To access the Agenda and Backup Materials electronically, go to www.gjcity.org

PLANNING COMMISSION WORKSHOP AGENDA
CITY HALL AUDITORIUM
THURSDAY, APRIL 6, 2023 - 12:00 PM

Attend virtually: bit.ly/GJPCW

Call to Order - 12:00 PM

Other Business

1. Workshop potential changes to the 2023 Pedestrian and Bicycle Plan
2. Discuss Cannabis Product Manufacturing Facilities Regulations

Adjournment

Grand Junction Planning Commission

Workshop Session

Meeting Date: April 6, 2023

Presented By: David Thornton, Principal Planner, Henry Brown, Mobility Planner

Department: Community Development

Submitted By: David Thornton, Principal Planner

Information

SUBJECT:

Workshop potential changes to the 2023 Pedestrian and Bicycle Plan

RECOMMENDATION:

EXECUTIVE SUMMARY:

At the March 28, 2023 Planning Commission hearing, the Planning Commission continued their consideration of the Pedestrian and Bicycle Plan after their deliberations identified potential "minor tweaks" that may be needed for the Plan to be ready for recommendation to City Council. This workshop will allow for the commissioners to workshop potential changes to the Plan with staff prior to continuing Planning Commission review of the Plan at their meeting on April 11, 2023.

BACKGROUND OR DETAILED INFORMATION:

The Pedestain and Bicycle Plan is a product of an extensive public planning process including two open houses (120 participants), 21 intercept events (400+ participants), 1,098 comments on an interactive online map with 669 people also taking the survey, nine focus group meetings (65 participants), a walking audit and a biking audit (12 participants), and a seventeen member steering committee that met five times and was engaged in helping to create the Plan.

Throughout the nine-month planning process, the Planning Commission and City Council were briefed and updated on the planning process. At the February 23, 2023 Planning Commission workshop, the Planning Commission was asked to provide their individual comments on the draft Plan that could be incorporated into the final Plan document.

The Urban Trails Committee at their meeting on March 22, 2023 recommended the city

adopt the Pedestrian and Bicycle Plan.

At the March 28, 2023 Planning Commission meeting, a public hearing was held to consider a recommendation to the City Council for adoption of the Pedestrian and Bicycle Plan. At the hearing, the Planning Commission continued their consideration of the Plan after deliberations and identifying potential "minor tweaks" that may be needed for the Plan to be ready for recommendation to City Council. This workshop will allow for the Commissioners to workshop potential changes to the Plan with staff prior to continuing Planning Commission review of the Plan at their meeting on April 11, 2023.

Staff has proposed "minor tweaks' to the plan based on the comments that were expressed at the March 28, 2023 Planning Commission hearing to help with workshopping this with the Planning Commission. These can be found attached. These changes represent a first attempt at editing. They do not reflect a proposed final draft.

Here are a few notes on the potential edits:
1. Nearly all of the concerns brought up by the Commission related to content found in Chapter 6, so the edits are focused on Chapter 6.
2. The only changes proposed in Chapter 6 that are not addressing concerns brought up at the hearing relate to Micromobility, which has been modified to reflect current details of that project making it more accurate.
3. The only proposed edits not in Chapter 6 reside in Chapter 1 and concern “Context Sensitive Design”, which was also brought up at the public hearing. Staff has proposed the following language to Chapter 1:
a. Context Sensitive Design

Context Sensitive Design establishes design elements based on the context and character of the street. The city of Grand Junction has a wide variety of settings, unique landscapes, and environmental conditions. Any facility identified in this plan will need to take into consideration existing conditions and characteristics of the surrounding area to ensure that design is context sensitive. This principle provides and promotes sufficient flexibility to allow application of appropriate roadway elements and dimensions to different situations within the city. Different standards for street cross-sections may be appropriate for a bike or pedestrian facility as it travels through urban, suburban and rural transects, reflecting the different roles of roadway infrastructure among these different transects. Additionally, Context Sensitive Design takes into account existing building encroachments and constraints in right-of-way widths to adjust the facility type where needed.

SUGGESTED MOTION:

Workshop potential changes to the Plan

Attachments

1. Chapter 6_GJ PBPwith staff edits 3-31-2023 - track changes
2. Chapter 6_GJ PBPwith staff edits 3-31-2023 - clean copy

CHAPTER 6.

PROGRAM & POLICY RECOMMENDATIONS

Programs

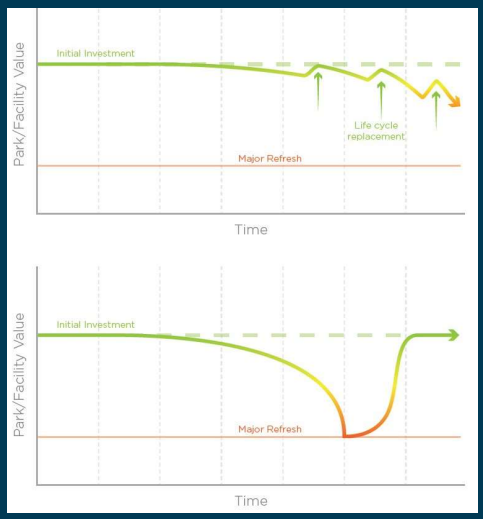
Programs will work in tandem with the build-out of the pedestrian and bicycle networks in Grand Junction to further support people walking, rolling, and biking. Programs to maintain new facilities, provide pedestrian and bicycle amenities, create Safe Routes to School, reduce commute trips, and improve education and awareness will each establish a culture friendly to walking and biking. Based on the existing conditions analysis, feedback from the community and in collaboration with the project Steering Committee, the following set of programs are recommended to support buildout and use of the future bicycle and pedestrian network.

Maintenance

As the city of Grand Junction bike, sidewalk, and trail networks expand during implementation of the PBP, a set of maintenance standards and a maintenance plan can help city staff assess and prioritize maintenance needs to keep infrastructure in a state of good repair. This will ensure the bike and pedestrian network is a reliable and comfortable transportation resource for all community members.

Planning and budgeting for maintenance needs can be overlooked during planning, design, and construction of new facilities. Funding for capital construction tends to be more readily available than funding for routine upkeep. While initial construction costs far outsize those of maintenance and improvement of existing facilities, funding for routine upkeep is more difficult to secure. Deferring routine upkeep can result in facilities degrading faster and requiring more expensive maintenance interventions later. Early, frequent maintenance can reduce overall costs over time, as seen in **Figure 35**.

FIGURE 35: EXTENDED LIFE SPAN OF FACILITIES WITH CONSISTENT REINVESTMENT VERSUS LIFE SPAN OF FACILITIES WITHOUT MAINTENANCE (SOURCE: FORT COLLINS 2021 PARKS & RECREATION MASTER PLAN)



RESPONSIBLE PARTIES

The Parks Operations Division of the Parks and Recreation Department is responsible for maintaining 21 miles of the urban trail system and over 500 acres of open space. The Street Systems Division of the Public Works Department is responsible for maintenance of all on-street bikeways, as well as street sweeping, drainage maintenance, leaf removal, pavement maintenance, and sidewalk maintenance. As the system expands, maintenance work completed by volunteers can supplement work performed by local maintenance entities. Volunteers can assist with routine upkeep responsibilities and can reduce overall maintenance costs. Volunteers can perform a variety of tasks, including trash removal, vegetation management, and physical infrastructure maintenance, as shown in **Table 5**.

TABLE 5: COMMON MAINTENANCE TASKS FOR VOLUNTEERS

Volunteers can most likely:	Volunteers may not be able to:	To get help with this task:
Keep the trail clear of trash and debris.	Haul material to a disposal facility.	Contact your local government or waste hauler.
Clear brush and trees.	Dispose of the material.	Borrow or rent a chipper.
Plant and maintain trees, shrubs, and flowers and do most gardening and landscaping tasks.	Provide the items to be planted.	Get donated or discounted plant materials from a local nursery or home center. Establish an inventory of donated hand tools.
Operate mowers, trimmers, and chain saws.	Supply their own tools.	Establish an inventory of donated power tools.
Operate a tractor, loader, or bobcat.	Operate specialized heavy equipment like a dozer, grader, or roller.	Ask your local road crew or hire a paid contractor.
Make minor repairs to non-asphalt trails.	Lay asphalt or operate a paving machine.	
Keep drainage structures clear.	Dig a trench and install pipes or culverts.	
Perform surface cleaning of restrooms.	Remove waste from portable toilets or restrooms.	Hire a paid contractor.
Install signs, gates, bollards, and fences.	Manufacture same.	Purchase using donated funds or get donated or discounted materials from a lumber yard or home center.
Build and install picnic tables, benches, kiosks, and other wood structures.	Provide materials.	
Bridge decking and minor bridge and tunnel maintenance.	Perform structural inspection and maintenance of bridges and tunnels.	Hire a professional engineer and paid contractor.

RECOMMENDED MAINTENANCE ACTIVITIES

This section identifies recommended maintenance activities including trash removal, surface cleaning, vegetation maintenance, snow removal and drainage, pavement maintenance, amenity maintenance, physical infrastructure maintenance, and trailhead maintenance.

Trash Removal: Trash removal is important not only for upholding the aesthetic character of trails, but also for protecting public health and safety and respecting natural habitat, wildlife, air, water, and soil quality. Frequency of trash removal can vary based on trail use and location. For more remote or less trafficked trails, the city could reduce maintenance costs related to trash removal by placing bins at select locations and requesting that the public hold on to trash generated along the trail. Locations at trail entry points, in parking areas, and near street crossings are more easily accessed and serviced by maintenance staff. Additionally, on trails where dogs are permitted, there should be signage and stations with disposable bags placed next to trash containers. These stations make it convenient for pet owners to pick up pet waste and can reduce the frequency of users dropping bags along the trail.

Surface Cleaning: Surface cleaning of trails is necessary for removing obstacles that could cause injury or impede universal access. Staff may blow or sweep the surface clear of leaves and other debris.

Vegetation Management: Vegetation management is another maintenance activity that is necessary to remove obstacles that could cause injury or impede universal access. Best practices for trail clearance generally state that the edges of paved trails should have 2-3 feet of horizontal clearance from vertical obstructions, and trails should have a minimum vertical clearance of 8-12 feet. Clearing includes the removal of downed or leaning trees, protruding roots, loose limbs, or large pieces of bark from the trail and buffer zone.

Snow Removal and Drainage: The goal of snow removal and drainage is to avoid weather-related blockages to trail access. In general, snow removal should occur as soon as possible after a snowfall on hard surface trails. Drainage maintenance is important for preventing damage to trails from storms and water erosion and for keeping trails open for use. Common drainage activities include clearing ditches and culverts. Ditches must be deep and wide enough to carry water volumes during heavy storms. Vegetation or trash that may block water flow must be removed from ditches, and slumping banks should be rectified. Drainage culverts should also be checked and cleared prior to major storms to ensure functionality during and after a weather event.

Pavement Maintenance: Asphalt pavement generally requires more maintenance than concrete and has fallen out of favor in many Colorado communities. Asphalt trails more frequently crack due to intruding vegetation, and a smooth trail surface is needed to better serve users of all abilities. Well-maintained concrete trails can last 25 years. However, concrete surfaces can still be damaged by water and erosion, tree roots, and frost and freeze cycles. Other trail design characteristics with an impact on maintenance should be considered when constructing new facilities. New trails should be 10-12 feet to have adequate passing width and space for users to pause to the side, but also to allow access by maintenance and emergency vehicles. Trails should also be wider at intersections with other trails, at smaller radius curves, and at underpasses to allow for safe travel by users and to facilitate maintenance activities.

Amenity Maintenance: Trailside elements such as benches, picnic tables and shelters, drinking fountains, bicycle parking, bicycle repair stations, fencing, gates, bollards, and workout equipment may experience damage and require maintenance. Striping on major trails can help separate opposing traffic where needed, especially in areas where visibility is limited due to trail curvature. Striping and markings should be replaced where needed citywide on an annual basis. Maintenance activities include cleaning, painting, repair, and replacement. During the construction of new trails, consideration should be given to whether these amenities should be installed (contingent on whether sufficient resources for maintenance are available), and if so, consideration should also be given to material types, durability, and placement for ease of maintenance and repair.

Physical Infrastructure Maintenance: Preventative maintenance can ensure pedestrian bridges remain in a state of good repair. Wooden bridges require checking for damage or deterioration of wooden decking. General bridge maintenance includes replacing boards or screws, bridge washing, debris clearing, deck sealing, steel bearings lubrication, and painting load-carrying steel members. More intensive maintenance includes replacement of bridge elements such as joints, bearings, pedestals, bridge seat/pier cap, or columns/stems. The city may also apply products that enhance bridge grip and reduce slipperiness to improve safety for users in all weather conditions.

Trailhead Specific Maintenance: As the trail system expands, new trailheads and amenities may be installed. According to Rails-to-Trails, the most common trailhead elements are information kiosks, parking lots, tables and benches, trash receptacles, and toilets. As these facilities are planned, the city should consider material types, durability, and placement with regard to the ease of maintenance and repair.

OBJECTIVE Q3

Develop a set of maintenance standards and a maintenance plan to prioritize upkeep of the active transportation network.

ANTICIPATED COSTS AND SOURCING FUNDSING SOURCES

Total annual maintenance cost estimates per mile vary greatly across communities based on trail the type of infrastructure (eg. width, surface, structural design) as well as the locational characteristics such as the types of vegetation, amenities included, and the number of annual users. Soft surface trails cost between $1,000 and $2,600 per mile and paved trails cost anywhere from $2,000-

$12,000 per mile, according to Rails-to-Trails, the Ohio River Greenway, and the city of Billings. In Colorado, the city of Windsor estimates trail maintenance

costs $5,000-$6,000 per mile annually. The city of Fort Collins estimates a cost of $9,144 per mile

annually, but states that the best practice would be to spend $12,000. The city of Grand Junction should plan for increases in the budget of the Parks and

Recreation Department and Public Works Department commensurate with additional assets and capital facilities that the Parks Operations Division and Street Systems Division must operate and maintain.

In communities nationwide, usually more funding exists for capital construction than for maintenance. According to Rails-to-Trails, trail system managers nationally report receiving funding primarily from municipal budget allocations (49%), then from local fundraising activities (39%), in-kind donations (29%), the state budget (24%), community fees or taxes (9%), and federal funding (7%).

Possible Many funding sources could be leveraged for construction and maintenance and opportunities for Tthe city can to explore these and moreinclude:

- City capital Improvement fund (sales tax)
- City General Fund (sales tax)
- Department of Local Affairs (DOLA)/
- Great Outdoors Colorado/Conservation Trust Fund (Colorado Lottery)
- Land and Water Conservation Fund
- Colorado Parks and Wildlife
- Conservation, trail advocacy groups, local organizations, non-profits
- Federal Highway Administration BUILD Grants, Recreational Trails Program Funding, Transportation Alternatives Program (TAP)
- Highway Safety Improvement Program, National Highway Performance Program, FASTER Safety Grants

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- Grand Valley Metropolitan Planning Organization
- Rails to Trails
- ~~Property taxes~~
- ~~Development impact fees on new construction~~
- ~~Open space sales tax~~
- ~~Sales tax~~
- ~~Public utility bill donations~~

Pedestrian & Bicycle Amenities

The following section outlines guidance for pedestrian and bicycle amenities for the city to incorporate alongside installation of new sidewalks, trails, and bikeways. With any corridor upgrade, the city should consider how to improve the overall streetscape to create a more pleasant environment for those walking and biking.

OBJECTIVE Q4

~~Utilize existing funding sources~~Explore and pursue new funding sources to support ~~construction~~maintenance of ~~the~~ an expanded system.

OBJECTIVE M1

Grand Junction's streets shall be designed as public amenities and include aesthetic elements such as street trees, landscaping, pedestrian lighting, street furniture, and wayfinding signage wherever possible.

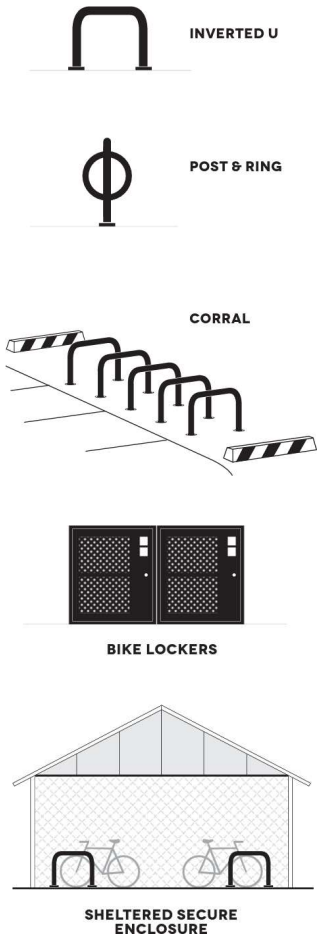
BICYCLE STORAGE & PARKING

Alongside bike lanes and trails, a key component of the bicycle network is secure bicycle storage and parking. Without ample and safe bike parking, people may be more reluctant to choose to bike. Installing and maintaining end-of-trip facilities such as bike racks/parking, bike lockers/secure bike storage, showers, and personal locker encourages commuting by bicycle by making it more convenient.

The city should refer to the Association of Professional Bicycle Professionals (APBP) resource, Essentials of Bike Parking, which outlines design and installation guidelines for short-term and long-term bike parking **(Figure 36)**. Placement and selection of these facilities should consider not just traditional bikes but cargo, e-bikes and adaptive devices. Grided bike racks, loop bike racks, and other similar bike racks that do not allow the user to easily lock the frame and wheel of the bike to a post should be avoided. These racks are typically inefficiently used, harder to secure one's bike, and less compatible with larger e-bikes and cargo bikes. The inverted U or other similar bike racks as shown in **Figure 36** are preferred.

FIGURE 36: BIKE PARKING IN GRAND JUNCTION

FIGURE 37: TYPES OF APBP-COMPLIANT PARKING



OBJECTIVE M2

Prioritize installation of bike and micromobility parking and secure storage in key destinations downtown, outside of city properties, and near major transit hubs, parks, schools, employment centers, and shopping areas.

The city should prioritize installation of bike parking and secure bike storage in key destinations such as downtown, outside of city properties, and near major transit hubs, parks, schools, employment centers, and shopping areas. Secure bicycle parking incorporates a "post" or "rack" where the front tire and the frame of the bicycle can be easily locked. The city should also accommodate alternative micromobility devices such as e-bikes and scooters by constructing dedicated micromobility parking in high-demand areas. Bike parking could take the form of bike racks, micromobility corrals, bike lockers, bike shelters, and repurposed parking spaces.

Regardless of the type of bike parking used, it is important that it holds the number of bikes as they are designed to hold and it stores them securely. For example, on many traditional "bike racks" a bicycle can only be secured on each end of the rack where one can lock both the front wheel and the frame of the bicycle to the rack. The spots between are difficult to use with limited distance between bike slots to lock up to and not as secure due to only a single tire being secured to the rack. This results in the total number of bicycle parking spaces the rack was designed for not being met and those bikes locked up not as secure. These concerns are magnified for e-bike users due to the larger size of the bike.

OBJECTIVE M3

Encourage new and existing developments to provide secure bike parking and amenities through requirements and incentives.

The city should also encourage new and existing developments to provide secure bike parking and amenities. The Development Code should require bike parking with new construction and a requirement or create an incentive such as vehicular parking amenity credit for covered, secure, easily accessible bike rooms in multifamily developments and office buildings. Additionally, the city should explore options for incentivizing existing developments to add secure bike parking, such as a grant program. The city could work with existing businesses to provide bike parking by sharing the cost and promoting the League of American Cyclists Bicycle Friendly Business program.

FIGURE 38: BICYCLE PARKING OUTSIDE OF SCHOOLS CAN BE ESPECIALLY IMPORTANT

STREET FURNITURE

The buffer/amenity zone described alongside the Bicycle and Pedestrian Facility Types is an area that separates trails and sidewalks from travel lanes. These buffers should include both horizontal and vertical separation. Wider buffers provide distance from moving traffic, but also create a valuable space to park micromobility devices like scooters and bikes, to rest, to wait for the bus, and more.

Some buffer/amenity zones may be landscaped with native grasses, shrubs, and trees. Hardscaped buffers however, offer the opportunity to install street furniture like benches, streetlamps, bus stops, bike parking, waste receptacles, fountains, public art, and more. Each of these present amenities to people walking, of all ages and abilities. Benches cater to people waiting for the bus, as well as older adults and small children, who may need to take more breaks. Pedestrian lighting, discussed below, create a sense of safety on a street at night. Each amenity listed creates a more pleasant and comfortable environment, making it more attractive to walk.

Along trails, amenities like shade, water fountains, seating, and ADA accessible restrooms support recreation and active transportation.

OBJECTIVE M4

When upgrading bicycle and/or pedestrian facilities on a corridor, design high-quality landscaped or hardscaped buffers with street furniture and pedestrian amenities.

FIGURE 39: BENCHES, BIKE RACKS, WASTE RECEPTACLES, AND SIGNAGE CREATE A PLEASANT SPOT

PEDESTRIAN-SCALE LIGHTING

Comments received from the public engagement process included the need to provide safety for nighttime users. Lighting plays an important role in establishing a safe and inviting environment for people to walk and bike. Many are likely familiar with Main Street environments that create an appealing place to walk at all times of day, with lampposts and cheerful string lights that continue to draw visitors to shops and restaurants throughout the evening. The opposite is also true. Dark, unlit corridors, regardless of whether they are a local street or a major arterial, feel uninviting and unsafe to the average person.

For those already unsure about walking or biking, especially vulnerable users like mothers with children or older adults, knowing that they will have to return home at night in the dark is likely to discourage choosing to walk or bike. Installing lighting of the appropriate scale and spacing can improve ambiance dramatically and increase one's sense of safety and "being seen" at night.

When updating pedestrian and bike facilities on a corridor, the city should concurrently plan for the upgrade of lighting in the project area. Lighting considerations include:

Scale and Aesthetics: The dimensions of streetlights should be scaled to the width and characteristics of the street. Smaller lampposts between 25 and 30 feet should be chosen for local and collector roads to support street character and walkability of

FIGURE 40: EXAMPLES OF PEDESTRIAN LIGHTING IN GRAND JUNCTION

neighborhoods and local commercial districts. Taller poles of 30 feet or more are appropriate for wider arterial streets and highways. Other attractive types of lighting beyond lampposts can support illumination of the public realm, such as string lights, storefront lighting, lit signs, etc.

Spacing: Spacing between streetlights should be roughly 2.5 to 3 times the height of the pole. Density along a corridor and traffic speeds also affect ideal spacing. Lighting will be less frequent in rural areas, but alongside new development, lighting frequency should increase. Light cones are roughly the same diameter as the height of the fixture, which will influence the maximum distance between streetlights to avoid dark areas.

Light Pollution and Energy Efficiency: "Dark sky friendly" lighting fixtures focus lighting directly downward onto the street to minimize flare and light pollution, while maximizing useful light. Shielded and cut-off fixtures with energy-efficient LED light bulbs are more cost-effective and reduce light pollution by directing light toward the ground. Solar powered fixtures should be installed when possible to take advantage of Grand Junction's climate.

For more information, the city can refer to lighting design guidance in the Global Designing Cities Initiative's *Global Street Design Guide*.

OBJECTIVE S4

Conduct a lighting needs assessment for each active transportation corridor - as a first step in identifying lighting needs for safety improvements.

OBJECTIVE M5

When upgrading bicycle and/or pedestrian facilities on a corridor, concurrently plan for the upgrade of lighting in the project area.

WAYFINDING & SIGNAGE

Signage is a practical component of a community's transportation system, directing users to key destinations. However, it also offers an opportunity for the city to create a sense of place and cohesive, artistic system for orienting visitors and bringing people into the downtown core and commercial districts to explore shops and restaurants. In this way, wayfinding can simultaneously act as an economic development driver and unite transportation and land use.

Signage should indicate where to find key destinations, such as shopping and dining, the town hall and post office, trailheads, the nearest bus stop, and more. Thoughtful design and placement of this signage can help visitors and residents orient themselves downtown and easily locate key destinations. **Figure 41** shows how simple this kind of signage can be, while remaining aesthetically pleasing. The pedestrian scale of this signage caters to people walking downtown and in commercial districts, but it can also be read by those on a bike or in a car. Signage at range of scales, including gateways, directional signs, street banners, pavement markings, map kiosks, and bikeway signage can assist all types of travelers with navigation.

FIGURE 41: EXAMPLE OF WAYFINDING SIGNAGE

Wayfinding systems should also include estimated walking time to each destination listed to further highlight ease of pedestrian access.

As recommended in the *Vibrant Together* downtown plan, Grand Junction should initiate a comprehensive wayfinding and signage study to create a consistent strategy for connecting people walking, biking, and driving to downtown and other key destinations.

OBJECTIVE M6

Initiate a comprehensive wayfinding and signage study to create a consistent strategy for connecting people walking, biking, and driving to downtown and other key destinations.

Bikeway and trail signage is especially important to help people walking, rolling and biking reach major destinations and landmarks. In partnership with the Urban Trails Committee, in 2020 the city installed 300 wayfinding signs to guide cyclists throughout the community. As the city continues to build out bike facilities and new trails over time, they should incorporate additional signs with the same wayfinding standards at decision points – typically at the intersection of two or more bicycle facilities and at other key locations along bicycle routes. Signage should be regularly refreshed or replaced as it becomes damaged, faded, or out of date. Over time, outdated signage should also be replaced with new, updated information. Signs may be directional and related to routing users to key destinations, mile markers to help users self-locate, or pertaining to trail etiquette.

OBJECTIVE M7

As the city continues to build out bike facilities and new trails over time, incorporate additional signs with the same wayfinding standards at decision points and incorporate design elements to accommodate for low vision users.

The Steering Committee was particularly concerned with signage on the Riverfront Trail and suggested two major changes in that specific area – first, striping a centerline on the trail starting on the east end of Las Colonias Park and continuing to the west through the high use area of the trail; and second, installing signage on trail etiquette along the Riverfront Trail. The centerline is recommended to highlight two-way traffic on the trail, maintain space for passing, and reduce safety conflicts. Trail etiquette signage is intended to communicate responsibilities of trail users to keep to the right, leash dogs, respect proper cycling speeds, pay attention at high traffic intersections, etc.

OBJECTIVE M8

Improve signage on the Riverfront Trail.

~~BIKE/SCOOTER~~ SHARED MICROMOBILITY

In 2022, the City released a Referral for Proposals to solicit shared micromobility (eg. bike and scooter share) services from ~~two~~ micromobility companies and to evaluate the effectiveness of this mode of transportation on first and last-mile connections and modal shifts. The 18-month pilot study was ~~is~~ slated to start ~~during the month of April~~ 2023. ~~More information on this pilot can be found at https://www.gjcity. org/1228/Shared-Micromobility-Pilot-Study~~

Scooters and bike share have been successfully deployed in several Front Range communities including Fort Collins, Boulder, Colorado Springs, Denver, and Longmont. ~~However, s~~Sharing services are most successful and financially sustainable where there is a higher density of land uses, since people can travel shorter distances to reach destinations, the ideal trip type for micromobility to support.

Shared micromobility has numerous benefits, including flexible travel options, better first-and-last-mile connections to transit, and replacement of vehicle trips. ~~A key concern for the city of Grand Junction is maintaining sidewalk access and reducing visual clutter in the streetscape. Dockless shared micromobility will be explored initially, which could be expanded or converted to a city-run docked model once enough~~

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data is available to show trip patterns.

The city will use geofencing and micromobility corrals and eventually explore a docked system to keep walkways clear for pedestrians and people using wheelchairs and other mobility devices, while also reducing visual clutter along the sidewalk. The city will build and leverage encourgenew development to provide additional bike parking. Should the micromobility pilot be successful, property owners may choose to provide device parking in coordination with and micromobility vendorscorrals.
The street standards or development overlays willcould be updated to include a buffer/amenity zone in new
sidewalks in core areas of the city that can be used for micromobility parking safely outside of the sidewalk.

OBJECTIVE M9

Close the gaps on first-and-last mile connections through the deployment of shared micromobility devices (e-scooters, e-bikes, etc.) and utilize geofencing and parking corrals to accommodate device parking in high-traffic areas.

Safe Routes to School (SRTS)

Safe Routes to School (SRTS) programs are designed to make it safer for students to walk and bike to school, and thus encourage more walking and biking. Beyond supporting safety, SRTS programs can reduce traffic congestion, provide environmental benefits, and improve health outcomes by promoting habits of walking and biking that may influence travel decisions later in life.

The city of Grand Junction dedicates a portion of the federal Community Development Block Grant (CDBG) distribution it receives each year to the city's Safe Routes to School Program. Since 2016, the city has invested more than $700,000 in walking and biking infrastructure improvements around schools, including new sidewalks, crosswalks, traffic calming, and accessibility projects. The Mesa County Regional Transportation Planning Office (RTPO) has a separate program that conducted STRS assessments of 12 elementary schools and 8 middle schools in School District 51.

OBJECTIVE S5

Bolster the existing Safe Routes to School program by incorporating new elements of the six Es.

The city of Grand Junction can bolster their Safe Routes to School program by incorporating all elements of a successful SRTS program: the "six Es." The six Es represent an integrated and comprehensive approach to making streets healthier and safer for everyone, regardless of their destination or travel mode. The following section describes each of the six Es and related initiatives.

Education – Providing students and the community with the skills to walk and bicycle safely, educating them about benefits of walking and bicycling, and teaching them about the broad range of transportation choices.

- Schools can launch advertising campaigns to promote travel to school by means other than driving.
- Public education can include information distributed to students about travel options, including safe walking and biking routes, transit services, and carpools.

Encouragement – Generating enthusiasm and increased walking and bicycling for students through events, activities, and programs.

- Walk Pools/Walking School Bus: Organized walking groups for children, chaperoned by an adult, that encourage students to walk together to school.
- Bike Bus: Organized bike rides to school chaperoned by an adult(s), that provide a fun morning experience and safety in numbers.
- Walk, Roll, and Bike to School Day: Event that encourages participation and educates students on the benefits and ways to walk and bike to school comfortably and safely.
- Partner with local organizations to lead/help with SRTS programs.
- Engage parents as volunteer crossing guards and walk/bike bus leaders.
- Create a yard sign program.

Engineering – Creating physical improvements to streets and neighborhoods that make walking and bicycling safer, more comfortable, and more convenient.

- High quality sidewalks and crosswalks near schools: Refer to the recommended facility types and alignments in this plan – proximity to schools and crash history were both factors used in project identification and prioritization, with projects close to schools and near crash hot spots considered higher priority.
- High visibility signage and markings in school zones.
- Designated curb space outside schools for pick-up and drop-off zones.

Traffic calming in neighborhoods around schools like curb extensions, pedestrian refuge islands, etc. **(Figure 41).**

Enforcement – Deterring unsafe traffic behaviors and encouraging safe habits by people walking, bicycling and driving in school neighborhoods and along school routes.

- The city can work with schools to identify if there are particular behaviors that cause safety issues that could be alleviated through a form of enforcement of better practices, and how to generally enhance awareness of school zones where children may be present.
- Crossing guards/police enforcement during peak travel times.
- Reduce school zone speed limits.

Evaluation – Assessing which approaches are more or less successful, ensuring that programs and initiatives are supporting equitable outcomes, and identifying unintended consequences or opportunities to improve the effectiveness of each approach.

- Maintain an open forum to collect parent, teacher, staff, and student concerns.
- Conduct surveys on travel behavior to and from school and barriers to walking and biking.
- Evaluate barriers in the built environment to walking and biking near school properties.
- Conduct safety audits at pick-up and drop-off times to identify safety issues.
- Expand successful programs.

Equity – Ensuring that Safe Routes to School initiatives are benefiting all demographic groups, with particular attention to ensuring safe, healthy, and fair outcomes for low-income students, students of color, students of all genders, students with disabilities, and others.

- Ensure ADA access to school properties.
- Focus attention on schools in low-income neighborhoods/with many students of color.

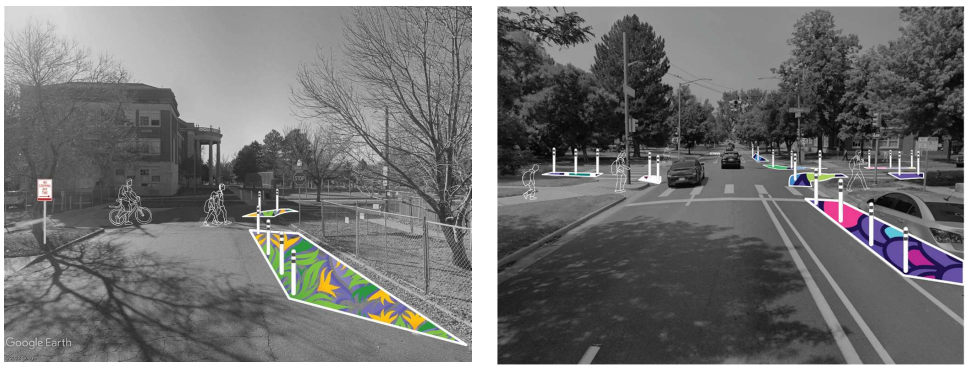

FIGURE 42: EXAMPLE OF TRAFFIC CALMING NEAR SCHOOLS

Grand Junction uses CDBG funding for its SRTS program, but has not pursued SRTS funding through CDOT's Transportation Block Grant due to "administrative challenges associated with the state program." Almost all funding for SRTS is federal but distributed at the state level. There are a range of project types eligible for SRTS funding, including campaigns, educational initiatives, sidewalk and crossing repairs, and equipment pilot programs. It is recommended that the city consider expanding its SRTS program by diversifying funding sources to include CDOT funding in addition to dedicated CDBG funding.

OBJECTIVE Q5

Consider expanding the SRTS program by diversifying funding sources to include CDOT funding in addition to dedicated CDBG funding.

The city is most likely to be successful for grants to implement infrastructure that improves bicycle and pedestrian safety by formalizing the SRTS program, including ongoing action items to collect data on travel behavior to and from schools. A well-organized and complete SRTS program will benefit transportation in Grand Junction by providing users with a range of transportation options and enhance the real and perceived safety of those options. When the focus of transportation planning and design is on the most vulnerable users, children walking and biking, the safety benefits reach everyone. Increased walking and biking provide environmental and health benefits to students, but also provides the transportation benefits of reduced traffic congestion and lower transportation costs for school districts and families. Safer streets, reduced congestion, and a greater share of trips occurring through walking and biking all support the vision of the plan.

More information and resources on Safe Routes to School can be found through the Safe Routes to School National Partnership: https://www.saferoutespartnership.org/.

Community-wide Incentive Program

Through their Bicycle Friendly Community Designation, the League of American Cyclists encourages municipalities to develop a community-wide commute trip reduction (CTR) ordinance, incentive program, and/or a Guaranteed Ride Home program to encourage and support bike commuters.

Through this program, the city would work with large employers to implement a voluntary incentive program to support walking and biking to work. Incentives can include e-bike rebates, bike-themed events such as bike rodeos and Bike to Work Day, shwag such as bike lights and helmets, and gift certificates for those who bike to City events. Guaranteed Ride Home provides commuters who did not drive to work with alternative means home in case of an emergency.

OBJECTIVE M10

Develop a community-wide incentive program and work with large employers to implement a Guaranteed Ride Home program to encourage and support bike commuters. Incentives can include e-bike rebates, bike-themed events such as bike rodeos and Bike to Work Day, shwag such as bike lights and helmets, and gift certificates for those who bike to City events. Guaranteed Ride Home provides commuters who did not drive to work with alternative means home in case of an emergency.

Education & Awareness

Numerous comments received during the public engagement process referred to the need for education and awareness to establish a more positive culture around walking and biking in Grand Junction. Residents noted that drivers are often unaware of cyclists in the roadway and don't expect them. Many residents also have had negative experiences with drivers, ranging from distracted and dangerous driving to verbal and physical harassment, hostility, and aggression.

OBJECTIVE S6

Work with local driving schools to expand the curriculum on laws governing interactions with people walking, rolling, and biking.

Better driver education is needed to establish respect for people walking and biking and create a more "peaceful coexistence," as one commenter wrote. City law enforcement should work with local driving schools to expand the curriculum on laws governing interactions with people walking, rolling, and biking, such as three-foot passing distance, permission for cyclists to occupy a full travel lane, requirements to stop for people in the crosswalk, window tinting laws; as well as the danger of running red lights and turning right on red during a walk cycle.

In a similar vein, several comments highlighted negative cyclist interactions with law enforcement in Grand Junction and the need to improve relations with people walking and biking. City staff should partner with law enforcement to increase enforcement of speeding and reckless driving in areas with high pedestrian volumes and/or safety issues and consider automated enforcement. The police department may also consider expanding their bike patrol unit to improve bicyclist/officer relations, and ensure that all law enforcement officers have basic training or experience with bicycling.

OBJECTIVE S7

Partner with law enforcement to increase enforcement of speeding and reckless driving in areas with high pedestrian volumes and/or safety issues and consider automated enforcement. Consider expanding the police bike patrol unit.

OBJECTIVE M11

Establish a more positive culture around walking and biking in Grand Junction by creating staff~~Bicycle & Pedestrian Coordinator~~ position(s), to assist in public ~~education educating city staff~~, promoting the Bicycle Friendly Business program, and/or hosting an LCI seminar.

Beyond these measures, the city should pursue the following recommendations highlighted in the Bicycle Friendly Community Designation and the Walk Friendly Community Report Card:

- Educate staff on walking, walkability, and pedestrian safety.
- Encourage more local businesses, agencies, and organizations to promote cycling to their employees and customers and to seek recognition as a Bicycle Friendly Business.
- Host a League Cycling Instructor (LCI) seminar to increase the number of local LCIs.
- Expand the audience for educational programs to include high school students, college students, and new drivers.
- The city's new Bicycle & Pedestrian Coordinator can take the lead on these actions, along with many of the other programs and policies in this plan.

Policies

One of the most tangible and cost-effective ways to improve the bicycle and pedestrian environment in Grand Junction will be to implement effective policies. Policies can be used by city departments as they perform street construction projects and routine maintenance. The policies can also be used to guide the private sector in new development or redevelopment projects~~, as well as city departments as they perform major street construction projects and routine street maintenance~~. Adopting policy(ies) may assist in ~~will~~ ensur~~e~~ing ~~these~~ projects incorporate the city's goals for the bicycle and pedestrian environment and create a consistent experience for users.

Based on the existing conditions analysis and in collaboration with the Steering Committee, the following set of actionable policies are recommended to support buildout and use of the future bicycle and pedestrian network.

Access Management

Access management is an important strategy to mitigate curb cut frequency and conflicts between pedestrians, bicyclists, and turning vehicles. The TEDS Manual states that access should be provided on the lower street classification when a property is adjacent to multiple streets. Additionally, the North Avenue Zoning Overlay provides access management guidance to limit curb cuts specifically along North Avenue. The city should consider expanding this type of policy to ~~all~~ Active Transportation Corridors and corridors identified on the Active Transportation High Injury Network (Figure 14, Appendix A Existing Conditions and Needs Assessment) to mitigate conflict points between vehicles and pedestrians and bicyclists. Potential access management strategies typically include redirecting access to side-streets and alleys, consolidating driveways among single and adjacent property owners, and adding medians~~, and adopting more overlay districts and/or amend existing codes and regulations to define and limit the frequency of driveways and access points~~.

Vision Zero

Through their Bicycle Friendly Community designation, the League of American Bicyclists encourages municipalities to adopt a comprehensive road safety plan or a Vision Zero policy. It is increasingly common for municipalities around the country to adopt Vision Zero policies and programs. These Vision Zero policies and programs consist of communities committing to eliminating traffic crashes that result in fatalities or serious injuries by providing safety training, implementing engineering solutions that are proven to slow vehicle speeds while reducing conflicts with other roadway users, and forming multidisciplinary initiatives for implementing safety programming. Grand Junction can join Colorado's statewide program – Moving Towards Zero Deaths – as a first step in solidifying a citywide commitment to supporting multimodal travel through ensuring all trips in the community are as safe as possible.

OBJECTIVE S9

Join the statewide program – Moving Towards Zero Deaths – as a first step in solidifying a citywide commitment to supporting multimodal travel through ensuring all trips in the community are as safe as possible.

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OBJECTIVE S8

Improve the North Avenue access management policy in alignment with national best practices and consider expanding to all the Active Transportation "High Injury Network" Corridors.

Construction Zones

Pedestrian and bicycle accommodation in work zones is already a federal standard defined in the Manual on Uniform Traffic Control Devices, and the city currently has a work zone policy consistent with federal standards. The city ~~of Grand Junction~~ should ~~consider~~ strengthen~~ing enforcement and~~ compliance with the construction zones policy that requires developers and construction companies to reroute sidewalks and bicycle facilities that are impacted by construction, similar to the way that they must currently continue to facilitate roadway access for people driving. This ~~could~~ means accommodating people walking and biking with a temporary ~~covered~~ walkway and bikeway adjacent to the construction zone, or at minimum signing alternate detour routes on either end of the construction zone.
The city could consider more active enforce~~menting stricter requirements~~ along the Active Transportation Corridors.

~~For example, in Denver, developers must obtain a street occupancy permit and submit a plan for accommodating people driving and walking. City staff reviews engineered drawings, traffic control plan(s), and street occupancy requests . Their Pedestrian Walkway Entrance Requirements stipulate that construction sites must provide covered walkways and less often, fenced pedestrian walkways to accommodate people walking and protect them from construction activity. The requirements include details on walkway dimensions and design features.~~

OBJECTIVE C2

Strengthen enforcement and compliance of the existing construction zones policy that requires developers/construction companies to provide sidewalks and bicycle facilities during construction.

Constructing Active Transportation~~Implementing or Funding Bicycle~~ Facilities

~~Through application of the street standards with new development, Grand Junction will~~The city should continue to enforce the current policy for new development to construct an~~where planned~~ Active Transportation Corridors that run along or through a site ~~or along the edge of~~

~~a site be constructed by the developer~~ (as identified in **Figure 44** ~~**45**~~ and **Figure 46**~~**47**~~) unless another funding constructing source is identified (eg TCP). For ~~example~~Currently, if there is a missing or deficient sidewalk or planned trail adjacent to the development, the developer is responsible
for implementing or upgrading the sidewalk or trail according to the widths and standards identified in TEDS. When an Active Transportation Corridor is shown as part of a Collector or Arterial Street, the city should continue to plan for and construct these routes.~~this Plan. It is important that the city work with the~~
~~developer and re-prioritize proposed projects to ensure~~

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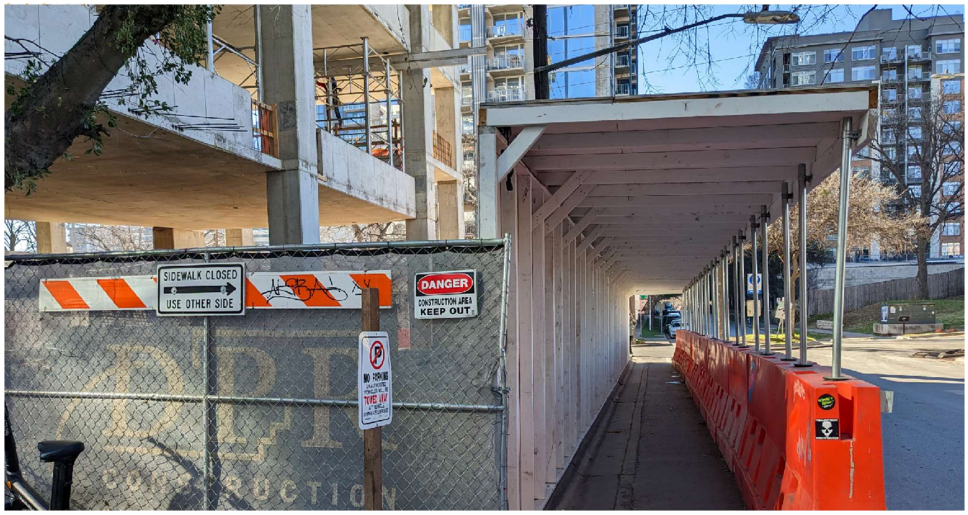

FIGURE 43: EXAMPLE OF COVERED WALKWAY AT CONSTRUCTION SITE

~~that bicycle and pedestrian facilities are connected and not inconsistently adjacent only to new developments.~~ Additionally, commercial and multifamily residential developments should continue ~~also be required~~ to provide bike parking. The city could consider providing incentives or requiring larger developments to provide secured bike parking.

OBJECTIVE Q6

Continue ~~to enforce~~ the current policy where planned Active Transportation Corridors that run through a site or along the edge of a site be constructed as part of the development.

Building a Connected Network

Public input and an analysis of the existing transportation network highlighted the lack of connectivity between many neighborhoods in Grand Junction due to the curvilinear street network, especially for people walking or bicycling. The city's existing Subdivision Standards already require connectivity and "Promote{s} pedestrian uses, bicycling, and transportation modes other than private automobile." This connectivity standard should remain creating a connections between two otherwise unconnected streets/neighborhoods and can greatly decrease the trip lengths Opportunities ~~for new trail connections between neighborhoods should be considered. Creating a trail at the end of a cul-du-sac or between two unconnected streets can greatly decrease the trip length~~s for people walking, rolling and bicycling, as conveyed in **Figure ~~42~~44**.

~~This can make taking trips by walking or bicycling easier and more feasible.~~ In established neighborhoods, these connections can be created by finding existing easements or right-of-way or by acquiring new right-of-way or easements if none currently exists. ~~For redevelopment projects, it is recommended that all new developments be required to provide pedestrian and bicycle connections~~
~~or preserve right-of-way or easements for future connections where there is a lack of connectivity in the roadway network (e.g., cul-de-sac).~~

The City's current maximum block length of 1200 linear feet is established in the Transportation Engineering Design Standards (TEDS) for vehicular access. The City should consider

OBJECTIVE C3

Require new developments to provide or set aside space for pedestrian and bicycle connections within the local street network of new developments and to adjacent streets in situations where there is a lack of connectivity in the roadway network.

OBJECTIVE C4

~~Consider Develop an ordinance mandating a minimum level of street connectivity. A more densely connected or gridded network makes for~~

~~a more walkable and bikeable area by increasing route options and reducing out of direction travel. Connectivity can be defined by a "connectivity index," which is the ratio of roadway links (or block) to intersections. An ordinance on maximum block length can also increase connectivity. A connectivity index~~

~~reducing the~~or existing **maximum block length**~~of 1200 linear feet for pedestrian and bicycle connections can help reduce the number of cul-de-sacs and guide new development to a more walk and bike-friendly street network~~.

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pedestrian and bicycle connections at an interval closer to 600 feet, which is the distance data indicates is a more comfortable block length for pedestrians to navigate. A “Connectivity Index” could also be used.For new developments, the city should develop an ordinance mandating a minimum level of street connectivity (defined by a “connectivity index”, which is the ratio of roadway links to intersections) or a maximum block length. A connectivity index or maximum block length can help reduce the number of cul-de-sacs and guide new development to a more walk and bike-friendly street network.

Applying Transportation Demand Management

Transportation Demand Management (TDM) measures are strategies typically designed to facilitate the use of alternate transportation modes to decrease demand on the roadway system by single occupant vehicles. Grand Junction should explore incentive-based measures, such as updateing its Transportation Impact Study guidelines (Chapter 29.08.200 of the Municipal Code) to encourage TDM measures strategies that major developments could opt-in toshould provide specifically to support walking and biking. These could include constructing Active Transportation Corridors, bike facilitiesracks, showers, car share, or support for bike commuters. This ordinance can give more weight to certain TDM measures over othersIncentive-based measures may weigh some TDM strategies greater than others.

OBJECTIVE M12

Explore Incentive-basedUpdate the Transportation Impact Study guidelines (Chapter 29.08.200 of the Municipal Code) to encourage Transportation Demand Management (TDM) measures that major developments should could opt-in to, provide specifically to support walking and biking. These could include building the Active Transportation facility, other bike racksfacilities, showers, car share, or support for bike commuters.

Parking Policy

Encouraging developments to right-size off-street parking increases the walkability of an area by increasing density, activating the pedestrian experience, prioritizing pedestrian infrastructure, and reallocating space for people instead of vehicles. The city's Municipal development Code (21.06.050) currently identified identifies parking minimums for different land uses. These standards should be revised to serve as parking maximums for development. Reducing and in some cases relieving all parking requirements is a strategy that mayParking requirements can also be reduced to better align parking with the community's goals of mobility and affordability, as well as reduce one of the highest costs associated with new development. Other parking strategies that promote walkability to consider and that warrant further study ordinances that promote walkability include:

- **Fee-in-lieu**-Fee-in-lieu allows landowners and a developers the choice to pay a fee into a municipal fund instead lieu of providing on-site parking spaces required per the zoning development code. This policy is especially effective for small parcels where redevelopment may be less viable due to parking requirements. This fee can assist in financinge public parking spaces or/and fund other transportation demand management and multimodal investments that will help to reduce single occupancy vehicle use.
- **Paid and time restricted parking**-Paid and time restricted parking is a management approach to shift behaviors and encourages more walking and biking.

OBJECTIVE M13

Revise the parking minimum standards for different land uses ~~in the city's Municipal Code (21.06.050) to serve as parking maximums for development and/or reduce parking requirements~~ to better align parking with the community's goals, reduce the development costs associated with excessive parking and allow for innovations, flexibility, and greater affordability.

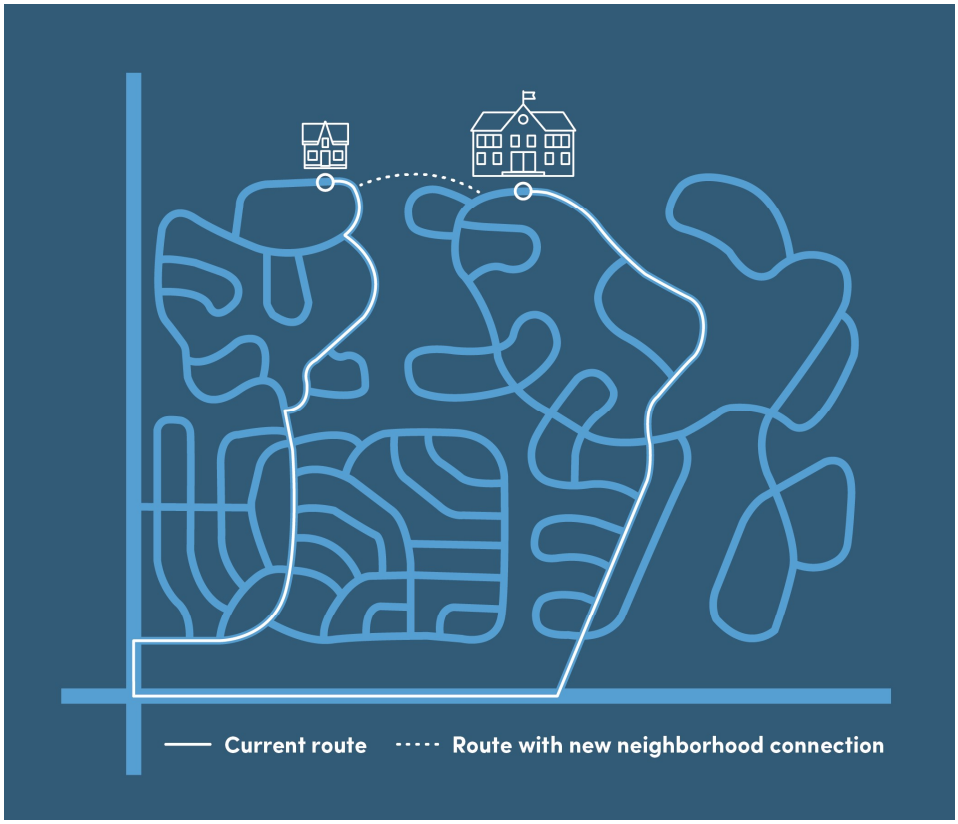


FIGURE 44: CONCEPTUAL DISPLAY OF INCREASE IN CONNECTIVITY WITH BICYCLE/PEDESTRIAN CUT-THRU

CHAPTER 6.

PROGRAM & POLICY RECOMMENDATIONS

Programs

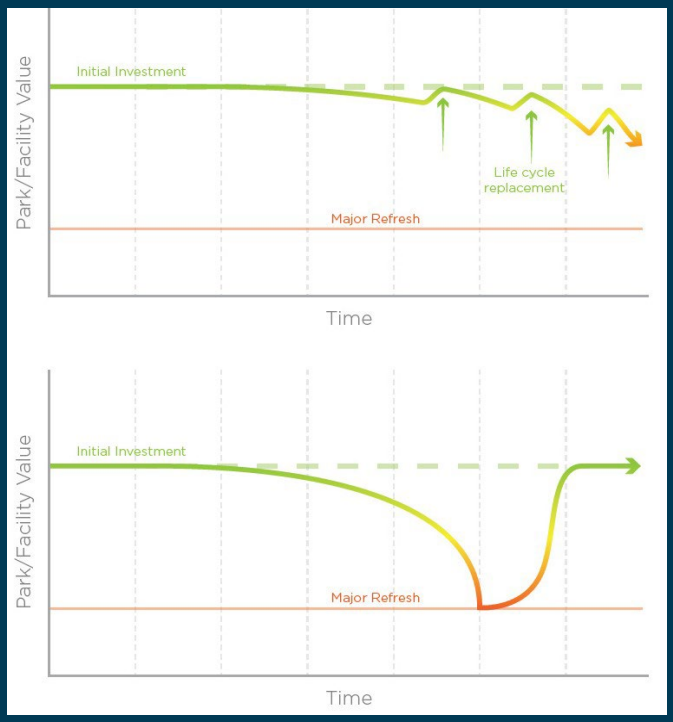
Programs will work in tandem with the build-out of the pedestrian and bicycle networks in Grand Junction to further support people walking, rolling, and biking. Programs to maintain new facilities, provide pedestrian and bicycle amenities, create Safe Routes to School, reduce commute trips, and improve education and awareness will each establish a culture friendly to walking and biking. Based on the existing conditions analysis, feedback from the community and in collaboration with the project Steering Committee, the following set of programs are recommended to support buildout and use of the future bicycle and pedestrian network.

Maintenance

As the city of Grand Junction bike, sidewalk, and trail networks expand during implementation of the PBP, a set of maintenance standards and a maintenance plan can help city staff assess and prioritize maintenance needs to keep infrastructure in a state of good repair. This will ensure the bike and pedestrian network is a reliable and comfortable transportation resource for all community members.

Planning and budgeting for maintenance needs can be overlooked during planning, design, and construction of new facilities. Funding for capital construction tends to be more readily available than funding for routine upkeep. While initial construction costs far outsize those of maintenance and improvement of existing facilities, funding for routine upkeep is more difficult to secure. Deferring routine upkeep can result in facilities degrading faster and requiring more expensive maintenance interventions later. Early, frequent maintenance can reduce overall costs over time, as seen in **Figure 35**.

FIGURE 35: EXTENDED LIFE SPAN OF FACILITIES WITH CONSISTENT REINVESTMENT VERSUS LIFE SPAN OF FACILITIES WITHOUT MAINTENANCE (SOURCE: FORT COLLINS 2021 PARKS & RECREATION MASTER PLAN)



RESPONSIBLE PARTIES

The Parks Operations Division of the Parks and Recreation Department is responsible for maintaining 21 miles of the urban trail system and over 500 acres of open space. The Street Systems Division of the Public Works Department is responsible for maintenance of all on-street bikeways, as well as street sweeping, drainage maintenance, leaf removal, pavement maintenance, and sidewalk maintenance. As the system expands, maintenance work completed by volunteers can supplement work performed by local maintenance entities. Volunteers can assist with routine upkeep responsibilities and can reduce overall maintenance costs. Volunteers can perform a variety of tasks, including trash removal, vegetation management, and physical infrastructure maintenance, as shown in **Table 5**.

TABLE 5: COMMON MAINTENANCE TASKS FOR VOLUNTEERS

Volunteers can most likely:	Volunteers may not be able to:	To get help with this task:
Keep the trail clear of trash and debris.	Haul material to a disposal facility.	Contact your local government or waste hauler.
Clear brush and trees.	Dispose of the material.	Borrow or rent a chipper.
Plant and maintain trees, shrubs, and flowers and do most gardening and landscaping tasks.	Provide the items to be planted.	Get donated or discounted plant materials from a local nursery or home center. Establish an inventory of donated hand tools.
Operate mowers, trimmers, and chain saws.	Supply their own tools.	Establish an inventory of donated power tools.
Operate a tractor, loader, or bobcat.	Operate specialized heavy equipment like a dozer, grader, or roller.	Ask your local road crew or hire a paid contractor.
Make minor repairs to non-asphalt trails.	Lay asphalt or operate a paving machine.	
Keep drainage structures clear.	Dig a trench and install pipes or culverts.	
Perform surface cleaning of restrooms.	Remove waste from portable toilets or restrooms.	Hire a paid contractor.
Install signs, gates, bollards, and fences.	Manufacture same.	Purchase using donated funds or get donated or discounted materials from a lumber yard or home center.
Build and install picnic tables, benches, kiosks, and other wood structures.	Provide materials.	
Bridge decking and minor bridge and tunnel maintenance.	Perform structural inspection and maintenance of bridges and tunnels.	Hire a professional engineer and paid contractor.

RECOMMENDED MAINTENANCE ACTIVITIES

This section identifies recommended maintenance activities including trash removal, surface cleaning, vegetation maintenance, snow removal and drainage, pavement maintenance, amenity maintenance, physical infrastructure maintenance, and trailhead maintenance.

Trash Removal: Trash removal is important not only for upholding the aesthetic character of trails, but also for protecting public health and safety and respecting natural habitat, wildlife, air, water, and soil quality. Frequency of trash removal can vary based on trail use and location. For more remote or less trafficked trails, the city could reduce maintenance costs related to trash removal by placing bins at select locations and requesting that the public hold on to trash generated along the trail. Locations at trail entry points, in parking areas, and near street crossings are more easily accessed and serviced by maintenance staff. Additionally, on trails where dogs are permitted, there should be signage and stations with disposable bags placed next to trash containers. These stations make it convenient for pet owners to pick up pet waste and can reduce the frequency of users dropping bags along the trail.

Surface Cleaning: Surface cleaning of trails is necessary for removing obstacles that could cause injury or impede universal access. Staff may blow or sweep the surface clear of leaves and other debris.

Vegetation Management: Vegetation management is another maintenance activity that is necessary to remove obstacles that could cause injury or impede universal access. Best practices for trail clearance generally state that the edges of paved trails should have 2-3 feet of horizontal clearance from vertical obstructions, and trails should have a minimum vertical clearance of 8-12 feet. Clearing includes the removal of downed or leaning trees, protruding roots, loose limbs, or large pieces of bark from the trail and buffer zone.

Snow Removal and Drainage: The goal of snow removal and drainage is to avoid weather-related blockages to trail access. In general, snow removal should occur as soon as possible after a snowfall on hard surface trails. Drainage maintenance is important for preventing damage to trails from storms and water erosion and for keeping trails open for use. Common drainage activities include clearing ditches and culverts. Ditches must be deep and wide enough to carry water volumes during heavy storms. Vegetation or trash that may block water flow must be removed from ditches, and slumping banks should be rectified. Drainage culverts should also be checked and cleared prior to major storms to ensure functionality during and after a weather event.

Pavement Maintenance: Asphalt pavement generally requires more maintenance than concrete and has fallen out of favor in many Colorado communities. Asphalt trails more frequently crack due to intruding vegetation, and a smooth trail surface is needed to better serve users of all abilities. Well-maintained concrete trails can last 25 years. However, concrete surfaces can still be damaged by water and erosion, tree roots, and frost and freeze cycles. Other trail design characteristics with an impact on maintenance should be considered when constructing new facilities. New trails should be 10-12 feet to have adequate passing width and space for users to pause to the side, but also to allow access by maintenance and emergency vehicles. Trails should also be wider at intersections with other trails, at smaller radius curves, and at underpasses to allow for safe travel by users and to facilitate maintenance activities.

Amenity Maintenance: Trailside elements such as benches, picnic tables and shelters, drinking fountains, bicycle parking, bicycle repair stations, fencing, gates, bollards, and workout equipment may experience damage and require maintenance. Striping on major trails can help separate opposing traffic where needed, especially in areas where visibility is limited due to trail curvature. Striping and markings should be replaced where needed citywide on an annual basis. Maintenance activities include cleaning, painting, repair, and replacement. During the construction of new trails, consideration should be given to whether these amenities should be installed (contingent on whether sufficient resources for maintenance are available), and if so, consideration should also be given to material types, durability, and placement for ease of maintenance and repair.

Physical Infrastructure Maintenance: Preventative maintenance can ensure pedestrian bridges remain in a state of good repair. Wooden bridges require checking for damage or deterioration of wooden decking. General bridge maintenance includes replacing boards or screws, bridge washing, debris clearing, deck sealing, steel bearings lubrication, and painting load-carrying steel members. More intensive maintenance includes replacement of bridge elements such as joints, bearings, pedestals, bridge seat/pier cap, or columns/stems. The city may also apply products that enhance bridge grip and reduce slipperiness to improve safety for users in all weather conditions.

Trailhead Specific Maintenance: As the trail system expands, new trailheads and amenities may be installed. According to Rails-to-Trails, the most common trailhead elements are information kiosks, parking lots, tables and benches, trash receptacles, and toilets. As these facilities are planned, the city should consider material types, durability, and placement with regard to the ease of maintenance and repair.

OBJECTIVE Q3

Develop a set of maintenance standards and a maintenance plan to prioritize upkeep of the active transportation network.

ANTICIPATED COSTS AND SOURCING FUNDS

Total annual maintenance cost estimates per mile vary greatly across communities based on the type of infrastructure (eg. width, surface, structural design) as well as the locational characteristics such as the types of vegetation, amenities included, and the number of annual users.

In communities nationwide, usually more funding exists for capital construction than for maintenance. According to Rails-to-Trails, trail system managers nationally report receiving funding primarily from municipal budget allocations (49%), then from local fundraising activities (39%), in-kind donations (29%), the state budget (24%), community fees or taxes (9%), and federal funding (7%).

Many funding sources could be leveraged for construction and maintenance The city can explore these and more:

- City capital Improvement fund (sales tax)
- City General Fund (sales tax)
- Department of Local Affairs (DOLA)
- Great Outdoors Colorado/Conservation Trust Fund (Colorado Lottery)
- Land and Water Conservation Fund
- Colorado Parks and Wildlife
- Conservation, trail advocacy groups, local organizations, non-profits
- Federal Highway Administration BUILD Grants, Recreational Trails Program Funding, Transportation Alternatives Program (TAP)
- Highway Safety Improvement Program, National Highway Performance Program, FASTER Safety Grants
- Grand Valley Metropolitan Planning Organization
- Rails to Trails

OBJECTIVE Q4

Utilize existing funding sources and pursue new funding sources to support construction of an expanded system.

Pedestrian & Bicycle Amenities

The following section outlines guidance for pedestrian and bicycle amenities for the city to incorporate alongside installation of new sidewalks, trails, and bikeways. With any corridor upgrade, the city should consider how to improve the overall streetscape to create a more pleasant environment for those walking and biking.

OBJECTIVE M1

Grand Junction's streets shall be designed as public amenities and include aesthetic elements such as street trees, landscaping, pedestrian lighting, street furniture, and wayfinding signage wherever possible.

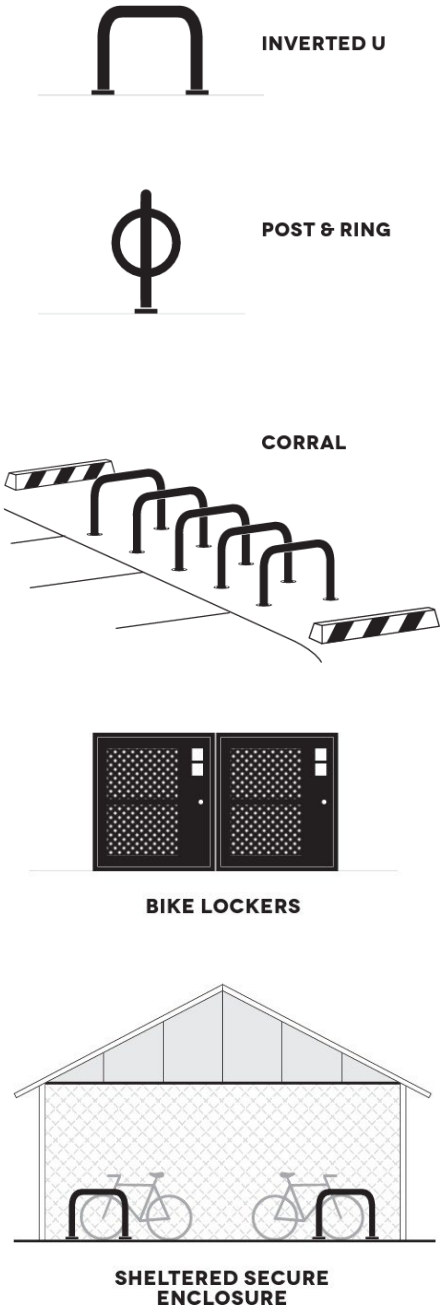
BICYCLE STORAGE & PARKING

Alongside bike lanes and trails, a key component of the bicycle network is secure bicycle storage and parking. Without ample and safe bike parking, people may be more reluctant to choose to bike. Installing and maintaining end-of-trip facilities such as bike racks/ parking, bike lockers/secure bike storage, showers, and personal locker encourages commuting by bicycle by making it more convenient.

The city should refer to the Association of Professional Bicycle Professionals (APBP) resource, Essentials of Bike Parking, which outlines design and installation guidelines for short-term and long-term bike parking **(Figure 36)**. Placement and selection of these facilities should consider not just traditional bikes but cargo, e-bikes and adaptive devices. Grided bike racks, loop bike racks, and other similar bike racks that do not allow the user to easily lock the frame and wheel of the bike to a post should be avoided. These racks are typically inefficiently used, harder to secure one's bike, and less compatible with larger e-bikes and cargo bikes. The inverted U or other similar bike racks as shown in **Figure 36** are preferred.

FIGURE 36: BIKE PARKING IN GRAND JUNCTION

FIGURE 37: TYPES OF APBP-COMPLIANT PARKING



OBJECTIVE M2

Prioritize installation of bike and micromobility parking and secure storage in key destinations downtown, outside of city properties, and near major transit hubs, parks, schools, employment centers, and shopping areas.

The city should prioritize installation of bike parking and secure bike storage in key destinations such as downtown, outside of city properties, and near major transit hubs, parks, schools, employment centers, and shopping areas. Secure bicycle parking incorporates a "post" or "rack" where the front tire and the frame of the bicycle can be easily locked. The city should also accommodate alternative micromobility devices such as e-bikes and scooters by constructing dedicated micromobility parking in high-demand areas. Bike parking could take the form of bike racks, micromobility corrals, bike lockers, bike shelters, and repurposed parking spaces.

Regardless of the type of bike parking used, it is important that it holds the number of bikes as they are designed to hold and it stores them securely. For example, on many traditional "bike racks" a bicycle can only be secured on each end of the rack where one can lock both the front wheel and the frame of the bicycle to the rack. The spots between are difficult to use with limited distance between bike slots to lock up to and not as secure due to only a single tire being secured to the rack. This results in the total number of bicycle parking spaces the rack was designed for not being met and those bikes locked up not as secure. These concerns are magnified for e-bike users due to the larger size of the bike.

OBJECTIVE M3

Encourage new and existing developments to provide secure bike parking and amenities through requirements and incentives.

The city should also encourage new and existing developments to provide secure bike parking and amenities. The Development Code should require bike parking with new construction and a requirement or create an incentive such as vehicular parking amenity credit for covered, secure, easily accessible bike rooms in multifamily developments and office buildings. Additionally, the city should explore options for incentivizing existing developments to add secure bike parking, such as a grant program. The city could work with existing businesses to provide bike parking by sharing the cost and promoting the League of American Cyclists Bicycle Friendly Business program.

FIGURE 38: BICYCLE PARKING OUTSIDE OF SCHOOLS CAN BE ESPECIALLY IMPORTANT

STREET FURNITURE

The buffer/amenity zone described alongside the Bicycle and Pedestrian Facility Types is an area that separates trails and sidewalks from travel lanes. These buffers should include both horizontal and vertical separation. Wider buffers provide distance from moving traffic, but also create a valuable space to park micromobility devices like scooters and bikes, to rest, to wait for the bus, and more.

Some buffer/amenity zones may be landscaped with native grasses, shrubs, and trees. Hardscaped buffers however, offer the opportunity to install street furniture like benches, streetlamps, bus stops, bike parking, waste receptacles, fountains, public art, and more. Each of these present amenities to people walking, of all ages and abilities. Benches cater to people waiting for the bus, as well as older adults and small children, who may need to take more breaks. Pedestrian lighting, discussed below, create a sense of safety on a street at night. Each amenity listed creates a more pleasant and comfortable environment, making it more attractive to walk.

Along trails, amenities like shade, water fountains, seating, and ADA accessible restrooms support recreation and active transportation.

OBJECTIVE M4

When upgrading bicycle and/or pedestrian facilities on a corridor, design high-quality landscaped or hardscaped buffers with street furniture and pedestrian amenities.

FIGURE 39: BENCHES, BIKE RACKS, WASTE RECEPTACLES, AND SIGNAGE CREATE A PLEASANT SPOT

PEDESTRIAN-SCALE LIGHTING

Comments received from the public engagement process included the need to provide safety for nighttime users. Lighting plays an important role in establishing a safe and inviting environment for people to walk and bike. Many are likely familiar with Main Street environments that create an appealing place to walk at all times of day, with lampposts and cheerful string lights that continue to draw visitors to shops and restaurants throughout the evening. The opposite is also true. Dark, unlit corridors, regardless of whether they are a local street or a major arterial, feel uninviting and unsafe to the average person.

For those already unsure about walking or biking, especially vulnerable users like mothers with children or older adults, knowing that they will have to return home at night in the dark is likely to discourage choosing to walk or bike. Installing lighting of the appropriate scale and spacing can improve ambiance dramatically and increase one's sense of safety and "being seen" at night.

When updating pedestrian and bike facilities on a corridor, the city should concurrently plan for the upgrade of lighting in the project area. Lighting considerations include:

Scale and Aesthetics: The dimensions of streetlights should be scaled to the width and characteristics of the street. Smaller lampposts between 25 and 30 feet should be chosen for local and collector roads to support street character and walkability of

FIGURE 40: EXAMPLES OF PEDESTRIAN LIGHTING IN GRAND JUNCTION

neighborhoods and local commercial districts. Taller poles of 30 feet or more are appropriate for wider arterial streets and highways. Other attractive types of lighting beyond lampposts can support illumination of the public realm, such as string lights, storefront lighting, lit signs, etc.

Spacing: Spacing between streetlights should be roughly 2.5 to 3 times the height of the pole. Density along a corridor and traffic speeds also affect ideal spacing. Lighting will be less frequent in rural areas, but alongside new development, lighting frequency should increase. Light cones are roughly the same diameter as the height of the fixture, which will influence the maximum distance between streetlights to avoid dark areas.

Light Pollution and Energy Efficiency: "Dark sky friendly" lighting fixtures focus lighting directly downward onto the street to minimize flare and light pollution, while maximizing useful light. Shielded and cut-off fixtures with energy-efficient LED light bulbs are more cost-effective and reduce light pollution by directing light toward the ground. Solar powered fixtures should be installed when possible to take advantage of Grand Junction's climate.

For more information, the city can refer to lighting design guidance in the Global Designing Cities Initiative's *Global Street Design Guide*.

OBJECTIVE S4

Conduct a lighting needs assessment for each active transportation corridor - as a first step in identifying lighting needs for safety improvements.

OBJECTIVE M5

When upgrading bicycle and/or pedestrian facilities on a corridor, concurrently plan for the upgrade of lighting in the project area.

WAYFINDING & SIGNAGE

Signage is a practical component of a community's transportation system, directing users to key destinations. However, it also offers an opportunity for the city to create a sense of place and cohesive, artistic system for orienting visitors and bringing people into the downtown core and commercial districts to explore shops and restaurants. In this way, wayfinding can simultaneously act as an economic development driver and unite transportation and land use.

Signage should indicate where to find key destinations, such as shopping and dining, the town hall and post office, trailheads, the nearest bus stop, and more. Thoughtful design and placement of this signage can help visitors and residents orient themselves downtown and easily locate key destinations. **Figure 41** shows how simple this kind of signage can be, while remaining aesthetically pleasing. The pedestrian scale of this signage caters to people walking downtown and in commercial districts, but it can also be read by those on a bike or in a car. Signage at range of scales, including gateways, directional signs, street banners, pavement markings, map kiosks, and bikeway signage can assist all types of travelers with navigation.

FIGURE 41: EXAMPLE OF WAYFINDING SIGNAGE

Wayfinding systems should also include estimated walking time to each destination listed to further highlight ease of pedestrian access.

As recommended in the *Vibrant Together* downtown plan, Grand Junction should initiate a comprehensive wayfinding and signage study to create a consistent strategy for connecting people walking, biking, and driving to downtown and other key destinations.

OBJECTIVE M6

Initiate a comprehensive wayfinding and signage study to create a consistent strategy for connecting people walking, biking, and driving to downtown and other key destinations.

Bikeway and trail signage is especially important to help people walking, rolling and biking reach major destinations and landmarks. In partnership with the Urban Trails Committee, in 2020 the city installed 300 wayfinding signs to guide cyclists throughout the community. As the city continues to build out bike facilities and new trails over time, they should incorporate additional signs with the same wayfinding standards at decision points – typically at the intersection of two or more bicycle facilities and at other key locations along bicycle routes. Signage should be regularly refreshed or replaced as it becomes damaged, faded, or out of date. Over time, outdated signage should also be replaced with new, updated information. Signs may be directional and related to routing users to key destinations, mile markers to help users self-locate, or pertaining to trail etiquette.

OBJECTIVE M7

As the city continues to build out bike facilities and new trails over time, incorporate additional signs with the same wayfinding standards at decision points and incorporate design elements to accommodate for low vision users.

The Steering Committee was particularly concerned with signage on the Riverfront Trail and suggested two major changes in that specific area – first, striping a centerline on the trail starting on the east end of Las Colonias Park and continuing to the west through the high use area of the trail; and second, installing signage on trail etiquette along the Riverfront Trail. The centerline is recommended to highlight two-way traffic on the trail, maintain space for passing, and reduce safety conflicts. Trail etiquette signage is intended to communicate responsibilities of trail users to keep to the right, leash dogs, respect proper cycling speeds, pay attention at high traffic intersections, etc.

OBJECTIVE M8

Improve signage on the Riverfront Trail.

SHARED MICROMOBILITY

In 2022, the City released a Referral for Proposals to solicit shared micromobility (eg. bike and scooter share) services from micromobility companies and to evaluate the effectiveness of this mode of transportation on first and last-mile connections and modal shifts. The 18-month pilot study is slated to start 2023.

Scooters and bike share have been successfully deployed in several Front Range communities including Fort Collins, Boulder, Colorado Springs, Denver, and Longmont. Sharing services are most successful and financially sustainable where there is a higher density of land uses, since people can travel shorter distances to reach destinations, the ideal trip type for micromobility to support.

Shared micromobility has numerous benefits, including flexible travel options, better first-and-last-mile connections to transit, and replacement of vehicle trips.

The city will use geofencing and micromobility corrals and eventually explore a docked system to keep walkways clear for pedestrians and people using wheelchairs and other mobility devices, while also reducing visual clutter along the sidewalk. The city will build and encourge development to provide additional bike parking. Should the micromobility pilot be successful, property owners may choose to provide device parking in coordination with micromobility vendors.
The street standards could be updated to include a buffer/amenity zone in new
sidewalks in core areas of the city that can be used for micromobility parking safely outside of the sidewalk.

OBJECTIVE M9

Close the gaps on first-and-last mile connections through the deployment of shared micromobility devices (e-scooters, e-bikes, etc.) and utilize geofencing and parking corrals to accommodate device parking in high-traffic areas.

Safe Routes to School (SRTS)

Safe Routes to School (SRTS) programs are designed to make it safer for students to walk and bike to school, and thus encourage more walking and biking. Beyond supporting safety, SRTS programs can reduce traffic congestion, provide environmental benefits, and improve health outcomes by promoting habits of walking and biking that may influence travel decisions later in life.

The city of Grand Junction dedicates a portion of the federal Community Development Block Grant (CDBG) distribution it receives each year to the city's Safe Routes to School Program. Since 2016, the city has invested more than $700,000 in walking and biking infrastructure improvements around schools, including new sidewalks, crosswalks, traffic calming, and accessibility projects. The Mesa County Regional Transportation Planning Office (RTPO) has a separate program that conducted STRS assessments of 12 elementary schools and 8 middle schools in School District 51.

OBJECTIVE S5

Bolster the existing Safe Routes to School program by incorporating new elements of the six Es.

The city of Grand Junction can bolster their Safe Routes to School program by incorporating all elements of a successful SRTS program: the "six Es." The six Es represent an integrated and comprehensive approach to making streets healthier and safer for everyone, regardless of their destination or travel mode. The following section describes each of the six Es and related initiatives.

Education – Providing students and the community with the skills to walk and bicycle safely, educating them about benefits of walking and bicycling, and teaching them about the broad range of transportation choices.

- Schools can launch advertising campaigns to promote travel to school by means other than driving.
- Public education can include information distributed to students about travel options, including safe walking and biking routes, transit services, and carpools.

Encouragement – Generating enthusiasm and increased walking and bicycling for students through events, activities, and programs.

- Walk Pools/Walking School Bus: Organized walking groups for children, chaperoned by an adult, that encourage students to walk together to school.
- Bike Bus: Organized bike rides to school chaperoned by an adult(s), that provide a fun morning experience and safety in numbers.
- Walk, Roll, and Bike to School Day: Event that encourages participation and educates students on the benefits and ways to walk and bike to school comfortably and safely.
- Partner with local organizations to lead/help with SRTS programs.
- Engage parents as volunteer crossing guards and walk/bike bus leaders.
- Create a yard sign program.

Engineering – Creating physical improvements to streets and neighborhoods that make walking and bicycling safer, more comfortable, and more convenient.

- High quality sidewalks and crosswalks near schools: Refer to the recommended facility types and alignments in this plan – proximity to schools and crash history were both factors used in project identification and prioritization, with projects close to schools and near crash hot spots considered higher priority.
- High visibility signage and markings in school zones.
- Designated curb space outside schools for pick-up and drop-off zones.

Traffic calming in neighborhoods around schools like curb extensions, pedestrian refuge islands, etc. **(Figure 41).**

Enforcement – Deterring unsafe traffic behaviors and encouraging safe habits by people walking, bicycling and driving in school neighborhoods and along school routes.

- The city can work with schools to identify if there are particular behaviors that cause safety issues that could be alleviated through a form of enforcement of better practices, and how to generally enhance awareness of school zones where children may be present.
- Crossing guards/police enforcement during peak travel times.
- Reduce school zone speed limits.

Evaluation – Assessing which approaches are more or less successful, ensuring that programs and initiatives are supporting equitable outcomes, and identifying unintended consequences or opportunities to improve the effectiveness of each approach.

- Maintain an open forum to collect parent, teacher, staff, and student concerns.
- Conduct surveys on travel behavior to and from school and barriers to walking and biking.
- Evaluate barriers in the built environment to walking and biking near school properties.
- Conduct safety audits at pick-up and drop-off times to identify safety issues.
- Expand successful programs.

Equity – Ensuring that Safe Routes to School initiatives are benefiting all demographic groups, with particular attention to ensuring safe, healthy, and fair outcomes for low-income students, students of color, students of all genders, students with disabilities, and others.

- Ensure ADA access to school properties.
- Focus attention on schools in low-income neighborhoods/with many students of color.

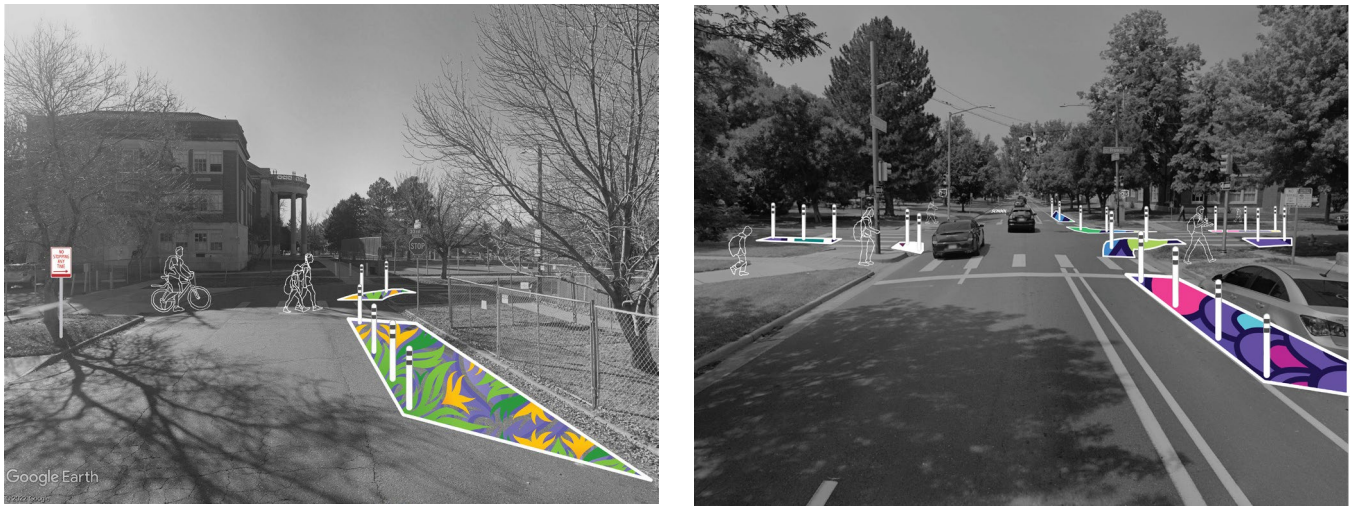


FIGURE 42: EXAMPLE OF TRAFFIC CALMING NEAR SCHOOLS

Grand Junction uses CDBG funding for its SRTS program, but has not pursued SRTS funding through CDOT's Transportation Block Grant due to "administrative challenges associated with the state program." Almost all funding for SRTS is federal but distributed at the state level. There are a range of project types eligible for SRTS funding, including campaigns, educational initiatives, sidewalk and crossing repairs, and equipment pilot programs. It is recommended that the city consider expanding its SRTS program by diversifying funding sources to include CDOT funding in addition to dedicated CDBG funding.

OBJECTIVE Q5

Consider expanding the SRTS program by diversifying funding sources to include CDOT funding in addition to dedicated CDBG funding.

The city is most likely to be successful for grants to implement infrastructure that improves bicycle and pedestrian safety by formalizing the SRTS program, including ongoing action items to collect data on travel behavior to and from schools. A well-organized and complete SRTS program will benefit transportation in Grand Junction by providing users with a range of transportation options and enhance the real and perceived safety of those options. When the focus of transportation planning and design is on the most vulnerable users, children walking and biking, the safety benefits reach everyone. Increased walking and biking provide environmental and health benefits to students, but also provides the transportation benefits of reduced traffic congestion and lower transportation costs for school districts and families. Safer streets, reduced congestion, and a greater share of trips occurring through walking and biking all support the vision of the plan.

More information and resources on Safe Routes to School can be found through the Safe Routes to School National Partnership: https://www.saferoutespartnership.org/.

Community-wide Incentive Program

Through their Bicycle Friendly Community Designation, the League of American Cyclists encourages municipalities to develop a community-wide commute trip reduction (CTR) ordinance, incentive program, and/or a Guaranteed Ride Home program to encourage and support bike commuters.

Through this program, the city would work with large employers to implement a voluntary incentive program to support walking and biking to work. Incentives can include e-bike rebates, bike-themed events such as bike rodeos and Bike to Work Day, shwag such as bike lights and helmets, and gift certificates for those who bike to City events. Guaranteed Ride Home provides commuters who did not drive to work with alternative means home in case of an emergency.

OBJECTIVE M10

Develop a community-wide incentive program and work with large employers to implement a Guaranteed Ride Home program to encourage and support bike commuters. Incentives can include e-bike rebates, bike-themed events such as bike rodeos and Bike to Work Day, shwag such as bike lights and helmets, and gift certificates for those who bike to City events. Guaranteed Ride Home provides commuters who did not drive to work with alternative means home in case of an emergency.

Education & Awareness

Numerous comments received during the public engagement process referred to the need for education and awareness to establish a more positive culture around walking and biking in Grand Junction. Residents noted that drivers are often unaware of cyclists in the roadway and don't expect them. Many residents also have had negative experiences with drivers, ranging from distracted and dangerous driving to verbal and physical harassment, hostility, and aggression.

OBJECTIVE S6

Work with local driving schools to expand the curriculum on laws governing interactions with people walking, rolling, and biking.

Better driver education is needed to establish respect for people walking and biking and create a more "peaceful coexistence," as one commenter wrote. City law enforcement should work with local driving schools to expand the curriculum on laws governing interactions with people walking, rolling, and biking, such as three-foot passing distance, permission for cyclists to occupy a full travel lane, requirements to stop for people in the crosswalk, window tinting laws; as well as the danger of running red lights and turning right on red during a walk cycle.

In a similar vein, several comments highlighted negative cyclist interactions with law enforcement in Grand Junction and the need to improve relations with people walking and biking. City staff should partner with law enforcement to increase enforcement of speeding and reckless driving in areas with high pedestrian volumes and/or safety issues and consider automated enforcement. The police department may also consider expanding their bike patrol unit to improve bicyclist/officer relations, and ensure that all law enforcement officers have basic training or experience with bicycling.

OBJECTIVE S7

Partner with law enforcement to increase enforcement of speeding and reckless driving in areas with high pedestrian volumes and/or safety issues and consider automated enforcement. Consider expanding the police bike patrol unit.

OBJECTIVE M11

Establish a more positive culture around walking and biking in Grand Junction by creating staff position(s), to assist in public education, promoting the Bicycle Friendly Business program, and/or hosting an LCI seminar.

Beyond these measures, the city should pursue the following recommendations highlighted in the Bicycle Friendly Community Designation and the Walk Friendly Community Report Card:

- Educate staff on walking, walkability, and pedestrian safety.
- Encourage more local businesses, agencies, and organizations to promote cycling to their employees and customers and to seek recognition as a Bicycle Friendly Business.
- Host a League Cycling Instructor (LCI) seminar to increase the number of local LCIs.
- Expand the audience for educational programs to include high school students, college students, and new drivers.
- The city's new Bicycle & Pedestrian Coordinator can take the lead on these actions, along with many of the other programs and policies in this plan.

Policies

One of the most tangible and cost-effective ways to improve the bicycle and pedestrian environment in Grand Junction will be to implement effective policies. Policies can be used by city departments as they perform street construction projects and routine maintenance. The policies can also be used to guide the private sector in new development or redevelopment projects. Adopting policy(ies) may assist in ensuring projects incorporate the city's goals for the bicycle and pedestrian environment and create a consistent experience for users.

Based on the existing conditions analysis and in collaboration with the Steering Committee, the following set of actionable policies are recommended to support buildout and use of the future bicycle and pedestrian network.

Access Management

Access management is an important strategy to mitigate curb cut frequency and conflicts between pedestrians, bicyclists, and turning vehicles. The TEDS Manual states that access should be provided on the lower street classification when a property is adjacent to multiple streets. Additionally, the North Avenue Zoning Overlay provides access management guidance to limit curb cuts specifically along North Avenue. The city should consider expanding this type of policy to Active Transportation Corridors and corridors identified on the Active Transportation High Injury Network (Figure 14, Appendix A Existing Conditions and Needs Assessment) to mitigate conflict points between vehicles and pedestrians and bicyclists. Potential access management strategies typically include redirecting access to side-streets and alleys, consolidating driveways among single and adjacent property owners, and adding medians.

OBJECTIVE S8

Improve the North Avenue access management policy in alignment with national best practices and consider expanding to all the Active Transportation "High Injury Network" Corridors.

Vision Zero

Through their Bicycle Friendly Community designation, the League of American Bicyclists encourages municipalities to adopt a comprehensive road safety plan or a Vision Zero policy. It is increasingly common for municipalities around the country to adopt Vision Zero policies and programs. These Vision Zero policies and programs consist of communities committing to eliminating traffic crashes that result in fatalities or serious injuries by providing safety training, implementing engineering solutions that are proven to slow vehicle speeds while reducing conflicts with other roadway users, and forming multidisciplinary initiatives for implementing safety programming. Grand Junction can join Colorado's statewide program – Moving Towards Zero Deaths – as a first step in solidifying a citywide commitment to supporting multimodal travel through ensuring all trips in the community are as safe as possible.

OBJECTIVE S9

Join the statewide program – Moving Towards Zero Deaths – as a first step in solidifying a citywide commitment to supporting multimodal travel through ensuring all trips in the community are as safe as possible.

Construction Zones

Pedestrian and bicycle accommodation in work zones is already a federal standard defined in the Manual on Uniform Traffic Control Devices, and the city currently has a work zone policy consistent with federal standards. The city should strengthen compliance with the construction zones policy that requires developers and construction companies to reroute sidewalks and bicycle facilities that are impacted by construction, similar to the way that they must currently continue to facilitate roadway access for people driving. This means accommodating people walking and biking with a temporary walkway and bikeway adjacent to the construction zone, or at minimum signing alternate detour routes on either end of the construction zone.

The city could consider more active enforcement along the Active Transportation Corridors.

OBJECTIVE C2

Strengthen enforcement and compliance of the existing construction zones policy that requires developers/construction companies to provide sidewalks and bicycle facilities during construction.

Constructing Active Transportation Facilities

The city should continue to enforce the current policy for new development to construct an Active Transportation Corridors that run along or through a site (as identified in **Figure 45** and **Figure 47**) unless another funding constructing source is identified (eg TCP). Currently, if there is a missing or deficient sidewalk or planned trail adjacent to the development, the developer is responsible

for implementing or upgrading the sidewalk or trail according to the widths and standards identified in TEDS. When an Active Transportation Corridor is shown as part of a Collector or Arterial Street, the city should continue to plan for and construct these routes.

FIGURE 43: EXAMPLE OF COVERED WALKWAY AT CONSTRUCTION SITE

Additionally, commercial and multifamily residential developments should continue to provide bike parking. The city could consider providing incentives or requiring larger developments to provide secured bike parking.

OBJECTIVE Q6

Continue the current policy where planned Active Transportation Corridors that run through a site or along the edge of a site be constructed as part of the development.

Building a Connected Network

Public input and an analysis of the existing transportation network highlighted the lack of connectivity between many neighborhoods in Grand Junction due to the curvilinear street network, especially for people walking or bicycling. The city's existing Subdivision Standards already require connectivity and "Promote{s} pedestrian uses, bicycling, and transportation modes other than private automobile." This connectivity standard should remain creating a connections between two otherwise unconnected streets/neighborhoods and can greatly decrease the trip lengths s for people walking, rolling and bicycling, as conveyed in **Figure 44**.

In established neighborhoods, these connections can be created by finding existing easements or right-of-way or by acquiring new right-of-way or easements if none currently exists.

OBJECTIVE C3

Require new developments to provide or set aside space for pedestrian and bicycle connections within the local street network of new developments and to adjacent streets in situations where there is a lack of connectivity in the roadway network.

OBJECTIVE C4

Consider reducing the existing maximum block lengthof 1200 linear feet for pedestrian and bicycle connections.

The City's current maximum block length of 1200 linear feet is established in the Transportation Engineering Design Standards (TEDS) for vehicular access. The City should consider pedestrian and bicycle connections at an interval closer to 600 feet, which is the distance data indicates is a more comfortable block length for pedestrians to navigate. A "Connectivity Index" could also be used.

Applying Transportation Demand Management

Transportation Demand Management (TDM) measures are strategies typically designed to facilitate the use of alternate transportation modes to decrease demand on the roadway system by single occupant vehicles. Grand Junction should explore incentive-based measures, such as updating its Transportation Impact Study guidelines (Chapter 29.08.200 of the Municipal Code) to encourage TDM strategies that major developments could opt-in to specifically to support walking and biking. These could include constructing Active Transportation Corridors, bike facilities, showers, car share, or support for bike commuters. Incentive-based measures may weigh some TDM strategies greater than others.

OBJECTIVE M12

Explore Incentive-based Transportation Demand Management (TDM) measures that major developments could opt-in to, to support walking and biking. These could include building the Active Transportation facility, other bike facilities, showers, car share, or support for bike commuters.

Parking Policy

Encouraging developments to right-size off-street parking increases the walkability of an area by increasing density, activating the pedestrian experience, prioritizing pedestrian infrastructure, and reallocating space for people instead of vehicles. The city's development Code currently identifies parking minimums for different land uses. Reducing and in some cases relieving all parking requirements is a strategy that may better align parking with the community's goals of mobility and affordability, as well as reduce one of the highest costs associated with new development. Other parking strategies that promote walkability to consider and that warrant further study include:

- **Fee-in-lieu**-Fee-in-lieu allows a developer the choice to pay a fee into a municipal fund instead of providing on-site parking spaces required per the development code. This policy is especially effective for small parcels where redevelopment may be less viable due to parking requirements. This fee can assist in financing public parking spaces or/and fund other transportation demand management and multimodal investments that will help to reduce single occupancy vehicle use.
- **Paid and time restricted parking**-Paid and time restricted parking is a management approach to shift behaviors and encourages more walking and biking.

OBJECTIVE M13

Revise the parking minimum standards for different land uses to better align parking with the community's goals, reduce the development costs associated with excessive parking and allow for innovations, flexibility, and greater affordability.

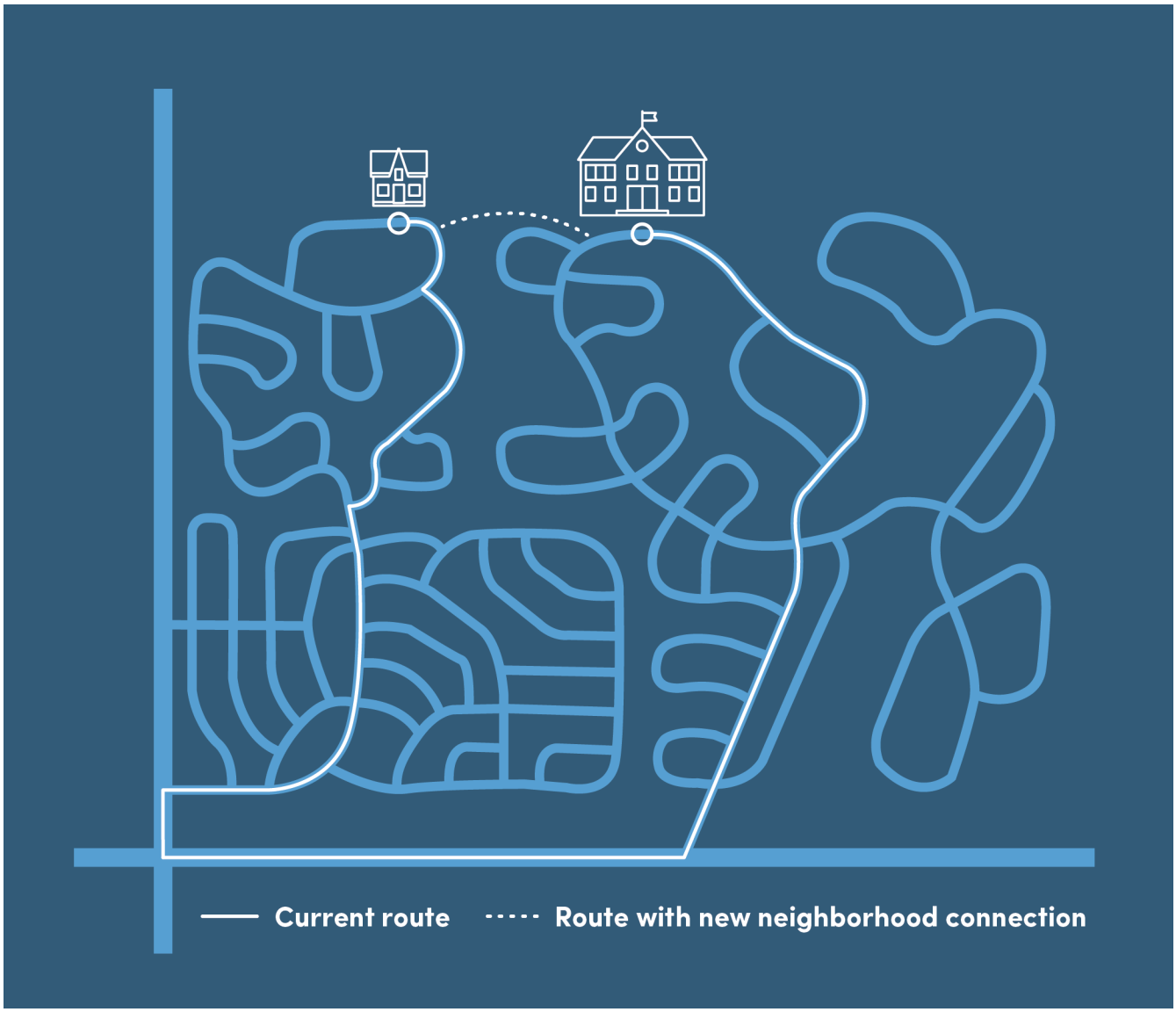


FIGURE 44: CONCEPTUAL DISPLAY OF INCREASE IN CONNECTIVITY WITH BICYCLE/PEDESTRIAN CUT-THRU

Grand Junction Planning Commission

Workshop Session

Item #2.

Meeting Date: April 6, 2023

Presented By: Nicole Galehouse, Principal Planner

Department: Community Development

Submitted By: Nicole Galehouse, Principal Planner

Information

SUBJECT:

Discuss Cannabis Product Manufacturing Facilities Regulations

RECOMMENDATION:

EXECUTIVE SUMMARY:

Referred measures 2A and 2B were passed on April 6, 2021, in the municipal election, providing the Council with an opportunity to consider establishing tax rates and regulations for cannabis businesses. Since that time, City Council and staff have focused on regulation and licensing of retail and co-located retail and medical cannabis businesses. As that process comes closer to licensing 10 stores, the City is now interested in evaluating the regulation of extraction and processing of cannabis.

BACKGROUND OR DETAILED INFORMATION:

BACKGROUND

Cannabis Product Manufacturers

Cannabis Product Manufacturing Facilities manufacture cannabis products intended for consumption in concentrated form for smoking, or for consumption other than by smoking, such as edible products, ointments, and tinctures, and are required to have both a state license and a local license to be a “Product Manufacturer.” These businesses may vary widely in terms of their products and processes and may include hazardous uses which in Grand Junction currently requires a Conditional Use Permit. Medical product manufacturers may transact only with medical cannabis cultivation and sales licenses, and likewise for retail. These businesses may generate jobs for their processing and packaging activities, depending on the type of product manufactured, scale of operation, and the degree of automation. There is no sales or excise tax on manufactured products (excise tax is to be collected on the first sale or transfer of unprocessed retail marijuana by a retail cultivation facility within the City).

This ordinance amends Title 21, including Chapter 4 and Chapter 10, and includes proposed changes to the use table, location specific limitations and definitions. As a component of licensure, as well as a process pertinent to any business operation in the City, land use and its related impacts (e.g. noise, odor, traffic, etc) is a primary consideration related to cannabis Product Manufacturer businesses. Unlike retail cannabis businesses, cannabis Product Manufacturers are primarily industrial in function. When discussed with the Planning Commission at a series of five workshops from January 21, 2021 to February 18, 2021, recommendations for regulating this land use reflect that distinction. Previous workshops led the Planning Commission to recommend such businesses be limited to areas where general manufacturing and food product manufacturing are allowed, depending on the nature of the specific business, to include I-O (Industrial – Office), I-1 (Light Industrial), I-2 (General Industrial), and C-2 (General Commercial) zone districts. Though the current code requires hazardous uses (H Occupancy) per Fire Code to seek a Conditional Use Permit (CUP) to operate in I-O, I-1, and I-2 zone districts, this requirement has been removed in the current draft of the Zoning and Development Code.

After further consideration and research, staff recommends further refinement to the areas in which cannabis Product Manufacturers are allowed. Within the broad Product Manufacturer category, there are two distinct types of operation – those who extract and process raw material and those who produce a cannabis-infused product. The extraction and processing of raw material presents greater risk factors due largely to the use of volatile materials as well as nuisance issues such as odor. Because of the difference in potential risk and impact, staff recommends that Product Manufacturers be split into two uses as follows:

Cannabis product manufacturing facility shall mean a business licensed as a Product Manufacturer to purchase cannabis; manufacture, prepare, and package cannabis products; and wholesale cannabis and cannabis products to other licensed cannabis businesses for wholesale.

Cannabis-infused product manufacturer means a business licensed as a Product Manufacturer that utilizes cannabis previously extracted and/or manufactured off-site to infuse into products, prepare, and package products intended for wholesale.

The zone districts originally recommended by the Planning Commission remain consistent with zone districts contemplated to allow Products Manufacturing Facilities; however, staff recommends that certain areas of the City that have these zone districts are removed from allowing this use due to potential safety and nuisance issues. The general areas proposed to be removed include the Greater Downtown area (Rail District), areas in the vicinity of the Dos Rios and Las Colonias Improvement Districts, and specific areas that are nearby or adjacent to residential development and/or residential land use areas. This will be accomplished with a zoning overlay; the proposed zoning overlay boundaries are shown in the attached map. This approach would streamline verification of allowable sites for the use.

The Cannabis-Infused Product Manufacturer, as defined above, does not have the same concerns regarding hazardous materials. As such, staff recommends defining a separate Use Category for businesses that exclusively infuse instead of extract. The use is proposed to be allowed in all zone districts previously recommended by the Planning Commission and adds the C-1 (Light Commercial), B-1 (Neighborhood Business), B-2 (Downtown Business), M-U (Mixed-Use), and BP (Business Park Mixed Use) zone districts.

Use Category	Principal Use	RR	RE	R1	R2	R4	R5	R8	R12	R16	R24	RO	B1	B2	C1	C2	CSR	MU	BP	IO	I1	I2
Manufacturing and Production – firms involved in the manufacturing, processing, fabrication, packaging, or assembly of goods	*Cannabis products manufacturing facility*															A* –				A* –	A* –	A* –
	Cannabis-infused product manufacturer													A	A	A		A	A	A	A	A

* Subject to the zone district being located within the adopted zoning overlay.

In addition to the overlay and amendments to the zone district, the ordinance also proposes a limitation for Cannabis Product Manufacturing Facilities, excluding Cannabis-Infused Product Manufacturers, that requires the use to be in a standalone building. While the application of fire codes is highly effective in mitigating any danger, the volatility of the substances in use creates enough cause for concern that this additional standard is recommended to protect adjacent businesses.

SUGGESTED MOTION:

Discuss draft regulations and provide recommendations.

Attachments

1. 2023-04.06 PC Workshop
2. Draft Zoning Ordinance

CITY OF Grand Junction COLORADO

Regulations for Cannabis Product Manufacturers

Planning Commission – Workshop

April 6, 2023

Draft Ordinances

1. Ordinance Amending Title 5, Section 5.15.010 et. seq. pertaining to:

   Allowed Cannabis Uses

2. Amending Title 21, Chapters 4 and 10 pertaining to:

   Zoning, Use Standards, Buffering, and Definitions

3. Amending Title 5, creating Chapter 10 pertaining to:

   Cannabis Product Manufacturing Facilities & Cannabis-Infused Product Manufacturer Business Licensing & Regulations

Title 21, Chapters 4 and 10 - Definitions

Cannabis product manufacturing facility shall mean a business licensed as a Product Manufacturer to purchase cannabis; manufacture, prepare and package cannabis products; and wholesale cannabis and cannabis products to other licensed cannabis businesses for wholesale.

Cannabis-infused product manufacturer means a business licensed as a Product Manufacturer that utilizes cannabis previously extracted and/or manufactured off-site to infuse into products, prepare and package products intended for wholesale.

Title 21, Chapters 4 and 10 - Zoning

Cannabis product manufacturing facility

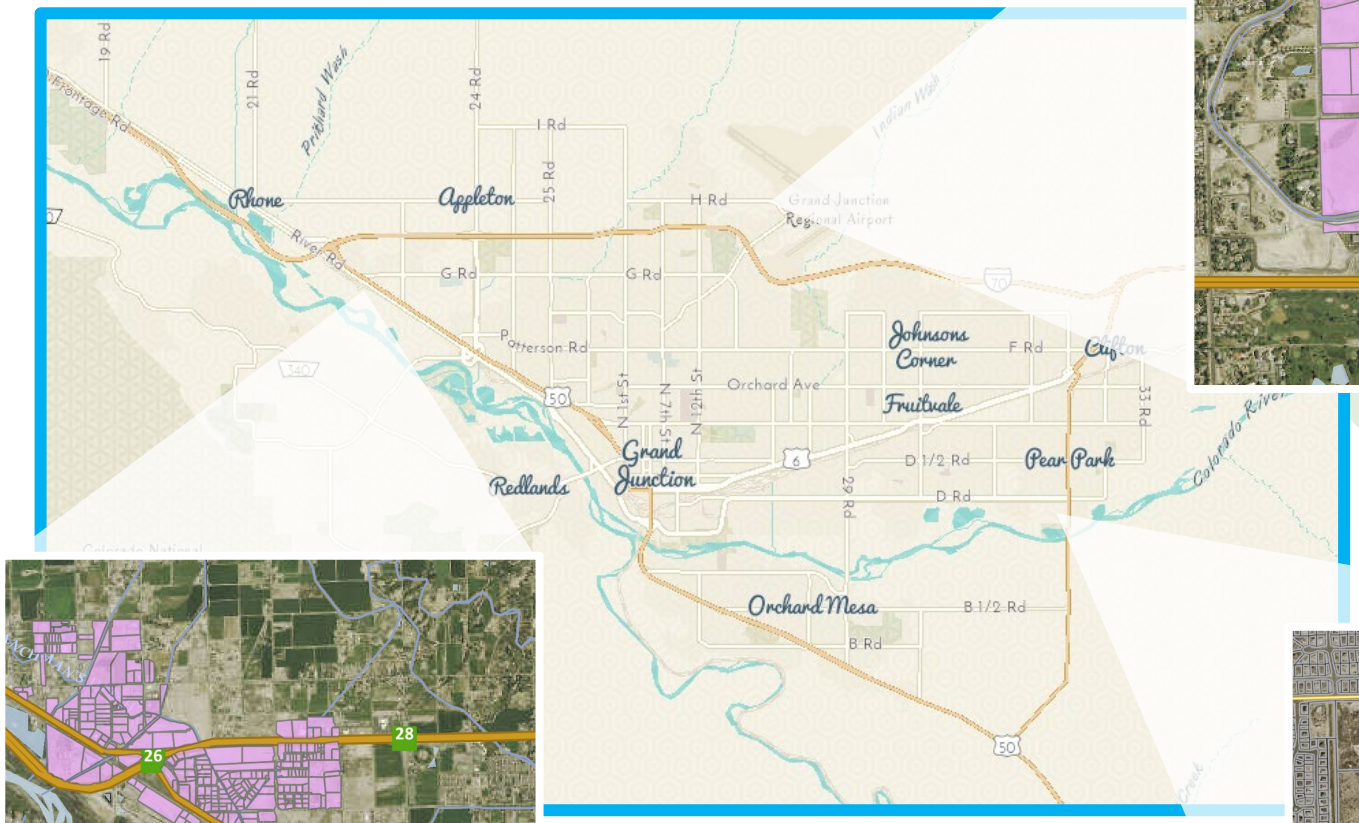
- Overlay based on the following zone districts, with thoughtful exclusions for compatibility:
  - *General Commercial (C-2)*
  - *Industrial Office (I-O)*
  - *Light Industrial (I-1)*
  - *General Industrial (I-2)*

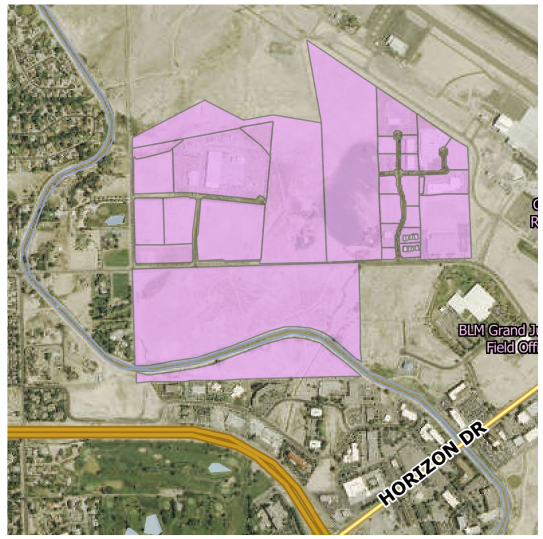
Cannabis-infused product manufacturer

- Allowed by right:
  - *General Commercial (C-2)*
  - *Industrial Office (I-O)*
  - *Light Industrial (I-1)*
  - *General Industrial (I-2)*
  - *Light Commercial (C-1)*
  - *Downtown Business (B-2)*
  - *Mixed-Use (M-U)*
  - *Business Park Mixed-Use (BP)*

EXHIBIT A

Proposed Cannabis Product Manufacturing Facility Overlay





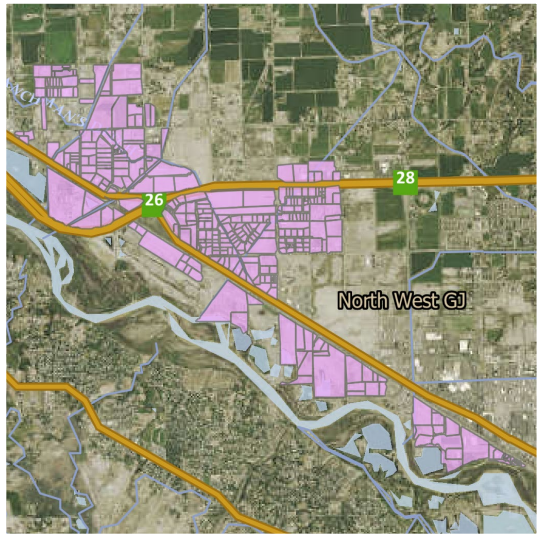
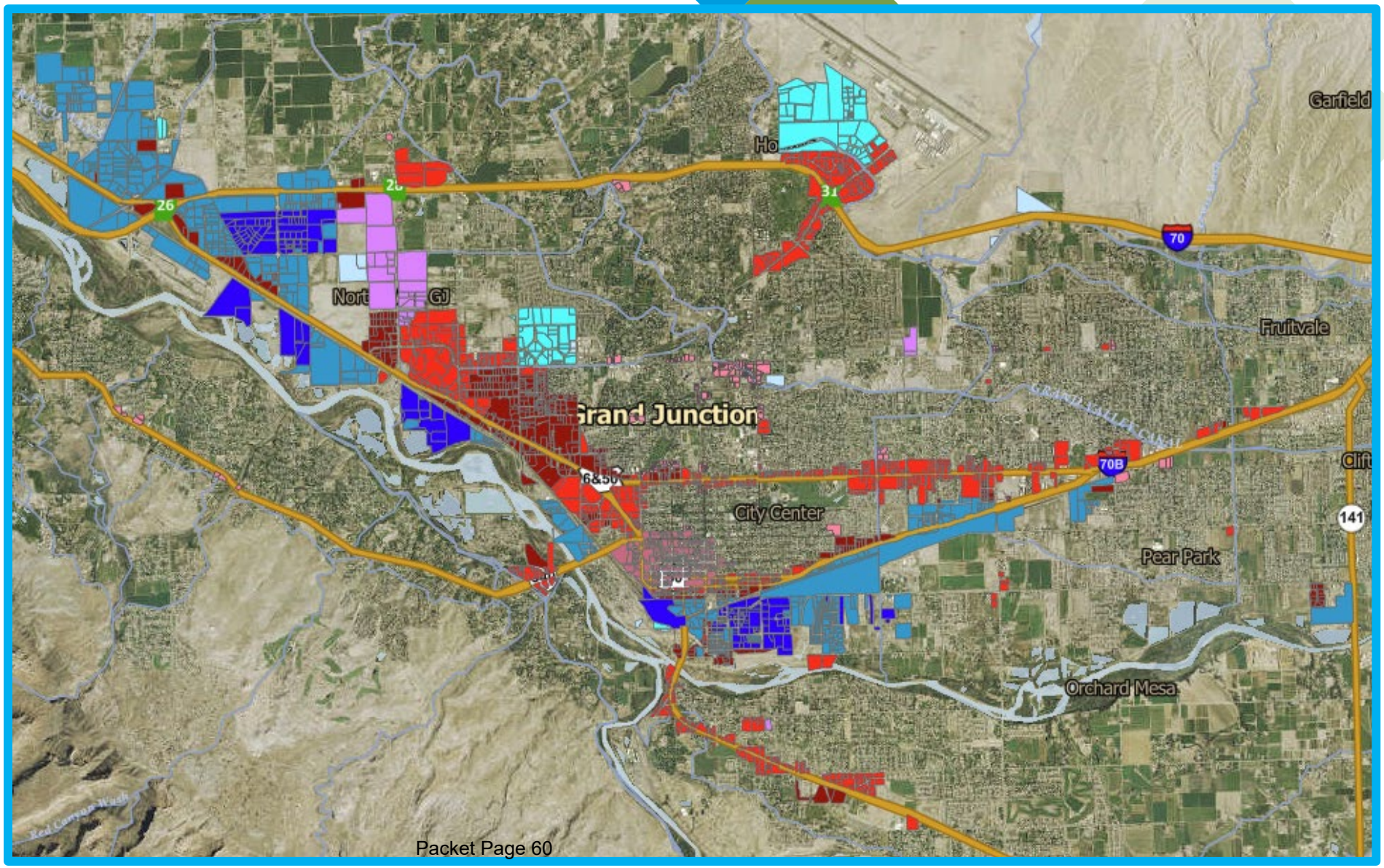
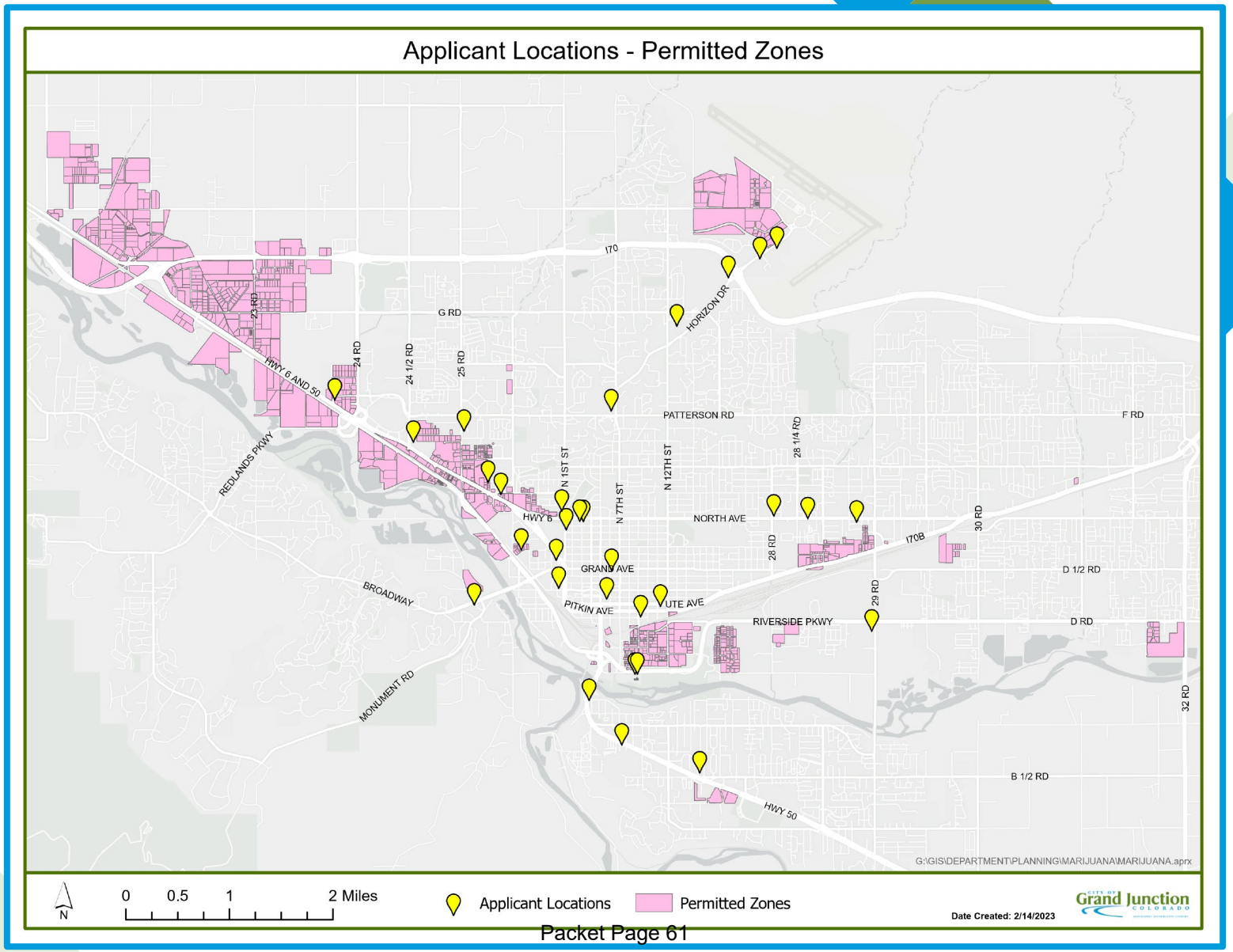


EXHIBIT A

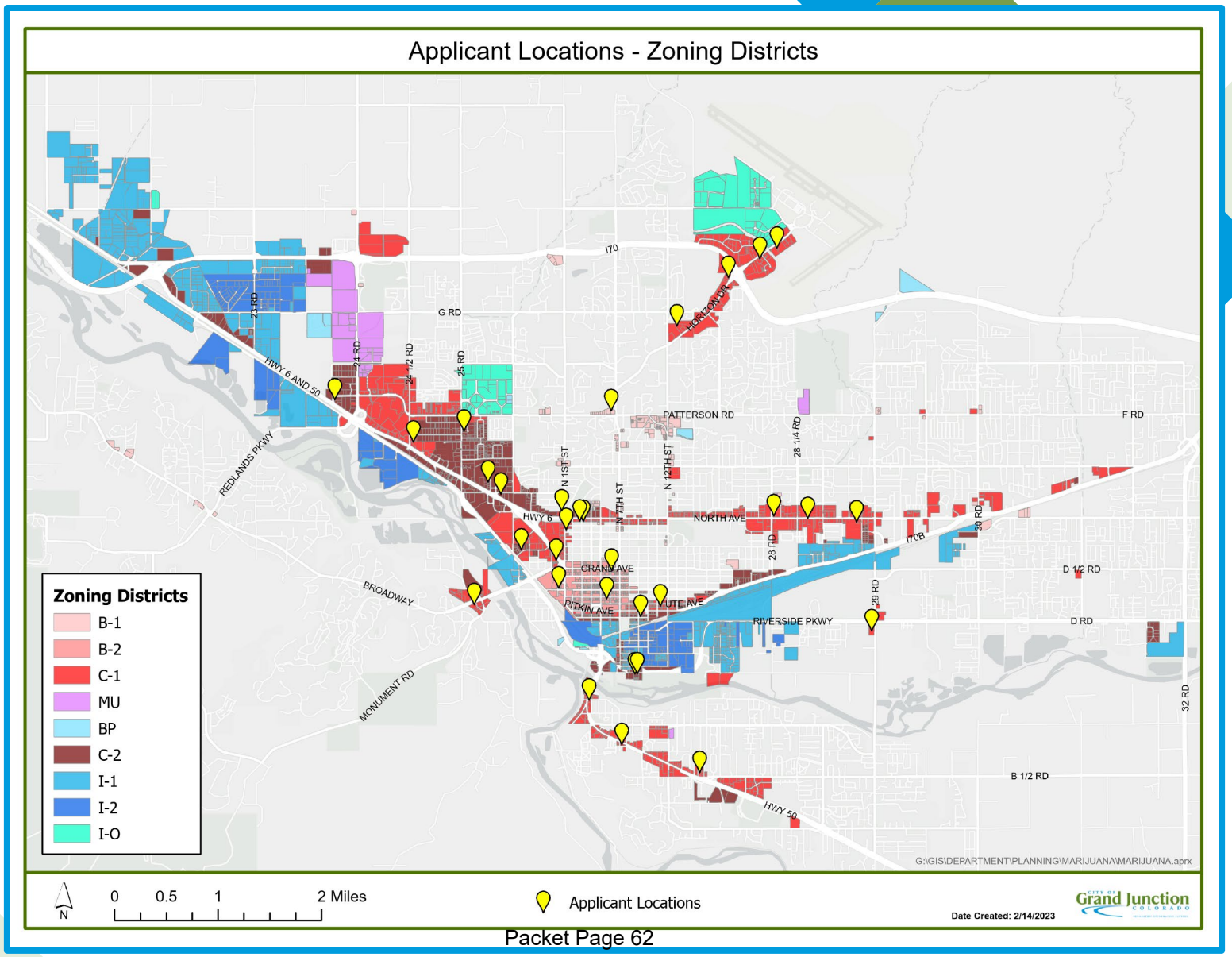
Proposed Cannabis-Infused Product Manufacturer Zone Districts



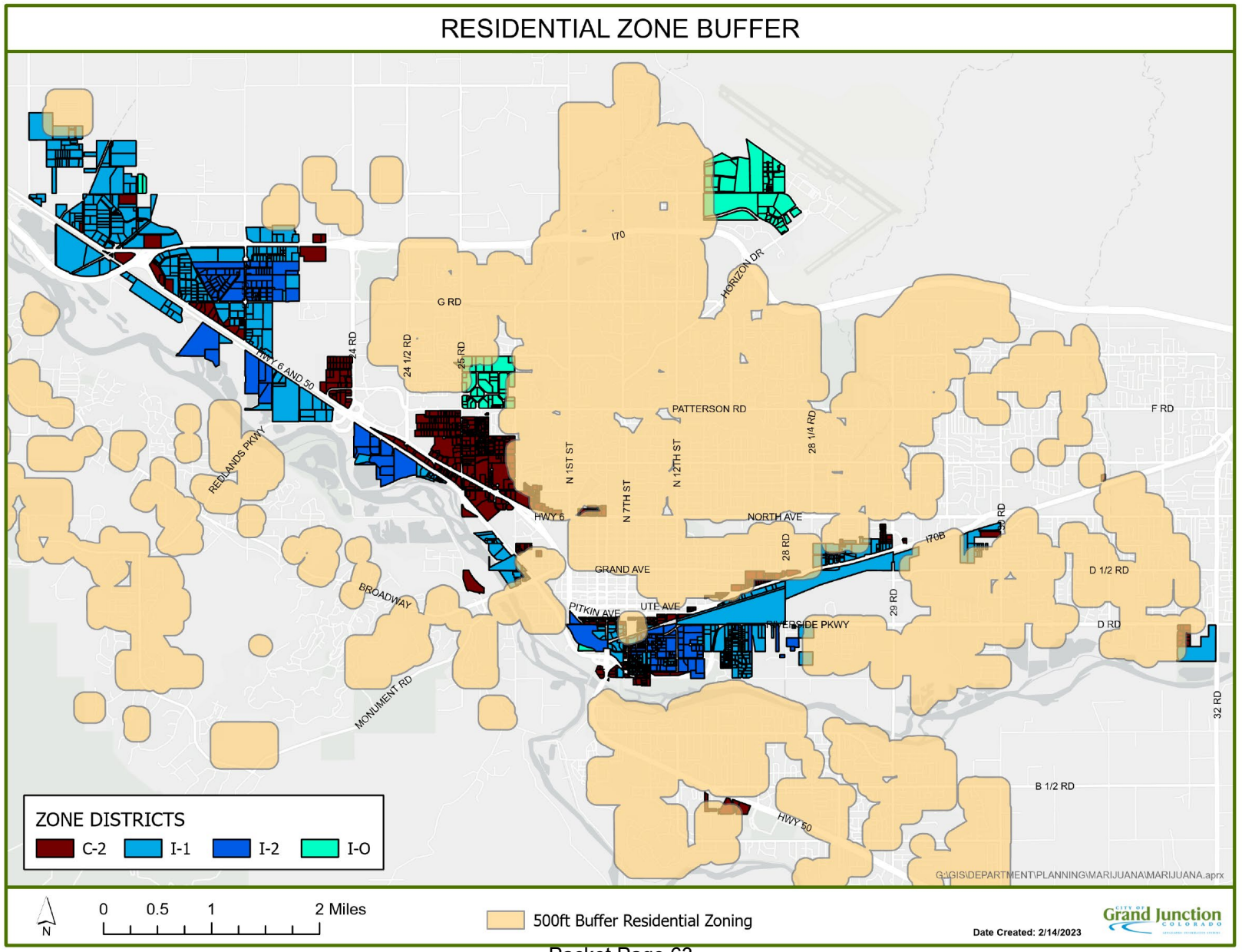
Retail Cannabis Store Applicants – Proposed Zones for Cannabis Product Manufacturers



Retail Cannabis Store Applicants – Zoning Districts for Cannabis Product Manufacturers



Buffer Around Residential Zones – 500 ft



Title 21, Chapters 4 and 10 – Use Standards

- Overlay established
- Cannabis Product Manufacturer Facilities must be located in standalone buildings
  - *Does not apply to Cannabis-Infused Product Manufacturers*
- Retail sales not permitted
  - *Only the 10 licensees under GJMC Chapter 5.13 may be permitted to co-locate*

ORDINANCE NO. _____

AN ORDINANCE TO AMEND TITLE 21 CHAPTER 4 AND CHAPTER 10 OF THE GRAND JUNCTION MUNICIPAL CODE REGARDING USE STANDARDS AND FOR SPECIFIC LOCATION OF CANNABIS PRODUCT MANUFACTURING FACILITIES, AND DEFINITIONS FOR SUCH BUSINESSES

RECITALS:

The City desires to maintain effective regulations in its Zoning and Development Code (Title 21 of the Grand Junction Municipal Code ("GJMC")); regulations that encourage and require appropriate use of land throughout the City while taking into consideration the needs and desires of the citizens of Grand Junction.

Although Federal law criminalizes the use and possession of marijuana as a Schedule 1 controlled substance under the Controlled Substance Act, on June 7, 2010, former Governor Ritter signed into law House Bill 10-1284 and Senate Bill 10-108 which, among other things, authorized the City to adopt an ordinance to license, regulate or prohibit the cultivation and/or sale of marijuana (C.R.S. 12-43.3-103(2)). The law also allowed a city to vote, either by a majority of the registered electors or a majority of the City Council, to prohibit the operation of medical marijuana centers, optional premises cultivation operations and medical marijuana infused products manufacturers.

At the time of House Bill 10-1284 and Senate Bill 10-108's passing, a moratorium was in effect in the City for the licensing, permitting and operation of marijuana businesses. The moratorium, which was initially declared on November 16, 2009 (through Ordinance 4437), was for a period of twelve months and applied to any person or entity applying to function, do business or hold itself out as a medical marijuana dispensary in the City of Grand Junction, regardless of the person, entity, or zoning. On October 13, 2010, City Council adopted Ordinance 4446 which extended the moratorium to July 1, 2011.

At the April 5, 2011 election, the electorate voted in favor of prohibiting the operation of medical marijuana businesses and the amendment of the GJMC by prohibiting certain uses of marijuana (Measure A).

On November 6, 2012, Colorado Amendment 64 was passed by the voters, amending Article 18 of the Colorado Constitution adding Section 16 which allows retail marijuana stores and made it legal for anyone 21 years or older to buy marijuana at such stores. In addition, Amendment 64 allows anyone 21 years or older to legally possess and consume up to one ounce of marijuana. Amendment 64 does not change the Federal law; it still remains illegal under Federal law to produce and/or distribute marijuana also known as cannabis.

On February 6, 2013, City Council approved Resolution 07-13 adopting marijuana policies for the City and restrictions for persons or entities from applying to function, do

business, or hold itself out as a marijuana facility, business, or operation of any sort in the City limits. Later that same year, City Council adopted Ordinance 4599 which prohibited the operation of marijuana cultivation facilities, marijuana product manufacturing facilities, marijuana testing facilities, and retail marijuana stores. Ordinance 4599 also amended Sections in Title 5, Article 15 of the GJMC that prohibit certain uses relating to marijuana.

In late 2015, the City, Mesa County and Colorado Mesa University, by and through the efforts of the Grand Junction Economic Partnership (GJEP), were successful in establishing the *Colorado Jumpstart* business development program. One business which was awarded the first *Jumpstart* incentive planned to develop a laboratory and deploy its advanced analytical processes for genetic research and its ability to mark/trace chemical properties of agricultural products, one of which was cannabis. In October 2016, City Council passed Ordinance 4722 which amended Ordinance 4599 and Section 21.04.010 of the GJMC to allow marijuana testing facilities in the City.

On January 20, 2021, the City Council approved Resolution 09-21, the adoption of which referred a ballot question to the regular municipal election on April 6, 2021 to repeal Referred Measure A contingent on and subject to voter approval of taxation of marijuana businesses. A majority of the votes cast at the election were in favor of repealing the moratorium on marijuana businesses and in favor of taxation of cannabis businesses.

City Council has decided to allow certain regulated cannabis businesses within the City. On April 6, 2022, the City Council approved Ordinance No. 5064, the adoption of which included certain cannabis use licenses and regulations in the GJMC. On May 4, 2022, the City Council adopted Ordinance No. 5070 related to cannabis business licensing land use regulations, including use standards, buffering, and signage requirements.

City staff and community members, including the Cannabis Working Group, have researched, reviewed, and discussed various approaches to manufacturing of cannabis products within the City. Regulations have been established at the state level with the adoption and implementation of the Colorado Marijuana Code in the Colorado Revised Statutes (C.R.S. 44-10-101, *et. seq.*); however, regulation of regulated marijuana uses at the state level alone are inadequate to address the impacts on the City of regulated cannabis, making it appropriate for the City to regulate the impacts of regulated cannabis uses.

The City has a valid interest in regulating zoning and other impacts of cannabis businesses in a manner that is consistent with constitutional and statutory standards. The City Council desires to facilitate the provision of quality regulated cannabis in a safe manner while protecting existing uses within the City. Regulation of the manner of operation and location of regulated cannabis uses is necessary to protect the health, safety and welfare of both the public and the customers. The proposed ordinance is intended to allow manufacturing of cannabis products that will have a minimal impact and where potential negative impacts are minimized.

This proposed ordinance amends the City's Code to permit cannabis product manufacturing facilities in the specific zone districts where like uses are permitted through an overlay informed by specific land uses including, certain schools and specific rehabilitation facilities, as well as residential districts. This ordinance also includes definitions for cannabis product manufacturing facilities.

After public notice and public hearing as required by the Grand Junction Zoning and Development Code, the Grand Junction Planning Commission recommended approval of the proposed amendments.

After public notice and public hearing, the Grand Junction City Council finds that the amendments to allow cannabis product manufacturing facilities by and through the uses and the Use Table, are responsive to the community's desires and otherwise advance and protect the public health, safety and welfare of the City and its residents.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION THAT THE FOLLOWING SECTIONS OF THE GRAND JUNCTION MUNICIPAL CODE INCLUDING TITLE 21: ZONING AND DEVELOPMENT CODE ARE AMENDED AS FOLLOWS (new text additions underlined and deletions marked with strike-through notations):

21.04.010 Use Table.

Key: A = Allowed, C = Conditional, Blank Cell = Not Permitted

Use Category	Principal Use	R-R	R-E	R-1	R-2	R-4	R-5	R-8	R-12	R-16	R-24	R-O	B-1	B-2	C-1	C-2	CSR	M-U	BP	I-O	I-1	I-2	MX-	Std.
Manufacturing and Production – firms involved in the processing, fabrication, packaging, or assembly of goods	*Cannabis product manufacturing facility*															A*				A*	A*	A*		
Retail Sales and Service	*Cannabis-infused product manufacturer*													A	A	A		A	A	A	A	A	A	

*Subject to the zone district being located within the adopted zoning overlay.

21.04.030 Use-specific standards.

(x) Cannabis Product Manufacturing Facilities.

(1) Applicability. These regulations apply to all Cannabis Product Manufacturing Facilities in the City in addition to the other provisions in the GJMC pertaining

to cannabis businesses, including but not limited to, GJMC Chapters 5.10, 5.13, and 5.15.

(2) Zoning.

(i) Overlay established.

(A) The purpose of the Cannabis Product Manufacturing Facilities Overlay is to provide appropriate locations for extraction and processing of cannabis to occur within City limits while considering proximity to schools, rehabilitation facilities, and residential land uses.

(B) The Cannabis Product Manufacturing Facilities Overlay includes properties within the General Commercial (C-2) and Industrial (I-O, I-1, and I-2) zone districts as identified on the map.

(ii) Cannabis Product Manufacturing Facilities, excluding Cannabis-Infused Product Manufacturers, shall only be located in standalone buildings.

21.10.020 Terms defined.

Cannabis product manufacturing facility shall mean a business licensed as a Product Manufacturer to purchase cannabis; manufacture, prepare, and package cannabis products; and wholesale cannabis and cannabis products to other licensed cannabis businesses for wholesale.

Cannabis-infused product manufacturer shall mean a business licensed as a Product Manufacturer that utilizes cannabis previously extracted and/or manufactured off-site to infuse into products, prepare, and package products intended for wholesale. No on-site extraction is permitted in this use category.

All other provisions of Title 21 Chapter 4 and Chapter 10 shall remain in full force and effect.

Introduced on first reading the _____day of _____, 2023 and ordered published in pamphlet form.

Adopted on second reading this ____ day of _____ 2023 and ordered published in pamphlet form.

_____
Anna Stout
President of City Council

ATTEST:

_____
Amy Phillips
City Clerk