community one desires to visit.

3. Equity and Health

3.1 Prioritize transportation investments that increase transportation access and promote opportunities in underserved neighborhoods.

- 3.1.1** Conduct comprehensive, neighborhood-level outreach efforts with meaningful engagement of populations underserved by the current multimodal transportation network.

3.2 Improve transportation options for those with mobility challenges to promote independent living.

- 3.2.1** Maximize multimodal access options to community facilities such as schools, health services, libraries, and recreational sites.
- 3.2.2** Structure and fund the Mobility Division within Public Works Department to facilitate mobility operations, initiatives, programs, education, and outreach.

4. Economic Development

4.1 Integrate transportation infrastructure that builds on Greeley's reputation as an attractive place for businesses to locate.

4.1.1 Modernize street infrastructure and enhance walkability, streetscape amenities, and multimodal connections in the Downtown and UNC districts.

4.1.2 Implement well-connected, well-maintained, and innovative infrastructure that promotes the efficient flow of people, goods and services. Strive towards becoming a 15-min city with ample connections between employment areas, commercial centers, and industrial districts.

4.2 Promote development and land-use decisions that encourage alternative transportation options, well-connected and walkable neighborhoods, safe streets, vibrant places, and inviting commercial areas.

4.2.1 Encourage sustainable development patterns and multimodal infrastructure as part of development review and long-range planning efforts.

4.2.2 Develop strategies for accommodating infill development within the redevelopment district. Ensuring connectivity throughout Greeley while supporting placemaking efforts specific to identified areas of town like downtown.

5. Environment and Technology

5.1 Adopt local policies and invest in infrastructure that allow for emerging technologies.

5.1.1 Implement innovation initiatives to ensure emerging data sources and new technologies are incorporated into transportation planning and operations.

5.1.2 Construct transportation infrastructure that promotes resiliency and integrates with the natural environment.

5.1.3 Develop a resilient transportation system that conserves land, energy, and resources.

6. Funding and Strategic Investment

6.1 Invest in transportation strategically and transparently.

6.1.1 Achieve a state of good repair of transportation infrastructure through industry leading asset management practices.

6.1.2 Develop criteria for evaluating potential CIP projects that reflect the goals and objectives of the Master Plan, including the consideration of maintenance into the cost of new infrastructure.

Welcome To
GREELEY
"AN ALL AMERICA CITY"
Please Drive Safely

CHAPTER 03

Existing Conditions

Existing Conditions

Overview

The City of Greeley is undertaking an update to its 2035 Transportation Master Plan. Since the previous Plan was developed in 2011, the City has grown in population and regional significance while transportation options have evolved nationally with emerging technologies that are reshaping the mobility landscape.

The Greeley on the Go effort assessed how Greeley community members travel, identified what type of transportation network the City envisions having in 2045, and developed a roadmap for achieving that vision.

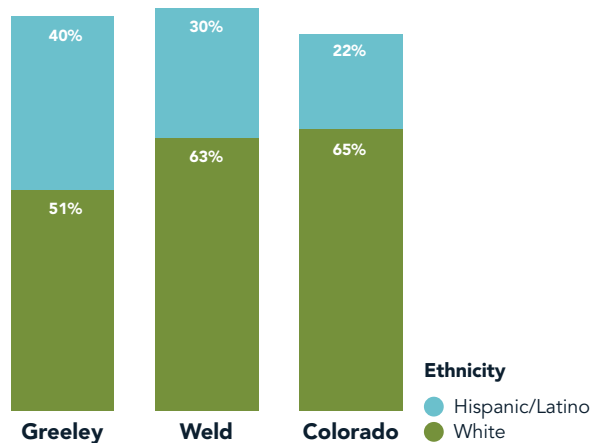
The following profile of existing conditions lays the foundation for the planning effort discussed in this transportation master plan.

The existing conditions analysis examined demographic trends, recent economic development history, and travel patterns into, around, and out of Greeley. In addition, an in-depth look at each transportation mode was conducted to understand the mobility options that community members currently enjoy and whether there are opportunities to further enhance driving, walking, bicycling, and transit connections.

Community Profile

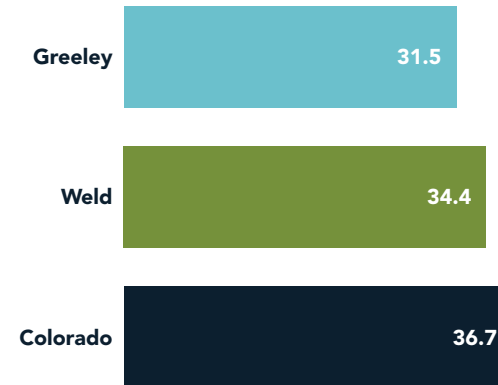
The City of Greeley is the county seat of Weld County. From 2010 to 2020, the population of Weld County grew 30.1 percent making it the fastest-growing metro area in Colorado and the fourth fastest-growing metro area in the country. Greeley’s current population is approximately 112,000 people. Between 2010 and 2020, Greeley’s population grew by 16,000 people – growth of 17% or approximately 1.8% per year. Of the population increase, 96% were people of color specifically residing in City of Greeley. The median age in the City of Greeley is 31.5 years old, which is significantly lower than the national average of 38 years old. Greeley’s population is forecasted to grow to approximately 161,000 people in 2045, adding about 50,000 residents.

Greeley’s population is more diverse than Weld County and Colorado as a whole.



Greeley’s population is younger than the average in both Colorado and Weld County.

Median Age



The countywide population is aging, with the Colorado State Demography Office forecasting the share of County residents 60 and over to be 19% in 2025 compared to 14% in 2010. Neighborhoods with the highest proportion of residents over the age of 65 are located east of US-85, near Greeley Village Retirement Home, and near North Colorado Medical center on 16th Street. Providing mobility options to areas with a high proportion of population over the age of 65 ensures that older adults can maintain independence and access essential services as driving becomes a less desirable option.

Ensuring that older adults in Greeley can age in place will require the city to not only improve travel access for these individuals,

but also develop housing types and sizes that cater to their changing lifestyles, collocate frequent destinations like shopping and medical providers near neighborhoods with a higher share of older adults, and consider them in planning processes.

With the median household income in the City of Greeley being \$57,586, which is lower than the countywide average of \$74,150 and the Colorado average of \$72,331, Greeley residents generally have less income to spend on transportation. More specifically, approximately 16% of Greeley residents live below the poverty line, compared to 9% in Weld County.

With the above demographics in mind and as transportation represents a higher share of household spending for lower income households, Greeley residents are more likely to be dependent upon transit due to the cost-prohibitive nature of owning a vehicle. As with older adults, lower income households rely upon affordable transportation like transit and would benefit from alternative transportation options that provide access to employment, shopping, and other key destinations. As shown in **Figure 1**, households with the lowest median income in the City of Greeley are located near the US-85 corridor while households with the highest median income are located on the north and west outskirts of the City.

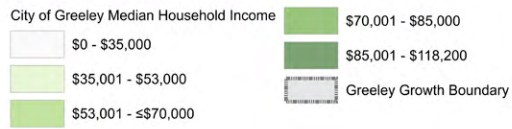
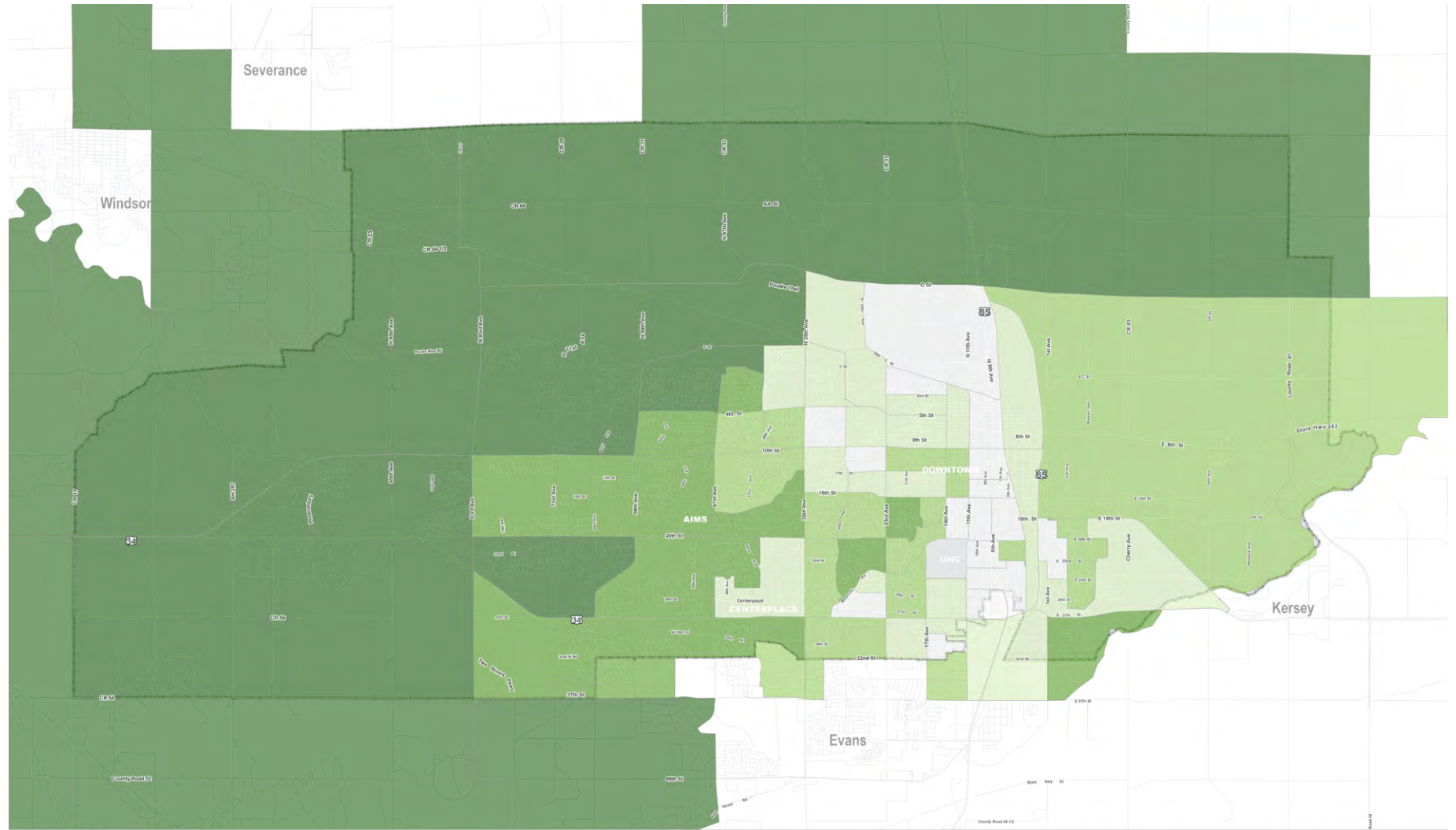


Figure 1: Greeley Median Household Income 17

The median home sales in Greeley is \$455,690 as of August 2022, which is 4% lower than in Weld County (\$475,072) and 21% lower than in Colorado as a whole (\$580,000). This makes Greeley an attractive place for first time homebuyers. Additional demand for housing in neighborhoods around Greeley along with the aforementioned ability to facilitate first time home buyers, regional commuting patterns may play a significant role how people move in, around, and outside of Greeley.

GROWTH

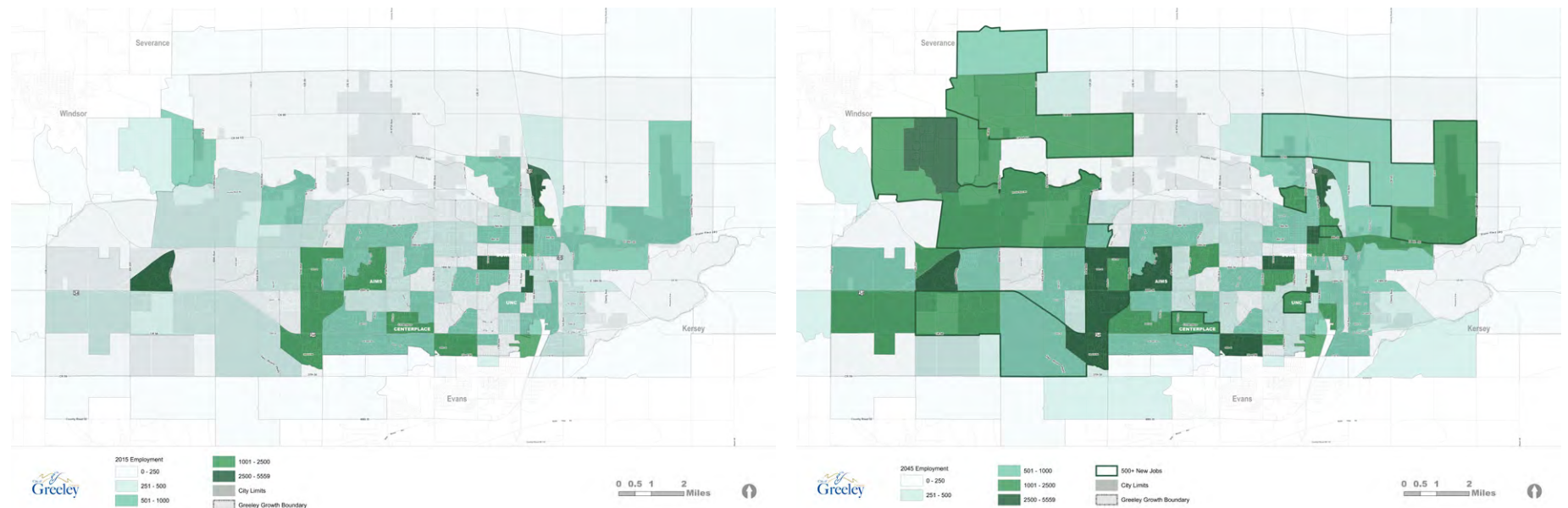
The number of households in the Greeley growth boundary will nearly double between 2015 and 2045, from 36,930 to 67,071, according to forecasts by the North Front Range MPO (NFRMPO) and a review of local development data by Economic & Planning Systems.

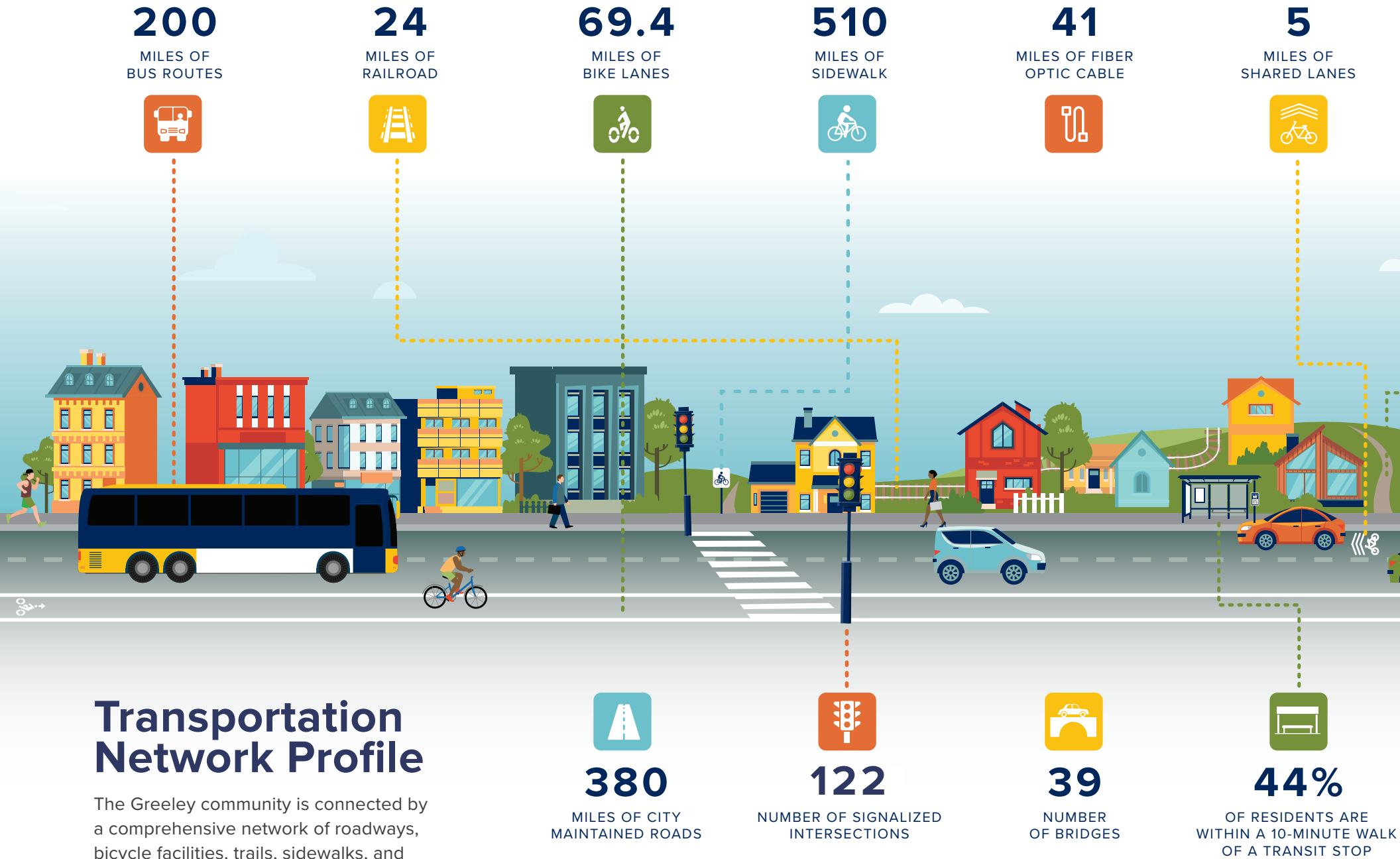
Of the residential units the City of Greeley permitted in the past nine years, 61% were multi-family (which includes

attached/townhome units) and 39% were single-family detached units. Additional density makes operating transit more efficient and cost-effective and creates new opportunities for multimodal travel, when comfortable facilities exist.

The number of employment opportunities in the Greeley growth boundary are projected to grow from approximately 72,000 jobs in 2015 to approximately 120,000 jobs in 2045 (Figure 2). About 60% of employment growth is expected to occur east of 59th Avenue.

Figure 2: Current and Forecast Employment



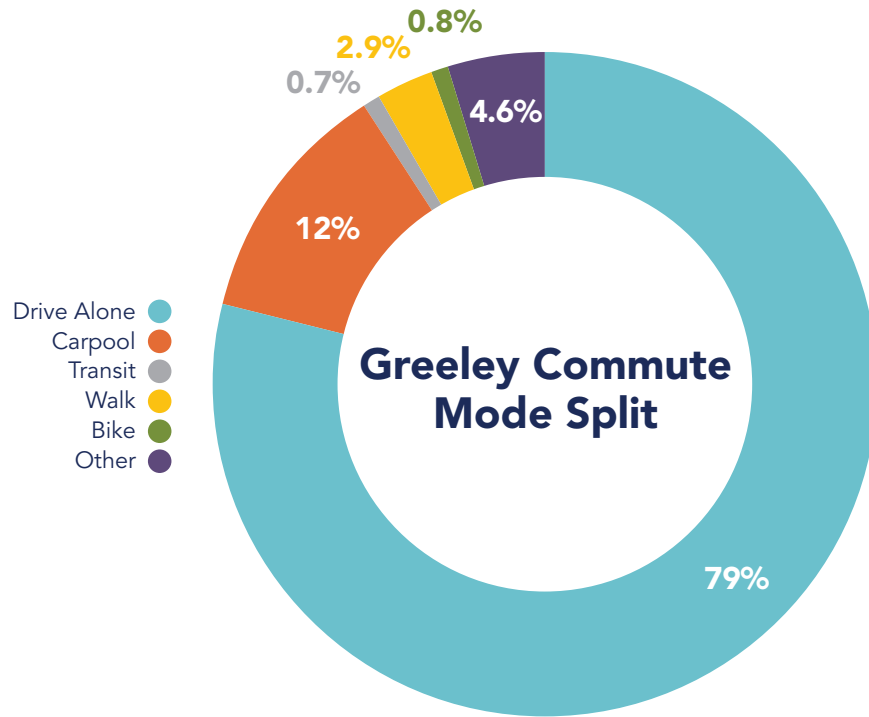


Transportation Network Profile

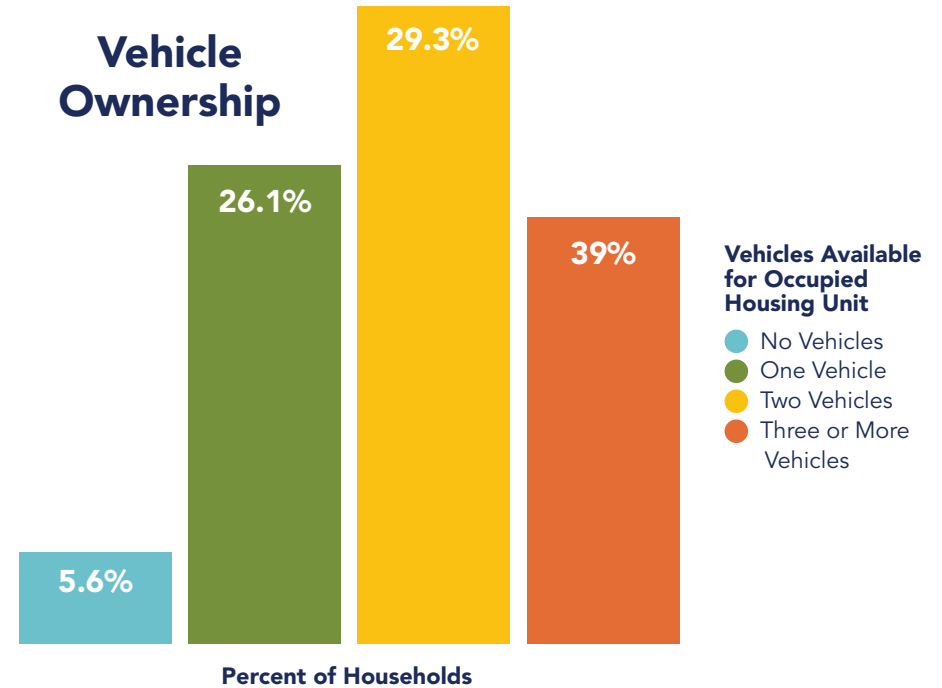
The Greeley community is connected by a comprehensive network of roadways, bicycle facilities, trails, sidewalks, and transit routes (Figure 3).

Figure 3: Current Greeley Transportation Network

Today, most trips in Greeley are taken by vehicle and few households have no vehicle access (Figure 4).



Vehicle Ownership



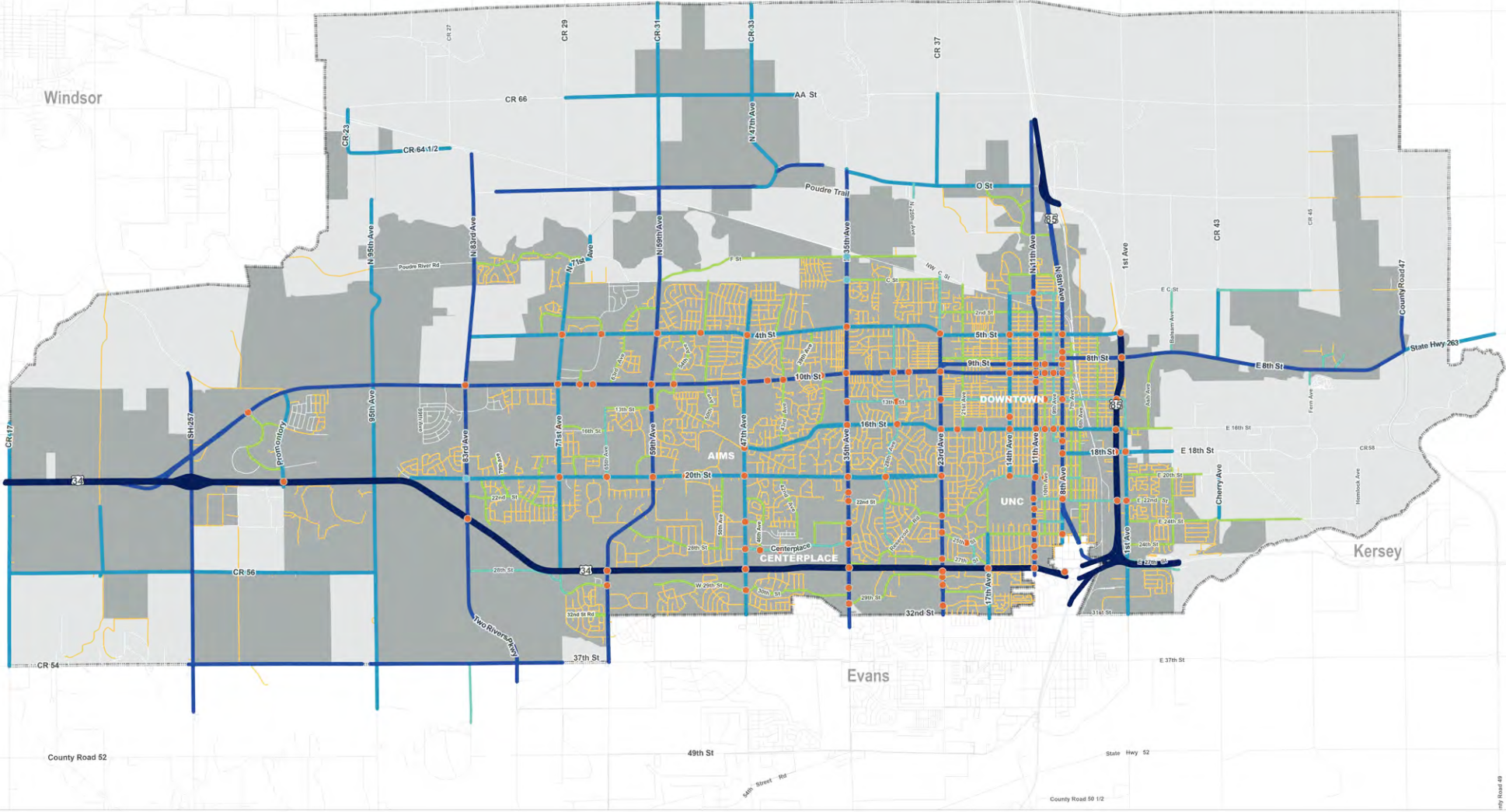
Source: US Census ACS 5-year 2015-2019

Figure 4: Greeley Commute Mode-Split and Household Vehicle Access

ROADWAY NETWORK

The existing roadway network is comprised of minor arterials, major arterials, collectors, freeways/expressways, and local roads (Figure 5). US-34 and US-85 are the major regional connections for the City of Greeley and are supported by a strong internal grid system of arterials, collectors, and local roads

within the City. The roadway network also includes signalized intersections, round-a-bouts and stop signs which control the movement of traffic throughout the network. Signalized intersections are primarily located along arterials, with a high concentration of signals present in Downtown Greeley.



- Expressway
- Major Collector
- Roundabouts
- Greeley Growth Boundary
- Major Arterial
- Minor Collector
- Signalized Intersections
- Minor Arterial
- Local
- City Limits



Figure 5: Existing Roadway Network 21



The highest traffic volumes occur on expressways and arterials in the City of Greeley. The largest volumes occur on US-34, 10th Street, and US-85. 35th Avenue and 23rd Avenue experience the largest volumes in the north-south direction.

On average, peak hour travel on arterials in Greeley takes 28% longer than during off-peak times. Corridors with much longer peak period travel times include 10th Street, 47th Avenue, and 35th Avenue (**Figure 6**). Travel time on 10th Street in both directions is about 11 minutes in off peak and 14 minutes during peak periods.

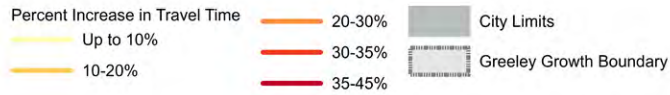
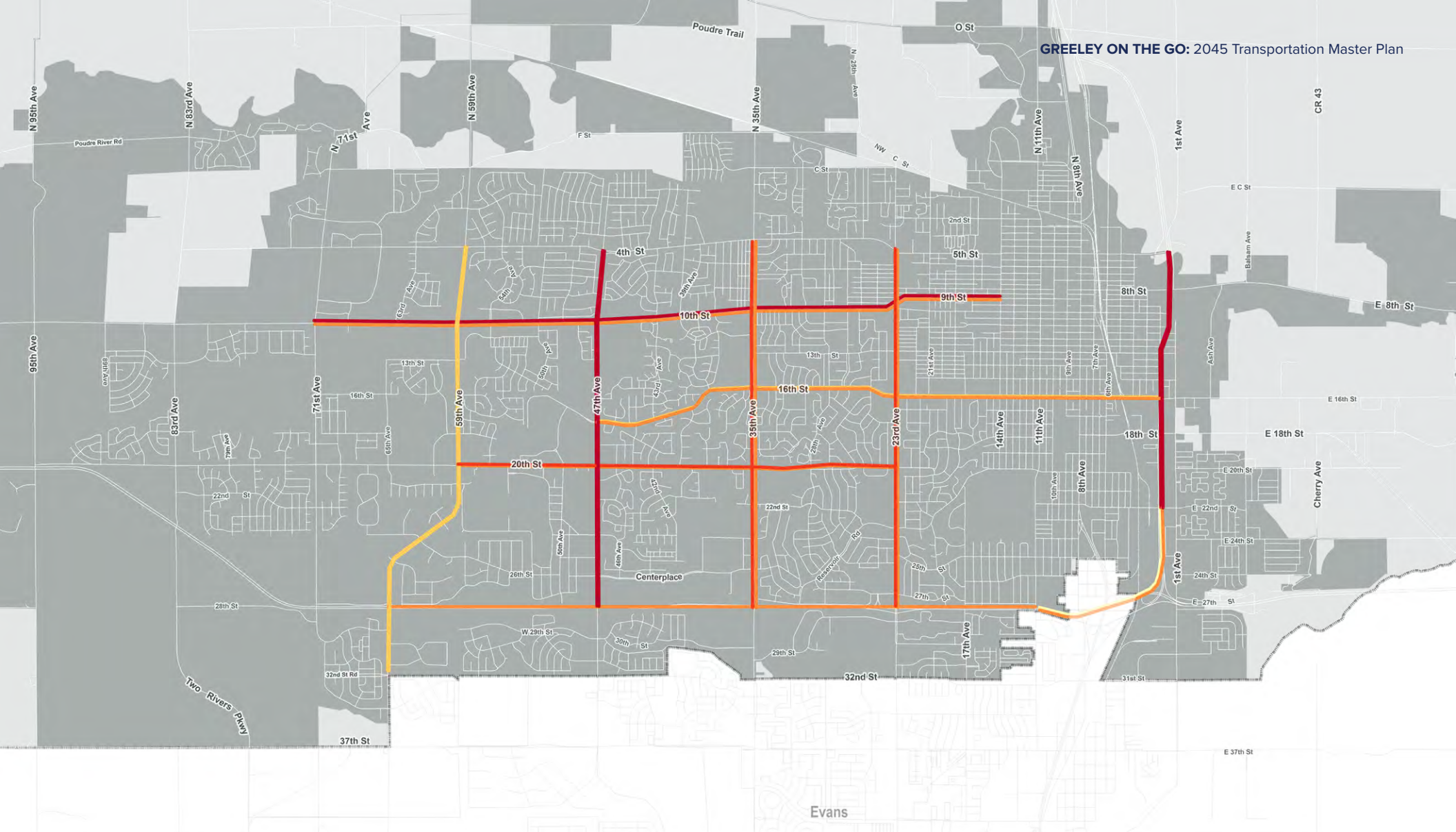


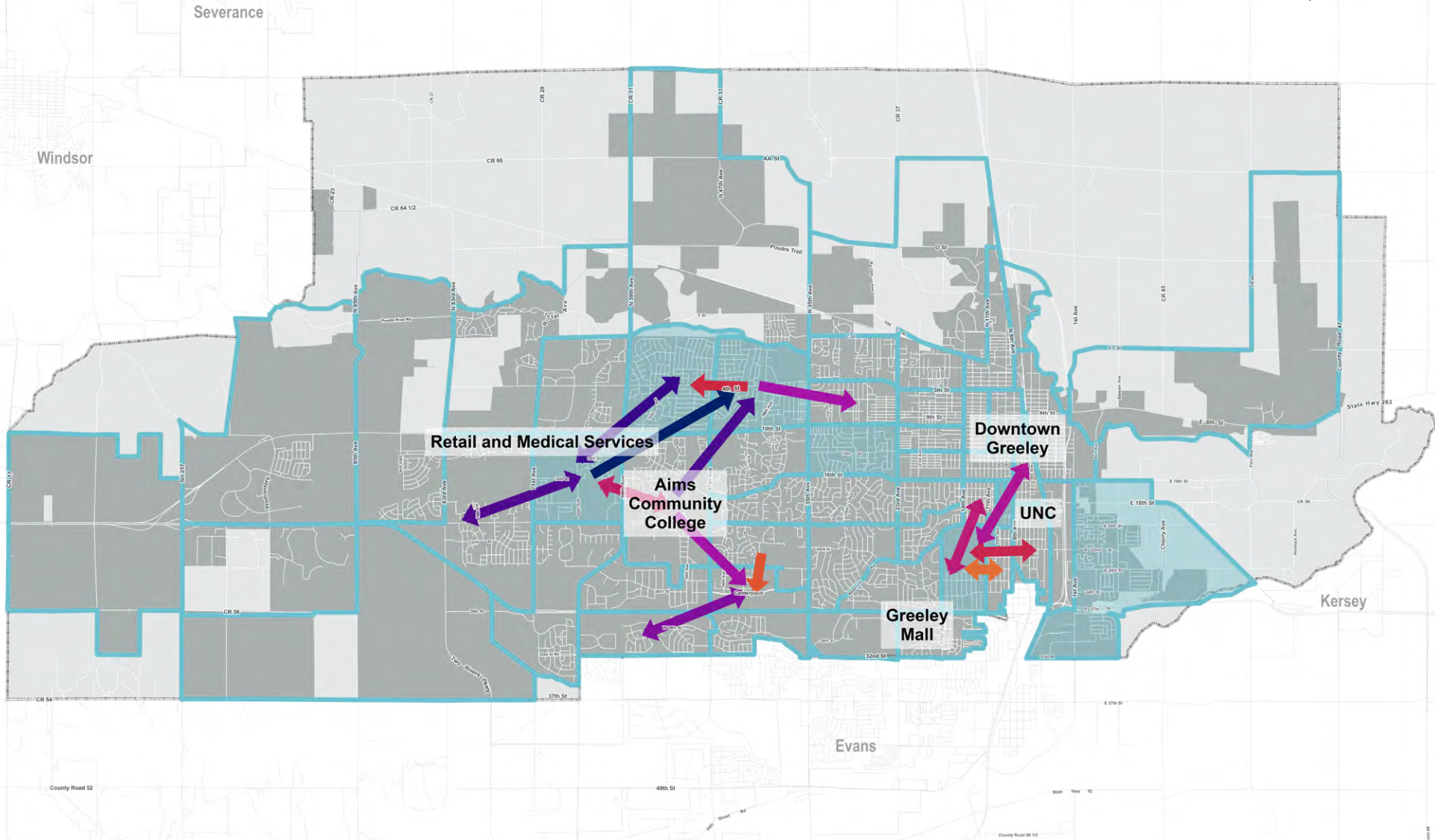
Figure 6: Increase in Travel Time During Peak Periods 23



Greeley on the Go explores opportunities to decrease peak hour travel times through strategies like traffic signal enhancements through the use of technology, retiming and by exploring opportunities for shifting some peak hour vehicle trips onto other travel modes. Focusing on operational improvements rather than capacity expansion is a cost-effective way to increase capacity through improved flow.

TRAVEL TRENDS

An origin to destination travel trends analysis was conducted for all vehicle trips within Greeley as well as to and from the city. Within Greeley, vehicle trips are concentrated around key activity centers and destinations including Downtown, UNC, AIMS, and Centerplace (**Figure 7**). While JBS represents a major regional employment hub in northeast Greeley, because JBS workers travel from neighborhoods all over Greeley and in neighboring communities, it did not emerge as a top origin-destination pair. However, many JBS workers travel from just south and west of the JBS zone, and the southeastern-most zone.



- OD Pairs
- Zones
- High Internal Trip Volume
- City Limits
- Greeley Growth Boundary

An origin-destination pair is a grouping of locations where trips within Greeley commonly start and end. The arrows denote popular origin-destination pairs within Greeley.



Figure 7: Top Origins and Destinations within Greeley (Source: StreetLight Data, September to November 2019) 25



Many of these trips are less than one mile, which suggests that there is a large share of existing travel that can be accommodated through walking, bicycling, or transit despite the City of Greeley having a relatively high share of single occupancy vehicle trips. As a result, *Greeley on the Go* focuses on identifying opportunities to enhance multimodal connectivity in the neighborhoods with high rates of travel that is internal to the City.

According to the U.S. Census Bureau and the Colorado state demographer, about one quarter (23%) of the Greeley workforce lives and works in the city, 42% of Greeley workers commute to other cities, and 34% of the Greeley workforce commutes in from other cities (**Figure 8**). Residents who travel to jobs outside the city predominantly travel to Denver, Fort Collins, Loveland, and Evans while workers who commute into Greeley primarily reside in Evans, Fort Collins, Loveland, and Windsor.

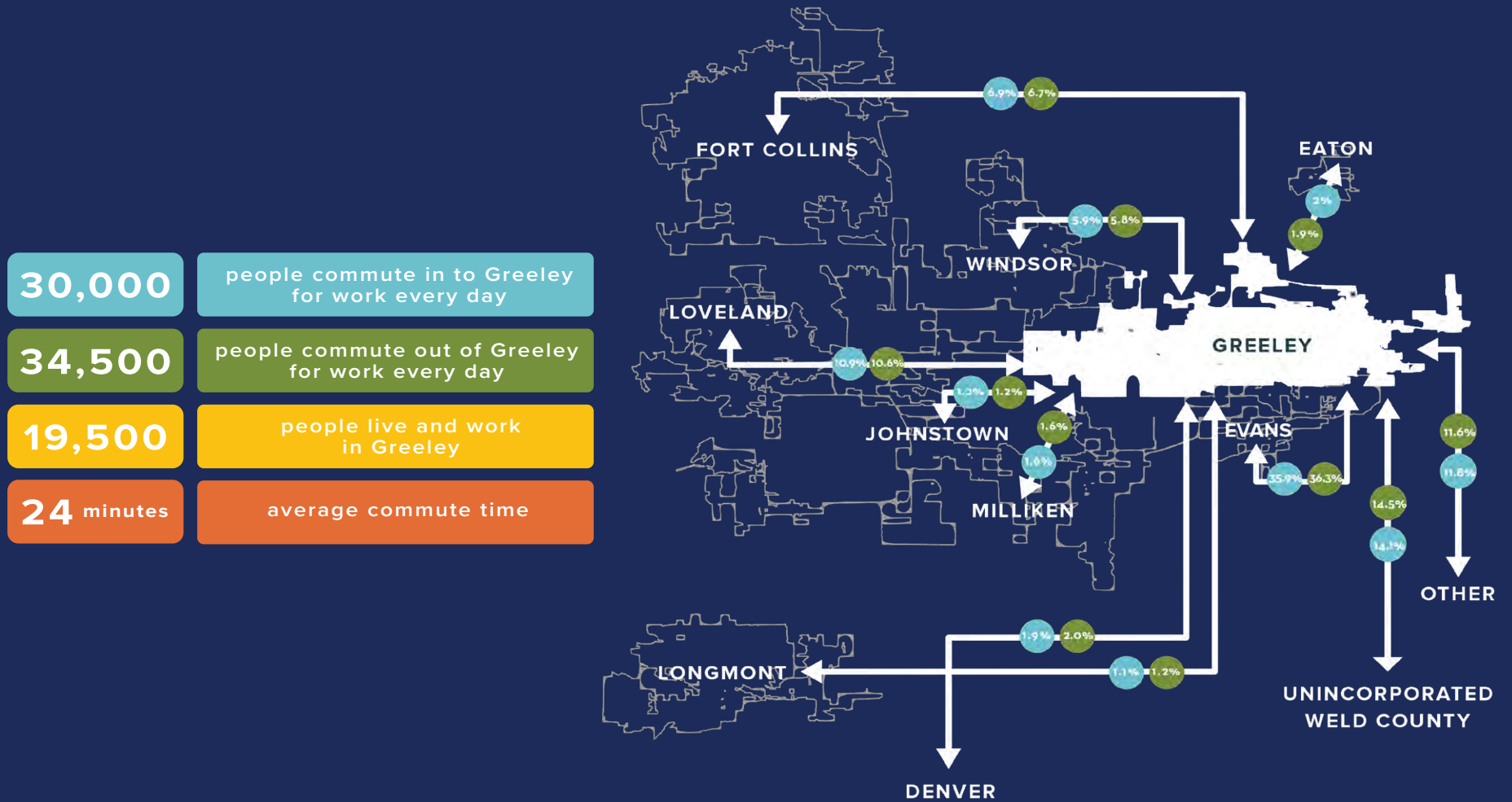


Figure 8: Commute Patterns in Greeley (source: U.S. Census Bureau and Colorado State Demographer) 27

Greeley’s top three industries are Government, Manufacturing and Health Care and Social Assistance. The top employers in Greeley are shown in **Table 1**.

Table 1: Top Employers in Greeley

Employer	# of Employees
JBS Swift and Company	4,590
Banner Health	3,560
Greeley/Evans School District Six	2,200
University of Northern Colorado	1,900
Weld County	1,615
State Farm	1,200
City of Greeley	900
TTEX (formerly TeleTech)	620
Noble Energy	500
Leprino Foods	450

Source: City of Greeley 2019 CAFR; Economic & Planning Systems

TRANSIT

GET is a public transportation provider for Greeley-Evans, Colorado that provides bus service within Greeley and Evans, including University of Northern Colorado (UNC); Poudre Express regional commuter bus service connecting Greeley to Windsor and Fort Collins; and paratransit service associated with fixed route service, as well as a Call-n-Ride service. Transit ridership grew substantially from 2011 to 2019, signaling that GET can continue to grow in importance as a community resource. It is important to note that 2019 data for ridership was utilized due to worldwide ridership impacts cause by the COVID-19 pandemic.

GET Snapshot



Operating Budget (2020) = \$6,112,115



Annual Ridership (2019) = 807,836



24 buses, 9 paratransit vehicles



Operated as a division of the City of Greeley, providing service to Evans, Garden City, and others

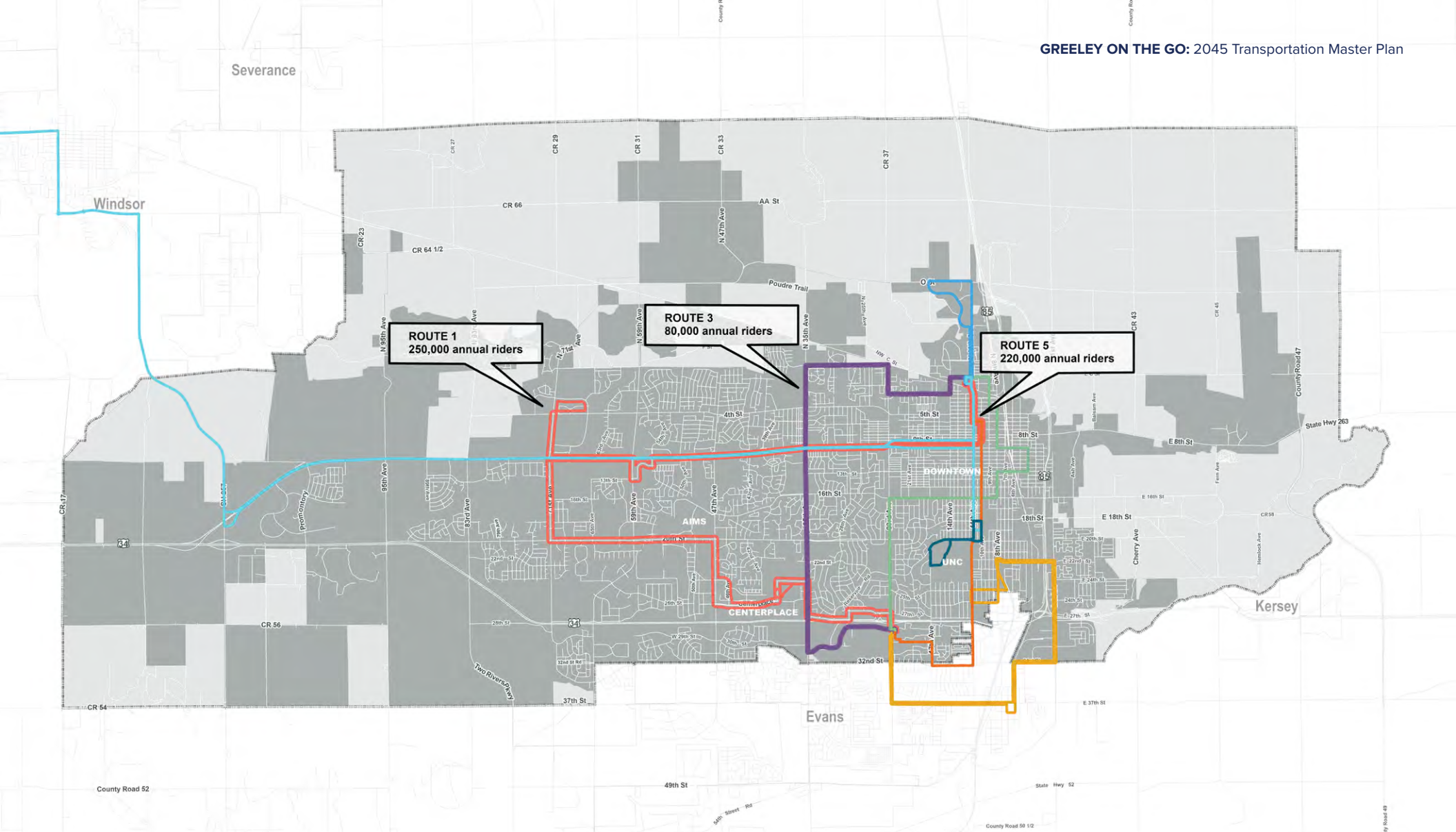


7 city fixed routes, 1 regional commuter route, plus Call-n-Ride paratransit



Average per rider subsidy = \$7.50

Figure 9: GET Statistics At-a-Glance



- Route 1
- Route 5
- City Limits
- Route 2
- Route 6
- Greeley Growth Boundary
- Route 3
- Poudre Express Regional
- Route 4
- UNC Boomerang



Figure 10: Existing High Ridership Routes 29

Annual fixed route ridership has grown significantly in the past nine years with overall ridership up 67% since 2011 (**Figure 11**). The highest total annual ridership of 818,992 occurred in 2018 and the lowest annual ridership of 483,773 occurred in 2011. GET staff have noted that the implementation of “the ride free with a student ID,” a partnership between GET and District 6, and significant route adjustments in 2016 has helped fuel much of the ridership growth in the past five years. More recently, and with the financial support of the Colorado Department of Health and Environment’s (CDPHE) “Free Fare for Clean Air” program, Greeley Evans Transit was able provide free rides for the month of August 2022. During the free fare month, there was a significant increase in ridership (44% higher in August 2022 compared to August 2021) and, according to staff, new riders utilized the system.

Greeley-Evans Transit Ridership

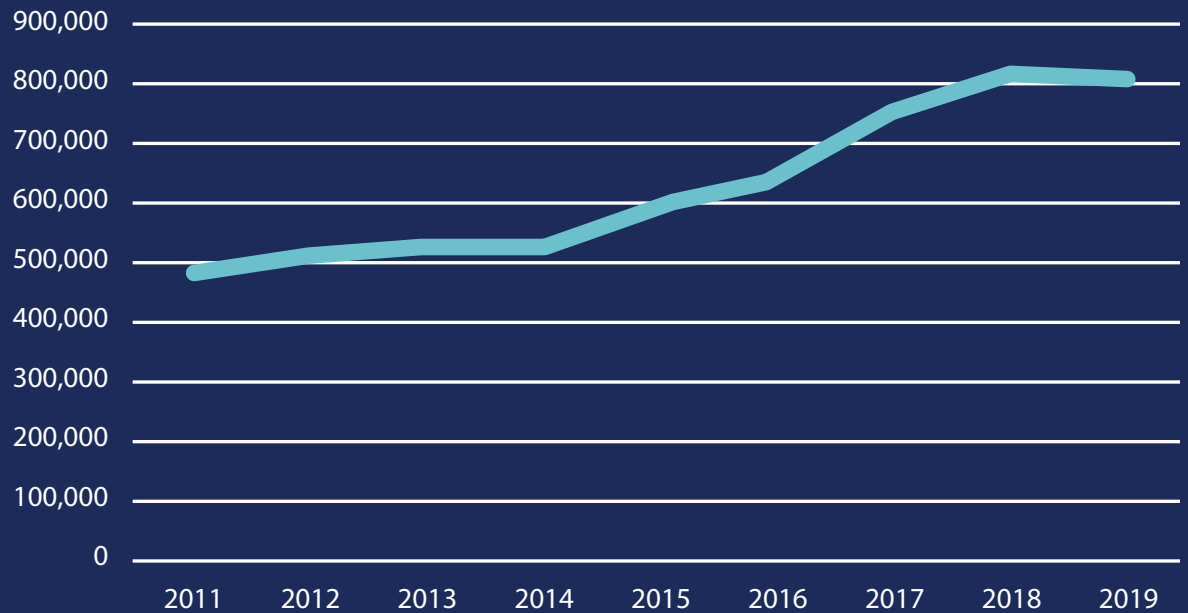


Figure 11: GET Ridership

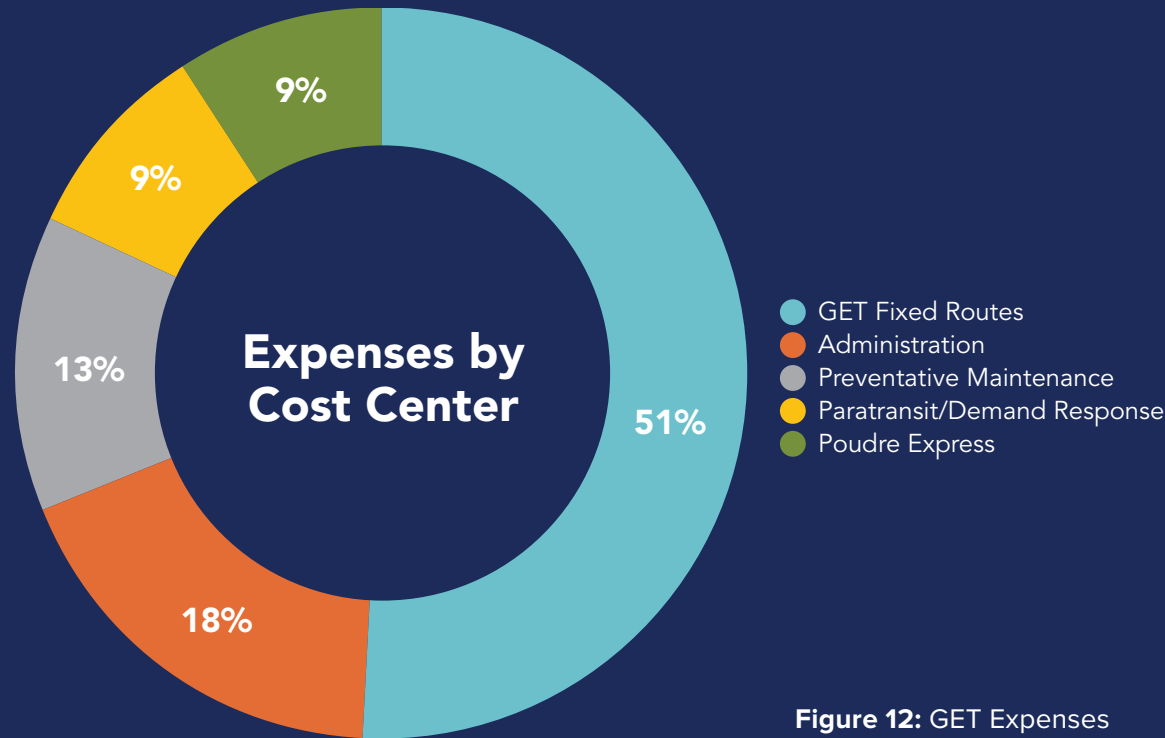


Figure 12: GET Expenses by Cost Center

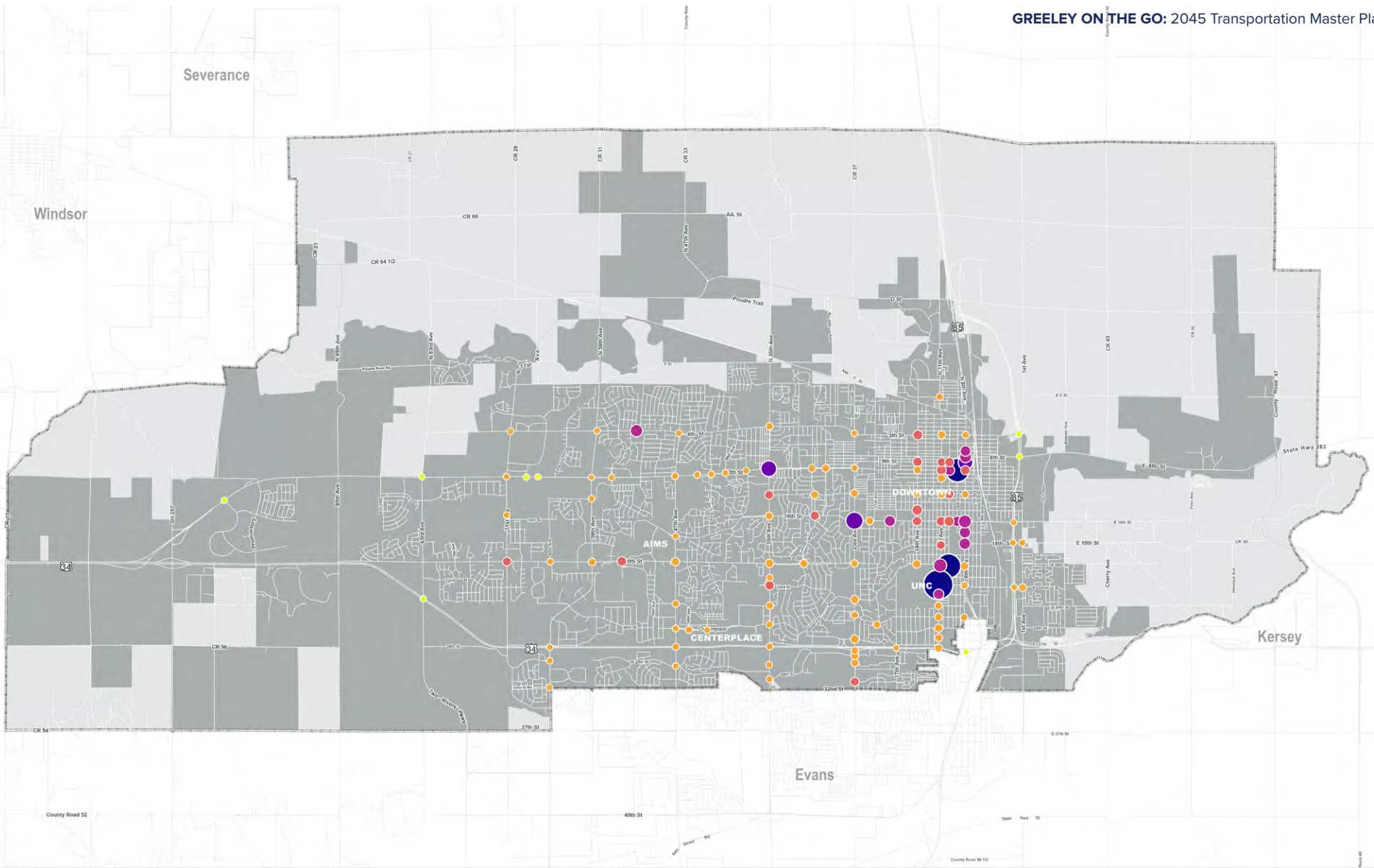
Fixed route bus service is the primary cost for GET (**Figure 12**) with the system being heavily subsidized with local funds (i.e. City of Greeley, City of Evans, Garden City, Colorado Department of Transportation, Town of Windsor, City of Fort Collins) and Federal Transit Administration (FTA) funds. The above equates to over 80% of all revenue for the system with the remaining revenue being facilitated from bus, shelter, and bench advertising and fare recovery. For 2018 and 2019, farebox recovery (the percentage that fares contributes to route expenses) was 12%, which is near a comparable peer average of 13% established by GET.

With many new mobility options emerging in recent years and changing preferences, trends, and ways to facilitate mobility, transit agencies like GET have the ability to proactively adapt by becoming *mobility* facilitators that provide numerous mobility options for residents and visitors to get around the city. This approach, and potential next steps to implementation, will be outlined in more detail in the following sections.



WALKING AND BICYCLING

Pedestrian and bicycle counts are highest near UNC and in Downtown Greeley, as shown in **Figure 13**. Students at UNC are likely to commute to and from campus via walking and biking, while pedestrian demand downtown is likely driven by higher density, short block lengths, and a comfortable pedestrian environment. The number of pedestrians and people biking is lowest in the western half of the City which is less dense than downtown and the university. The pedestrian and bicycle counts shown were collected at signalized intersections over a multi-day period in 2019.



Daily Pedestrian Counts

0

1 - 71

72 - 121

122 - 225

226 - 353

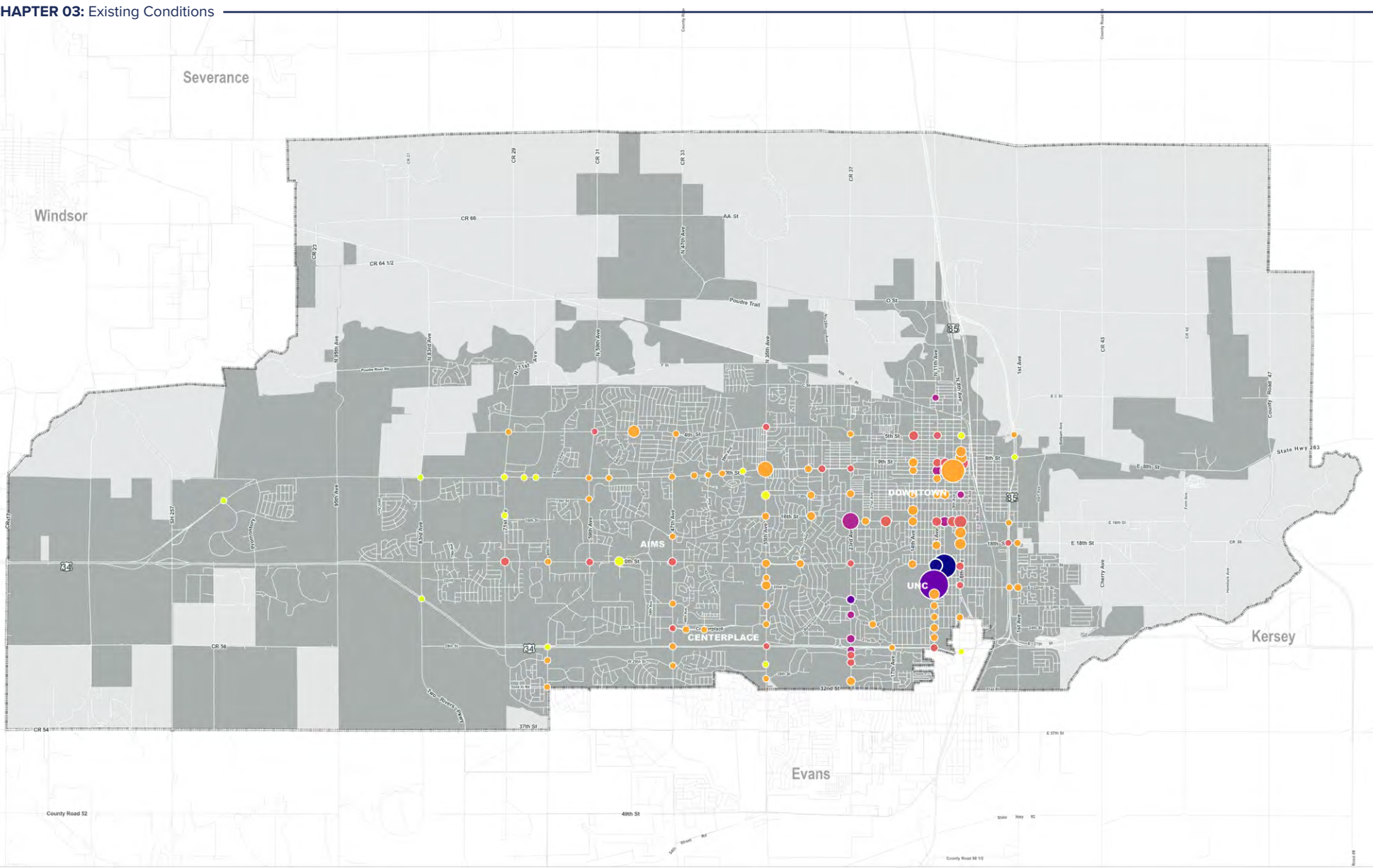
354 - 763

City Limits

Greeley Growth Boundary



Figure 13: Daily Pedestrian Counts



Daily Bicycle Counts

- 0
- 1 - 7

- 8 - 14
- 8 - 13
- 22 - 28

- 24 - 35

- City Limits
- Greeley Growth Boundary



Figure 14: Daily Bicycle Counts

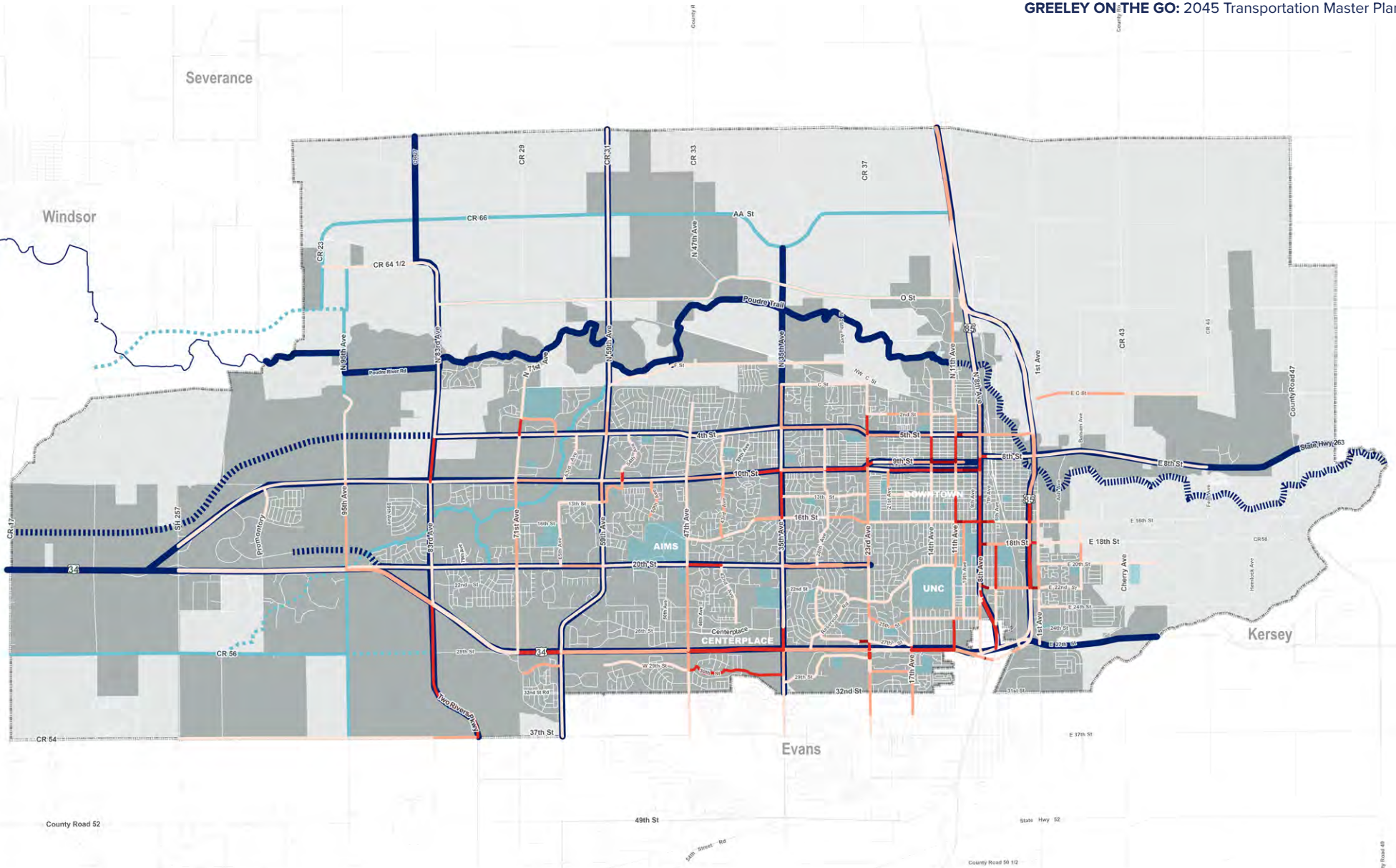




The City of Greeley contains a network of sidewalks, bicycle infrastructure, and trails. Sidewalks exist on most major roads with some gaps on local roads where pedestrians are still able to walk comfortably due to low vehicle volumes and speeds. Shared use bicycle paths exist on 11th Avenue, 47th Avenue, 35th Avenue, 65th Avenue, 4th Street, 10th Street, 16th Street, and 20th Street. The City of Greeley is also home to a variety of pedestrian and bicycle trails such as the Poudre River Trail, Sheep Draw Trail, Bypass Trail, and Canal No. 3 Trail. Access to recreation opportunities is an important part of quality of life and a healthy City. Trail usage in Greeley went up 200% during COVID and is still far above 2019 levels.

SAFETY

The area around the US-85 bypass and 10th Street is the location with the highest concentration of crashes in the City (**Figure 15**). The US-34 corridor accounts for the largest number of crashes with approximately 15% of crashes spread along the corridor. Over half of crashes between 2016 and 2019 occurred at intersections. Crashes along corridor segments accounted for 27% of reported crashes. The top three high crash intersections are located along US-34 and the next most high crash intersections are located along 10th Street.



Critical Index (developed based on 2015-2019 crash data)

- <0.5
- 0.5-1
- 1-2
- >2

- Tier 1 Priority Corridor
- - - - - Future Connection
- Tier 2 Priority Corridor
- - - - - Future Connection

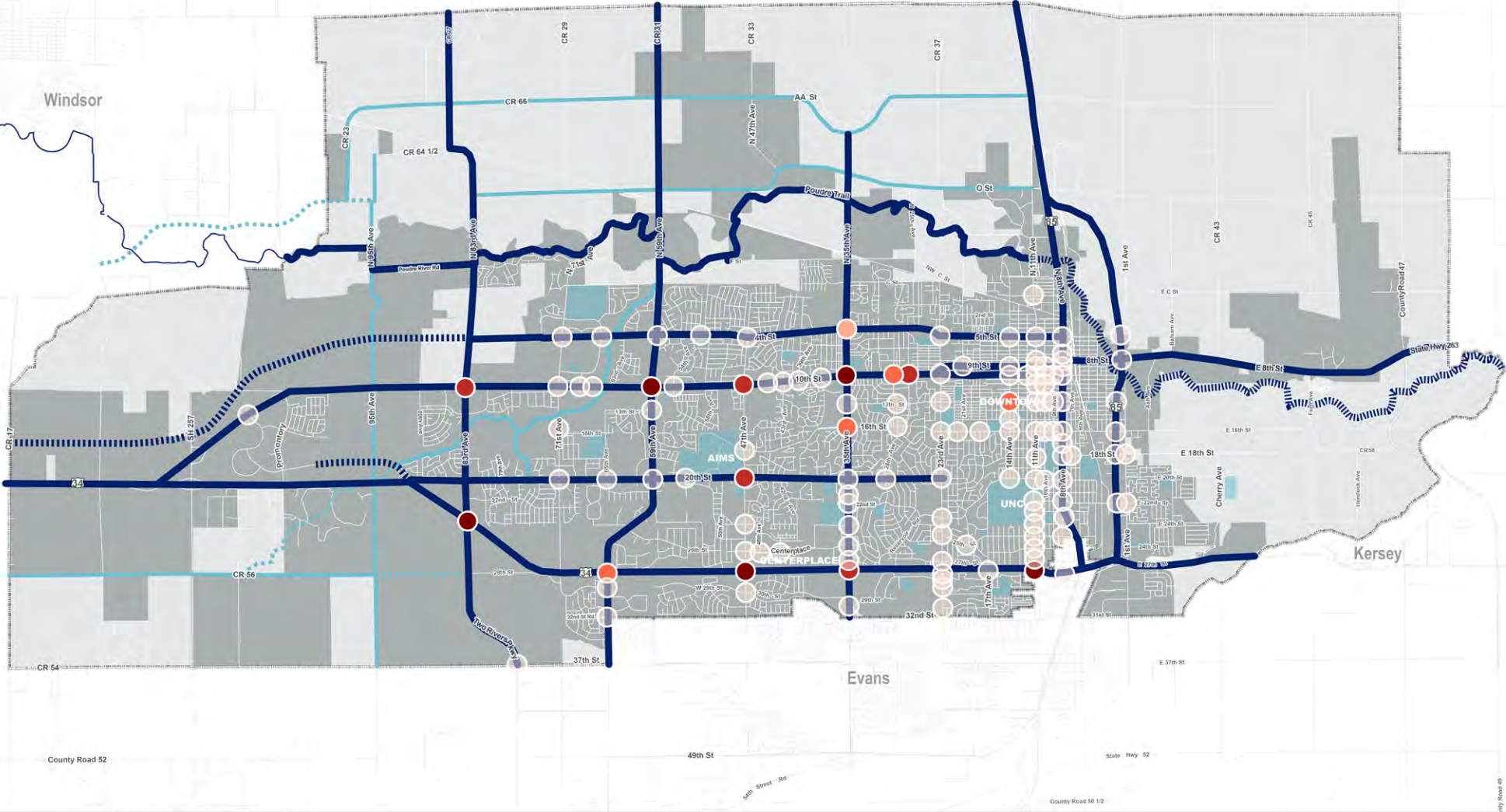
- Schools
- City Limits
- Greeley Growth Boundary



Figure 15: Greeley Crash Index 37



US-34 and 10th Street not only host the most frequent crashes, but also the most severe, as seen in **Figure 16**. The most fatal and severe injury crashes have occurred at US-34 and 83rd Avenue, 11th Avenue, and 47th Avenue; and 10th Street and 59th Avenue and 35th Avenue. Other fatal and severe injury crashes have occurred on Tier 1 Priority Corridors. High speeds on Greeley streets increases risk of severe crashes and make multimodal facilities less comfortable.



Fatal or Severe Injury Crashes, 2016-2020

- 0
- 1 - 4
- 5

- 6
- 7 - 12

- Tier 1 Priority Corridor
- Future Connection
- Tier 2 Priority Corridor
- Future Connection

- Schools
- City Limits
- Greeley Growth Boundary



Figure 16: Fatal and Severe Injury Crashes at High Crash Locations, 2016-2020 39

LEVEL OF TRAFFIC STRESS

Level of Traffic Stress (LTS) is a scoring system to classify the comfort of specific bicycle and pedestrian facilities. Streets, sidewalk segments, crossings, and even bike trails can be included in the LTS scoring system. Typical scoring is from LTS 1 to LTS 4- with LTS 1 being comfortable, “low-stress” pedestrian or bicycle environments for those ages 8 to 80, and LTS 4 being facilities where walking or biking is very uncomfortable or even impossible, with limited or no accommodations for pedestrians or bicyclists.

The LTS methodology, which was adapted from a 2012 study by Maaza Mekuria, Peter Furth, and Hilary Nixon was applied to travel facilities in Greeley. Scoring was based on the existing bicycle or pedestrian facility type as well as the characteristics of the street adjacent to the facility. LTS is a national best practice scoring system used to classify the comfort of specific bicycle facilities. **Table 2** and **Table 3** show the LTS scoring criteria for bicycle facilities. These criteria are based on bicycle facility type, speed limits, and number of travel lanes (which serves as a proxy for traffic volumes).

All separated pathways and protected bicycle lanes are designated LTS 1.

LTS of the pedestrian network was classified using criteria in **Table 2**. Traditionally, detached sidewalks (or sidewalks with a buffer between the pedestrian and travel lane) are considered lower stress. However, absent data on whether sidewalks are attached

Table 2: LTS Scoring for Bike Routes

Speed	2-3 Lanes	4-5 Lanes	6+ Lanes
Up to 25 mph	LTS 1* or 2*	LTS 3	LTS 4
30 mph	LTS 2* or 3*	LTS 4	LTS 4
35+ mph	LTS 4	LTS 4	LTS 4

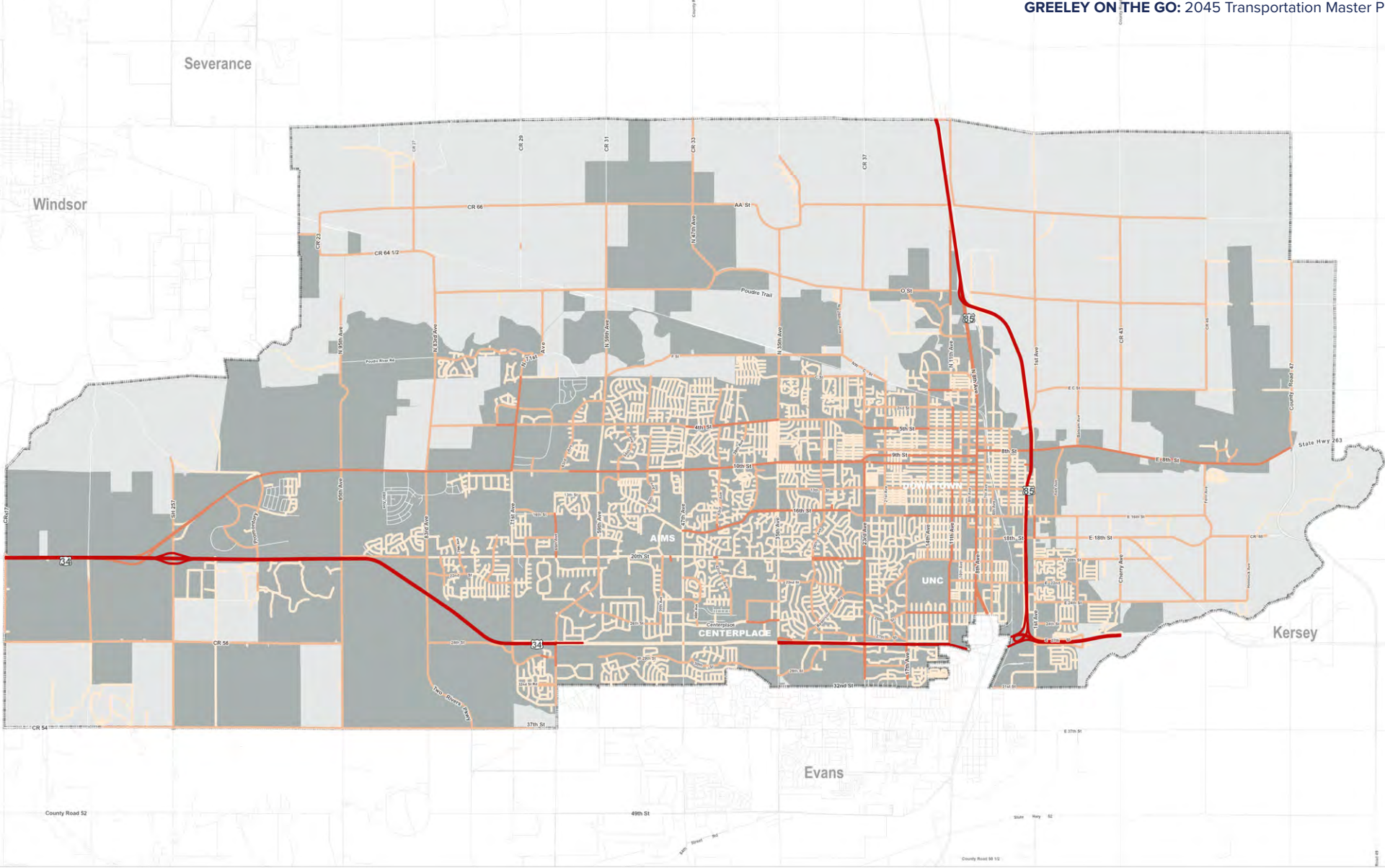
*Lower Value Used for streets classified as residential and with fewer than 3 lanes; higher value used otherwise

Table 3: LTS Scoring for Bike Lanes

Speed	2 lanes	2+ lanes
Up to 25 mph	LTS 1	LTS 2
30 mph	LTS 2	LTS 3
35 mph	LTS 3	LTS 3
40+ mph	LTS 4	LTS 4

vs. detached, a pedestrian LTS score is derived base on the adjoining roadway’s width and vehicle speeds. Any street without a sidewalk was classified as LTS 4.

Figure 17 shows the map of bicycle LTS for existing facilities in Greeley and **Figure 18** shows the pedestrian LTS results. For bicyclists, most arterial streets in Greeley are higher stress. Notably, 10th Street, 11th Avenue, and 23rd Avenue are not currently very comfortable for people bicycling.



Bicycle LTS

- 1: Low Stress
- 2: Moderate Stress

- 3: High Stress
- 4: Very High Stress

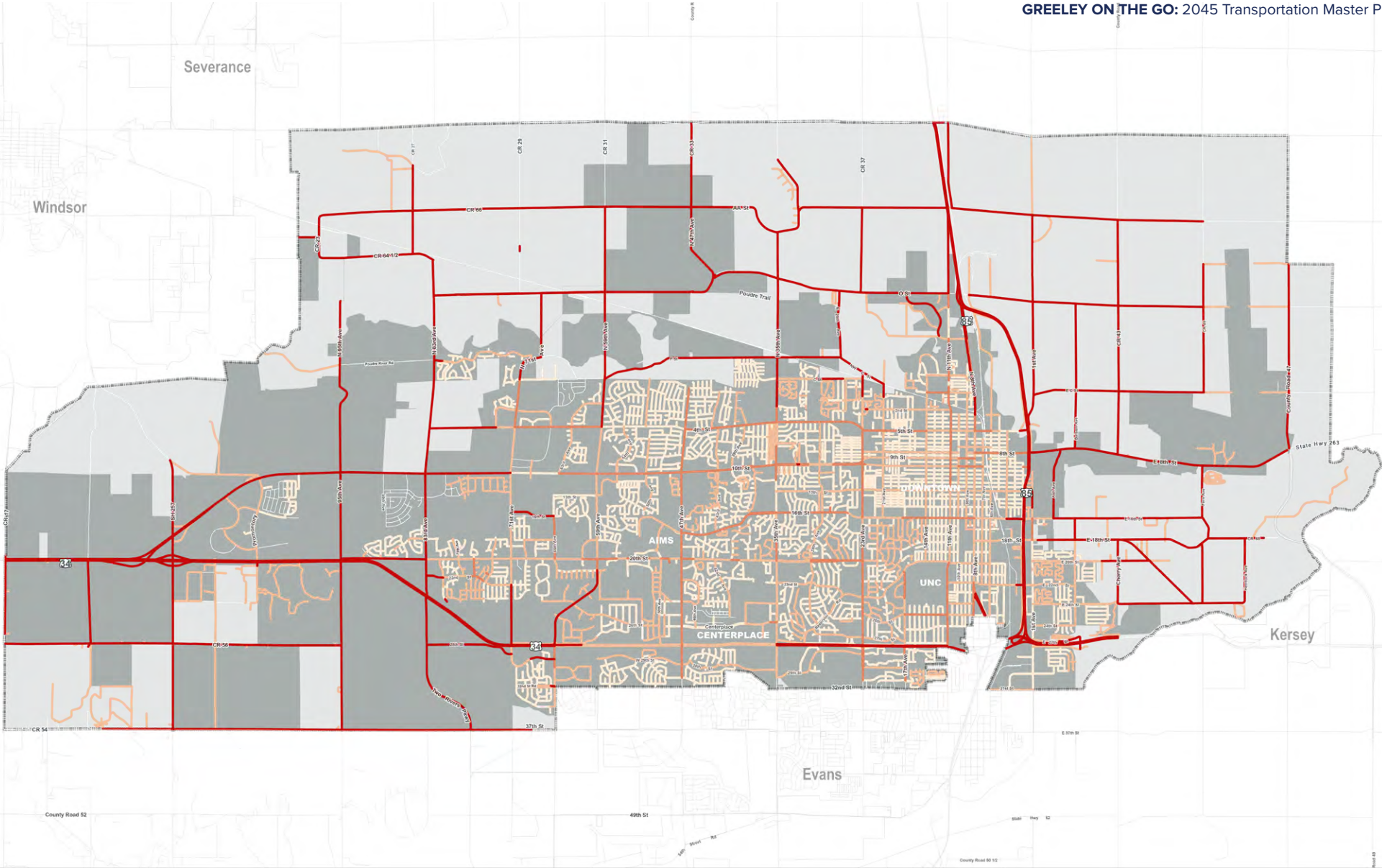
- City Limits
- Greeley Growth Boundary



Figure 17: Bicycle Level of Traffic Stress 41



The pedestrian LTS map shows that most local streets and almost all collector streets are low stress due to ample sidewalk coverage. Areas that provide strong connectivity for pedestrians include downtown and the area surrounding UNC. Dependent upon the destination, travel can be challenging for pedestrians throughout the city due to lack of infrastructure causing high stress facilities on arterials like 10th Street, 23rd Ave, and 16th Street to be high stress. In some locations there are opportunities to fill gaps in the low stress travel network by upgrading pedestrian facilities. Examples include 20th Street, where the sidewalk alternates between being attached and detached. Another challenge for pedestrians in Greeley is a lack of comfortable crossings; existing spacing between crossings can often necessitate out of direction travel in order to locate a marked crosswalk. Throughout the city there are opportunities to lower the stress level through improved crossings and additional markings. Additional information, including planned next steps to improve stress levels throughout the city, can be found in the following sections.



- 1: Low Stress
- 2: Moderate Stress
- 3: High Stress
- 4: Very High Stress
- City Limits
- Greeley Growth Boundary



Figure 18: Pedestrian Level of Traffic Stress 43

LOW STRESS WALK AND BICYCLE TRAVEL SHEDS

Using the LTS results, an analysis was conducted to determine the share of Greeley households that can access certain key destinations using low stress walking and bicycling facilities. The intent of the analysis was to highlight bicycle and pedestrian accessibility; specifically, areas of Greeley where walking or bicycling trips can be made using exclusively low stress facilities and to also identify areas with limited low stress networks.

Table 4 shows the share of households within the low-stress walking and bicycling shed of parks and open space, bus stops, and schools. Nearly all households in Greeley can reach a park or open space within a 5-minute

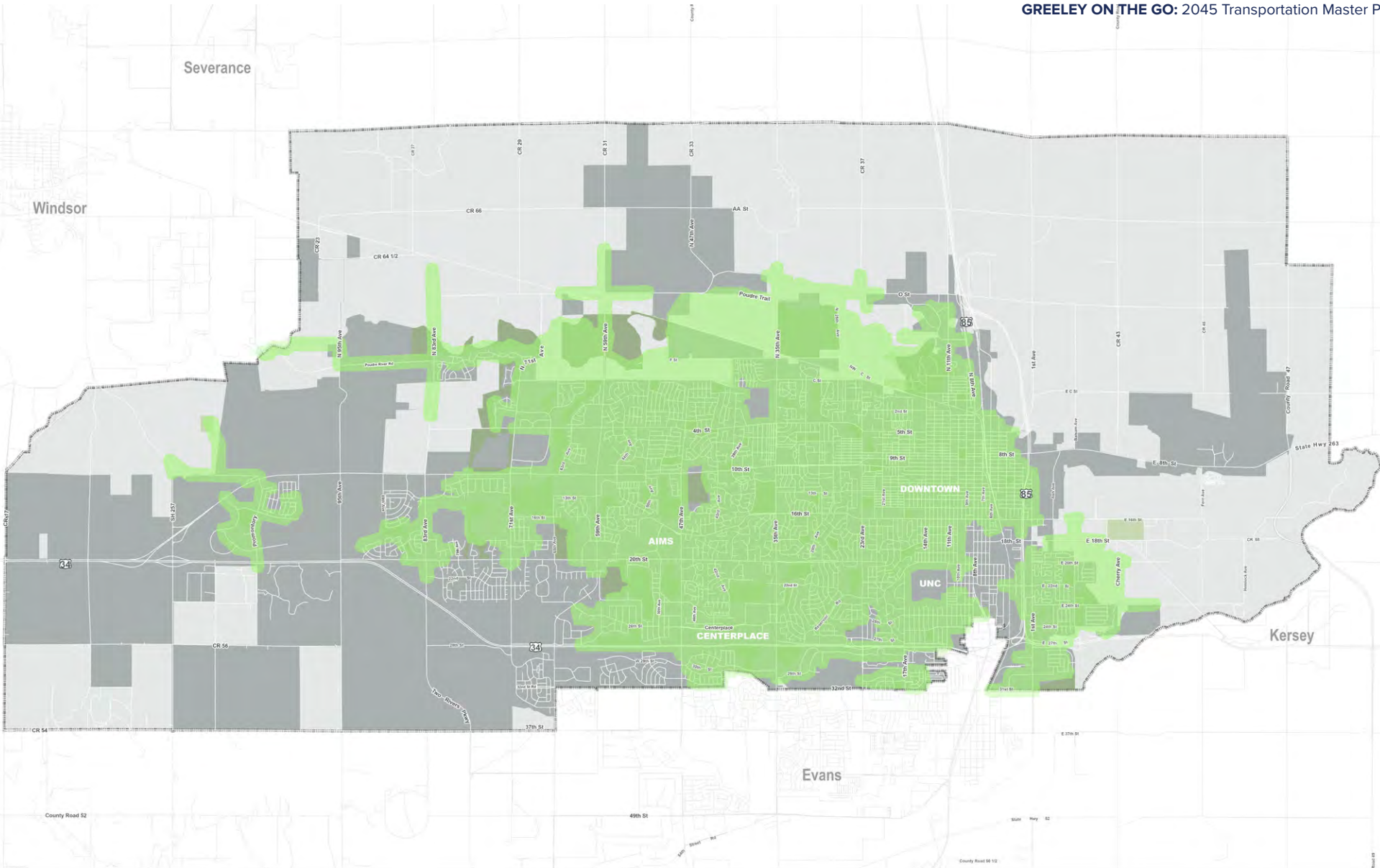
Table 4: Percent of Greeley Households within a 5-minute Bicycle Ride or 10-minute Walk of Key Destinations Using Low-Stress Facilities

	Parks/Open Space	Bus Stops	Schools
5-Minute Bicycle Ride	84%	64%	70%
10-Minute Walk	71%	56%	55%

bicycle ride. However, access to bus stops is much lower at 64%. Households tend to have lower access to these key destinations when taking pedestrian trips. Just 55% of households are within a low stress 10-minute walk of schools, which signals that there are students who may want to travel to school by foot but experience barriers to doing so. The most prominent area where low stress

connections are missing is the southern portion of Greeley, west of 35th Avenue. This planning effort will focus on identifying opportunities to form more multimodal connections in this section of the City.

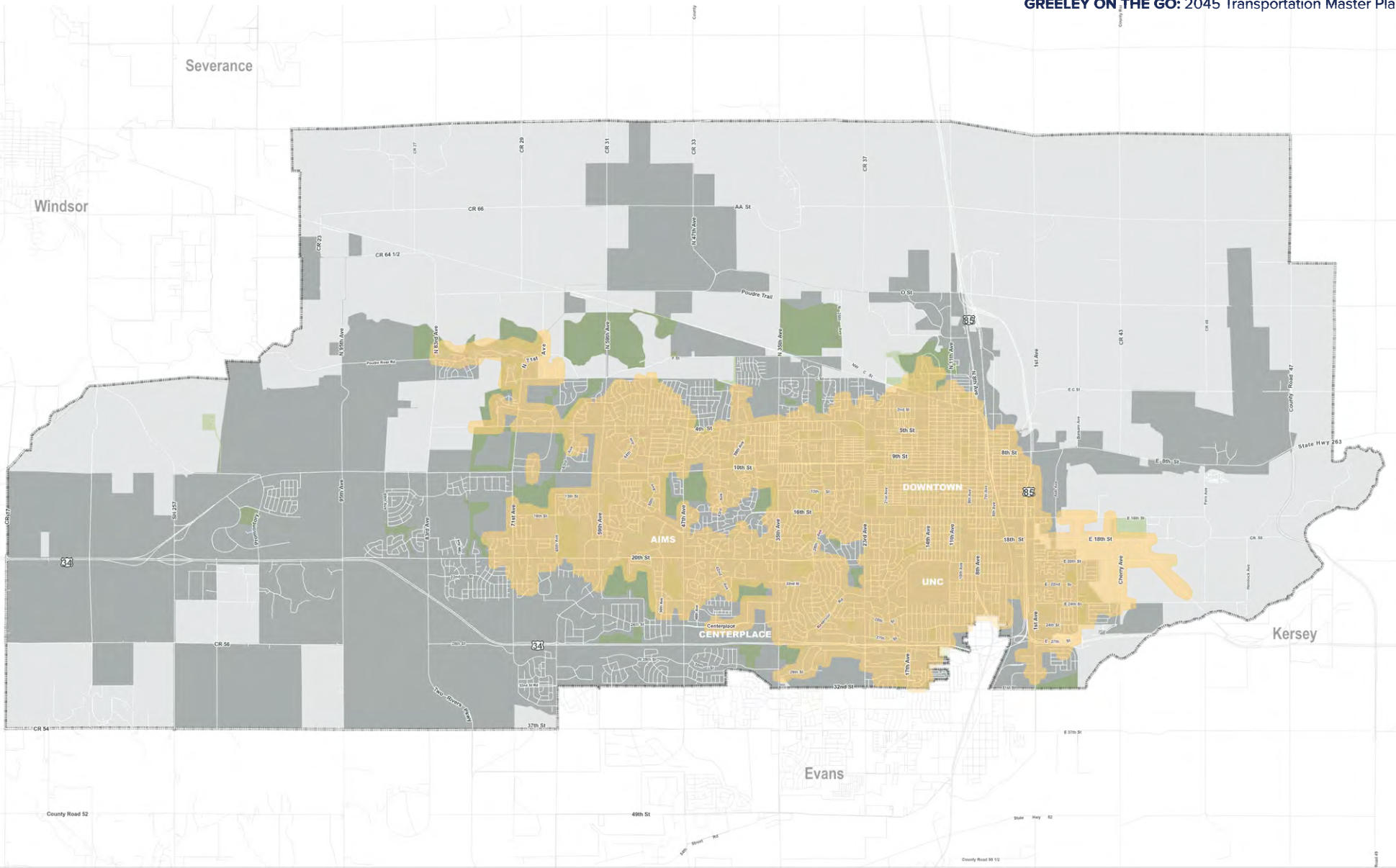
Figure 19 - Figure 24 show the 5-minute bicycle ride and 10-minute walksheds for the destinations listed in **Table 4**.



- 5-minute bike ride: Parks
- Parks
- City Limits
- Greeley Growth Boundary



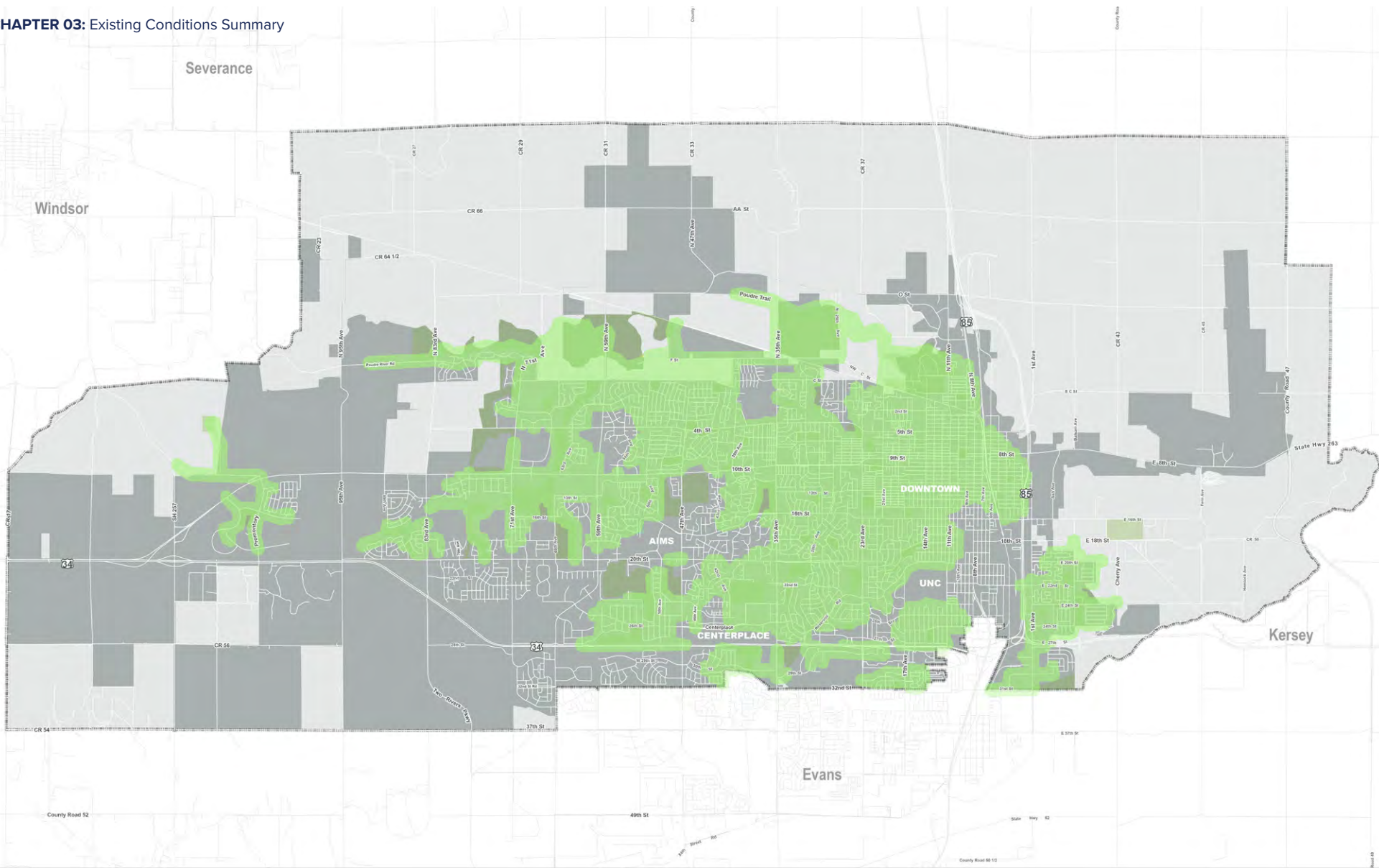
Figure 19: Access to Parks within a Five-Minute Bicycle Trip on Low Stress Facilities 45



- 5-minute bike ride: Schools
- Parks
- City Limits
- Greeley Growth Boundary



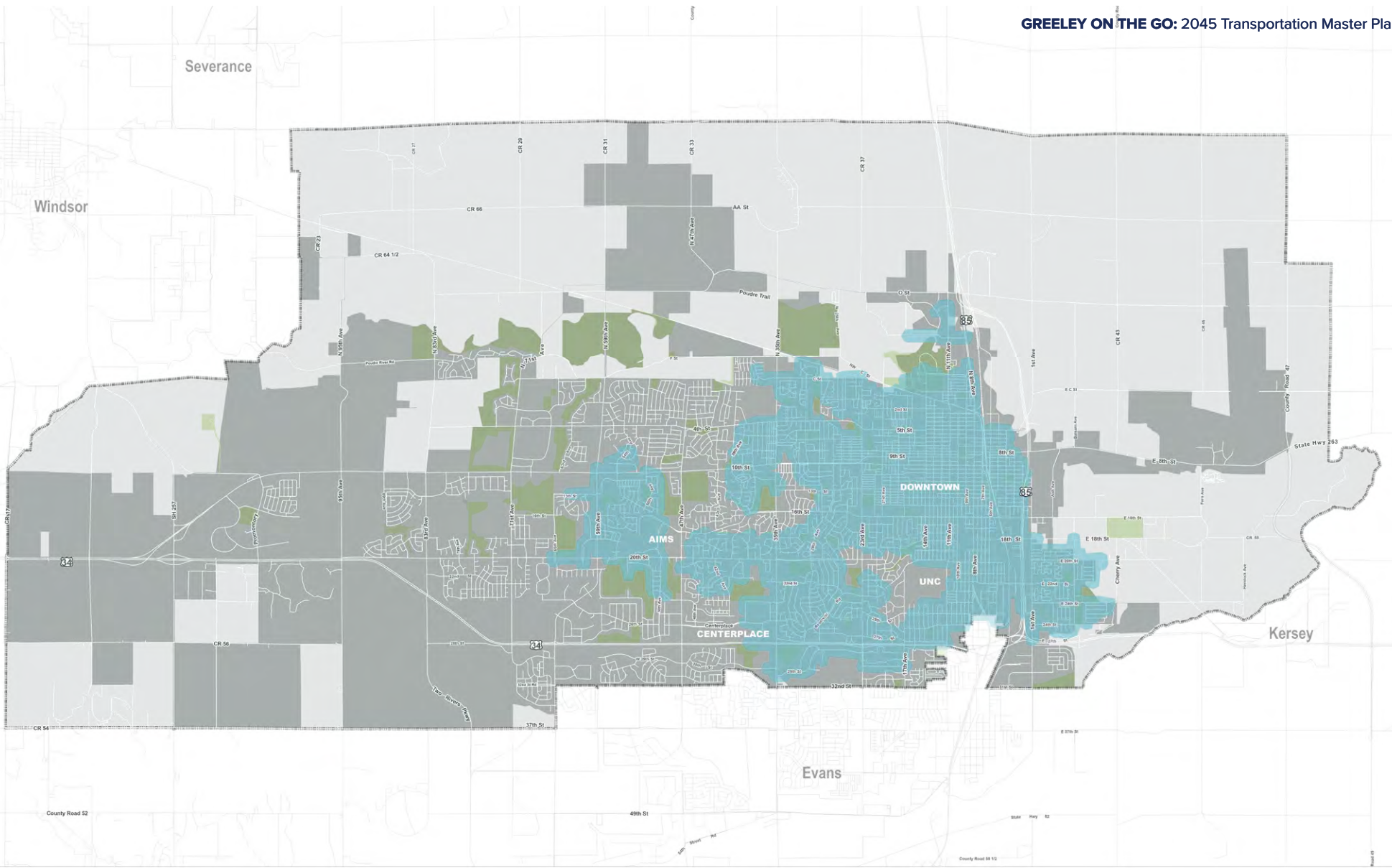
Figure 21: Access to Schools within a Five-Minute Bicycle Trip on Low Stress Facilities 47



- 10-minute walk: Parks
- Parks
- City Limits
- Greeley Growth Boundary



Figure 22: Access to Parks within a Ten-Minute Walk on Low Stress Facilities



- 10-minute walk: Bus Stops
- Parks
- City Limits
- Greeley Growth Boundary



Figure 23: Access to Bus Stops within a Ten-Minute Walk on Low Stress Facilities 49

Maintenance

Maintenance of the existing system was a priority heard during public engagement. The City of Greeley has significant maintenance responsibilities that include 380 miles of roadways, 69 miles of bike lanes, 40 miles of trails, and 511 miles of sidewalks. Of those city-maintained roadways, 215 miles are of poor or very poor pavement quality (below a Pavement Quality Index (PQI) score of 65).

The City spends approximately \$15-16 million each year on maintenance under the Keep Greeley Moving Program. As the system expands, so does the cost of maintenance. Building more capacity than needed may result in undue maintenance burdens for the City, while poor quality infrastructure can frustrate the public.

Greeley on the Go generally prioritizes maintenance of the existing system above new capital construction.

Key Takeaways

- The City of Greeley has changed previous development trends and is adding multi-family residential units at a higher rate than single-family homes. This signals a future need for additional multimodal transportation connections to accommodate higher travel demand that will be generated by more dense residential land uses.
- Greeley residents rely heavily on personal vehicles to fill their travel needs. However, an origin to destination travel patterns analysis found that a high share of trips taking place within Greeley are relatively short and can likely be accommodated on transportation modes other than driving.
- When examining barriers to walking and bicycling, it was found that travel facilities within the denser pockets of the community, like downtown, can be challenging to navigate due to sidewalks or bicycle lanes that are positioned close to traffic on high volume roadways. As a result, a little over half of Greeley households cannot access a school, for example, within a comfortable 10-minute walk, which narrows transportation options for Greeley students and their families. During public engagement, many people expressed the need for more outdoor recreation opportunities and amenities, especially in east Greeley. People also wished for better multimodal access to downtown.
- Greeley has a robust offering of higher education institutions, retail shopping opportunities, and medical services making it a regional attractor for employment and services. This presence of regional destinations is driving travel demand, though nearly 1 in 5 daily trips starting in a neighboring community and ending in Greeley comes from Evans. This suggests that additional multimodal connectivity to the south could reduce congestion and travel time on arterial roadways.
- Before COVID-19, transit ridership was on the rise in Greeley. *Greeley on the Go* is exploring opportunities to continue building on that trend by enhancing mobility options.

CHAPTER 04

Plan Priorities

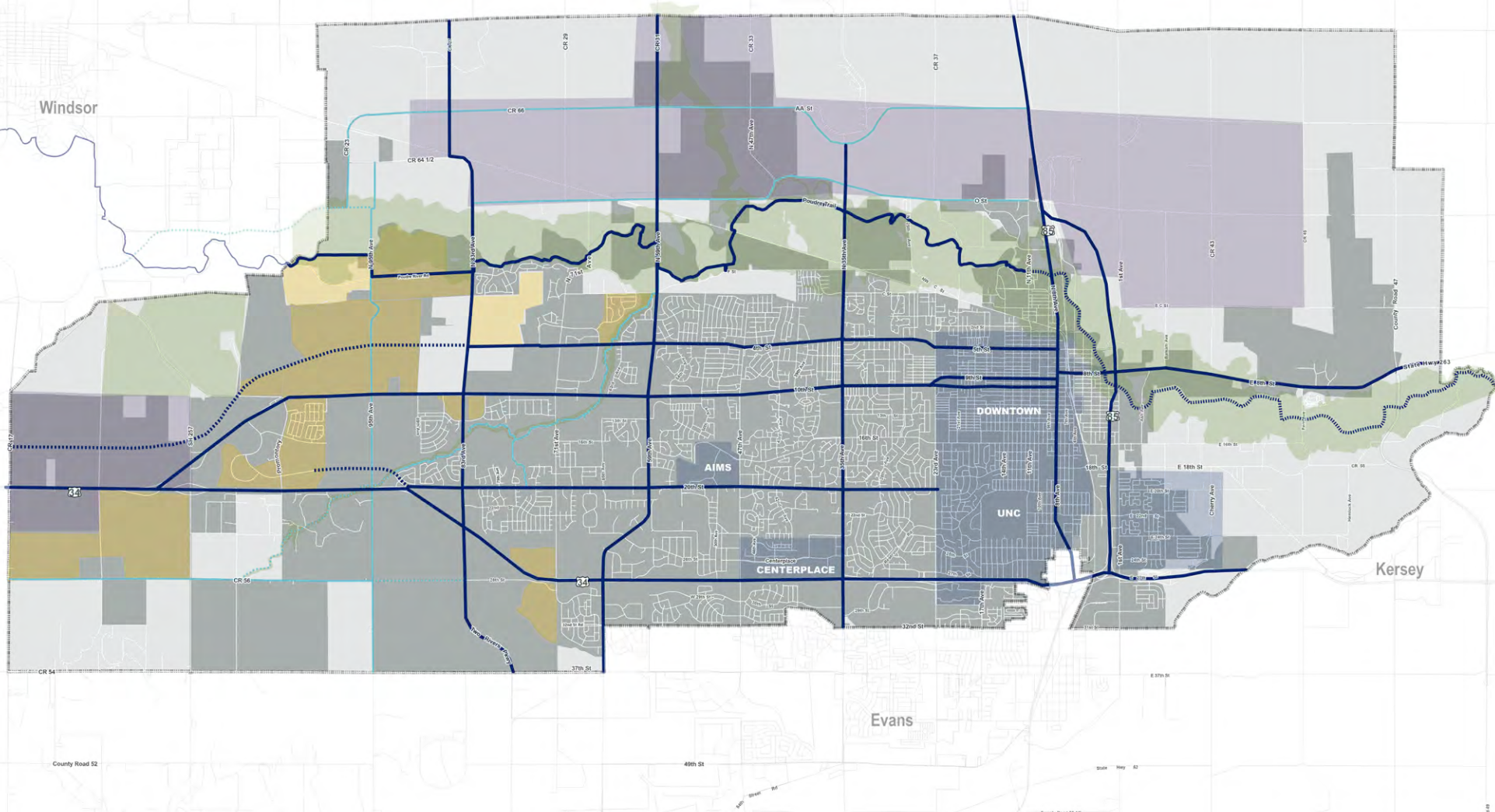
Plan Priorities

Greeley on the Go recommends transportation improvements across the City of Greeley. However, the City also identified several Priority Areas and Corridors in which to concentrate transportation investments in the near- and long-term (as shown in **Figure 25**).

Priority Areas include Priority Investment Areas located Downtown, in East Greeley, and around major shopping areas; Priority Planning Areas and Future Development Areas, where the City anticipates development to occur in the next several years; and current and future open space. Priority Corridors include major roadways with safety concerns and that serve Priority Areas, as well as trails like the Poudre River Trail and Sheepdraw Trail that serve as vital recreational and transportation corridors for active transportation users.

These Priority Areas and Corridors guided initial selection of the list of 10-year projects in this plan, which was refined further during project prioritization.

Severance



- Tier 1 Priority Corridor
- Future Connection
- Tier 2 Priority Corridor
- Future Connection
- Priority Investment Areas
- Priority Planning Area
- Future Open Space
- Future Development
- City Limits
- Greeley Growth Boundary

0 0.5 1 2 Miles



Figure 25: Priority Investment Areas identified by the City of Greeley

Corridor Visions

As Greeley begins implementation of *Greeley on the Go*, there will be a need to define unified visions for major corridors in the City. An example would be the main north-south corridor, 8th Avenue, as a priority corridor that is currently designed to accommodate vehicle travel but could become a main street for Greeley through reallocating right of way towards space for walking and micromobility. The mix of land uses on 8th Avenue suggests the corridor serves a range of needs from services to recreational opportunities. By providing accommodations for users traveling on all modes, the City can shift 8th Avenue towards becoming a vibrant hub for the community. Visioning for the corridor will involve determining a new cross section, identifying opportunities for placemaking through elements like landscaping and signage, and a right-sizing of travel facilities to ensure demand by mode can be accommodated.

Another corridor vision that the City will explore is for 10th Street. As one of the main east-west connections across Greeley, 10th Street plays a critical role in connecting the core of the community with the fast-growing neighborhoods on the west side. The vision will include transit facilities that provide opportunities for rapid travel across town, wide micromobility and pedestrian facilities that make active travel comfortable and enjoyable, and vehicle travel lanes that include traffic calming elements to naturally help drivers operate at safe speeds on the corridor. This vision for 10th Street will become fully defined during the *Greeley on the Go* implementation process.

CHAPTER 05

Project Categories

Project Categories

Projects on the 10-Year and Long-Range Project List include Multimodal projects and Mobility projects. Multimodal projects include active transportation projects and street projects. Mobility projects include transit projects and mobility hubs.

Multimodal Projects

The multimodal project category reflects the City's focus on reimagining roadways as complete streets to serve all users. As the City upgrades streets throughout Greeley, many of these projects will simultaneously improve facilities for people walking, rolling, and biking.

Street projects include repaving, completion of streets, construction of new streets to serve development, one to two-way conversions, streetscape enhancements, traffic

calming, and road right sizing. Intersection improvements encompass operational improvements and signal coordination, safety enhancements, roundabouts, technology enhancements, and new interchanges.

Active transportation projects span new and improved trails, micromobility facilities, pedestrian facilities, crossings, and other multimodal enhancements. As the City installs streetscape enhancements and traffic calming measures, a focus will be given to projects around schools, parks, shopping areas, public buildings, and transit to improve safety around these key destinations. Projects to improve pedestrian infrastructure will upgrade deficient sidewalks and crossings and install new facilities where missing. Micromobility projects will include new sidepaths, micromobility lanes, trail extensions, and trail connections from and to neighborhoods.

Mobility Projects

Mobility projects, or projects that improve transportation options including transit in the City of Greeley, will generally include more frequent fixed route bus service, new regional routes, mobility hubs, micro transit and micro mobility options for residents and visitors to choose. Some examples of Mobility Projects that are based off community feedback are listed below.

- New “Premium Transit Corridors” along 10th Avenue and 10th Street will upgrade those bus routes to high frequency transit in the short term and bus rapid transit (BRT) in the long term.
- New regional routes including a new US-34 Express Route to I-25 & Loveland in the short term, and a long-term vision for BRT or rail along the Great Western Corridor.

- Construction of new Mobility Hubs at key locations around Greeley, including the current GET Transportation Center, University of Northern Colorado, Aims Community College, downtown, at schools, shopping centers, and other key destinations.
- Exploration of Automated Transit Network (ATN) technology and infrastructure pilots to enhance mobility options throughout Greeley all while reducing congestion and emissions and increase safety (**Figure 26**). Completion of a Transportation Systems Management and Operations (TSMO) plan that aligns infrastructure and operations with the goals and objectives outlined within this Transportation Master Plan.
- Complete a Transit Development Plan to evaluate routes, ridership, microtransit coverage areas, operational hours/ days and a phased implementation plan to expand and improve mobility options for residents and visitors in Greeley through operated and contracted subsidized TNC service.
- Utilizing data and information gathered during the “Free Fare for Clean Air” Evaluation, along with industry best practices, evaluate and implement an alternative fare structure that aligns technology (Mobility as a Service/ MaaS) with equitable solutions to improve quality of life for all residents regardless of income level or transport option selected ([i.e. Home - ODIN PASS](#)).
- Implement MaaS technology that helps residents and visitors seamlessly identify, prioritize and use a mode of transport that best align with their needs, goals and timeline.
- Complete a future fueling options plan (i.e. EV, hydrogen, etc.) that not only recognizes current fueling technology and advancements but outlines a path forward for future fueling options, their needs and the necessary infrastructure requirements and placement to facilitate future fueling needs for not only city infrastructure but also development.



Figure 26: Example of Automated Transit Network technology

961

YIELD
TO
BUS

WHEN
LIGHT IS
FLASHING

IT'S THE
LAW

SPEED
LIMIT
25

ROOMS

CHAPTER 06

BGQ-348
MADE IN USA

Action Plan

970-350-287

CNG

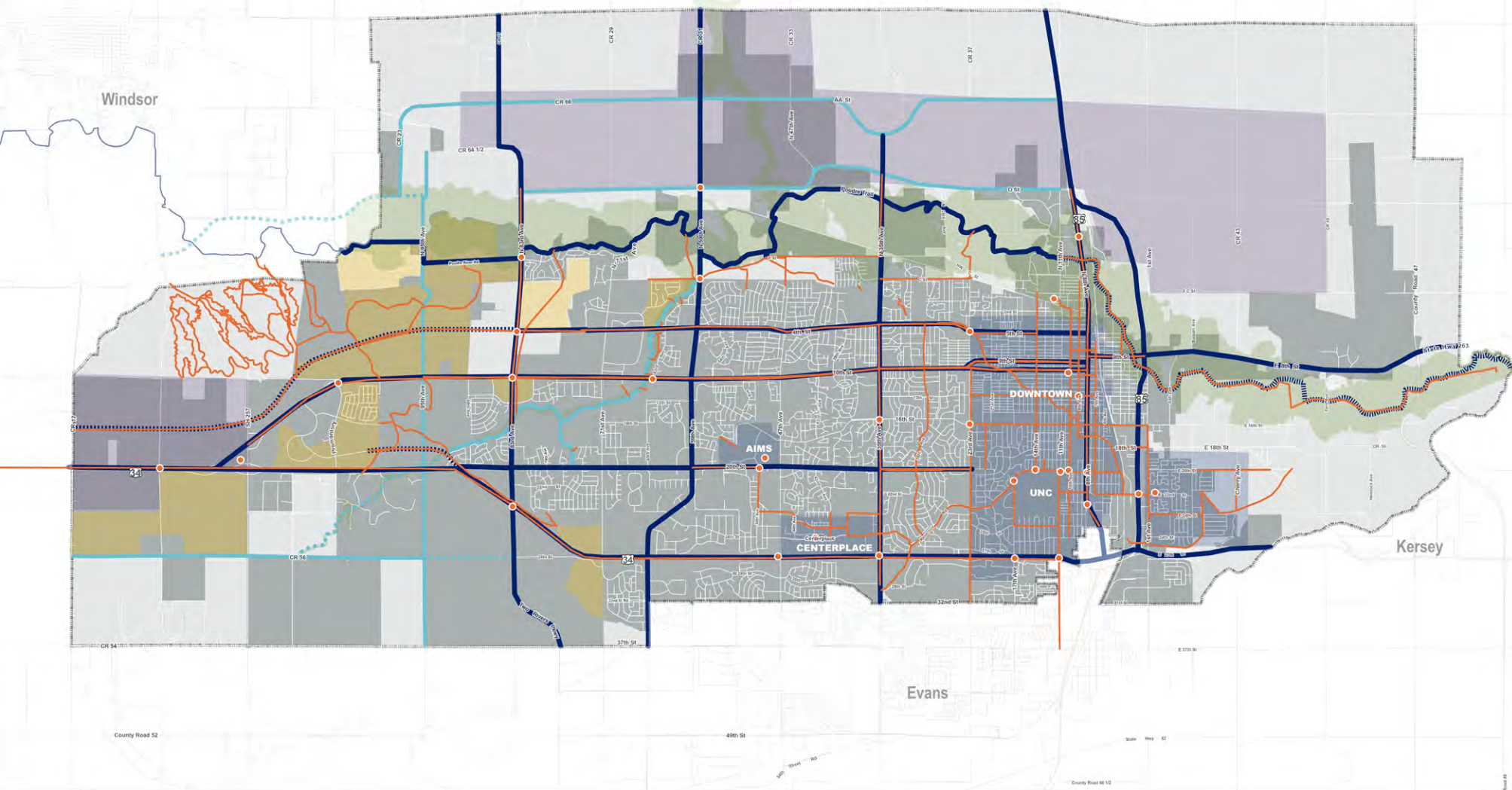
GreeleyEvansTransit.com

Action Plan

Greeley on the Go's 10-Year Action Plan consists of 100 corridor projects and 28 intersection projects. The long-range plan vision will include an additional 126 corridor projects and 10 intersection projects. The city identified many of these short and long-term projects based on their proximity to Priority Areas and Corridors.

The map in **Figure 27** shows the 10-year project list categorized by priority tier. The projects were scored and assigned to priority tiers using the prioritization methodology in the appendix. This methodology considered each project's likelihood to provide access to key destinations (bus stops, mobility hubs, schools, parks, shopping, civic buildings, and trail access points), address roadway safety concerns, serve areas with high population and employment, and improve access for low-income neighborhoods.





- Intersection and Site Projects
- Corridor Projects
- Tier 1 Priority Corridor
- - - - - Future Connection
- Tier 2 Priority Corridor
- - - - - Future Connection
- Open Space
- Priority Investment Areas
- Priority Planning Area
- Future Development
- City Limits
- Greeley Growth Boundary



Figure 27: Greeley on the Go 10-Year Action Plan



CHAPTER 07

Master Street Plan

Following implementation of the *Greeley on the Go* Action Plan, the City of Greeley roadway network will reflect the Master Street Plan shown in **Figure 28**.

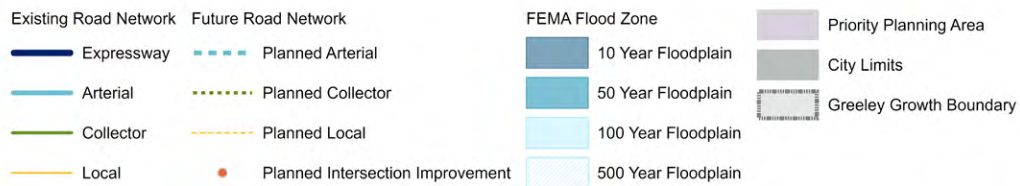
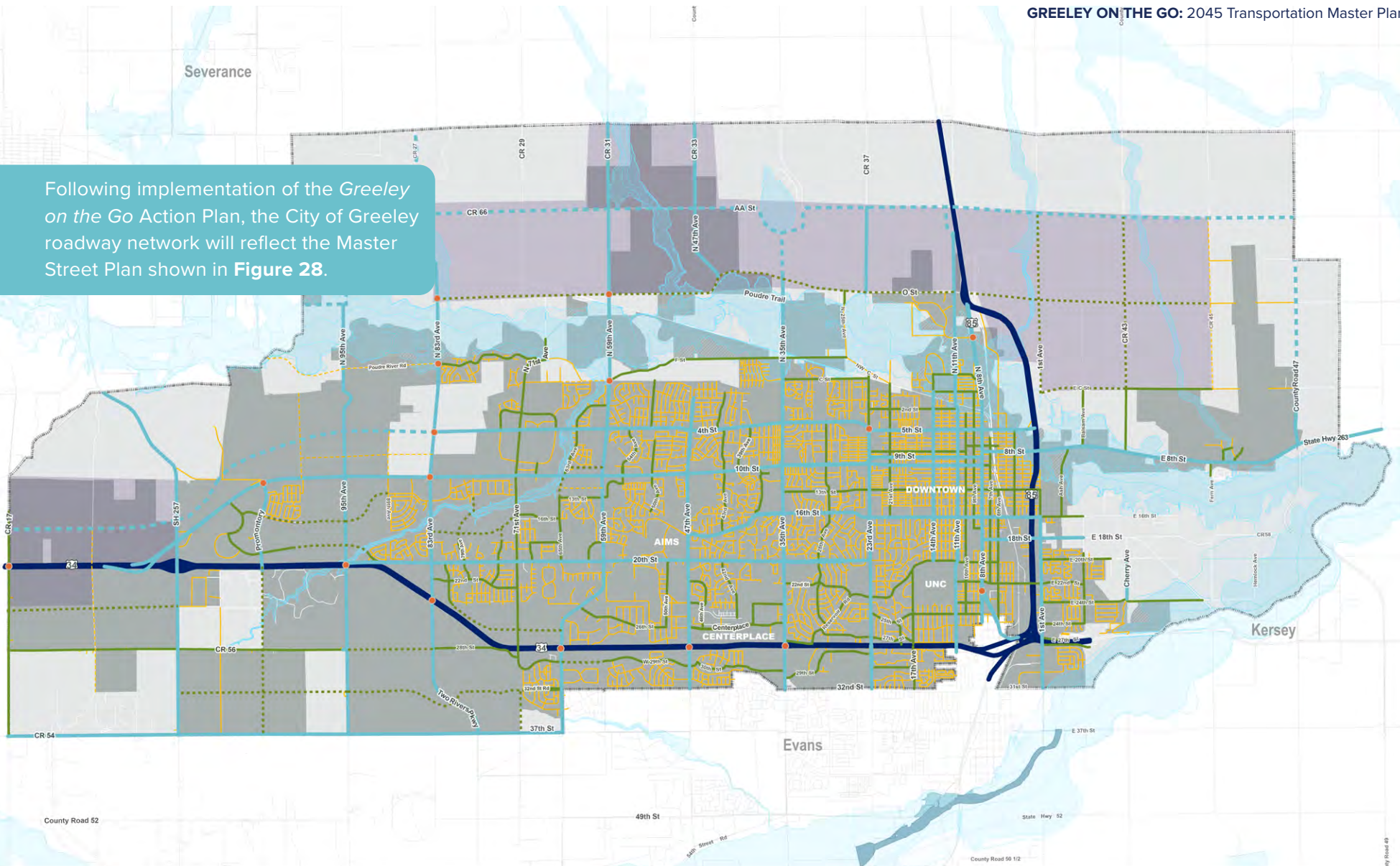


Figure 28: City of Greeley 2045 Master Street Plan 65

CHAPTER 08

Mobility

Mobility

The new recommended direction for mobility services (formerly the Transit Division) within Greeley is that of integrated mobility that focuses on the user and their access to variety of seamless, connected mobility options that facilitate a variety of trip types. This new paradigm for mobility integrates transit, on-demand, shared mobility, e-mobility, curb management and micromobility (bikes/scooters) services, all through a seamless technology user interface (Figure 29).

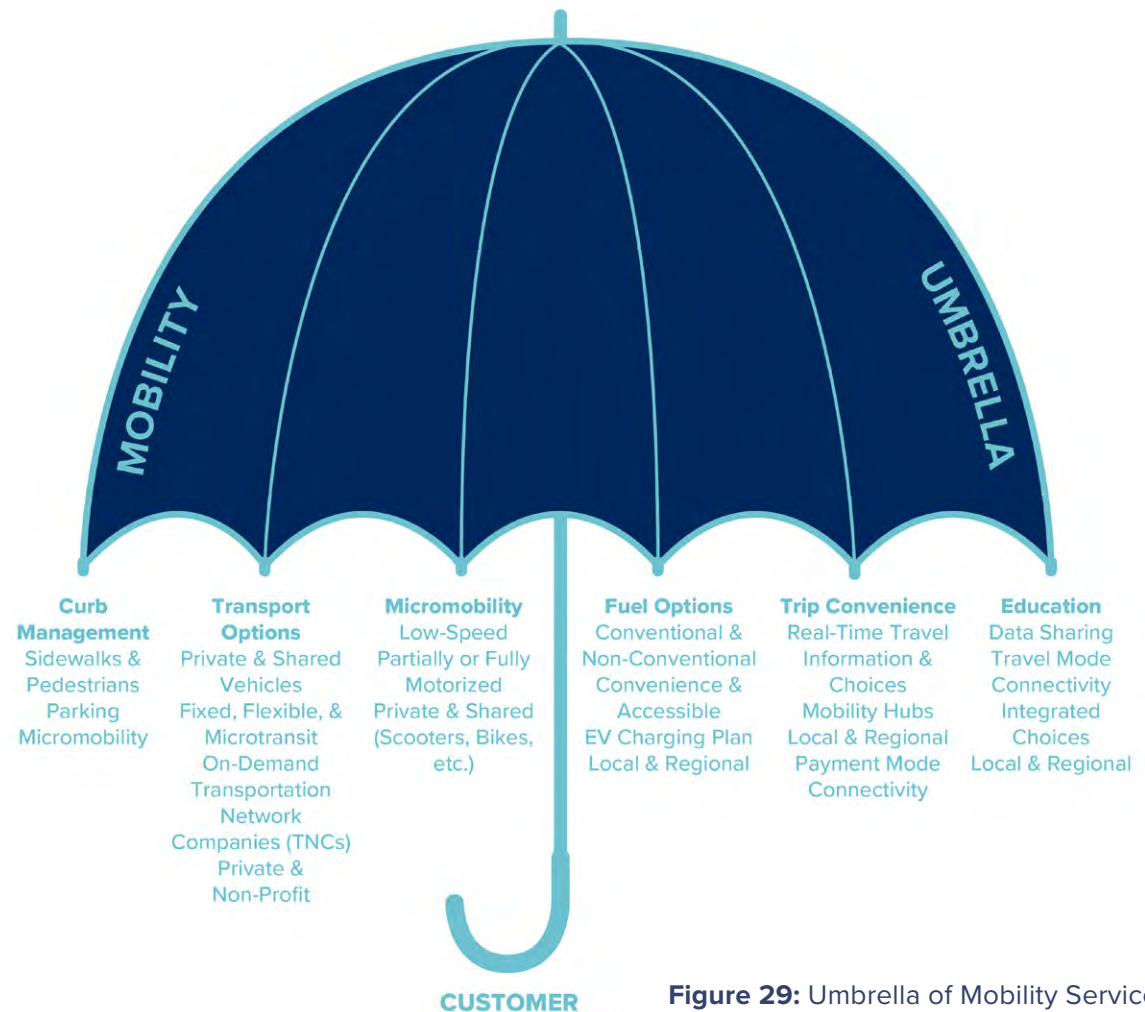


Figure 29: Umbrella of Mobility Services

Programmatic Elements

The programmatic elements are envisioned to be delivered by a reimagined GET that transitions from a provider of transit services to a provider of a variety of mobility services and programs including:

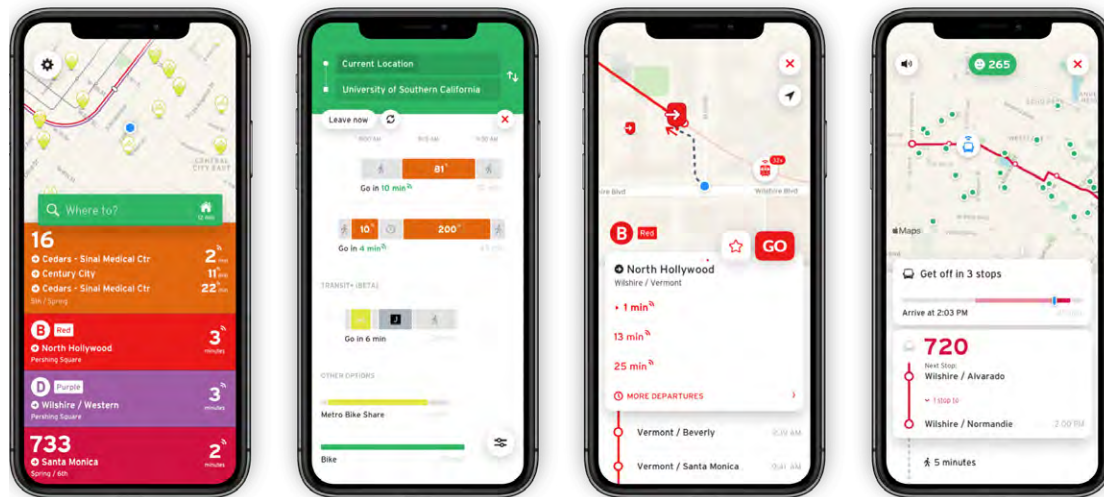
- High frequency, premium transit operating along key linear corridors.
- Flexible on-demand microtransit and connections/partnerships with transportation network companies (TNCs) like Uber, Lyft, 60+ ride, Envision and others.
- Local transit fixed and flexible route service for areas where demand remains warranted.
- Micromobility options including bikeshare and scooter-share.
- ADA paratransit services powered by more convenient trip request technology.
- Improved ADA paratransit services that better facilitates the real time service delivery needs of eligible riders.
- Improved fare structure that accounts for equity and inclusion regardless of which mobility option is used.
- Convenient trip planning, scheduling and payment technology that facilitates seamless trip planning across multiple modes while providing user defined prioritization based off their needs.

Supporting Elements

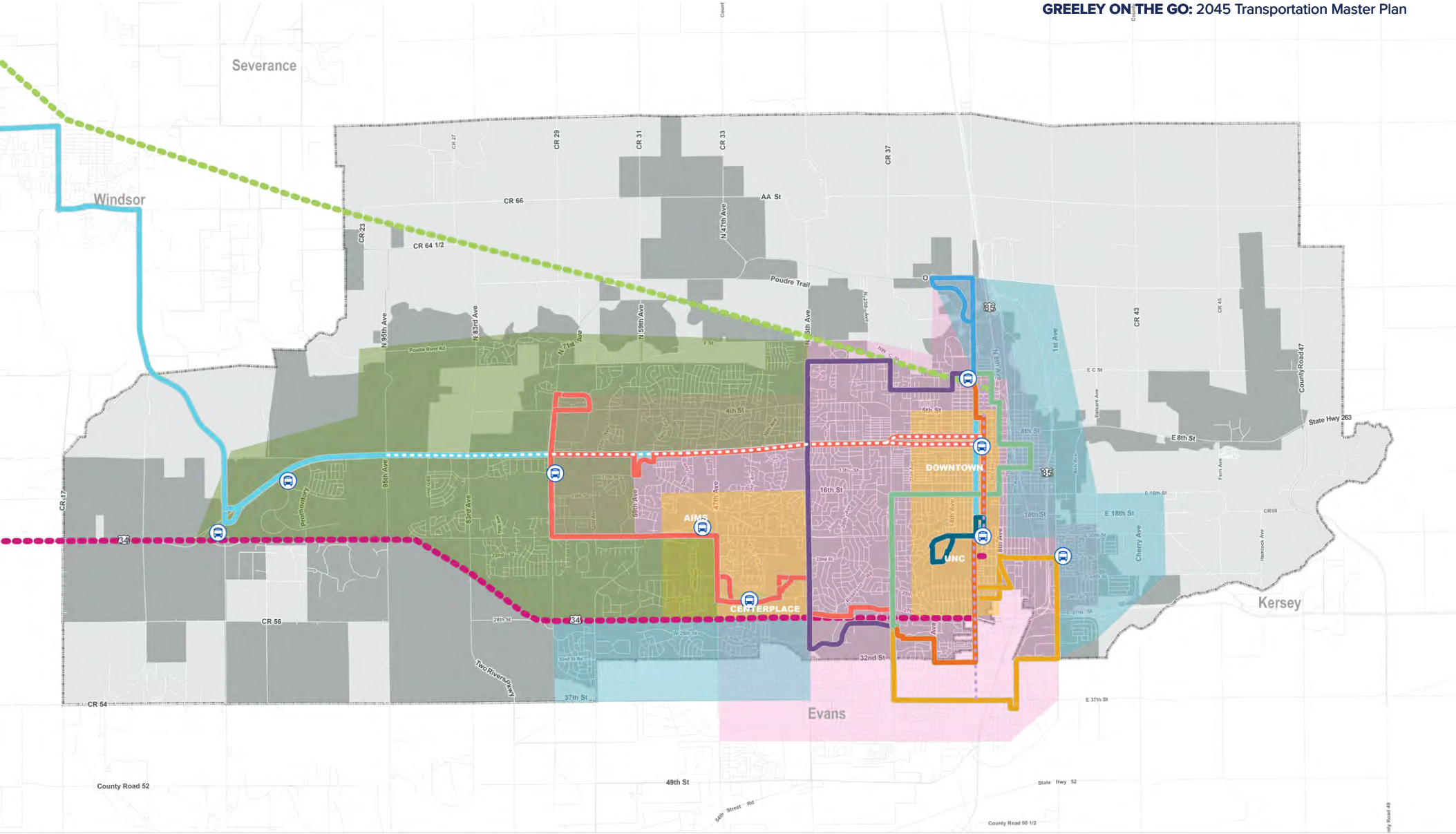
This integrated mobility model has many supporting infrastructure and technology elements that will be necessary for successful delivery including:

- Corridor infrastructure to support key transit corridors including dedicated bus lanes, fixed guideway corridors, transit stations, and bicycle/pedestrian connecting infrastructure
- Transit speed and reliability tools such as bus bulbs, transit signal prioritization (TSP), and queue jump lanes
- Mobility hubs that physically integrate and connect the various mobility services
- Integrated trip planning and fare payment enable by technology
- Electrification, or other zero emission technologies, for all vehicles within the Greeley mobility fleet, as well as charging solutions for micromobility solutions
- Possible autonomous operations for certain routes and vehicles, as technology, policy, and safety allow
- Transit technology solutions

The long-term mobility vision, as shown in **Figure 30**, envisions fixed routes, modifications to the existing fixed route system, microtransit zones, micromobility zones, premium transit corridors, regional connections, service development zones, and mobility hubs.



LA Metro



Existing GET Routes

- Route 1
- Route 2
- Route 3
- Route 4
- Route 5

- Route 6
- Poudre Express Regional
- UNC Boomerang

Premium Transit Corridors

- 10th Street
- 10th/11th Avenue

Regional Routes

- Great Western Corridor BRT or Rail
- US-34 Express Route to I-25 & Loveland

Fixed Route Modification Zone

- Microtransit Pilot Zones
- Future Microtransit Service Area
- Micromobility Zones

City Limits

- Greeley Growth Boundary



Figure 30: Greeley on the Go Long-Term Mobility Vision 69

CHAPTER 09

Multimodal Network

Multimodal Network

The city's short-range and long-range multimodal plan includes the construction of new and improved active transportation facilities and street projects (**Figure 31**). These projects complete gaps in the bike and trail network and improve facilities for people walking and rolling as the city upgrades streets.

Street projects include repaving, completion of streets, construction of new streets to serve development, one to two-way conversions, streetscape enhancements, traffic calming, and road diets. Intersection improvements encompass operational improvements and signal coordination, safety enhancements, roundabouts, and new interchanges.

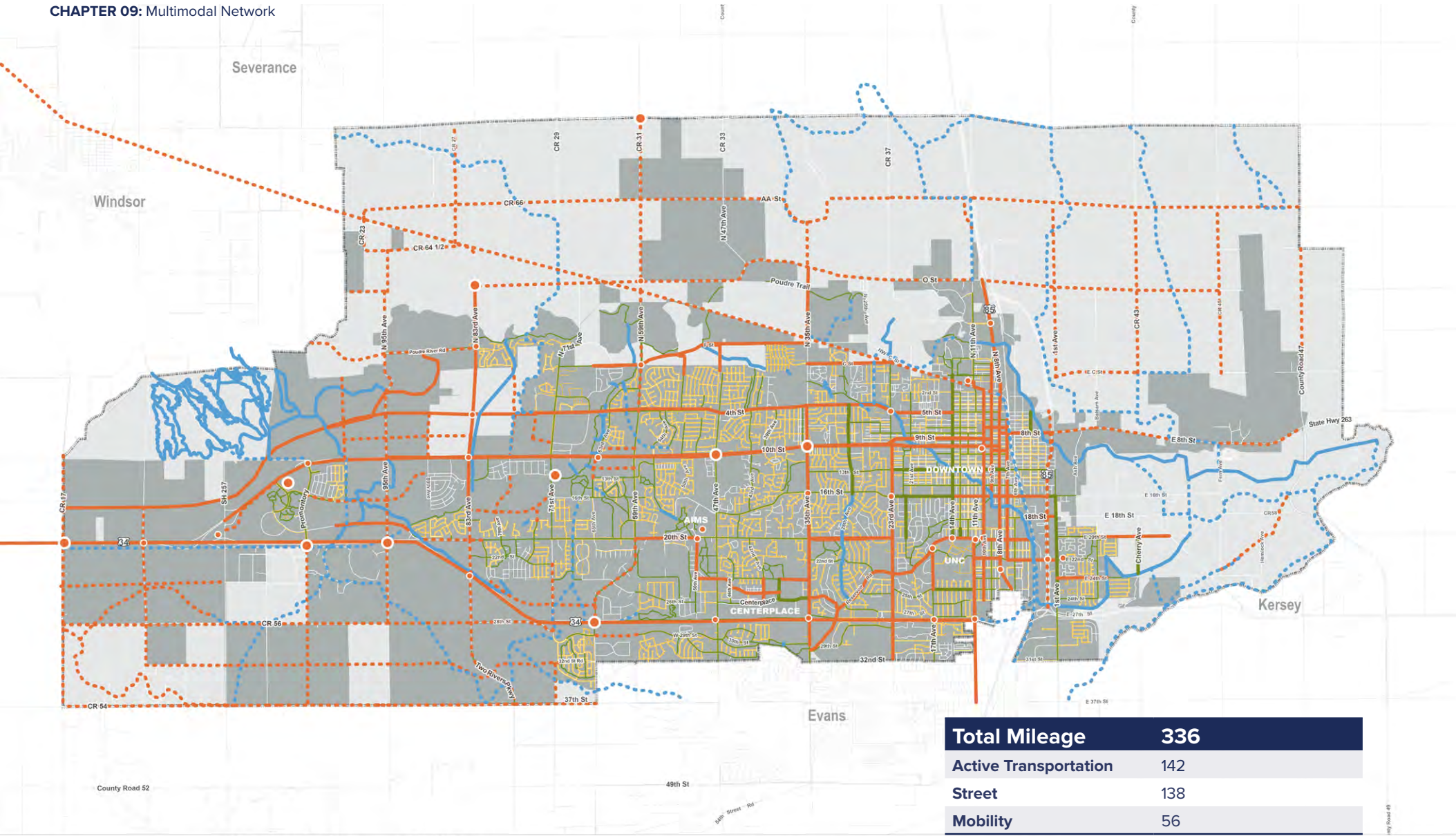
Active transportation projects span new and improved trails, bike facilities, pedestrian facilities, crossings, and other multimodal enhancements. As the City installs streetscape enhancements and traffic calming measures, a focus will be given to projects around schools, parks, shopping areas, public buildings, and transit to improve safety around these key destinations. Projects

to improve pedestrian infrastructure will upgrade deficient sidewalks and crossings and install new facilities where missing. Bike projects will include new widened shared use paths, bike lanes, trail extensions, and trail connections from neighborhoods.

Major 10-year projects will add or improve 319 miles of sidewalks, trails, bike facilities, and streets. A few representative projects include:

- **10th Street from CO-257 to 23rd Avenue:** This project will provide streetscape enhancements to reduce speed and improve operational flow over approximately 9 miles. It will also include high-comfort bike facilities along a key east-west corridor in the city.
- **4th Street from County Road 17 to 23rd Avenue:** This project will deliver streetscape enhancements and school safety improvements with targeted traffic calming measures for approximately 11 miles of existing street. On the western side of the project, new development will construct a new 2.7-mile long two-lane arterial.

- **7th, 8th, 9th, and 10th Avenues:** These projects focus on roughly 10 miles of downtown streets, improving transit, bicycle, and pedestrian facilities and crossings and providing other streetscape and safety enhancements in areas where people frequently walk and bike. 8th Avenue will include high-comfort bike facilities along a key north-south corridor in the city.
- **No. 3 Ditch Trail:** This project will develop a new two-mile off-street trail along the Number 3 Ditch to provide a new connection to downtown and UNC from neighborhoods just northwest of the area.
- **Poudre Trail Extension:** This 10-mile project will extend the Poudre Trail east of 8th Avenue in the short-term and all the way east to Greeley's growth boundary and eventually the confluence of the South Platte River in the long term.



Total Mileage	336
Active Transportation	142
Street	138
Mobility	56

- Intersection or Site Projects**
 - 10-Year
 - Long-Range
- Corridor Projects**
 - Bike Project (10-Year)
 - Multimodal Project (10-Year)
 - Trail Project (10-Year)
 - Multimodal Project (Long-Range)
 - Trail Project (Long-Range)
- Existing Bicycle Infrastructure**
 - Sidewalks
 - City Limits
 - Greeley Growth Boundary



Figure 31: Greeley on the Go Near- and Long-Term Multimodal Network



MY GUARD BENEFITS
Up to \$20,000 enrollment bonus
Up to 100% Tuition Assistance
The training of your choice
Monthly paychecks
Scholarship opportunities
Part-time job with full-time benefits

GREELEY - EVANS TRANSIT
GET
GET CONNECTED

There's a tool in the
against child abuse
1-844-CO-4-

USD070530359CO

CHAPTER 10

Freight

Freight

As noted in the existing conditions section, industrial activity in Greeley has increased since 2013 after a period of limited development during and after the Great Recession of 2008. For Greeley, the major transportation routes connecting the city to the region are the prime locations for industrial development. Surrounded by major state highways, rail, pipelines and a regional airport, the city's location has supported freight economic development throughout the region.

Based on the United States Department of Transportation Freight Analysis network for the Denver region, which includes Greeley, truck and pipeline freight represents the largest share of goods movement by weight or value. Given that Weld County is the largest oil and gas producer in the state and the County has significant agricultural resources and infrastructure, it is likely that the County and specifically Greeley share similar or even more prominent patterns in terms of goods movement.

Greeley's major transportation routes are US-85 and US-34, two major truck routes for moving goods across the region. However, some of the city's internal arterials and collectors have been impacted by having a high share of freight using smaller designated roads. Additional freight assets include the Greeley – Weld County Airport, which is located on the east side of the City of Greeley approximately 40 miles north of Denver, but outside of the Denver Class B Airspace. It is perfectly positioned to service the needs of all general and business aviation users. The airport has over 200 based aircraft. The Greeley-Weld County Airport is adjacent to the Greeley Air Guard Station whose primary mission is Space. This mission uses many different types of satellites and cyber-operations to gather electronic transmissions and information, providing individuals in the field with real-time situational awareness.

The Union Pacific Railroad (UPRR) rail line runs north-south along the east side of Greeley. The UPRR provides critical connectivity for the

City of Greeley's manufacturing industries and connects businesses to major port and trade facilities across the United States.

The Great Western Railway of Colorado (GWR) operates over 80 miles of track and interchanges with the national freight railroads of BNSF Railway and UPRR. The railroad is a vital link in Northern Colorado's transportation network as it runs through Ft. Collins, Longmont, Windsor, Loveland and Greeley and is strategically located around key national rail connections providing seamless connectivity to national and international ports of trade.

Putting in place a freight plan that establishes strategic freight routes and local policies can help shift some freight traffic onto higher volume major arterials, mitigate the negative effects of freight in the community, and allow more minor roadways to serve multimodal neighborhood travel needs. The freight plan development will build on the existing conditions and previous plans

Previous Plans

GREELEY'S 2035 COMPREHENSIVE TRANSPORTATION PLAN

Greeley's 2035 Comprehensive Transportation Plan identified proposed truck routes (Figure 32), including US 85, US 85 Business Loop (8th Avenue), US 34, SH 257, SH 263 and O Street. Aside from O Street and 8th Street, these routes are all State and US Highways.

The Plan also identified the effort between the City and the Downtown Development Authority (DDA) to investigate the possibility of a quiet zone for train horns in the downtown area. Subsequent studies have identified potential quiet crossings along Union Pacific Railroad (UPRR) and along Great Western Railway (GWR). The City is in the process of implementing improvements to these crossings to establish the quiet zones.

2019 FREIGHT NORTHERN COLORADO

The North Front Range MPO developed the Freight Northern Colorado (NFC) plan in 2019. Beyond showing the Colorado Freight Corridors (CFCs), which are established by CDOT, the plan identified a primary network for freight within the region, the Regionally

Figure 4-6: Hazardous Materials Routes

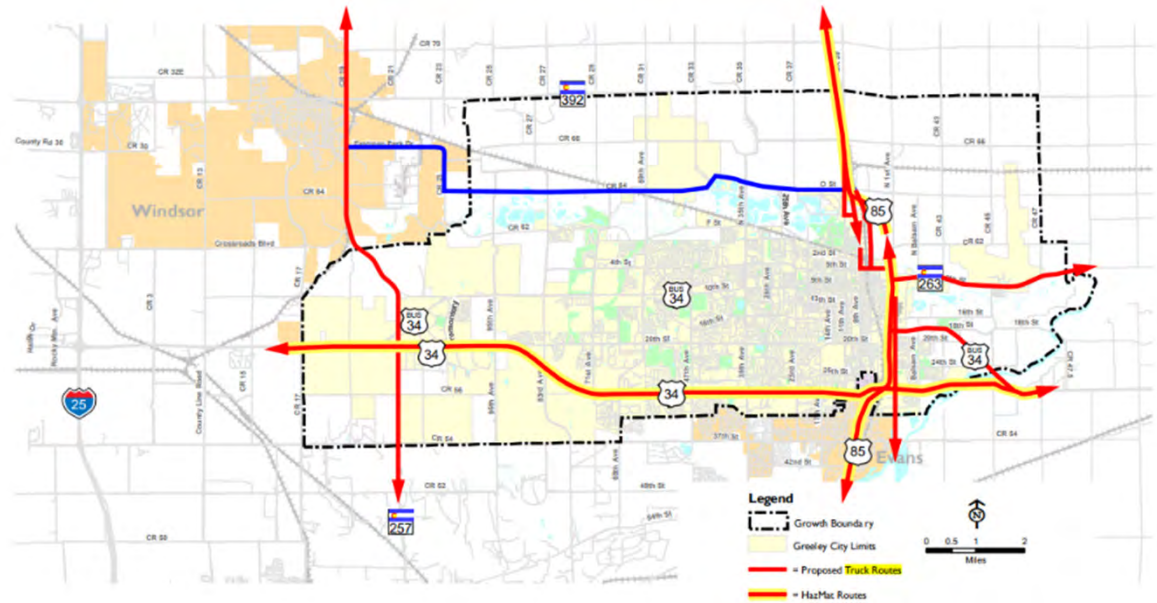


Figure 32: Truck and HazMat Routes (Source: 2035 Comprehensive TP)

Significant Corridors (RSCs). Within the region, I-25, US 34, US 85, US 287, and SH 14 are known to be part of the CFC network, as shown in Figure 33. The primary network of RSCs within Greeley includes SH 392 (Weld County Road 68), O Street, US 34 Business Loop (10th Street), SH 263 (8th Street), and Colorado Road 54 (37th Street) in the east to west direction, as shown in Figure 33. North to south, the following corridors are included: SH 257, 83rd Avenue, 59th/65th Avenue, 35th Avenue, and 8th Avenue (Figure 33).

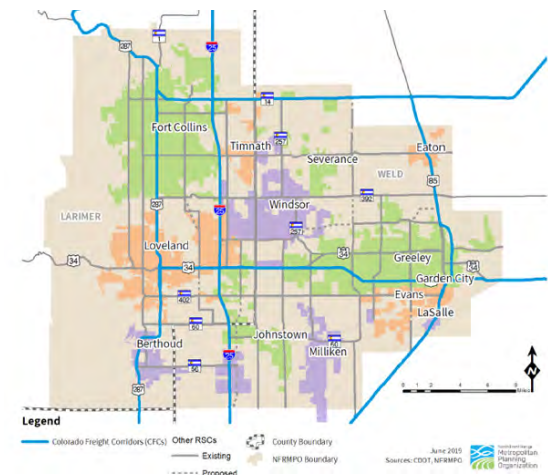


Figure 33: CFCs and RSCs in the NFRMPO Region (Source: 2019 FNC)

IMAGINE GREELEY COMPREHENSIVE PLAN

Future employment areas designated in Greeley’s future land use plan, in part, reflect the location of major corridors traversing the city (US 34, US 85, Great Western Railroad, and the regional Greeley-Weld County Airport). Purple areas on the Land Use Guidance Map (**Figure 34**) identify where the City plans to attract large employment, industry, and commerce within the following years.

The plan also calls for quiet zones in sensitive rail areas and the enhancement of travel corridors to and from the airport on SH 263 (8th Street).

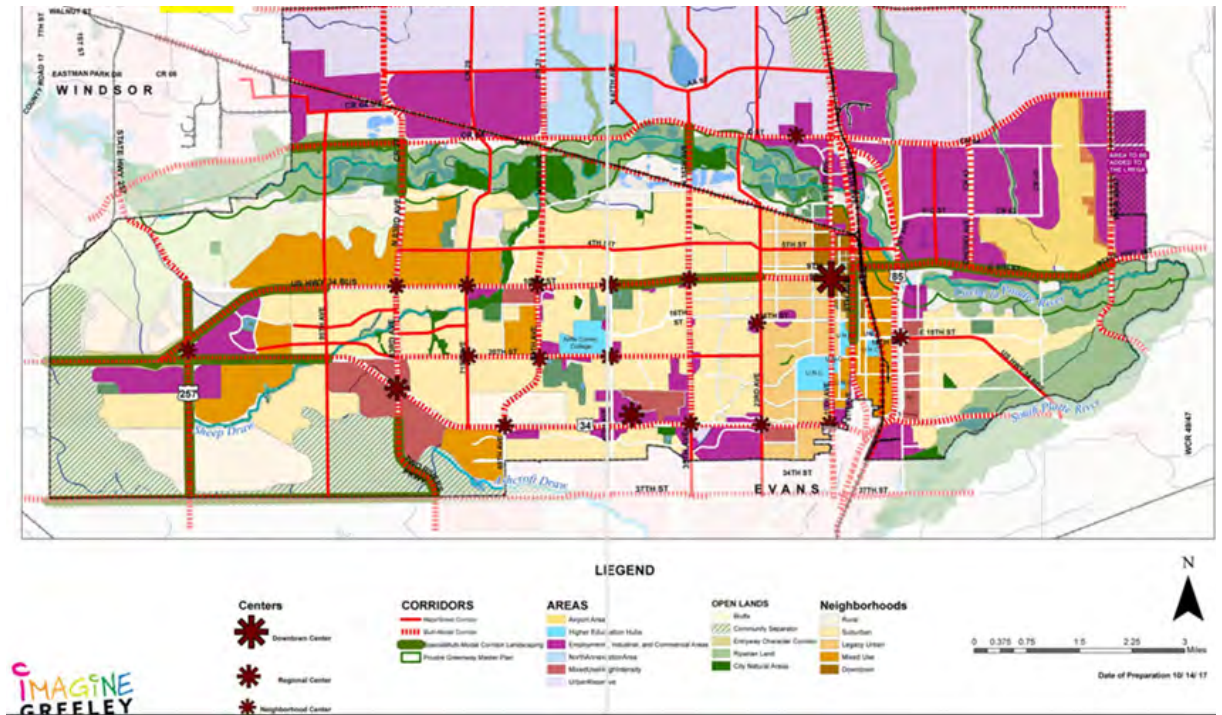


Figure 34: Land Use Guidance Map (Source: Imagine Greeley Comprehensive Plan)

Plan Development

COMMUNITY INPUT

Feedback received from community surveys, intercept events, and open house events regarding freight was limited to vehicle noise concerns along 20th Street and 23rd Avenue. Previous plans have identified noise concerns in the downtown area and land uses incompatible with freight, specifically rail freight.

DEMAND GENERATORS AND INFRASTRUCTURE

LOCAL RETAIL AND INDUSTRY

Figure 35 shows freight demand generators within or in proximity to Greeley, including industries or facilities that generate significant freight movement. These include Walmart Distribution Center to the west of the city, a crude terminal in proximity to Windsor, the Greeley-Weld County Airport, and several other industrial and big box retail facilities along the main US-34 and US-85 corridors. Some of these industrial complexes include Vestas Blade wind turbine and Norfolk/

AFCO Steel manufacturers, located in the northern areas of the city, enjoying direct access to rail facilities. Other manufacturers include Leprino and JBS, leading nationwide companies in the food industry with large industrial facilities within the city of Greeley.

US HIGHWAYS

As identified previously, US-34 and US-85 are the main CFCs crossing freight and also serve as Hazardous Materials (HazMat) routes. All four interchanges within the city limits are located on these two routes, including US-34 and 10th Street, US-34 and 23rd Avenue, US-34 and US-85/railroad, and US-85 and N 8th Avenue/railroad.

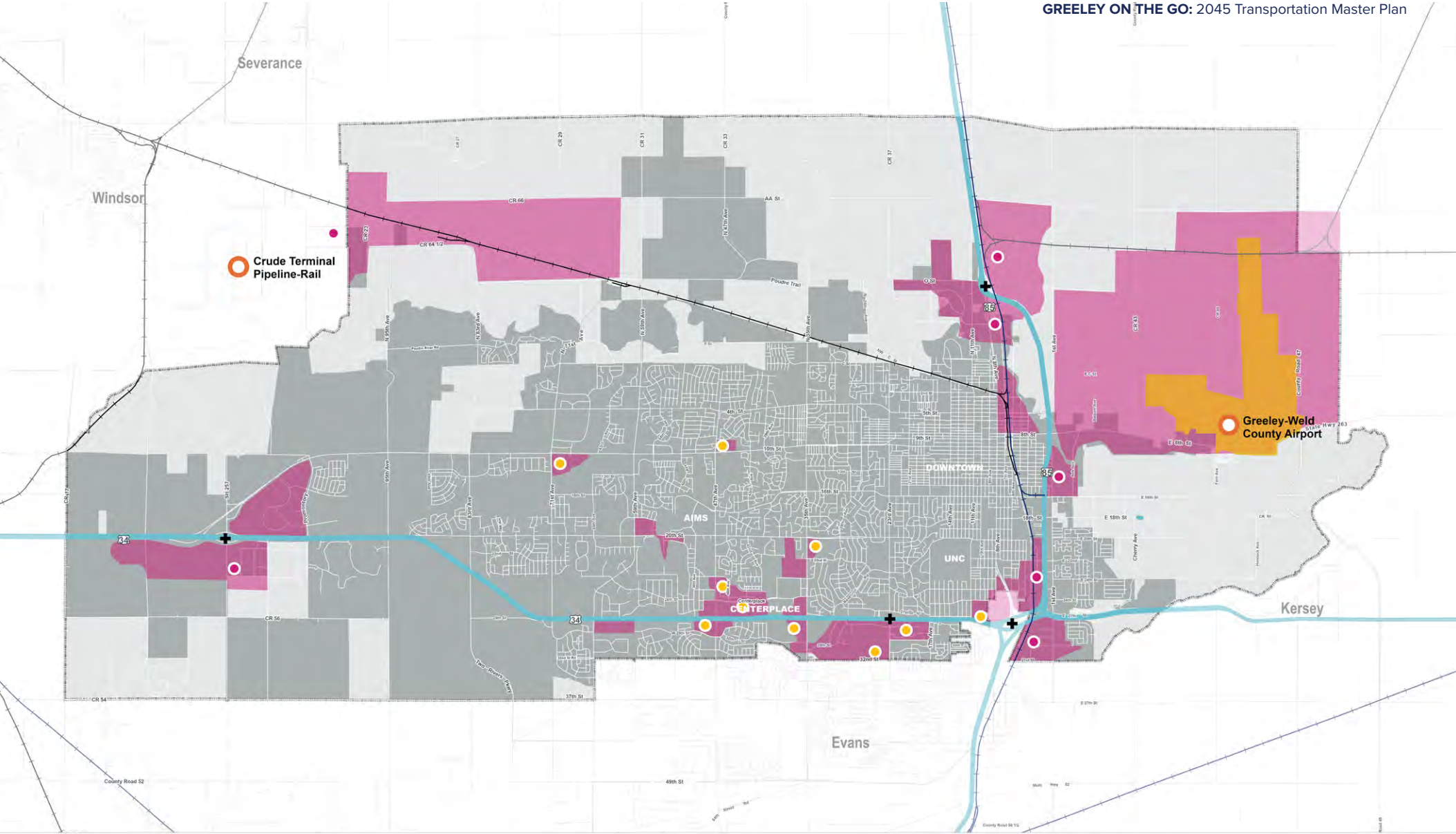
RAILROADS

GWR serves the area, with east to west and north to south railroads serving the northwest GMA of Greeley. GWR operates 80 miles of track and interchanges with UPRR and BNSF. It is also developing a large industrial park in Windsor, northwest of Greeley. The park is expected to generate significant freight movement in the area. UPRR also serves the

area, with a route parallel to US-85 and an east to west connection just south of the city. UPRR top commodities by volume in Colorado include coal, intermodal-wholesale, stone and gravel, cement/miscellaneous mineral, and wheat & Flour. It is expected that a significant number of these shipments are moved through the area. No major transloads were identified within the area, but a transload facility (transfer between rail and truck) operates along the US-85 corridor in the town of Eaton.

GREELEY-WELD COUNTY AIRPORT

The Greeley-Weld Airport (GXY), a general aviation airport (i.e., non-commercial), is owned jointly by the City of Greeley and Weld County. Aside from uses associated with the operation of the airport, this area also supports a mix of industrial uses and the Greeley Air National Guard Base. The airport does not have cargo infrastructure, which is typically handled at the same airports with scheduled commercial passenger service. The future of air cargo services at GXY is uncertain and will depend on various economic trends.



- Great Western Rail
- Union Pacific Rail
- Abandoned Rail
- Colorado Freight Corridor

- Interchange
- Big Box Retail
- Industrial Complex
- Demand Generator

- Greeley-Weld County Airport
- Industrial and Commercial Future Land Use
- City Limits
- Greeley Growth Boundary



Figure 35: Freight Demand Generators in Greeley 79

Truck Traffic Forecasts

Freight truck traffic was calculated for the City of Greeley, and the results are presented in **Figure 36**. Share of traffic volume pertaining to freight was obtained from the 2019 traffic counts data collected for the City of Greeley and from 2020 traffic data available from CDOT. Freight traffic includes all vehicles larger than pickups, as well as vehicles with three or more axles (single trailer or multiple trailers). The proportional freight traffic was obtained by combining the percentages with the collected 2019 average daily traffic (ADT).

From the truck daily traffic volumes shown in **Figure 36**, certain corridors carry significantly more traffic than others. Beyond US Highways and within the city planning area, 47th Avenue, 35th Avenue, and 23rd Avenue seem to have the largest volumes (around 2,000 trucks a day) in the north to south direction. Nonetheless, only

23rd Avenue and 35th Avenue have continuity along the corridor. Still in the north to south direction, US-85 Business Loop (8th Avenue) consistently carries about 600 trucks per day throughout the corridor. These volumes are significantly lower than the 2,300 trucks on US-85, but given its downtown character location, it may signal issues with compatibility with surrounding land uses.

In the east to west direction, US-34 Business Loop (10th Street) and 20th Street have certain continuity and consistently high freight traffic volumes. Both corridors are modified or end at 23rd Avenue. 10th Street seems to have the best connectivity within the city from US-34 to 35th Avenue. On the southern border, 37th Avenue serves significant freight traffic.

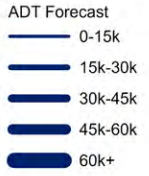
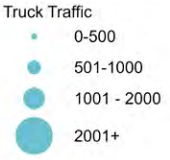
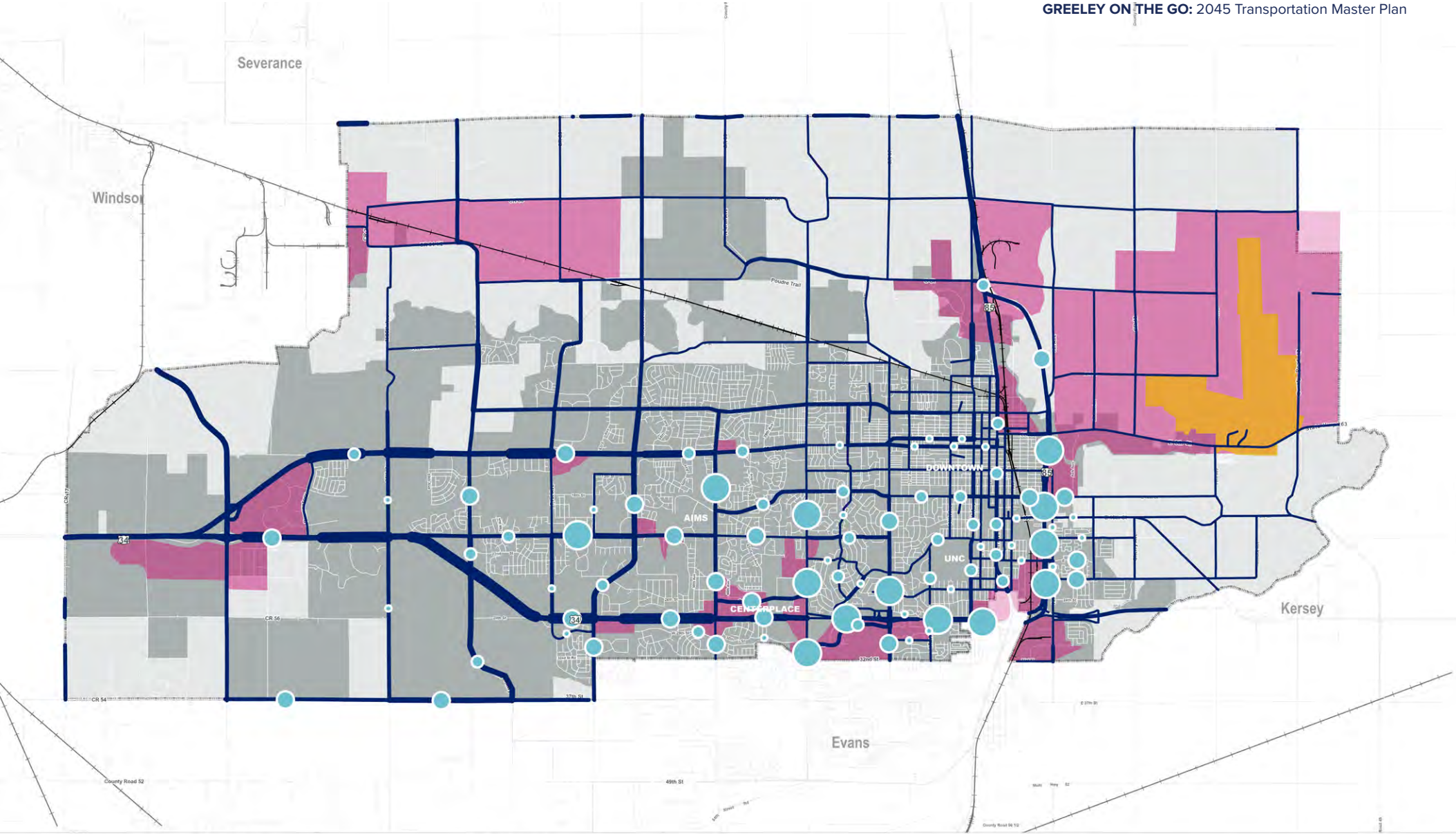


Figure 36: 2019 Truck Traffic Estimates

CONGESTION

The 2019 CDOT Freight Plan identified congestion locations for freight statewide. Northbound, the US-85 intersection with SH 263 was identified as one of top 10 bottlenecks in Colorado. Similarly, the MPO freight plan (Freight Northern Colorado 2019) identified the US-34 Business Loop couplet as a top highway segment with truck delays.

SAFETY

Multimodal safety is the paramount goal of the transportation network. Following the USDOT Safe System approach, roadway speed and design must serve to improve roadway safety as a holistic element together with safe users, vehicles and post-crash care. Humans are naturally prone to errors, so designing this redundant system is key to minimizing traffic death and severe injury. City roadway design should accommodate the minimum allowable rather than maximum design vehicle. Accommodating large design vehicles results in wider turning paths which lead to higher speeds especially among smaller vehicles at intersections where they conflict undesirably with pedestrians and bicyclists. Likewise, design speeds should be controlled especially in urban and transition areas and accompanied by visual cues that direct users to the appropriate design speed. Such roadway cues can include vertical and horizontal curve geometry, lane number and width, clear zone width, and access conditions which all influence the driver's speed. These

road messages should signal to drivers the appropriate speed rather than ineffectively relying on posted speed signage which humans ignore in favor of their perceived safe travel speed. Humans tend toward a risk homeostasis which adjusts for relatively safer vehicles and streets by engaging in relatively risky behavior such as higher speeds and engaging in distracting activities while driving. Therefore, the roadway should provide a sufficient level of discomfort to cue a driver to the appropriate risk of their environment. Wide and open roads through a rural area indicate a relatively predictable environment which is appropriate to drive fast. By contrast, wide and open roads are inappropriate for urban environments with their relatively unpredictable and numerous conflicts between pedestrian, bicycles and other vehicles. Reducing vehicle speeds reduces the kinematic impact of crashes which the human body has limited ability to absorb and fully recover from. Roadway design grounded in these human factor limitations with the minimum appropriate design vehicle and design speed will ultimately result in a safer network for all roadway users. Freight vehicles interact with passenger vehicles, bicycles, and pedestrians at roadways and at all at-grade railroad crossings within the region. The 2019 Freight Northern Colorado Plan identified the US 85 Business Loop (8th Avenue) and US 85 as the corridors with the highest rate of truck crashes per 100 million vehicle miles traveled (VMTs) in the MPO region. Based on CDOT and North Front

Range MPO 2017 data, the US 85 Business Loop has 46 truck crashes per 100 M VMT, and US 85 has 30 crashes per 100 M VMT.

Within the North Front Range MPO, there are 116 at-grade railroad crossings. Despite the high volume of truck traffic within the region, no incidents have been recorded within the Greeley GMA (NFRMPO 2008–2018 data). As part of the US-85 Planning and Environmental Linkages (PEL) Study, Weld County, CDOT, and UPRR have agreed to close several at-grade railroad crossings along US 85. One of these crossings is in Greeley, WCR64 / O Street.

The City has been investigating the development of quiet zones at some at-grade crossings in the downtown area. A quiet zone is an area where trains proceed without sounding a warning horn unless it is an emergency, at crossings with gates, flashing lights, constant warning time devices, and power out indicators.

MULTIMODAL PRIORITIES

Shared roadways and bike lane facilities are not compatible with freight corridors unless facilities are separated and/or protected. Shared use paths or separated trails are more suitable for truck routes when necessary. The existing conditions report (**Figure 62**) denotes 10th Street, 20th Street, and US 34 as the most compatible corridors, with shared use paths and adjacent bike trails. Similarly, 47th Avenue and 35th Avenue have shared use paths for north to south connecting roads. Future on-street bicycle facilities

should be reconsidered as separated facilities when freight corridors are designated.

PARKING AND STAGING

The final 50 feet of truck delivery refers to the last portion of a trip when trucks stop and cargo is unloaded. This process often occurs at a curb, in a parking spot, or in an alley and can involve long periods of time. Due to restricted loading areas, vehicles sometimes must stage somewhere and wait their turn. This “final 50 feet” is particularly difficult in urban settings due to space limitations. Greeley’s municipal code has established standards for Commercial Vehicle Load Zones, and the code allows alternate loading standards for mixed use building or urban districts. In these urban settings, regulations allow loading spaces to be shared among multiple smaller tenants or the use of side streets, on-street parking, or alleys.

CDOT’s Truck Parking Assessment does not identify any long-term truck parking facilities within Greeley. As well, the local municipal code states that no trucks (oversized commercial vehicle) are allowed to park within any residential zoning (R-L, R-M, R-E, R-MH or R-H) in the city, unless it is for loading or unloading of personal goods, temporary parking for pick-up/delivery for a period less than 30 minutes, or for construction equipment.

Finally, increasing growth courier and home delivery services pose a challenge in terms of curbside management within

dense residential environments. Lack of proper curbside availability results in delivery vehicles parking in unauthorized locations or blocking street traffic.

Recommendations

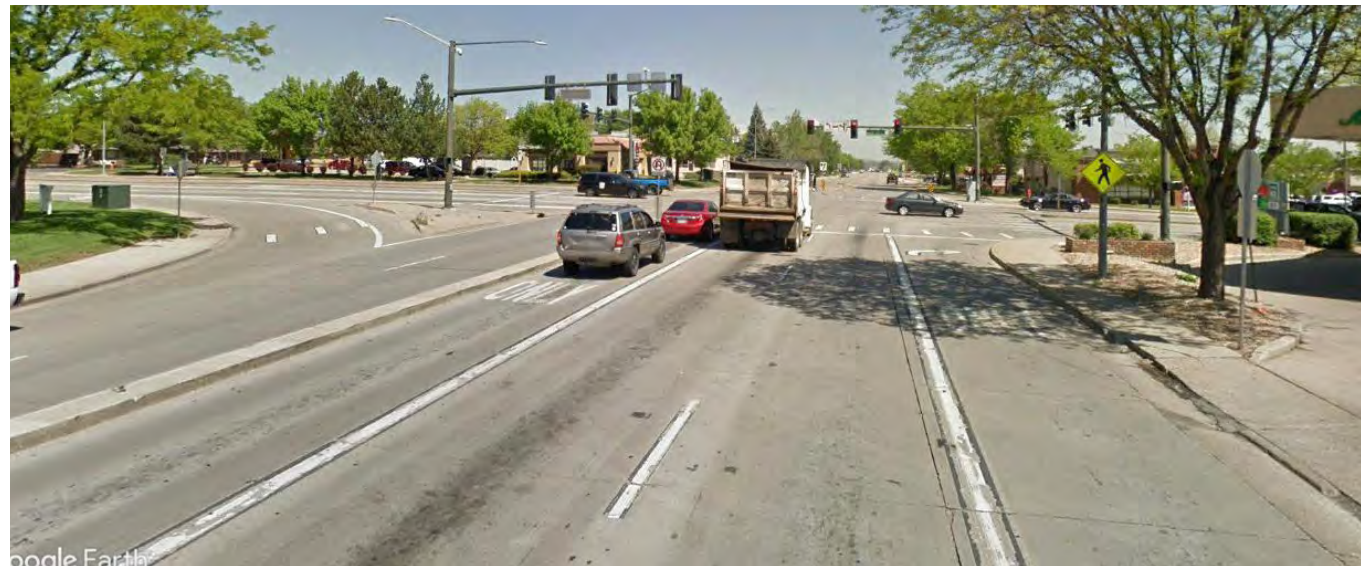
STRATEGIC CORRIDORS

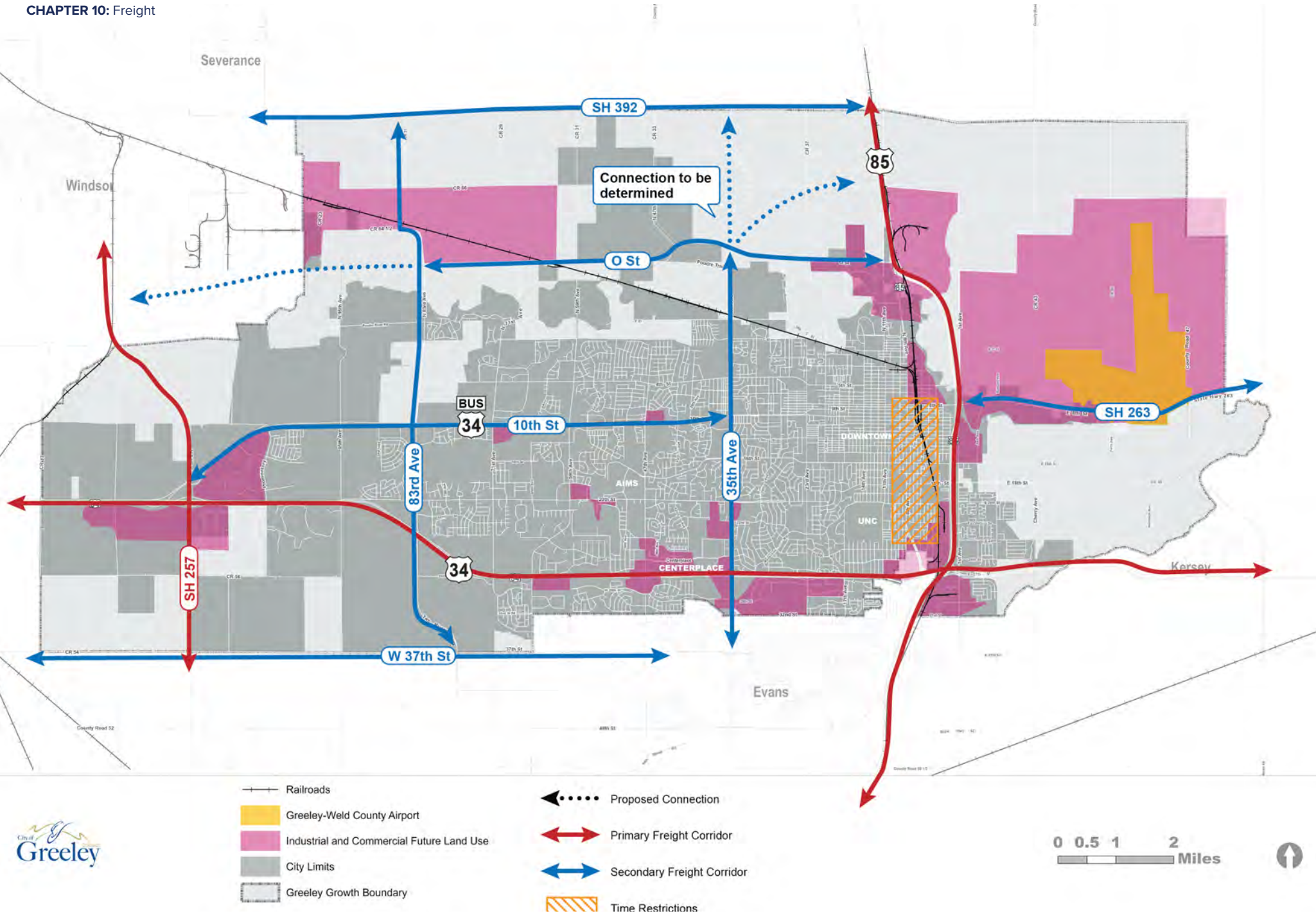
The development of the following recommendations is based on the existing conditions and plan development sections. The strategic corridors presented in **Figure 37** have two tiers of importance:

- **Primary Truck Corridors** serve essential regional freight traffic and HazMat routes. These corridors are based on the US Highway system and include US-34, US-85 and SH-257.

- **Secondary Truck Corridors** serve a more local purpose and connecting routes to primary truck corridors. These include SH 392, SH 263, O Street, US-34 (Business Loop, 10th Street), 83rd Avenue¹, 35th Avenue and W 37th Street. Proposed connections are shown as dashed lines in **Figure 37**.

-
- ¹ *83rd Avenue is recommended as a secondary truck corridor despite some concerns that should be considered for improvement. These include the skewed intersection at US 34, which makes truck turning movements difficult, improving truck movement at 20th street roundabout, address land uses and access compatibility between US 34 and US 34B, the evaluation of a bridge structure over Cache La Poudre River to handle additional truck traffic, and improving turning movement and safety considerations at 83rd / WCR 64½ and WCR 27 intersection, which is adjacent to a rail crossing.





-  Railroads
-  Greeley-Weld County Airport
-  Industrial and Commercial Future Land Use
-  City Limits
-  Greeley Growth Boundary
-  Proposed Connection
-  Primary Freight Corridor
-  Secondary Freight Corridor
-  Time Restrictions

0 0.5 1 2 Miles



Figure 37: Freight Strategic Corridors

OTHER RECOMMENDATIONS

Other recommendations include the following:

- Install informational signage to direct truck traffic onto freight strategic corridors.
 - Explore developing time restrictions on the US-85 Business Loop (8th Avenue) in residential and downtown Greeley.
 - Explore implementing more traffic calming strategies on the US-85 Business Loop (8th Avenue) to improve safety and dissuade its use as a corridor.
 - Explore developing transportation policies to encourage and serve freight-oriented land use development in employment areas already identified in the Imagine Greeley Comprehensive Plan. Strategically locating industrial land uses near one another can improve freight efficiency and ensure continuous operations.
- Properties adjacent to the Great Western Industrial Park in Windsor and the potential development of Greeley-Weld County Airport adjacent areas are examples of freight-oriented development.
- Continue the development of quiet zones to address noise concerns and economic vitality for at grade crossing in proximity to downtown Greeley.
 - Establish curbside management strategies with designated loading areas along residential areas to properly manage shipping and courier delivery services.
 - Consider building separated multimodal facilities when freight corridors are designated to avoid compatibility issues (for example shared use paths instead of on-street bike lanes).
 - Identify long-term truck parking locations in or around Greeley.



CHAPTER 11

Policy and Initiatives

Policy Initiatives

While the *Greeley on the Go* priority areas and action plan define physical infrastructure changes that are intended to address community input, meet future travel demand, and meet the goals on this transportation plan, a set of policies and program initiatives are also needed to support plan implementation. **Table 5** details a set of tools that the City of Greeley can deploy to help achieve the *Greeley on the Go* mobility vision.

Table 5: Greeley on the Go Policies and Initiatives











TMP Goal Area(s)	Policy/Initiative	Description
 Safety	Traffic Calming Policy	Pursue a citywide policy to calm vehicle speeds through a combination of modifications to signal timing and/or intersection improvements, implementing road right sizing on corridors where new geometry is feasible, reducing opportunities for cut-through travel on neighborhood streets, and through a comprehensive public awareness campaign that elevates community dialogue about speeding.
 Safety	Speed and crash analysis program	In coordination with public safety, enhance the current safety analysis program to annually review and analyze speeds and crash data throughout the city. Use analysis to implement operational and/or capital improvements to improve safety.
 Multimodal Network	Promote multimodal improvements in sections of Greeley that have been designated as Priority Areas for transportation investments.	Priority Planning Areas are locations where Greeley is anticipated to grow. Focus areas for future growth include downtown, in East Greeley, and around major shopping areas. Priority Corridors include major roadways with safety concerns and that serve Priority Areas, as well as trails like the Poudre River Trail and Sheepdraw Trail that serve as vital recreational and transportation corridors for active transportation users. Promoting near-term planning and implementation of multimodal infrastructure in these areas will help ensure that accommodations for traveling by foot, bicycle, or transit are included into infrastructure expansions as these areas of Greeley grow.

Table 5: Greeley on the Go Policies and Initiatives

TMP Goal Area(s)	Policy/Initiative	Description
 Equity and Health	Community Outreach Program	In order to ensure that all community members are represented in the transportation planning process, Greeley can maintain an ongoing community outreach process to regularly collect input on mobility needs. Input can be collected through virtual platforms, intercept events, and community workshops.
 Equity and Health	Equitable Access Assessment	Monitor the ability of underrepresented populations to access key city services using a variety of transportation modes. Assess access based on the number of multimodal facilities that serve the one-mile buffer of each location offering key services.
 Economic Development	Active Streets Program	Attract businesses and promote private investment through supporting and encouraging placemaking enhancements in the public right of way like landscaping, benches, street art, and pedestrian scale lighting.
 Economic Development	Curbside Management Program	As Greeley grows, demand for curb space will expand beyond on-street parking to potentially include more goods and passenger loading, bicycle corrals, and enhanced transit stops. A comprehensive curbside management program can inventory existing curb uses, identify locations where curb designations can be modified to better serve adjacent land uses, and provide a framework for guiding decisions about changes to curb designations.
 Environment and Technology	Transportation Demand Management Program	A citywide Transportation Demand Management program can be put in place to require organizations and businesses with significant numbers of employees to offer incentives for commuting by modes other than single occupancy vehicle. These incentives can take the form of transit passes, preferential parking for carpool users, and bicycle amenities like secure bicycle storage rooms. The citywide program can also raise awareness about the community benefits of shifting commute trips from driving onto other transportation modes.
 Funding and Strategic Investments	Comprehensive Asset Management Program	As the multimodal network grows, Greeley can begin to track asset quality beyond the pavement index for roadways to include multiuse paths, city-owned bicycle racks, sidewalk surfaces, sidewalk quality, and other elements of the transportation network. Asset quality metrics will inform prioritization for maintenance activities that keep the Greeley transportation network in a state of good repair.
 Land Use and Transportation Connection	Development Code Update	Aligning the development code with street design standards detailed in the Transportation Master Plan can ensure that Greeley roadways will become enhanced through the development process.



CHAPTER 12

Greeley on the Go Funding Plan

Greeley on the Go Funding Plan

The *Greeley on the Go* funding plan describes the estimated cost of implementing the transportation master plan recommendations, along with the revenues the City of Greeley anticipates receiving towards funding capital and operating costs associated with the transportation network. **Figure 38** shows the breakdown of project costs by transportation mode: street or roadway projects constitute 55%, active transportation projects like multiuse paths constitute 11%, and mobility (transit) projects represent 37% of the plan implementation cost. The total estimated cost of implementing Greeley on the Go is approximately \$2.18 billion (in 2021 dollars). Cost estimates by proposed project are listed in the appendix.

Table 6 shows the anticipated revenues for the first 10 years of plan implementation, as well as the period from 2032 through 2045. In total, Greeley anticipates approximately \$1.17 billion in related revenue over the full lifetime

of Greeley on the Go, with nearly \$463 million in revenue generated in the first 10 years. The full implementation cost of the 10-year project list shown in the appendix is \$734.7 million, which suggests that Greeley will need to raise additional revenue to complete the high priority near-term projects shown in this plan.

Figure 38: Greeley on the Go Spending by Transportation Mode

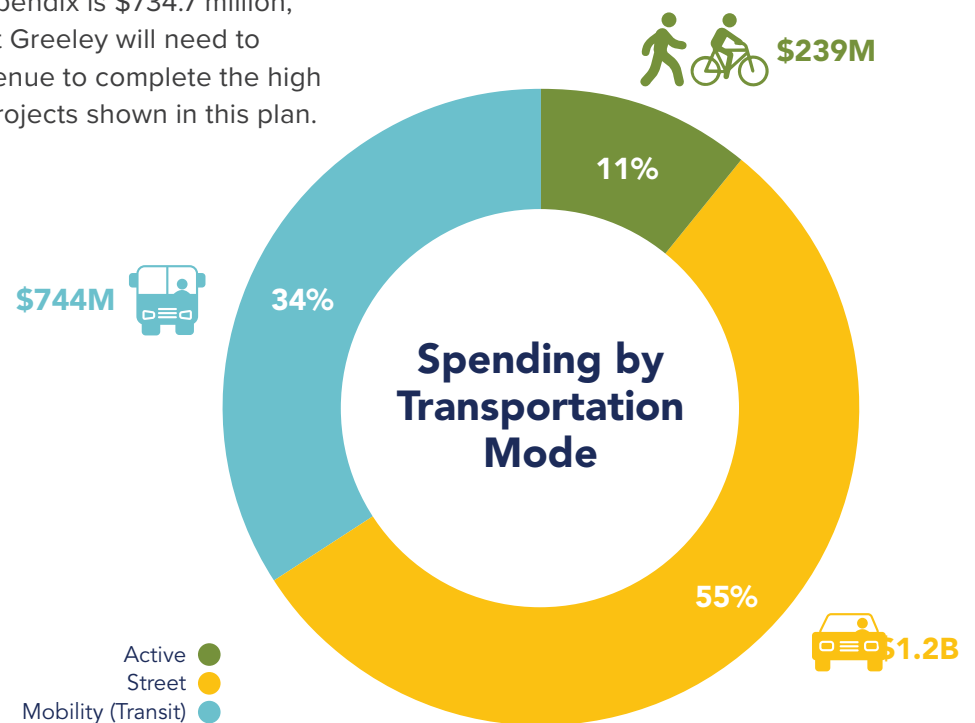


Table 6: Greeley Transportation Revenues (2022-2045)

Sources	5-year total (\$ mil)*	Year 6-10 total (\$ mil)*	Total 2032-2045 (\$ mil)*	Total Anticipated Revenue (\$ mil)*
Keep Greeley Moving	\$70.56	\$77.2	\$287.91	\$435.63
Highway Users Trust Fund	\$2.47	\$5.1	\$21.76	\$29.33
Impact Fees	\$18.75	\$20.5	\$76.50	\$115.76
Auto Use Tax	\$4.37	\$4.8	\$17.85	\$27.01
5307 Grant	\$12.50	\$13.7	\$51.00	\$77.18
Sales Tax on Building Permits	\$1.92	\$2.1	\$7.85	\$11.88
Federal Grants through MPO	\$10.00	\$10.9	\$40.80	\$61.74
Federal Grants through FTA	\$12.50	\$13.7	\$51.00	\$77.18
IGAs with neighboring jurisdictions	\$11.14	\$20.3	\$75.78	\$107.23
Streets Maintenance (CDOT)	\$0.61	\$0.7	\$2.49	\$3.77
Signals (CDOT)	\$1.29	\$1.4	\$5.24	\$7.93
INFRA Grant for 35th Ave/47th Ave	\$117.50	\$ -	\$-	\$117.50
Reconnecting Communities Pilot Grant (9th/10th Street Mobility Improvements)	\$5.00	\$ -	\$-	\$5.00
SRTS for 4th Street Ped Improvements	\$4.00	\$ -	\$ -	\$4.00
Safe Streets for All Grant (UNC mobility improvements or 8th Ave and US-85 Business roundabout)	\$5.00	\$-	\$-	\$5.00

Table 6: Greeley Transportation Revenues (2022-2045)

Sources	5-year total (\$ mil)*	Year 6-10 total (\$ mil)*	Total 2032-2045 (\$ mil)*	Total Anticipated Revenue (\$ mil)*
SMART grant for traffic signal technology	\$10.00	\$ -	\$ -	\$10.00
MMOF Mobility Hub Grant	\$5.00	\$ -	\$ -	\$5.00
Future Grant Opportunities	\$ -		\$73.00	\$73.00
Totals	\$292.6	\$170.3	\$711.20	\$1,174.14

*2021 Dollars

The City of Greeley can also look to additional sources of funding to ensure that the full *Greeley on the Go* project list can be funded.

- **Federal Highway Safety Improvement Program (HSIP):** Eligible projects in this category include improvements or corrections to safety issues on any local or regional public roads and trails or paths. Funded activities must be consistent with Colorado’s Strategic Highway Safety Plan. Projects are selected competitively through CDOT.
- **USDOT Rebuilding American Infrastructure with Sustainability and Equity (RAISE) (formerly BUILD and TIGER):** Since 2009, USDOT has distributed grants for planning and capital investments in surface transportation infrastructure. Grants are awarded on a competitive basis for projects that will have a significant local or regional impact. RAISE funding

can support roads, bridges, transit, rail, ports, or intermodal transportation.

- **Infrastructure for Rebuilding American (INFRA):** The FAST (Fixing America’s Surface Transportation) Act established the Nationally Significant Freight and Highway Projects (NSFHP) program to provide financial assistance—competitive grants, known as INFRA grants, or credit assistance—to nationally and regionally significant freight and highway projects that align with the program goals to improve safety, efficiency and reliability of freight; improve global competitiveness; reduce highway congestion; improve connectivity; and addressing growing demand for freight.
- **Advanced Transportation and Congestion Management Technologies Deployment Program (ATCMTD) grants:** In July 2020, the U.S. Department of Transportation’s Federal Highway Administration (FHWA)

published a Notice of Funding Opportunity (NOFO) for \$60 million in ATCMTD grants to fund new technologies that improve transportation efficiency and safety.

- **5310 Enhanced Mobility of Seniors and Individuals with Disabilities:** This formula fund supports public transportation for seniors and individuals with disabilities by funding eligible capital, purchased service, and preventive maintenance projects for transportation providers. Eligible projects include vehicle purchases, passenger shelters, purchased services, preventive maintenance, travel training, marketing programs, development of centralized call centers, and other equipment that supports transportation to meet the special needs of seniors and individuals with disabilities. NFRMPO administers 5310 funding for Weld and Larimer Counties.

- **FTA Mobility On-Demand (MOD) Sandbox Program:** The MOD program envisions a multimodal, integrated, automated, accessible, and connected transportation system in which personalized mobility is a key feature. The Sandbox Demonstration Program seeks to fund project teams to innovate, explore partnerships, develop new business models, integrate transit and MOD solutions, and investigate new, enabling technical capabilities such as integrated payment systems, decision support, and incentives for traveler choices.
- **Surface Transportation Block Grant:** A formula grant distributed to states who then distribute it through discretionary grants. This grant primarily funds capital improvements.
- **Public Transportation Innovation Program:** The program is a competitive grant process that provides funding to develop innovative products and services assisting transit agencies in better meeting the needs of their customers. It funds research, development, demonstration and deployment projects, and evaluation of technology of national significance to public transportation.
- **CDOT Funding Advancements for Surface Transportation and Economic Recovery Act (FASTER):** This category includes safety-related projects, such as: asset management, transportation operations, intersection and interchange improvements, and shoulder and safety-related widening,

and pedestrian and advanced by local governments and selected based on priority and data within CDOT Region 4.

- **Safe Routes to School (SRTS):** This program was formed to: Enable and encourage children to walk and bike to school; make walking and biking safer and more appealing; facilitate planning development, and implementation of projects that improve safety, reduce traffic, fuel consumption, and air pollution around schools. There is no longer dedicated federal SRTS funding, but the Colorado SRTS program has been continued with state funding and a local agency match requirement. This is a competitive program where projects are screened by a statewide selection advisory committee.
- **Great Outdoors Colorado (GOCO):** Funding from the Colorado Lottery is awarded to a variety of project types, including trail projects, across the state by the GOCO Board. GOCO Board members are appointed by the Governor and confirmed by the Colorado State Senate.
- **Regional Priorities Program (RPP):** The goal of this program is to implement regionally significant projects identified through the transportation planning process. These funds are flexible in use and are allocated to the regions by the Colorado Transportation Commission on an annual basis. The allocations are based on regional population, CDOT on-system lane miles, and CDOT on-system truck Vehicle Miles Traveled (VMT).





- **Multimodal Options Fund (MMOF):** The legislation states that the Multimodal Options Fund should promote a “complete and integrated multimodal system” through objectives such as benefiting seniors, providing enhanced mobility for the disabled population, or providing safe routes to school. Local recipients are required to provide a match of project funding equal to the amount of the grant, with exemptions allowed. The current MMOF funding is available through June 30, 2023.
- **Colorado Energy Office:** Funding is available through HB21- 1253 to local government proposed projects to support the development and construction of renewable and clean energy infrastructure in all areas of the state especially in communities in which renewable and clean energy infrastructure is sparse and with consideration to geographical diversity in these awards.
- **Metropolitan Planning:** Federal funds are allocated to the NFRMPO to provide for a continuing, comprehensive, and cooperative (3C) transportation planning process in the region.
- **NFRMPO Congestion Mitigation and Air Quality improvement Program (CMAQ):** The FAST Act continued the CMAQ program to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).
- **NFRMPO Surface Transportation Block Grants:** The Surface Transportation Block Grant program (STBG) provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.
- **CDOT/NFRMPO Transportation Alternatives Program (TAP):** Eligible projects for TA grants include planning or construction projects for on and off-road pedestrian and bicycle facilities, community enhancement activities, and safe routes to schools. Projects are screened and selected by CDOT Region 4 and funds are awarded through a competitive process to local entities.

CHAPTER 13

Performance Measures



Performance Measures

Performance measures establish a structure to ensure community resources are used effectively and equitably across the city, while assessing if the established plan goals and objectives are being met. Vision, goals, and objectives are usually established in the early stages of the transportation planning process and tend to have community values woven into them. Vision, goals, and objectives form the basis for developing performance measures.

Vision

The City worked with staff, stakeholders, and the public to draft a vision for the Greeley Transportation Master Plan.

The vision is defined as follows:
inform the performance measures:

An ample, easy, and connected transportation system providing seamless mobility to enrich lives and promote economic vitality.

Goals and Objectives

Similarly, City staff, in conjunction with stakeholders and the public, drafted the following goals with their respective objectives. The objectives are detailed in the Vision and Goals section at the beginning of this document.



Safety



Multimodal Network



Equity and Health



Economic Development



Environment and Technology



Funding and Strategic Investments



Land Use and Transportation Connection












Performance Measures

The 11 system-wide performance measures listed in **Table 7** will help the City track progress toward meeting the transportation goals over time. The performance measures are directly tied to one of the eight transportation goals.

In addition to citywide tracking of the performance measures, several performance measures will be tracked to environmental justice (EJ) and priority investment (PI) areas to ensure adequate progress is being made in these important areas of the city. The Equity and Health goal and the Funding and Strategic Investment goal are tied to the EJ and PI areas subsets, respectively.

Performance measures will be tracked annually to understand the progress being made and to identify any course corrections that may be needed to move the metrics toward the established targets.

Table 7: Performance Measure and Goal Tracking Table

Performance Measure	Goal	EJ Area	PI Area
1 Number of serious injury and fatal crashes per 100 M VMT	 Safety		
2 Critical Index mileage	 Safety		
3 Miles of missing sidewalks	 Multimodal Network	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4 Percent population within 1/2 mile of transit service	 Multimodal Network	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5 Travel time on major corridors (peak time differential)	 Economic Development		
6 Percent of Greeley covered by mobility service providers and programs	 Environment and Technology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7 Number of regional services and programs	 Multimodal Network		
8 Percent of pavement in excellent condition	 Funding and Strategic Investments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9 Miles of high comfort streets for people biking	 Economic Development		<input checked="" type="checkbox"/>
10 Miles of high comfort streets for pedestrians	 Economic Development		<input checked="" type="checkbox"/>
11 Number of households within 1/2 mile of trail	 Multimodal Network		

Note: Environmental justice (EJ) and priority investments (PI) areas are subsets to some measures, indicated with a check mark. The EJ area includes the Equity and Health goal, and the PI area refers to the Funding and Strategic Investment goal.



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4

- ROAD MAINTENANCE
- ROAD EXPANSION
- TRANSIT CHANGES
- TRANSPORTATION AMENITIES
- BIKE FACILITIES
- PEDESTRIAN FACILITIES
- ROAD FE...

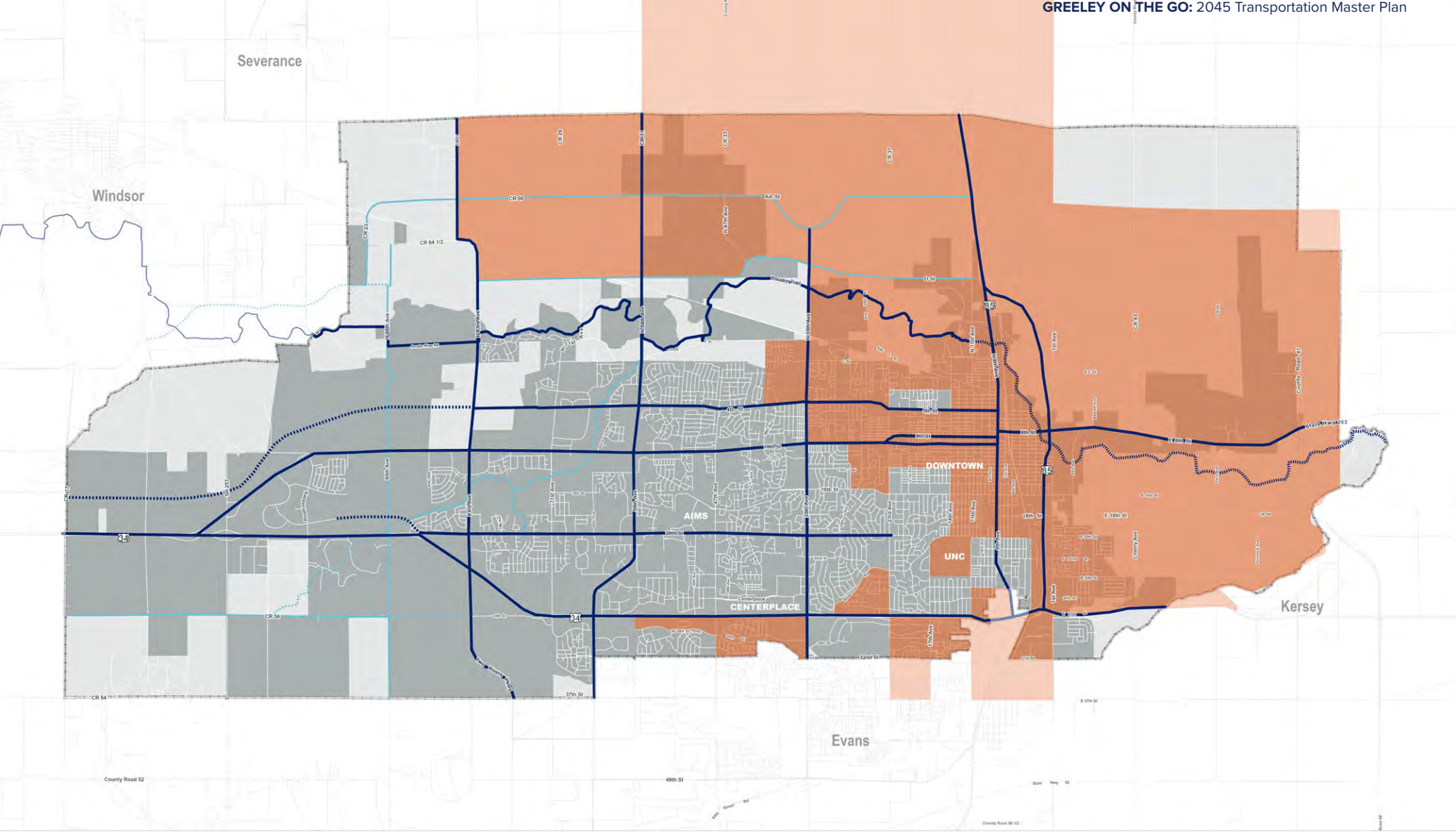
DIRECCIONES MAPAS DE CONEXION



Environmental Justice

The City of Greeley has decided to consider EJ in its transportation planning and programming processes. EJ, at its core, ensures disadvantaged populations do not face higher and more adverse impacts of public programs or projects than the rest of the population. EJ includes minority and low-income populations.

Figure 37 highlights those areas that the North Front Range MPO has identified including minority and low-income populations. For the purpose of the performance measures only areas that met both criteria (low income and minority populations) were included as EJ areas.



- Tier 1 Priority Corridors
- Tier 2 Priority Corridors
- Future Connection
- Future Connection
- Environmental Justice Areas
- City Limits
- Greeley Growth Boundary

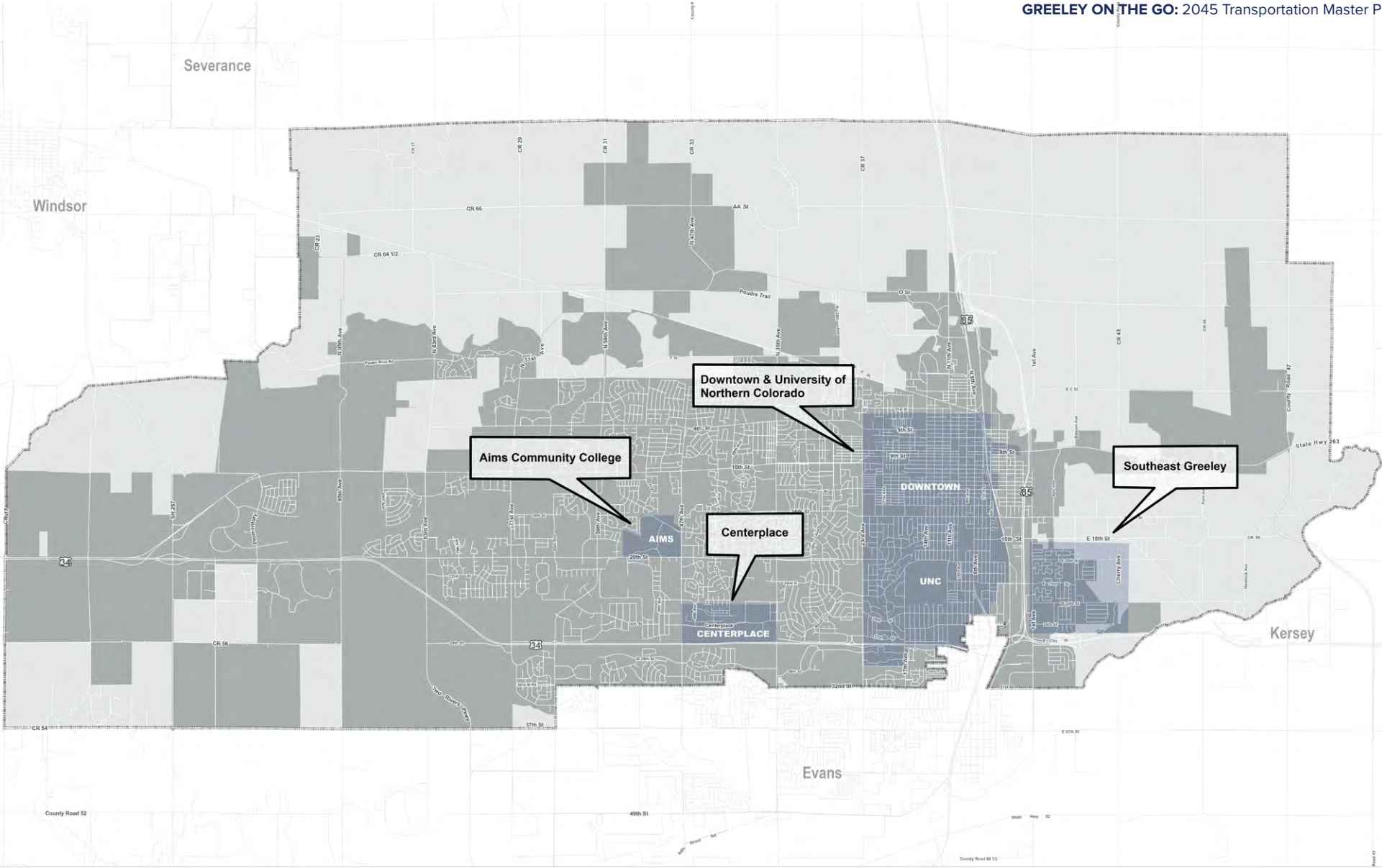


Figure 37: Greeley Environmental Justice Areas identified by North Front Range MPO



Priority Investment (PI) Areas

The City of Greeley has identified PI areas through its planning processes. These areas have been identified as locations where transportation improvements will be focused in order to support development, employment and economic investment. Due to their location and potential to make the greatest positive impact to the overall vitality of Greeley, four locations were identified (**Figure 38**).



- Priority Investment Areas
- City Limits
- Greeley Growth Boundary



Figure 38: Priority Investment Areas identified by the City of Greeley

Performance Measure 1

Number of serious injury and fatal crashes per 100 M VMT

KEY OBSERVATIONS

The number of fatalities and serious injury crashes within the City of Greeley GMA has varied over the years, as indicated in **Table 8**.

WHY IS THIS IMPORTANT?

Traffic crashes represent a major threat to public safety. Monitoring vehicle crash rates provides an understanding of how roadway safety improvements, vehicle safety advances, and driver education affect the number of fatal and severe crashes. This measure tracks the number of injury and fatal crashes per 100 million vehicle miles traveled (100 M VMT).

BASELINE

4.536

serious injuries

per 100 million VMT in 2019

0.613

fatalities

DESIRED TREND

 Decrease

PERFORMANCE TARGET

Maintain a serious injury and fatal crashes rate of no more than 4.536 and 0.613, respectively, per 100 M VMT, over the next 5 years

Table 8: Serious Injury and Fatalities Crash Data (2015–2019) for Greeley GMA

Performance Measure	2015	2016	2017	2018	2019
Fatalities	6	6	12	9	5
Serious Injuries	29	31	49	58	37
Fatalities per 100 M VMT	0.801	0.784	1.534	1.126	0.613
Serious Injuries per 100 M VMT	3.873	4.050	6.264	7.259	4.536

Serious Injuries and Fatalities per 100 M Vehicle Miles Traveled (VMT)

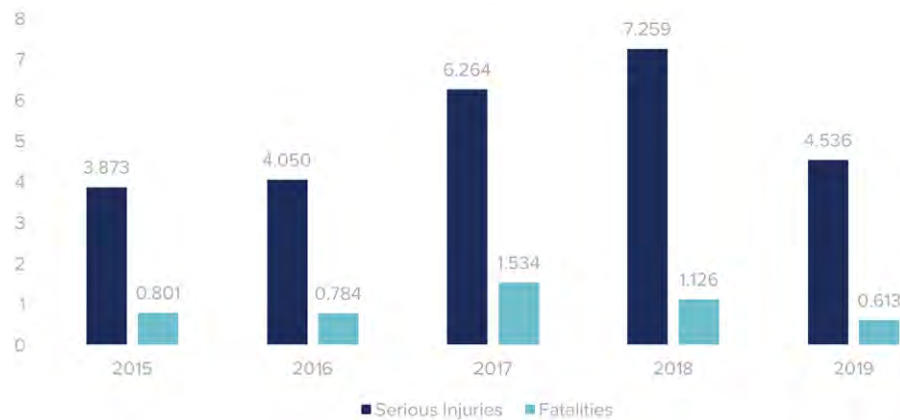


Figure 39: Crashes per 100 M Vehicle Miles Traveled in Greeley GMA

Data Sources:

- » North Front Range MPO models VMT estimates for Greeley GMA (2015 and 2020)
- » North Front Range MPO Fatal and Serious Injury Crashes (KSI) for Greeley GMA

Performance Measure 2

Critical Index Mileage

KEY OBSERVATIONS

The City of Greeley has developed a critical corridor safety index. The index uses traffic volumes, exposure and recent available crash data (2015-2019) to develop a crash rate and critical index. The critical index uses crash rates per road segment and road type average data to normalize segment data. It includes 330 road segments (143 miles) shown in **Figure 40** and **Table 9**.

WHY IS THIS IMPORTANT?

One of the most significant ways to prevent traffic deaths and severe injuries is to increase safe road conditions. The benefit of crash index analysis is that it provides a more effective comparison of similar locations with safety issues. This allows for prioritization of these locations.

BASELINE

15.52 miles

of road out of 143.02 miles have a critical index above 1

DESIRED TREND

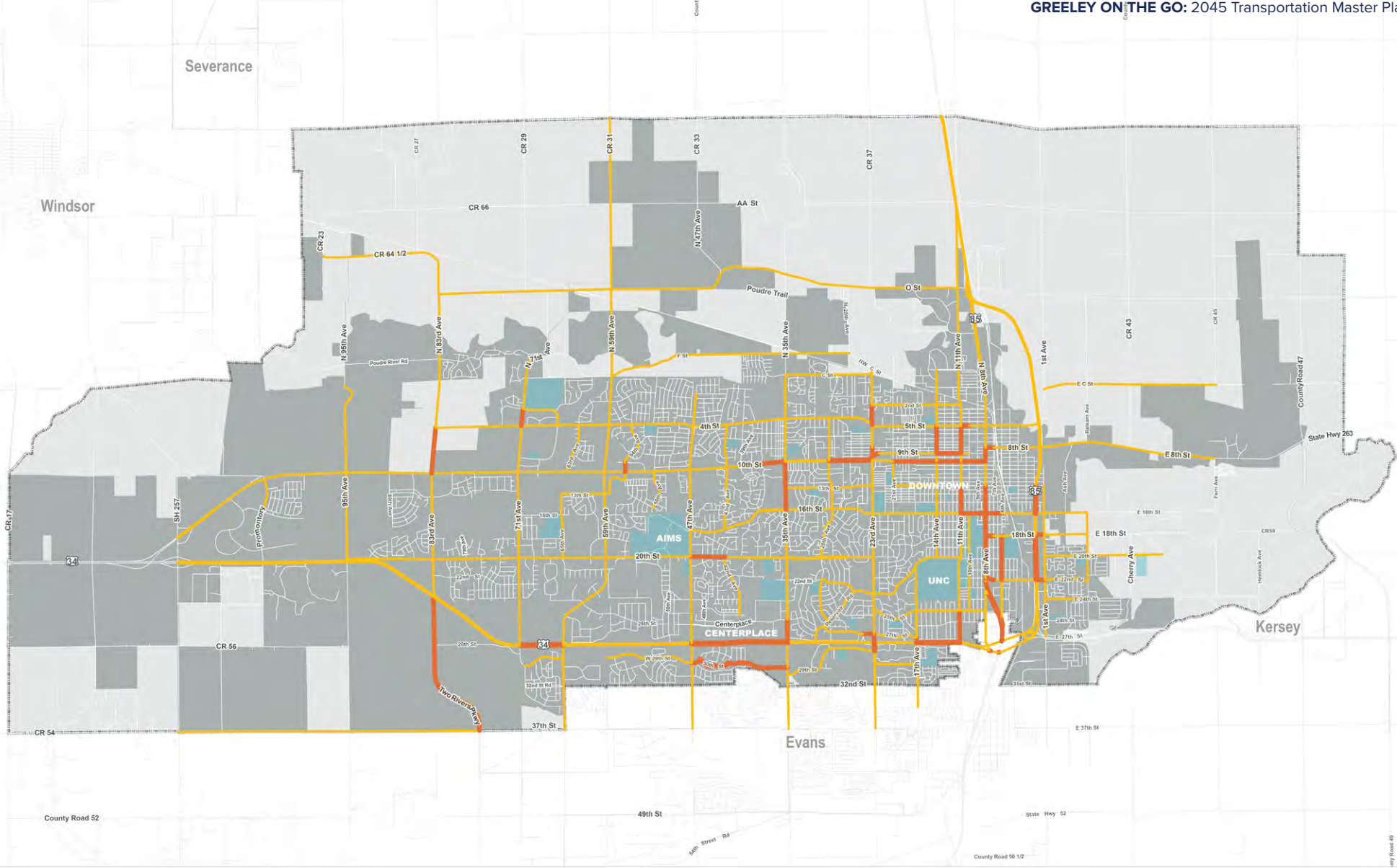
 Decrease

PERFORMANCE TARGET

Decrease the number of road miles with a critical index of 1 within the next 5 years to at least half of the current baseline measure.

Table 9: Critical Index by Corridor

	Road Miles	Road Miles with Critical Index Above 1	Percent
Expressway	18.49	3.015	16.3%
Major Arterial	31.81	7.12	22.4%
Minor Arterial	52.62	2.705	5.1%
Major Collector	13.69	0.71	5.2%
Minor Collector	26.42	1.97	7.5%
Total	143.02	15.52	10.9%



Critical Index

0-1

1+

Schools

City Limits

Greeley Growth Boundary



Figure 40: Critical Index Corridors

Performance Measure 3

Miles of missing sidewalks

Subset: Miles in EJ and PI Areas

KEY OBSERVATIONS

The Current sidewalk network inventory is limited and does not provide good information for an in-depth sidewalk connectivity analysis. There is a desire to transition to a connectivity analysis to understand where areas are that need sidewalks the most. Identified missing sidewalks were measured by street centerline. Some EJ and PI areas overlap.

Table 10: City of Greeley Existing and Missing Sidewalks

	Existing Sidewalks		Missing Sidewalks	
	Total (miles)	Total (miles)	EJ Areas (miles)	PI Areas (miles)
Greeley City	510.7	112.1	34.4	9.9

WHY IS THIS IMPORTANT?


Reliable and connected sidewalks constitute the main nonmotorized network of public space for residents to move around, including residents who do not have other means for transportation or cannot use motorized transportation. As the network of sidewalk infrastructure increases, residents have more travel options, better public space, and an increased quality of life.

BASELINE

112 miles

(measured by street centerline) are missing sidewalks within the city of Greeley. EJ areas account for 34.4 miles of missing sidewalks, and PI areas account for 9.9 miles of missing sidewalks, as shown in **Table 10**.

DESIRED TREND

 Decrease

PERFORMANCE TARGET

Add 5 street centerline miles of infill sidewalks per year with priority in EJ and PI areas

Data Sources:

- » Greeley Evans Transit (GET) service routes and stops
- » North Front Range MPO Traffic Analysis Zones (TAZs) for Greeley GMA and socioeconomic data (population)



Performance Measure 4

Percent population within ½ mile of transit service

Subset: Percent in EJ and PI Areas

KEY OBSERVATIONS

GET service includes six local routes with different frequencies (3 routes every hour, 2 routes every 20 minutes and 1 route every 20 minutes) and one regional route (peak hour service).

WHY IS THIS IMPORTANT?


Studies have indicated that households within ½-mile of a transit stop, which is approximately equivalent to a 10-minute walk, are considered to have transit access. By providing transit service within ½ mile of residences and destinations, Greeley Evans Transit (GET) can offer an alternative to other mobility options. Similarly, the city is interested in the 15-minute city approach in which most daily necessities can be accessed within a short distance trip, including transit.

BASELINE

79% of household populations

and 88.6 and 95.1 percent of EJ and PI areas, respectively, (**Table 11**) reside within ½ mile of transit service

DESIRED TREND

 Increase access and coverage with higher frequency service

PERFORMANCE TARGET

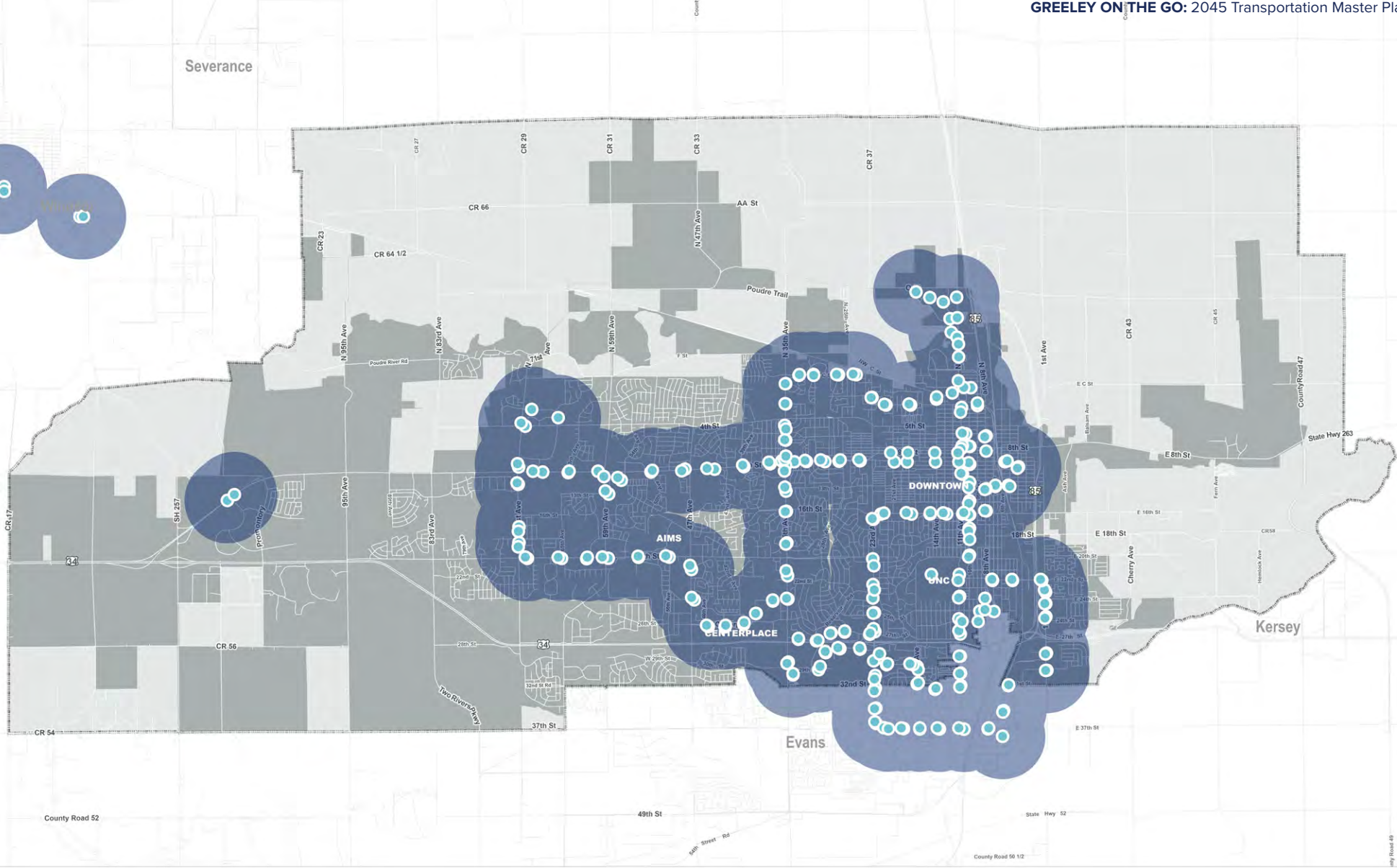
Seek to provide mobility service coverage to at least 90 percent of the population within the next 5 years, including 100 percent of both EJ and PI areas

Table 11: Baseline Transit Service Coverages

	Population	Percentage
Household Population (TAZs 2015)	97,352	100%
Transit Service Coverage	77,051	79.1%
Population in EJ Areas	44,062	100%
Coverage in EJ Areas	39,025	88.6%
Population in PI Areas	28,837	100%
Coverage in PI Areas	27,427	95.1%

Data Sources:

- » Greeley Evans Transit (GET) service routes and stops
- » North Front Range MPO Traffic Analysis Zones (TAZs) for Greeley GMA and socioeconomic data (population)



- Bus Stops
- Transit Coverage (Half Mile Buffer)
- City Limits
- Greeley Growth Boundary



Figure 43: Transit Stops and 1/2-mile Buffers (Analysis) 111

Performance Measure 5

Travel time on major corridors (peak time differential)

WHY IS THIS IMPORTANT?

Many factors influence the amount of time it takes to travel between locations, such as mode of travel, availability of desirable housing and jobs, and levels of traffic congestion. A lower travel time along major corridors reflects a higher quality of life and lower transportation costs.

KEY OBSERVATIONS

Greeley residents take on average 6.5 to 11.5 minutes to travel across town north to south or east to west, respectively.

BASELINE

Table 12 shows the baseline values for each corridor and Figure 44 shows Peak Time Travel Delays by Corridor.

DESIRED TREND

 Decrease

PERFORMANCE TARGET

Maintain current average travel times and maintain on-peak travel delay of not more than 20 percent over the next 10 years

Table 12: Travel Time (On-peak Delay % Increase) by Corridor

West to East		WB		EB	
10th Street	10.2 min	39 %	11 min	25 %	
16th Street	10.9 min	11 %	10.8 min	22 %	
20th Street	7.6 min	21 %	6.9 min	34 %	
US 34 Bypass	7 min	22 %	—	—	
North to South		NB		SB	
10th Street	10.2 min	39 %	11 min	25 %	
16th Street	10.9 min	11 %	10.8 min	22 %	
20th Street	7.6 min	21 %	6.9 min	34 %	
US 34 Bypass	7 min	22 %	—	—	

Data Sources:

» Acyclica data for main corridors (above)

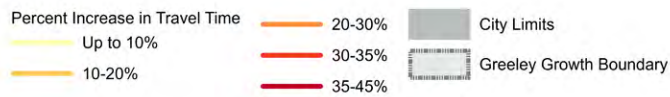
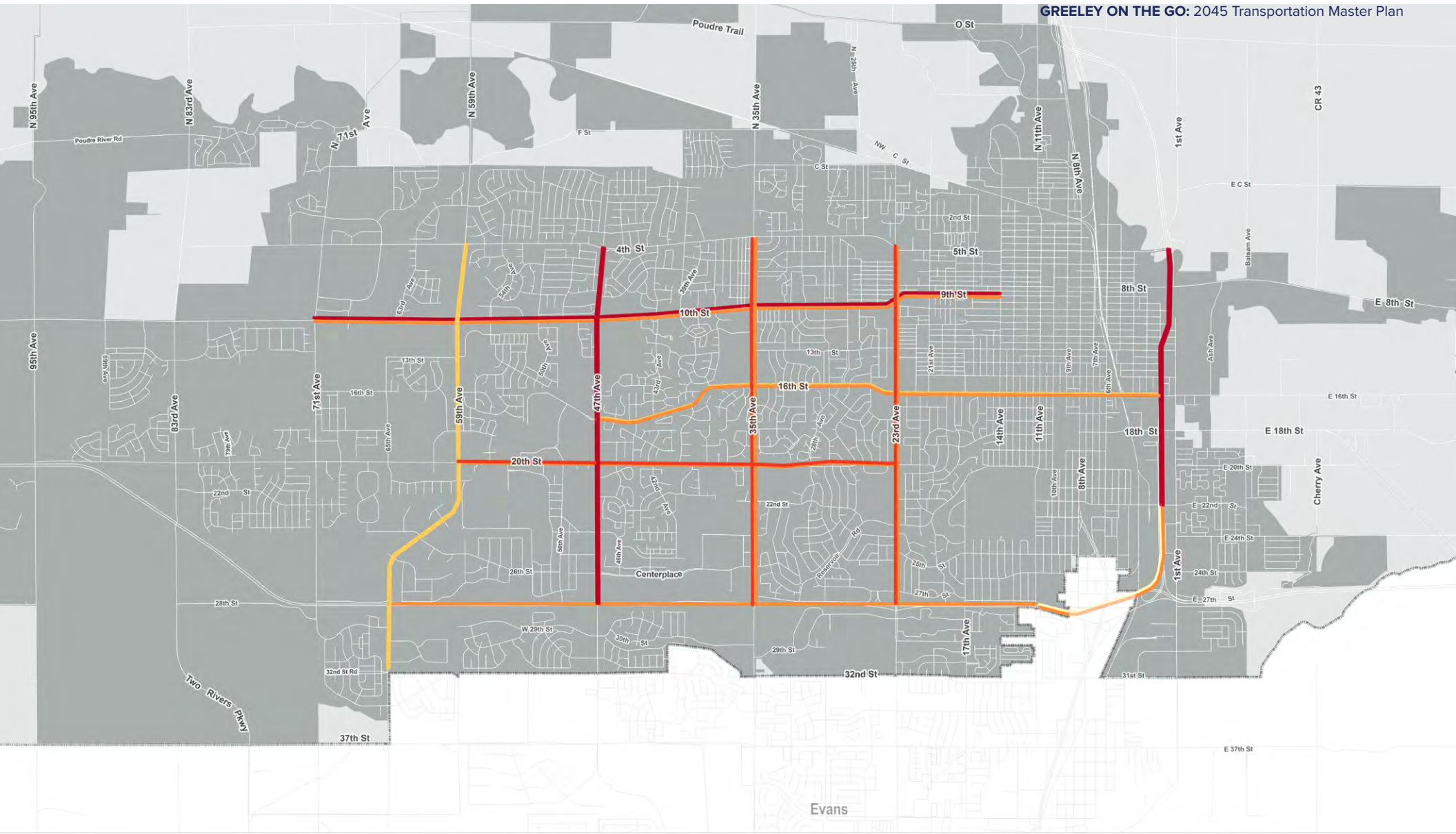


Figure 44: Peak Time Travel Delays by Corridor 113

Performance Measure 6

Percent of Greeley covered by mobility service providers and programs

Subset: Service or Program in EJ and PI areas

KEY OBSERVATIONS

There are currently no micro-transit services. GET offers a call-n-ride service after hours and a service to the UC Health campus. Nonetheless, the service focuses on meeting schedule gaps, not as an on-demand service. A bike sharing system is currently in place at UNC, with 100 bikes for seasonal rental and limited to students. The MPO has implemented a vanpooling program (VanGo) serving regional commuting. **Table 13** shows shared mobility providers and programs. Finally, two ride-hailing service providers are within the region (**Figure 45**), but no subsidies or specific programs have been developed with such providers. **Figure 45** shows service coverage.

Data Sources:

- » Greeley Evans Transit service information
- » City regulations and programs on shared mobility
- » Private provider information (micro-transit, micromobility, car-sharing and TNCs)

WHY IS THIS IMPORTANT?


Shared mobility is defined as transportation services and resources that are shared among users, either concurrently or one after another. This includes public transit, micromobility (bike sharing, scooter sharing), automobile-based modes (carsharing, ride-hailing, and micro-transit), and commute-based modes or ridesharing (carpooling and vanpooling). Shared mobility options help mitigate traffic congestion and emissions, enhance technology advances, and expand mobility options for all users.

BASELINE

100% coverage

Three service types cover 100% of the City of Greeley, while 3 providers have minimum service and 1 provider covers 45 % of the city area (transit).

DESIRED TREND

 Increase service coverage

PERFORMANCE TARGET

Expand travel mobility options for residents and visitors alike by increasing coverage and the availability of services or programs within the city. A coverage goal of 60 percent of the city limits for transit over the next 5 years and at least 15 percent of coverage by micro-transit, car sharing or micromobility services. Priority should be given to EJ and PI areas.

Table 13: Shared Mobility Service Providers and Programs

Service	Coverage	Providers / Programs	EJ or PI Areas	Provider	Programs
Transit	45 %	1	1	GET	7 routes
Micro-transit	4.6 %	1	1	Call-N-Ride	Service for UC Health
Human Services / Demand Response	100 %	1	1	60 + ride	Program for the elderly
Micromobility (bike or scooter share)	1.6 %	1	1	Blue Cruiser Bike (UNC)	Program for students
Car-sharing	0 %	0	0	–	–
Vanpooling/Carpooling	100 %	1	0	NFRMPO	VanGo
Ride-hailing (TNCs)	100 %	2	0	Uber, Lyft	No subsidies or programs



- City Limits
- Greeley Growth Boundary
- Service Coverage: Micromobility
- Service Coverage: Microtransit (Call-n-Ride)
- Service Coverage: Transit
- Transit Demand Response
- Ridehail / Vanpool



Figure 45: Coverage Service Map 115

Performance Measure 7

Number of regional services and programs

WHY IS THIS IMPORTANT?

The number of regional services reflects the potential for employees to travel to work by transit or via other alternatives to single occupant vehicle travel. Job and services accessibility is significantly improved by increasing the number of transportation services and infrastructure.

KEY OBSERVATIONS

The Poudre Express, shown in **Figure 46**, provides commuter service to Windsor and Fort Collins. Other facilities include the Greeley park-n-ride on the west side of town (10th and US 34) and the regional commuter program from the North Front Range MPO (VanGo).

BASELINE

Three services provided (**Table 14**).

DESIRED TREND

 Increase

PERFORMANCE TARGET

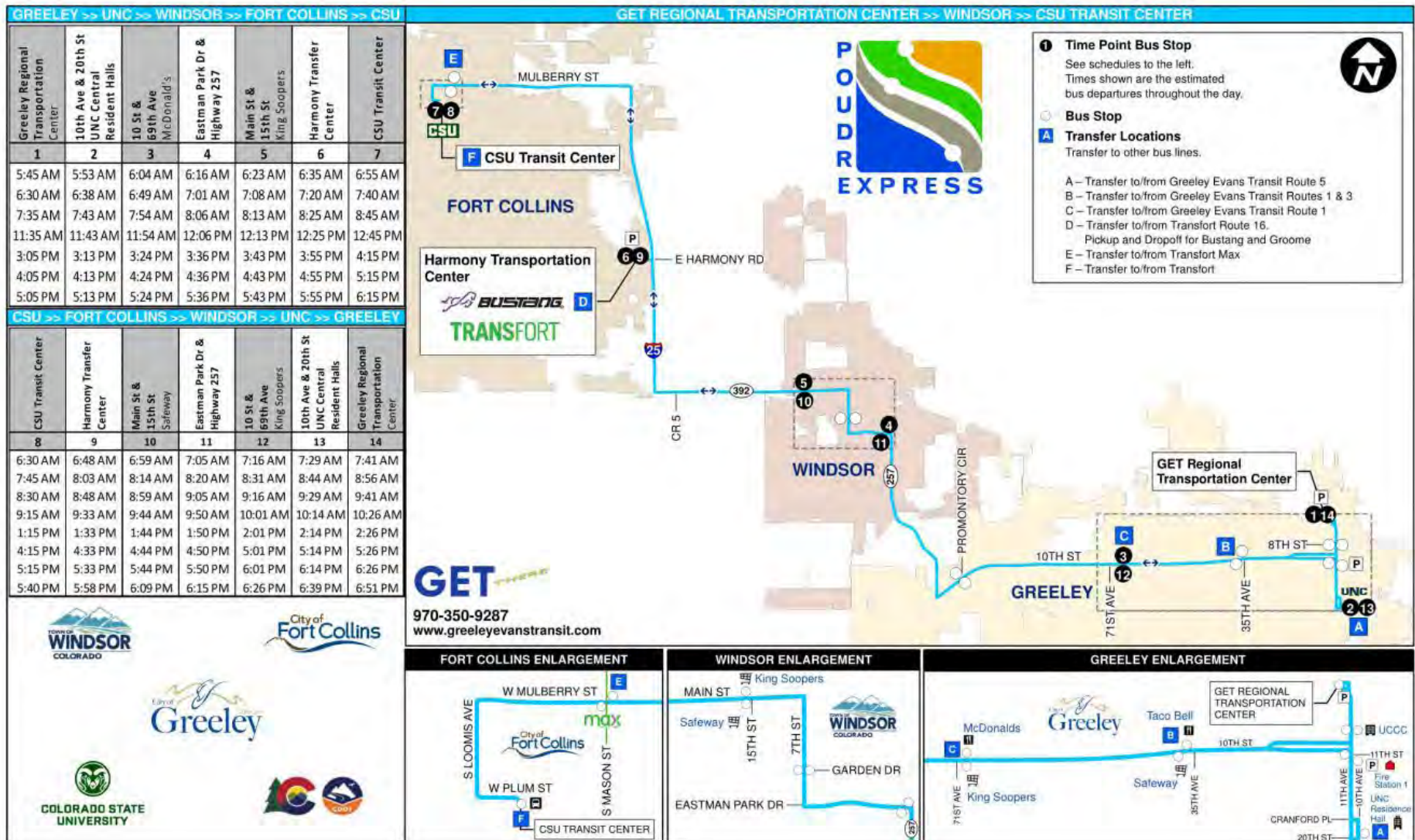
Add two regional routes (US-34 and Great Western) and increase service on Poudre Express, per Mobility Plan

Table 14: Regional Services Serving Greeley

Regional Service	Provider	Service
Transit Lines	1	1-hour frequency (AM/PM)
Park-n-Rides	1	116 spaces
Mobility Hubs	0	
Commuter Programs (VanGo)	1	Based on demand

Data Sources:

- » Regional transit and park-n-rides information (CDOT, MPO, GET, TransFort, other cities)
- » North Front Range MPO commuter programs (Vanpool, carpool, etc.)



Performance Measure 8

Percent of pavement in excellent condition

Subset: Percent of pavement in EJ and PI areas in EJ and PI areas

WHY IS THIS IMPORTANT?

The City of Greeley aims to make the best use of limited funding to keep the city’s transportation system functional. Greeley has about 470 paved miles of streets. Maintaining an updated survey of pavement condition provides important data on how to prioritize street repair projects.

KEY OBSERVATIONS

Table 15 shows the actual miles of centerline roadway pavement existing in Greeley. Percentages in poor, good, or excellent condition form the city’s pavement quality index data. In the future, infrastructure conditions analysis should include sidewalk conditions, and other assets such as poles, signs, cameras, and other city infrastructure.

BASELINE

53% of the city

53 percent of the city, 45.9 percent of EJ areas, and 44.9 percent of PI areas are in excellent condition (Table 15)

DESIRED TREND

 Increase

PERFORMANCE TARGET

Increase the percent of road pavement in excellent condition to 90 percent across all three subsets (Greeley, EJ areas, and PI areas)

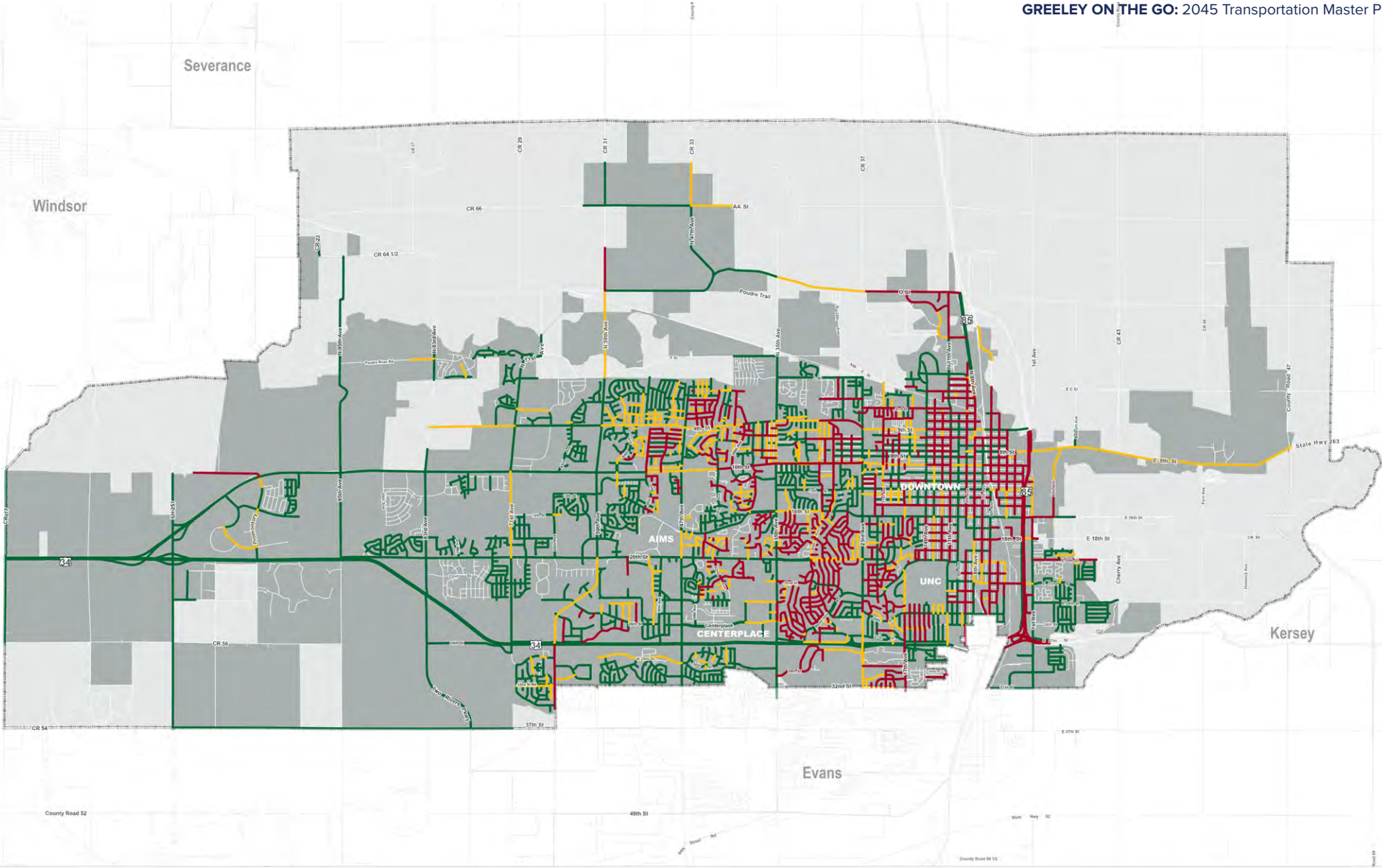
Table 15: Existing Pavement Conditions

	Existing Pavement*	Pavement in Excellent Condition
Greeley City	470.2 miles 100%	249.4 53.0%
Environmental Justice Areas	170.9 miles 100%	78.4 45.9%
Priority investment Areas	116.6 miles 100%	52.4 44.9%

Data Sources:

- » City of Greeley pavement conditions information (Pavement Quality Index data)

* Existing Pavement includes pavement in Greeley managed by the City of Greeley and by CDOT.



PQI
 — Poor
 — Good
 — Excellent

■ City Limits
 □ Greeley Growth Boundary

0 0.5 1 2 Miles



Figure 47: City of Greeley Pavement Quality Index (PQI) 119

Performance Measure 9

Miles of high comfort streets for people biking

Subset: Miles of high comfort bike facilities in PI areas

WHY IS THIS IMPORTANT?

“High comfort” bike facility means a comfortable and safe space for cyclists on all levels, from a casual and recreational rider to the most avid user. A comfortable facility can include a slow speed environment where vehicles and bicyclists share the road or a dedicated path along a trafficked street, providing a buffer of protection between the path and passing traffic.

KEY OBSERVATIONS

Most high comfort bike facilities include neighborhood shared roadways and side paths. Facilities classified with a level of traffic stress (LTS) of 1 or 2 are included in **Table 16** and shown in **Figure 17** (Chapter 3).

BASELINE

440

miles within Greeley
(Table 16)

111

miles within PI areas

DESIRED TREND

 Increase

PERFORMANCE TARGET

Add 1 mile of high comfort bike facilities per year with priority in PI areas

Table 16: Bike Facilities in the City of Greeley

	Miles of Roadway Considered	High Comfort Streets
Greeley City	505.2 miles	440.2 miles
Priority investment Areas	124.9 miles	111 miles

Data Sources:

- » City of Greeley boundary and PI boundary
- » Bike Level of Traffic Stress (LTS) analysis

* Bike facilities include all on-street facilities with a Bicycle Level of Traffic Stress of 1 or 2. These numbers include streets with bike facilities and narrow, low speed, low volume streets.

Performance Measure 10

Miles of high comfort streets for pedestrians

Subset: Miles of high comfort pedestrian facilities in PI areas

WHY IS THIS IMPORTANT?

Sidewalks play a vital role in city life. As conduits for pedestrian movement and access, they enhance connectivity and promote walking. Having high comfort pedestrian sidewalks, which are accessible and safe, have been proven to activate streets socially and economically.

KEY OBSERVATIONS


Most high comfort pedestrian facilities include detached or buffered sidewalks, such as those protected by a parking lane or buffered by landscaping. Facilities classified with a LTS of 1 or 2 are included in **Table 16** and shown in **Figure 18** (Chapter 3).

BASELINE

391.5
miles of centerline on-street facilities within Greeley

114.9
miles within PI Areas

DESIRED TREND

 Increase (upward)

PERFORMANCE TARGET

Add 1 mile of high comfort pedestrian facilities per year with priority in PI areas

Table 16: Existing Pedestrian Facilities

	Miles of Roadway Considered	High Comfort Streets
Greeley City	505.2 miles	391.5 miles
Priority investment Areas	124.9 miles	114.9 miles

Data Sources:

- » City of Greeley boundary, and PI boundary
- » Pedestrian Level of Traffic Stress (LTS) analysis

* Pedestrian facilities include all on-street facilities with a Pedestrian Level of Traffic Stress of 1 or 2.

Performance Measure 11

Number of households within 1/2 mile of a trail

WHY IS THIS IMPORTANT?

Having access to places for physical activity, such as trails, allows members of the community the chance to enjoy the outdoors, have other options for mobility and get physical and mental health benefits. Households within 1/2 mile of a trail are considered to have trail access and enjoy such benefits.

KEY OBSERVATIONS


All trails included were at least 1/2 mile and do not include park paths or subdivision trails because of lack of continuity. Trails considered include Poudre River Trail, Sheep Draw Trail, Campus Trail, Canal 3 Trail, Larsen Trail, and US-34 Bypass Trail (**Figure 48**).

BASELINE

24%

of households within the Greeley GMA are within 1/2 mile of a trail (**Table 17**)

DESIRED TREND

 Increase (upward)

PERFORMANCE TARGET

Increase the percent of households within 1/2 mile of a trail by 10 percent within the next 5 years.

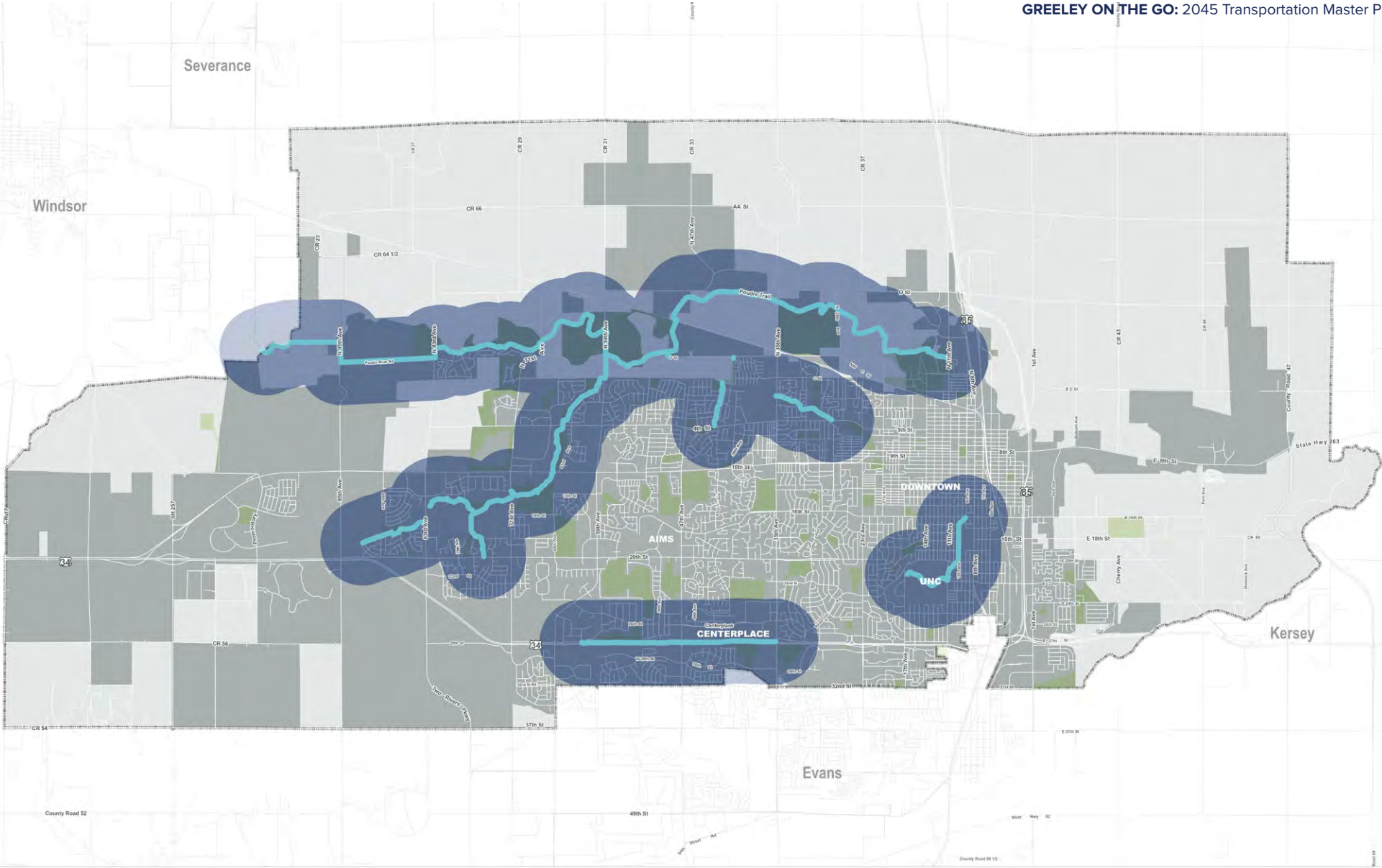
Table 17: Households within 1/2 mile of a trail

	Population	Percentage
Greeley Growth Management Area (TAZs 2015)	63,762	100%
Within 1/2 mile of a trail*	15,303	24%

Data Sources:

- » North Front Range MPO socioeconomic data (Households) and TAZs
- » City of Greeley GMA
- » City of Greeley trail and bike facilities data

* Include Poudre River Trail, Sheep Draw Trail, Campus Trail, Canal 3 Trail, Larsen Trail and US 34 Bypass Trail. Subdivision trails and park paths were not included.



- Greeley Trails
- Trail Coverage (Half Mile Buffer)
- Parks
- City Limits
- Greeley Growth Boundary



Figure 48: Greeley Growth Management Area Trails 123

CHAPTER 14

Street Cross Sections

Street Cross Sections

The City of Greeley developed updated street cross sections for Greeley on the Go. These cross sections are intended to continue facilitating connectivity while enhancing the overall City of Greeley environment for mobility and public space. The following pages show the updated cross sections by street classification.

Table 18: Street Classification - Table of Elements

Street Classification	Neighborhood	Collector	Pedestrian	Arterial	Alley
ROW Width	50'-60'	60'-90'	60'-80'	100'-140'	20' easement or right-of-way
Street Width	20'-34' 25' (1-side parking) 20' (no parking)	34' (+ 12'-20' center median)	36'	50'-58'	14'-16' (< 40 units)
Travel Lanes	9'-10'	2 @ 10-12 ¹	2 @ 10'	2 @ 11 ²	16'-18' (41+ units)
Edge Condition	7' parking both sides	6'-7' bike lane and/or 7' parking lane	7' parallel parking both sides	Physical Vertical Separated bike lane and or gutter	n/a
Landscape/Amenity Zone	7'-9'+ tree lawn	7'-10'+ tree lawn 12'-20' median	4'-8' amenity zone Pedestrian scale lighting 6'-8' Frontage Zone	7'-10'+ tree lawn 12'-20' median	Shoulder
Sidewalk	6' detached	8'-10' detached	Pedestrian clear zone 6'-12' detached	8'-10' detached	n/a
Bicycles	N/A slow street / low volume	6'-7' bike lane	Optional Slow street / low volume	6'-7'	n/a
Design Speed / Speed Limit	20 mph/20 mph	30 mph/30 mph	25 mph/25 mph	35mph/35 mph	n/a
Parking Lane Width	7'	7'	7'	n/a	n/a
Turn Lanes	No	Turn lanes per TIS	Left turn lanes required at intersections	Left turn lanes required Right turn lanes per TIS	n/a
Applicability / Functional Class	Local	Local Minor Collector Major Collector Minor Arterial	Local Commercial Minor Collector	Major Collector Minor Arterial Major Arterial	n/a
Traffic Calming Elements³	Mini Roundabout Curb bulb-outs Pinch-points Chicanes Gateways Vertical Speed Control	Curb bulb-outs Pinch-points Gateways Roundabouts Vertical Speed Control	Mini Roundabout Curb bulb-outs Pinch-points Chicanes Gateways Vertical Speed Control	Pinch-points Gateways Roundabouts Chicanes	n/a
Stormwater Elements	Raingardens	Raingardens Bioswales Flow-through planters	Raingardens Bioswales Flow-through planters	Raingardens Bioswales	n/a

1. 12' lanes shall only be permitted with truck percentage above 15%

2. Four lane sections shall only be permitted with approval from Public Works Director

3. Traffic calming elements shall be required on all streets

4. Design for bike lanes shall include a separation element from travel lane

5. Travel lanes shall be measured from edge to edge of gutter/pavement joint

6. Designers shall use the following design guides: [NACTO](#); [Projects for Public Spaces](#); [PedBikeInfo](#)

Neighborhood Street



Pedestrian Street



Collector Street



Arterial Street



CHAPTER 15

Traffic Calming Toolbox

Traffic Calming Toolbox

Introduction

High traffic speeds and volumes, as well as inappropriate driver behavior, can adversely impact communities. These characteristics have a negative effect on pedestrians and bicyclists, particularly where young kids, people with disabilities, or the community in general gather, such as near main street, schools, community centers, libraries, or parks. Vehicular traffic can be managed so that its negative impacts in the community are minimized. Traffic calming is the term used to describe the full range of methods to slow, but not necessarily ban, vehicles as they move through commercial and residential neighborhoods. Pedestrian and bicycle travel benefits when vehicles travel at slower speeds because streets are safer and more compatible with other forms of mobility. Other benefits include equitable balance among transportation modes, and enhanced aesthetics, among others.

The following toolbox identifies methods, along with their applicability, benefits and costs, for implementing traffic calming strategies within Greeley.

Traffic Calming

Traffic calming is not new to Greeley. Traffic control devices include basic traffic calming infrastructure such as crosswalks, stop signs, flashing beacons, on-street parking, bike lanes, among others. These types of basic traffic calming elements are used in engineering standards, such as the Manual on Uniform Traffic Control Devices, and in standard roadway design. Other basic traffic calming strategies include police enforcement and safety education programs. It is important to note that the installation of basic comprehensive devices is subject to federal, state and local policies and guidelines.

The City of Greeley has implemented education programs such as Safe Routes to School and school zones where speeds are reduced to 20 miles per hour and flashing beacons alert motorists of children crossing the street. The City has also implemented the Neighborhood Traffic Safety program to respond to citizen concerns regarding speeds and traffic flow on residential streets. In the Traffic Safety Program, City staff conduct traffic studies in areas identified by residents as problematic and assist residents with

developing and implementing traffic calming solutions for their neighborhoods. Finally, development proposals usually require the preparation of Transportation Impact Studies, which include policies to ensure consistent and proper transportation planning and engineering practices when land use actions are being considered.

Traffic calming measures, however, have evolved to include features that are not officially approved through legislative action by the State of Colorado. Commonly referred to as “tools,” traffic calming measures or strategies are available in the following traffic calming “toolbox.” Communities that are experiencing significant adverse effects of traffic conditions can implement traffic calming measures, which include alteration of the roadway configuration and changes on how people psychologically perceive and respond to a street. The following document lists strategies for speed reduction based on recommendations from the National Association of City Transportation Officials (NACTO) and the Federal Highway Administration (FHWA), promoting safer streets and more comfortable and appealing walking and biking environments.

Traffic Calming Strategies

Each tool in the toolbox has a specific purpose for addressing street traffic concerns requiring some form of traffic calming. Tools have their limitations in terms of applicability and effectiveness. The following table summarizes the tools and presents them by applicable location: segment, midblock or intersection. The full list of traffic calming strategies briefly describes each measure, its applicable roadway facility type, and the advantages and disadvantages of the measure.

To compare and make each strategy more intuitive, each characteristic includes ranges in terms of potential speed reduction, complexity of installation, expected financial cost and the potential opportunity for placemaking (i.e., landscaping, urban design). **Table 19** also includes the potential safety benefit for each mode (pedestrian, bike, vehicle) and the potential capacity reduction for vehicles, emergency vehicles, transit and freight.

Table 19: Traffic Calming Strategies

Key:
 ✓ = applicable (low -1- to high -4-)
 ⊘ = not applicable
 \$ = cost (low -1- to high -4-)

Strategy	Speed Reduction	Complexity	Placemaking Opportunity	Cost	Road	Emergency	Transit & Freight	Vehicle	Bike	Pedestrian
Street Right Sizing	✓✓	✓		\$	⊘			✓	✓	✓
Lane Width Reduction	✓	✓		\$					✓	✓
2-way Streets	✓✓	✓		\$	⊘				✓	✓
Shared Street	✓✓✓	✓✓	✓✓✓	\$\$\$\$	⊘	⊘	⊘	✓	✓	✓
Dedicated Multimodal Lane	✓	✓✓✓	✓	\$\$	⊘				✓	
On-street Parking	✓	✓		\$	⊘			✓		
Building Setbacks and Street Trees	✓	✓✓✓✓	✓✓✓	\$\$				✓		
Signal Progression	✓✓✓	✓✓		\$\$	⊘		⊘	✓	✓	✓
Median and Refuge Islands	✓	✓✓✓	✓✓	\$\$\$			⊘	✓		✓
High-Visibility Crosswalks	✓✓	✓		\$\$				✓	✓	✓
Pinchpoint / Chokers	✓	✓✓	✓	\$\$	⊘			✓		

Table 19: Traffic Calming Strategies Continued

Strategy	Speed Reduction	Complexity	Placemaking Opportunity	Cost	Road	Emergency	Large Vehicle	Vehicle	Bike	Vehicle
Lane Shift / Chicane	✓✓	✓✓	✓✓	\$\$	⊘		⊘			
Speed Hump	✓✓✓	✓		\$	⊘	⊘	⊘			✓
Speed Cushion	✓✓✓	✓		\$	⊘					✓
Speed Table	✓✓✓	✓✓✓	✓	\$\$	⊘	⊘	⊘	✓		✓
Full Street Closure	✓✓✓✓	✓✓	✓	\$\$	⊘	⊘	⊘	✓	✓	
Narrowing Curb Radii (Corners)	✓	✓✓	✓	\$\$\$			⊘	✓		
Raised Intersections	✓✓✓	✓✓✓	✓	\$\$\$		⊘	⊘	✓		
Diverter	✓✓✓	✓✓	✓	\$\$	⊘	⊘	⊘	✓	✓	
Intersection Realignment	✓✓	✓✓✓	✓✓✓	\$\$\$	⊘			✓		✓
Gateway / Bulbout	✓✓	✓✓	✓✓✓	\$\$			⊘	✓		
Pavement Treatment	✓✓	✓✓	✓	\$\$				✓		✓
Small Traffic Circle	✓✓✓	✓✓	✓✓	\$\$		⊘	⊘	✓		✓
Mini Roundabout	✓✓✓	✓✓✓	✓	\$\$\$				✓		✓

#	Strategy	Description	Appropriate Application
Street Design			
1	Right Sizing	Right sizing reconfigurations reduce vehicle travel lanes based on traffic volumes. Often with changes in demand converting overbuilt street segments improve safety. Some examples are 4-lane road into a three-lane segment consisting of two through lanes and a center, two-way left-turn lane and shoulders or bike facilities.	Applicable on traditional four-lane undivided collectors, minor arterials, and rural highways. Especially applicable to roads with high turning movements and/or high crash frequencies. Additional space can be used to provide turning lanes, multimodal facilities, parking, or green infrastructure.
2	Lane Width Reduction	Narrow travel lanes reduce speeds and minimize crashes on city streets by reducing the right-of-way and making drivers wary of traffic and adjacent users. For example, edge line striping can narrow travel lanes, giving the impression of a narrow street.	Applicable on local, collector, and arterials streets with excessive widths. The “extra” pavement width can be used to create or add to bicycle and/or parking lanes.
4	2-way Streets	Converting 1-way streets to 2-way streets encourages motorists to be more cautious of surroundings and oncoming traffic, especially those with narrower profiles.	Applicable to collectors and arterials serving commercial corridors and downtown streets where local access needs to be prioritized and speeds from regional thru traffic reduced. 2-way yield streets are another application but for narrow residential environments (local streets). A yield street with parking on both sides functions most effectively at 24 to 28 feet, while with parking on only one side can be as narrow as 16 feet.
14	Shared Street	A shared street is a space that lacks the formal separation found in conventionally designed streets. By removing the physical distinctions between pedestrian, cycle, and vehicular spaces, shared street treatments force all users to share the street, increasing awareness and reducing motor vehicle speeds.	Applicable to local and collector streets with substantial pedestrian movement and commercial land uses. While designs vary based on local context and culture, curbs tend to be removed. Materials and space allocation indicate vehicles are guests and pedestrians have the right-of-way. Through traffic is not encouraged.
15	Dedicated Multimodal Lane (Bus Lane/protected bike lane)	A bike or transit lane is a portion of the road reserved for the exclusive or preferential use of cyclists and/or transit. Converting vehicle travel lanes into multimodal facilities reduces the vehicle right-of-way, making drivers wary of traffic and adjacent multimodal lanes.	Applicable to collectors and arterials. A dedicated bike/transit lane is delimited by road markings, the space needed for multimodal lane and soft (ruble strips) or hard barriers (concrete curb) to separate traffic.
17	On-street Parking	On-street parking narrows the street and slows traffic by creating friction for moving vehicles.	Applicable to local and collector streets, especially in residential and commercial areas.
18	Building Setbacks and Street Trees	A dense built environment with no significant setbacks and with street trees constrains sightlines, making drivers more alert and aware of their surroundings.	Applicable to local, collector and arterial streets in urban environments.
20	Signal Progression	Signals timed to a street’s target speed can create lower speeds along a corridor. Coordinated signal timing can be optimized to create an uninterrupted flow for bicyclists, low vehicle progression speeds for a pedestrian-friendly downtown, or to coordinate transit headways.	Typically applied on corridors with closely spaced intersections (1/4 mile or less) and where there is evidence of a desire for “platooning”—the seamless flow of a given street user or set progression speed.
3	Median and Refuge Islands	Medians are raised islands in the center of a roadway that can reduce pedestrian crossing and separate traffic directions. Medians are used on wide streets to narrow the travel lanes and ease pedestrian crossings.	Most applicable on collectors and arterials and tend to have hardscaped islands for pedestrian use. Alternatively, medians can be vegetated with trees or function as landscaped depressions (bioswales), designed to capture, treat, and infiltrate stormwater runoff.

#	Strategy	Description	Appropriate Application
3b	High-Visibility Crosswalks	A high-visibility crosswalk incorporates striping patterns, flashing beacons, and highly visible signs to improve the visibility of the pedestrian. Different alternatives include the Pedestrian Hybrid Beacon (PHB) and the Rectangular Rapid Flashing Beacon (RRFB).	Applicable on un-signalized crosswalks on high-volume roadways (major collectors or arterials) where there is significant pedestrian or vulnerable population movement.
5	Pinchpoint / Chokers	Mid-block chokers or pinchpoints are raised curbs or landscaped public space that narrows the roadway. Chokers or pinchpoints may be installed with either landscaping or hardscape treatment, usually allowing a shorter pedestrian or trail crossing.	Most applicable on wide local and collector streets with long blocks experiencing speeding and cut-through problems. Hardscapes or landscaped structures such as bioswales can be constructed. Structures can be detached for maintaining drainage or rebuilt.
6	Lane Shift / Chicane	A lane shift horizontally deflects a vehicle and may be designed with striping, curb extensions, or parking. Chicanes create a curved street alignment that can be retrofitted in existing rights-of-way. The curvilinear alignment requires additional maneuvering and shortens drivers' sightlines, resulting in lower overall speeds.	Local residential streets and low-volume collectors are appropriate for implementing lane shifts or chicanes. On-street parking and drainage implications need to be considered.
9	Speed Hump	Road humps are areas of raised pavement, making vehicles reduce their velocity. Road humps include pavement markings, advisory signs, and advanced warning signs.	Applicable on local and collector streets. Road humps increase traffic noise in the vicinity of the hump and are difficult to replace when a street is being resurfaced.
9b	Speed Cushion	Like speed humps, speed cushions are areas of raised pavement but with wheel cutouts to allow larger vehicles to pass unaffected.	Applicable on local and collector streets typically used by emergency vehicles. A longitudinal gap is provided to allow wide wheelbase vehicles to avoid going over the hump.
10	Speed Table	Speed tables create a safe and slow-speed crossing. Similar to speed humps and other vertical speed control elements, they reinforce slow speeds and encourage motorists to yield to pedestrians at a crosswalk.	Applicable on local and collector streets where there is significant pedestrian, ADA or bicyclist movement, including main streets, nearby schools, or highly used trail crossings.
12	Full Street Closure	A full street closure blocks both lanes of travel so that the street becomes a cul-de-sac. This measure eliminates all through traffic and limits street access to local users.	Applicable on local streets with major cut-through concerns where an emergency vehicle response route does not exist. The closure location and details are site-specific depending on roadway geometrics and applicable to city ordinances.
2B	Narrowing Curb Radii (Corners)	Narrowing curb radii at street corners reduces vehicle turning speeds. Minimizing the size of a corner radius is critical to creating safe and compact intersections.	Applicable on local, collector, and arterial streets with excessive corner radii. Curb changes shorten the pedestrian crossing distance and may impact drainage.
10b	Raised Intersections	Raised intersections create a safe, slow-speed crossing and public space. An intersection redesign would reinforce slow speeds and encourage motorists to yield to pedestrians. Raised intersections provide an opportunity for urban design and placemaking, such as pavement treatments.	Applicable on local, collector, and arterial streets where there is significant pedestrian movement, such as main streets, commercial areas or downtown settings.
11	Diverter	Diverter restrict vehicular through traffic at intersections and force turns for approaches.	Applicable on local streets where cut-through traffic is a major problem. It breaks up the street grid while maintaining permeability for pedestrians and bicyclists.

#	Strategy	Description	Appropriate Application
13	Intersection Realignment	Realigning "T" intersections forces previous straight-through movements to make slower turning movements by constructing a horizontal deflection at the intersection.	Applicable on local, collector, and arterial streets. It may require on-street parking removal and traffic may be diverted to other streets.
16	Gateway / Bulbout	Bulbouts narrow the street width at intersections, creating a shorter and safer pedestrian crossing while encouraging drivers to slow down. Bulbouts may contain special paving, bollards, and/or landscaping and are generally used at intersections where parking is already restricted. Bulbouts can be striped or raised, attached or detached (maintaining drainage).	Applicable on local, collector, and arterial streets with high pedestrian movement such as main streets, commercial areas, and school zones. Bulbouts can also serve as curb extensions serving specific transit needs and providing opportunities to create gateways and other placemaking interventions.
19	Pavement Treatment: Markings, Rumble Strips or Different Materiality	Pavement treatments can make pavements more noticeable to drivers. Treatments can add visual interest, such as colored or pattern-stamped asphalt, concrete, or even concrete pavers. Pedestrian crossings and intersections can be painted to highlight crossing areas. Rumble strips and different pavers can add sound and friction.	Applicable on local, collector, and arterial streets. Pavement treatments can be at curb end, along a segment, or at intersections or midblock locations.
8	Small Traffic Circle	Traffic circles are raised circular medians at intersections that direct traffic counterclockwise within the intersection. Vehicles must change their direction of travel to maneuver around the circle. Traffic circles are controlled by traffic signs (yield, stop) on all approaches.	Applicable to local streets. Traffic circles are not appropriate for emergency routes, and transit and freight turning movement is constrained. A minimum of 15 feet of clearance is recommended from the corner to the widest point in the circle.
7	Mini Roundabout	Mini roundabouts lower speeds at intersection crossings and are an ideal treatment for uncontrolled intersections. Mini roundabouts may be installed using simple markings or raised islands. Vehicles must change their direction of travel to maneuver around the inner circle. Lane width and turning radius should be carefully considered.	Applicable on local and collector streets. In terms of design, a mountable center island is recommended for emergency, transit, and freight vehicles. Not appropriate for high volumes of trucks or high expected U-turns. The design should include splitter islands for approaches and pedestrian channelization. A minimum of 15 feet of clearance is recommended from the corner to the widest point in the circle.
7b	Roundabout	DRAFT description in document	Applicable table (Roundabout Comparison)

Roundabouts as a Traffic Calming Strategy

Roundabouts work as a traffic calming strategy because they are generally safer than other forms of intersections. Roundabouts reduce the frequency and severity of vehicle-to-vehicle crashes by creating fewer opportunities for severe and fatal collisions and by making vehicles travel at slower speeds through physical improvements and signing.

Roundabouts have also been used successfully at the interface between rural and urban areas where speed limits change. In these applications, the traffic calming effects of roundabouts force drivers to slow and reinforce the notion of a significant change in the driving environment. Furthermore, their geometric characteristic with an inner central island informs the driver of a change in the travel way while offering the opportunity to provide attractive entries or centerpieces to communities.

Pedestrians and bicyclists also benefit from a roundabout design. Beyond reducing vehicle speeds, roundabouts provide space for pedestrians to pause on the splitter island, where they can then consider one direction

of conflicting traffic at a time, as well as shorten crossing distances, thus simplifying the task of crossing the street. Roundabouts provide fewer benefits for bicyclists, but they still benefit from the reduced speeds and a design that discourages undesirable or erratic driver behavior. Roundabout designs typically provide a ramp to allow inexperienced bicyclists to exit the roadway to maneuver the roundabout as a pedestrian would, or bicyclists have the option to mix with traffic.

Roundabout Design

Designing a roundabout involves assessing the tradeoffs between safety and capacity. Engineering design determines that roundabouts operate most safely when their geometry forces traffic to enter and circulate at slow speeds. Roundabouts can have traffic calming effects on streets by reducing vehicle speeds using geometric design rather than traffic control devices. Consequently, speed reduction can be realized at all times of day and on streets of any traffic volume. It is difficult for drivers to speed through an appropriately designed roundabout. Conversely, the capacity of a roundabout is negatively affected by these low-speed design elements. As design parameters are reduced, such as the widths and radii of entry and the

circulatory roadway width, so also the capacity of the roundabout is reduced. Furthermore, many of the parameters are governed by the largest vehicle maneuvering requirements. Design objectives are significantly different for urban or rural environments, and these must be considered when choosing between safety and capacity tradeoffs.

The following discussion on design characteristics captures the differences between types of roundabouts and guides important topics to consider when choosing to implement a roundabout. Given that roundabouts are very much dependent on the local context, this toolkit covers only general planning and horizontal design, understood as the capacity and space needed within the right-of-way. Other design elements to consider include sight distances, profile/vertical design, grading, drainage, utilities, and nearby physical features such as bridges, railroads, intersections, among others. Furthermore, because roundabout design is an iterative process, these characteristics provide only guidelines to consider and are dependent on the local context and proper engineering design. Roundabouts provide an opportunity for community engagement around the intersection design and the purpose for considering it as a traffic calming device and further opportunities to beautify the neighborhood.

Roundabout Characteristics

Chapter 3, “Planning” and Chapter 6, “Geometric Design,” of *FHWA Roundabouts: An Informational Guide* were used as the basis for most of the recommended roundabout parameters established in this toolkit. Other references include NCHRP Report 672 and NACTO Speed Reduction Mechanisms.

Figure 49 and **Table 20** describe the characteristics and ranges considered for different types of roundabouts and identify general planning needs and requirements for each type. One of the most critical characteristics is the circle size or inscribed circle diameter (ICD), which identifies the space needed for a roundabout within an urban or a rural environment. Another critical variable is the negotiating speed, i.e., the speed at which vehicles are entering the roundabout, while yet another critical variable is the largest vehicle, i.e., the largest vehicle that can possibly use the roundabout.

Figure 49: Key Roundabout Features

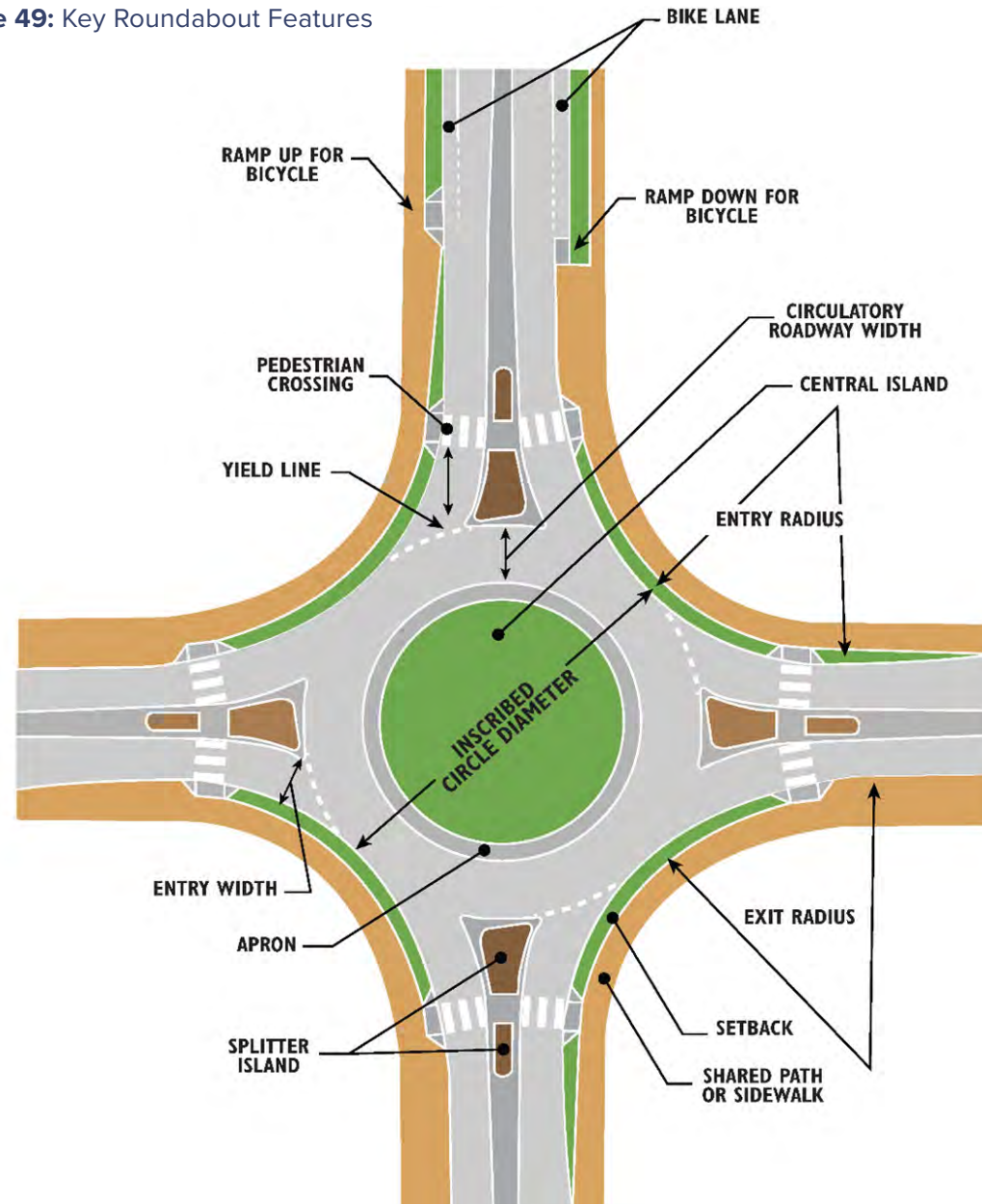


Table 20: Roundabout Characteristics

Key:
 ✓ = applicable
 ⊘ = not applicable

	Mini Traffic Circle	Mini Roundabout	Urban Compact Roundabout	Full Urban Roundabout	Road
Other Considerations	For streets with limited space and no large vehicle	All approaches 85th percentile speeds should be less than 30 mph	More space needed at junction than a conventional intersection	Significant more space needed than conventional intersections	Approaches speeds of 50 mph or above need reduction
Maximum Volume (AADT)	12,000	12,000 - 16,000	12,000 - 16,000	20,000 - 26,000	20,000 - 26,000
Maximum Volume on each approach	-	-	1,000 veh/hr	1,000 veh/hr	1,000 veh/hr
Negotiation Speeds	15 mph	15 mph	20 mph	25 mph	25 mph
Control Device	Stop	Yield	Yield	Yield	Yield
Splitter Islands	⊘	✓	✓	✓	✓
Truck Apron	⊘	⊘	✓	✓	✓
Mountable Central Island	⊘	✓	⊘	⊘	⊘
Inscribed Circle Diameter (ICD) -varies with largest vehicle-	45 - 80 ft	45 - 90ft	80-100 ft	90-150ft; 105-150ft; 130-180ft	90-150ft; 105-150ft; 130-180ft
Largest Vehicle	Small vehicle	Single-unit truck	Single-unit truck/Bus	WB 40 truck; WB 50 truck; WB 67 truck	WB 40 truck; WB 50 truck; WB 67 truck
Circulatory Width (Lane)	13 ft minimum	13 ft minimum	14 - 19 ft	14 - 19 ft	14 - 19 ft
Truck Apron	-	-	3 - 15 ft	3 - 15 ft	3 - 15 ft

	Mini Traffic Circle	Mini Roundabout	Urban Compact Roundabout	Full Urban Roundabout	Road
Entry Width (Lane)	-	13 - 16 ft	14 - 16 ft	14-18ft	14-18ft
Entry Radius (Curves)	-	below 33 ft	33 - 39 ft	33 - 98 ft	33 - 98 ft
Exit Radius (Curves)	-	-	33 - 39 ft	above 50 ft	above 50 ft
Splitter Island length	-	30 ft	50 ft	50 ft	50 ft - 200 ft
Pedestrian Crossing Location	-	20 ft from yield	25 ft from yield	25 ft from yield	-
Sidewalk Setbacks	-	-	2 - 5 ft	2 - 5 ft	-
Pedestrian Refuge Width	-	-	6 ft minimum	6 ft minimum	-
Bicycle Lanes	Merge	Merge	Merge	Shared path	-
Drainage considerations	Cross slope of 2% sloping outward				

Source: Roundabouts: An Informational Guide, FHWA (June 2000)

Implementation Considerations

When evaluating traffic calming strategies and deciding how to prioritize projects, it is important to consider several factors besides community input and perceived need of a project. Establishing a methodology can help simplify project selection as well as establish an equitable approach for addressing community needs.

Factors to consider when developing an implementation process should include community input, data collection, data evaluation, project approval, project development and project monitoring.

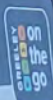
- Community input can be gathered through a request period, an interactive approach, or the use information from programs such as the Neighborhood Traffic Safety program to generate input.
- Data collection should be comprehensive, as well as include proper normalization and calibration to determine safety needs. Data should include inputs such as speed data, vehicle volumes, crash history, pedestrian and bicyclist demand generators, and critical essential community locations within others.

- Data evaluation from established community objectives, such as using equity indexes, high injury networks or opportunity areas, provides an opportunity to align traffic calming strategies with established performance metrics.
- Project approval involves developing requirements for identifying essential criteria, as guiding the process selection. The creation of a list of projects can foster funding, generate community feedback and provide a base for seeking grant opportunities.
- Project development includes notifying the community, establishing a timeline and building the traffic calming tool to fit the local context and meet city regulations.
- Project Monitoring intends to provide useful information to understand the benefits and challenges of the implemented project, as well as potential learnings from the process.

This traffic calming toolbox provides different strategies to continue to develop safer environments for all modes within the City of Greeley, building on current programs such as the Neighborhood Traffic Safety program.



WHERE DO YOU LIVE & WORK? ¿DÓNDE VIVE Y TRABAJA?



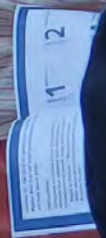
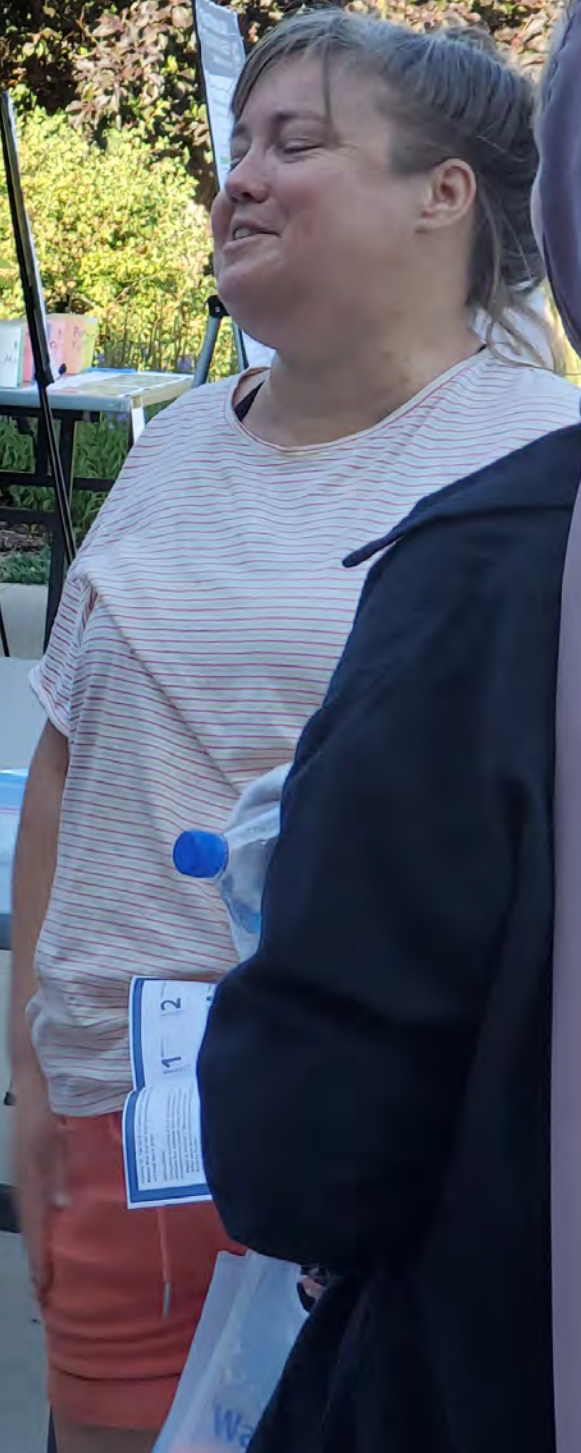
proporcional una red equilibrada para todos los modos de viaje.

Solo el 20% de los(as) conductores(as) ha utilizado el transporte público en Greeley.

Conducir
Solicitudes de coordinación de señales que provocan congestión.
Los conductores se sienten seguros con peajes y las

represented for positive change!
work in the City of Greeley?
area of your home and work.

ayude a su comunidad a estar representada para un cambio positivo.
¿A dónde llama hogar y trabajo en la ciudad de Greeley?
Utilice los stickers para marcar el área de su hogar y trabajo.



Appendix



Public Engagement Summary

An extensive public process was undertaken to inform *Greeley on the Go* that involved formation of a stakeholder committee, regular presentations to boards and City Council, a community survey, focus group conversations, intercept events, and a community visioning workshop. The following summary provides an overview of each engagement activity along with a key takeaways from the engagement.

Stakeholder Committee

The *Greeley on the Go* stakeholder committee represented 17 community and regional partners:

- Weld County
- City of Evans
- Town of Windsor
- Garden City
- Weld County School District 6
- Downtown Development Authority
- Banner Health
- UC Health
- JBS USA
- Leprino Foods
- Immigrant & Refugee Center of Northern Colorado
- University of Northern Colorado
- Aims Community College
- Weldwerks Brewing
- United Way
- North Front Range Metropolitan Planning Organization
- Colorado Department of Transportation

The stakeholder committee met four time throughout the planning process. At each meeting the project team provided updates on the planning process and solicited input from the committee on key aspects of *Greeley on the Go* like the potential plan scenarios. The stakeholder committee played a critical role in shaping the transportation vision for Greeley by representing the wide range of community interests in Greeley and bringing forward ideas and concerns from each committee member's constituency.

Board and Council Presentations

City of Greeley staff presented to the Citizens Transportation Advisory Board (CTAB) on three occasions and to City Council on four occasions. CTAB advised the project team on specific locations around Greeley with connectivity challenges and also provided guidance on how to tailor the planning process to the needs of community members by increasing visibility through physical advertisements of events and by conducting direct outreach to lower income portions of the community.

Context

This section presents the vision for transit services, and mobility programs more broadly (referred to as mobility within this section), as part the Greeley Transportation Master Plan project. Previous project planning created three different scenarios for transit – this section presents the recommended scenario, which is a blend of elements of all three of the initial scenarios. The new vision for mobility and mobility services is built around seamless, integrated, multimodal mobility services that improve Greeley’s overall quality of life.

As part of this new vision for mobility services, the definition of transit is broadening to include all mobility services, and, as such, the definition of what Greeley Evans Transit (GET) is will change from its historical focus on fixed route transit to a diverse toolkit of mobility options delivered by an updated version of GET.

This new direction for mobility services within Greeley is necessitated by several factors including:

- The shift in ridership patterns and how people are traveling due to changes brought on by the pandemic.
- The need to be flexible and adaptable to unknowns, especially regarding if, when, and how people may or may not return to using transit and other mobility options besides driving.
- Innovations and advances in emerging mobility and new, more dynamic ways to deliver transportation services.
- Land use changes and forecasted growth patterns within Greeley that create an opportunity for a fresh look at how best to serve Greeley with mobility options.
- The financial and practical constraints, and inefficiencies, of continued growth of fixed route transit using large buses.

Integrated Mobility Concept

The new recommended direction for mobility services within Greeley is that of integrated mobility that focuses on the user and their access to variety of seamless, connected mobility options that facilitate a variety of trip types. This new paradigm for mobility integrated transit, on-demand, shared mobility, e-mobility, curb management and micromobility (bikes/scooters) services, as shown in **Figure 1**.

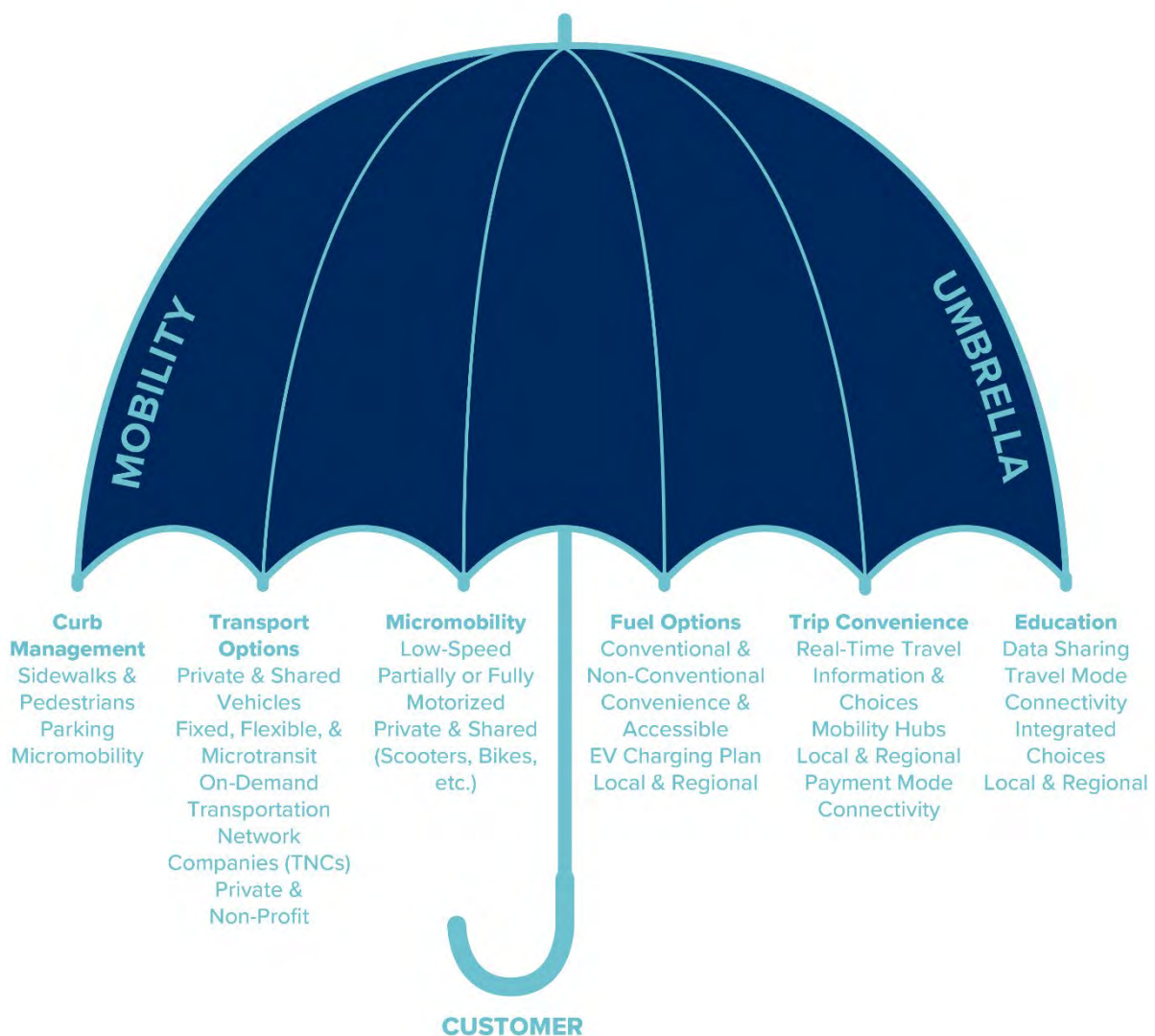


Figure 1: Mobility Umbrella Framework

Programmatic Elements

The programmatic elements are envisioned to be delivered by a reimagined GET that transitions from a provider of fixed route services to a provider of a variety of mobility services and programs including:

- ✓ High frequency, premium transit operating along linear corridors
- ✓ Flexible on-demand microtransit and connections/partnerships with transportation network companies (TNCs)
- ✓ Local transit route for areas where demand remains warranted
- ✓ Micromobility options including bikeshare and scooter-share
- ✓ ADA paratransit services powered by more convenient trip request technology

Supporting Elements

This integrated mobility model has many supporting infrastructure and technology elements that will be necessary for successful delivery including:

- ✓ Corridor infrastructure to support key transit corridors including dedicated bus lanes, fixed guideway corridors, transit stations, and bicycle/pedestrian connecting infrastructure
- ✓ Transit speed and reliability tools such as bus bulbs, transit signal prioritization (TSP), and queue jump lanes
- ✓ Mobility hubs that physically integrate and connect the various mobility services
- ✓ Integrated trip planning and fare payment enable by smart phone technology
- ✓ Electrification, or other zero emission technologies, for all vehicles within the Greeley mobility fleet, as well as charging solutions for micromobility solutions
- ✓ Possible autonomous operations for certain routes and vehicles, as technology, policy, and safety allow
- ✓ Transit technology solutions

Vision for Mobility in Greeley

The long-term mobility vision, as shown in **Figure 2**, envisions fixed routes, modifications to the existing fixed route system, microtransit zones, micromobility zones, premium transit corridors, regional connections, service development zones, and mobility hubs.

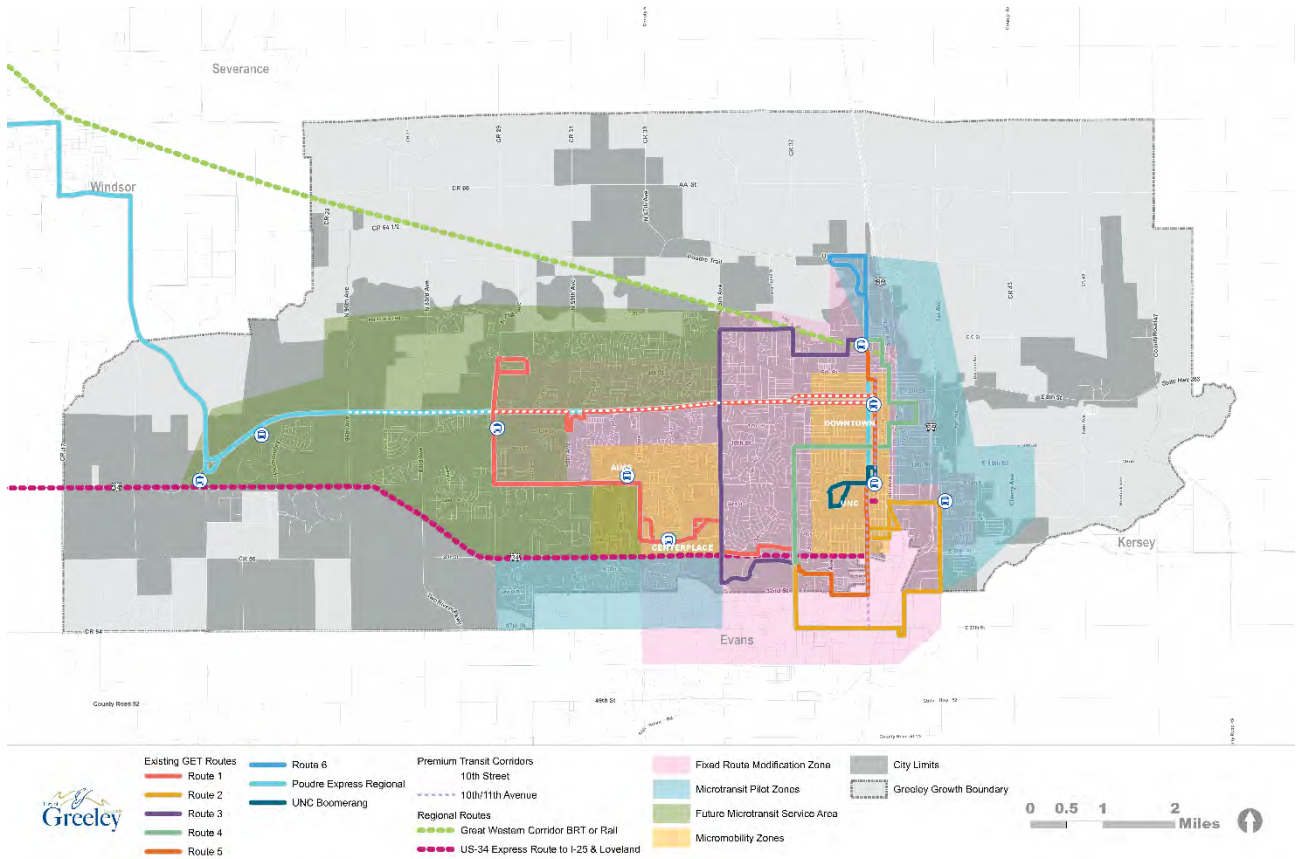


Figure 2: Long-Term Mobility Vision

Fixed Route Transit Reimagined

Within the existing GET fixed route system and service area, as shown below as the pink shaded area of **Figure 4**, there are many opportunities for improvements service delivery that were considered as part of this planning process. However, instead of defining a new vision for delivery of service fixed route transit services as part of this TMP process, it is recommended that the existing fixed route system be reevaluated as part of a future, dedicated effort to reimagine fixed route transit within Greeley and Evans. This would require a detailed transit service planning effort to define the redesign of how fixed route transit is delivered.

Through a future fixed route service delivery project, the analysis should consider:

- What are the current operational challenges of existing routes?
- How can routes be redesigned for efficiency and integration across the existing service area?
- How might new, currently unserved areas need to be served by fixed route service?
- How will travel patterns continue to adapt and change?
- Do new transit service models or route structures need consideration and how are they implemented?
- What will the short-, mid-, and long-range service plans that need to be developed and implemented?

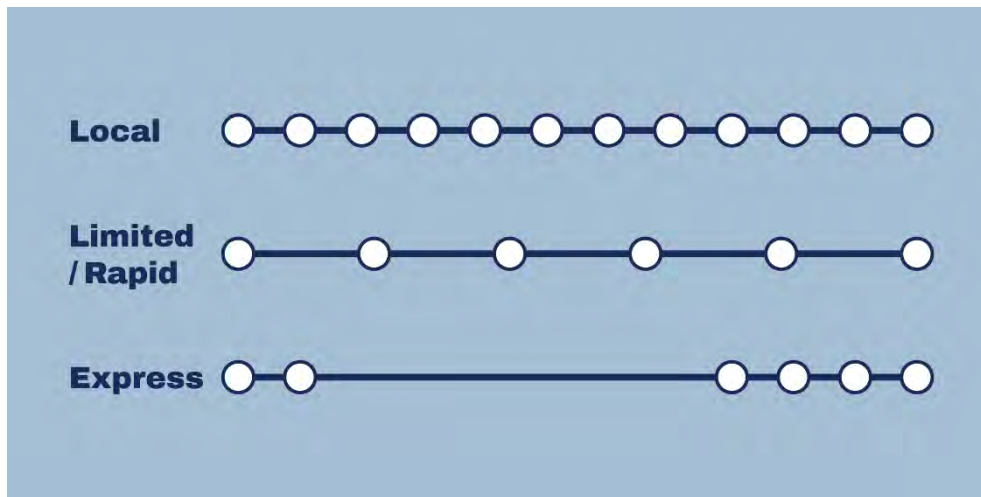


Figure 3: Transit Service Types

This future study should define an innovative yet realistic course and should incorporate a layered network approach where vehicle types/sizes, frequency, span of service, and travel time are varied and customized to the travel needs and demand profile of the areas being served, as shown in **Figure 3**. Fixed route transit is a crucial component of the local community, both from a quality of life and an economic perspective, and we recommend that a plan be developed that allows a new reimagined fixed route service to improve service effectiveness and deepen its community impact.

System design alternatives may include revisions of routes to provide a higher quality of service (such as single-seat trips); route options to expand capacity, frequency, and service convenience; route and schedule modifications to enhance transfer convenience at new or future transit hubs; park-and-ride strategies to intercept employees and day visitors; and provision of flexible transit services (such as microtransit) in lower density portions of Greeley and Evans. This may include the assessment of replacing existing low-productivity fixed-route segments with flexible routes, including deviated fixed route or microtransit, in some or all seasons or times of day. This development of service alternatives should be followed by solicitation of public input, rating of system option performance against the criteria established, and an analysis of community benefits presented for each route and service scenario.

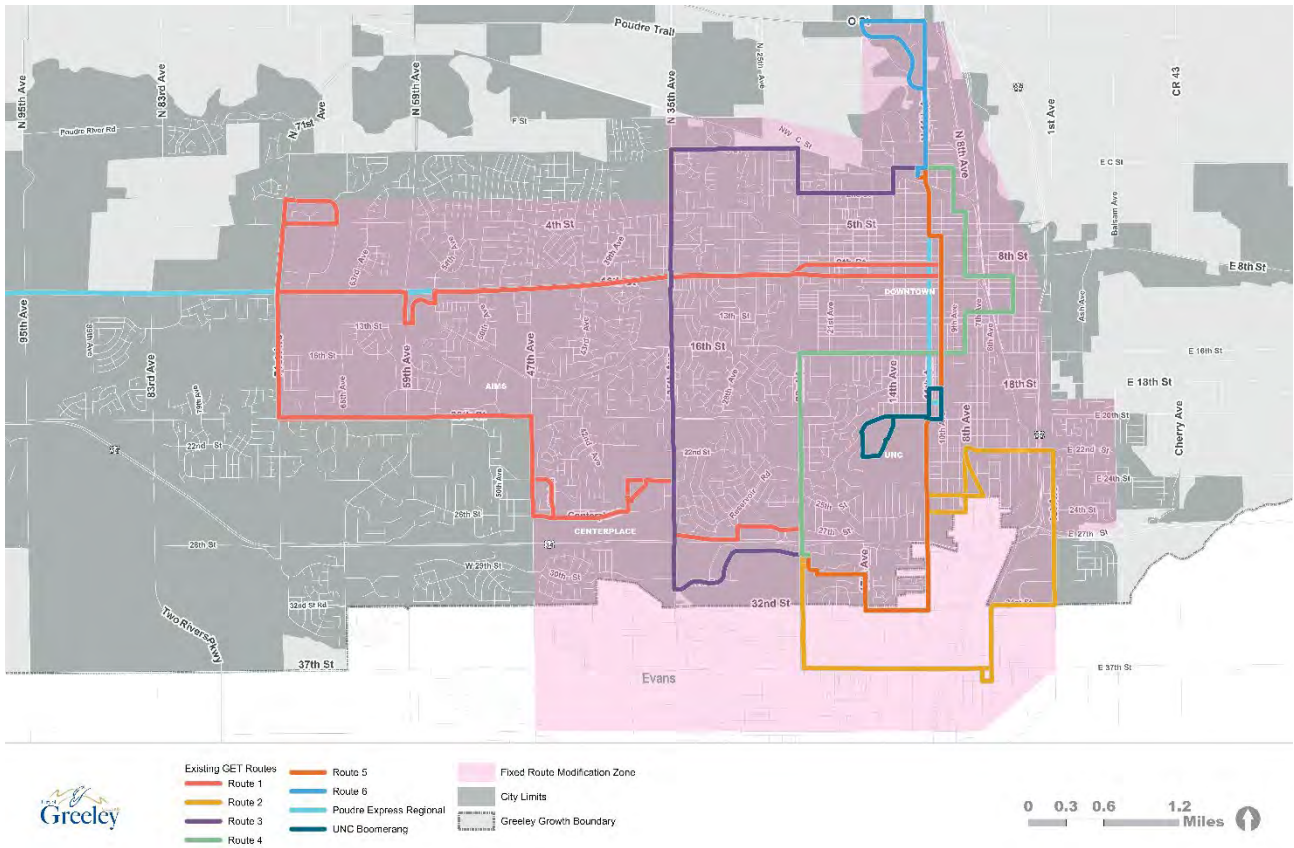


Figure 4: Fixed Route System

Premium Fixed Route Transit Corridors

Premium transit, also known as bus rapid transit (BRT), is a form of public transit that offers fast, frequent, reliable, and direct transit service along a linear corridor (see **Figure 5** for a graphic representation of a premium transit corridor in an urban setting). In many ways, BRT is a bus route that operates more like a rail line.



Figure 5: Premium Transit Corridor

The typical characteristics of BRT premium transit are:

- Easy to understand direct routes connecting key destinations
- Rail-style bus stations with zero-step platform loading, real-time bus arrival information, and attractive shelters
- Operates on dedicated roadway corridors (bus-only roadway) and bus only lanes
- Often includes off-board fare payment
- Operates in conjunction with transit signal priority and queue jump lanes
- Unique, iconic branding with buses that look more like trains and are often longer, high-capacity buses
- Typical stop spacing of 1-2 stops per mile

A regional example of a successful BRT corridor is the MAX on Mason service operated by Transfort in Fort Collins, shown in **Figure 6**.



Figure 6: MAX on Mason BRT Service

Key Premium Transit Corridors for Greeley

Within this mobility vision are two key premium transit corridors, as shown in **Figure 7**. One corridor is envisioned to run east-west along 10th Street from downtown stretching out to 95th Avenue. Another corridor is envisioned to run north-south along 10th and 11th Avenues connecting downtown with UNC and Evans.

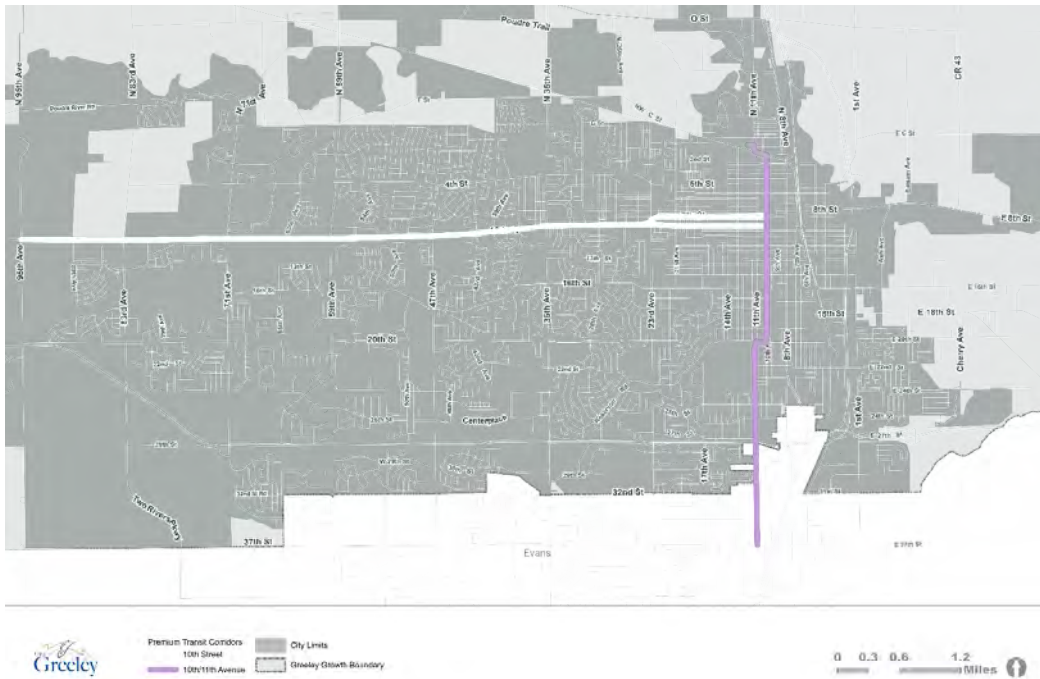


Figure 7: Premium Transit Corridors

Microtransit

Microtransit is a form of demand response transit that leverages smartphone technology through use of a smartphone app, as well as a call-in option or online reservation system, to match trip requests in real-time to dynamic and flexible routes in a defined service area. For users, it is similar to using ride hailing services such as Uber or Lyft with the ability to request a trip within a short timeframe (typically 15 minutes or less) and be picked up and dropped off within a short distance of their origin and destination points (typically 1-2 blocks or less).



Figure 8: The Montbello Connector Microtransit Service

Microtransit characteristics:

- Operates with smaller vehicles, such as cars, vans, or shuttle buses, and microtransit passenger trips are often combined in real-time as the vehicle moves within a defined zone or along a flexible route pattern between established bus stops.
- Is typically established by a city, county, or agency through a contract with microtransit provider, which can be a turn-key provider of the technology platform, vehicles, and drivers or a provider of the technology platform only and utilizing agency or service contractor vehicles and drivers.
- Operates in a defined geographic service area, either completely on-demand with origin to destination service or with predefined stops and/or a predefined trip pattern within on-demand zones where passengers can request pick-up or drop-off locations at or near their destination.
- Has at least a portion of the microtransit vehicle fleet accessible for people in wheelchairs or using mobility devices, and a call-in option is incorporated into the service for those without smartphones.
- Uses vehicles clearly branded as a public transportation service.

Microtransit can be used to enhance existing transit options, to replace low performing fixed route service, or as a new, standalone public transportation service to serve underserved or unserved areas. As a relatively new term, microtransit can be synonymous with terms such as community shuttle, flexible bus, on-demand bus/shuttle, or neighborhood circulator (**Figure 8** shows an example of microtransit service).

Microtransit Success Factors

In the past five years, microtransit has grown in popularity as a public transportation service option. As a result, many lessons have been learned about what success factors contribute to a successful microtransit program:

- Zone area size of two to five square miles per vehicle, depending on density
- Key destinations within service area, such as shopping/retail, employment centers, transit hubs or high frequency transit, medical services, and social services
- Mix of population densities within service area, often matching low to medium density housing with higher density commercial areas or rapid transit
- Ability to group trips to/from key destination at similar times
- Fare structure that balances convenience, affordability, and ridership goals
- Robust marketing and public education
- ADA accessible vehicles and call-in option for those without smartphones

These factors were considered in developing possible solutions for the Montbello service alternatives.

Versions of Microtransit Service

There are several different ways microtransit can be configured to operate. Each model has advantages and disadvantages – the best choice is usually determined by community goals and target markets.

Zonal

In a zonal model, any two points within the defined microtransit zone can be connected. The points are typically connected door-to-door or street corner to street corner. Passengers enjoy the advantage of getting picked up and dropped off exactly where they are and exactly where they want to go, as well as being able to use the service for a variety of trip purposes within the zone. The downside is that passengers are often onboard the microtransit vehicle for longer than they would be in comparison to an equivalent trip by car. In a zonal model, the microtransit vehicle will often take a circuitous route to pick up and drop off passengers along the way, which means the trip time for most trips from start to finish is longer for some of the passengers (typically those traveling longer distances within the zone).

Zone to Point

In a zone to point model, a microtransit zone is defined in combination with a specific destination point, usually a bus or rail station, outside of the zone. In this model, passengers can only go from the microtransit zone to the defined point. Passengers can get picked up or dropped off door-to-door or corner-to-corner in the microtransit zone, but the trip typically needs to start and end at the defined point. This type of service often departs and arrives at the defined point at times that correlate to bus or train departure or arrival times. A zone to point model usually has high ridership but is limited in its target market, as the service is typically used by commuters (or other specific user groups) as a first and final mile connection to rapid transit.

Flex Route

A microtransit flex route model operates more like a fixed route bus with pre-determined bus stops and time points, but a flex route has the ability to go off-route within a specific zone between stops to pick up and drop off passengers who request real-time trips. This allows passengers to choose to use defined stops at a scheduled time or to request a trip in real-time within the flex route zone. This model is more efficient overall, in terms of ability to combine multiple passengers on the same trip, but less convenient for some passengers who may need to make different connections than the pre-determined points.

Examples

Examples of microtransit applications and microtransit service models are shown in **Figures 9 and 10**.

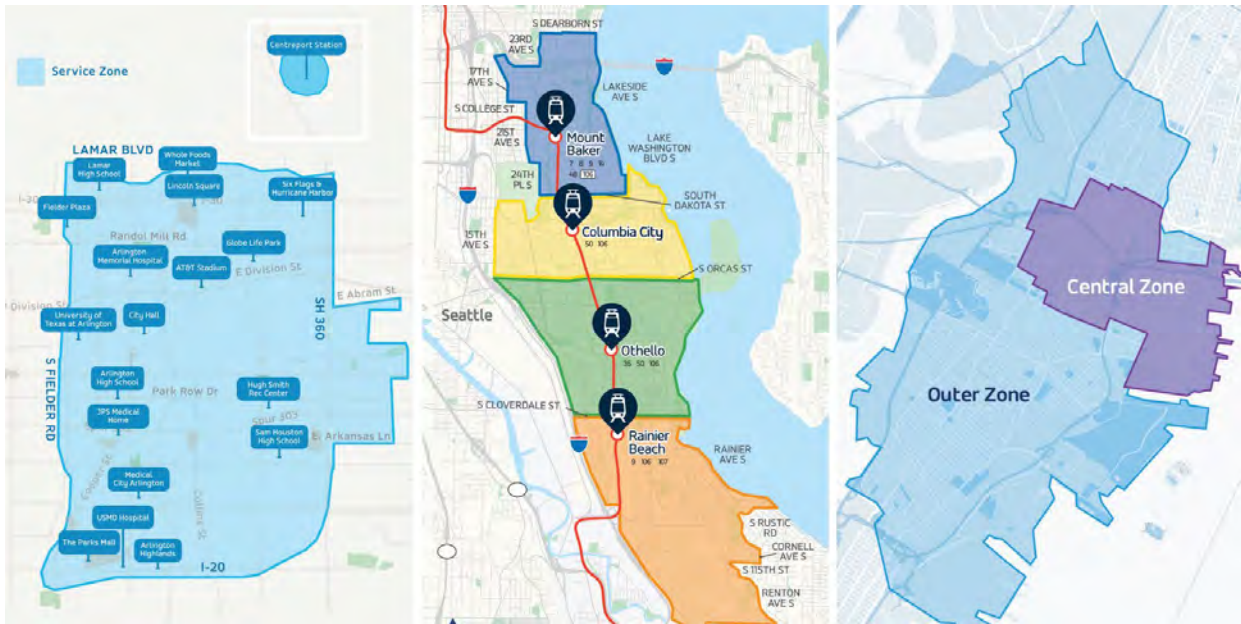


Figure 9: Microtransit Application Examples (Source: Via Transportation, Inc.)

On-Demand Transit Service Models

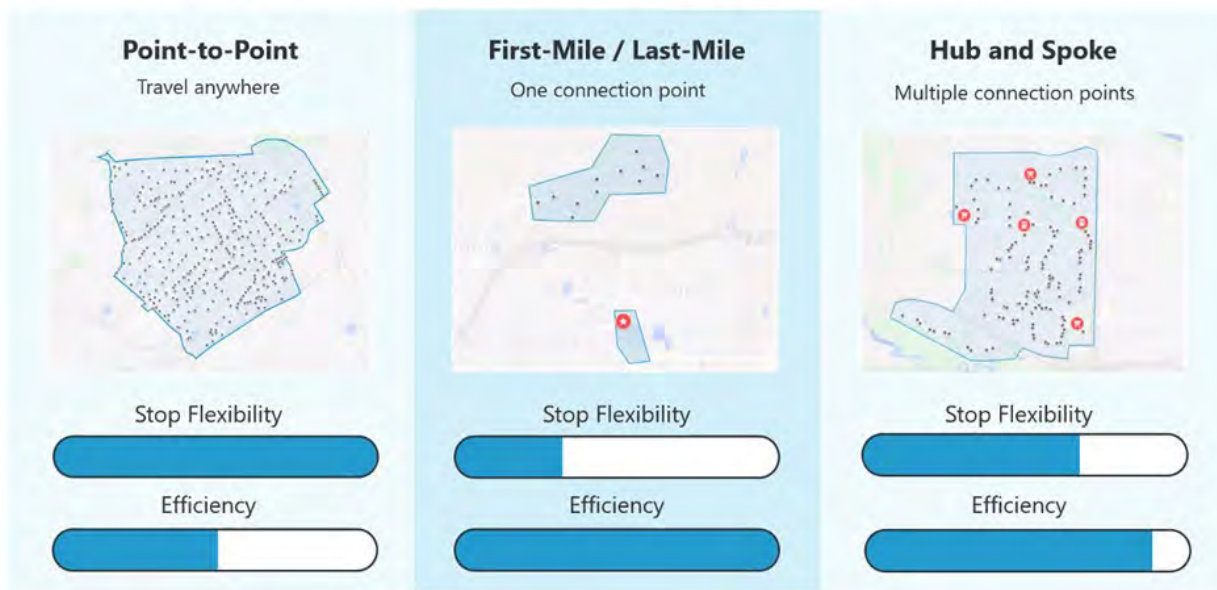


Figure 10: Microtransit Service Model Examples (Source: RideCo Inc.)

Microtransit Zones for Greeley

The blue shaded areas in **Figure 11** show the two initial microtransit zones planned for east Greeley and southwest Greeley. These zones would likely be implemented in conjunction with updates to the fixed route system, as microtransit works best when it is coordinated with fixed route services. A longer-term microtransit

zone, shown as the shaded green area, is planned for west Greeley as demand grows. Eventually, GET may wish to form partnerships with private providers to transfer riders between fixed route transit service and private airport transportation.

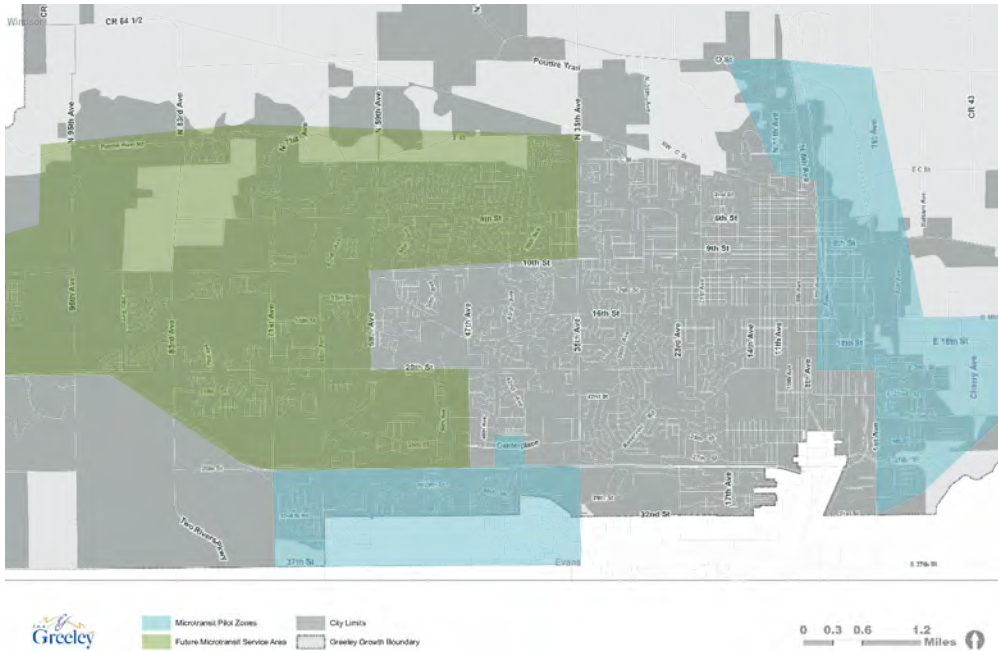


Figure 11: Microtransit Zones

Micromobility

Micromobility solutions, primarily in the form of bike and scooter share, has emerged over the last decade in small and large cities worldwide as another option for meeting the mobility needs of short trips (typically 1-2 miles) on low-speed streets. Advances in battery technology significantly increased the prevalence and use of these systems with electric motors assisting pedaling on bikes or as sole power source on scooters.



Figure 12: BCycle Bike Share (Source: BCycle)

Operating models vary by location and include systems with docking stations, that are completely dockless, or both. Bikes and/or scooters are placed throughout a certain geography and users can rent a bike or scooter using a mobile device or through a docking station for a one-way or roundtrips (**Figure 12** shows an example of a docking system). After completing a trip, users lock their bike or scooter (at a docking station or within the system's predefined boundary), which can immediately be used by another customer. Bike/scooter share provide a low-impact affordable mobility option for the community, promote carless lifestyles, and can be used as a first/final mile connection to transit, effectively expanding the reach of transit.

GET will integrate bike/scooter-share into the transit system to extend the reach of transit and increase mobility options for the first/final mile connection. A fleet of shared bikes and/or scooters will be placed at key transit stops and near high activity destinations around Greeley to improve access to transit. To effectively integrate with the transit system, use of the bike/scooter share would be included as part of the transit fare and would be available at most transit stops in the core part of Greeley.

Examples of Integrated Transit and Micromobility Systems

Most current bike/scooter share systems are operated privately and there are few (if any) existing examples of a transit agency also operating a bike/scooter share system. However, there are a couple of case studies of agencies beginning to integrate a single fare payment model between the two systems, including LA Metro and the Chicago Transit Authority (CTA) partnership with the City's bike share provider (DIVY) through a project called Mobility on Demand (MOD) Sandbox Demonstration. These agencies are still working on payment integration of the two systems, and two of the biggest barriers that have emerged are challenges with public-private partnerships and federal funding limitations that allow pre-tax commuter benefit dollars to be used on transit, but not bike share¹.

Micromobility Development Zones for Greeley

As shown in **Figure 13**, two micromobility development zones are envisioned for Greeley – one stretching from downtown to the UNC campus and one incorporating Centerplace and Aims College.

¹ <https://www.transit.dot.gov/sites/fta.dot.gov/files/2021-06/FTA-Report-No-0196.pdf>

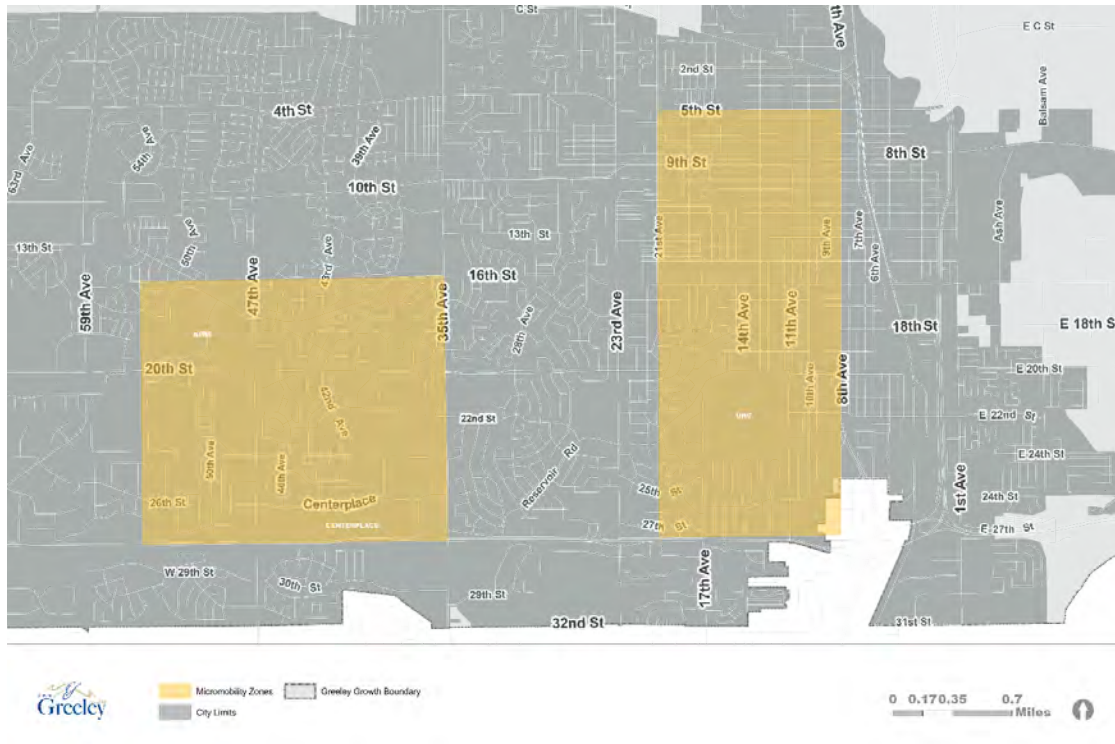


Figure 13: Micromobility Zones

Regional Connections

Currently, GET operates the Poudre Express on a limited schedule between Fort Collins, Windsor, and Greeley. Over the time horizon of the TMP, the Poudre Express will likely grow in terms of span of service and frequency, along with other identified regional services, as shown in **Figure 14**. Long-term regional service development includes an express route along Highway 34 connecting Greeley with I-25 and Loveland, as well as a possible fixed guideway (BRT or even rail) regional connection between Greeley and Fort Collins along the Great Western Rail corridor right-of-way.

Service operations for any expanded or new regional connection may not necessarily fall on Greeley but could be a partnership of many regional entities.

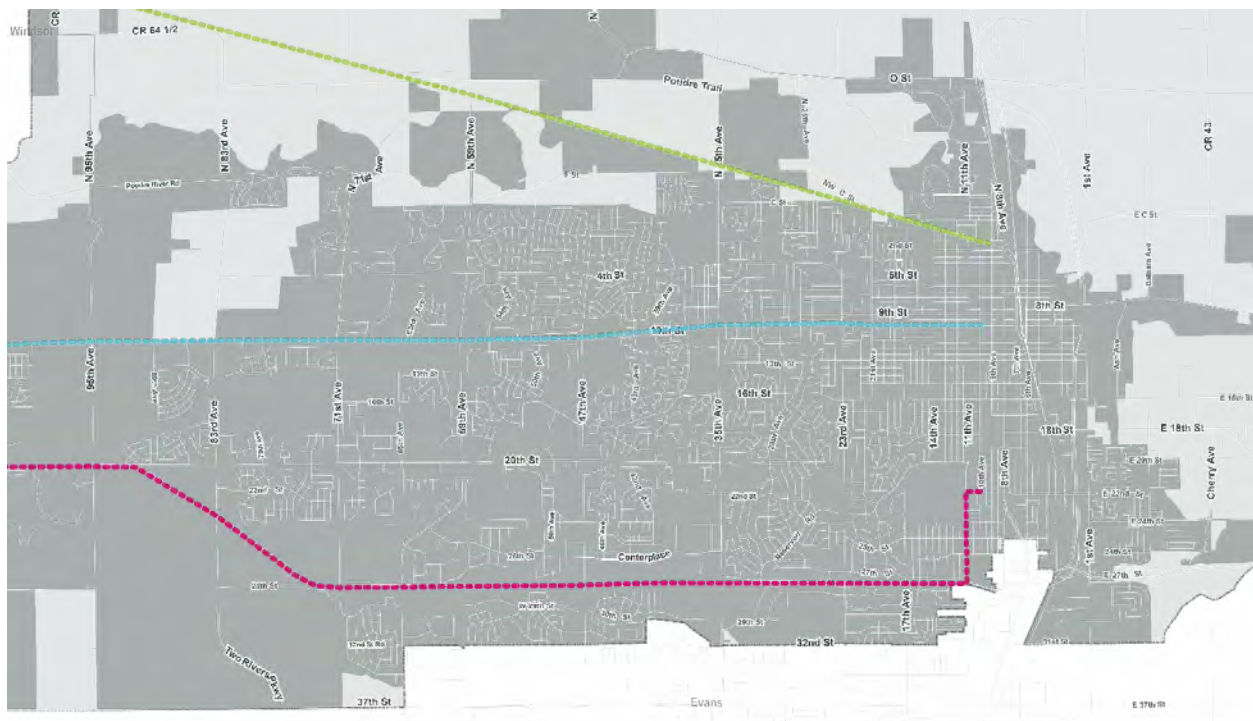


Figure 14: Regional Routes

Mobility Hubs

What is a Mobility Hub?

Mobility hubs are places where people can make seamless connections between multiple transportation options. Mobility hubs offer visibility to – and connection between – public transit and other mobility services that in turn support sustainability, connectivity, and reduce dependence on private vehicles. Mobility hubs can also help reduce congestion due to community growth. Building a hub in one location of the city can help alleviate congestion elsewhere as the benefits from mobility hub services and amenities are felt throughout the network. While individual hubs can form a cohesive network, the design and accommodations at each hub location will vary based on the unique transportation needs of the area.

Possible Mobility Hub Amenities

Mobility hub amenities can be tailored to specific modes as shown in **Figure 15** (e.g., electric vehicle charging or bicycle parking) or be more general (e.g., travel information kiosks or passenger restrooms). Mobility hubs support and connect to major transportation modes like public transit, pedestrian routes, and existing bicycle facilities. Amenities can also provide useful travel information aimed at enhancing the transportation experience, such as information on local restaurants, shops, and hotels.

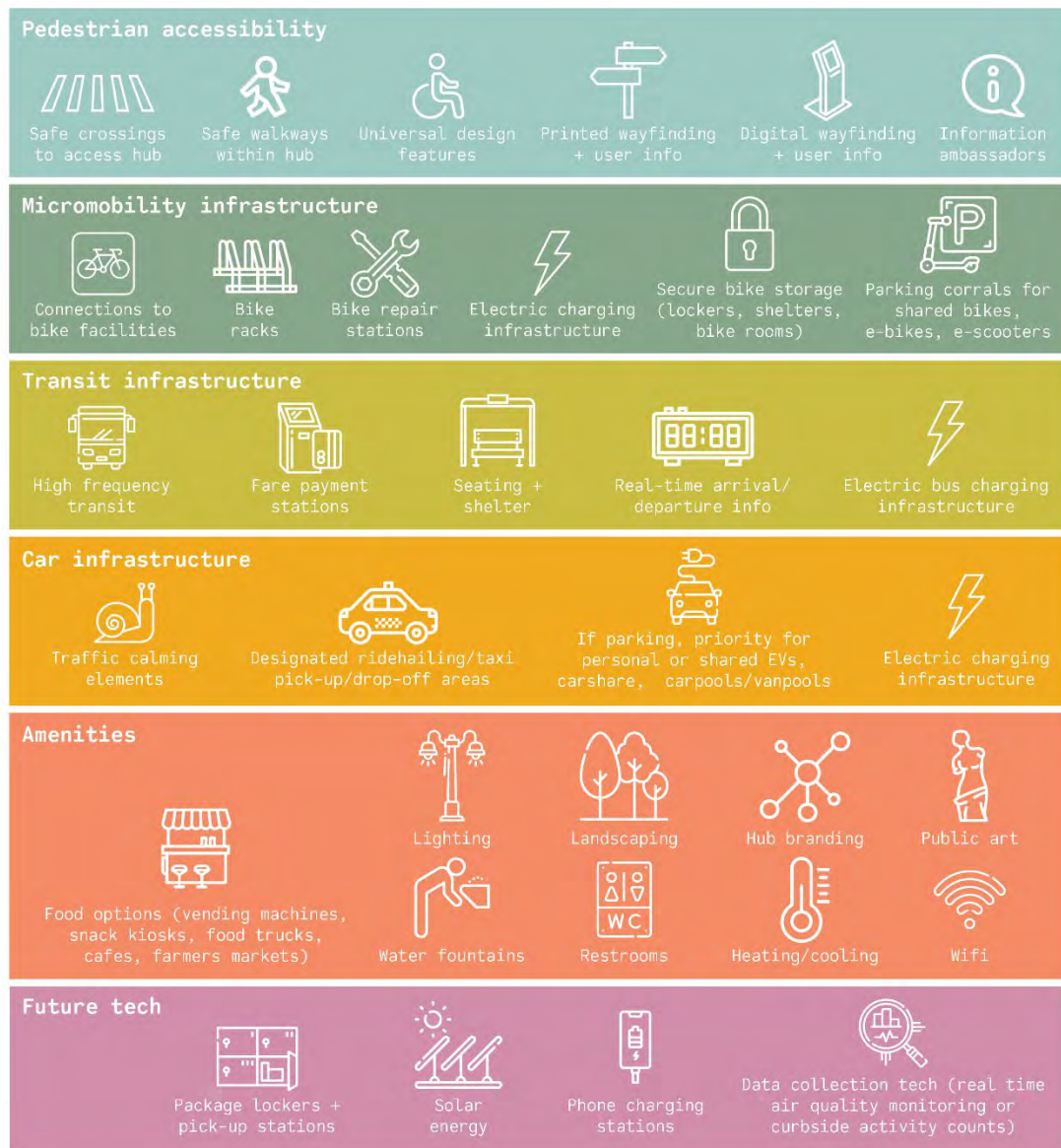


Figure 15: Mobility Hub Amenities (Source: Fehr & Peers)

Potential mobility hub amenities (by mobility hub type) include:

- Parking and Charging
 - Surface parking lots
 - Electric vehicle (EV) charging
 - Structured parking
 - Valet parking
- Multi-modal Amenities
 - Transit service/stops
 - Transit stop enhancements
 - Seating, waiting area, and/or shelter

- Real time travel and trip planning information
- Robust visitor information
- Scooter or bike share parking
- Car share
- Taxi/ride hailing service
- Taxi/ride hailing loading zones
- Access infrastructure, including crosswalks, sidewalks, and bikeways
- Bike racks/secure bike lockers

Certain amenities like bike parking are easier to implement quickly, whereas other amenities like vehicle parking are typically thought of as long-term strategies.

Mobility Hub Examples

Figures 16 and 17 show visual examples of mobility hubs.



Figure 16: Rendering of a Mobility Hub (Source: Fehr & Peers)



Source: City of Minneapolis

Figure 17: Rendering of a Small Mobility Hub

Mobility Hub Locations for Greeley

As shown in **Figure 18**, mobility hub locations for Greeley include:

- The existing GET transit center
- The vicinity of 10th Street and 10th/11th Avenue
- The vicinity of 20th Street and 10th/11th Avenue, adjacent to the UNC campus
- East Greeley, in the vicinity of 22nd Street and 1st Avenue
- The vicinity of 20th Street and 47th Avenue, adjacent to Aims College
- The vicinity of West 10th Street and 71st Avenue
- The vicinity of Centerplace
- The vicinity of Promontory Park
- Development of the existing park-and-ride lot at SH 257 and US 34 Business

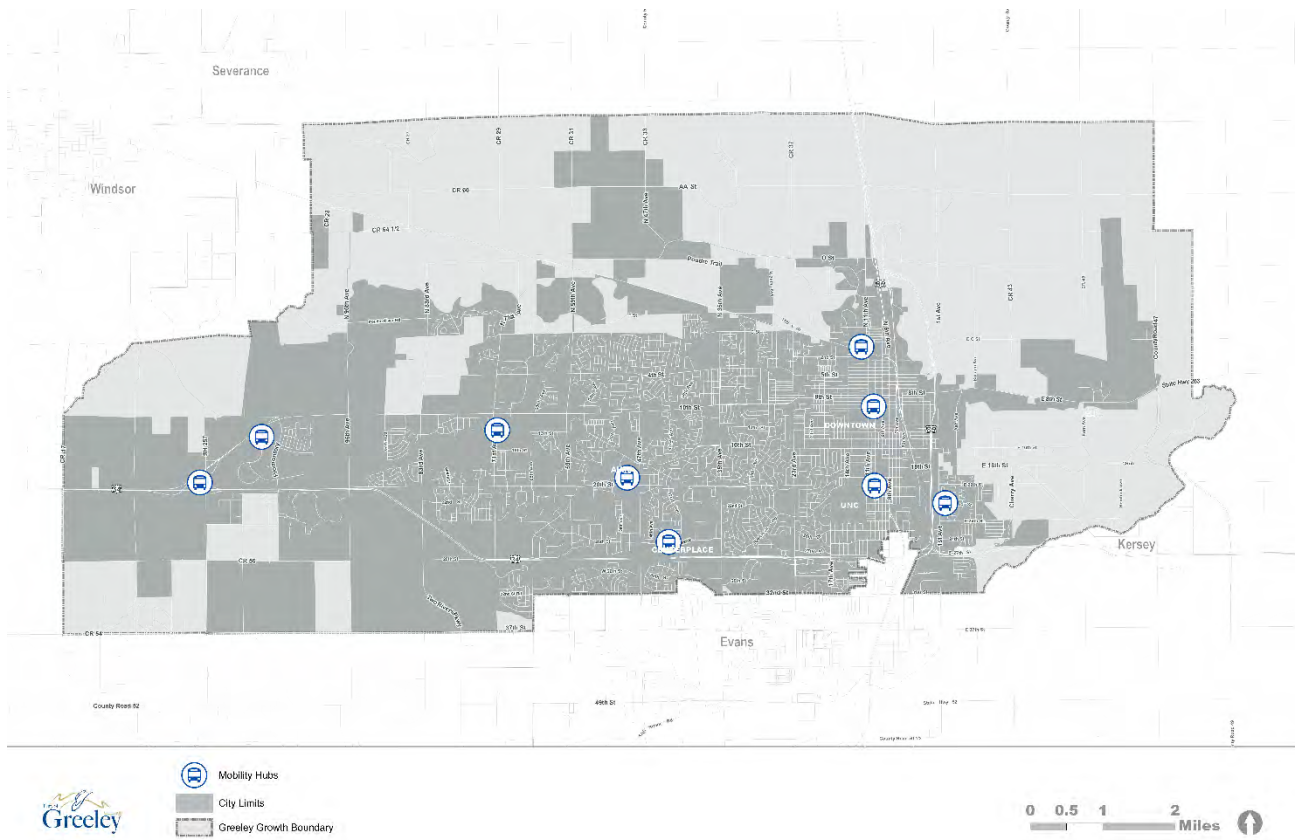


Figure 18: Greeley Mobility Hubs

Implementation

Successful implementation of the new mobility vision requires implementation of projects such as facility development, transit fleet investments, transit speed and reliability improvements, transit technologies, and new models for fare structures and payments.

A summary of projects and associated implementation timeframes is included.

Facility Needs

In support of the mobility vision, vehicle maintenance and storage facilities will need to be evaluated and possibly redesigned or even or relocated, if expansion is warranted. Many factors are necessitating this evaluation of facility needs, such as the transit to zero emission technologies, the implementation of a layered transit fleet to support dynamic and flexible transit services, and other City of Greeley facility planning and fleet needs.

It is possible that the current maintenance and storage facility (shown in **Figure 19**) could support the long-term implementation of the mobility vision, but it may require a reconfiguration or rebuild of the current facility. For administration needs, it is likely that the offices and customer service area of the current GET transit facility will work long-term for mobility vision implementation, even if vehicle maintenance and storage is redeveloped at another site.



Figure 19: Greeley Maintenance and Storage Facility

Transit Fleet

GET will gradually replace its fleet of buses to maintain a state of good repair and expand its fleet to provide reliable transit consistent with the service level needs outline in this plan. The transition to a layered transit network, as identified in the service plan, will require three distinct bus fleet levels:

- **40' City Buses** – GET will transition its fleet of buses that operate on the local fixed route network to a standard 40' city bus to serve the City's backbone transit service.
- **BRT Buses** – BRT buses will serve future BRT corridors and will have unique design and amenity features that may include articulated buses (for higher capacity), wider or more frequent door (to facilitate faster loading and unloading) or other amenities to be determined as part of the BRT design process.
- **Minibus/Vans** – GET will also invest in a fleet of vans (or similar vehicles) to provide microtransit (on-demand) service. The smaller vehicles will match the lower capacity needs of microtransit service, reduce costs (as compared to larger vehicles), provide more flexibility for navigating a variety of street types (including narrower local streets), and allow for a larger pool of potential drivers by eliminating the need for operators to have a commercial driver's license.

Transition To Zero Emissions Vehicles

GET is in the process of gradually replacing its fleet of fixed-route buses with compressed natural gas buses. In the near-term (through 2030) GET will leverage this investment in a fleet of cleaner burning CNG buses (as compared to diesel).

By 2030, as the CNG buses need replacement, GET will gradually replace its bus fleet with battery electric buses (BEBs) or other zero emission technologies. This transition is consistent with CDOT's goal as stated in the 2020 EV Plan of transitioning to 100% of transit vehicles in the state to zero emissions vehicles (ZEVs) no later than 2050 and an interim target of 1,000 ZEVs by 2030 (as of 2018 there were 3,264 transit revenue and service vehicles in Colorado).

Benefits of BEBs (or other ZEVs) include reduced air pollution, greater fuel efficiency, quieter operating buses, and lower maintenance costs. An analysis by the California Air Resources Board found that a 2016 electric bus can save \$336,000 in fuel and maintenance compared to a natural gas bus.² However, there are also several barriers to transitioning to BEBs including the need for new maintenance and fueling infrastructure, training of mechanics, higher purchase costs, and more limited vehicle range among others. Currently BEBs are only available for larger (40') city buses.³ When the time comes, GET will initially focus on replacing its fleet of 40' buses for local service with BEBs and as the technology continues to evolve, BEBs will likely become available and increasingly feasible for all vehicle types and service levels in the layered network.

² California Air Resources Board, Literature Review on Transit Bus Maintenance Cost (Discussion Draft), August 2016.

³ <https://www.codot.gov/programs/innovativemobility/assets/colorado-transit-zev-roadmap-2021-11.pdf>

CDOT developed a Transit Zero Emission Vehicle Roadmap in 2021 that provides statewide guidance and resources, including funding options and planning tools, to aid agencies in transitioning to zero emissions vehicles.

Transit Speed & Reliability and Other Corridor Infrastructure

Future BRT corridors should be designed to maximize speed and reliability to be time competitive with driving. As part of implementing BRT corridors and some high frequency routes, GET will analyze those corridors for potential capital improvements to increase transit speed and reliability. Potential speed and reliability tools to consider may include (but are not limited to):

Transit Signal Priority (TSP)

TSP is an operational improvement to reduce time transit vehicles are delayed by traffic signals by extending the green phase longer or shortening red lights. When a bus is approaching an intersection, the intersection can detect the bus and modify the traffic signal timing (illustrated in **Figure 20**).

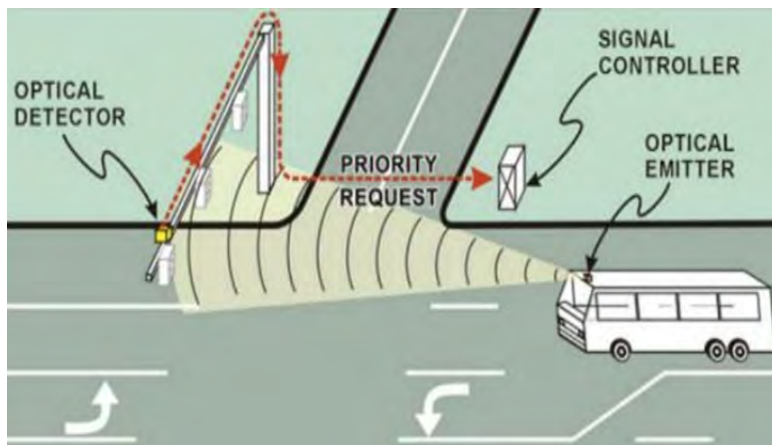


Figure 20: Transit Signal Priority Diagram (Source: NYDOT)

Bus Queue Jump Lanes

Queue jump lanes are short bus-only lanes at congested signalized intersections that allow buses to get around the traffic queue, as shown in **Figure 21**. Queue jump lanes can be shared with a right-turn only lane in some cases. On the intersection approach queue jump lanes should be longer than the length of the peak hour queue. They also need a sufficiently long receiving lane (or thoughtful design) so buses can comfortably merge back into traffic on the far side of the intersection.

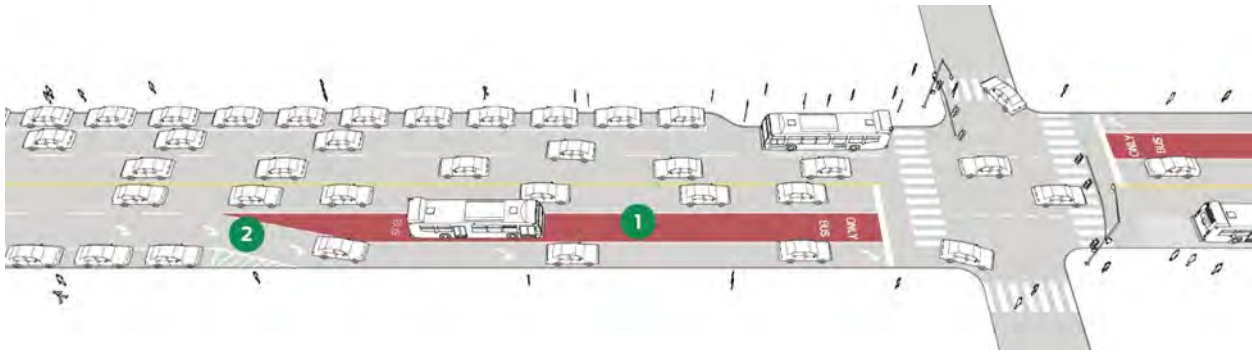


Figure 21: Queue Jump Lanes (Source: NACTO Transit Design Guide)

Transit Only Lanes

Transit only lanes are continuous physically separated rights-of-way for exclusive use by transit vehicles. These can be implemented by repurposing a general-purpose travel lane or widening the roadway. Transit only lanes are ideal along congested corridors, where transit is prioritized, and where other speed and reliability treatments on their own are not effective enough.

Business Access and Transit Only (BAT) Lanes

BAT lanes are designated exclusively for buses and right turning vehicles (**Figure 22**). BAT lanes can improve transit speed and reliability in congested corridors and are typically applied when there is continuous congestion along a corridor (as opposed to at specific intersections), there is limited space for transit-only lanes, and there is a need to also provide vehicle access to side streets and driveways.



Figure 22: BAT Lanes (Source: Denver Streets Partnership)

Bus Bulb-Outs

Bus bulb-outs are curb extensions at bus stops that allow buses to stay in the travel lane when stopping (**Figure 23**). This treatment can speed up ingress and egress at stops and eliminate delay from buses waiting

for a gap to merge back into traffic. Bus bulb-outs are appropriate on corridors with on-street parking or in place of deceleration and acceleration lanes.

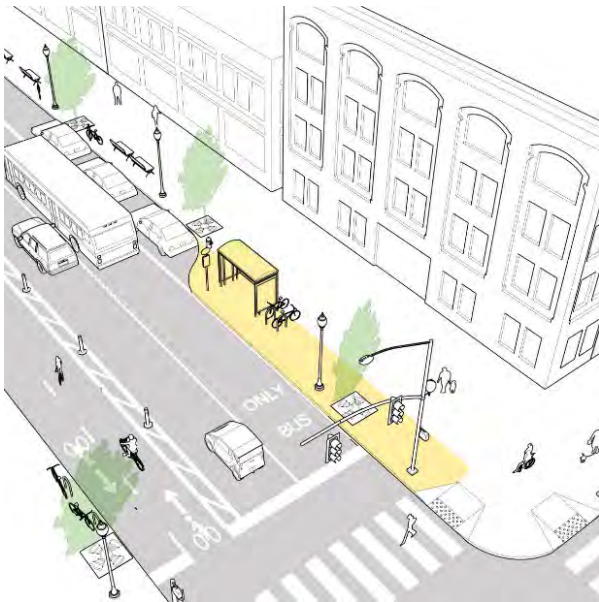


Figure 23: Bus Bulb (Source: NACTO Transit Design Guide)

Removal of Bus Pullouts

Bus pullouts provide space for buses to stop outside of the travel lane. The primary benefit of bus pullouts is to minimize delay to general traffic, but they can cause delay to buses. Removing bus pullouts and converting to an in-line stop would prioritize bus movement by eliminating delay from buses waiting for a gap to merge back into traffic.

Off-Board Fare Payment

Off-board fare payment means passengers purchase their fare at the stop as opposed to when boarding the bus. Off-board fare payment is a core feature of BRT service as it allows passengers to board at multiple doors and can significantly speed up the boarding process.

Level Boarding

Level boarding is a design feature where the curb is raised at bus stops to match the height of the bus floor. This allows people in wheelchairs, walkers, with strollers, or who have difficulty with steps to load and unload more quickly and easily, without the need of a lift, which can substantially increase transit speed and reliability.

Transit Technology

We live in a time when transportation technology and resulting travel patterns are rapidly evolving. Ridesharing, bike/scooter share, microtransit, battery technology, smartphones, autonomous vehicle technology, and other intelligent transportation systems have all had a significant impact in one way or

another on our travel choices and behavior, which has impacted the transit industry in many ways. To best leverage technology and respond to changing trends, GET will explore the best ways to integrate new and emerging transit technologies into their system.

Some of these technologies, such as micromobility, microtransit, and battery-electric buses have already been discussed. A short list of some additional key emerging transit technologies to pay attention to and potentially integrate into GET’s system when the time is right are listed below.

Mobility as a Service (MaaS) Model

Mobility as a Service (MaaS) is the concept where various shared mobility services (such as local public transit, ridehailing service, carshare, bikeshare, private transit, intercity transit) are bundled together into one seamless mobile device application that easily allows a user to plan, book, and pay for trips on a variety of modes using a single interface. MaaS embraces the concept of transportation offered as a service instead of limited by privately owned vehicles. MaaS offers transit agencies the ability to create increasingly attractive incentives to take transit by providing more information about first/last mile options and more transparent information on things like traffic congestion, parking costs, and travel times.

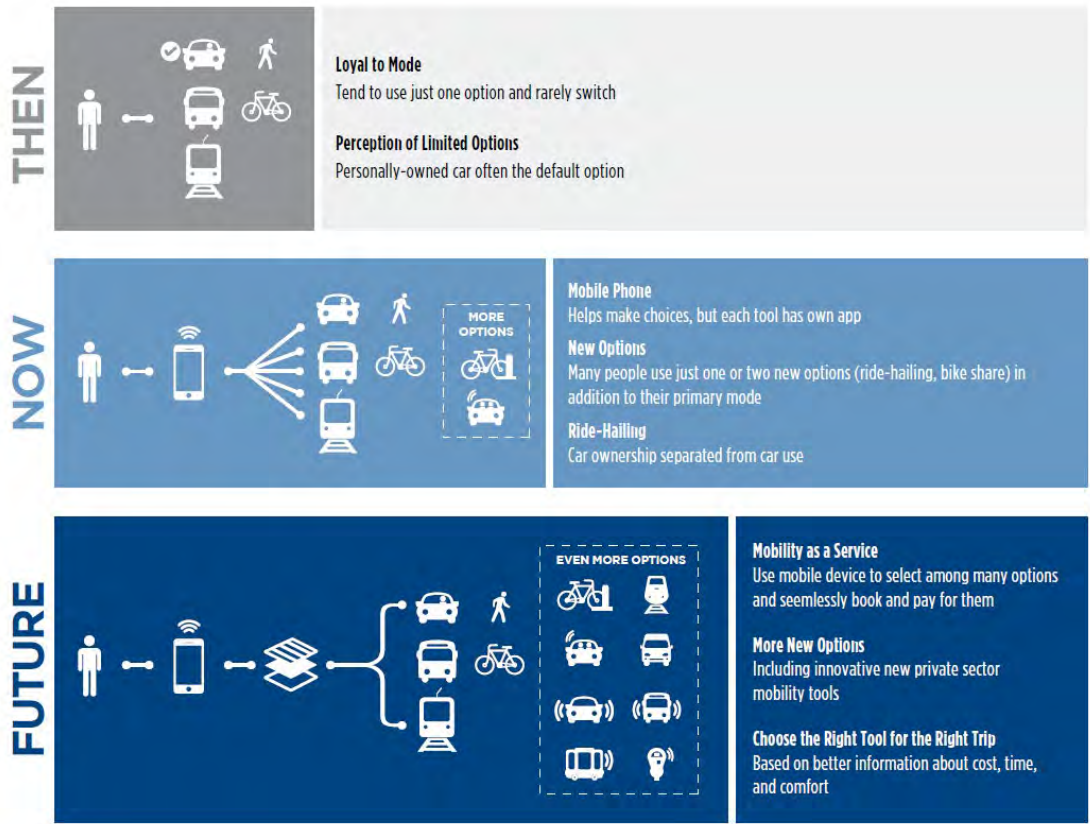


Figure 24: Steps Toward MaaS

As **Figure 24** shows, initial steps toward achieving MaaS could include integrating transit, ridehailing, and/or bike/scooter share into a trip planning application where one trip may best be achieved by using multiple

modes (many current trip planning applications are already starting to offer this). Other early initiatives could include providing a platform where a user could pay for one trip that involves travel between two different transit agencies, such as Bustang and GET, or Transfort and GET. More mature adoption of MaaS would involve more modes integrated together and a means to make a single fare payment for the entire trip on one platform. GET can support advancement of MaaS by providing open data to trip planning applications, taking the lead on new mobility services, such as bike/scooter share and microtransit, and partnering with other transit agencies and mobility service providers.

Fare Payment Models

Fare payment can be a big barrier to encouraging transit use. For many people the cost of transit is the barrier (which is a separate discussion), while for others simply not knowing the cost or not having exact change are enough reason for people to choose not to use transit. To overcome this, over the last couple decades many agencies have transitioned to enabling the use of smartcards, which allow a user to load fares on a pre-paid card and tap or insert the card when boarding. This has also helped to significantly speed up the boarding process and reduce delay. However, fare cards also involve an advance purchase and planning.

Fare payment models continue to evolve and more recently many transit agencies are now switching to mobile device and bank/credit card payment options, which further mitigate the barrier of needing exact change. The Regional Transportation District (RTD) in Denver provides a mobile device application that allows users to purchase transit fares online and activate when boarding. More recently the Metropolitan Transit Authority (MTA) in New York City introduced a system called OMNY, which allows users to pay their fare instantly by tapping a mobile phone or credit/bank card.

GET will explore offering new fare payment options on its buses as these technologies continue to emerge with the goals of supporting more transit use, reducing boarding delay, and allowing for fare payment integration with connecting services and other mobility providers.

Autonomous Transit

Autonomous vehicle technology continues to evolve and while there are many examples of fully autonomous vehicles operating in cities around the world today, it has yet to fully penetrate the travel market. That is likely to change in the future, and transit agencies are likely to be one of the early adopters given that buses generally operate on pre-defined routes and in some cases along exclusive right-of-way (i.e., rail and BRT). This predictability is ideally suited for autonomous vehicle technology. One of the greatest potential benefits of autonomous transit is the potential cost savings by reducing the single most expensive cost of transit, which are bus operators. Other benefits may include improved safety, greater fuel efficiency, more precise station docking, and smoother service.

Autonomous transit has not yet advanced beyond the pilot stage within the United States, so there are still many unknowns with this technology. Given the recent trend autonomous transit is not likely to be a cost-effective solution until sometime after 2030. However, given the advantages it may provide, and the potential rapid evolution of the technology GET will monitor its advancement for consideration in the future.

Project Summary

The summary of all mobility projects is shown below in **Table 1**.

Table 1: Greeley on the Go Mobility Projects

Project	Timeframe
<i>Infrastructure and Fleet</i>	
Transit technology development	10-year
Mobility hub: 10 th Ave and 10 th St Mobility Hub	10-year
Mobility hub: UNC	10-year
Mobility hub: SH 257 Interchange	10-year
Mobility hub: Centerplace	10-year
Mobility hub: Aims	10-year
Mobility hub: GET Transportation Center	10-year
Microtransit electric vehicles	10-year
Bus stop consolidation	10-year
ZEV fleet conversion plan	Long-range
10 th St. corridor development to support premium transit	Long-range
10 th /11 th Ave. corridor development to support premium/BRT transit	Long-range
Mobility Hub: West Greeley	Long-range
Mobility Hub: 71st Ave.	Long-range
<i>Services, Programs, and Routes</i>	
Microtransit pilot in East and South Greeley	10-year
Mobility implementation plan	10-year
Fixed route reimagining and reconfiguration with flexible transit options	10-year
Micromobility pilot for Downtown/UNC and Centerplace/Aims	10-year
Full microtransit implementation	10-year
High frequency route implementation – 10 th St.	10-year
High frequency route implementation – 10 th /11 th Ave.	10-year
Regional routes – US 34	10-year
Regional routes – Poudre Express service growth	10-year
Premium/BRT route implementation – 10 th St.	Long-range
Premium/BRT route implementation – 10 th /11 th Ave.	Long-range
Regional routes – Great Western	Long-range

Mobility Implications

Organizational Restructuring

Currently, GET is structured to support primarily fixed route and paratransit operations, as this has been the historical focus of the transit department. Going forward, GET will need to transform from a dedicated transit organization into a multimodal provider of mobility options that include micromobility, microtransit, fixed route, BRT (premium transit), and paratransit. Additionally, the new Greeley Mobility Department should be responsible for parking and curbspace management, multimodal planning, and transportation infrastructure development. A new vision for how this new department could be functionally organized is shown in **Figure 25** below.

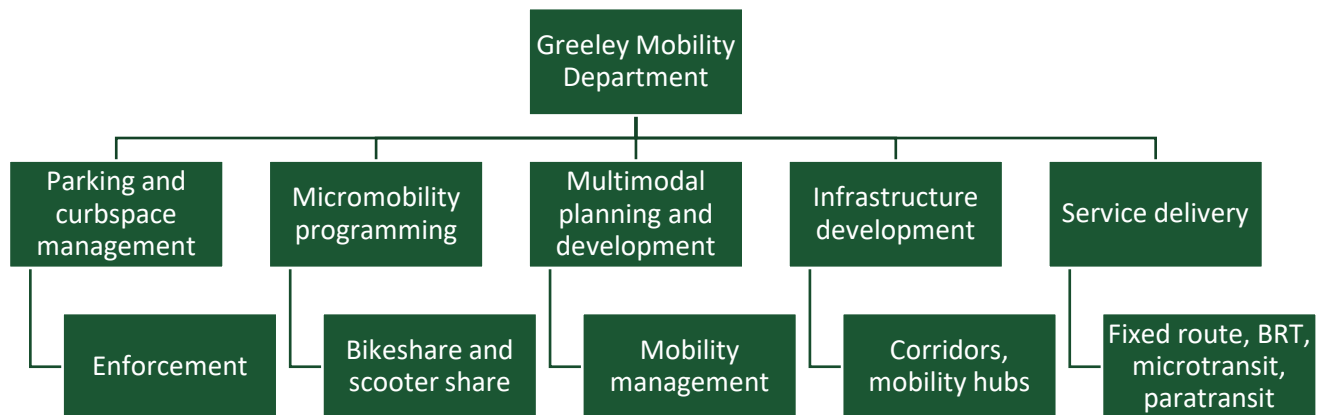


Figure 25: Proposed Greeley Mobility Department Organizational Structure

Adaptable Fleet

GET currently has a transit fleet consisting of 33 revenue vehicles in total, of which 24 are fixed route buses and nine are paratransit vans. For fixed route service, GET has moved to primarily 40' and 35' heavy-duty fixed route buses.

In the future, as more flexible and adaptable services such as microtransit are developed, the fleet will need to be more adaptable to meet the new service delivery vision of a layered transit network. In particular, the fleet will need to include:

- New BRT-style high-capacity buses (likely larger than 40') for the premium transit corridors of 10th Street and 10th/11th Avenue
 - Battery-electric or fuel cell technology

- Less 35' and 40' fixed route buses than today
 - As microtransit and premium transit is developed, it is likely that local fixed routes will require less traditional fixed route buses
- New microtransit vehicles
 - Electric sedans, minivans, and passenger vans
- Less paratransit vehicles
 - Trips will be comingled with microtransit and require less dedicated paratransit vehicles

Supporting Policies and Plans

To help fulfill the new mobility vision, many policies and plans will need to be revisited, adapted, or developed including:

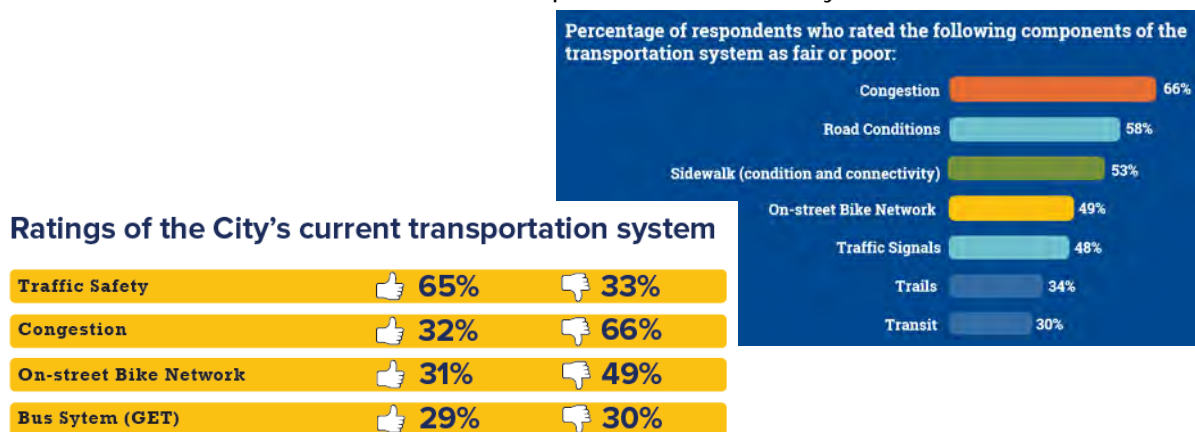
- ✓ Fare policies, such as payment methods or possibility of fare free
- ✓ Asset sharing and resource consolidation for support of the new mobility organizational structure (e.g., fleet and maintenance facilities)
- ✓ Human resource development including creating new positions and modifying existing positions
- ✓ Use of technology policies including data protection and privacy policies
- ✓ Rules and regulatory considerations for emerging mobility such as autonomous vehicles
- ✓ Accessibility assurances for microtransit and micromobility services including possibly updating ADA plan
- ✓ Change management strategies and organizational roadmap
- ✓ Updated short range transit plan for reimagine fixed route services
- ✓ Zero emission fleet transition plan

Community Survey

A survey on the transportation needs of community members was circulated via the City of Greeley's website, the *Greeley on the Go* project website, and the City of Greeley Facebook, Instagram, and Twitter accounts. The survey was provided in both English and Spanish and was available for eight weeks in April and May of 2021. In total, 667 responses were received.

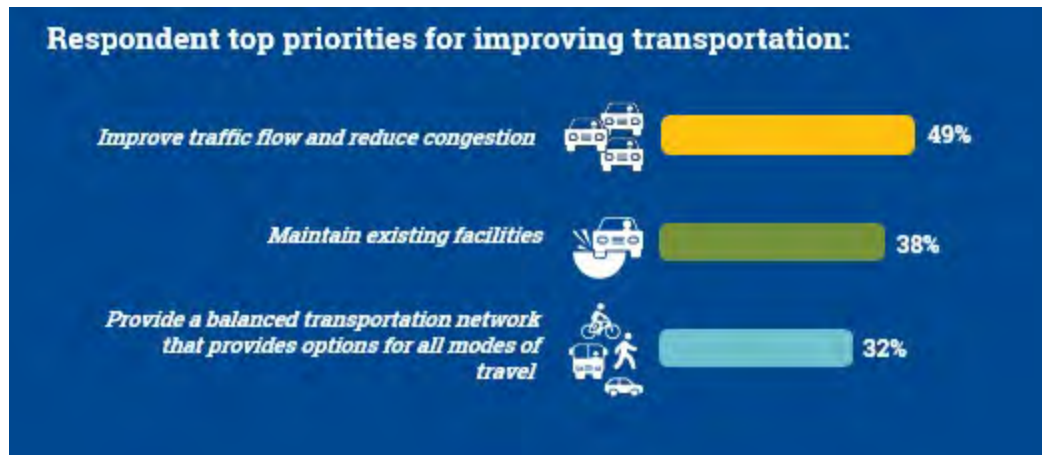
Of the respondents, 73% represented Greeley residents, with the remaining respondents working and/or attending school in Greeley. When asked about current travel modes, 85% of respondents indicated they drive alone as their main mode of transportation, though 40% of respondents walk and 25% ride a bicycle regularly.

When asked about the current transportation system, respondents rated congestion, road conditions, and sidewalks as the weakest components of the mobility network.



When asked what types of improvements would make individuals feel safer while driving, 62% of respondents indicated that they would like to see less congestion and delay at intersections and 46% indicated a desire for more left turn lanes. Forty one percent of respondents to the question indicated that driving safety could be enhanced if bicyclists could have a dedicated travel lane or separate path. Relatedly, when asked about the experience of riding a bicycle in Greeley, 32% of respondents indicated it is not easy to ride a bicycle in Greeley because it feels unsafe (63% of respondents) and because of a lack of dedicated facilities (59% of respondents). When asked about riding the Greeley-Evans Transit system, 50% of respondents indicated they would use transit more if the buses came more often and 45% indicated they would utilize transit if there was a bus stop closer to their home or final destination.

When evaluating top community priorities as identified in the survey, the *Greeley on the Go* project team learned that community members are most concerned with improving traffic flows, maintaining existing facilities (i.e. addressing potholes and upgrading sidewalks), and having access to a transportation system that provides several travel options (e.g. walking, bicycling, and transit in addition to driving).



Focus Groups

Focus group conversations were held with the Boys and Girls Club and the Immigrant and Refugee Center of Northern Colorado. Participants in the focus group conversations identified several barriers to access throughout the community, including the inability of east Greeley residents who do not have access to a vehicle to visit stores with fresh produce, pedestrian connectivity across US-85, and the lack of awareness among potential transit riders on how to use the GET system. Participants suggested that improving community access through transit would require a combination of route modifications to better serve key destinations, like the food bank, along with travel training to help youth, recent migrants, and other populations feel more empowered to ride transit.

Intercept Events

The *Greeley on the Go* project team visited several locations around the City of Greeley throughout the summer of 2021 to meet community members at popular destinations and to share information about the transportation master plan effort. Five intercept events were held at the:

- Greeley-Evans Transit Center
- Greeley Farmers' Market
- Active Adults Center
- Rodarte Center
- Arts Picnic

In total, project team staff was able to hear from 181 community members at the intercept events. Participants were asked to share feedback on aspects of the transportation system that are working well along with ideas for areas of improvement. According to intercept event participants, areas of strength include the growing trails network, with a high share of participants identifying the Poudre Trail as a significant asset, and the Poudre Express as a strong option for regional travel. Areas identified as needing improvement include the surface quality of the roadways and the delays that drivers encounter at signalized intersections including 47th Ave & 10th Street and 28th Avenue & 16th Street. In addition, participants would like to see improved pedestrian connections like completed sidewalk gaps on 23rd Avenue and more comfortable pedestrian crossings at intersections with higher rates of pedestrian activity like 10th Avenue & 16th Street.



Community Workshop

The public meeting was hosted at the outdoor entrance of the Greeley Family FunPlex Recreation Center. A total of 75 people, including 10 children under the age of 16, participated in the event. It was observed that the attendees were mostly joining the activities from intercepted foot traffic going to or from the Recreation Center entrance. There were staff at each station, so each visitor had someone representing the project to walk them through the station and answer all questions. Additionally, all content we provided was bilingual. Overall, we had a positive interaction with the community members that participated. They expressed gratitude for being listened to and for making the event interactive.

Children's Participation ages 5-15

Staff dedicated a table for children under the age of 18 that attended the public meeting. A total of 10 children participated in the children's activities. They were prompted with 3 questions and asked

to draw their answers: 1. Do you walk, bike, drive, or take the bus mostly through Greeley? 2. What do you love the most about that way of getting around? 3. What do you think would make it easier for you?

These questions were successfully answered by about 5 of the child participants, and those answers are outlines below in the quotes section. The other 5 children didn't engage with the prompts.

Children (under 16) Quotes:

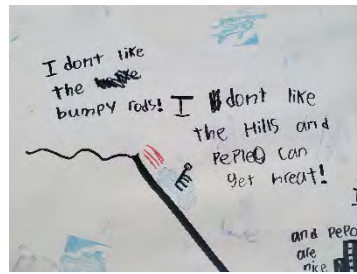
"I feel really unsafe when the sidewalk is too close to the street" – Child resident (8-10 years old)

"Steep streets feel really unsafe to me, I would like to see more flat roads that I can ride my bike on safely" – Child resident (8-10 years old)

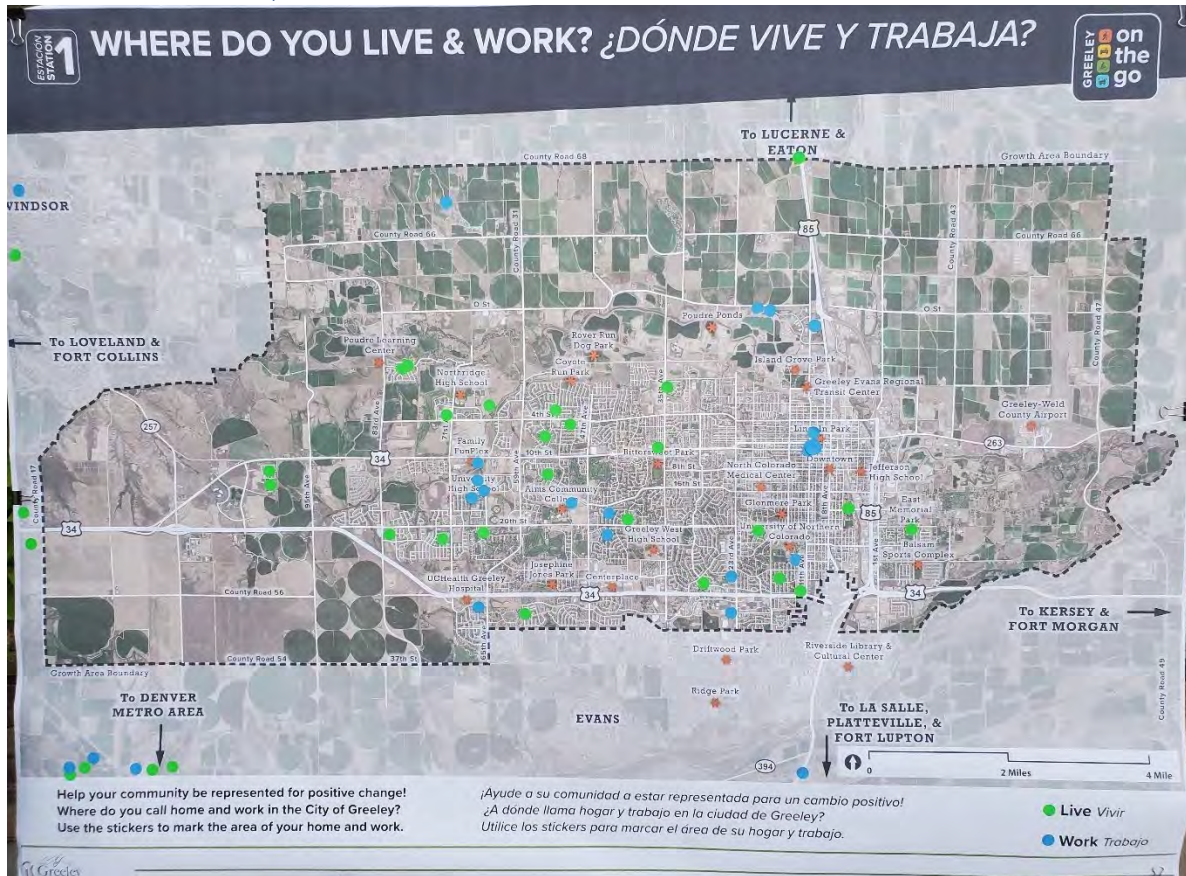
"I like all the buildings and the people here are nice" – Child resident (5-7 years old)

"I don't like the bumpy roads! I don't like the hills and people can get hurt!" – Child resident (5-7 years old)

"The holes in the street are really bad here and its dangerous when riding a bike, especially when there is a big hill" Child resident (8-10 years old)



Station 1: Where Participants Live and Work



Where do you live and work? (Dot sticker activity)

In the first activity station, participants were asked to place dot stickers in locations they live and work. We noticed a few locations that were clustered, but mostly the locations were dispersed through Greeley.

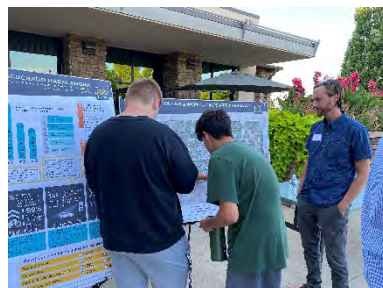
Cluster of people *living* near: Poudre Learning Center (2)

Clusters of people *working* near: Lincoln Park (7), Poudre Ponds (3), University High School (4)

Total sticker count:

Live within Greeley:
29

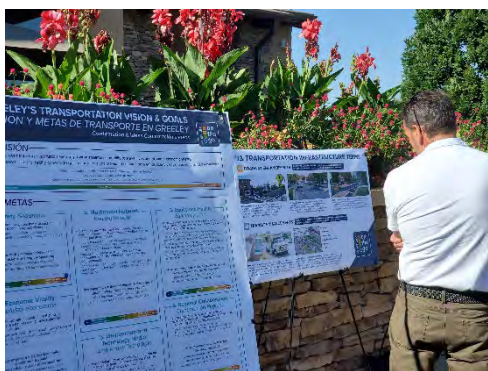
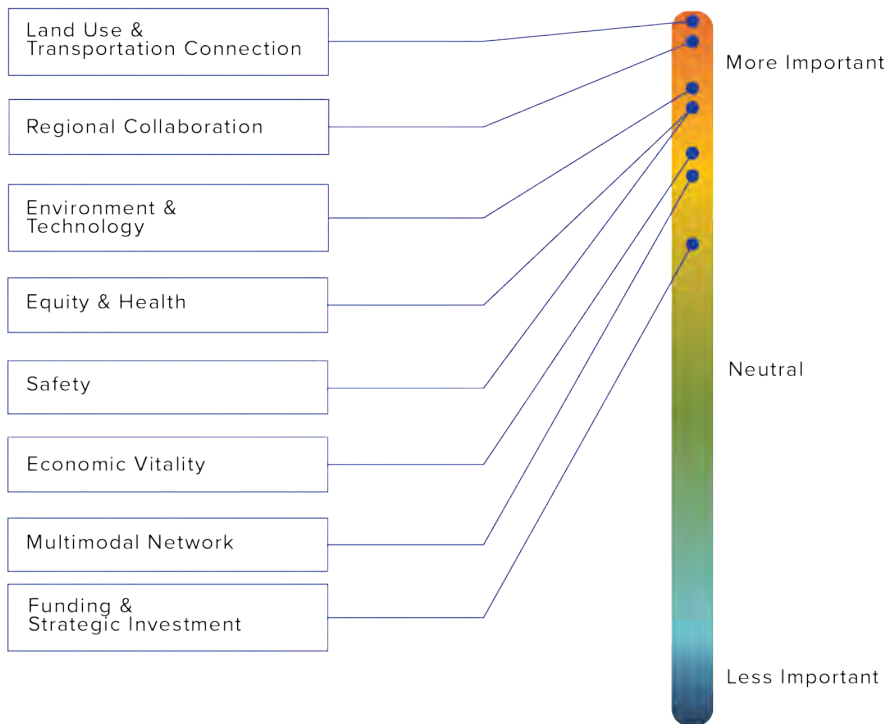
Work within Greeley:
23



Station 2: Voting on Vision and Goals

Participants were given a sheet of sticker dots and asked to vote along a spectrum the value they saw in the vision and each of the 8 goals. Overall, we saw that most participants were not voting on the goals they saw as less important and only voted on the goals they found to be more important. We were able to find the average of each spectrum and displayed that in the graphic below.

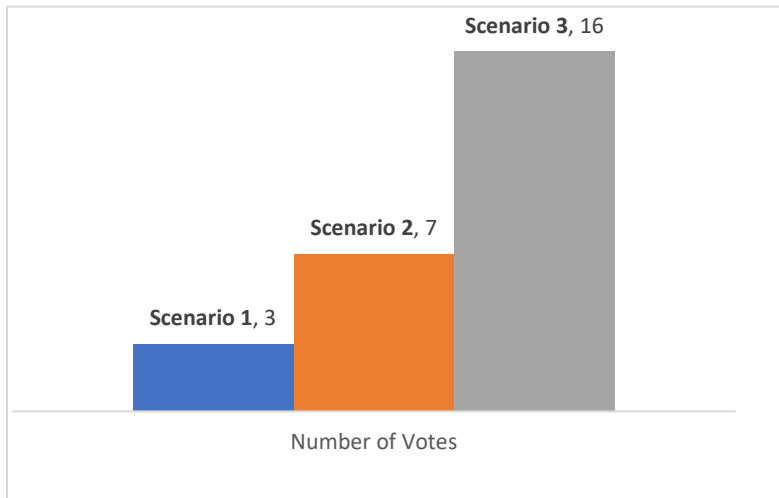
The vision only received one vote and it was voted as "more important."



Station 3: Voting on Scenarios

Participants were walked through a full explanation of all 3 scenarios with a series of boards and a staff member. At the end of the explanation, community members were asked to vote on which scenario they think should represent the future of transportation in Greeley and what changes to the scenarios they would like to see.

Which scenario do you think should represent the future of transportation in Greeley?



Would you like to see any components of the scenarios change? If so, let us know your ideas:

- Roadway elements of scenario 1 & bike/pedestrian from scenario 3
- Micro-transit to cities north of Greeley, Eaton
- Vehicles from scenario 1 and 3 – transit too
- More roundabouts
- Adding capacity on congested roadways
- Awareness of transit. People can't use it if they don't know
- Less roads, more trails and nature



Station 4: Project Type Priority Buckets

The activity for this station offered community members an opportunity to fairly vote for each of the project types that are in consideration for this Plan. Participants were given 5 tokens and asked to place them in the buckets that represented the project types that they would like to see prioritized. They were allowed to use all their tokens in one bucket if they wanted to. Each bucket was clearly labeled with the names in the list below and was accompanied by a collage of images that gave more clarity to the project types. The “Other” bucket gave participants the opportunity to write on their token their priorities that were not offered in the other buckets.

Results of the bucket voting:

PROJECT TYPES	VOTES
Bike Facilities	31
Transit Enhancements	25
Road Safety	23
Road Maintenance	20
Pedestrian Facilities	17
Transportation Amenities	16
Road Expansion	14
Other...	...
Micro-transit	3
Rideshare and electric cars	3
Less impervious surfaces /	3
Landscaping in ROW/trails	
Light rail	2
HWY 34 expansion	1



Station 5: Mapping Connections Activity

Community members were asked to mark routes with colored tape where the walk, bike, take transit, and drive within the city of Greeley, which is seen below in the image. Staff/consultants wrote each relevant comment that was made by the community members during the activity, and we typed those comments in the list below for eligibility.



Comments made during activity:

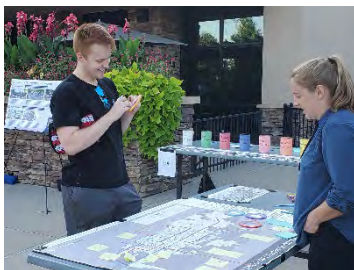
Location Specific Comments:

1. Better access to recreation in central neighborhood
2. Better crossing across 85
3. Better access for residents in eastern neighborhood
4. To: Discovery Bag Pool
5. Congestion
6. Congestion (car wash, gas station)
7. Greeley to Windsor transit

General Comments:

- Off street trails for recreation
- Shift people from using cars to other modes for less traffic

- Paths between neighborhoods and schools
- Walk or bike
 - Off street trails that extend out to Ames
 - Connect to place
- O street
 - Repaving
 - Add shoulder
 - Improve safety
 - Heavy traffic
- Need 24-hour bus service
- Speeding on 34th
- More transit for all abilities
- Clear and easy to use particularly for people with development disabilities
- More advertising and info about para transit
- Bike Repair stations
- More bike parking and secure bike parking
- Missing sidewalks, need walking paths
- Has been (spelling) several time - Larson trail at 4th street
 - Connection from Greeley to Poudre trail
- Would like to see on street bike lanes on 20th street
- More bike lanes everywhere
- Downtown bike connections are good
- A lot of people don't ride transit because they don't know about it. More amenities, free transit
- Went to see a transit route direct to the airport
 - Connect to existing airport routes
- Safer and accessible pedestrian spaces
- Safety for kids/ped around school zone (cars speeding)
- A lot of people don't ride transit because they don't know about it. More amenities, free transit
- Went to see a transit route direct to the airport
 - Connect to existing airport routes
- Safer and accessible pedestrian spaces
- Safety for kids/ped around school zone (cars speeding)



Summary

In total, the *Greeley on the Go* community engagement process had a wide reach. The goal of raising awareness about the planning process and learning firsthand the transportation needs of

Greeley community members was accomplished through a multifaceted approach of combining digital engagement opportunities via the project website and online survey, small group conversations with key stakeholders, direct engagement with community members through intercept events, and by inviting the community to join an open house event. As a result, *Greeley on the Go*, represents a diverse set of viewpoints and priorities voiced by community members.

Existing Conditions

The full existing conditions report that was delivered to COG in July 2021 will be included as an appendix

Full Project List and Prioritization Methodology

The following inputs will be used to prioritize proposed streets and active transportation projects into three tiers: low-, medium-, and high-priority.

- **Access to key destinations:** facilities within 1/2 mile of bus stops, planned mobility hubs, schools, parks, shopping centers, civic buildings, and trail access points
- **Safety:** High crash locations as defined by the City of Greeley crash index
- **Demand:** Population + employment density
- **Equity:** low-income households

Each section below describes how prioritization points will be assigned for each input. For each individual score, thresholds for scores 1-5 will be defined based on the breaks established in the data.

1. Access to key destinations – Does the proposed project provide access to key destinations?

Equally weighted; projects within a 1/2 mile buffer of the following key destinations:

- Bus stops
- Planned mobility hubs
- Schools
- Parks
- Shopping centers
- Civic buildings
- Trail access points

Table 1: Key Destinations Scoring System

Score	Intersection or Site Projects (Number of Key Destinations)	Corridor Projects (Number of Key Destinations)
1	0-2	0-1
2	3-12	2-6
3	13-17	7-14
4	18-25	15-33
5	26-44	34-173

2. Safety – Does the proposed project address roadway safety concerns in the City?

Number of crashes normalized by VMT and crash severity (crash index score). Normalizing crashes by VMT creates a better point of comparison for street segments. Bicycle and pedestrian-involved

crashes are less prevalent nominally but tend to be more severe in nature. Weighting bicycle and pedestrian-involved crashes more heavily helps to normalize crash data during the prioritization process.

Table 2: Corridor Safety Scoring

Score	Intersections or Site Projects (Crash Index)	Corridor Projects (Max Crash Index)
1	0-0.25	0-0.75
2	0.2501-5	0.7501-1
3	0.5001-1	1.0001-2
4	1.0001-2	2.0001-5.5

3. **Demand** – *How many people does the proposed project serve?*

Based on a transportation demand index that was developed using two factors:

- Max Population density (pop/mi²) + Max Employment Density (Job/mi²)

Table 3: Demand Scoring

Score	Intersection and Corridor Projects (Max Population + Employment Density/Mi)
1	0-3500
2	3501-5000
3	5001-7000
4	7001-11500
5	11501-39500

4. **Equity** – Does this project improve access for underserved (i.e. low income) populations? This measure assesses whether the project serves a low income census tract, which is one with an annual median income below \$57,586 (the median household income in Greeley in 2019).

Table 4: Equity Scoring

Score	Intersection and Corridor Projects (Low Income Neighborhoods Served)
0	0
2	1-3
4	4+

Final score >10 Tier 1

Final score 6-10 Tier 2

Final score 0-5 Tier 3

Greeley on the Go: 10-Year Corridor Projects

Name	Type	Extent 1	Extent 2	Description	Horizon	Cost	Score	Tier
8th Ave	Street	5th St	16th St	Streetscape and safety enhancements	10-Year	\$ 408,330.00	18	1
16th St	Active Transportation	14th Ave	2nd Ave	Road diet with streetscape enhancements and improved multimodal facilities	10-Year	\$ 1,994,590.00	18	1
9th St	Street	23rd Ave	10th Ave	Convert one-way streets to two-way with safety, pedestrian, transit and bike improvements. Widen sidewalks. Estimated cost: 4300000	10-Year	\$ 4,300,000.00	18	1
7th Ave	Active Transportation	6th St	22nd St	Improved bicycle and pedestrian facilities & crossings	10-Year	\$ 2,992,080.00	18	1
9th Ave	Active Transportation	C St	17th St	Improved bicycle and pedestrian facilities & crossings	10-Year	\$ 3,007,290.00	18	1
10th St	Street	23rd Ave	10th Ave	Convert one-way streets to two-way with safety, pedestrian, transit and bike improvements. Estimated cost: 4300000	10-Year	\$ 4,300,000.00	18	1
14th Ave	Active Transportation	Island Grove	16th St	Road diet, new bike facilities, improved crossings	10-Year	\$ 1,359,800.00	18	1
10th Ave	Active Transportation	3rd St	26th St	Improved multimodal facilities	10-Year	\$ 3,324,490.00	18	1
23rd Ave	Street	29th St	4th St	Multimodal safety improvements, install missing sidewalks	10-Year	\$ 515,742.12	18	1
10th/11th Avenue	Mobility			High frequency transit in short term, BRT long term	10-Year	\$ 83,430,000.00	18	1
10th Street	Mobility			High frequency transit in short term, BRT long term	10-Year	\$ 171,680,000.00	18	1
Poudre Express Enhancements	Mobility				10-Year	\$ 80,200.00	18	1
22nd St	Active Transportation	7th Ave	1st Ave	Improved bike and pedestrian facilities	10-Year	\$ 7,020.00	17	1
No. 3 Ditch Trail	Active Transportation	4th St	16th St	Off-street trail extension along the Number 3 Ditch	10-Year	\$ 4,145,440.00	17	1
US-34 Express Route to I-25 & Love	Mobility				10-Year	\$ 71,200.00	17	1
8th Ave	Street	16th St	25th St	Streetscape and safety enhancements	10-Year	\$ 462,540.00	16	1
35th Ave	Street	4th St	29th St	ITS operational improvements	10-Year	\$ 640,000.00	16	1
4th St	Street	23rd Ave	Dundee Ave	School safety improvements: traffic calming, road narrowing, streetscape enhancements	10-Year	\$ 7,713,900.00	16	1
22nd St	Active Transportation	8th Ave	11th Ave	Improved multimodal facilities	10-Year	\$ 475,800.00	15	1
20th St	Active Transportation	10th Ave	Trail	Improved multimodal facilities	10-Year	\$ 998,790.00	15	1
11th Ave	Active Transportation	20th St	26th St	Sidewalk	10-Year	\$ 1,464,580.00	15	1
8th St	Active Transportation	8th Ave	US 85	Improved multimodal facilities, sidewalk and streetscape improvements	10-Year	\$ 1,219,140.00	15	1
5th St	Active Transportation	23rd Ave	14th Ave	Sidewalk Improvements	10-Year	\$ 300,690.00	15	1
28th Ave	Active Transportation	4th St	16th St	Improved bicycle facilities and crossings	10-Year	\$ 37,700.00	15	1
Trail	Active Transportation	16th St	22nd St	Off-Street Trail	10-Year	\$ 2,277,860.00	15	1
13th St	Active Transportation	23rd Ave	7th Ave	Improved bike facilities and crossings	10-Year	\$ 40,000.00	15	1
Reservoir Rd	Active Transportation	28th St	11th Ave	Multimodal Improvements	10-Year	\$ 2,233,920.00	15	1
10th St	Street	23rd Ave	Promontory Parkway	Streetscape enhancements to reduce speed and improve operational flow	10-Year	\$ 14,603,200.00	15	1
11th St	Street	7th Ave	9th Ave	Streetscape and sidewalk improvements	10-Year	\$ 77,500.00	14	1
7th St	Active Transportation	10th Ave	7th Ave	Streetscape and sidewalk improvements	10-Year	\$ 113,000.00	14	1
25th St	Active Transportation	35th Ave	Reservoir Rd	Multimodal connection	10-Year	\$ 172,640.00	14	1
1st Ave	Active Transportation	16th St	Trail	Sidewalk	10-Year	\$ 2,595,840.00	14	1
C St	Street	35th Ave	23rd Ave	Improved street and bike and pedestrian facilities	10-Year	\$ 1,544,800.00	14	1
8th Ave	Street	O St	5th St	Entryway, corridor with bicycle and pedestrian safety improvements	10-Year	\$ 571,706.86	14	1
25th St	Active Transportation	38th Ave	35th Ave	Sidewalk	10-Year	\$ 728,520.00	13	1
25th St	Active Transportation	17th Ave	11th Ave	Bike Lane	10-Year	\$ 4,680.00	13	1
16th St	Active Transportation	21st Ave	14th Ave	Sidewalk	10-Year	\$ 1,460,030.00	13	1
20th St	Active Transportation	35th Ave	23rd Ave	Improved multimodal facilities	10-Year	\$ 982,930.00	13	1
28th Ave	Active Transportation	16th St	Reservoir Rd	Improved bike facilities and crossings	10-Year	\$ 1,354,340.00	13	1
Poudre Trail Extension	Active Transportation	11th Ave	8th St	Off-street trail	10-Year	\$ 3,274,900.00	13	1
13th Ave	Active Transportation	19th St	20th St	Bike Lane	10-Year	\$ 1,040.00	12	1
20th St	Active Transportation	10th Ave	11th Ave	Multimodal Enhancement	10-Year	\$ 154,700.00	12	1
4th Ave	Active Transportation	5th St	8th St	Bike facilities	10-Year	\$ 23,530.00	12	1
24th St	Active Transportation	42nd Ave	35th Ave	Multimodal Improvements	10-Year	\$ 534,560.00	12	1
21st Ave	Active Transportation	16th St	20th St	Bike facility and crossing improvements	10-Year	\$ 2,711,670.00	12	1
US 34 Trail Connection	Active Transportation	29th St	Reservoir Rd	Off-street Trail	10-Year	\$ 176,700.00	12	1
24th St Rd	Active Transportation	38th Ave	46th Ave	Improved multimodal facilities	10-Year	\$ 933,100.00	12	1
20th St	Active Transportation	35th Ave	23rd Ave	Improved bicycle and pedestrian facilities & crossings	10-Year	\$ 979,550.00	12	1
16th St	Active Transportation	2nd Ave	1st Ave	Bike Lane	10-Year	\$ 1,040.00	11	1
38th Ave	Active Transportation	24th St	Centerplace Dr	Improved bike facilities and crossings	10-Year	\$ 577,200.00	11	1
42nd Ave	Active Transportation	23rd St	Centerplace Dr	Improved multimodal facilities connecting to Centerplace mobility hub	10-Year	\$ 696,800.00	11	1
18th St	Active Transportation	5th Ave	1st Ave	Improved multimodal facilities	10-Year	\$ 707,720.00	11	1
E 24th St	Active Transportation	1st Ave	Trail	Sidewalk improvements	10-Year	\$ 239,300.00	11	1
50th Ave	Active Transportation	20th St	46th Ave	Multimodal Enhancement	10-Year	\$ 1,509,900.00	11	1
Trail	Active Transportation		Balsam Sports Complex	Off-Street Trail	10-Year	\$ 1,754,870.00	11	1
Poudre River Trail	Active Transportation	Birch Ave	Trail	Off-Street Trail	10-Year	\$ 9,954,400.00	11	1
Neighborhood Connection	Active Transportation	Neighborhood	Canal 3 Trail	Neighborhood multimodal connection	10-Year	\$ 85,200.00	10	2
17th Ave	Active Transportation	25th St	Reservoir Rd	Improved pedestrian and bicycle facilities	10-Year	\$ 736,600.00	10	2
Poudre Trail Connection	Active Transportation	C St	Poudre River Trail	Trail Connection	10-Year	\$ 222,900.00	10	2
20th St	Active Transportation	Balsam Ave	US 34 Business	Bella Romero Sidewalk Installation	10-Year	\$ 177,077.33	10	2
F St	Street	59th Ave	35th Ave	Improved street and multimodal facilities	10-Year	\$ 3,082,500.00	10	2
83rd Ave	Street	Sheepdraw Trail	O St	Corridor improvement: design and construction of 2 lane arterial with left turn lanes with intersection control at Poudre River Rd and 83rd Ave. (estimated cost: 3500000).	10-Year	\$ 3,500,000.00	10	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood connection to Sheepdraw Trail	10-Year	\$ 25,400.00	9	2
4th St	Street	SH 257 spur	SH 257	New arterial street	10-Year	\$ 8,925,000.00	9	2
Ditch Number 3 Trail Connection	Active Transportation				10-Year	\$ 18,300.00	8	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood connection to Sheepdraw Trail	10-Year	\$ 19,900.00	8	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood connection to Sheepdraw Trail	10-Year	\$ 30,700.00	8	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood connection to Sheepdraw Trail	10-Year	\$ 51,500.00	8	2
Grapevine Ditch Trail	Active Transportation	16th St Ln	Winograd Ln	Off-Street Trail	10-Year	\$ 422,370.00	8	2
West Greeley Trail Connection	Active Transportation	Promontory Trail	Sheepdraw Trail	Off-street Trail	10-Year	\$ 243,500.00	8	2
20th St	Street	59th Ave	50th Ave	Placemaking and street improvements	10-Year	\$ 1,316,500.00	8	2
20th St	Street	90th Ave	Terminus	New 2 lane collector with left turn lanes	10-Year	\$ 7,030,100.00	8	2
Promontory Trail	Active Transportation	US 34	10th St	Off-street Trail	10-Year	\$ 3,527,500.00	8	2
4th St	Street	89th Ave	SH 257 Spur	Design and construction of new 2 lane arterial with left turn lanes to be completed by development	10-Year	\$ 27,390,000.00	8	2
West Greeley Trail Connection	Active Transportation	Promontory Trail	101st Ave	Off-street Trail or sidepath	10-Year	\$ 52,100.00	7	2
50th Ave Pl	Active Transportation	Terminus	F St	Weber West bike ped connection	10-Year	\$ 110,500.00	7	2
Cherry Ave	Active Transportation	20th St	24th St	Sidewalk	10-Year	\$ 877,500.00	7	2
47th Ave	Active Transportation	Terminus	Poudre Trail	Multimodal connection from Kelly Farms to Poudre Trail	10-Year	\$ 180,400.00	7	2
35th Ave	Street	F St	O St	Corridor and multimodal improvement, pavement refresh and possible connection to Poudre Trail	10-Year	\$ 11,618,000.00	7	2
US 34	Active Transportation	Terminus	Sheepdraw Trail	Off-street Trail	10-Year	\$ 2,955,400.00	7	2
Trail	Active Transportation	Balsam Sports Complex	20th St	Off-Street Trail	10-Year	\$ 3,575,910.00	7	2
4th St	Street	SH 257	CR 17	New 2 lane arterial with left turn lanes	10-Year	\$ 25,495,300.00	7	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood trail connection to Sheepdraw Trail	10-Year	\$ 11,700.00	6	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood connection to Sheepdraw Trail	10-Year	\$ 27,800.00	6	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood trail connection to Sheepdraw Trail	10-Year	\$ 24,200.00	6	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood trail connection to Sheepdraw Trail	10-Year	\$ 29,800.00	6	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood trail connection to Sheepdraw Trail	10-Year	\$ 111,300.00	6	2
Poudre Trail Connection	Active Transportation	C St	Poudre Trail	Off-street Trail	10-Year	\$ 182,700.00	6	2

Greeley on the Go: 10-Year Corridor Projects

Name	Type	Extent 1	Extent 2	Description	Horizon	Cost	Score	Tier
C St	Street	60th Ave	59th Ave	Complete C Street - 2 lane collector. Intersection improvement at C St and 59th Ave - single lane roundabout.	10-Year	\$ 4,525,600.00	6	2
4th St	Street	Dundee Ave	83rd Ave	Street Enhancement	10-Year	\$ 311,900.00	6	2
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood connection to Sheepdraw Trail	10-Year	\$ 15,400.00	5	3
Neighborhood Trail Connection	Active Transportation	Neighborhood	Sheepdraw Trail	Neighborhood connection to Sheepdraw Trail	10-Year	\$ 16,200.00	5	3
Neighborhood Trail Connection	Active Transportation				10-Year	\$ 66,400.00	5	3
4th St	Street			Future Arterial	10-Year	\$ 6,762,000.00	5	3
Ditch Number 3 Trail	Active Transportation	Larson Trail	Poudre River Trail	Off-Street Trail	10-Year	\$ 1,654,500.00	5	3
Trail connection	Active Transportation	Sheepdraw Trail	Poudre River Trail		10-Year	\$ 694,000.00	5	3
Poudre Trail Connection	Active Transportation	SH 257 spur	Poudre Trail	Off-street Trail	10-Year	\$ 521,200.00	4	3
Missile Park Trail	Active Transportation	16th St	95th Ave	Off-street Trail	10-Year	\$ 3,662,300.00	4	3
Missile Park Trail	Active Transportation				10-Year	\$ 4,031,700.00	4	3
131st Ave	Street	4th St	Cty Rd 55	New local road		\$ 10,001,800.00	4	3
Missile Park Trail	Active Transportation				10-Year	\$ 1,193,800.00	3	3
Missile Park Trail	Active Transportation				10-Year	\$ 2,715,600.00	3	3

Greeley on the Go: 10-Year Intersection Improvements and Mobility Hubs

Name	Horizon	Type	Extent 1	Extent 2	Description	Cost Estimate	Score	Tier
Downtown Mobility Hub	10-Year	Mobility			Mobility Hub	\$25,000,000	16	1
9th Ave & 13th St	10-Year	Street	9th Ave	13th St	Intersection improvement	\$50,000	16	1
8th Ave & Hwy 85 Business	10-Year	Street			Intersection Improvement	\$50,000	15	1
UNC Mobility Hub	10-Year	Mobility			Mobility Hub	\$25,000,000	14	1
US 34 & 35th Ave	10-Year	Street	US 34	35th Ave	Intersection improvement	\$35,000,000	14	1
8th Ave and 20th St	10-Year	Active Transportation			UNC intersection improvement	\$50,000	14	1
Centerplace Mobility Hub	10-Year	Mobility			Mobility Hub	\$25,000,000	13	1
GET Transportation Center Mobility H	10-Year	Mobility			Mobility Hub	\$25,000,000	12	1
US 34 & 11th Ave	10-Year	Street	US 34	11th Ave	Multimodal Safety Improvement	\$5,800,000	12	1
US 34 Bypass & 17th Ave	10-Year	Active Transportation			Multimodal Safety Improvement	\$100,000	12	1
5th St & 23rd Ave		Street	5th St	23rd Ave	Intersection improvement	\$50,000	12	1
East Mobility Hub	10-Year	Mobility			Mobility Hub	\$25,000,000	11	1
11th Ave & Reservoir Rd	10-Year	Active Transportation			UNC intersection improvement	\$50,000	11	1
Hwy 85 Bypass & 22nd St	10-Year	Active Transportation			Multimodal Safety Improvement	\$100,000	11	1
10th St & 63rd Ave	10-Year	Street			Intersection Improvement	\$50,000	10	2
Aims CC Mobility Hub	10-Year	Mobility			Mobility Hub	\$25,000,000	9	2
14th Ave & Reservoir Rd	10-Year	Active Transportation			UNC intersection improvement	\$50,000	9	2
16th St & 23rd Ave	10-Year	Active Transportation	16th St	23rd Ave	Improved bike crossing	\$50,000	8	2
10th St & Promontory Pkwy		Street	10th St	Promontory Pkwy	Intersection improvement	\$50,000	8	2
US 34 & 47th Ave	10-Year	Street	US 34	47th Ave	Intersection improvement	\$35,000,000	7	2
US 34 & 83rd Ave	10-Year	Street	US 34	83rd Ave	Interim signal improvements, ultimate interchange	\$50,000	7	2
50th Ave and 20th St	10-Year	Active Transportation			Multimodal Safety Improvement and Placemaking	\$100,000	7	2
35th Ave & 16th St	10-Year	Active Transportation			Multimodal Safety Improvement	\$100,000	7	2
83rd Ave & 4th St	10-Year	Street	83rd Ave	4th St	Intersection improvement	\$50,000	6	2
17th Ave & Reservoir Rd	10-Year	Active Transportation			UNC intersection improvement	\$50,000	6	2
8th Ave & H St		Street	8th Ave	H St	Intersection improvement	\$50,000	6	2
CO-257 / US-34 Mobility Hub	10-Year	Mobility			Mobility Hub	\$25,000,000	5	3
59th Ave & O St	10-Year	Street	59th Ave	O St	Intersection improvement	\$5,800,000	5	3
131st Ave	10-Year	Street			Multimodal Connection	\$50,000	5	3
59th Ave & F St	10-Year	Street	59th Ave	H St	Intersection improvement	\$50,000	5	3
83rd Ave & Poudre River Rd	10-Year	Street			Intersection Improvement	\$50,000	4	3
83rd Ave & 10th St	10-Year	Street	83rd Ave	10th St	Intersection improvement	\$5,800,000	3	3

Greeley on the Go: Long Range Corridor Projects

Name	Type	Extent 1	Extent 2	Description	Horizon	Cost	Score	Tier
Rail Trail	Active Transportation	<Null>	<Null>	<Null>	Long-Range	\$ 9,259,300.00	17	1
US 85	Street	5th St	US 34	Street enhancements	Long-Range	\$ 972,900.00	16	1
Trail	Active Transportation	11th Ave	Trail	Off-Street Trail	Long-Range	\$ 1,718,300.00	15	1
Great Western Corridor BRT or Rail	Mobility	<Null>	<Null>	<Null>	Long-Range	\$ 263,720,000.00	15	1
US 85	Street	8th St	22nd St	Signal Coordination	Long-Range	\$ 150,000.00	14	1
Trail	Active Transportation	22nd St	<Null>	Off-Street Trail	Long-Range	\$ 998,800.00	12	1
Trail	Active Transportation	4th St	<Null>	Off-Street Trail	Long-Range	\$ 291,400.00	11	1
Trail	Active Transportation	N W C St	4th St	Off-Street Trail	Long-Range	\$ 1,326,000.00	11	1
Trail	Active Transportation	16th St	28th St	Off-Street Trail	Long-Range	\$ 3,015,600.00	11	1
11th St	Street	<Null>	59th Ave	Future local street	Long-Range	\$ 2,570,400.00	10	2
Trail	Active Transportation	Sheepdraw Trail	52nd Ave Ct	Off-Street Trail	Long-Range	\$ 2,262,100.00	10	2
N W C St	Active Transportation	Trail	Poudre River Trail	Off-Street Trail	Long-Range	\$ 2,276,000.00	10	2
Trail	Active Transportation	29th St	Trail	Off-Street Trail	Long-Range	\$ 76,200.00	9	2
Trail	Active Transportation	65th Ave	<Null>	Off-Street Trail	Long-Range	\$ 313,400.00	9	2
29th St	Street	Milliken Rd	29th St	Future Collector	Long-Range	\$ 4,056,400.00	9	2
16th St	Street	Promontory Pkwy	95th Ave	Future Collector	Long-Range	\$ 7,705,700.00	9	2
65th Ave	Street	20th St	US 34	Future transportation improvement	Long-Range	TBD	9	2
16th St	Street	83rd Ave	71st Ave	Future Collector	Long-Range	\$ 8,425,200.00	9	2
Trail	Active Transportation	CO 257	Promontory Pkwy	Off-Street Trail	Long-Range	\$ 2,229,700.00	9	2
Sheep Draw Trail	Active Transportation	US 34	US 34	Off-Street Trail	Long-Range	\$ 9,689,300.00	9	2
63rd Ave / 65th Ave	Street	10th St	13th St	Future Collector	Long-Range	\$ 2,056,400.00	8	2
Boomerang Ditch Trail	Active Transportation	US 34	<Null>	Off-Street Trail	Long-Range	\$ 464,200.00	8	2
71st Ave	Street	22nd St	US 34	Future transportation improvement - Collector	Long-Range	\$ 5,353,700.00	8	2
16th St	Street	95th Ave	12th St	Future Collector	Long-Range	\$ 5,167,000.00	8	2
20th St	Street	90th Ave	82nd Ave	Future transportation improvement - Arterial	Long-Range	\$ 9,633,300.00	8	2
10th St	Active Transportation	CO-257	Promontory Cir	Off-Street Trail	Long-Range	\$ 1,813,600.00	8	2
32nd St Rd	Street	77th Ave	70th Ave	Future Collector	Long-Range	\$ 7,120,400.00	8	2
County Road 64	Street	83rd Ave	11th Ave	Future transportation improvement - collector	Long-Range	\$ 48,438,500.00	8	2
71st Ave	Street	28th St	Cty Rd 56	Future transportation improvement - Collector	Long-Range	\$ 977,000.00	7	2
83rd Ave	Street	20th St	US 34	Future transportation improvement - Arterial	Long-Range	\$ 5,454,800.00	7	2
95th Ave	Street	4th St	10th St	Future transportation improvement - Arterial	Long-Range	\$ 6,433,900.00	7	2
95th Ave	Street	4th St	10th St	Future transportation improvement - Arterial	Long-Range	\$ 7,194,300.00	7	2
Trail	Active Transportation	Trail	28th St	Off-Street Trail	Long-Range	\$ 1,004,300.00	7	2
95th Ave	Street	US 34	Cty Rd 56	Future transportation improvement - Arterial	Long-Range	\$ 12,741,900.00	7	2
95th Ave	Street	10th St	US 34	Future transportation improvement - Arterial	Long-Range	\$ 12,971,900.00	7	2
Poudre Ponds Trail	Active Transportation	35th Ave	Poudre River Trail	Off-Street Trail	Long-Range	\$ 1,781,200.00	7	2
101st Ave	Active Transportation	10th St	US 34	Off-Street Trail	Long-Range	\$ 2,089,800.00	7	2
Cty Rd 56	Street	95th Ave	83rd Ave	New collector	Long-Range	\$ 7,913,700.00	7	2
28th St	Street	83rd Ave	71st Ave	Future transportation improvement - Collector	Long-Range	\$ 8,072,200.00	7	2
F St	Street	59th Ave	<Null>	New local	Long-Range	\$ 3,044,700.00	6	2
74th Ave	Street	<Null>	18th St	Future Collector	Long-Range	\$ 1,243,200.00	6	2
83rd Ave	Street	18th St	20th St	Future transportation improvement - Arterial	Long-Range	\$ 3,084,800.00	6	2
Road	Street	<Null>	71st Ave	Future street	Long-Range	\$ 3,077,700.00	6	2
Trail	Active Transportation	Promontory Pkwy	<Null>	Off-Street Trail	Long-Range	\$ 691,500.00	6	2
70th Ave	Street	32nd St Rd	37th St	Future Collector	Long-Range	\$ 3,606,900.00	6	2
Trail	Active Transportation	Trail	South Platte River	Off-Street Trail	Long-Range	\$ 975,100.00	6	2
9th St	Street	63rd Ave	59th Ave	Future Collector	Long-Range	\$ 3,146,200.00	6	2
83rd Ave	Street	<Null>	<Null>	Future transportation improvement - Arterial	Long-Range	\$ 7,205,300.00	6	2
59th Ave	Street	O St	F St	Future transportation improvement - Arterial	Long-Range	\$ 11,458,400.00	6	2
South Platte River Trail	Active Transportation	South Platte River Trail	US 34	Off-Street Trail	Long-Range	\$ 2,158,900.00	6	2
37th St	Street				Long-Range	\$ 12,730,300.00	6	2
83rd Ave / 77th Ave	Street	28th St	37th St	Future transportation improvement - Arterial	Long-Range	\$ 15,888,900.00	6	2
Trail	Active Transportation	Trail	Milliken Rd	Off-Street Trail	Long-Range	\$ 2,468,900.00	6	2
Cty Rd 55	Street	95th Ave	77th Ave	Future Collector	Long-Range	\$ 10,113,800.00	6	2
Promontory Pkwy	Street	US 34	Cty Rd 54	Future transportation improvement - planned collector	Long-Range	\$ 15,331,000.00	6	2
7th Street	Street	101st Ave	83rd Ave	Local street	Long-Range	\$ 8,031,300.00	6	2
Trail	Active Transportation	Cty Rd 17	Promontory Pkwy	Off-Street Trail	Long-Range	\$ 5,803,900.00	6	2
28th St	Active Transportation	61st Ave	Josephine Jones Park	Off-Street Trail	Long-Range	\$ 441,300.00	5	3
Road	Street	4th St	<Null>	Future street	Long-Range	\$ 4,092,900.00	5	3
77th Ave / 79th Ave	Street	77th Ave	79th Ave	Future Collector	Long-Range	\$ 4,619,700.00	5	3
Sheep Draw Trail	Active Transportation	<Null>	US 34	Off-Street Trail	Long-Range	\$ 998,800.00	5	3
8th St	Street	US 85	Balsam Ave	Future transportation improvement - Arterial	Long-Range	\$ 6,936,800.00	5	3
77th Ave	Street	<Null>	10th St	Future Collector	Long-Range	\$ 8,664,000.00	5	3
South Platte River Trail	Active Transportation	US 34	Patterson Ditch	Off-Street Trail	Long-Range	\$ 2,252,900.00	5	3
Trail	Active Transportation	Milliken Rd	37th St	Off-Street Trail	Long-Range	\$ 2,207,800.00	5	3
82nd Ave	Street	82nd Ave	65th Ave	Future Collector	Long-Range	\$ 10,527,200.00	5	3
37th St	Street	95th Ave	77th Ave	Future transportation improvement - Arterial	Long-Range	\$ 19,413,700.00	5	3
Trail	Active Transportation	Poudre River Rd	4th St	Off-Street Trail	Long-Range	\$ 3,794,700.00	5	3
24th St	Street	CR 17	SH 257	Collector Street	Long-Range	\$ 15,665,700.00	5	3
Trail	Active Transportation	Cty Rd 56	Sheep Draw Trail	Off-Street Trail	Long-Range	\$ 5,636,000.00	5	3
South Platte River Trail	Active Transportation	US 34	Mitani-Tokuyasu State Wildlife Area	Off-Street Trail	Long-Range	\$ 8,272,700.00	5	3
Cty Rd 56	Street	Cty Rd 17	95th Ave	Future collector	Long-Range	\$ 30,872,500.00	5	3
Greeley #2 Canal Trail	Active Transportation	Seeley Lake Trail	O St	Off-Street Trail	Long-Range	\$ 9,808,000.00	5	3
Sand Creek Trail	Active Transportation	Greeley #2 Canal Trail	Cty Rd 68	Off-Street Trail	Long-Range	\$ 21,344,400.00	5	3
35th Ave	Street	O St	AA St	New arterial	Long-Range	\$ 6,905,400.00	4	3
O St	Street	9th Ave	CR 45	New collector	Long-Range	\$ 21,990,700.00	4	3
County Road 31	Street	<Null>	<Null>	Future transportation improvement - Arterial	Long-Range	\$ 1,532,100.00	4	3
4th St	Active Transportation	Trail	Dundee Ave	Off-Street Trail	Long-Range	\$ 213,800.00	4	3
Trail	Active Transportation	Loveland and Greeley Canal Trail	Cty Rd 56	Off-Street Trail	Long-Range	\$ 497,000.00	4	3
Trail	Active Transportation	E 16th St	E 20th St	Off-Street Trail	Long-Range	\$ 1,357,600.00	4	3
18th St	Active Transportation	Dilmont Ave	Fern Ave	Off-Street Trail	Long-Range	\$ 1,377,000.00	4	3
Poudre River Trail East	Active Transportation	Birch Ave	18th St	Off-Street Trail	Long-Range	\$ 1,630,300.00	4	3
Poudre River Trail East	Active Transportation	Fern Ave	18th St	Off-Street Trail	Long-Range	\$ 1,713,600.00	4	3
AA St	Street	Cty Rd 37	11th Ave	Future transportation improvement - arterial	Long-Range	\$ 12,981,900.00	4	3
8th St	Street	Fern Ave	Weld Cty Pkwy	Future transportation improvement - Arterial	Long-Range	\$ 13,332,200.00	4	3
95th Ave	Street	O St	4th St	Capacity enhancement (CIP)	Long-Range	\$ 20,002,700.00	4	3
59th Ave	Street	Cty Rd 68	O St	Future transportation improvement - Arterial	Long-Range	\$ 25,321,400.00	4	3
CO 263	Street	Balsam Ave	Fern Ave	Future transportation improvement - Arterial	Long-Range	\$ 19,588,900.00	4	3
Trail	Active Transportation	Cty Rd 56	<Null>	Off-Street Trail	Long-Range	\$ 3,326,200.00	4	3
Trail	Active Transportation	Cty Rd 43	Poudre River Trail	Off-Street Trail	Long-Range	\$ 3,591,600.00	4	3
Cty Rd 55	Street	CO 257	95th Ave	Future Collector	Long-Range	\$ 15,498,800.00	4	3
Poudre River Rd	Street	Growth boundary	83rd Ave	Planned local	Long-Range	\$ 10,901,000.00	4	3
Cty Rd 17	Street	Growth boundary	Cty Rd 54	Future transportation improvement - collector	Long-Range	\$ 23,827,100.00	4	3
Cty Rd 66	Street	Cty Rd 37	Cty Rd 47	Future transportation improvement - arterial	Long-Range	\$ 50,630,200.00	4	3
Trail	Active Transportation	Cty Rd 64	Poudre River Trail	Off-Street Trail	Long-Range	\$ 9,616,100.00	4	3
131st Ave	Street	4th St	Cty Rd 55	New local road	Long-Range	\$ 10,001,800.00	4	3
C St	Street	1st Ave	CR 43	New collector	Long-Range	\$ 7,882,200.00	3	3
CR 47	Street	C St	Growth boundary	New collector	Long-Range	\$ 11,818,700.00	3	3
CR 64 1/2	Street	CR 27	CR 66	New arterial	Long-Range	\$ 19,716,900.00	3	3
CR 45	Street	C St	AA St	New local	Long-Range	\$ 10,460,100.00	3	3
CR 43	Street	C St	AA St	New collector	Long-Range	\$ 15,695,400.00	3	3
1st Ave	Street	C St	AA St	New collector	Long-Range	\$ 16,471,300.00	3	3
37th St	Street	<Null>	<Null>	Future transportation improvement - Arterial	Long-Range	\$ 323,200.00	3	3
37th St	Street	<Null>	<Null>	Future transportation improvement - Arterial	Long-Range	\$ 477,000.00	3	3
County Road 54	Street	<Null>	CO 257	Future transportation improvement - Arterial	Long-Range	\$ 616,800.00	3	3
37th St	Street	<Null>	<Null>	Future transportation improvement - Arterial	Long-Range	\$ 785,100.00	3	3
37th St	Street	<Null>	95th Ave	Future transportation improvement - Arterial	Long-Range	\$ 900,100.00	3	3
37th St	Street	<Null>	<Null>	Future transportation improvement - Arterial	Long-Range	\$ 1,187,000.00	3	3

Greeley on the Go: Long Range Corridor Projects

Name	Type	Extent 1	Extent 2	Description	Horizon	Cost	Score	Tier
37th St	Street	Cty Rd 17 1/2	<Null>	Future transportation improvement - Arterial	Long-Range	\$ 1,601,600.00	3	3
Fern Ave	Active Transportation	18th St	Trail	Off-Street Trail	Long-Range	\$ 467,600.00	3	3
Loveland and Greeley Canal Trail	Active Transportation	Cty Rd 17	<Null>	Off-Street Trail	Long-Range	\$ 484,200.00	3	3
11th Ave	Street	AA St	11th Ave	Future Arterial	Long-Range	\$ 4,992,300.00	3	3
Holly Ave	Active Transportation	Patterson Ditch Trail	South Platte River Trail	Off-Street Trail	Long-Range	\$ 615,300.00	3	3
89th Ave	Street	4th St	10th St	New local street	Long-Range	\$ 2,705,600.00	3	3
CR 64	Street	<Null>	83rd Ave	Future Arterial	Long-Range	\$ 6,138,900.00	3	3
South Platte River Trail	Active Transportation	37th St	South Platte River Trail	Off-Street Trail	Long-Range	\$ 1,391,200.00	3	3
101st Ave	Street	10th St	<Null>	Local street	Long-Range	\$ 5,176,700.00	3	3
Cty Rd 55	Street	<Null>	CO 257	Future Collector	Long-Range	\$ 7,596,300.00	3	3
Patterson Ditch Trail	Active Transportation	Cty Rd 45	Holly Ave	Off-Street Trail	Long-Range	\$ 2,566,400.00	3	3
37th St	Street	<Null>	<Null>	Future transportation improvement - Arterial	Long-Range	\$ 15,433,700.00	3	3
Seeley Lake Trail	Active Transportation	Cty Rd 68	35th Ave	Off-Street Trail	Long-Range	\$ 3,130,100.00	3	3
83rd Ave	Street	Cty Rd 68	83rd Ave	Future Arterial	Long-Range	\$ 21,863,200.00	3	3
Darling Reservoir Trail	Active Transportation	Cty Rd 68	Darling Reservoir	Off-Street Trail	Long-Range	\$ 3,790,900.00	3	3
Cty Rd 60	Street	N Co Rd 3	Cty Rd 15	Future transportation improvement	Long-Range		3	3
37th St	Street	<Null>	<Null>	Future transportation improvement - Arterial	Long-Range	\$ 31,744,800.00	3	3
Loveland and Greeley Canal Trail	Active Transportation	<Null>	HWY 54	Off-Street Trail	Long-Range	\$ 5,794,000.00	3	3
Cty Rd 66	Street	CR 23	CR 37	Capacity enhancement (CIP), roundabouts at curves, arteri	Long-Range	\$ 87,759,800.00	3	3
95th Ave	Street	CR 64	CR 64 1/2	New arterial	Long-Range	\$ 6,749,600.00	3	3

Greeley on the Go: Long Range Intersection Improvements and Mobility Hubs

Name	Horizon	Type	Extent 1	Extent 2	Description	Cost Estimate	Score	Tier
35th Ave & 10th St	Long-Range	Street	35th Ave	10th St	Intersection improvement	\$5,800,000	14	1
West Mobility Hub	Long-Range	Mobility			Mobility Hub	\$25,000,000	12	1
5th St & 23rd Ave	Long-Range	Street	5th St	23rd Ave	Intersection improvement	\$50,000	12	1
Promontory Mobility Hub	Long-Range	Mobility			Mobility Hub	\$25,000,000	8	2
10th St & Promontory Pkwy	Long-Range	Street	10th St	Promontory Pkwy	Intersection improvement	\$50,000	8	2
47th Ave & 10th St	Long-Range	Street	47th Ave	10th St	Planned improvements	\$5,800,000	6	2
US 34 & 65th Ave	Long-Range	Street	US 34	65th Ave	Interchange	\$30,000,000	6	2
US 34 & Promontory Pkwy	Long-Range	Street	US 34	Promontory Pkwy	Interchange	\$30,000,000	6	2
8th Ave & H St	Long-Range	Street	8th Ave	H St	Intersection improvement	\$50,000	6	2
US 34 & Cty Rd 17	Long-Range	Street	US 34	Cty Rd 17	Intersection improvement	\$30,000,000	5	3
US 34 & 95th Ave	Long-Range	Street	US 34	95th Ave	3/4 movement	\$1,500,000	4	3
Cty Rd 31 & Cty Rd 68	Long-Range	Street	Cty Rd 31	Cty Rd 68	Intersection improvement	\$5,800,000	3	3
83rd Ave & O St	Long-Range	Street	83rd Ave	O St	Intersection improvement	\$5,800,000	3	3