

# 7.0 Appendix



Included in the Appendix:

- 7.1: Definitions
- 7.2: Background + Engagement Process for 2022 Planning Effort
- 7.3: Existing Conditions Memo
- 7.4: Cross Section Concepts
- 7.5: Crossing Concepts

## 7.1 | Definitions

### **Aging in the Community**

The ability for all individuals to remain living in their home and/or community safely, independently, and comfortably.

### **Bioretention**

The process in which contaminants and sedimentation are removed from stormwater runoff, often with planted treatment areas such as bioswales or rain gardens, that filter water before they infiltrate into the soil and enter the stormwater drainage system.

### **Built Environment**

Aspects of our surroundings that were built by humans, in contrast to the natural environment.

### **Climate Protection**

Climate Protection describes actions to eliminate greenhouse gas emissions and reduce global warming. Targeted strategies identified in the 2017 Climate and Energy Action Plan include:

- Increasing Building Efficiency
- Decarbonizing Transportation
- Renewable Energy and Storage
- Reducing and Recycling Waste
- Local and Sustainable Food
- Water Conservation & Reuse

### **Complete Streets**

A way of designing and building streets that focuses on creating a safe and welcoming experience for all people walking, rolling, biking, or taking public transit; they ensure streets balance the needs of people as they get around in different ways.

### **Comprehensive Plan**

The Town of Carbondale's Comprehensive Plan provides the overall long-term vision and policy direction for managing the built and natural environment in Carbondale, and providing necessary public facilities. It addresses transportation, utilities, land use, recreation, housing, economic development, and town services, and is required by state law to be updated periodically.

### **Ecosystem**

A group of living organisms that live in and interact with each other in a specific environment.

### **Equity**

The ideal of fair and just treatment of all members of a community, recognizing that some people face greater burdens and disadvantages than others.

### **Festival street**

A street or public place that can be temporarily closed to vehicle traffic for special events.

### **Historic Commercial Core**

The area of Town designated in Carbondale's Comprehensive Plan that accommodates a mixed of uses centered around historic resources. The HCC zone is expected to accommodate a degree of future growth and include, or will include, a mixture of employment, housing, and cultural opportunities.

### **Income-based housing**

Housing that is made available to households with incomes below a certain threshold (e.g. 60% of a metro area's median household income) and priced to cost no higher than 30% of the household's gross income.

### **Low impact development**

Systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat; an approach to land development that works with nature to manage stormwater as close to its source as possible.

### **Maker space**

A place where people can engage in hands-on, collaborative creation of crafts or innovative designs with low- or high-tech tools and supplies.

### **Mixed-use development**

Urban development that combines different types of uses — residential, commercial, retail, office, cultural, institutional, or entertainment — in a building or complex of buildings.

### **Multi-modal**

When describing a street or transportation network, multi-modal means it provides options for people to get around on foot, on bicycles, in transit, or in motorized vehicles.

**Natural Environment**

The non-human-made surroundings and conditions in which all living and non-living things exist, in contrast with the built environment.

**Public realm**

Space that the general public has access to, including streets, sidewalks, parks, and civic plazas.

**Right-of-way**

Land that is controlled by the city and reserved for public use such as for streets and sidewalks

**Shared parking**

Parking spaces that are shared by more than one user, typically under a shared parking management strategy with the goal of creating greater efficiency. For example, a parking garage can be used by office workers during the day and by residents in the evening.

**Stormwater management**

The effort to reduce and/or improve the quality of runoff of rainwater into streets and watersheds.

**Sustainable Development**

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

**Traffic calming**

The use of design features to improve safety for motorists, pedestrians, and cyclists. This can include for example speed humps, curb extensions, or narrowing traffic lanes.

**Transportation demand management**

The application of strategies to reduce travel demand and/ or redistribute demand to allow for more efficient use of transportation infrastructure, such as programs to encourage carpooling and transit usage.

**Universal design**

The design of buildings, products or environments to make them useable and accessible to all people, regardless of age, disability, mobility challenges, or other factors.

**Workforce housing**

Housing that is affordable to people with incomes near the median for the region, and located in or near employment centers

## 7.2 | Background (2022)

In 2020, the Town of Carbondale Board of Trustees and Planning + Zoning Commission determined that, due to changes in key areas, an update to the 2013 Comprehensive Plan was warranted. Key focus areas were identified by the Board and Commission as areas that require specific attention as part of the Comp Plan Update. The focus areas include:

- Review and update of communitywide Vision + Goals
- Revisions to the Future Land Use Map (FLUM)
- Assessment and updates to the Climate Action Plan
- Considerations for Multi-Modal Access + Circulation and Aging in the Community
- Review of the Downtown Historic Commercial Core zone, the area north of Downtown and select areas currently zoned High Density Residential.

### Community Engagement Plan

The Community Engagement Plan (CEP) was developed to thoughtfully plan key touchpoints with the community to ensure broad community support for the ultimate adoption of the Comprehensive Plan Update. The CEP evolved over time as meetings were added and new outreach strategies were tested to respond to Carbondale's unique community needs and direction given by the Steering Committee.

### Existing Conditions Summary

The Plan Update process included data collection and assessment and an Existing Conditions Summary Memorandum. The Existing Conditions Summary provides an overview of existing conditions, current plans and programs and policies that may inform how the Town makes decisions with respect to the built and non-built environment in the Town. The Existing Conditions Memorandum is available on the project website: <https://chartcarbondale.com>.



| Figure 16: Postcard in Spanish advertising the initial online survey |

| Figure 17: Community Engagement Plan |

Date(s)	Event/Task	Purpose	Target Audience(s)	Outreach Strategies
Jul 1 - Aug 16	Online + paper survey	Ask general questions about public concerns, recent successes and vision for the future	General public	Press release, social media posts, email blasts, postcards with QR codes
Jul - Aug	Stakeholder focus group interviews	Group interviews with representatives from stakeholder organizations to understand opportunities/constraints in topic areas	Stakeholders were identified by Town staff in consultation with leadership	N/A
Jul 2	First Fridays Kick-off Event	Kick off the Comp Plan Update - generate awareness for the effort and promote the online survey	General public	Social media event + direct advertisements, email blasts
Aug 16	Spanish-speaking Community Meeting	Hold a community meeting in Spanish to hear from the Latino community	LatinX community	Personal engagement - Latino community leaders went to predominantly Spanish-speaking neighborhoods to personally invite community members
Aug 17	Community Meeting (in English)	Present initial analyses on growth, housing, mobility and have small-group conversations to gather input on Comp Plan focus areas	General public	Press release, social media posts, newspaper ads, email blasts, flyers
Aug 17	Downtown/ Downtown North Design Charrettes	Get key stakeholders together to discuss potential future uses and design of infill development Downtown and Downtown North	General public, Downtown/ Downtown North stakeholders	Personal emails to past P+Z Board members, property and business owners, project website
Oct 27	Spanish-speaking Virtual Open House	Present draft plan items for public comment, get input on prioritization of projects/policy	LatinX community	Press release, email blasts, newspaper ads, radio ads, flyers around town
Oct 28	English Virtual Open House	Present draft plan items for public comment, get input on prioritization of projects/policy	General public	Press release, email blasts, newspaper ads, radio ads, social media post
Nov 3 - Nov 28	Draft Recommendations Poll	Get feedback on the Draft Recommendations presented at Virtual Public Meetings	General public	Press release, email blasts, newspaper ads, social media posts
Jan 20 - Feb 25	Draft Plan Survey	Get feedback on the Draft Future Land Use Map, Implementation Plan	General public	Press release, email blasts, social media posts
Jan 24 - Feb 25	Draft Plan Reading Rooms	Give the community the opportunity to read paper copies of the draft plan in English and Spanish at 10 locations in Town and take a paper survey	General public	Press release, email blasts, social media posts
March 30	Final Open House	Get final feedback on the draft plan and give the community an opportunity to speak to the Project Steering Committee	General public	Press release, email blasts, newspaper ads, radio ads, social media post



# Engagement Process

A robust public engagement effort guided the seven month planning process, intended to solicit input on community values and aspirations. Concurrently, the consultant team engaged in a series of community events, focus group interviews, surveys and design charrettes with stakeholders, volunteer boards and commissions and the Project Steering Committee (P&Z) to gain a shared understanding of existing conditions, market realities, and opportunities and challenges. This outreach informed the vision for the Comprehensive Plan, consisting of a community framework, goals, guiding principles and implementation strategies. The vision and guiding principles are the shared values around which concepts were developed for the Comprehensive Plan.

## Project Steering Committee

The Town of Carbondale Planning and Zoning Commission acted as a Project Steering Committee (PSC) to offer guidance throughout the planning process. Six PSC meetings were held throughout the planning process at which the project team presented findings on the following topics:

- 2013 Comp Plan Vision + Goals, Community Engagement Plan
- Economics, demographics, population projections, Downtown and Downtown North
- Aging in Place, Climate Action Plan, Multi-modal Mobility
- Draft Vision + Goals
- Draft Recommendations
- Draft Implementation Plan

Meetings were held virtually and the public was invited and encouraged to participate in the discussion.

## Stakeholder Focus Group Sessions

Six stakeholder focus group sessions were held to do a deep-dive on topics that were identified as important to focus on in the Plan Update. The list of participants for the focus groups was developed by Town staff in collaboration with Valley Settlement, Carbondale Arts, Carbondale Chamber, Wilderness Workshop and Manaus. The list included representatives from the following entities:

- Roaring Fork Transportation Authority (RFTA)
- Carbondale Age Friendly Community Initiative (CAFCI)
- Senior Matters
- RE-1 School District
- Valley Settlement
- La Clinica del Pueblo
- Carbondale Arts
- KDNK Community Radio
- Clay Center
- Stepping Stones
- Family Resource Center
- Andy Zanca Youth Empowerment Program
- Youth Entity
- Voices
- Artists
- Clean Energy Economy for the Region (CLEER)
- Aspen Valley Land Trust (AVLT)
- Roaring Fork Soccer Club
- Wilderness Workshop
- Downtown Property and Business Owners
- Property and Business Owners in the area north of Downtown

Session topics included:

- Affordable housing
- Local businesses and economy
- Mobility and aging in community
- Sustainability, agriculture and recreation
- Arts, culture and community services
- Development, infrastructure, Downtown and Downtown North



| Figure 18: Chart Carbondale web page |

## Online + Print Survey

The initial survey was available online and at Town Hall on paper from July 2nd to August 6th, 2021. The purpose of this survey was to ask general questions about public concerns, recent successes and the community's vision for the future of Carbondale. It received 483 responses online and 41 paper surveys, totaling 524 responses. Below are some highlights from the survey and the full survey results can be found in the Existing Conditions Summary Memo in the Appendix.

### Demographics

- Survey responders generally reflected Carbondale's aging population, with 33% over the age of 65, 20% between 55 and 64, 17% between 45 and 54, and 17% between 35 and 44.
- When asked what their relationship to Carbondale is, 36% of survey responders live there full-time, 23% shop/eat/drink there, 22% recreate in the area, and 10% work full-time in Carbondale.



| Figure 19: Carbondale Identity Word Cloud |

### Community/Character

- When asked how they would describe the identity of Carbondale, responders had diverse answers (see Figure 19 word cloud). Words and phrases like "small town", "communal", "friendly", "mountain", "funky" were common.
- Survey responders were most concerned about how rapid growth/development (19%), housing affordability (15%), population growth (9%), gentrification (8%), high cost of living (8%) and too much traffic (7%) are threatening their quality of life.

## Online + Print Survey Snapshot

**"I would love to have a garden or gathering place where the community could come together and sell food."**

–Arts + Culture Focus Group

**"The only thing zoning downtown is producing is overpriced residential development."**

–Development + Infrastructure Focus Group

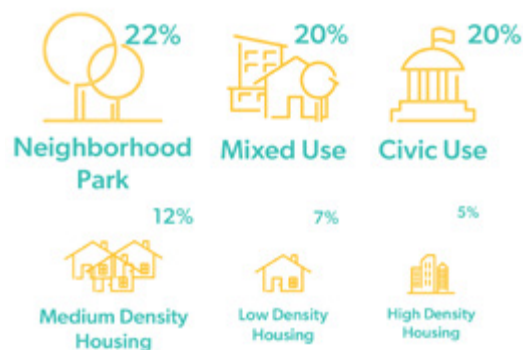
**"The Circulator should go to more stops. It only reaches Main Street and you have to walk a lot."**

–Spanish-speaking Community Meeting

**"Carbondale has a lack of sidewalks, poorly designed sidewalks, and a lack of proper crosswalks."**

–CAFCI

### What future uses would you like to see in Downtown North?



| Figure 20: Downtown North future uses |

### How do you feel about *residential* growth in Carbondale?



| Figure 21: Residential growth survey results

### How do you feel about *commercial* growth in Carbondale?



| Figure 22: Commercial growth survey results |

### My most important goal for Carbondale's transportation system is:



| Figure 23: Transportation system priorities |





## August Community Meetings

### Spanish-speaking Community Meeting

The Carbondale community held the Town's first-ever comprehensive plan open house entirely in Spanish to capture the thoughts, dreams and visions of the often missed cohort of Spanish-speaking residents, workers and visitors. Prior challenges to this engagement format included the language gap and a missing communication link between the Town and Latino community. Representatives from Valley Settlement did personal outreach to invite community members to participate by door-knocking, going to parks and doing outreach in restaurants. An estimated 30 participants attended the meeting.

The meeting's format included a brief presentation about what the Comprehensive Plan is and why it's important that people get involved. The attendees visited several stations with information on growth and housing, mobility, and Downtown/Downtown North. Participants then broke into small groups where trained Spanish-speaking facilitators led discussions on key issues specific to the Latino community. At the end, the facilitators presented top themes to the larger group.

### Community Meeting in English

A similar meeting in English was conducted in the same format as the Spanish-speaking open house with an estimated 68 participants.

Discussion highlights from both meetings can be found in the Existing Conditions Memo in the Appendix.







## Downtown / Downtown North Design Charrettes

Design charrettes, or small think tanks organized to explore the physical environment by putting pen-to-paper with various stakeholders, became a valuable engagement tool for these two critical areas. The Town, with partners at the Third Street Center, hosted two charrettes which were well-attended with about 20 people each (broken up into two tables of ten). Welcomed participants included landowners, developers, architects, planners, elected/appointed officials, Town staff, and members of the general public.

The Existing Conditions Memo in the Appendix highlights charrette outcomes.

| Downtown + Downtown North Design Charrettes |



## Boards and Commissions Engaged

Additional meetings were held with advisory boards, committees, and other advocacy groups to include their vision and goals into the Plan Update process including:

- Environmental Board (E-Board)
- Clean Energy Economy for the Region (CLEER)
- Carbondale Age Friendly Community Initiative (CAFCI)
- Board of Trustees
- Bike + Pedestrian Commission
- Historic Preservation Commission (HPC)

**Charrette Takeaway**  
 –How do we transition from current industrial uses to the inclusion of light industrial/maker spaces in the future?

## Virtual Public Meetings

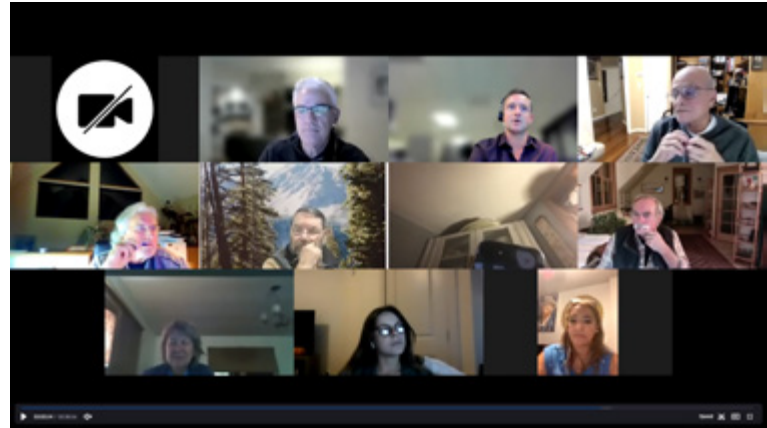
When Draft Plan Recommendations were ready for public review, two Virtual Public Meetings were held to get input.

### Virtual Public Meeting in Spanish

Despite the employment of various outreach strategies, the Spanish meeting was not attended by any Spanish-speaking members of the general public. Outreach strategies included: advertisements on La Nueva Mix, advertisements in the Spanish Sopris Sun, flyers posted around town, emails to contact lists of Spanish-speaking community members, and press releases in the paper. The main difference between the in-person Spanish-speaking Community Meeting in August, which was better attended, and the Virtual Public Meeting in Spanish was the availability of members of the Spanish-speaking community to personally invite individuals. The community leaders we employed to do outreach for the meeting in August were unavailable to help get the word out for the virtual meeting and other community organizations that focus on Spanish outreach were extremely busy and could not take on the task.

### Virtual Public Meeting in English

The virtual meeting in English was held the following night and included the same content as the presentation and discussion from the meeting in Spanish. The agenda included a brief presentation on the draft recommendations for the three geographic focus areas (Downtown, Downtown North and Residential Focus Areas) followed by a poll and open discussion. The purpose of the poll was to gauge community support for the draft recommendations. Generally, meeting participants supported the draft recommendations for Downtown, Downtown North, Residential Focus Areas, Aging in Community, Climate Action Plan, Multi-modal Mobility, Housing + Jobs and Social Equity.



| Virtual Public Meeting in English |

#### Discussion highlights from the Virtual Public Meetings include:

- Continue to push climate and housing efforts, while remaining selective on resource allocation
- Keeping Carbondale's character is paramount
- Pursue new strategies to supply affordable housing (rather than relying solely on inclusionary zoning)
- Highway 133 has lost the "feel" of a small town
- Consider redevelopment sites for affordable housing



## Draft Recommendations Poll

The same poll that was conducted at the Virtual Public Meetings was made available online for those who could not attend the meeting. The following are the results from the meeting and online polls:

### Downtown Recommendations:



### Downtown North Recommendations:



### Residential Focus Area Recommendations:



### Aging in Community Recommendations:



### Climate Action Plan Recommendations:



### Mobility + Access Recommendations:



### Housing + Jobs Recommendations:



## Draft Plan Survey + Reading Rooms

A survey that solicited feedback on the draft plan was available online and in booklet form at various Reading Rooms around Town from January 20th through February 25th. Below is a summary of the survey results:

### Vision

- The majority of survey respondents (64%) support the updated Vision Statements, 14% did not support it, and 14% thought it could be improved.

### Goals + Guiding Principles

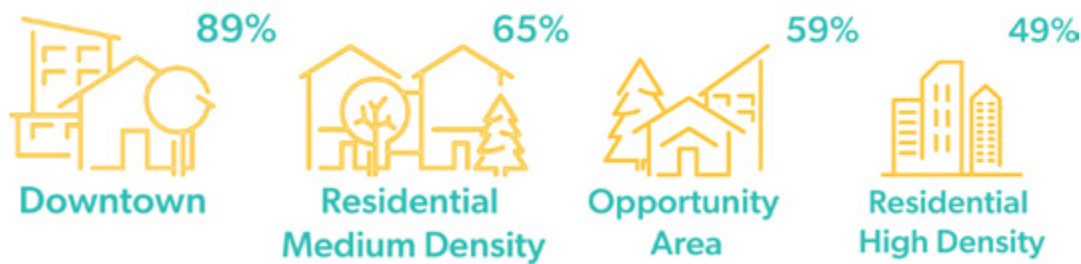
- In general, survey respondents supported the Goals and Guiding Principles, with Good Governance and Community Character getting the most support, and Housing getting the least support (see Figure 25).

### Percentage of Support for Goals + Guiding Principles:



| Figure 25: Support for Goals + Guiding Principles in the Draft Plan |

## Percentage of Support for *Future Land Use Map Classifications*:



| Figure 26: Support for Future Land Use Map Classifications in the Draft Plan |

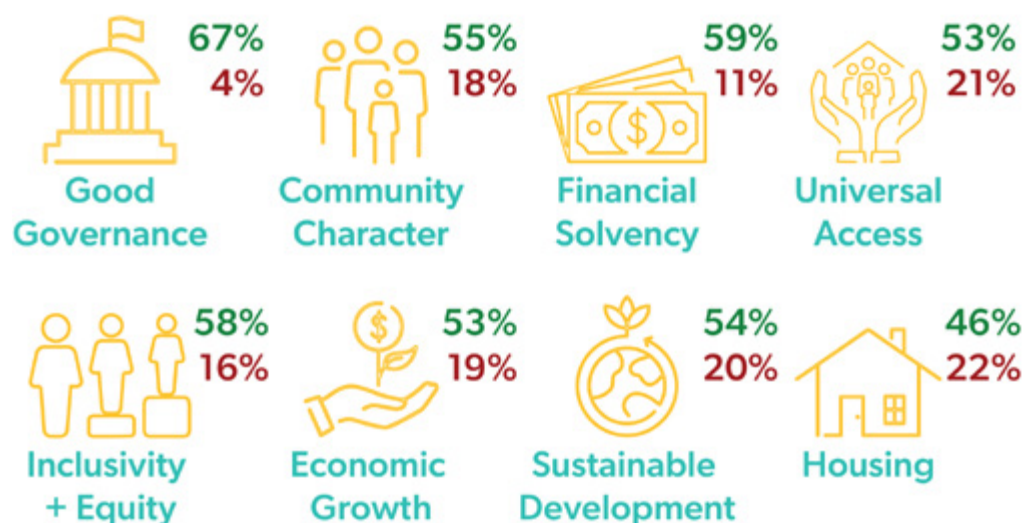
### Future Land Use Map

- Regarding the location of designations shown on the Future Land Use Map, survey responders were split on whether they reflect the community's vision for the future of growth in Carbondale - 62% believed that yes, they do reflect the community's vision, 24% believed that they do not, 15% did not know.
- In general, survey respondents supported the definitions of the Future Land Use classifications, with Downtown getting the most support and Residential High Density getting the least support (see Figure 26).

### Implementation Strategy

- In general, survey respondents believed the Implementation Strategies and Action Steps will help Carbondale achieve its Vision. Good Governance and Financial Solvency got the most support, and Housing got the least support (see Figure 27).

## Percentage of *Agreement/Disagreement* for the *Implementation Strategies Helping Carbondale Achieve its Vision*:



| Figure 27: Support for Implementation Strategies in the Draft Plan |

## 7.3 | Existing Conditions Memo

The following Memo was originally submitted as a progress draft to the Town and Steering Committee on September 9, 2021. It was updated for this document to include more detailed information on the community engagement process, and includes a Publicity Log presentation created for the Town by PR Studio.



## MEMORANDUM

Date: September 4, 2021

To: Town of Carbondale

From: Cushing Terrell

RE: Existing Conditions Memorandum – Comprehensive Plan Update

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Purpose: The memorandum serves as the report on existing conditions as Task 9 of the Carbondale Comprehensive Plan Update. This Memorandum provides background, data, trends, projections and key observations and findings. The Memorandum provides a basis for key recommendations forthcoming in the next phase of the Comprehensive Plan update process.

# Existing Conditions

## Growth and Economic Profile

This chapter informs Carbondale's comprehensive planning efforts by laying out reasonable growth projections for future population and housing units, under two different growth assumptions, in addition to providing evidence-based context for Carbondale's evolving role in the Roaring Fork Valley regional economy.

### Growth Forecasting

To arrive at reasonable projections for Carbondale residential growth, the team looked at 30 years of historical population and housing units, drawing a distinctions between alternate fundamental assumptions about the shape of municipal growth trajectories – from simple straight-line trends to exponential (annual percentage growth) curves and a special focus on the idea of growth that may be ultimately limited by some natural carrying capacity factors (water, land availability, infrastructure, town self-determination).

After some analysis of past trends zoomed into varying levels (city, county, region) we present two alternate growth scenarios for Carbondale. One scenario relies on official State demographer projections for Garfield County, and assumes that Carbondale's share of growth will continue to hold constant. The resulting shape for that scenario swoops upwards like an exponential/percentage-based curve, then flattens to resemble an



upward-sloping straight line. The other scenario uses a model designed to assume that Carbondale “wants” to grow exponentially but will taper off as it approaches some future carrying capacity.

Over the relatively short 10-year horizon of this plan update, both models arrive at roughly similar growth figures – adding around 1,100 to Carbondale’s population. Over the next decade, the two models diverge, with the share-of-county method adding approximately 1,600 but the carrying capacity method adding just 800.

Knowing that resident population is the largest, but not only, driver of local housing unit demand, we again look at past trends to translate that resident growth forecast into likely need for new housing units. Over the next decade we conclude that Carbondale will need to accommodate demand for between 400 and 450 new housing units – a number well within the range of what can be met through infill development (especially in the Downtown and North Downtown areas). Beyond year ten, demand for residential land will become gradually more problematic, necessitating some tough community decisions on annexation policy.

### Economic Profile

The economic context for that Carbondale must plan for is made up of a variety of different factors, calling for a variety of different data topics and sources, as profiled over the following pages.

The two most critical themes emerging from that analysis are:

**Carbondale is evolving** away from its historical role as a bedroom community dedicated to serving affluent up-valley resort areas. That is still an important part of the local economy, but analysis of commuting patterns, employment mix, and other trends points to a town that is gradually transforming into a more self-sufficient, mature, complete community.

**Housing affordability has entered true crisis mode:** a trend that is becoming widespread across the West but that is taking on exaggerated form in desirable scenic areas like Carbondale with limited land and infrastructure to take on unlimited housing growth. This growing phenomenon is being felt most in its effect on employers’ ability to hire and retain workers – especially at lower wage levels, but increasingly for mid-level skilled occupations. Workers simply cannot afford to live within reasonable commuting distance from Carbondale and many other mountain communities.

The good news is that the Town is proactively already taking important steps to address affordability through inclusionary zoning requirements, deed restrictions, and an ambitious approach to mixed-use infill redevelopment. No place has “solved” the housing affordability problem, but these and other tools --like community land trusts (a condominium-like mechanism for holding down for-sale housing costs) and greater facilitation for development of accessory dwelling units (ADUs) could be considered moving forward.

Carbondale is currently experiencing a nearly unprecedented surge in residential development, as witnessed by a very full and diverse pipeline of housing projects, either under construction or awaiting approval. The town is not alone in that regard. Much of the nation (again, especially in desirable communities across the Mountain West) is experiencing a “perfect storm” for both single-family and multifamily development – driven in part by a post-Covid surge in deferred demand and a general need to satisfy a range of housing

demands of the large Millennial age cohort, who have now largely all formed new households and entered the market for some form of housing.

### Housing Development Snapshot

Residential Pipeline Activity			
Location	Units	Description	Status
1201 Main Mixed Use	27	Rental apartments as part of vertical mixed-use project with ground floor commercial	Under construction
Main Street Marketplace	115	Rental units in mixed-use development adjacent to new City Market, west of 133	Under construction
Sopris Lodge Assisted Living	78	Continuity-of-Care facility with units for partially independent living, assisted living, and memory care	Under construction
Red Hill Lofts	30	2-story rental apartments targeted as 30-80% AMI affordable under multiple LIHTC and HUD programs. All but two are studios.	Under construction
Thompson Park Parcel 2	27	Phased townhome development that may eventually include 40 units with 10 reserved as affordable.	Under construction
Carbondale Center Place	76	Rental units in mixed-use infill redevelopment of Sopris Shopping Center; project also includes 10,000 s.f. of retail and 68,000 s.f. self-storage facility.	Under construction
156 N. 12 <sup>th</sup> St. Townhome Project	7	Infill townhome development in Commercial/Transitional zone	Under review
Thompson Park Parcels 3 & 4	13	Remaining phases of Thompson Park Parcel project already under construction; townhomes	Under construction
1629 Dolores Way	9		Under review

*Figure A1: Currently active pipeline: New housing units (under construction or proposed) in Carbondale.*

### Takeaways:

- 199 units underway (plus another 78 Assisted Living units at Sopris Lodge).
- 105 additional units proposed for 382 Total Units.
- Mostly “missing middle housing” units and affordable units.
- Activity alone could accommodate 3/4 of likely demand over the next decade.
- At this pace, this trend likely not to be maintained annually.
- Generally, 20% of residential units (rental and for sale) are deed restricted as affordable housing

### Short-Term Rentals

Short-term rentals, typically listed on popular sites AirBNB and VRBO, are of growing concern among neighbors who see these units as potentially degrading community character and contributing to unsafe or unregulated rentals and crime. Others in the community see short-term rentals as an opportunity as another source of income.

Scans of VRBO and AirBNB rental listings shows the number of short-term rentals is down dramatically from two years ago. As of this report, about a dozen are listed within town boundaries. Although overall STR listings are a relatively small overall percentage of the housing stock according to available short-term rental analytics websites, anecdotes from community members indicate middle-income residents are continually getting displaced by property owners hoping to increase secondary incomes by renting short term. Displaced residents are burdened by the lack of available rentals created by this effect and either are continually moving throughout a 6- to 24-month period or must completely leave the community altogether.

- 61 rentals available on Airbnb, and 35 rentals available on VRBO on August 10, 2021, totaling 96 short term rental properties in Carbondale.

### Key Takeaways and Next Steps

- Recent growth has been the result of several years of planning and development and has occurred at a faster rate to accommodate the exacerbated by the growing housing shortage created as more location-neutral employees became able to work out of homes in Carbondale.
- About 75% of future growth in population and housing over the next 10 years is absorbed by existing projects in the pipeline.
- Future projected growth can be accommodated within the current Town limits (considering available vacant land area and increased density in select areas Downtown, Downtown North, High Density Residential Areas).
- Need for housing diversity has been reinforced by community members throughout the planning process.
- Housing/jobs balance is important if the Town wishes to advance a long-term fiscally sustainable approach over the next 10-20 years.

# Land Use and Community Character

## Character, Land Use and Zoning

Carbondale's built form and character is a result of a traditional plan that the community has preserved through the land use framework. The Town's compact and intact townsite plan has been conducive to walkability and smart growth. Land use patterns reflect the Town's historical role as a mid-valley hub for commerce and housing with clearly defined neighborhoods and business districts, which have adapted to accommodate the automobile over time. In recent decades, Carbondale's role as a bedroom community to Aspen and other job centers has driven single family housing development in areas further from the core. This trend has shifted back toward denser infill development with recent plans and development code updates catering to infill to avoid additional suburban sprawl into Garfield County open space.

Commercial and Industrial: The Historic Commercial Core (HCC) area and zone district is home to a traditional, pedestrian-scaled Main Street with restaurants and storefronts, some of which date to the 19<sup>th</sup> Century. Located off the major highways has spared Main Street the effects of incoming national franchises and larger projects and has kept the scale of parcels and buildings to a comfortable, walkable size. However the majority of new commercial developed on Highway 133 in auto-centric suburban retail centers (exceptions include Carbondale Center Place, Lot 1, and Carbondale Marketplace). Vacant parcels in the HCC zone are reminders of contemporary struggles for small downtowns to remain vibrant in the era of online shopping and stay-at-home convenience. While many forces contribute to vacancies, Main Street Carbondale fares better than many other community downtowns of comparable size.

Pockets of light industrial and manufacturing uses accommodate Carbondale's strong and growing arts and creative character. In these hubs are makerspaces, live-work structures, and light manufacturing shops, bolstering Carbondale's creative industry and locally serving manufacturing businesses that diversifying the Town's employment base.

Neighborhoods: Carbondale's small-town charm comes from its funky and diverse neighborhoods. The Old Town residential neighborhood just south of the historic Main Street helps define Carbondale's residential character, with a high concentration of stately older homes. Single family land uses developed from the midcentury until recent years as Carbondale suburbanized to supply demand during growth periods. These neighborhoods exist further from the core both north of the Rio Grande Trail and across Highway 133. Recent trends have seen this pattern reverse, with the community and market favoring smaller housing projects at higher densities. Efforts to increase housing supply included a Unified Development Code update in 2016 which identified locations for the Residential/High Density Zone, which is a focus area of this update.

Civic Uses, Parks and Open Space: The Town's civic uses, schools, public gathering spaces and recreational hubs are interspersed between neighborhoods and businesses areas complementing the community's walkability. Despite some connectivity and pedestrian safety concerns created from Highway 133 crossings, the Town's six schools and the community hub of the Third Street Center – all adjacent to parks or recreation facilities – are within a half mile of the historic core. The UDC's open space requirement ensures that a percentage of every new development will accommodate open space needs. Additionally, neighborhood parks and ball fields or town-owned open space offer a network green spaces connected by trails and sidewalks.



Vacant Land: Generally, there is little vacant land in town, however key parcels in the HCC zone district account for almost four acres of developable land. Approximately 140-145 parcels in the River Valley Ranch subdivision are platted and vacant and continue to be built out.

Physical Constraints to Growth: The Town's existing land use framework includes policies for growth that employ an urban growth boundary and areas of annexation map that promote dense, urban development rather than continued expansion of the Town's boundary and infrastructure. Excluding unincorporated Satank, the Mountain Valley Mobile Home Park and Rock Creek Subdivision, surrounding lands in Garfield County are zoned Rural and are generally occupied by a few large ranch landholdings used for farming or ranching. Some lands are held in agricultural uses by conservation areas further limiting suburban expansion of the Town. With community support groups like the Aspen Valley Land Trust continually purchase open and working lands, including the recent acquisition of the 141-acre Coffman Ranch just east of town.

### Historic Preservation

Carbondale's many historic areas contribute to town character, both by aesthetic appeal of traditional materials, styles, and forms but also by reinforcing a traditional street grid with easily navigable and compact blocks. Although new development in the HCC zone must comply with design standards that produce buildings with historic architecture and scale, there are barriers in the standards that may be contributing to non-constructible projects and economic decline of the downtown. Other older neighborhoods do not have standards and are also at risk of having incompatible new projects. Specific areas include the Old Town and Downtown/Old Town Peripheral neighborhood future land uses, and the Residential/High Density zone districts.

### Population and Growth Trends

- Carbondale has experienced an average annual population increase of 0.8%. According to the US Census, Carbondale has added 490 new residents, a 7.6% increase since 2010.
- Utilizing U.S. Census data from 2010 through today, an exponential smoothing forecast estimates that Carbondale's population will increase by 12.5% by 2035, reaching 7,888 people based on historic growth trends.
- Pending unforeseen circumstances, Carbondale will add between 700 and 1,280 new residents between 2021 and 2035 who will need adequate housing, services, goods, and recreational activities to maintain the livability that attracts people to this community.

(Source: US Census 2019 ACS Estimates City and Town Population Totals: 2010-2019)

### Demographic Snapshot

- An estimated 22.3% of the population of Carbondale is under 18, while only 12% is 65 and over, leaving 65.7% of the population between 18 and 64. 51.1% of the population is between the ages of 30 to 64.
- 40.1% of the current population, approximately 2,722 residents, of Carbondale ethnically identifies as "Hispanic or Latino", which is an 11.3% increase over the last decade from 1,812 residents in 2010.
- 81.4% of the 1,559 foreign-born residents of Carbondale are not official US Citizens while 18.6% are naturalized US Citizens.
- 35.2% of Carbondale's population over five years old speaks both English and Spanish.

(Source: US Census 2019 ACS Estimates)

### Capacity for Growth

As stated in the Market and Economics section above the existing pipeline of housing units will likely absorb most of the projected housing growth. However even if that projection is underestimated there is still considerable available vacant or underutilized land in the Comp Plan update's three geographic focus areas.

## Downtown Focus Area

How does what's on-the-ground compare to what's envisioned?

### Existing Uses and Activities

- Mix of retail and non-residential storefronts, civic buildings, offices, and urban housing.
- About 204 housing units on 21 acres (9.7 units/acre).
- Active streetscapes, street trees, sidewalks, and public art.



*Figure A2: A variety of old and new mixed use with historic, pedestrian-scaled design elements.*

### Vision for Future Land Use (2013 Comp Plan)

- "Heart of the Community".
- Preserve historic buildings.
- Allow variety in new buildings.
- Shared parking.
- Walkable form.

Although the outcomes of the design standards for downtown (e.g., design for pedestrian standards, active ground floor non-residential uses) are desirable for most community members, HCC zone standards may be preventing feasible projects. Almost four acres of developable land in a variety of parcel sizes are illustrated in the map below.

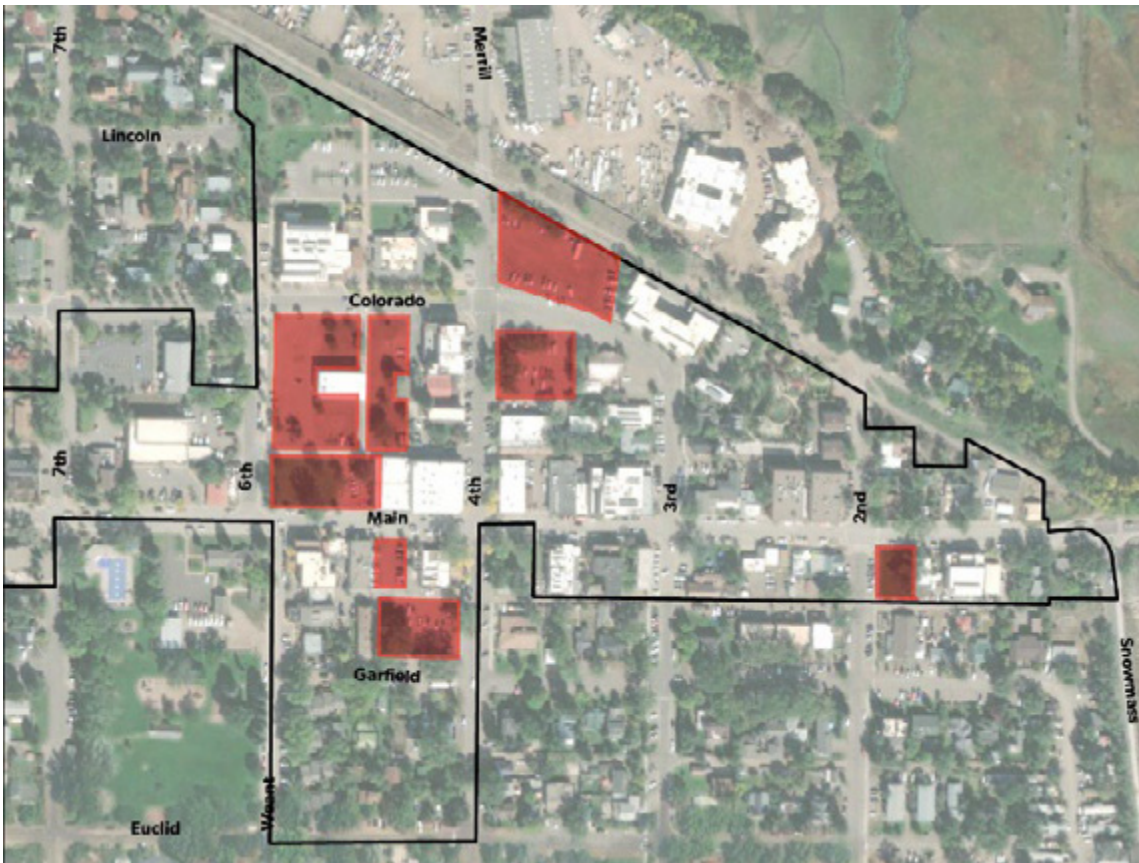


Figure A3: Vacant Downtown parcels.

## Downtown North Focus Area

How does what's on-the-ground compare to what's envisioned?

### Existing Uses and Activities

- Equipment storage.
- "Double-T" concrete buildings (~18-24').
- Modular/mobile equipment and trailers.
- 40 tenants, +- 200 employees.



*Figure A4: Light industrial uses, transportation-related businesses with storage yards sometimes screened by fences and trees.*

#### Vision for Future Land Use (2013 Comp Plan)

- 1) "May remain a light industrial center for decades to come, or"
- 2) "Ideal location for mixed use redevelopment complementary to downtown."
  - "Extend the downtown"
  - "Pedestrian oriented"
  - "Limited to three stories"
- Or a combination of 1 and 2.

Downtown North is a major employment center for the Roaring Fork Valley but is also in an opportunistic location primed to supply new housing, jobs, or services. This area is idealized as an extension of downtown and a new neighborhood with strong pedestrian connections to town-owned open space. With redevelopment, Merrill and other avenues may provide better vehicle connectivity to Highway 133, relieving Main Street from growing pressures.

## Residential Focus Areas

How does what's on-the-ground compare to what's envisioned?

#### Existing Uses and Activities

- About 320 housing units on 40 acres (10.6 units/acre).
- Dense multifamily with a mix of housing types/price points.
- Mature neighborhoods, older housing, including single family.
- Partially complete sidewalk/accessibility network.





*Figure A5: Some areas zoned R/HD are not all fully built to allowable zoning and create opportunities for transitional design standards to ensure compatibility between larger projects and smaller, older homes (below).*

#### Vision for Future (UDC)

- “to provide high-density neighborhoods comprised of a well-planned mix of single-family and multi-family dwellings... to provide a high-quality living environment”.
- Keep existing apartments.
- Maintain housing unit and price mix.
- Allows 35' buildings with 5' setbacks.
- Some commercial uses by CUP.

One intent of rezoning specific areas R/HD was to provide an outlet for supplying increased demand. Development has occurred since 2016 but further development will require assembling small cottages and old homes on older platted lots. Several R/HD districts are adjacent to low-density residential zones. Key concerns with redevelopment include compatibility with historic scale, lack of appropriate design standards and loss of eclectic and locally affordable housing. Revisions to the land use framework, including the Future

Land Use Plan, UDC or design standards would mitigate these outcomes while still meeting housing demand.

## Housing Capacity in Focus Areas

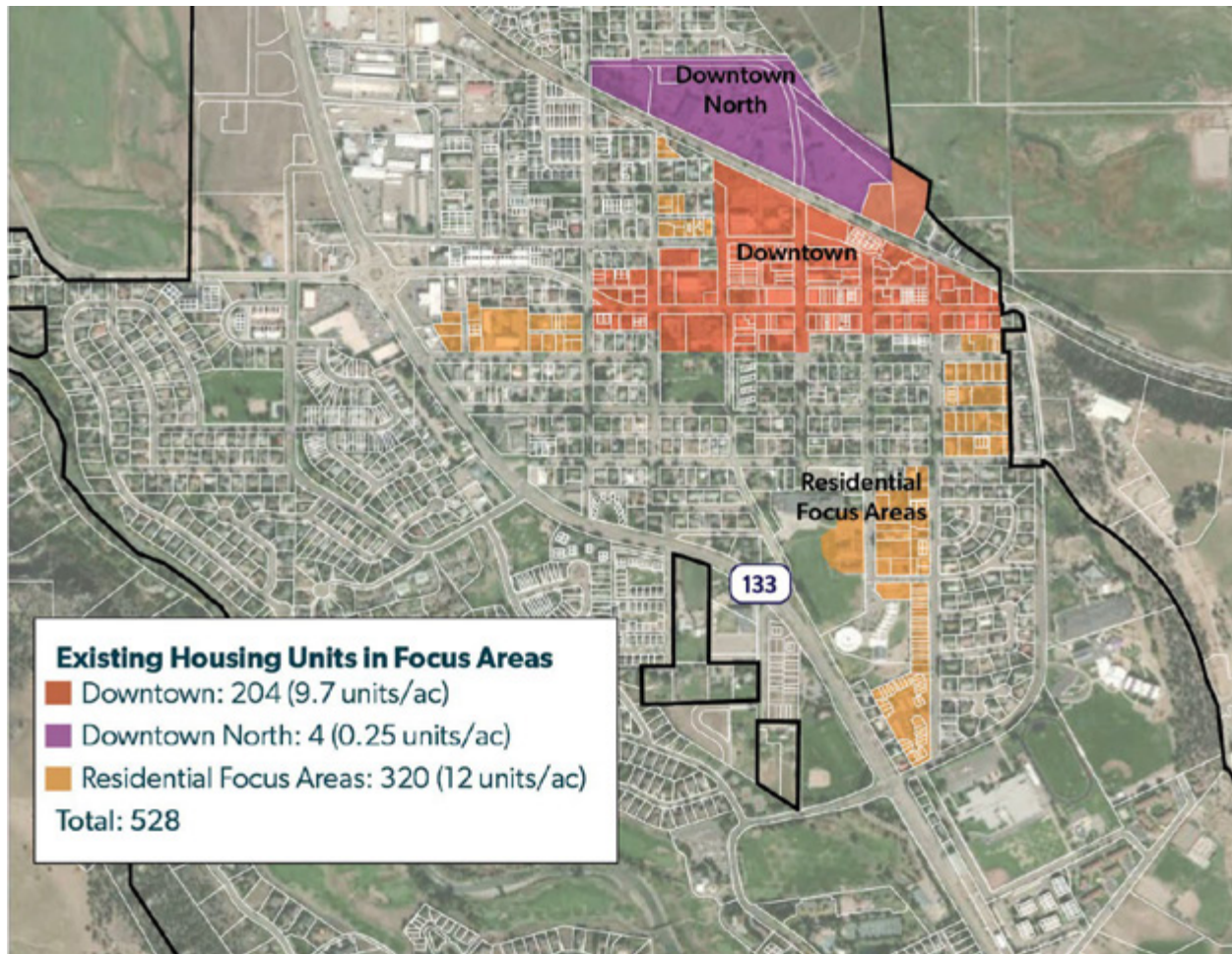


Figure A6: Existing Housing Units in Focus Areas

Focus Area	Existing Units	Potential Additional Unit Capacity (low and high est)
Downtown	204	75 to 145
Downtown North	4	170 to 340
Residential Focus Areas	320	85 to 285
Total	528	330 to 770

## Key Takeaways and Next Steps

- Preservation has successfully protected the Town's community and architectural character, but should additional growth occur beyond projections stronger measures, including incentives, may be needed to continue preservation of walkability and scale between new and old developments. Recommendations for the HCC zone should balance historic design while promoting economic vitality.
- Based on projections, capacity exists for new growth that meets community vision, scale and character (e.g., growing up and not out).
- To accomplish goals of ensuring appropriate scale, design, and compatibility UDC may require revisions to code sections or design guidelines.
- Specifically, revisions should address transition areas and consider revised or added design guidance to mitigate land use compatibility issues.
- Moving toward a more form-based code may help address scale and compatibility issues with new development, including ADUs, in historic neighborhoods.
- Parking, impervious surface requirements and building height requirements were noted code areas that create potential issues for development in the HCC zone. Those in the development community posited having a 35' building height requirement in combination with the required 14' high ceiling on the ground floor rather than a three-story requirement as an example, specifically hinder development opportunities in the HCC zone.

## Infrastructure and Utilities

### Water System

The current water usage with the peak day demand utilizes 50% of the treated water produced by the water treatment plants. Recently, upgrades were made to the plant to increase the capacity by 500,000 gallons or 17%. Water usage, from an independent source for irrigation, is estimated to be 70% with the irrigation ditches which flowing throughout the town. The Water Department maintains about 28 miles of water pipelines and two water storage tanks.

The Town has made efforts to improve water efficiency and minimize water usage, with the 2015 Municipal Water Efficiency Plan outlining areas of need and ongoing water efficiency activities. These include meter-reading installation, incentivizing higher-efficiency fixtures and revising landscape design standards to include conservation-oriented designs, among many other activities.

### Raw Water Ditch System

The Town irrigation ditch system, comprised of several open ditches, conveys water from the Crystal River to supply the town with water for irrigation purposes. Use of the ditches is generally limited to gardening and landscape irrigation and cannot be used for ornamental landscaping. The condition and capacity of the current ditch system is fair to good. Water efficiency in the ditches is maintained by installing liners and other leak prevention measures in sections prone to leaking. The ditches also play a part in recharging



groundwater in some areas. The water in the ditches is taken from the river under water rights that have been established for the ditches over time. The most senior water rights in the ditches were established prior to the Colorado River Compact.

To the community, the ditch system means more than just a supply of water to the Town's fields and lawns. As the ditches wind through the Town's older neighborhoods the visual appeal of flowing water, the sound of water bubbling through a park, and the verdant green lawns are part of what defines the Carbondale experience. The sights and sounds of the ditches – including scenes of children splashing in them on a hot summer day – illustrate Carbondale's unique character.

### Waste Water and Storm Water Systems

The waste water treatment system is utilized at a rate of 65% of total capacity through the Town's waste water treatment plant (WWTP). According to Colorado state law, once the WWTP reaches 80% capacity, the Town of Carbondale must begin to start the design for a new WWTP. The system is all gravity flow and has about 22 miles of pipelines.

The fee structure and increases were established in the Water and Wastewater Master Plan for the Town of Carbondale, prepared by SGM, dated February 2016 and adopted in 2017. The base and usage fees for water and sewer consumption are increased every year resulting in a budget for maintenance and monies allocated for future construction.

### Power

Holy Cross Energy (HCE) – a non-profit rural electric cooperative – is the main electricity provider to the Carbondale area. With their new Seventy70Thirty initiative, HCE aims for a benchmark of 70% clean energy by 2030 by both providing a higher percentage of renewable service to customers and by reducing greenhouse gas (GHG) emissions. Xcel serves areas south of the Rio Grande Trail, and HCE serves areas north of the Trail.

### Broadband and Technology

Broadband internet service is locally available and local providers are looking to partner to install community-wide broadband fiber infrastructure with the town's cooperation in underserved residential neighborhoods.

## Key Takeaways and Next Steps

Utilities and infrastructure affect Carbondale's capacity for growth by influencing where development occurs and importantly, how many new housing units or square feet of commercial space the systems can serve. With growing community concern over whether infrastructure systems are stretched too thin, the following takeaways summarize illustrate areas of concern and opportunity:

- In general, water and waste water systems have capacity to service the residential and non-residential growth rates experienced in recent years, but any large development will create a need to revisit water and waste water master plans.

- Broadband fiber internet will be expanded community- and Valley-wide and create economic development opportunities as additional residential connections are made in underserved areas.
- The ditch system in Carbondale serves as an aesthetic, historic and unique role in delivering water to lawns and gardens and while efficiency measures for the Crystal River water delivery system are strengthened, the ditches should be celebrated and protected

## Climate Action

The Carbondale community has historically taken a strong stance on climate action and environmental responsibility, dating back several decades. The Carbondale Environmental Board was established as an advisory board to the Trustees in 1998. In 2005, the Town joined the Cities for Climate Protection Campaign in the which began a legacy of taking a progressive stance on emissions reductions strategies.

The community's advancements in climate action are led by several community groups, committees and partners including:

- Carbondale Environmental Board (EBOARD).
- Clean Energy Economy for the Region (CLEER).
- Crystal Valley Environmental Protection Association (CVEPA).

### Existing Successes and Accomplished:

- 2013: Adopted International Green Commercial Construction Code.
- 2015: Water Efficiency Plan.
- 2015: Source Water Protection Plan.
- 2017: Updated Climate Action Plan: Set a goal of Net Zero Community for energy use by 2050
- 2018: Preparing for Drought - Vulnerability, Consequences & Adaptation Planning Scenarios (VCAPS).
- 2018: Environmental Bill of Rights adopted.
- 2019: Released Net Zero for New Construction report and Code roadmap to reach net zero in new construction by 2030.
- 2019: Single Hauler Trash Program.
- 2020: Revised Residential Efficient Building Program (REBP): Increased energy efficiency and on-site solar requirements.
- 2020: Solar Requirements Amendments (Municipal Code)
- 2021: Idling Policy
- Ongoing: International Green Construction Code (IgCC) – 2013
- Ongoing: Building and Energy Codes – adoption process IRC

### Efforts In Progress:

2021: Adopting 2018 IGCC with amendments and revised renewable energy requirements for new commercial buildings

- 2021: Tracking progress on CAP action items and categorizing strategies as high/medium/low priority.
- 2021: Researching potential to address energy use in existing buildings through code mechanisms.
- 2017 Carbondale Climate & Energy Action Plan.

#### Environmental Bill of Rights (EBOR, 2018)

The Town adopted by resolution a bill of rights for future leaders and community members that acts as an overarching guide or filter through which all town policies and decisions are made. With the EBOR, the Town recognized the intrinsic value of environmental stewardship while understanding a desire to maintain fiscal responsibility. The EBOR states town residents and visitors shall have the right to:

1. Breathe clean air and enjoy clear vistas.
2. A clean, safe and plentiful drinking water supply provided from sustainable sources.
3. Protection and rehabilitation of riparian areas and healthy ecosystems which protect native wildlife.
4. Clear growth boundaries supporting density and preservation of surrounding open space.
5. Solid waste reduction and increased recycling efforts.
6. Sustainable car-alternative mobility options.
7. A healthy, fertile landscape managed holistically and safely.
8. Views of the quintessential Western night sky without the interference of unnecessary artificial lighting.
9. Noise levels appropriate to a bustling small community.
10. Sustainable usage of our unique natural resources, providing the use of only what you need and the rest left for future generations.

This Comp Plan update shall consider the EBOR in the formation and revision of any Goals, Objectives or other recommendations with the aim to maintain and demonstrate these rights in the build environment.

#### Climate Action Plan (2017)

The Town's 2017 Climate Action Plan is the main document outlining goals to seek carbon neutrality and to imagine a community with a thriving economy in which:

- All buildings have net-zero emissions.
- All energy is powered by renewable sources.
- Most trips are made by walking, biking or public transit, and all the vehicles we use run on low-carbon fuels.
- All waste is recycled or reused.
- An abundance of locally raised foods and products are available.

#### 2018 VCAPS

The VCAPS report, subtitled "Preparing for Drought in Carbondale - Vulnerability, Consequences, and Adaptation Planning Scenarios" established objectives to increase Carbondale's resiliency in the face of increasing drought conditions in the region. The process included:

- Facilitated discussions about building resilience towards weather and climate hazard and impacts.



- Carbondale's key concern for the workshop was drought.
- Systematically examined local climate concerns.
- Evaluated the experienced and anticipated impacts of climate hazards.
- Reviewed past, current, and planned efforts to mitigate climate risks.
- Identified potential new solutions to address risks across town operations.

Other water efficiency efforts are underway to increase efficiency to meet the goals of the CAP and the EBOR. Watershed efficiency projects include the Source Water Protection Plan for the Crystal River and Weaver Ditch project which aims to conserve more water supply and decrease waste before usage. These watershed projects are typically funded as joint efforts between Carbondale and neighboring counties and communities.

#### A Shifting Framework

## CLIMATE ACTION PLAN + SUSTAINABILITY

### COMPARING FRAMEWORK FOR A SUSTAINABLE FUTURE

#### 2013 FRAMEWORK



#### PROPOSED FRAMEWORK 2021 COMP PLAN UPDATE



Town of Carbondale, CO Comp Plan Update

Figure A7: Potential revisions to the 2013 framework for Climate Action.

## Key Takeaways and Next Steps

- The 2013 Comp Plan recommendations for climate action were framed by **Ecology** and **Renewable Energy**. Changing conditions and new trends, projections and practices for climate policy allows this Comp Plan update to reconsider that updated framework.
- A new framework of **Community Character, Resilience** and **Inclusivity + Equity**, with an updated set of Goals, Objectives and potential key recommendations or other strategies.
- The 2017 CAP provides ambitious goals, but input has been received that it does not provide discrete benchmarks for achieving those goals.
- The Comp Plan update can reinforce the statements of the EBOR through a revised set of Goals, Objectives and key recommendations or action-oriented projects.

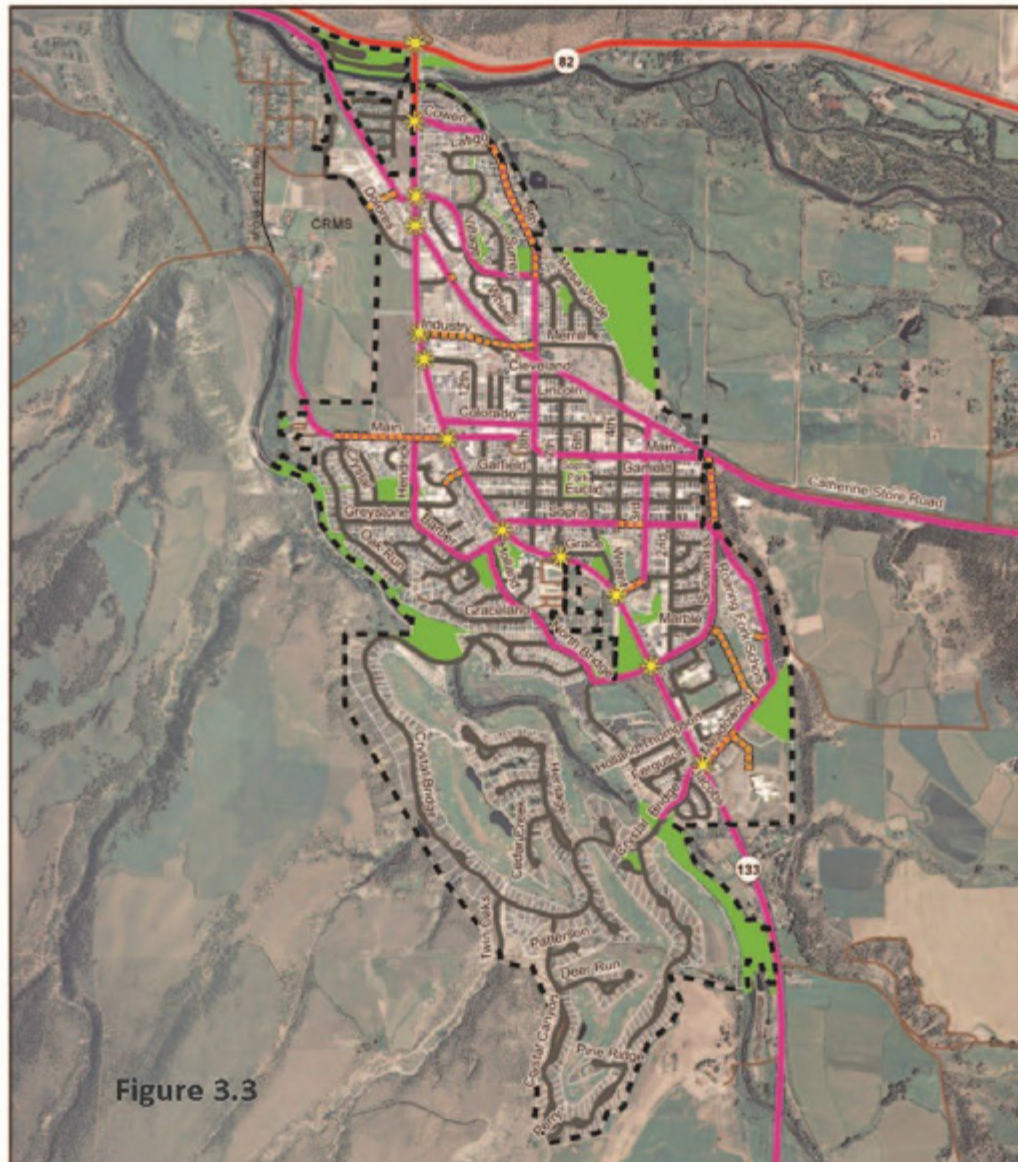
## Mobility

### Previous Plan Review


There are number of recently completed planning efforts that address community feedback, recently implemented projects, and recommendations for the multimodal transportation network in Carbondale. The key takeaways of these plans are summarized in this section.


#### Comprehensive Plan (2013)


The Multi-Modal Mobility chapter of the 2013 Comprehensive Plan provides strategies for improving multimodal access through the Town. This includes cross-sections, connections across Highway 133, increased access to the Rio Grande Trail and the 3rd Street Center, and paths on both sides of Highway 133 (which have been implemented since 2013). Spatial recommendations are shown in Figure 1.



### Priority Multimodal Corridors, Future Connections and Highway Crossings

 Priority Multi-Modal Corridors 
  Future Connections 
  Crossings

 Town Boundary 
  Streets

 Public Recreation Land 
  County Roads



*Figure A8: Priority Mobility Corridors.*

### Carbondale Bicycle and Pedestrian Corridors (2019)

In 2019, the Town of Carbondale identified the priority bicycle and pedestrian corridors shown in Figure A8. Given the recency of the development of this map, the 2021 Comprehensive Plan will build on this effort. The planning process will seek confirmation from the community on these corridors and carryover recommendations into the Comprehensive Plan. The Comprehensive Plan will also apply the findings from the 8th Street Corridor Study and further define specific treatments on key corridors.

As an outcome of the Bicycle and Pedestrian Corridors described previously, 8th Street was identified as the highest priority corridor. 8th Street is an important corridor for all modes, as it provides a through north-south connection and is the only road that parallels Highway 133, providing an alternative way to travel north-south through town. The plan underwent two rounds of public outreach, recommendations by the Carbondale Bike, Pedestrian, Trails Commission (BPTC), and a final approval by the Carbondale Trustees.

## Existing Modal Networks

Carbondale has a comprehensive network for people walking, biking, taking transit and driving. This section provides a high-level overview of the key facilities and gaps in each modal network.

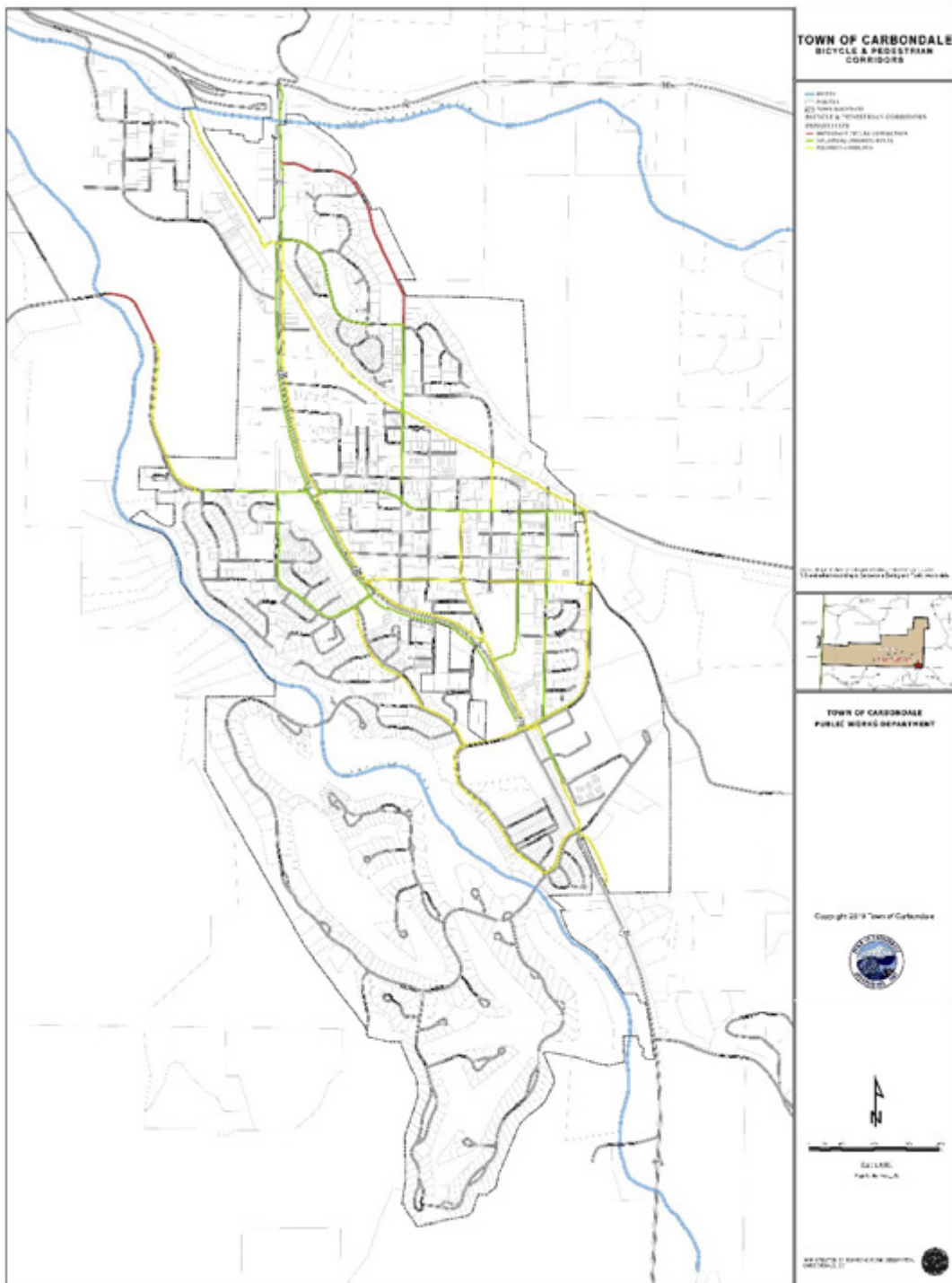


Figure A9: Bicycle and Pedestrian Network

### Bicycle Network

The primary bicycle facility in Carbondale is the Rio Grande Trail. The Rio Grande Trail is a rail to trail that runs the 42 miles between Glenwood Springs and Aspen, and crosses through Carbondale at the northern end of Town as shown in Figure A9. The entire trail is separated from vehicle traffic, except at intersections. The Roaring Fork Transportation Authority (RFTA) manages the greatest portion of the Rio Grande Trail. Since RFTA owns most of the trail, recommendations on wayfinding and trail crossings that come out of the



Comprehensive Plan need to be coordinated with RFTA. There are a number of other trails through Town including along both sides of Highway 133 and Crystal Bridge Drive.

The 8th Street Corridor Study explored the opportunity of implementing an on-street bike lane. The outcome of this effort determined that most right of way widths in the Town cannot accommodate an on-street designated bike facility and retain travel lane widths and on-street parking. Narrowing travel lanes below ten feet and removing on-street parking is not palatable in Carbondale. The recommended bike facilities in the Town of Carbondale are therefore sharrows or sidepaths.

### Pedestrian Network

There are a number of corridors, such as Euclid Avenue and Garfield Avenue, that are missing sidewalks on one or both sides of the street. These streets generally accommodate on-street parking and do not have curb and gutter. Feedback from the community is necessary to determine where pedestrian demand warrants the tradeoffs necessary to implement sidewalks.

In addition to missing sidewalk gaps, pedestrian crossings are one of the primary challenges for people walking. Crossing Highway 133 is the primary barrier, as controlled crossings are infrequent. For example, the closest controlled pedestrian crossing south of the roundabout is .25 miles south at Sopris Avenue.

### Transit Network

The VelociRFTA Bus Rapid Transit (BRT), the first rural BRT system in the nation, runs along Highway 82 between Glenwood Springs and Aspen. The BRT is highly successful, with almost 5.5 million riders in 2019. The BRT has a station in Carbondale on Highway 133, north of Delores Way. The BRT runs every 12 minutes in the peak hours and provides a transportation option that is time competitive with the private automobile. Carbondale users can connect to/from the BRT station using the Carbondale Circulator. The circulator is a free service, running every 15 minutes from 5 am to 9 pm. The circulator had approximately 105,000 riders in 2019. A regional bike share in the Roaring Fork Valley, including Carbondale, was being considered at the time of publication.

### Vehicle Network

Highway 133 is the primary access point for vehicles traveling to Carbondale regionally. The east side of Highway 133 has a dense street grid, with high connectivity for all modes. The west side of Highway 133 has a street network with a curvilinear loop pattern. This grid type increase travel distances and reduces walkability and bikeability.

Anecdotally, the challenges related to driving in Carbondale include congestion approaching the roundabout at Main Street and Highway 133, heavy vehicle traffic, and speeding. To address concerns about speeding, the 8th Street Corridor Study explored potential traffic calming opportunities. Despite support shown in surveying for speed humps, the 8th Street Study determined that speed humps are not appropriate in Carbondale due to snow removal, heavy vehicle traffic, and noise. Curb extensions at intersections and chicanes midblock are the most highly supported traffic calming treatments.



## Key Takeaways and Next Steps

In the next phase of the Comp Plan update the following concepts will be explored to determine recommendations:

- As determined through the 8th Street Corridor Study, sharrows or sidepaths are the preferred bike facility types. Through discussions with stakeholders there is still community support for sharrows considering the alternatives and lack of space for on-street facilities. Sharrow-marked routes must be well-thought out in future transportation planning.
- As determined through the 8th Street Corridor Study, curb extensions, chicanes, and raised pedestrian crossings are the preferred traffic calming types. Although community support exists for these, challenges loom for their installation as an optimal solution between property owners and the Town is difficult to determine.
- Speeding is one of the most common transportation-related complaint. Corridors with the highest real or perceived speeding issues should be identified in future transportation planning.
- Safety concerns: Conditions along Highway 133 may threaten pedestrian safety, as children frequently cross Highway 133 after school. A safer crossings solution will be needed as more vehicles use the road and as more families come to town. Additional outreach and planning should identify trouble spots, and which locations may be the best opportunity for an enhanced crossing in the future.
- Downtown North is an opportunity to envision streets without barriers of existing infrastructure. Should the downtown expand north of the Rio Grande Trail, strong pedestrian connections to town-owned open space and to established neighborhoods will be needed. Reinforcing Merrill Ave as a commercial route and reconnecting it to Highway 133 via acquisition and redesign will also relieve Main St traffic.
- This process will identify street cross-sections based on the context of the street. Definitive direction on building sidewalks on one or both sides of streets, having attached or detached sidewalks, keeping on-street parking, and adjusting travel lane widths will need to be considered in future planning.
- Does the map of priority bicycle and pedestrian corridors shown in Figure A8 still resonate? Are there any corridors missing or any identified corridors that are no longer appropriate as multimodal connections?
- Key barriers to aging in community, from a transportation perspective, regard having accessible routes to and from destinations for those using wheelchairs, strollers or other assisted mobility types. Easy sidewalk access versus losing the rural town character is an ongoing trade-off of completing the sidewalk network.
- Does the community feel like there is adequate public parking in Carbondale? If not, what hubs have a higher parking demand than supply?
- Carbondale's last mile problem must be addressed with big solutions, including studying the need for expanded local transit service.

## Aging in Community

The Town of Carbondale has established the Carbondale Age Friendly Community Initiative (CAFCI) to further programs that support equity, access, and services for people of all ages, abilities and mobility needs. Data shows the number of people over 60 comprises 18% of the Town's population and their needs will double in the next 10 years.

### Key Observations: Housing

- Carbondale has more housing that accommodates elderly adults per capita than its neighboring communities in Garfield County.
  - 78 new Senior Housing Units (Sopris Lodge, North Downtown: continuity of care, partially independent, assisted living, and memory care).
  - Assisted Living: Heritage Park + Care Center
  - Affordable Senior: Crystal Meadows (HUD, 62+, 30% AGI)

### Mobility

- Paratranist (on-call) services are available but not widely used.
- Sidewalks and access are limited in some areas but CACFI-initiated audits can help complete the gaps as part of a capital projects planning.

## Summary of Community Engagement

The Community Engagement Plan (CEP) was the touchstone for gathering needed input to update the Comp Plan. The CEP outlined the organizations engaged, stakeholder and advisory groups, and the number of public meetings and workshops, as well as other input platforms including online and paper surveys.

### Community Engagement Plan

Date(s)	Event/Task	Purpose	Target Audience(s)	Outreach Strategies
Phase 1: Project and Engagement Kick-off				
Jul 2 – Aug 6	Online survey	Ask general questions about public concerns, recent successes and vision for the future	General public	Press release, social media ads, email blasts, postcards with QR codes
Jul-Aug	Stakeholder focus group sessions	Group interviews with representatives from stakeholder organizations to understand	N/A	N/A

		opportunities/constraints in topic areas		
Jul 2	First Fridays Kick-off Event	Kick off the Comp Plan Update – generate awareness for the effort and promote the web page and online survey	General public	Social media event + ads, email blasts
Phase 2: Draft Comp Plan Update				
Aug 16	Spanish-speaking Community Meeting	Hold a community meeting in Spanish to hear from the Latino community their concerns and vision for the future	Latino community	Personal engagement – Latino community leaders went to predominantly Spanish-speaking neighborhoods to personally invite community members
Aug 17	Community Meeting	Present initial analyses on growth, housing, mobility and have small-group conversations to gather input on Comp Plan focus areas	General public	Press release, social media ads, newspaper ads, email blasts, flyers
Aug 17	Downtown/Downtown North Design Charrettes (2)	Get key stakeholders in the room to discuss potential future uses and design of Downtown infill and Downtown North	Downtown/ Downtown North stakeholders (landowner/ developer, architects, planners, Town staff, elected/ appointed officials)	Personal emails, website
Phase 3: Final Plan Revision and Adoption				

Oct 19	Spanish-speaking Virtual Open House	Present draft plan items for public comment, get input on prioritization of projects	Latino community	Personal engagement (same strategies as Aug 16 <sup>th</sup> event)
Oct 27	English Virtual Open House	Present draft plan items for public comment, get input on prioritization of projects	General public	Press release, social media ads, newspaper ads, email blasts, flyers
Oct 28	Spanish Virtual Open House	Present draft plan items for public comment, get input on prioritization of projects	LatinX community	Press release, social media ads, newspaper ads, email blasts, flyers
Nov 3 – Nov 28	Draft Recommendations Poll	Get feedback on the Draft Recommendations presented at the Virtual Public Meetings	General public	Press release, email blasts, newspaper ads, social media post
Jan 20 – Feb 25	Draft Plan Survey	Get feedback on the Draft Future Land Use Map and Implementation Plan	General public	Press release, email blasts, social media posts
Jan 24 – Feb 25	Draft Plan Reading Rooms	Give the community an opportunity to read paper copies of the draft plan in English and Spanish at 10 locations in Town and take a paper survey	General public	Press release, email blasts, social media posts
March 30, 2022	Final Open House	Get final feedback on the draft plan and give the community an opportunity to speak to the Project Steering Committee members	General public	Press release, email blasts, newspaper ads, radio ads, social media posts

### Project Steering Committee (PSC)

The Town of Carbondale Planning and Zoning Commission acts as the Project Steering Committee to offer guidance throughout the Comprehensive Plan Update process. There have been three PSC meetings at which the project team has presented findings on the following topics:

- Comp Plan Vision + Goals, Community Engagement Plan.
- Economics, demographics, population projections, Downtown and Downtown North.
- Aging in Place, Climate Action Plan, Mobility.

Three more PSC meetings are scheduled to discuss:

- Key recommendations.
- Implementation strategies.
- Comprehensive Plan Update draft.

#### Other Boards and Commissions Engaged

Additional meetings were scheduled with advisory boards, committees and other interest groups to include their vision and goals into the Comp Plan update process including:

- EBOARD: June 28, 2021.
- CLEER: Engaged in multiple touch points in assisting with evaluating the CAP.
- CAFCI: August 17, 2021.
- Board of Trustees: August 24, 2021.
- Bike and Ped Commission: August 30, 2021.
- Historic Commission: September 2, 2021.

#### Web Page

The Town contracted PR Studio to enhance overall communications between the Town and community members, and they worked with staff to create an engagement website for all Town communications called Carbondale Kaleidoscope (<https://carbondaekaleidoscope.org/>). The Comprehensive Plan Update (called Chart Carbondale) was used as a kick-off project for the larger engagement site, which launched on July 2<sup>nd</sup>, 2021 (<https://carbondaekaleidoscope.org/chart-carbondale>). The web page hosts information about the project and offers several ways to engage including map pinning, an ideas forum, and a survey. The page can be translated into Spanish so that Latino community members can participate online.

#### Stakeholder Focus Group Sessions

Six stakeholder focus group sessions were held to do a deep-dive on topics that were identified as important to focus on in the Comp Plan update. Town staff identified organizations, businesses, and individuals that had knowledge and experience around the topic areas to be invited. The Town also identified someone from the Latino community to participate in each session.

A list of approximately 89 people was developed. It included representatives from the following entities:

- RFTA
- CAFCI
- Senior Matters
- RE-1 School District



- Valley Settlement
  - La Clinica del Pueblo
  - Carbondale Arts
  - KDNK
  - Clay Center
  - Stepping Stones
  - Family Resource Center
  - Andy Zanca Youth Empowerment Program
  - Youth Entity
  - Voices
  - Artists
  - CLEER
  - AVLT
  - Roaring Fork Soccer Club
  - Wilderness Workshop
  - Downtown Property and Business Owners
  - Downtown North Property and Business Owners
1. Affordable housing – representatives from affordable housing providers and developers (Philip Jeffreys), real estate professionals (Cindy Sadlowski, Brian Leasure) and non-profit community organizations (Sydney Schalit). Key discussion topics included:
- a. Biggest challenges:
    - i. Residents in deed-restricted units can get “trapped”, where they can’t afford market-rate homes so they have to stay put which keeps those starter homes off the market for others.
    - ii. Supplying housing for undocumented community members who are not eligible for public housing assistance, which leaves a third of the community unsupported, who often become victims to predatory housing situations.
    - iii. The conversion of long-term rental properties into short-term vacation rentals (AirBnB, VRBO). Countless stories of Carbondale’s workforce getting kicked out of rental homes because the short-term rental market is more profitable.
    - iv. More senior housing is needed for the Town’s aging population.
  - b. Recent successes:
    - i. Since 1997, Carbondale’s inclusionary housing ordinance has required any new development with more than 4 units to provide deed-restricted units, which has helped with supply.
  - c. Potential opportunities:
    - i. Move away from single-family zoning.
    - ii. Initiate a tax on short-term rentals and second homes (vacancy tax) that goes into a fund for the construction affordable housing.
    - iii. The Town waives fees and reduces parking requirements for affordable housing developments.

2. Local businesses and economy – local business owners Downtown and on Highway 133 (Riley Soderquist, Federico Pena), the Carbondale Chamber of Commerce (Andrea Stewart), representatives from Downtown North landowners/developers (Bob Schultz), Carbondale developers (Jack Schrager) representatives from Leland Consultants (Ted Kamp). Key discussion topics included:
  - d. Biggest challenges:
    - i. Attraction and retention of employees due to the high cost of housing, availability of childcare and public transportation.
    - ii. Businesses must cut hours due to staffing shortages.
    - iii. Lack of parking downtown and enforcement of 2-hour parking.
    - iv. HCC Zone District acts as a barrier to redevelopment Downtown. First-floor commercial/retail requirements, parking requirements and inclusionary zoning make development in HCC challenging.
  - e. Businesses that are missing in Carbondale:
    - i. New apparel and sporting apparel retail.
    - ii. A destination hotel near downtown – current hotels cater to transient workers, not as much for tourists staying in town.
  - f. Potential opportunities:
    - i. Maintain the sense of place in Downtown Carbondale – avoid separate hub areas along 133, Downtown, Downtown North.
    - ii. Live/work developments to provide makers spaces and housing.
    - iii. Dormitory-style housing for younger workforce (shared living spaces with private bedrooms).
3. Access, mobility and aging in community – representatives from the Bike + Pedestrian Commission (Matthew Gworek), RFTA (David Johnson), CAFCI (Niki Delson), Senior Matters (Sue Zislis), and Safe Routes to Schools (Jeff Gatlin) and representatives from Fehr and Peers (Carly Sieff). Key discussion topics included:
  - a. Biggest challenges:
    - i. Barriers to walking include lack of sidewalks, poorly designed sidewalks, lack of proper crosswalks, signage and seating areas.
    - ii. Highway 133 crossings are dangerous for pedestrians of all ages.
    - iii. Homeowners do not take responsibility of maintaining the sidewalks in front of their homes (removal of snow, encroaching landscaping, encroaching on Town's right-of-way).
    - iv. Lack of a comprehensive Transportation Plan with recommendations on projects and steps to achieve mobility goals.
    - v. Lack of bicycle education for both bicyclists and drivers.
    - vi. Lack of funding for mobility infrastructure.
    - vii. First and last mile connections – the Carbondale Circulator is good for regional trips but lacks connections in-town.
  - b. Potential opportunities:
    - i. Expand transit routes to connect to schools and City Market – would require significant investment from the Town.

4. Sustainability, agriculture and recreation – representatives from CLEER (Maisa Metcalf, Stefan Johnson), Biospace, Full Circle Construction (Amanda Poindexter), Aspen Valley Land Trust (Suzanne Stephens), Confluence Architecture (Angela Loughry), Sustainable Settings, Rock Creative (Kade Gianinetti), Cushing Terrell Sustainability (Ashleigh Powel). Key discussion topics included:
  - a. Biggest challenges:
    - i. Retrofitting existing buildings for energy efficiency and creating incentives.
    - ii. Promoting infill development and preventing sprawl.
    - iii. Ensuring equitable access to recreation opportunities.
    - iv. Ensuring adequate infrastructure for electric vehicles in all new developments.
    - v. Parking requirements in some zone districts that make affordable housing development infeasible.
    - vi. Lack of staff to enforce sustainability development regulations.
    - vii. Supporting local farmers as the industry transitions from large ranching operations to small-scale farming initiatives.
    - viii. Balancing sustainability development regulations with the need for affordable housing.
    - ix. Daycare is not currently allowed in any zone districts without extensive review
  - b. Potential opportunities:
    - i. The Town leads by example by electrifying their fleet.
    - ii. Reduce parking requirements in downtown zone districts to discourage driving and allow for more affordable housing development.
    - iii. Hire a staff member that is responsible for enforcing sustainability development regulations.
    - iv. Create a vertically-integrated local food distribution operation and medium-sized animal processing facility to support local farming/ranching initiatives.
    - v. Limit/regulate short-term rentals and second homes.
    - vi. Create a mixed-use industrial park (consider Downtown North) to create jobs and housing so that people can live and work in Carbondale.
    - vii. Include a daycare facility as part of the redevelopment of Downtown North.
5. Arts, culture and community services – representatives from Carbondale Arts (Amy Kimberly), Clay Center (Angela Bruno), youth programs (Kirsten McDaniel), and public service providers (Maria Alvarez). Key discussion topics included:
  - a. Biggest challenges:
    - i. The cost and availability of housing for the creative community. Artists are moving away because they can no longer afford to live in Carbondale.
    - ii. Lack of small “makers spaces” or light industrial spaces for lease for artists.
    - iii. Community disagreement over the closure of a block of Main Street.
  - b. Recent successes:
    - i. New developments have willingly included public art and involved the Creative District.
  - c. Potential opportunities:
    - i. The Latino community would love a park and garden with trees, seating and vendor spaces to sell food and goods.

- ii. Live/work spaces would greatly benefit the arts community – particularly smaller spaces and units.
  - iii. A hotel in Downtown Carbondale would provide more jobs for the Latino community that wouldn't require driving to Aspen.
  - iv. Consider ranching/agriculture as part of the arts/culture/creative district.
  - v. A dedicated event space downtown that can be rented for creative events.
  - vi. Vendor space at the RFTA park-n-ride for food/beverage vendors.
- 6. Development, infrastructure, Downtown and Downtown North – representatives from Sopris Lodge, Carbondale Center Place (Riley Soderquist), Sopris Engineering, Poss Architecture, Fields Development Group (Gavin Brooke), BLDG Seed Architects (Ramsey Fulton), DHM (Laura Kirk), Downtown North property owners, the Dinkel House (James Ibbotson), other local developers/planners (Bob Schultz, Jack Schrager), and representatives from Leland consultants (Ted Kamp). Key discussion topics included:
  - a. Biggest challenges:
    - i. Carbondale being developed solely for profit by outside interests.
    - ii. Zoning in Downtown is producing overpriced residential development.
    - iii. Understanding how much more commercial development Carbondale can support.
    - iv. Parking requirements Downtown are hindering affordable housing development.
    - v. Creating a balance of residential and commercial space throughout Carbondale.
    - vi. Recent development on Highway 133 doesn't fit the character of Carbondale.
    - vii. Lack of a dedicated revenue source for affordable housing.
    - viii. Proliferation of Planned Unit Developments (PUDs) that are difficult to amend.
  - b. Potential opportunities:
    - i. Downtown North becomes a net zero village since it's within Holy Cross' territory (moving to all renewables by 2030).
    - ii. Downtown North redevelops with a variety of housing types (rental, for-sale, townhomes, apartments, small-lot single family).
    - iii. Review Town regulations (particularly HCC Zone District) to assess where changes could be made to incentivize affordable housing and redevelopment Downtown.
    - iv. Identify dedicated revenue sources to subsidize affordable housing and provide public parking downtown.
    - v. Explore aesthetic design guidelines for Downtown.

### Survey Results

The survey was available online and at Town Hall on paper from July 2<sup>nd</sup> to August 6<sup>th</sup>, 2021. We received 483 responses online and 41 paper surveys, totaling 524 responses.

### **Demographics**

- There was good representation from various neighborhoods in Carbondale, 22% live in River Valley Ranch, 16% live in Old Town, 15% live in Downtown, 15% live in Garfield County (outside of Town boundaries) and 10% live in Crystal Village, among others.
- Survey responders generally reflected Carbondale's aging population, with 33% over the age of 65, 20% between 55 and 64, 17% between 45 and 54, and 17% between 35 and 44.



- When asked what their relationship to Carbondale is, 36% of survey responders live there full-time, 23% shop/eat/drink there, 22% recreate in the area, and 10% work full-time in Carbondale.

### Community/character

- Survey responders recognize that there is a lot to love about Carbondale. When asked what's the best, 26% answered the community/people, 26% said the quality of life, 20% responded outdoor recreation, and 20% answered local character/culture/identity.
- When asked how they would describe the identity of Carbondale, responders had diverse answers (see Figure A10 word cloud). Words and phrases like "small town", "communal", "friendly", "mountain", "funky" were common.



Figure A10: Carbondale Identity Word Cloud

- Survey responders were most concerned about how rapid growth/development (19%), housing affordability (15%), population growth (9%), gentrification (8%), high cost of living (8%) and too much traffic (7%) are threatening their quality of life.
- 95% of responders stated that they consider Carbondale their long-term home, and those that did not cited such reasons as the cost of housing/living and too much change (growth, loss of character).
- When asked if they believed having a historic downtown was an economic boost for Carbondale, 85% of responders said yes, while 4% said no and 11% didn't know. Similarly, 84% of responders stated they would like to see incentives to preserve historically significant buildings, while 6% said they would not like to see incentives and 11% didn't know.

### Land Use, Growth + Housing

- The majority (54%) of survey responders felt that there has been too much residential growth in Carbondale, while 37% felt that residential growth has been adequate. When asked about commercial growth, the majority (54%) of responders felt that it had been adequate, while 31% believed there has been too much commercial growth, and 16% said there hadn't been enough.

### How do you feel about *residential* growth in Carbondale?



Figure A11: Residential growth

### How do you feel about *commercial* growth in Carbondale?



Figure A12: Commercial growth

- When asked what future uses they would like to see in North Downtown (see Figure A13), neighborhood park (23%), mixed-use opportunities for housing and retail/commercial (20%) and civic uses (20%) were most popular.

### What future uses would you like to see in North Downtown?



Figure A13: North Downtown Future Uses

- Survey responders had differing opinions on what (if anything) was missing in Downtown Carbondale. A few frequent answers were parks/pocket parks (15%), more restaurants/retail (14%), redevelopment of vacant parcels (13%), streetscape improvements (11%), public plazas (11%) and housing (10%).
- Opinions were also divided on what type of housing survey responders want to see more of in Carbondale (see Figure A14). A few frequent answers were single family homes (20%), mixed-use buildings (15%), micro units/tiny homes (14%), accessory dwelling units (14%) and duplexes (11%). A few frequently mentioned "other" answers included affordable housing and no new housing/development.

### What type of housing would you like to see more of in Carbondale?

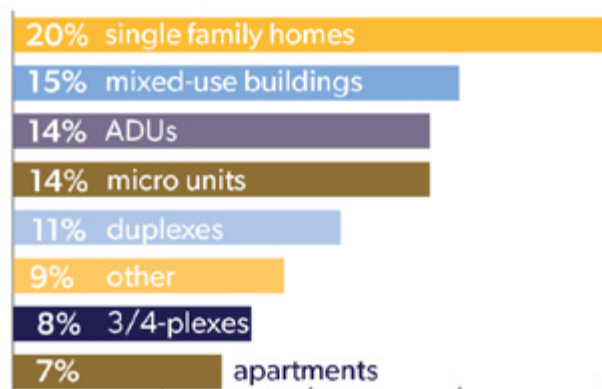


Figure A14: Housing

### Mobility

- When asked what their most important goal for Carbondale's transportation system is, 28% said an equitable transportation system (for people of all ages, abilities, ethnicities and income levels), 27% said a system that minimizes environmental impacts, 18% said a safe transportation system.

### My most important goal for Carbondale's transportation system is:

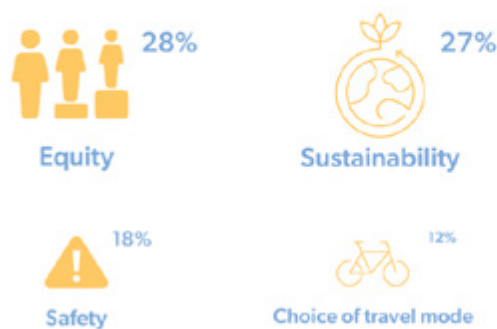


Figure A15: Transportation Goals

- Common destinations that survey takers use via Carbondale's transportation system include Main Street (24%), Highway 82 (18%), Carbondale businesses outside of Downtown (14%), parks/the recreation center (11%) and trailheads (11%).
- Survey responders identified the lack of sidewalks (22%) and lack of overall connectivity (21%) as the biggest challenges associated with walking in Carbondale. Common "other" answers accounting for

- When asked what the biggest challenges associated with biking in Carbondale are, the most common response was “other” (22%) - where responders frequently wrote in no challenge/fine as-is, careless cyclists, and speeding/careless drivers. Lack of overall connectivity (18%), streets are uncomfortable or unsafe to bike along (17%), and lack of bike racks (14%) were other common answers.

## Economics

- When asked how they felt about the economic health of Carbondale, the majority (57%) said good, 21% said fair, 11% said excellent and only 2% said poor.
- The majority (60%) of survey responders feel that the variety of businesses and service establishments in Carbondale is good, 27% said fair, 9% said excellent and only 4% said poor. Those who answered fair or poor cited affordable restaurants, affordable new clothing, general retail and healthy/sustainable grocery options as lacking in Carbondale.

## Community Priorities

- The final survey question which aimed at determining community priorities asked, “if you could make one recommendation regarding the future of Carbondale, what would it be?” (see Figure A16).



Figure A16: Community Priorities

- When amalgamated, the following are the most mentioned themes:



*Figure A17: Top Themes*

Spanish-speaking Community Meeting, August 16, 2021

As part of the Comprehensive Plan Update, the project team held the Town's first ever community meeting in Spanish to engage members of the Latino community that have traditionally been difficult to reach due to several barriers including language and the lack of historical communication between the Town and Latino community. Representatives from Valley Settlement did personal outreach to invite community members to participate by door-knocking, going to parks and doing outreach in restaurants.

The meeting's format included a brief presentation about what the Comprehensive Plan is and why it's important that people get involved, and then attendees visited several stations with information on growth and housing, mobility, and Downtown/Downtown North. Participants then broke up into small groups where trained Spanish-speaking facilitators led discussions on key issues faced by the Latino community. At the end, the facilitators presented top themes to the larger group.





*Figure A18: Images from the August 2021 Spanish-language Open House.*

Below are some of the discussion highlights:

- The desperate need for affordable housing and the barriers to accessing subsidized housing for undocumented community members.
  - Rents are increasing for houses, apartments and mobile home parking.
  - Maintenance of rental properties and mobile homes is an issue.
- Public transit access needs to be expanded throughout town to connect adults to jobs and children to school and recreation opportunities.
- The need for access to free or discounted extracurricular activities for Latino youth.
- The need for public services (physical and mental health, business education, support services) with Spanish-speaking staff.
- Concern over the number of liquor stores and marijuana businesses and what message this sends/risk this poses to the youth.
- The need for affordable childcare for Latino children.
- The fear of “making Carbondale too pretty” – if you beautify the Town, taxes will increase and more people will be displaced.

The facilitators de-briefed after the meeting to discuss key takeaways, what worked and strategies for future engagement of the Latino community:

- Meeting participants and facilitators agreed that they appreciated being included in this process and would like to stay involved. They wanted to know how their input would be incorporated into future decisions that the Town makes.
- It was valuable that the meeting was in Spanish (rather than translated from English), empowering participants to speak more freely and feel more included.
- The best way to reach more Spanish-speaking community members is personal outreach, advertisements (flyers, newspaper ads, etc.) are not as effective at explaining the importance of getting involved.

**What type of development would you like to see in Downtown North?  
¿Qué tipo de desarrollo le gustaría observar en la zona norte del centro?**



**How to: Place Your 3 Dots Next To Your 3 Most-Preferred Images.**  
**Cómo elegir:** Coloque una etiqueta junto a cada imagen de su preferencia.

	2		0		0
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	11		3		5
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	2		0		3
	0	<p><b>ANY OTHER FUNCTIONS OR IDEAS? PLACE A STICKY NOTE BELOW.</b> <b>¿ALGUNAS FUNCIONES O IDEAS ADICIONALES? COLOQUE UNA NOTA ADHESIVA CON SUS IDEAS A CONTINUACIÓN.</b></p>			
	9				

Figure A19: Visual Preference Survey from Spanish-speaking Community Meeting on future development in Downtown North.

Community Open House, August 17, 2021

*Figure A20: Images from the August Public Open House.*

The Open House on August 17<sup>th</sup> had the same format as the Spanish-speaking Community Meeting, with an estimated 68 participants. Members of the project team facilitated the small group discussions, and the following are the top themes that emerged from the meeting:

- Growth:
  - Recent growth has felt rapid and many community members would like to slow growth.
  - Fear that slowing growth will further increase the cost of living and displacement will continue.
  - Growth should be focused on infill development rather than sprawl.
  - The need for adequate infrastructure capacity to accommodate growth.
  - Look to Downtown North for future growth.
- Housing:
  - Extreme need for affordable housing.
  - Need for diverse housing types – get creative (co-housing, tiny homes, etc).
  - Need for regulation of the number of short-term rentals.
    - Look into taxing short-term rentals and second homes to fund the construction of affordable housing.
  - Need for homes with Universal Access for aging community members.
- Sustainability:
  - How to discourage driving while understanding most people will continue to own cars in the near-term.
  - Focus on electrification of transportation and electric vehicle infrastructure.
  - Green Building codes are moving in the right direction.
- Transportation/mobility:
  - Circulator does not properly connect neighborhoods to jobs/destinations and routes need to be expanded to reduce reliance on driving.
  - Bike and pedestrian infrastructure needs to be improved.
  - Traffic is a concern on Highway 133.
  - Dial-a-ride service should replace Paratransit (which has many barriers).



- Town character/beautification:
  - Agreement with concern brought up at Spanish-speaking Community Meeting – avoid making Carbondale too beautiful.
  - Desire to maintain the “funkiness” of Carbondale.
  - No big-box stores or chains – support local businesses.
- Downtown North:
  - Unsure if new commercial/retail is needed.
  - Should include a variety of housing types – lots of affordable housing.
  - Some want to keep it industrial.
  - Should include a childcare facility.

**What type of development would you like to see in Downtown North?**  
**¿Qué tipo de desarrollo le gustaría observar en la zona norte del centro?**

**How to: Place Your 3 Dots Next To Your 3 Most-Preferred Images.**  
**Cómo elegir: Coloque una etiqueta junto a cada imagen de su preferencia.**

	5		5		2
	3		2		2
	2		7		12
	3		1		1
	4		1		0
	0	<b>ANY OTHER FUNCTIONS OR IDEAS?</b> <b>PLACE A STICKY NOTE BELOW.</b> <b>¿ALGUNAS FUNCIONES O IDEAS ADICIONALES?</b> <b>COLOQUE UNA NOTA ADHESIVA CON SUS IDEAS A CONTINUACIÓN.</b>			
	15				

Not good to Age in Community

Figure A21: Visual Preference Survey from Open House on future development in Downtown North

### Design Charrettes, August 17, 2021

Two design charrettes were held to explore opportunities and challenges with infill development Downtown and the future of Downtown North. Both sessions were well-attended with about 20 people each (broken up into two tables of ten).



*Figure A22: Images from the Downtown/Downtown North Design Charrettes.*

The two sessions were held as informal Open House formats so people could come and go. In addition to advertising the Charrettes on the Chart Carbondale website, targeted notices of the design charrette were sent to the following entities/people/organizations:

#### Current/Former Elected or Appointed Officials:

- Former Planning Commissioners (from the last 20 years)
- Former members of the Board of Trustees (again, from the last 20 years)
- Current Planning Commission
- Current Board of Trustees
- All Town Boards and Commissions

#### Business Owners:

- Phat Thai
- Sopris Lodge Assisted Living
- True Nature
- Lulubelle
- Grana Bread
- High Q
- Mi Casita
- White House Pizza
- Village Smithy
- Alpine Bank

#### Entities

- Clay Center
- Mount Sopris Historical Society
- Chamber of Commerce



Property owners in the Downtown and Downtown North:

- Historic Bakery Building on 4<sup>th</sup> Street
- Southeast corner of Capitol and 3<sup>rd</sup> Street (historic structure)
- Fante parcel on the SE corner of 4<sup>th</sup> and Colorado
- Overlook Parcel (11 acres north of Town Hall)

Architects/Designers/Planners who have done work in the HCC

- Sopris Engineering
- Mark Chain
- DHM
- Poss Architecture

Some of the key takeaways from these sessions included:

- Downtown North:
  - Future development of Downtown North will require a rezoning, there is debate over whether a new zone district needs to be created or if an existing zone district (Mixed Use or HCC) should be modified to fit the need.
  - Debate over how to transition from current industrial uses to the inclusion of light industrial/maker spaces in the future.
  - Parking requirements will drive what development looks like – how to reduce parking requirements to create an urban neighborhood with affordability.
  - The developer is ready to submit an application as early as first quarter of 2022, but intends to understand the community vision for Downtown North through the Comp Plan update process.
  - Some participants liked the previous Wolf Lyon plan with a hotel use, others wanted to move away from that plan.
  - Located within Holy Cross territory, there is an opportunity to make this a carbon-neutral neighborhood.
  - Debate over the need for more commercial/retail in Downtown North – don't want to pull energy away from Main Street.
  - Debate over the need for parks/open space on this property due to its proximity to existing parks – the focus should be on green connections north/south.
  - Most agree that the future of this area should not be single family residential.
  - Desire for flexibility with commercial/retail spaces to be used as residential based on market conditions.
- Downtown:
  - The HCC Zone District's parking and retail requirements have prevented infill development and need to be re-evaluated.
  - Building height restriction is limiting the ability to develop 3-story buildings, consider restricting the number of floor plates rather than building height.

### Local Businesses Survey: Carbondale Chamber

Local commerce was impacted from the global COVID pandemic. The following illustrates those impacts from 2020 and the resulting comeback in 2021:

- There was a 10% decrease in Chamber membership from 2020 (450) to 2021 (405).
- Since Spring of 2020, employee counts for Chamber member businesses have predominantly “Stayed the same” (58%), while 23% “decreased” and 19% “increased.”
- 99% of Chamber member businesses are open as of Spring 2021.
- There have been some businesses changes since Spring 2020: 51% of businesses allowed staff to work remotely, 30% adjusted in-person office hours, 26% downsized operations, and 26% made no changes. It is important to note that 10% of businesses closed completely.
- 30% of annual payroll is below \$100,000 while 15% is between \$200,000-\$400,000 or between \$400,000-\$600,000.
- Business concerns related to COVID Relief/Recovery centered around employee stress (65%) and financial impacts on operations (55%).
  - The most beneficial business support noted was business info tied to COVID (55%).
- 45% of businesses ranked their 2021 business outlook and sustainability as a 4 on a scale from 1-5.
- 65% of businesses noted that they have received Paycheck Protection Programs in terms of COVID relief/recovery business resources received to-date.
- Almost 50% of businesses referenced “Marketing support to drive additional customers” as a helpful COVID relief/recovery business resource moving forward.

# Carbondale Cross Section Concepts

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## Overview

This document identifies potential future cross sections for five roadways to improve bicycle and pedestrian comfort in the Town of Carbondale, Colorado, as shown in **Figure 1** and listed below:

1. Hendrick Drive
2. Colorado Avenue
3. Sopris Avenue
4. 2<sup>nd</sup> Street
5. Future Roadways in North Downtown

These roadways were selected based on the priority corridors identified in the 2019 Multimodal Corridors Map, community input gathered through the Kaleidoscope community engagement website, and an analysis of gaps in existing bicycle and pedestrian infrastructure. Three of the corridors listed above are priority corridors identified in the 2019 Multimodal Corridors Map; Hendrick Drive, Sopris Avenue, and 2<sup>nd</sup> Street. Colorado Avenue was not identified in the 2019 map as a priority corridor, however the community input collected through the Kaleidoscope identified Colorado Avenue as a corridor where people currently walk and bike, including children, and where community members felt uncomfortable walking and biking or had safety concerns.

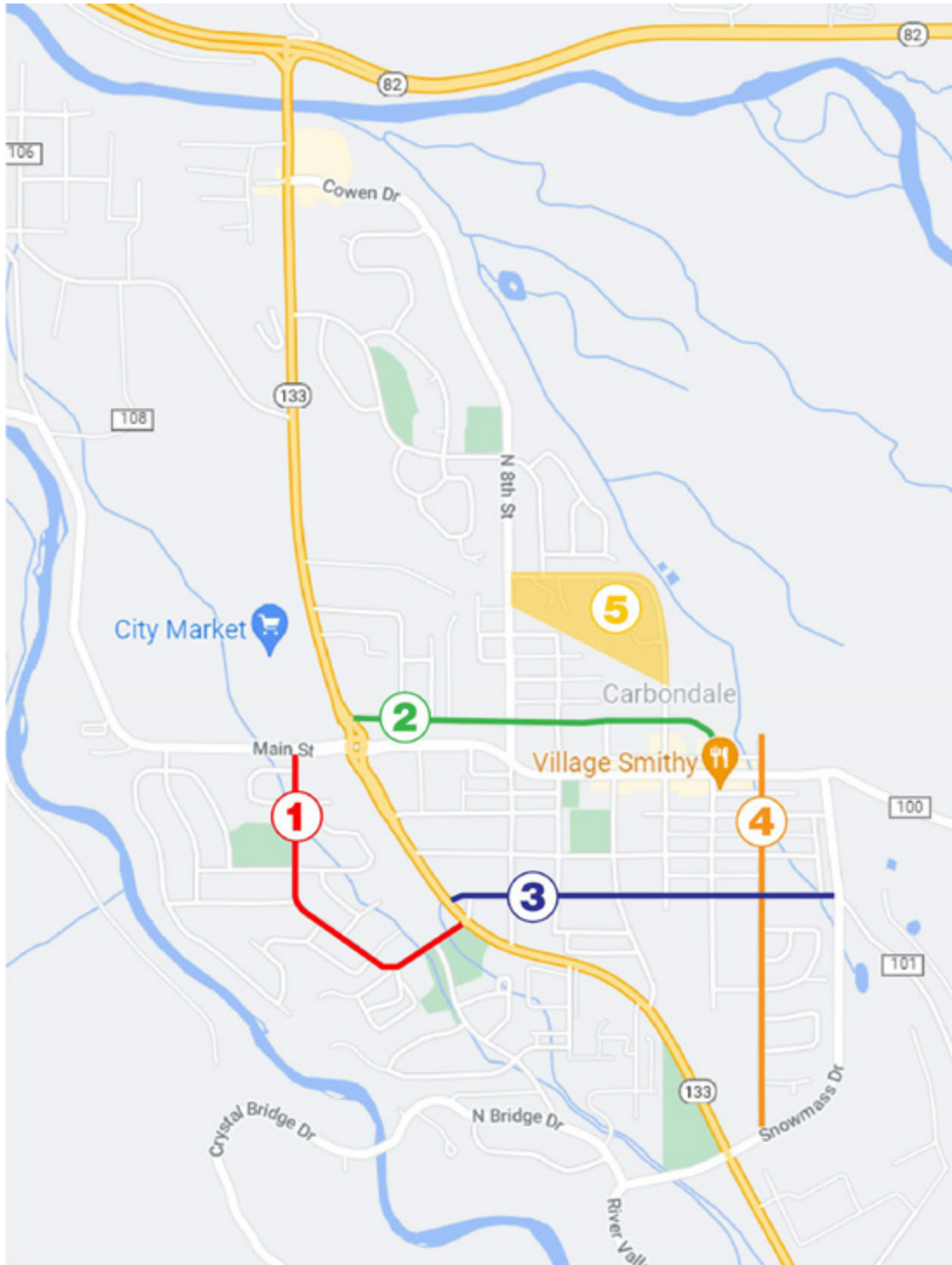


Figure 1: Selected Roadways for Improved Cross Sections

## Methodology

Proposed cross sections were developed to address gaps in comfortable bicycle and pedestrian facilities and challenges identified by community members. Proposed cross sections were created based on best practices outlined in the National Association of City Transportation Officials' (NACTO) Urban Bikeway Design Guide. The amount of right-of-way available is variable along each roadway. These cross sections reflect where sidewalks or landscape buffers could be expanded for sections to account for additional right-of-way.

### 1. Hendrick Drive

#### Existing Conditions

Hendrick Drive is a local road on the west side of Carbondale and was identified as a priority multimodal corridor in the 2019 Multimodal Corridors Map. Hendrick Drive connects the neighborhoods on the west side of town with Main Street and CO 133. The corridor is an important north-south pedestrian and bicycle connection on the west side of town and provides access to the crossings of CO 133 to reach the east side of Carbondale.

Currently, Hendrick Drive has a detached sidewalk on the east side of the street that is wide enough for people walking but not wide enough to also accommodate people riding bicycles. The existing curb-to-curb width is 38-feet and includes two 11-foot travel lanes and two eight-foot parking lanes. Hendrick Drive has a posted speed limit of 20 MPH. The existing cross section is displayed in **Figure 2**.

*Figure 2: Existing Cross Section of Hendrick Drive (Looking North)*



Source: Google Street View

Community input from the Master Plan process indicated there is a desire for a continuous sidewalk on the west side of the street. Currently the sidewalk on that side is inconsistent, which forces people walking



to cross the street where the sidewalk ends. It was expressed that this can be challenging, especially at night, and can require out of direction travel.

### Potential Cross Section

The potential cross section for Hendrick Drive includes a continuous sidewalk on the west side of the street, on-street parking on one side of the street, two travel lanes, and bike lanes on both sides of the street. This cross section maintains the existing detached sidewalk on the east side of the street which is currently in good condition. In order to accommodate the features in this cross section, travel lanes will need to be narrowed to ten-feet and the parking lane will need to be narrowed to eight-feet. One side of on-street parking was repurposed to create bike lanes on both sides of the street to provide dedicated facilities for people biking on this key corridor. The curb-to-curb width in this cross section was not changed from the existing curb-to-curb width. Existing parcel GIS data was used to estimate that with the existing curb-to-curb width there is about eight to ten-feet of right-of-way remaining on the west side of the street where a comfortable detached sidewalk can be accommodated.

## 2. Colorado Avenue

### Existing Conditions

Colorado Avenue is a local road on the east side of Carbondale. Although Colorado Avenue was not identified as a priority multimodal corridor in the 2019 Multimodal Corridors Map, public input from the master planning process indicated that it is a corridor where people, including children, currently walk and bike, and where the community would like to see investments in bicycle and pedestrian infrastructure and safety. Colorado Avenue runs parallel to Main Street, one block north. This makes it a great opportunity for a corridor where active modes of transportation are prioritized, giving people a comfortable parallel alternative to walking and biking down the busy Main Street.

The cross section of Colorado Avenue changes slightly throughout its length, but always includes two travel lanes, one in each direction, and has a posted speed limit of 20 MPH. The corridor has some sidewalks from 8<sup>th</sup> Street to 4<sup>th</sup> Street where angled parking is included between the sidewalk and the travel lanes. It is recommended these sections not be altered as they were more recently developed. Instead, the proposed cross section will suggest improvements to be made to the rest of the corridor to provide adequate facilities along the length of Colorado Avenue where they do not currently exist. The existing cross section is displayed in **Figure 4**.

Figure 3: Existing Cross Section of Colorado Avenue (Looking East)



Source: Google Street View

Community input from the Master Plan process indicated there is a desire for a continuous sidewalk on the northside of the street and a roadway design that promotes pedestrian safety and traffic calming. One comment mentioned that there are many kids living in the apartment buildings on the west side of Colorado Avenue who play near Colorado Avenue.

### Potential Cross Section

The potential cross section at locations where there is not currently angled parking includes a continuous sidewalk on both sides of the street, parallel parking on both sides of the street, and two shared travel lanes for people biking and people driving. This cross section aligns with the sections of Colorado Avenue that already include sidewalks and ensure those sidewalks extend the length of the corridor. Parallel parking, rather than angled parking, was chosen for this cross section as it makes it easier for drivers to see oncoming bikes before pulling out into the travel lane. Angled parking can restrict a driver's field of vision for oncoming vehicles and can create greater conflict between people driving pulling out and people biking.

### 3. Sopris Avenue

#### Existing Conditions

Sopris Avenue is a collector roadway on the east side of Carbondale. Sopris Avenue was identified as priority multimodal corridor in the 2019 Multimodal Corridors Map. Sopris Avenue runs east-west through the center of Carbondale. The Carbondale Public Library and Bridges High School are both located on or near Sopris Avenue.

The cross section of Sopris Avenue changes slightly throughout its length, but always includes two travel lanes, one in each direction, and has a posted speed limit of 20 MPH. There is a four to five-foot sidewalk on the south side of the road which is an attached sidewalk for all but one block. There are no sidewalks on the north side of the road except for one block between 3<sup>rd</sup> Street and 2<sup>nd</sup> Street. However, an examination of existing parcel GIS data shows that there is existing right-of-way on the north side of the street, outside of the curb-to-curb width, which could potentially accommodate a comfortable detached sidewalk for the length of the corridor. The corridor has no dedicated bicycle facilities. The existing cross section is displayed in **Figure 6**.

*Figure 4: Existing Cross Section of Sopris Avenue (Looking East)*



Source: Google Street View

#### Potential Cross Section

The potential cross section includes a continuous sidewalk on both sides of the street, parallel parking on the north side of the street, two vehicle travel lanes, and a dedicated bicycle lane in both directions. Parallel parking, rather than angles parking, was chosen for this cross section as it makes it easier for drivers to see oncoming bikes before pulling out into the travel lane. Perpendicular parking can restrict a driver's field of vision for oncoming vehicles and can create greater conflict between vehicles pulling out and people biking. The curb-to-curb width in this cross section would not change from the existing curb-

to-curb width. The new continuous sidewalk on the north side of the street can be accommodated within the City's existing right-of-way. For the block between 4<sup>th</sup> Street and 3<sup>rd</sup> Street, next to the library, the existing curb-to-curb width is not wide enough to accommodate bike lanes. Painting sharrows on the travel lanes in this section can be a way to continue to alert drivers to the presence of people biking for this segment where bike lanes cannot be accommodated.

## 4. 2<sup>nd</sup> Street

### Existing Conditions

2<sup>nd</sup> Street runs north-south and is classified as a local road south of Sopris Avenue and a collector north of Sopris Avenue. 2<sup>nd</sup> Street was identified as a priority multimodal corridor in the 2019 Multimodal Corridors Map. Additionally, public input indicated a desire for bike lanes to be implemented on 2<sup>nd</sup> Street to create a direct north-south multimodal corridor through the east side of town and to connect to the Rio Grande Trail. 2<sup>nd</sup> Street's wide existing right-of-way makes it a good candidate for implementing dedicated bicycle facilities through the most established parts of Carbondale.

The cross section of 2<sup>nd</sup> Street changes slightly throughout its length, but always includes two travel lanes, one in each direction, and has a posted speed limit of 20 MPH. There is an eight-foot sidewalk on the east side of the road which runs almost the length of the corridor. The sidewalk narrows to six-feet between Garfield Avenue and Main Street and does not continue north between Main Street and the Rio Grande trail. There is no pedestrian facility on the west side of the street and no dedicated bicycle facilities. There are segments of 2<sup>nd</sup> Street, on the south side of the corridor, where there is angled parking located on private property outside of the City's right-of-way. **Figure 8** displays the existing cross section where there is no angled parking and **Figure 9** displays the existing cross section where angled parking is present. New potential cross sections for both of these cross section types are provided in the following section.

*Figure 5: Existing Cross Section of 2<sup>nd</sup> Street - No Perpendicular Parking Present (Looking North)*



Source: Google Street View

*Figure 6: Existing Cross Section of 2<sup>nd</sup> Street - Perpendicular Parking Present (Looking North)*



Source: Google Street View

Community input from the Master Plan process indicated there is a desire for bike lanes on 2<sup>nd</sup> Avenue in order to create a strong biking connection through town as well as give the street greater definition, narrower travel lanes, and more character.

### **Potential Cross Sections**

The potential cross sections include the existing sidewalk on the east side of the street, two vehicle travel lanes, and a bike lane on each side of the street. One potential cross section on sections of roadway where angled parking is not present today. The right-of-way for these sections is about 50-feet and can accommodate parallel parking on one side of the street, a bike lane in either direction, and two travel lanes. Another potential cross section for sections of 2<sup>nd</sup> Street where parallel parking is present adjacent to the City right-of-way. The right-of-way in these areas is about 54-feet and can accommodate a buffered bike lane in either direction, two travel lanes, and an eight-foot parallel parking lane on the east side of the street as well as the existing eight-foot sidewalk.



## 5. Future Roadways

### Existing Conditions

North Downtown, the area north of the Rio Grande Trail and between 8<sup>th</sup> Street and 2<sup>nd</sup> Street (see **Figure 12**), and includes industrial land uses. In the past few years, however, there are new residential developments in the southeast corner just west of 2<sup>nd</sup> Street; this land use is likely to continue replacing some of the older industrial uses throughout the rest of the area.

While future development patterns and the street network remain uncertain, the town has an opportunity to ensure the new roadway network in this area supports all modes of transportation and encourages walking, rolling, and biking within the heart of Carbondale. The public has voiced concerns about speeding along Merrill Avenue and poor visibility of people walking and biking.

*Figure 7: Aerial of North Downtown between 8<sup>th</sup> Street & 2<sup>nd</sup> Street*



Source: Google Earth

*Figure 8: Existing Cross Section of Merrill Avenue (Looking East)*



Source: Google Street View

### Potential Cross Section

While future roadways in the North Downtown area will vary, there are some principles that can be applied to each new roadway to ensure walking, rolling, and biking are prioritized. New roads should be configured in a grid system to allow for maximum connectivity within the North Downtown area as well as connectivity to the surrounding neighborhoods. Wherever a street will not connect to an adjacent roadway, pedestrian and bicycle cut-thrus should be implemented to ensure continued connectivity for those modes. Additionally, travel lanes should be no more than ten-feet wide where possible to encourage slower vehicle speeds and allow for more right-of-way to be dedicated to active modes of transportation. Where on-street parking is needed, parallel parking should be implemented rather than angled parking. Parallel parking allows for better visibility of oncoming traffic and people biking before parked cars pull out into travel lanes. Parallel parking also allow for more right-of-way to be reserved for people walking and biking. On low volume low speed streets, shared lanes with sharrows are likely comfortable enough bicycle infrastructure as long as 85<sup>th</sup> percentile vehicle speeds are 20 MPH or below and average annual daily traffic is less than 2,000 vehicles. On collector streets, bike lanes or wide multi-use paths should be implemented where possible.

## 7.5 |

# Carbondale Crossing Concepts

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## Overview

This document identifies bicycle and pedestrian crossing treatments at five key locations in the Town of Carbondale, Colorado, as shown in **Figure 1** and listed below:

1. CO 133 & Cowen Drive
2. CO 133 & Dolores Way
3. Dolores Way & Carbondale Community School Drive
4. CO 133 & Weant Boulevard/Lewies Lane
5. Future Crossings in North Downtown between 8th Street & 2nd Street

These locations were selected based on public input gathered by the Carbondale Kaleidoscope, a web platform to engage the local community in the update of Carbondale's Comprehensive Plan. Community members and stakeholders commented on the Carbondale Kaleidoscope webmap and highlighted locations with major transportation issues or potential safety concerns. These intersections were noted to be uncomfortable crossings.

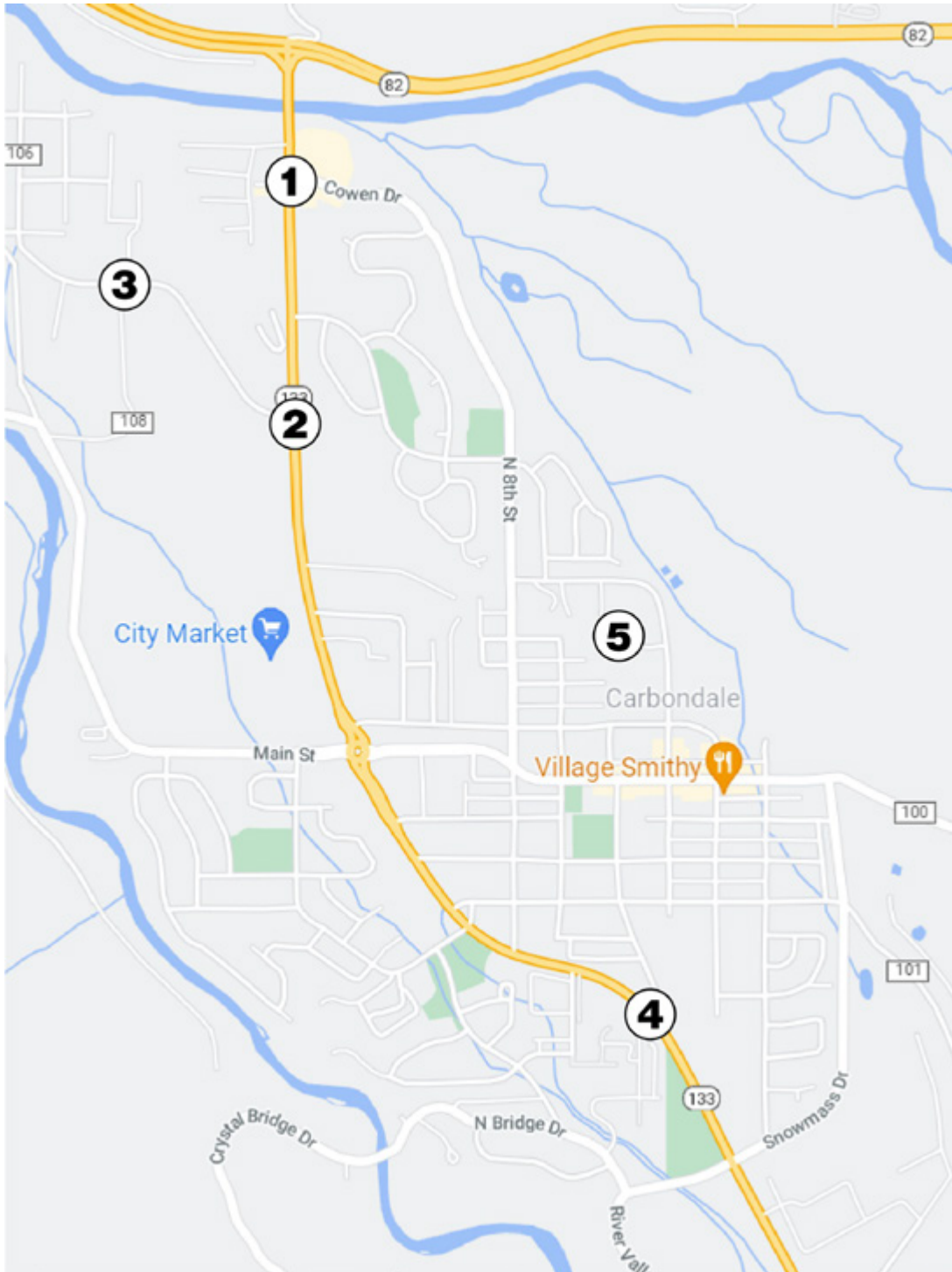


Figure 1: Selected Intersections for Crossing Treatments

The following crosswalk concepts were developed using both [Crosswalk+](#), Fehr & Peers' in-house tool to identify crosswalk countermeasures, and City and County of Denver's [Uncontrolled Pedestrian Crossing Guidelines](#).



## Methodology

For uncontrolled crosswalks, Crosswalk+ follows the Federal Highway Administration (FHWA) guidance provided in the Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations. The guidance in **Figure 2** identifies candidate treatments, but leaves it to practitioners to choose countermeasures based on judgement of specific conditions at crossing locations.

Table 1. Application of pedestrian crash countermeasures by roadway feature.

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
<b>2 lanes</b> (1 lane in each direction)	① 2 4 5 6	① 5 6 7 9	① 5 6 7 9	① 4 5 6 7 9	① 5 6 7 9	① 5 6 7 9	① 4 5 6 7 9	① 5 6 7 9	① 5 6 9
<b>3 lanes with raised median</b> (1 lane in each direction)	① 2 3 4 5	① 3 5 7 9	① 3 5 7 9	① 3 4 5 7 9	① 3 5 7 9	① 3 5 7 9	① 3 4 5 7 9	① 3 5 7 9	① 3 5 9
<b>3 lanes w/o raised median</b> (1 lane in each direction with a two-way left-turn lane)	① 2 3 4 5 6 7 9	① 3 5 6 7 9	① 3 5 6 9	① 3 4 5 6 7 9	① 3 5 6 7 9	① 3 5 6 9	① 3 4 5 6 7 9	① 3 5 6 9	① 3 5 6 9
<b>4+ lanes with raised median</b> (2 or more lanes in each direction)	① 3 5 7 8 9	① 3 5 7 8 9	① 3 5 8 9	① 3 5 7 8 9	① 3 5 7 8 9	① 3 5 8 9	① 3 5 7 8 9	① 3 5 8 9	① 3 5 8 9
<b>4+ lanes w/o raised median</b> (2 or more lanes in each direction)	① 3 5 6 7 8 9	① 3 5 6 7 8 9	① 3 5 6 8 9	① 3 5 6 7 8 9	① 3 5 6 7 8 9	① 3 5 6 8 9	① 3 5 6 7 8 9	① 3 5 6 8 9	① 3 5 6 8 9
<p>Given the set of conditions in a cell,</p> <p># Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.</p> <p>● Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.</p> <p>○ Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.*</p> <p>The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.</p>									
<p>1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs</p> <p>2 Raised crosswalk</p> <p>3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line</p> <p>4 In-Street Pedestrian Crossing sign</p> <p>5 Curb extension</p> <p>6 Pedestrian refuge island</p> <p>7 Rectangular Rapid-Flashing Beacon (RRFB)**</p> <p>8 Road Diet</p> <p>9 Pedestrian Hybrid Beacon (PHB)**</p>									

\*Refer to Chapter 4, 'Using Table 1 and Table 2 to Select Countermeasures,' for more information about using multiple countermeasures.

\*\*It should be noted that the PHB and RRFB are not both installed at the same crossing location.

This table was developed using information from: Zegeer, C.V., J.R. Stewart, H.H. Huang, P.A. Logenwey, J. Feaganes, and B.J. Campbell. (2005). Safety effects of marked versus unmarked crosswalks at uncontrolled locations: Final report and recommended guidelines. FHWA, No. FHWA-HRT-04-100. Washington, D.C.; FHWA, Manual on Uniform Traffic Control Devices, 2009 Edition. (revised 2012). Chapter 4F, Pedestrian Hybrid Beacons. FHWA, Washington, D.C.; FHWA, Crash Modification Factors (CMF) Clearinghouse. <http://www.cmtclearinghouse.org/>; FHWA, Pedestrian Safety Guide and Countermeasure Selection System (PEDSAFE). <http://www.pedbikesafe.org/PEDSAFE/>; Zegeer, C., R. Srinivasan, B. Lan, D. Carter, S. Smith, C. Sundstrom, N.J. Thirk, J. Zegeer, C. Lyon, E. Ferguson, and R. Van Houten. (2017). NCHRP Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments. Transportation Research Board, Washington, D.C.; Thomas, Thirk, and Zegeer. (2016). NCHRP Synthesis 498: Application of Pedestrian Crossing Treatments for Streets and Highways. Transportation Research Board, Washington, D.C.; and personal interviews with selected pedestrian safety practitioners.

Figure 2: Federal Highway Administration (FHWA) Guidance in the Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations.



City and County of Denver's Uncontrolled Pedestrian Crossing Guidelines provide very similar guidance, as shown in **Figure 3**. Level A treatments are standard continental markings and signage (W11-2 or S1-1 in a school zone with W16-7p placards). Level B treatments are Rapid Rectangular Flashing Beacons (RRFBs) in addition to markings and signage. Level C treatments are pedestrian hybrid beacons (PHBs) or traffic signals.

Roadway Type	Vehicle ADT ≤9,000			Vehicle ADT >9,000 to 12,000			Vehicle ADT >12,000 to 15,000			Vehicle ADT ≥15,000		
	≤30 mph	35 mph	40 mph	≤30 mph	35 mph	40 mph	≤30 mph	35 mph	40 mph	≤30 mph	35 mph	40 mph
Two Lanes	A	A	B	A	A	B	A	A	C	A	B	C
Three lanes	A	A	B	A	B	B	B	B	C	B	C	C
Multilane with raised median	A	A	C	A	B	C	B	B	C	C	C	C
Multilane without raised median	A	B	C	B	B	C	C	C	C	C	C	C

Figure 3: Guidance in City and County of Denver's Uncontrolled Pedestrian Crossing Guidelines

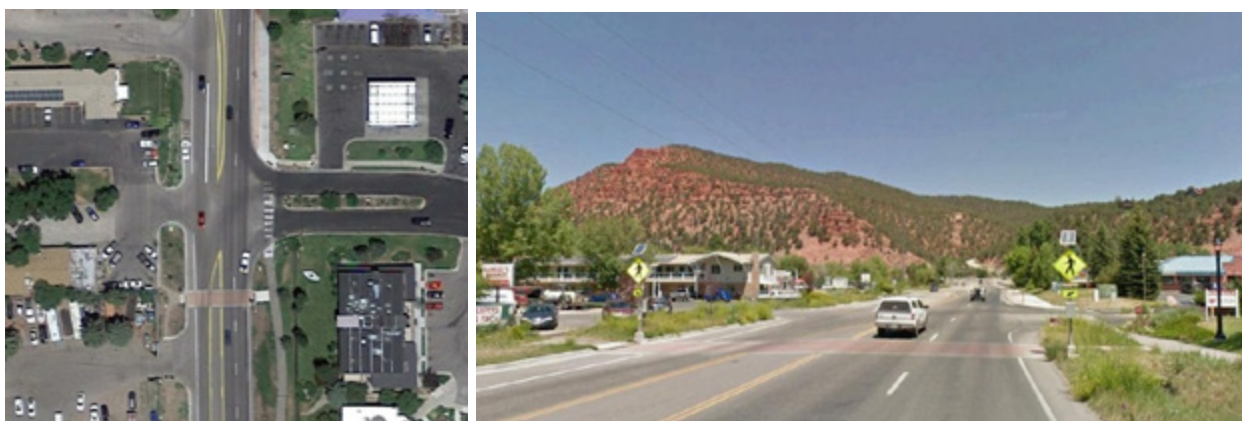
Both of these tools for developing crosswalk concepts require information on whether the intersection is controlled or uncontrolled, vehicle average daily traffic (ADT), roadway speed limits, and number of travel lanes. These inputs show how stressful crossings currently are for pedestrians and scale the intervention based on street characteristics. The FHWA Guide and Denver's Guide suggest geometric treatments for calming traffic along the street segment in addition to crosswalk-specific treatments.

Geometric treatments like pedestrian refuge islands, curb extensions, parking prohibitions, road diets, or speed reductions can reduce the scale of crosswalk treatments needed to protect pedestrians and cyclists by making the street itself safer. Crosswalk treatments may be scaled back depending on the geometric treatments implemented.

For each intersection in this section, there is a table that lists current street characteristics used to identify treatments, the range of possible geometric treatments and crossing treatments, and recommended treatments. It is important to note that data availability was limited and often unavailable or not recent. The best available data was used but it is recommended to collect additional travel speeds and volumes to further refine recommendations. These are very high-level recommendations and additional concepts will need to be created to confirm feasibility of implementation.

## 1. CO 133 & Cowen Drive

The first intersection drivers reach when turning off CO-82 onto CO 133 into the Town of Carbondale is CO 133 and Cowen Drive. The speed limit on CO-82 is 65 mph, so it is a rapid deceleration to 35 mph on CO 133, and there are not many visual cues to signal to drivers to slow down. The public made comments about this challenge as it relates to the Cowen Drive intersection, noting the importance of the crossing for people walking and biking and the prevalence of speeding at this location.



*Figure 4: Aerial and Google Streetview (Looking North) of CO 133 & Cowen Dr*

There is currently a marked crosswalk and RRFB at the east-west crossing of CO 133 south of the intersection. However, given reports of speeding, additional traffic calming measures and crossing treatments are appropriate at this location.

Based on a volume of 15,000 vehicles and a posted speed limit of 35 mph, both guides recommend a PHB (see **Figure 2** and **Figure 3**). However, both guides also recommend geometric treatments to reduce the level of crossing treatment necessary. Therefore, it is recommended to first implement a pedestrian refuge island, curb extension, and yield signage and reevaluate after traffic patterns have stabilized.

Geometric treatments such as a pedestrian refuge island and a curb extension where there is already room on the west shoulder will help to both narrow the crossing distance for pedestrians and provide additional horizontal friction to slow drivers approaching the crosswalk. Additional signage such as an Advance Yield Here To Pedestrians sign and yield line will communicate to drivers that it is their responsibility to yield to pedestrians and bicyclists crossing the roadway.

This geometric treatment should be the first step before considering a more aggressive treatment like a PHB or signal, since creating the pinchpoint will lower the design speed of the segment as a whole and achieve safety goals beyond the intersection.

**Table 1: Characteristics of CO 133 & Cowen Drive**

Attribute	Description
Control type	Uncontrolled
AADT (CDOT Traffic Data Explorer, 2020)	15,000
Posted speed limit	35 mph
Number of travel lanes	Multilane without raised median
On-street parking	No
Adjacent to school	No
Public comment(s)	<p>"Need to slow traffic down and keep it from rapidly re-accelerating. After traveling at hwy speeds 40+ feels relatively slow on Hwy 133. This directly threatens ped and cyclists trying to cross at the Cowen Road signalized crossing. Slowing traffic down will ensure we don't have more accidents (and potential fatalities) at this crucial east-west multi-modal crossing!"</p> <p>"This is an important east-west pedestrian/ cyclist crossing! It is also less safe than it could be and has a history of automobile - pedestrian accidents. This crossing is doubly tough and unsafe for peds because there are multiple northbound lanes and cars in the left lane stopping for the signal or peds in the crosswalk screen cars traveling in the right lane and speeding up to try and catch the 133 and 82 light. To make this important ped crossing far more safe a refuge island needs to be added in the middle of Hwy 133 and traffic needs to be slowed down to provide more time and space for safe ped crossing."</p>
Possible geometric treatments	Pedestrian refuge island, curb extensions, road diet
Possible crosswalk treatments	High-visibility crosswalk markings, signage, PHB, signal
<b>Recommended treatment</b>	<b>Pedestrian refuge island, curb extension on west side of CO 133, Advance Yield Here To Pedestrians sign and yield line</b>

## 2. CO 133 & Dolores Way

CO 133 at Dolores Way has between 13,000 and 15,000 vehicles per day. This high volume of vehicle traffic, coupled with a wide crossing distance of four lanes and no marked east-west crosswalk, makes this location a dangerous intersection for people crossing the street.

Though there is a signalized crossing to the north at Village Road, the public noted that walking to that intersection and back adds more than a quarter mile to the journey and expressed concerns about drivers speeding along Dolores Way. This intersection's proximity to both Carbondale Community School and Colorado Rocky Mountain High School reinforces the need for an enhanced crossing.



*Figure 5: Aerial and Google Streetview (Looking North) of CO 133 & Dolores Way*

Based on a volume of about 14,000 vehicles and a posted speed limit of 35 mph, both guides recommend a PHB (see **Figure 2** and **Figure 3**). However, with a geometric treatment like a median, both guides recommend an RRFB. Therefore, it is recommended to first implement a pedestrian refuge island, curb extensions, an RRFB, and crosswalk markings and reevaluate after traffic patterns have stabilized.

Given the traffic volumes, speed, and number of lanes on this corridor, an east-west crosswalk on the south side of the intersection with a combination of geometric and other treatments will help to properly slow traffic and provide a more comfortable crossing. Given the overall width of the street and wide shoulders, curb extensions and a pedestrian refuge island will be viable to implement and narrow the distance pedestrians must travel. These geometric treatments alongside a RRFB will create a much more comfortable crossing for people (especially students) walking and biking. Depending on the results of this new crosswalk, a PHB may be necessary, but the geometric treatments in combination with an RRFB will likely be sufficient for lowering traffic speeds.

**Table 2: Characteristics of CO 133 & Dolores Way**

Attribute	Description
Control type	Uncontrolled
AADT (CDOT Traffic Data Explorer, 2020)	~14,000
Posted speed limit	35 mph
Number of travel lanes	Multilane without raised median
On-street parking	No
Adjacent to school	Yes
Public comment(s)	<p>"This intersection is broken. I know that when the Village Way light went in it was "designed" to partially address challenges at this intersection. As traffic load has dramatically increased on Hwy 133 any relief that the Village Way light creates at this intersection is fleeting at best and non-existent at high traffic volume times.</p> <p>A round-about here might work better than a light, but whatever solution is designed it must include safe ped/ bike crossing (i.e. signalized crossing)"</p> <p>"This is a bike/ped crossing nightmare. Lots of folks cross here. Walking north to the crosswalk and back adds almost half a mile."</p> <p>"Delores Way should be a school zone at all times - CRMS and CCS are both located in Satank and drivers fly through this area - including the large delivery trucks."</p>
Possible geometric treatments	Pedestrian refuge island, curb extensions, road diet
Crosswalk treatments	<p>High-visibility crosswalk markings, nighttime lighting, crosswalk warning signs, signage</p> <p>AND</p> <p>Without geometric treatment: PHB or signal</p> <p>With geometric treatment: RRFB</p>
<b>Recommended treatment</b>	<b>Pedestrian refuge island, curb extensions, high-visibility crosswalk markings, RRFB (including nighttime lighting, crosswalk warning signs)</b>



### 3. Dolores Way & Carbondale Community School Drive

Dolores Way winds to the northwest of CO 133 past a commercial strip and passes in between the campuses of Carbondale Community School (CCS) and Colorado Rocky Mountain High School (CRMS). There is a crosswalk where the driveway to CCS meets Dolores Way. To the south of this crosswalk there is a path students may take to walk to CRMS. This crosswalk is a vital connection to both schools, but the public has expressed concerns about speeding on Dolores Way and drainage issues at the crosswalk.

Based on a volume of under 9,000 vehicles and a posted speed limit of 25 mph, both guides recommend crosswalk markings and signage (see **Figure 2** and **Figure 3**). However, these elements already exist and have proved insufficient. The FHWA guide also suggests a raised crosswalk, in-street pedestrian crossing sign, curb extensions, and pedestrian refuge island. It is recommended that a raised crosswalk be implemented to address the issues of speeding and drainage. Fresh paint, nighttime lighting, and yield signs would draw attention to students crossing here. Further geometric treatments may be reevaluated after examining future traffic patterns.



*Figure 6: Aerial and Google Streetview (Looking East) of Dolores Way & the Carbondale Community School Drive*

**Table 3: Characteristics of Dolores Way & Carbondale Community School Drive**

Attribute	Description
Control type	Uncontrolled
AADT (CDOT Traffic Data Explorer, 2020)	<9,000
Posted speed limit	25 mph
Number of travel lanes	Two lanes
On-street parking	No
Adjacent to school	Yes
Public comment(s)	<p>"Vehicles drive very fast on Dolores way. It is an important multi-modal corridor and a route to both CRMS and CCS. Traffic calming and improved and better signed ped crossings are needed."</p> <p>"This crossing becomes unusable when it rains or after a thaw and refreeze in the winter. An enhanced and improved dry-well and drainage is needed as 4-6" of water collects on the south end of this crossing - this crossing has had this issue and it has been brought to the attention of the town for many years and needs a more thorough solution to ensure students can safely get to and from their school."</p>
Possible geometric treatments	Curb extensions
Crosswalk treatments	High-visibility crosswalk markings, nighttime lighting, crosswalk warning signs, signage, in-street pedestrian crossing sign, raised crosswalk, two-way stop
<b>Recommended treatment</b>	<b>Repaint high-visibility crosswalk markings, add nighttime lighting, implement raised crosswalk, add Advance Yield Here To Pedestrians sign and yield line</b>

#### 4. CO 133 & Weant Boulevard/Lewies Lane

The intersection of CO 133 and Weant Boulevard/Lewies Lane connects residential neighborhoods to the north with the Ross Montessori School to the south across the state highway. There is also another school directly to the north, Bridges High School. Though the Montessori school was built relatively recently in 2016, there was no crosswalk constructed across CO 133 to provide safe crossings to school for those walking and biking.

The next closest crossing to the north at Sopris Avenue and to the south at Snowmass Drive are both about a quarter mile away (though for someone to walk there and back would be more than a half mile). Posted school zone signs read “35 mph when flashing,” yet with adjacent speed limits also 35 mph, the zone doesn’t enforce any speed reduction. This is a vital school crossing, and with four lanes of high speed traffic, the current configuration can be improved.



*Figure 7: Aerial and Google Streetview (Looking North) of CO 133 & Weant Boulevard/Lewies Lane*

Based on a volume of 7,100 vehicles and a posted speed limit of 35 mph, both guides recommend a RRFB (see **Figure 2** and **Figure 3**). However, both guides also recommend geometric treatments in tandem with crossing treatments. Given the nature of the crossing in a school zone, it is recommended to implement a pedestrian refuge island, curb extensions, and school zone speed reduction alongside an RRFB.

The posted school zone and design speed at this location should be reduced to 30 mph, given its close proximity to two schools and a neighborhood. School zone speed limits vary around the state, but CDOT caps speed limits for residential districts at 30 mph. Curb extensions and a pedestrian refuge island on the north side of the intersection, as with the previous two intersections on CO 133, will slow traffic and narrow crossing distances. New high-visibility crosswalk markings, signage, and an RRFB will draw drivers’ attention to the crosswalk. If following implementation and the collection of data on driver speeds, field observations, and qualitative input from community members, this intersection is still considered uncomfortable, a PHB may also be considered.

**Table 4: Characteristics of CO 133 & Weant Boulevard/Lewies Lane**

Attribute	Description
Control type	Uncontrolled
AADT (CDOT Traffic Data Explorer, 2020)	7,100
Posted speed limit	35 mph (35 mph when flashing)
Number of travel lanes	Multilane without raised median
On-street parking	No
Adjacent to school	Yes
Public comment(s)	<p>"NEED a ped/bike crossing across 133 to connect the residential areas to Montessori Too far in both directions to get to an adequate crossing of 133 (crossing are too infrequent on 133)"</p> <p>"Add a roundabout or ped/bike crossing would help make this crossing safer. Without any infrastructure support, people will continue to play the dangerous frogger game across this bend in 133. A connector path past Ross to Keaton and RVR would be ideal."</p> <p>"This is a major intersection leading from town to a school and park with playground, and the nearest "protected" crossings are a good distance away. It needs a crosswalk with pedestrian activated lights for the safety of the children."</p> <p>"Safe Routes to Schools are essential - not merely nice-to-have! The current configuration at this intersection adjacent to Ross Montessori school is unacceptable. CDOT has insisted on a 35 mph speed limit, and the same speed limit for the school zone. The school zone speed limit signs instead of slowing traffic down seem to give drivers permission to drive faster on either side of the school zone (even though the adjacent speed limit is still 35 mph). A slower speed limit along the whole 133 corridor, and 25 mph school zone is an essential start, as is a signalized crossing to provide a safe route to and from the school!"</p>
Possible geometric treatments	Pedestrian refuge island, curb extensions, road diet, speed reduction
Crosswalk treatments	<p>High-visibility crosswalk markings, nighttime lighting, crosswalk warning signs, signage</p> <p>AND</p> <p>Without geometric treatment: PHB or signal</p> <p>With geometric treatment: RRFB</p>
Recommended treatment	<b>Speed reduction during school zone time, pedestrian refuge island, curb extensions, high-visibility crosswalk markings, RRFB (including nighttime lighting, crosswalk warning signs)</b>

## 5. Future Crossings in North Downtown between 8th Street & 2nd Street

North Downtown, the area north of the Rio Grande Trail and between 8<sup>th</sup> Street and 2<sup>nd</sup> Street (see **Figure 8**) is predominantly industrial. In the past few years, however, there are new residential developments in the southeast corner just west of 2<sup>nd</sup> Street; this land use is likely to continue replacing some of the older industrial uses throughout the rest of the area.

While future development patterns and the street network remain uncertain, the town has an opportunity to ensure new crossings provide access to key destinations, continuity of low stress corridors, and connectivity throughout the area. Given assumptions based on existing traffic patterns in Downtown and North Downtown and recommendations made as a part of the Comprehensive Plan, future streets will have relatively low traffic volumes, lower speeds, and two lanes.

The public has voiced concerns about speeding along Merrill Avenue and poor connectivity between Downtown and North Downtown. Current crossings of the Rio Grande Trail at 8<sup>th</sup> Street and 4<sup>th</sup> Street/Merrill Avenue can be improved, and new connections might be established along 7<sup>th</sup> Street and 2<sup>nd</sup> Street.

Based on a volume of under 9,000 vehicles and a posted speed limit of 20 mph, both guides recommend crosswalk markings and signage (see **Figure 2** and **Figure 3**). The FHWA guide also suggests a raised crosswalk, in-street pedestrian crossing sign, curb extensions, and pedestrian refuge island. As this area expands, it is recommended that crossings include high-visibility markings, signage, and nighttime lighting.

Speeds are slow enough that these elements should be sufficient to begin with, but given future street characteristics, it may be appropriate to include additional signage, a raised crosswalk, and/or curb extensions to lower design speeds. These additional elements should be considered based on the unique conditions at each intersection.





Figure 8: Aerial of North Downtown between 8<sup>th</sup> Street & 2<sup>nd</sup> Street



Figure 9: Google Streetview (Looking North) of Rio Grande Trail & 4<sup>th</sup> St/Merrill Ave

**Table 5: Characteristics of Future Crossings in North Downtown between 8<sup>th</sup> Street & 2<sup>nd</sup> Street**

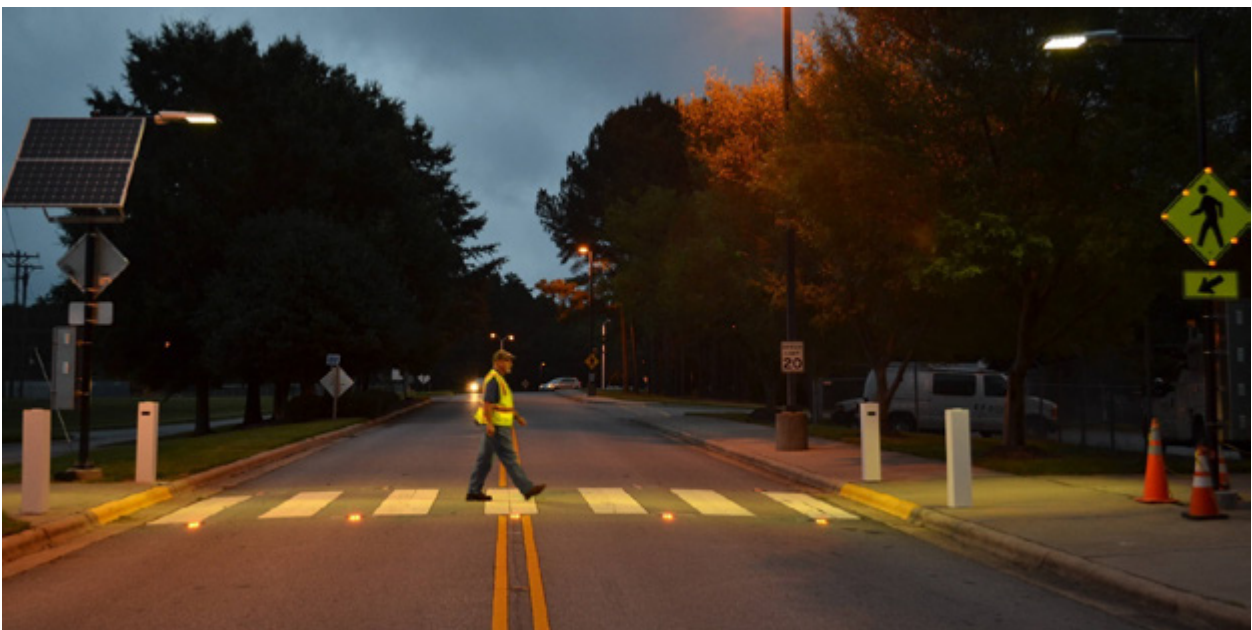
Attribute	Description
Control type	Uncontrolled
AADT (CDOT Traffic Data Explorer, 2020)	<9,000
Posted speed limit	20 mph
Number of travel lanes	Two lanes
On-street parking	TBD
Adjacent to school	TBD
Public comment(s)	<p>"Not enough bike/ped crossing/connection between Downtown and Downtown North"</p> <p>"Add speed easing features. Current speed limit is 20mph and should remain that way. Lots of additional traffic on this road. Need to encourage drivers to go slow."</p> <p>[Re: 4<sup>th</sup> St &amp; Rio Grande Trail]            "Add a stop sign here. It is just as busy as 8th, with no stopping required by traffic crossing the Rio Grande."</p>
Possible geometric treatments	Curb extensions
Crosswalk treatments	High-visibility crosswalk markings, nighttime lighting, crosswalk warning signs, signage, raised crosswalk, in-street pedestrian crossing sign
<b>Recommended treatment</b>	<b>High-visibility crosswalk markings, nighttime lighting, signage</b> <b>Optional additions: curb extensions, raised crosswalk, supplemental signage</b>

Source: Google Maps, CDOT Traffic Data Explorer (2020), Carbondale Kaleidoscope, Fehr & Peers.

## Glossary of Enhanced Crossing Treatments



*Figure 10: High-Visibility Continental Crosswalk Markings*



*Figure 11: Nighttime Crosswalk Lighting*



**W11-2****W16-7p****W11-15****W11-15p****S1-1****R1-5**

Figure 12: Signage Options (Source: Manual of Uniform Traffic Control Devices (MUTCD))



Figure 13: Curb Extension



Figure 14: Raised Crosswalk





*Figure 15: Pedestrian Refuge Island*



*Figure 16: Rectangular Rapid Flashing Beacon (RRFB)*



Figure 17: Pedestrian Hybrid Beacon (PHB)



# CHART CARBONDALE

*The Future is in Focus*



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