



DRCOG FY2022-2025 TIP – Douglas County Subregion
Subregional Share Air Quality/Multimodal (AQ/MM)
Application Programming Federal Fiscal Years 2023-2025

APPLICATION OVERVIEW

What: The Subregional Share Call for Projects for the FY2022-2025 TIP, programming fiscal years 2023-2025

Funding Available: \$161,292,000 overall. Target of \$16,726,000 for Douglas County (estimated as of the open date)

Application: Air Quality & Multimodal (AQ/MM) eligible projects only

Major Project Eligibility Exceptions: Roadway capacity, roadway reconstruction, bridge, interchange projects

Call Opens: May 2, 2022

Call Closes: June 24, 2022, 3 pm

Application Submittals: submit the items below online through the submittal link on the [TIP Data Hub](#)

1. REQUIRED: a **single PDF document** containing the below. Please **DO NOT** attach additional cover pages, embed graphics in the application, or otherwise change the format of the application form.
 - a. this application
 - b. one location map/graphic
 - c. cost estimate (your own or the CDOT [cost estimate form](#))
 - d. CDOT/RTD concurrence response (if applicable)
 - e. any required documentation based on the application text (i.e., FHWA emissions calculators)
 - f. project support letters and/or [Request for Peer Agency Support](#)
2. OPTIONAL: Submit **one additional** PDF document containing any supplemental materials, if applicable
3. REQUIRED: Submit a zipped GIS shapefile of your project. Requests for assistance with creating a shapefile should be submitted to tipapplications@drcog.org no later than June 3, 2022

Other Notable items:

- **TIP Trainings:** To be eligible to submit an application, at least one person from your agency must have attended one of the two mandatory TIP training workshops ([February 10](#) and [February 16, 2022](#))
- **CDOT/RTD Concurrence:** If required, [CDOT and/or RTD concurrence](#) must be provided with the application submittal. The CDOT/RTD concurrence request is due to CDOT/RTD no later than May 13, 2022, with CDOT/RTD providing a response no later than June 10, 2022. Submit requests to the following: CDOT Region 1 – JoAnn Mattson, joann.mattson@state.co.us; CDOT Region 4 – Josie Hadley, josie.hadley@state.co.us; RTD – Chris Quinn, chris.quinn@rtd-denver.com
- **If a submitted application in Call #1 was not funded,** and you wish to resubmit the same application for this call, please contact DRCOG at tipapplications@drcog.org. In these cases, we can unlock the application, change the title, and save the applicant work in the resubmittal process.
- **Application Data:** To assist sponsors in filling out the application, DRCOG has developed a TIP Data Tool to streamline quantitative analyses requested in the application. A link to the TIP Data Tool and instructions on how to use it are available on the [TIP Data Hub](#). Additionally, sponsors may download datasets to run their own analyses from this same site. Requests for additional data or calculations from DRCOG staff should be submitted to tipapplications@drcog.org no later than June 3, 2022
- **Project Affirmation:** The application must be affirmed by either the applicant’s City or County Manager, Chief Elected Official (Mayor or County Commission Chair) for local governments, or agency director or equivalent for other applicants
- **TIP Policy:** Further details on project eligibility, evaluation criteria, and the selection process are defined in the [Policies for TIP Program Development](#) document (a [quick-guide](#) is also available for reference)
- **Evaluation Process:** DRCOG staff will review submittals for eligibility and post to the DRCOG website (June 27-July 1). Applications and scoring sheets will then be provided to the individual subregional forums no later than July 1. The forums will then review, score, discuss, and rank the applications and provide a recommended funding list within the funding available by August 5. The forums’ recommendations will then be forwarded to the DRCOG committee process for incorporation into the adopted TIP
- If you have any questions or need assistance, reach out to us at tipapplications@drcog.org

APPLICATION FORMAT

The AQ/MM Subregional Share application contains two parts: *project information* and *evaluation questions*.

Project Information

Applicants enter **foundational** information for the *project/program/study* (hereafter referred to as *project*), including a problem statement, project description, and concurrence documentation from CDOT and/or RTD, if applicable. This section is not scored.

Evaluation Questions

This part includes four sections (A-D) for the **applicant to provide qualitative and quantitative responses** to use for scoring projects. The checkboxes and data entry fields should guide the applicant’s responses. They are not directly scored but provide context as reviewers consider the full response to each question. Applicants may access the TIP Data Tool and additional data resources which applicants may find useful [here](#).

Scoring Methodology: Each section will be scored on a scale of 0 to 5, relative to other applications received. All questions will be factored into the final score, with any questions left blank receiving 0 points. The four sections are weighted and scored as follows:

Section A. Subregional Impact of Proposed Projects..... 30%

Projects will be evaluated on the degree to which they address a significant regional or subregional problem or benefit people throughout the subregion. Relevant quantitative data should be included within narrative responses.

5	The project benefits will substantially address a major regional or subregional problem and benefit people and businesses in multiple subregions.
4	The project benefits will significantly address a major subregional problem primarily benefiting people and businesses in one subregion.
3	The project benefits will either moderately address a major subregional problem or significantly address a moderate -level subregional problem.
2	The project benefits will moderately address a moderate -level subregional problem.
1	The project benefits will address a minor subregional problem.
0	The project does not address a subregional problem.

Section B. Metro Vision Regional Transportation Plan Priorities50%

The TIP’s investments should implement the 2050 Metro Vision Regional Transportation Plan (2050 MVRTP) regional project and program investment priorities, which contribute to addressing the Board-adopted Metro Vision objectives and the federal performance-based planning framework required by the Federal Highway Administration and Federal Transit Administration as outlined in current federal transportation legislation and regulations. Therefore, projects will be evaluated on the degree to which they address the six priorities identified in the 2050 MVRTP: safety, active transportation, air quality, multimodal mobility, freight, and regional transit. It is anticipated that projects may not be able to address all six priorities, but it’s in the applicant’s interest to address as many priority areas as possible. Relevant quantitative data is required to be included within narrative responses. The table below demonstrates how each priority area will be scored.

5	The project provides demonstrable substantial benefits in the 2050 MVRTP priority area and is determined to be in the top fifth of applications based on the magnitude of benefits in that priority area.
4	The project provides demonstrable significant benefits in the 2050 MVRTP priority area.
3	The project provides demonstrable moderate benefits in the 2050 MVRTP priority area and is determined to be in the middle fifth of applications based on the magnitude of benefits in that priority area.
2	The project provides demonstrable modest benefits in the 2050 MVRTP priority area.
1	The project provides demonstrable slight benefits in the 2050 MVRTP priority area and is determined to be in the bottom fifth of applications based on the magnitude of benefits in that priority area.
0	The project does not provide demonstrable benefits in the 2050 MVRTP priority area.

Section C. Project Leveraging (“overmatch”) 10%
 Scores are assigned based on the percent of other funding sources (non-Subregional Share funds).

Score	% non-Subregional Share funds
5	60% and above
4	50-59.9%
3	40-49.9%
2	20-39.9%
1	10.1-19.9%
0	10%

Section D. Project Readiness 10%

Be sure to answer ALL questions. While “Yes” answers will generally reflect greater readiness, opportunities are given to provide additional details to assist reviewers in fully evaluating the readiness of your project.

5	Substantial readiness is demonstrated and all known obstacles that are likely to result in project delays have been mitigated.
4	Significant readiness is demonstrated and several known obstacles that are likely to result in project delays have been mitigated.
3	Moderate readiness is demonstrated and some known obstacles that are likely to result in project delays have been mitigated.
2	Slight readiness is demonstrated and some known obstacles that are likely to result in project delays have been mitigated.
1	Few mitigation or readiness activities have been demonstrated.
0	No mitigation or readiness activities have been demonstrated.

Project Information

1. Project Title		Downtown Castle Rock ADA & Active Transportation Improvements	
2. Project Location <i>Provide a map, as appropriate (see Page 1)</i>		Start point: 8 th Street End point: Plum Creek Pkwy OR Geographic Area: Downtown (see Project Location Map)	
3. Project Sponsor <i>(entity that will be financially responsible for the project)</i>		Town of Castle Rock	
4. Project Contact Person:			
Name	Tom Reiff	Title	Transportation Planning Project Manager
Phone	303.720.2483	Email	treiff@crgov.com
5. Required CDOT and/or RTD Concurrence: Does this project touch CDOT Right-of-Way, involve a CDOT roadway, access RTD property, or request RTD involvement to operate service?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, provide applicable concurrence documentation</i>
<input type="checkbox"/> DRCOG 2050 Metro Vision Regional Transportation Plan (2050 MVRTP)			
Provide MVRTP staging period, if applicable capital project:			
6. What planning document(s) identifies this project? <i>Provide link to document(s) and referenced page number if possible, or provide documentation in the supplement</i>	<input checked="" type="checkbox"/> Local/Regional plan:	Planning Document Title: Downtown Master Mobility Plan (DMMP), Downtown ADA Transition Plan, Downtown Alley Plan (DAP) https://www.crgov.com/3334/Downtown-Alley-Plan https://www.crgov.com/3171/ADA-Transition-Plan https://www.crgov.com/2958/Downtown-Mobility-Master-Plan Adopting agency (local agency Council, CDOT, RTD, etc.): Castle Rock Town Council Provide date of adoption by council/board/commission, if applicable: July 2019 DMMP, June 2022 DAP	
	Please describe public review/engagement to date:	All the plans went through an extensive public outreach process, elements included the following; public open houses, workshops, and pop up events, questionnaires, surveys, stakeholder meetings, presentations to Council, Commissions, DDA, Downtown Merchants, Chamber of Commerce, project web pages with self-guided virtual meetings, project hotline, news releases, and a thorough social media campaign, to name a few.	
	Other pertinent details:	All three plans have shown a tremendous amount of public and political support. Plans were adopted unanimously by Town Council.	
7. Identify the project's key phases and the anticipated schedule of phase milestones. (phases and dates should correspond with the Funding Breakdown table below)			

Phases to be included:	Major phase milestones:	Anticipated completion date (based on 9/21/2022 DRCOG approval date): (MM/YYYY)
<u>FOR ALL PHASES</u>	Intergovernmental Agreement (IGA) executed (with CDOT/RTD; assumed process is 4-9 months)	05/2023
<input checked="" type="checkbox"/> Design	Design contract Notice to Proceed (NTP) issued (if using a consultant):	07/2023
	Design scoping meeting held with CDOT (if no consultant):	
<input checked="" type="checkbox"/> Environmental	Environmental contract Notice to Proceed (NTP) issued (if using a consultant):	
	Environmental scoping meeting held with CDOT (if no consultant):	07/2023
<input checked="" type="checkbox"/> Right-of-Way	Initial set of ROW plans submitted to CDOT:	12/2023
	ROW acquisition completed: Estimated number of parcels to acquire: 0	
<input checked="" type="checkbox"/> Construction	FIR (Field Inspection Review):	02/2024
	FOR (Final Office Review):	05/2024
	Required clearances:	06/2024
	Project publicly advertised:	10/2024
<input type="checkbox"/> Study	Kick-off meeting held after consultant NTP (or internal if no consultant):	
<input type="checkbox"/> Bus Service	Service begins:	
<input type="checkbox"/> Equipment Purchase (Procurement)	RFP/RFQ/RFB (bids) issued:	
<input type="checkbox"/> Other:	First invoice submitted to CDOT/RTD:	

8. Problem Statement: What specific subregional problem/issue will the transportation project address?

Castle Rock is one of the fastest growing cities in the region and much of that growth is occurring in Downtown. Several hundred multi-family homes along with new retail and office space has recently been constructed or approved in vertically mixed use buildings. These new residents and businesses, along with the existing land uses have created a synergistic trip effect in a compact mixed use environment. It is the Town's goal to have a significant portion of these trips be pedestrian and bike trips. While bike and pedestrian trips in Downtown are rising there is still a lack of comfortable, accessible and safe supporting facilities. DRCOG has identified Downtown Castle Rock as an 'urban center' as well as a 'short trip opportunity zone' and 'pedestrian focus area' in several of their plans. However, without accessible and safe rights-of-way, it is difficult to have a significant mode shift, especially for seniors or people with disabilities. The recently completed Downtown ADA Transition Plan has identified many shortcomings in the sidewalk network, such as non-compliant slopes, curb ramps, or missing sidewalks. Furthermore, according to the Downtown Mobility Master Plan, biking in Downtown consists of high stress facilities and lacks parking. Without comfortable low stress connections between destinations, or a secure place to lock your bike, biking becomes less of a viable option. This project intends to improve the accessibility, and other active transportation challenges in Downtown Castle Rock.

9. Identify the project's key elements. A single project may have multiple project elements.

Roadway

Operational Improvements

Grade Separation

Roadway

Railway

Bicycle

Pedestrian

Regional Transit¹

Rapid Transit Capacity (2050 MVRTP)

Mobility Hub(s)

Transit Planning Corridors

Transit Facilities/Service (Expansion/New)

Safety Improvements

Active Transportation Improvements

Bicycle Facility

Pedestrian Facility

Air Quality Improvements

Improvements Impacting Freight

Multimodal Mobility (i.e., accommodating a broad range of users)

Complete Streets Improvements

Study

Other, briefly describe: secure bike parking

¹For any project with transit elements, the sponsor must coordinate with RTD to ensure RTD agrees to the scope and cost. Be sure to include RTD’s concurrence in your application submittal.

10. Define the **scope and **specific elements** of the project (including any elements checked in #9 above).**

DO NOT include scope elements that will not be part of the DRCOG funded project or your IGA scope of work (i.e., adjacent locally funded improvements or the project merits and benefits). Please keep the response to this question tailored to details of the scope only and no more than five sentences.

The project will include elements identified in the adopted Downtown plans. These including the following;

- address slope issues in the pedestrian network, including driveways and curb ramps
- reconstruct compliant curb ramps
- construct new sidewalk
- design the first phase of the Downtown Alley Plan
- add bike parking
- construction new curb extensions

11. What is the current status of the proposed scope as defined in Question 10 above? *Note that overall project readiness is addressed in more detail in Section D below.*

All elements of the project have been identified in a completed plan, gone through extensive public outreach and been approved by Town Council or management. No right-of-way (ROW) is needed since all improvements will be located in existing Town ROW. Some of the elements have already been conceptually designed.

12. Would a smaller DRCOG-allocation than requested be acceptable, while maintaining the original intent of the project?

Yes No

If yes, smaller meaningful limits, size, service level, phases, or scopes, along with the cost, **MUST** be defined.

Smaller DRCOG funding request:

Outline the differences between the scope outlined above and the reduced scope:

Project Financial Information and Funding Request		(All funding amounts in \$1,000s)	
Total amount of Subregional Share Funding Request (in \$1,000's) (No less than \$100,000 and not to exceed 90% of the total project cost) <input type="checkbox"/> Check box if requesting only state MMOF funds (requires minimum 50% local funds) ¹		\$2,200	88.00% of total project cost
Match Funds (in \$1,000's) List each funding source and contribution amount.		Contribution Amount	% Contribution to Overall Project Total
Town		\$300	12%
		\$	0%
		\$	0%
		\$	0%
		\$	0%
		\$	0%
Total Match (private, local, state, another subregion, or federal)		\$300	12.00%
Project Total		\$2,500	
Notes:	1. Per CDOT action, the following jurisdictions are only required to provide 25% match on the MMOF funds: Englewood, Jamestown, and Wheat Ridge. The following jurisdictions are not required to provide a match on the MMOF funds: Federal Heights, Lakeside, Larkspur, Sheridan, and Ward. All sponsors will still be required to have 20% match on any added federal funds.		

Funding Breakdown (in \$1,000s) (by program year)¹ (Total funding should match the Project Total from above)

	FY 2023	FY 2024	FY 2025	Total
DRCOG Requested Funds	\$725	\$725	\$750	\$2,200
CDOT or RTD Supplied Funds²	\$	\$	\$	\$0
Local Funds (Funding from sources other than DRCOG, CDOT, or RTD)	\$100	\$100	\$100	\$300
Total Funding	\$825	\$825	\$850	\$2,500
Phase to be Initiated	Design	Construction	Construction	
Notes:	<ol style="list-style-type: none"> 1. Fiscal years are October 1 through September 30 (e.g., FY 2023 is October 1, 2022 through September 30, 2023). The proposed funding plan is not guaranteed if the project is selected for funding. While DRCOG will do everything it can to accommodate the applicants' request, final funding will be assigned at DRCOG's discretion within fiscal constraint. Funding amounts must be provided in year of expenditure dollars using a recommended 3% inflation factor. 2. Only enter funding in this line if CDOT and/or RTD specifically give permission via concurrence letters or other written source. 			
Affirmation:	By checking this box, the applicant's Chief Elected Official (Mayor or County Commission Chair/City or County Manager/Agency Director) has certified it allows this application to be submitted for potential DRCOG-allocated funding and will follow all local, DRCOG, state, and federal policies and regulations if funding is awarded. <input checked="" type="checkbox"/>			

Evaluation Questions

A. Subregional Impact of Proposed Project

WEIGHT

30%

Provide **qualitative and quantitative** responses to the following questions on the regional impact of the proposed project. Be sure to provide all required information for each question. Quantitative data from DRCOG is available [here](#).

1. Why is this project subregionally important? Relevant quantitative data in your response is required.

As previously mentioned, Castle Rock is one of the fastest growing cities in the metro area. It is important to focus this growth in mixed use higher density environments. Downtown Castle Rock is one of the region's growth areas, which is why it was designated an 'urban center' by DRCOG over a decade ago. And because Castle Rock grew up around the old Denver & Rio Grande railroad stations, over a century ago, it's traditional transportation infrastructure and development pattern makes it ideal to support future transit service. However, until transit service comes to Downtown pedestrian and bicycle infrastructure is needed now to support the denser mixed use development being built. The proposed improvements will address ADA compliance issues in the public ROW, as well as pedestrian safety, missing sidewalks, and improve bike mobility identified in the Downtown Mobility Master Plan and Downtown Alley Plan. The adopted plans can be viewed on the Town's website. As the data shows there are many senior citizens that live in Downtown, which is higher than the regional percentage. If the sidewalk network is ADA compliant it will make it easier for them and everyone else to walk around between Downtown destinations. Subregionally, this project is important because there are many Douglas County services offered in the Downtown. For example, Castle Rock is the County seat and all the Commission meetings are held Downtown. Other services include motor vehicle, zoning, engineering, treasurer, and assessor offices to name a few. There is also a high concentration of jobs and households today and projected in 2050 (see #4 and #6 below). Being able to access these services and other Downtown destinations without having to drive is very important to reduce vehicle trips, congestion, and reduce green house gas emissions and other harmful air pollutants.

2. How will the proposed project address the specific transportation problem described in the **Problem Statement** (as submitted in Project Information, #8)? Relevant quantitative data in your response is required.

To address the problems identified in question #8 above, the project will correct ADA deficiencies in the sidewalk network. These improvements will include new sidewalks, curb ramps, adjust slopes as needed, and improve safety by installing curb extensions to reduce crossing distances and improve visibility. To improve the bicycling conditions, the project will design the first phase of the Downtown Alley Plan to create a low stress bicycling facility that connects parts of Downtown to the regional trail network. Adding secure bike parking in Downtown will also increase the comfort and viability for cycling.

3. Does the proposed project benefit multiple municipalities and/or subregions? If yes, which ones and how? Also describe any funding partnerships (other subregions, regional agencies, municipalities, private, etc.) established in association with this project.

Yes, the project will benefit residents throughout Douglas County and the Denver metro area. In recent years Castle Rock has become more of a regional destination for the metro area. Downtown special events held by the Town and area businesses are popular regional destinations for many people in the surrounding cities and counties. This includes events such as the Elephant Rock Bike Race, Ocktoberfest, Classic Car show, Starlighting, and the Douglas County Fair and Parade. The public in these surrounding municipalities will often park in the Town's public parking garage or surface lots and then walk to their destinations throughout Downtown. By providing a safe ADA compliant sidewalk network many short vehicular trips will be eliminated. And adding secure bike parking and low stress bicycling routes more people within the immediate area will chose to bike instead of drive. This will result in less congestion and green house gas emissions. Thus benefitting the subregion and metro area.

4. Describe how the project will improve access and mobility for each of the applicable disproportionately impacted and environmental justice population groups identified in the table below. This data is available in the TIP Data Tool.

Completing the below table and referencing relevant quantitative data in your response is required.

	DI and EJ Population Groups	Number within ½ mile	% of Total	Regional %
Use 2015-2019 American Community Survey Data <i>(In the TIP Data Tool, use a 0.5 mile buffer)</i>	a. Total population	11,292	-	-
	b. Total households	4,977	-	-
	c. Individuals of color	1,992	18%	33%
	d. Low-Income households	216	4%	9%
	e. Individuals with limited English proficiency	209	2%	3%
	f. Adults age 65 and over	1,908	17%	13%
	g. Children age 5-17	1,730	15%	16%
	h. Individuals with a disability	564	5%	9%
	i. Households without a motor vehicle	147	3%	5%
	j. Households that are housing cost-burdened	1,322	27%	32%

For Lines c. – i. use definitions in the [DRCOG Title VI Implementation Plan](#). For Line j., as defined in C.R.S. 24-38.5-302(3)(b)(l): “‘cost-burdened’ means a household that spends more than thirty percent of its income on housing.”

Describe how this project will improve access and mobility for each of the applicable groups, *including the required quantitative analysis*: The project will construct and reconstruct ADA compliant sidewalk facilities throughout Downtown. The project will also create safer street crossings by adding curb extensions to reduce crossing distances, and improve visibility. These improvements will result in a safer more comfortable walking environment for all the DI and EJ populations above. Improving the Downtown alleys and providing bike parking will create lower stress bicycling facilities for every individual category, as well as provide an ADA accessible entrance for some historical buildings that currently do not have one.

5. How will this project move the region toward achieving the shared [regional transportation outcomes](#) established in [Metro Vision](#)?

- Improve the diversity and livability of communities. It will create a safer and more comfortable walking and biking environments for all residents in the project area, including the vulnerable populations that currently live Downtown and in the surrounding neighborhoods.
- Contain urban development in locations designated for urban growth and services. The project is located within a Urban Center, a Pedestrian Focus Area, and a Short Trip Opportunity Zone as designated by DRCOG. The existing urban design and land use is mixed with supporting development that create short trips between between each development perfect for supporting walking and biking trips.
- Increase housing and employment in urban centers. The project will support the increasing higher density development that is occurring in Downtown Castle Rock. The buildings are vertically mixed use with ground floor office and retail with residential homes above. Compatible mixed land uses are imperative to support walking and biking trips because high density single use development will not result in walking or biking trips but instead lead to more congestion and GHG emissions. This project will create safer, accessible, and more mobility for the residents and workers living Downtown that may want to walk or bike to work, eat, or shop in the area. It will also improve mobility for the people working or living in nearby neighborhoods should they decide to walk or bike into Downtown.
- Improve and expand the region’s multimodal transportation system, services, and connections. This project is laying the ground work to address the first and last mile issue when transit (e.g. Bustang, front range rail, on-demand microtransit) comes to Castle Rock. New sidewalks will be built, while the existing network will be improved for safety and ADA accessibility, which can be difficult in a historic

area. Improving the biking routes and adding secure bike parking will also make cycling a more viable option for people.

- **Operate, manage, and maintain a safe and reliable transportation system.** Improved safety, security, and accessibility are all part of the proposed project. It will address current deficiencies in the network that are not ADA compliant which will make a reliable pedestrian network for people who might have a disability or a senior who lives Downtown but finds it difficult to walk to many of the Downtown destinations.
- **Improve air quality and reduce greenhouse gas emissions.** Because Downtown Castle Rock is designated as a Short Trip Opportunity Zone and a Pedestrian Focus Area, improving the walking and biking environment for these short trips will reduce vehicle trips in the area. Thus eliminating short vehicle trips which are the most polluting type of vehicle trips will improve air quality and reduce GHG emissions.
- **Connect people to natural resource and recreational areas.** Downtown Castle Rock has several regional trails that go through Downtown or lead to Downtown, including the Front Range Trail, named Plum Creek Trail through Castle Rock. Pedestrian and bike improvements will improve access to these regional trails and the open space/recreational areas along the trails. These areas include Rock Park, Centennial Park, and all the natural areas along the regional trails which follow Plum Creek, Sellers Creek, and the Douglas County Fairgrounds (See the Parks, Open Space and Trails map below).
- **Reduce the risk of hazards and their impact.** Constructing ADA compliant sidewalks will reduce hazards for all people, especially individuals whom might have a disability or just difficulty walking. But eliminating these hazards will result in a safer environment for the entire public. Also improving safety by reducing street crossing widths and improving visibility will also eliminate potential hazards for individuals crossing the street. Further designing the first phase of the alley improvements for biking and walking will provide cyclists a low stress option for riding rather than using the high volume street network with on-street parking stalls.
- **Increase access to amenities that support healthy, active choices.** The intent of the project is to improve the safety and mobility of active transportation choices (e.g. bikes and pedestrians). These improvements will connect to other existing and planned bike/pedestrian facilities that serve most of the Town (e.g. off street multi-use trails, or bike lanes). This should result in an active and healthy lifestyle for individuals traveling to and from Downtown, but it will also improve mobility and access to hiking trails in the recreational areas mentioned above.
- **Improve transportation connections to health care facilities and service providers.** The improved pedestrian network and biking network will connect to many health care facilities and service providers in the immediate area or in Downtown itself. Some of these destinations include; Tri County Health Department, Castle Rock Assisted Living and Home Care, and Brookside Rehabilitation and Wellness Center to name a few.
- **Diversify the region's housing stock.** Improving the pedestrian and bike network will not diversify the region's housing stock, but it will support multi-family housing project's that are lacking in Castle Rock. Over the last few years there has been hundreds of new condos and apartments built or approved in Downtown. Improving the walkability, accessibility, and safe mobility of the sidewalk and bike network will give these new residents a viable option to driving short distances to work, eat, shop, or play.
- **Improve access to opportunity.** Part of Downtown Castle Rock is located within an "Environmental Justice Analysis Zone, " which serves many income levels and age groups. Thus improving sidewalks and biking facilities will enhance the access and mobility for these individuals and all downtown users, including all age groups, income levels, and abilities. The sidewalks and alley will be designed and constructed to ADA standards to serve the entire public. In fact, there is an existing Section 8 income restricted senior housing development (Reyn Rock Apartments) in Downtown that will greatly benefit from the project improvements. The ADA compliant sidewalks and alley will greatly improve these people's ability to access other parts of Downtown, such as Festival Park, Town Hall, the Douglas County Library, and all the new commercial development in Downtown.

- Improve the region’s competitive position. Project improvements will provide accessible routes to jobs, housing, retail, recreational, and other destinations in and around Downtown Castle Rock. It will make a more desirable place to live and work, thus attracting people and businesses to locate here from around the State and Country. In fact, Castle Rock has consistently been identified as one of the best places to live by many national publications. This has likely led to the high growth rate for the Town.

6. Describe how the project will improve access to and/or connectivity between DRCOG-defined urban centers, multimodal corridors, mixed-use areas, Transit Oriented Development (transit near high-density development), or locally defined priority growth areas. Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Is there a DRCOG designated urban center within ½ mile of the project limits?*
- Does the project connect two or more urban centers?*
- Is there a transit stop or station within ½ mile of the project limits?*
- Is the project in a locally-defined priority growth and development area?*

Yes No If yes, please provide the name: [Downtown Castle Rock](#)

Yes No If yes, please provide the names:

Bus stop: Yes No If yes, how many?

Rail station: Yes No If yes, how many?

Yes No

If yes, provide a link to the relevant planning document:
<http://www.crgov.com/DocumentCenter/View/22546/Downtown-Master-Plan-PDF?bidId>

If yes, provide how the area is defined in the relevant planning document: Downtown Castle Rock is a priority development area for the Town, as indicated in the Downtown Master Plan adopted in 2008 and the Downtown Overlay District (DOD) Code adopted in 2010. Both of these documents identify the desire and need to allow multi-family housing in downtown, to generate the density and life needed to have an active Downtown 24 hrs a day, 7 days a week. The DOD Code specifically allows multi-family and mixed use developments. The Town also created a Downtown Development Authority in 2008 that is very active today in Downtown redevelopment projects, enabling the taxing and financing ability to incentivize Downtown development. Over the last several years, Town Council has approved several redevelopment financing agreements for 4 major mixed use projects in Downtown, two are completed (Riverwalk and Encore), one is under construction (The View) and one was recently approved and is moving into construction design. These demonstrate the Town’s commitment to strong redevelopment in Downtown.

- Is the project in an area with zoning that supports compact, mixed-use development patterns and a variety of housing options?

Yes No If yes, please provide the zoning district designation(s): [Downtown Overlay District](#) (see previous question above)

Provide households and employment data*	2020	2050
Households within ½ mile	4,977	6,547
Jobs within ½ mile	11,558	16,573
Household density (per acre) within ½ mile	1.33	1.98
Job density (per acre) within ½ mile	8.21	10.77

Describe how this project will improve access to and/or connectivity between the above identified areas, including the required quantitative analysis:

The project will improve mobility for everyone, including all age groups and abilities by creating a safe and accessible bike and pedestrian infrastructure network that connects jobs to housing Downtown. But the project will also connect other destinations, such as retail, restaurants, and recreational facilities.

7. Describe how this project will improve **access** and **connections** to key employment centers or regional destinations, including health services; commerce, educational, cultural, and recreational opportunities; or other important community resources. In your answer, define the key destination(s) and clearly explain how the project improves **access** and/or **connectivity**.

Downtown Castle Rock is an 'urban center' and the Douglas County seat and is a key regional destination by itself. Project improvements will be built in this 'urban center' and result in a pedestrian network that is safer and more accessible by addressing non-compliant ADA sidewalk issues and street crossings, and creating a more viable bike network through secure bike parking and designing a low stress biking route. The networks will provide better connections and access to key businesses and regional destinations in Downtown and the surrounding area. Here is a list of some of the destinations;

- Castle Rock Town Hall
- Castle Rock Police Department and Court
- Castle Rock Historic Museum
- Douglas County primary offices (engineering, planning, etc...)
- Douglas County Clerk and Recorder
- Douglas County motor vehicle
- Douglas County Treasurer
- Castle Rock Chamber of Commerce
- Douglas County Fairgrounds
- Douglas County Library and Administration Office
- Rock Park
- Festival Park
- Centennial Park
- Rink at the Rock
- Plum Creek Trail (aka Front Range Trail)
- Front Street Trail
- Seller's Gulch Trail
- Hier/Gannon Open Space
- Reyn Rock Apartments (Section 8 Senior Housing)
- Riverwalk Apartments (north and south buildings)
- The Encore Condos
- The View Apartments
- Tri County Health Department
- Castle Rock Assisted Living and Home Care
- Brookside Rehabilitation and Wellness Center
- Numerous Downtown shops and restaurants
- High concentration of employment

B. MVRTP Priorities

WEIGHT

50%

- **Qualitative and quantitative** responses are **REQUIRED** for the following items on how the proposed project contributes to the project and program investment priorities in the adopted 2050 Metro Vision Regional Transportation Plan. To be considered for full points, you must fully answer all parts of the question, including incorporating quantitative data into your answer. (see scoring section for details). Quantitative data from DRCOG is available [here](#).
- Checkboxes and data tables help to provide context and guide responses, but do not account for the full range of potential improvements and are not directly scored, but are required to be completed.
- Not all proposed projects will necessarily be able to answer all questions, however it is in the applicant's interest to address as many priority areas as possible.

Multimodal Mobility

Provide improved travel options for all modes.

(drawn from [2050 MVRTP priorities](#); [federal travel time reliability, infrastructure condition, & transit asset management performance measures](#); & [Metro Vision objective 4](#))

Examples of Project Elements: combinations of improvements that support options for a broad range of users, such as complete streets improvements, or a bicycle/pedestrian access to transit, etc.

How does this project help increase mobility choices for people, goods, and/or services? Note that any roadway operational improvements must be on the DRCOG [Regional Roadway System](#) and/or [Regional Managed Lanes System](#).

- What modes will project improvements directly address?
 Walking Bicycling Transit Roadway Operations Other:
- List the elements of this project which will address the above modes (i.e., sidewalk, shared use path, bus stop improvements, signal interconnection, etc.): [Project elements include; addressing non-compliant ADA sidewalk issues, construct curb extensions, short/long term bike parking, low stress bike routes](#)
- Will the completed project be a complete street as described in the [Regional Complete Streets Toolkit](#)? This data is available in the TIP Data Tool.
 Yes No If yes, describe how it implements the Toolkit's strategies in your response.
- Does this project improve travel time reliability?
 Yes No
- Does this project improve asset management of active transportation facilities and/or transit vehicle fleets?
 Yes No
- Does this project implement resilient infrastructure that helps the region mitigate natural and/or human-made hazards?
 Yes No

Describe how this project increases mobility choices for all users, *include quantitative information, including any items referenced above, in your response:*

[Project will create an accessible sidewalk network for all users and abilities by addressing non-compliant ADA issues, create safer street crossings, design low stress bike facility, and add secure bike parking.](#)

Air Quality

Improve air quality and reduce greenhouse gas emissions.

(drawn from [2050 MVRTP priorities](#); [state greenhouse gas rulemaking](#); [federal congestion & emissions reduction performance measures](#); [Metro Vision objectives 2, 3, & 6a](#))

Examples of Project Elements: active transportation, transit, or TDM elements; vehicle operational improvements; electric vehicle supportive infrastructure; etc.

How does this project help reduce congestion and air pollutants, including but not limited to, carbon monoxide, ground-level ozone precursors, particulate matter, and greenhouse gas emissions?

- Does this project reduce congestion?
 Yes No
- Does this project reduce vehicle miles traveled (VMT)?
 Yes No
- Does this project reduce single-occupant vehicle (SOV) travel?
 Yes No

Emissions Reduced (kg/day)	CO	NOx	VOCs	PM 10
	16.93	1.26	1.49	0.076

Use the [FHWA CMAQ Calculators](#) or a similar reasonable methodology to determine emissions reduced. Base your calculations on the year of opening. Please attach a screenshot of your work (such as the FHWA calculator showing the inputs and outputs) as part of your submittal packet.

Note: if not using the FHWA Calculators, please note your methodology in your narrative below.

Describe how this project reduces air pollutants, *include quantitative information, including any items referenced above, in your response:*

Downtown Castle Rock is designated as a Short Trip Opportunity Zone and a Pedestrian Focus Area by DRCOG. Improving the walking and biking environment will reduce short vehicle trips in the area. Eliminating these short vehicle trips, which are the most polluting type of vehicle trips, will improve air quality and reduce GHG emissions. In addition, roughly 50% of the trips into Downtown from surrounding development and neighborhoods are less than 5 miles. Improving the walking and biking environment will convert some of the trips to biking or walking if people feel secure, safe and it is comfortable walking around Downtown. The CO₂ reduction is also significant (723) according to the emissions calculator (see below for more detail).

**Regional
Transit**

Expand and improve the region’s transit network.

(drawn from [2050 MVRTP priorities](#), [Coordinated Transit Plan](#), [RTD’s Regional Bus Rapid Transit Feasibility Study](#))

Examples of Project Elements: transit lanes, station improvements, new/expanded service, etc.

Note: For any project with transit elements, the sponsor must coordinate with RTD to ensure RTD agrees to the scope and cost. Be sure to include RTD’s concurrence in your application submittal.

How does this project improve connections to or expand the region’s transit system, as outlined in the [2050 MVRTP](#)? Note that rapid transit improvements must be on the [Regional Rapid Transit System](#). Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Does this project implement a portion of the [regional bus rapid transit \(BRT\) network](#)?*
 Yes No If yes, which specific corridor will this project focus on?
- Does this project involve a [regional transit planning corridor](#)?*
 Yes No If yes, which specific corridor will this project focus on?
- Does this project implement a mobility hub as defined in the [2050 MVRTP](#)?
 Yes No
- Does this project improve connections between transit and other modes?
 Yes No If yes, please describe in your response.
- Is this project adding new or expanded transit service?
 Yes No If yes, who will operate the service?
- Does this project add and/or improve transit service to or within a DRCOG-defined urban center?*
 Yes No If yes, provide the name of the urban center:

Describe how this project improves connections to or expands the region’s transit system, *include quantitative information, including any items referenced above, in your response:*

[As mentioned previously, this project is laying the infrastructure to address future transit and the first and last mile challenges for when transit \(e.g. Bustang, front range rail, or micro-transit\) comes to Castle Rock.](#)

Safety **Increase the safety for all users of the transportation system.**
 (drawn from [2050 MVRTP priorities](#), [Taking Action on Regional Vision Zero](#), [CDOT Strategic Transportation Safety Plan](#), & [federal safety performance measures](#))
 Examples of Project Elements: bike/pedestrian crossing improvements, vehicle crash countermeasures, traffic calming, etc.

How does this project implement safety improvements (roadway, active transportation facility, etc.), particularly improvements in line with the recommendations in [Taking Action on Regional Vision Zero](#)? Note that any improvements on roadways must be on the DRCOG [Regional Roadway System](#). Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Does this project address a location on the [DRCOG High-Injury Network or Critical Corridors](#) or corridors defined in a local Vision Zero or equivalent safety plan?*
 Yes No
- Does this project implement a safety countermeasure listed in the [countermeasure glossary](#)?
 Yes No

Provide the current number of crashes involving motor vehicles, bicyclists, and pedestrians* <i>(using the 2015-2019 period – in the TIP Data Tool, use a 0.02 mile buffer of your project)</i> <i>NOTE: if constructing a new facility, report crashes along closest existing alternative route</i>		Sponsor must use industry accepted crash reduction factors (CRF) or accident modification factor (AMF) practices (e.g., NCHRP Project 17-25, NCHRP Report 617, or DiExSys methodology).
Fatal crashes	2	
Serious Injury crashes	6	
Other Injury crashes	118	
Property Damage Only crashes	608	
Estimated reduction in crashes <u>applicable to the project scope</u> <i>(per the five-year period used above)</i>		Provide the methodology below:
Fatal crashes reduced	0.00	
Serious Injury crashes reduced	0.00	
Other Injury crashes reduced	0.00	
Property Damage Only crashes reduced	0.00	

Describe how this project will improve safety, *include quantitative information, including any items referenced above, in your response:*

Safety will be improved by adding sidewalks where they do not exist today, thereby physically separating pedestrians and bikes from the roadway and motorized vehicles. The project will also improve visibility and shorten street crossing distances where curb extensions (bulb outs) will be constructed.

While Downtown Castle Rock does not have a history of significant bike or pedestrian crashes it is important to still fund public safety improvements before a safety issue arises due to the increase in vehicle traffic on the Downtown roads.

Freight

Maintain efficient movement of goods within and beyond the region.

(drawn from [2050 MVRTP priorities](#); [Regional Multimodal Freight Plan](#); [Colorado Freight Plan](#), [federal freight reliability performance measure](#); [Metro Vision objective 14](#))

Examples of Project Elements: roadway operational improvements, etc.

How does this project improve the efficient movement of goods, specifically improvements identified in the [Regional Multimodal Freight Plan](#)? Note that any improvements on roadways must be on the DRCOG [Regional Roadway System](#). Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Is this project located in or impact access to a [Freight Focus Area](#)?*
 Yes No If yes, please provide the name:
- Is the project located on the [Tier 1 or Tier 2 Regional Highway Freight Vision Network](#)?*
 Yes No
- If this project is located in a [Freight Focus Area](#) does it address the relevant Needs and Issues identified in the Plan (see text located within each Focus Area)?
 Yes No If yes, please describe in your response.
- Check any items from the [Inventory of Current Needs](#) which this project will address:
 Truck Crash Location Rail Crossing Safety ([eligible locations](#))
 Truck Delay Truck Reliability
Please provide the location(s) being addressed:
- Does this project include any innovative or non-traditional freight supportive elements (i.e., curb management strategies, cargo bike supportive infrastructure, etc.)?
 Yes No If yes, please describe in your response.

Describe how this project will improve the movement of goods, *include quantitative information, including any items referenced above, in your response:*

[Not applicable](#)

Active Transportation	Expand and enhance active transportation travel options. <small>(drawn from 2050 MVRTP priorities; Denver Regional Active Transportation Plan; & Metro Vision objectives 10 & 13) Examples of Project Elements: shared use paths, sidewalks, regional trails, grade separations, etc.</small>
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How does this project help expand the active transportation network, close gaps, improve comfort, and/or improve connections to key destinations, particularly improvements in line with the recommendations in the [Denver Regional Active Transportation Plan](#)? Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Does this project close a gap or extend a facility on a [Regional Active Transportation Corridor](#) or locally-defined priority corridor?*
 Yes No
- Does this project improve pedestrian accessibility and connectivity in a [pedestrian focus area](#)?*
 Yes No
- Does this project improve active transportation choices in a [short trip opportunity zone](#)?*
 Yes No
- Does this project include a high-comfort bikeway (like a sidepath, shared-use path, separated bike lane, bicycle boulevard)?
 Yes No If yes, please describe in your response.

Bicycle Use

NOTE: if constructing a new facility, report bike usage along closest existing alternative route

1. Current Average Single Weekday Bicyclists:	125	
Bicycle Use Calculations	Year of Opening	2050 Weekday Estimate
2. Enter estimated additional average weekday one-way bicycle trips on the facility after project is completed.	50	100
3. Enter number of the bicycle trips (in #2 above) that will be diverting from a different bicycling route. <i>(Example: {#2 X 50%} or other percent, if justified on line 10 below)</i>	25	50
4. = Initial number of new bicycle trips from project (#2 – #3)	25	50
1. Enter number of the new trips produced (from #4 above) that are replacing a trip made by another non-SOV mode (bus, carpool, vanpool, bike, etc.). <i>(Example: {#4 X 30%} or other percent, if justified on line 10 below)</i>	7.50	15.00
5. = Number of SOV trips reduced per day (#4 - #5)	17.50	35.00
6. Enter the value of {#6 x 2 miles} . (= the VMT reduced per day) <i>(Values other than 2 miles must be justified by sponsor on line 10 below)</i>	35.00	70.00
7. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	33.25	66.50
8. If values would be distinctly greater for weekends, describe the magnitude of difference: NA		
9. If different values other than the suggested are used, please explain here: NA		

Pedestrian Use

NOTE: if constructing a new facility, report pedestrian usage along closest existing alternative route

2. Current Average Single Weekday Pedestrians (including users of non-pedaled devices such as scooters and wheelchairs):	5,500	
Pedestrian Use Calculations	Year of Opening	2050 Weekday Estimate
3. Enter estimated additional average weekday pedestrian one-way trips on the facility after project is completed	100	200
4. Enter number of the new pedestrian trips (in #2 above) that will be diverting from a different walking route <i>(Example: {#2 X 50%} or other percent, if justified on line 10 below)</i>	50	100
5. = Number of new trips from project (#2 – #3)	50	100
6. Enter number of the new trips produced (from #4 above) that are replacing a trip made by another non-SOV mode (bus, carpool, vanpool, bike, etc.). <i>(Example: {#4 X 30%} or other percent, if justified on line 10 below)</i>	15.00	30.00
7. = Number of SOV trips reduced per day (#4 - #5)	35.00	70.00

8. Enter the value of {#6 x .4 miles}. (= the VMT reduced per day) (Values other than .4 miles must be justified by sponsor on line 10 below)	14.00	28.00
9. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	13.30	26.60
10. If values would be distinctly greater for weekends, describe the magnitude of difference: NA		
11. If different values other than the suggested are used, please explain here: NA		

Describe how this project will expand the active transportation network, close gaps, improve comfort, and/or improve connections to key destinations, *include quantitative information, including any items referenced above, in your response:*

New sidewalks will be built that are currently missing in the Downtown network. This will improve connections to destinations, such as health care facilities, shopping, restaurants, recreational facilities, and all of the services offered by Douglas County and Town. It will also improve connections to the surrounding neighborhoods. ADA non-compliant issues will be addressed throughout Downtown using the Town's recently completed Downtown ADA Transition Plan. This will create a reliable and comfortable pedestrian network for all users. In addition, improving the first phase of the alley plan will also result in improved comfort for cyclists by creating a low volume, low stress facility to ride in Downtown.

C. Project Leveraging	WEIGHT	10%
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<p>What percent of outside funding sources (non-Subregional Share funding) does this project have? <i>(number will automatically calculate based on values entered in the Funding Request table)</i></p>	12.00%	<table style="width: 100%; border-collapse: collapse;"> <tr><td>60%+ outside funding sources</td><td>5 pts</td></tr> <tr><td>50-59.9%</td><td>4 pts</td></tr> <tr><td>40-49.9%</td><td>3 pts</td></tr> <tr><td>20-39.9%</td><td>2 pts</td></tr> <tr><td>10.1-19.9%</td><td>1 pt</td></tr> <tr><td>10%.....</td><td>0 pts</td></tr> </table>	60%+ outside funding sources	5 pts	50-59.9%	4 pts	40-49.9%	3 pts	20-39.9%	2 pts	10.1-19.9%	1 pt	10%.....	0 pts
60%+ outside funding sources	5 pts													
50-59.9%	4 pts													
40-49.9%	3 pts													
20-39.9%	2 pts													
10.1-19.9%	1 pt													
10%.....	0 pts													

D. Project Readiness	WEIGHT	10%
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Provide responses to the following items to demonstrate the readiness of the project. DRCOG is prioritizing those projects that have a higher likelihood to move forward in a timely manner and are less likely to experience a delay.

Section 1. Avoiding Pitfalls and Roadblocks

- a. Has a licensed engineer (CDOT, consultant, local agency, etc.) reviewed the impact the proposed project will have on utilities, railroads, ROW, historic and environmental resources, etc. and have those impacts and pitfalls been mitigated as much as possible to date before this submittal?
 Yes No N/A (for projects which do not require engineering services)
- If yes, please type in the engineer’s name below which certifies their review and that impacts have been evaluated and mitigated as much as possible before your application is submitted:
- Please describe the status to date on each, including 1) anticipated/known pitfalls/roadblocks, and 2) mitigation activities taken to date:
- Utilities:
 - Railroad: **Not applicable**
 - Right-of-Way: **Improvements will all be within existing ROW**
 - Environmental/Historic: **No impact is expected since all improvements will stay within existing ROW that is already developed in most cases - a Categorical Exclusion is expected.**
 - Other:
- b. Is this application for a single project phase only (i.e., design, environmental, ROW acquisition, construction only, study, bus service, equipment purchase, etc.)?
 Yes No
- If yes, are the other prerequisite phases complete? Yes No N/A
- If this project is for construction, please note the NEPA status: **Other**
- c. Has all required ROW been identified? Yes No N/A
 Has all required ROW already been acquired and cleared by CDOT? Yes No N/A
- d. Based on the current status provided in Project Information, question 11, do you foresee being able to execute your IGA by October 1 of your first year of funding (or if requesting first year funding, beginning discussions on your IGA as soon as possible), so you can begin your project on time?
 Yes No
- Does your agency have the appropriate staff available to work on this project? Yes No
- If yes, are they knowledgeable with the federal-aid process? Yes No
- e. Have other stakeholders in your project been identified and involved in project development?
 Yes No N/A

If yes, who are the stakeholders? [Town of Castle Rock departments, local businesses/property owners, utilities, Downtown Development Authority,](#)

Please provide any additional details on any of the items in Section 1, if applicable.

[All improvements will occur with existing Town ROW and all improvements will be constructed in a built urban environment - a Categorical Exclusion is expected](#)

Section 2. Local Match

- a. Is all the local match identified in your application currently available, and if a partnering agency is also committing match, do you have a commitment letter?

Yes No

Please describe:

[Budget and CIP amendments are needed](#)

- b. Is all funding for this project currently identified in the sponsor agency's Capital Improvement Program (CIP)?

Yes No

Please describe:

[Budget and CIP amendments are needed](#)

Section 3. Public Support

- a. Has the proposed project previously been through a public review process (public comment period, public hearing, etc.)?

Yes No

- b. Has the public had access to translated project materials in relevant languages for the local community?

Yes No

Please describe:

[Project improvements have been identified in adopted plans that have already gone through an extensive public outreach effort as part of the plan adoption.](#)

- c. Have any adjacent property owners to the proposed project been contacted and provided with the initial project concept?

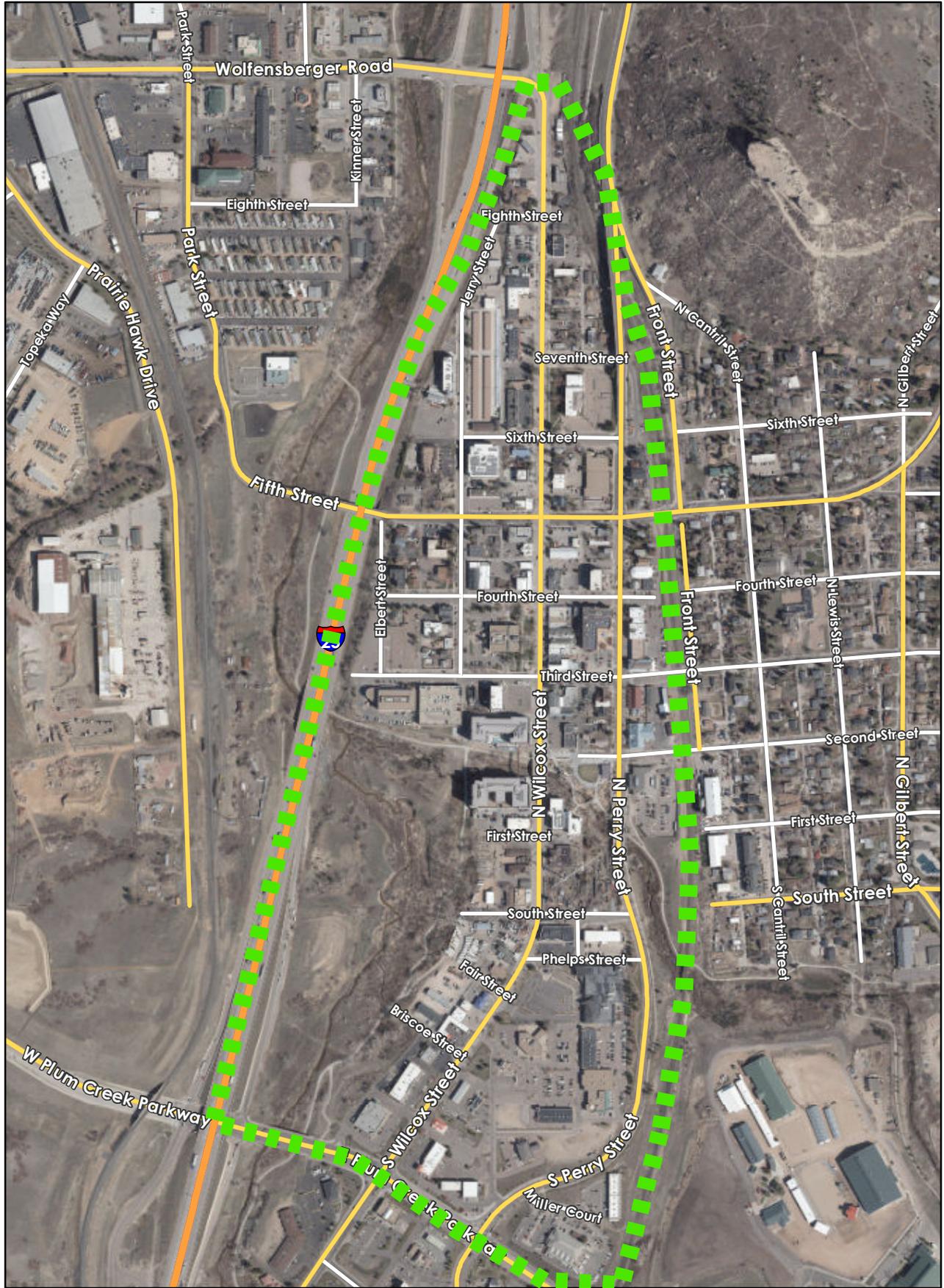
Yes No N/A

Please provide any additional details on the items in Section 3, if applicable.

[There is strong public and political support for the identified improvements.](#)

Submit completed applications through the [TIP Data Hub](#) no later than 3pm on June 24, 2022.

**PROJECT LOCATION MAP
DOWNTOWN CASTLE ROCK**



COST ESTIMATE - DOWNTOWN ADA & ACTIVE TRANSPORTATION PROJECT				UNIT COST	TOTAL COST
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
201	CLEARING AND GRUBBING	LS	1	\$10,000.00	\$10,000.00
202A	REMOVAL OF CURB AND GUTTER TYPE 2	LF	1,750	\$11.00	\$19,250.00
202B	REMOVAL OF CURB, GUTTER AND SIDEWALK	LF	5,500	\$24.00	\$132,000.00
202C	REMOVAL OF SIDEWALK	SY	475	\$31.00	\$14,725.00
202D	REMOVAL OF CONCRETE PAVEMENT (CROSSPAN & ALLEY CONCRETE PAVEMENT)	SY	360	\$36.00	\$12,960.00
202E	REMOVAL OF CURB RAMP	SY	640	\$31.00	\$19,840.00
202	REMOVAL OF INLET	EA	5	\$1,500.00	\$7,500.00
202F	REMOVAL OF ASPHALT MAT (PATCHING)(CONTINGENCY)	SY	140	\$22.50	\$3,150.00
203	UNCLASSIFIED EXCAVATION (CIP) (6") (CONTINGENCY)	SY	320	\$36.00	\$11,520.00
208	RESET LIGHT STANDARD	EA	9	\$2,750.00	\$24,750.00
304	AGGREGATE BASE COURSE (CLASS 6) (6") (CONTINGENCY)	EA	400	\$36.00	\$14,400.00
403	HBP (PATCHING)(GR SX) (6") (PG 58-28)(CONTINGENCY)	SY	100	\$63.00	\$6,300.00
412A	CONCRETE PAVEMENT (10") (CROSSPAN) (HIGH EARLY)	SY	300	\$120.00	\$36,000.00
604	INLET TYPE R	EA	5	\$4,000.00	\$20,000.00
608A	CONCRETE SIDEWALK (6")	SY	2,250	\$78.00	\$175,500.00
608B	MOUNTABLE CURB CORNER RAMP (ADA) (CAST IRON)	SY	640	\$120.00	\$76,800.00
609A	VERTICAL CURB, GUTTER AND SIDEWALK 5'6"	SY	750	\$55.00	\$41,250.00
609B	VERTICAL CURB, GUTTER AND SIDEWALK 6'6"	LF	4,300	\$65.00	\$279,500.00
609C	MOUNTABLE CURB, GUTTER AND SIDEWALK 7' 11"	LF	1,200	\$70.00	\$84,000.00
	PAVER ACCENT BAND 2' WIDE	SF	3,100	\$125.00	\$387,500.00
609D	CURB AND GUTTER TYPE 2 (SECTION II-B)	LF	1,100	\$35.00	\$38,500.00
609E	CURB AND GUTTER TYPE 2 (SECTION II-M)	LF	350	\$35.00	\$12,250.00
	LANDSCAPE WALL	SF	1,600	\$50.00	\$80,000.00
620	SANITARY FACILITY	LS	1	\$2,500.00	\$2,500.00
626	MOBILIZATION	LS	1	\$55,000.00	\$55,000.00
629	SURVEY MONUMENTATION	EA	20	\$680.00	\$13,600.00
630A	TRAFFIC CONTROL MANAGEMENT	LS	1	\$45,000.00	\$45,000.00
630B	VARIABLE MESSAGE SIGN (VMS) (2EA Per Day)	DAY	80	\$250.00	\$20,000.00
720	MATERIALS SAMPLING & TESTING	LS	1	\$18,500.00	\$18,500.00
	BIKE PARKING	LS	1	\$30,000.00	\$30,000.00
	SIGNING	LS	1	\$20,000.00	\$20,000.00
	TOTAL OF CONSTRUCTION BID ITEMS			SUB-TOTAL	\$1,712,295.00
	CONTINGENCY (15%)				\$256,844.00
	CONSTRUCTION MANAGEMENT/INSPECTION (10%)				\$171,229.00
	DESIGN & ENVIRONMENTAL (15%)				\$256,844.00
	ROW ACQUISITION				\$0.00
				SUBTOTAL	\$2,397,212.00
	INFLATION (5% / YEAR)				\$119,860.00
				OVERALL PROJECT TOTAL	\$2,517,072.00

Bicycle and Pedestrian Improvements

This calculator will estimate the reduction in emissions resulting from improvements to bicycle and pedestrian infrastructure and associated mode shift from passenger vehicles to bicycling or walking, including but not limited to sidewalks, dedicated bicycle infrastructure, improved wayfinding, mid-block crossing installations, bike share systems, and bike parking improvements.

Navigator

Bicycle and Pedestrian Improvements

INPUT

(1) What is your project evaluation year?

(2) Estimate the shift in daily motorized passenger vehicle trips to non-motorized travel due to the bicycle and pedestrian project.

Daily Passenger Vehicle Trips		
Before	After	Change
56000	53000	3000

(3a) Select the data type used for entering the typical one-way trip distance of passenger vehicles below:

Trip Distance Source

(3b) If you selected "Average" above, enter the typical one-way trip distance. If you selected "Distribution" above, enter the typical distribution of one-way trip distances.

Typical Trip Distance (miles one way)	Distribution of Trip Distances (daily fraction per mileage bin)					Sum
	$x < 1$	$1 \leq x < 2$	$2 \leq x < 3$	$3 \leq x < 4$	$4 \leq x \leq 5$	
<input type="text" value="0.5"/>						

OUTPUT

EMISSION REDUCTIONS

Pollutant	Total
Carbon Monoxide (CO)	16.932
Particulate Matter <2.5 μm (PM _{2.5})	0.033
Particulate Matter <10 μm (PM ₁₀)	0.076
Nitrogen Oxide (NO _x)	1.267
Volatile Organic Compounds (VOC)	1.490
Carbon Dioxide Equivalent (CO ₂ e)	723.228
Total Energy Consumption (MMBTU/day)	9.147

*Units in kg/day unless otherwise noted