



DRCOG FY2022-2025 TIP – Arapahoe 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 \$30,016,000 for Arapahoe 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 Regional 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 subregional problem or benefit people throughout the Denver region. Relevant quantitative data should be included within narrative responses.

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

Score	% non-Regional 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		Arapahoe Road Side Path Infill Project - I-25 to Parker Road	
2. Project Location <i>Provide a map, as appropriate (see Page 1)</i>		Start point: 17.0	End point: 21.6
3. Project Sponsor <i>(entity that will be financially responsible for the project)</i>		Centennial	
4. Project Contact Person:			
Name	Jeff Dankenbring	Title	Public Works Director
Phone	303-754-3458	Email	jdankenbring@centennialco.gov
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 checked="" type="checkbox"/> Yes <input 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:	
		<input checked="" type="checkbox"/> Local/Regional plan:	Planning Document Title: Centennial Transportation Master Plan Adopting agency (local agency Council, CDOT, RTD, etc.): City Council of the City of Centennial Provide date of adoption by council/board/commission, if applicable: May 2, 2022
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>		Centennial took a comprehensive, community engagement approach to engage key stakeholders and a broad cross-section of the public and community over a year-long planning period. Community members and stakeholders were asked to evaluate and provide input on potential projects, consider a series of transportation tradeoffs, and participate in a transportation funding exercise. The planning process involved three phases of the engagement period: <ul style="list-style-type: none"> Phase One: Spanned from early May to mid-July and focused on values and needs. Outreach through this initial phase aimed to notify the public about the Centennial TMP update and sought to understand community values and transportation gaps and needs. Phase Two: Extended from early August to mid-September, presented community members and stakeholders opportunities to evaluate transportation and mobility tradeoffs and provided feedback on initial project ideas. Phase Three: Occurred in March/April 2022, and engagement centered on validation. The City prompted community members and stakeholders to review and comment on the draft TMP and confirm that the plan reflects the community's stated values and 	

		<p>priorities. City conducted stakeholder interviews, public meetings, open houses, and maintained a project website to collect comments.</p> <p>In addition, extensive public outreach was conducted as part of the 2021 Colorado Boulevard Orchard Road to County Line Road Multimodal Corridor Study, as described in Section D below.</p>
	Other pertinent details:	<p>Link to TMP: centennial-tmp_may-2022.pdf (centennialco.gov)</p> <p>Page 105 identifies a full Arapahoe Corridor plan, with Segment B-I-25 to Parker Road suggesting many sidewalk opportunities (329,333,341,343,345)</p> <p>Page 135 of the TMP shows multiple pieces of this project with project estimates in the 2030 fiscally constrained arterial sidewalk projects</p>

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)	02/2023
<input type="checkbox"/> Design	Design contract Notice to Proceed (NTP) issued (if using a consultant):	
	Design scoping meeting held with CDOT (if no consultant):	
<input type="checkbox"/> Environmental	Environmental contract Notice to Proceed (NTP) issued (if using a consultant):	
	Design scoping meeting held with CDOT (if no consultant):	
<input type="checkbox"/> Right-of-Way	Initial set of ROW plans submitted to CDOT:	
	ROW acquisition completed: Estimated number of parcels to acquire:	
<input checked="" type="checkbox"/> Construction	FIR (Field Inspection Review):	09/2023
	FOR (Final Office Review):	02/2024
	Required clearances:	08/2024
	Project publicly advertised:	09/2024
<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 checked="" type="checkbox"/> Other: RFR	First invoice submitted to CDOT/RTD:	01/2025

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

Issue: There is a lack of regional and multimodal pedestrian and bike continuity and limited access to transit and other modes of transportation on Arapahoe Road (SH 88). Portions of the roadway have very high travel speeds (posted 55MPH) and high volumes (60,000-65,000 AADT), making robust, continuous pedestrian facilities essential for safe travel. Currently, sidewalks along Arapahoe Road between I-25 and Parker Road (East Arapahoe Corridor) are discontinuous with several gaps causing reduced availability for those walking or bicycling to and from recreational trails or RTD bus stops, and to those bicycling through the corridor.

Access to RTD bus stops is a particular concern because the Arapahoe Road corridor houses the route 153 bus, which connects area residents and workers to the Arapahoe Village Center light rail station on the E, F and R lines as well as employment centers, medical centers, schools, and the A line commuter rail to Denver International Airport and downtown Denver. Providing pedestrian and bicycle connections to this important transit corridor can improve quality of life in the region and increase access to opportunities.

The 2050 Metro Vision Regional Transportation Plan recognizes the need to promote livability in our communities, while also improving the region's multimodal system and increasing access to opportunities that promote health or active choices. Closing critical gaps in the sidewalk infrastructure on Arapahoe Rd. helps address these issues.

Located between I-25 and South Parker Road, the East Arapahoe Road Corridor consists of strip commercial, office, and industrial uses that are influenced by commuter traffic, auto dealerships, and Centennial Airport. There are multiple jurisdictions (Greenwood Village, Aurora, Foxfield, Arapahoe County) near the corridor. The surrounding area is primarily business parks, limited residential, vacant land, and open space/ recreation areas including Centennial Center Park. Currently only roadway travel is continuously accommodated on Arapahoe Road (Major Arterial) between I-25 (Freeway) and Parker Road (SH 83 Expressway). Pedestrians and bicyclists wishing to access transit, medical services, employment, north-south trails, courts, services, shopping, and other destinations must walk on unimproved shoulders, in the road, or find alternative east-west routes, which are limited by Cherry Creek State Park and Centennial Airport.

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:

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.***

This project consists of constructing multimodal side paths to fill in gaps in the existing sidewalk and create a continuous route along Arapahoe Road between I-25 at Greenwood Village and Parker Road near unincorporated Arapahoe County and the City of Aurora. The paths will be 10' wide, except where that width cannot be accommodated, where it may be reduced to 8'. In addition, ADA curb ramps will be provided or upgraded to current standards, and transit facilities such as bus stops will be upgraded and improved, based on conversations with RTD, to encourage use. Thus the project will serve mutual regional transportation customers of the County, adjacent cities, and the metro area via transit including I-25 light rail. The project will also provide lateral pathway connections to intersecting arterial and collector streets where reasonable to reach existing pathways.

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.*

Sidewalk gap locations have been identified as well as a preliminary evaluation of the technical feasibility of construction and estimated potential demand. The need to address sidewalk gaps, and the adverse impact to those residents walking or biking in Centennial has been highlighted in the City's new Transportation Master Plan. The City intends to program the needed matching funds within the Capital Improvement Plan and 2023 budget and are ready to begin the project implementation if the TIP grant is awarded for this project.

However, difficulties may lie in finding space, or acquiring ROW, and in obligating the project within the DRCOG timeline. Utilities, Environmental and MS4 may also provide hurdles to the project, which will be better identified following survey and subsurface utility engineering.

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: Reducing the DRCOG allocation may lead to reducing the scope of the project. Or, a combination of TIP and MOFF funds may be feasible.

Outline the differences between the scope outlined above and the reduced scope: Shorten length of project or only in-fill specific gaps. The City would also consider increasing its funding share for the project, pending a review by the City Manager and Director of Public Works, as well as City Council approval. Local agencies to contribute ROW acquisition administration costs without reimbursement.

Project Financial Information and Funding Request

(All funding amounts in \$1,000s)

Total amount of Regional Share Funding Request <i>(No greater than \$20 million and not to exceed 90% of the total project cost)</i>		\$4,030	90.00 of total project cost
<input type="checkbox"/> Check box if requesting only state MMOF funds (requires minimum 50% local funds)¹			
Match Funds List each funding source and contribution amount.		Contribution Amount	% Contribution to Overall Project Total
<input type="text"/>		\$ <input type="text"/>	0%
<input type="text" value="Centennial"/>		\$425	9%
<input type="text" value="Greenwood Village"/>		\$25	1%
<input type="text"/>		\$ <input type="text"/>	0%
<input type="text"/>		\$ <input type="text"/>	0%
<input type="text"/>		\$ <input type="text"/>	0%
Total Match <i>(private, local, state, subregional, or federal)</i>		\$450	10.00%
Project Total		\$4,480	
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

	FY 2023	FY 2024	FY 2025	Total
DRCOG Requested Funds	\$ <input type="text"/>	\$ <input type="text"/>	\$4,030	\$4,030
CDOT or RTD Supplied Funds²	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$0
Local Funds (Funding from sources other than DRCOG, CDOT, or RTD)	\$ <input type="text"/>	\$ <input type="text"/>	\$450	\$450
Total Funding	\$0	\$0	\$4,480	\$4,480
Phase to be Initiated	Choose an item	Choose an item	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 an 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/County Commission Chair/City-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.

The Arapahoe Road Side Path Project is regionally and subregionally important because it better connects the pedestrian and bicycle mode of transportation within a vital corridor of the southeast metro region, and because it provides improved access to transit along Arapahoe Road between 4 cities (Aurora, Centennial, Foxfield, and Greenwood Village), and to the metro area via I-25 light rail. The Project is also important because it provides safer access for pedestrians and bicyclists to/from medical services, courts, shopping, and employment opportunities, thus improving transportation for underserved communities and alleviating Environmental Justice concerns.

This area has been identified in Centennial NEXT (the City's comprehensive plan) as a spotlight area suitable for future development. There are many land uses along this stretch of Arapahoe Road, ranging from Commercial to Business Park to Multi-family Residential. Land near the Centennial Civic Center is zoned "Activity Center," the City's second-most dense land use category.

Arapahoe Road currently presents a major barrier to east-west bicyclist and pedestrian connectivity, and Cherry Creek State Park and Centennial Airport ensure few alternative routes are available for multimodal travelers. The west end of the project will connect users to the I-25 Corridor Urban Center, providing access to light rail stops at Arapahoe and Dry Creek. This project will provide direct connectivity to the City of Centennial Civic Center and the Arapahoe County Complex on Lima St (0.4 miles away).

The Arapahoe County Transportation Master Plan cites the corridor for Enhanced Transit and the Open Space plan recommends installation of side paths in the unincorporated area. The County's Bicycle and Pedestrian plan calls out missing sidewalks on Arapahoe Road, and also proposes side paths.

These pathways will provide regional east-west connection for pedestrian and bicycle trips combined with transit and other modes. Another benefit of this project will be connecting trails that cross Arapahoe Road with usable travel paths to one another and side path connections, including Lone Tree Creek Trail. Centennial is in the process of constructing the Lone Tree Creek Trail from Dove Valley Regional Park to Cherry Creek State Park. Improving Arapahoe Road east of Parker Road is identified in Transportation Master plans, including multimodal side paths. This connecting project would be a crucial portion of sidewalk or side path facilities eventually being installed along the entire length of Arapahoe Rd.

A short segment of the project is located in unincorporated Arapahoe County, on the north side of Arapahoe Road east of Chambers Way, thus peer agency coordination and cooperation are expected.

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.

More than 26,000 residents live within a half-mile of this project and will benefit from these multimodal improvements providing improved and safer access to opportunities including employment, healthcare services, education, and community centers. In particular, the project will improve access to transit connections, making the 153 bus route far more accessible to residents. The central portion of Centennial where these improvements are contemplated is home to multiple disproportionately impacted and environmental justice populations. In Centennial, 20% of residents are individuals of color. Within this service area, individuals of color constitute 33% of the population. Similarly, 3% of Centennial's population is low income, while 6% of residents within this

project's service area are low income. Bike/ped improvements will provide service for 7,500 residents who are over the age of 65 or between the ages of 5 and 17.

This project directly benefits the regional population using transit, and could encourage increased transit usage. Sidewalk gaps between the house of a person using a wheelchair or other mobility device and the nearest transit stop can require the resident to use paratransit service rather than a fixed route service. This can result in a cost to RTD taxpayers of \$43.47 for a paratransit trip, compared to a cost of \$5.02 for a bus trip (National Transit Database, 2017). A typical transit user who is able to walk will walk five to ten minutes, or a quarter mile, to use transit. An important aspect of their decision to use transit is based on the availability of safe, convenient and complete connectivity of the walking environment to reach that transit stop.

Within a half mile of this project, there are 48 bus stops and 1 light rail station. The area is primarily served by the 153 bus route, which served 803,005 passengers in 2019. RTD ridership from 2019 indicates 165 daily boardings and alightings at bus stops along this segment of Arapahoe Road.

Finally, closing sidewalk gaps along Arapahoe provides a way to decrease congestion on our roadway system. A one percent increase in the quality of the pedestrian environment was associated with a 0.19 percent decrease in VMT ("Impacts of Pedestrian Strategies on Passenger Vehicle Use and Greenhouse Gas Emissions." Handy and Sciara, 2014). Providing a way to move local vehicle trips off of the regional roadway network would free up capacity for those users in cars making longer trips. It is estimated (using FHWA's calculator) that filling-in the sidewalk gaps in the East Arapahoe Corridor would remove 119 daily single occupant vehicle trips per day, a Carbon Dioxide Equivalent reduction of over 88 kg/day.

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.

Filling in side path gaps on Arapahoe Road will benefit multiple adjacent jurisdictions within the Arapahoe County subregion, such as Aurora, Greenwood Village, Foxfield, and unincorporated Arapahoe County, as well as visitors and passers through. The Project benefits those going to and from other subregions and regional agencies or municipalities by providing continuous off-street bicycle access along the corridor, and those using transit to access medical services, courts, employment, shopping and other destinations, which may include those without personal vehicles or funds to afford taxi or ride share options. With the light rail line along I-25, this may include customers from most of the Denver metro area.

RTD will be engaged on sidewalk improvements directly adjacent to transit stops to determine if installing additional bus stop amenities is appropriate. Coordination with CDOT is required throughout the Arapahoe Rd right-of-way. Centennial is not asking for a funding contribution from either organization.

The City is currently exploring expanding the project to include the neighboring jurisdictions, which would likely include adding them as funding partners. The users of the proposed project's side paths may be customers from throughout metro region and beyond. By facilitating transportation for our shared customers, as our fellow agencies do when they construct improvements, the project will improve the overall transportation network and system.

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
a.	Total population	26,580	100%
b.	Total households	10,210	100%

Use 2015-2019 American Community Survey Data <i>(In the TIP Data Tool, use a 0.5 mile buffer)</i>	c. Individuals of color	8,710	33.00%
	d. Low-Income households	596	6.00%
	e. Individuals with limited English proficiency	650	2.00%
	f. Adults age 65 and over	2,599	10.00%
	g. Children age 5-17	4,906	18.00%
	h. Individuals with a disability	635	2.00%
	i. Households without a motor vehicle	261	3.00%
	j. Households that are housing cost-burdened	2,873	28.00%

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)(I): “cost-burdened” means a household that spends more than thirty percent of its income on housing.”

Describe, including the required quantitative analysis: More than 26,000 residents live within a half mile of this project and will benefit from these multimodal improvements. The central portion of Centennial where these improvements are contemplated is home to multiple disproportionately impacted and environmental justice populations. In Centennial, 20% of residents are individuals of color. Within this service area, individuals of color constitute 33% of the population. Similarly, 3% of Centennial's population is low income, while 6% of residents within this project's service area are low income. Bike/ped improvements will provide service for 7,500 residents who are over the age of 65 or between the ages of 5 and 17.

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

The 2050 Metro Vision Regional Transportation Plan recognizes the need to promote livability in our communities, while also improving the region’s multimodal system and increasing access to opportunities that promote health or active choices. Closing critical gaps in the sidewalk infrastructure on Arapahoe Road helps address these issues.

Requiring many mobility impaired persons to use the much more costly paratransit service rather than the more efficient fixed route transit service, because of relatively short gaps in the sidewalk network, has regional implications on the ability for RTD to provide transit service throughout the metro area. Filling in these gaps would address several of the Metro Visions’ objectives related to livability and transportation. A complete sidewalk network will support “built environments...that accommodate the widest spectrum of people – regardless of age, income, or ability.” Addressing sidewalk gaps improves the region’s multimodal transportation system and connections including pedestrian accessibility and supports the transit system through first and last mile connections. Creating a defined, designated space for pedestrians alongside roads creates a safer transportation system by reducing fatalities and serious injuries of pedestrians walking along collector and arterial streets, and increases the level of service for pedestrians. Improving the transportation network, particularly for those not driving and in areas with high numbers of vulnerable populations, increases accesses to amenities that support healthy, active choices to create comfortable and safe travel and access for users of all ages and abilities, including access to food options. Ensuring a complete sidewalk network also means that connections are improved to health care, whether residents walk directly to a health care facility, or walk to transit first in order to reach health care. Finally, by prioritizing gap closures in areas with higher than the regional average of vulnerable populations, this project will improve access for traditionally underserved areas and their residents.

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?*
- Yes No If yes, please provide the name: [I-25 Corridor](#)
- Does the project connect two or more urban centers?*
- Yes No If yes, please provide the names:
- Is there a transit stop or station within ½ mile of the project limits?*
- Yes No
- Is the project in a locally-defined priority growth and development area?
- Yes No
- If yes, provide a link to the relevant planning document:
<https://www.centennialco.gov/files/sharedassets/public/documents/community-development/centennialnext-plan.pdf>, pg. 46
- If yes, provide how the area is defined in the relevant planning document: [East Arapahoe Rd Corridor, I-25 Corridor](#)
- 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):

Provide households and employment data*	2020	2050
Households within ½ mile	10,210	11,563
Jobs within ½ mile	73,284	95,691
Household density (per acre) within ½ mile	1.41	1.62
Job density (per acre) within ½ mile	15.65	19.74

Describe, including the required quantitative analysis: [The East Arapahoe Road Corridor is not currently very dense with residents. Within a half mile of this project, there are 10,210 households at a density of 1.41 households per acre. However, the City's comprehensive plan identifies this stretch as a key area for future mixed use development and other housing development opportunities. Additionally, the area is very dense with commercial activity. There are 73,284 jobs within a half mile at a density of 15.65 jobs per acre. These numbers are expected to increase significantly by 2050, with an estimated 95,691 jobs, a 30% increase over 2020.](#)

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**.

[Providing safe, convenient and complete sidewalks and enhanced access to 48 transit stops, regional transit network and many regional parks and open spaces, this project will expand opportunities for residents, especially vulnerable populations, to walk and bike more and therefore lead healthy and active lifestyles.](#)

[This area has been identified in Centennial NEXT \(the City's comprehensive plan\) as a spotlight area suitable for future development. There are many land uses along this stretch of Arapahoe Road, ranging from Commercial to Business Park to Multi-family Residential. Land near the Centennial Civic Center is zoned "Activity Center," the City's second-most dense land use category.](#)

[Arapahoe Road currently presents a major barrier to east-west bicyclist and pedestrian connectivity, and Cherry Creek State Park and Centennial Airport ensure few alternative routes are available for multimodal travelers. The west end of the project will connect users to the I-25 Corridor Urban Center, providing access to light rail stops at Arapahoe and Dry Creek. While this project does not connect multiple designated urban centers, it will provide](#)

direct connectivity to the City of Centennial Civic Center and the Arapahoe County Complex on Lima St (0.4 miles away).

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.): [Shared use paths](#), [bus stop improvements](#), [ADA ramps](#)
- 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, *include quantitative information, including any items referenced above, in your response:*

This project helps implement several of the Regional Complete Streets priorities including transportation demand management and environmental sustainability by reducing single occupant vehicle travel, as well as health and quality of life in positive ways. Filling in the sidewalk gaps will create a more walkable and bikeable transportation design that encourages physical activity, discourages sedentary lifestyles, reduces the financial and temporal costs of long commutes, improves air and water quality, combats climate change, improves accessibility for older adults and people with disabilities, strengthens local economies, contributes to neighborhood character, and contributes to community vibrancy.

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
	1.27	0.10	0.08	0.01

Use [FHWA CMAQ Calculators](#) to determine emissions reduced. Please attach a screenshot of the calculator showing the inputs and outputs as part of your submittal packet.

Note: for project types not covered by the FHWA Calculators, such as education and outreach, please note your methodology in your narrative below.

Describe, include quantitative information, including any items referenced above, in your response:

Based on the FHWA CMAQ calculator for bicycle and pedestrian improvements, the Arapahoe Road sidewalk infill project is estimated to reduce single-occupant vehicle trips by 119 per day, resulting in a reduction in vehicle miles traveled of 4.76 miles. These changes in behavior will result in reductions of 1.27 kg/day of CO, 0.10 kg/day of NOx, 0.08 kg/day of VOCs, 0.01 kg/day of PM 10, for a total of 106.96 kg/day of carbon dioxide equivalent.

**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 Metro Vision Regional Transportation Plan](#)? 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: [I-25 Corridor](#)

Describe, include quantitative information, including any items referenced above, in your response:

Within a half mile of this project, there are 48 bus stops and 1 light rail station. The area is primarily served by the 153 bus route, which served 803,005 passengers in 2019. RTD ridership from 2019 indicates 165 daily boardings and alightings at bus stops along this segment of Arapahoe Road. This area has been identified in Centennial NEXT (the City's comprehensive plan) as a spotlight area suitable for future development. There are many land uses along this stretch of Arapahoe Road, ranging from Commercial to Business Park to Multi-family Residential. Land near the Centennial Civic Center is zoned "Activity Center," the City's second-most dense land use category.

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 [High-Injury Network or Critical Corridors](#)?*
 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* (using the 2015-2019 period – in the TIP Data Tool, use a 0.02 mile buffer of your project)		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	0	
Serious Injury crashes	2	
Other Injury crashes	0	
Property Damage Only crashes	1	
Estimated reduction in crashes <u>applicable to the project scope</u> (per the five-year period used above)		Provide the methodology below:
Fatal crashes reduced	0.00	Crash reduction factor for all crashes were applied to pedestrian and bicycle crashes in the missing sidewalk segments.
Serious Injury crashes reduced	1.48	
Other Injury crashes reduced	0.00	
Property Damage Only crashes reduced	0.74	

Describe, include quantitative information, including any items referenced above, in your response:
 The available crash data for the period of 2015 to 2019 was used in conjunction with GIS data on missing sidewalk segments along Arapahoe Road, between I-25 and Parker Road. The available crash data source is DiExSys Vision Zero Suite and the missing sidewalk segment data is from DRCOG’s Regional Planometrics Project. Pedestrian and bicycle crashes were identified from this data set and the crash modification factor (CMF) associated with installation of sidewalks was applied to these crashes.

The segments with missing sidewalks witnessed two pedestrian crashes, one of which involved two severe injuries, and one that was a non-injury crash. The bicycle crash involved a severe injury as well. Crash data suggests issues related to unlawful crossing and right of way conflict, which can be attributed to the lack of a safe pedestrian facility. In order to avoid unnecessary pedestrian crashes along Arapahoe Road, a continuous, multimodal facility providing direct access to desired destinations is required.

It should be noted that even though the number of pedestrian and bicycle crashes is small, systemic improvements such as providing safe pedestrian walkways are very effective, proactive safety treatments.
 Time Period: 2015 to 2019

Number of total crashes in missing sidewalk segment: 379 (0 FAT, 81 INJ, 298 PDO)

Number of pedestrian and bicycle crashes in missing sidewalk segments: 3 (0 FAT, 2 INJ, 1 PDO)

Countermeasure: Install sidewalk (to avoid walking along roadway); CMF ID: 1333 (FHWA CMF Clearinghouse)
 Countermeasure study source: UPDATE OF FLORIDA CRASH REDUCTION FACTORS AND COUNTERMEASURES TO IMPROVE THE DEVELOPMENT OF DISTRICT SAFETY IMPROVEMENT PROJECTS, GAN ET AL., 2005

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, *include quantitative information, including any items referenced above, in your response:*

This project will reduce congestion, improving the movement of goods within and beyond the region by reducing the number of vehicle trips by 119 per day. While this area is not a freight focus area, Arapahoe Road serves high volumes of truck traffic accessing the Centennial Airport, US Foods distribution center, and other logistics centers in central Centennial.

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](#)?*
 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

1. Current Weekday Bicyclists:		0
Bicycle Use Calculations	Year of Opening	2050 Weekday Estimate
2. Enter estimated additional weekday one-way bicycle trips on the facility after project is completed.	0	0
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>	0	0
4. = Initial number of new bicycle trips from project (#2 – #3)	0	0
5. Enter number of the new trips produced (from #4 above) that are replacing an SOV trip. <i>(Example: {#4 X 30%} or other percent, if justified on line 10 below)</i>	0.00	0.00
6. = Number of SOV trips reduced per day (#4 - #5)	0.00	0.00
7. 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>	0.00	0.00
8. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	0.00	0.00
9. If values would be distinctly greater for weekends, describe the magnitude of difference:		
10. If different values other than the suggested are used, please explain here:		

Pedestrian Use

1. Current Weekday Pedestrians (including users of non-pedaled devices such as scooters and wheelchairs):		165
Pedestrian Use Calculations	Year of Opening	2050 Weekday Estimate
2. Enter estimated additional weekday pedestrian one-way trips on the facility after project is completed	119	179
3. 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>	60	90
4. = Number of new trips from project (#2 – #3)	59	89
5. Enter number of the new trips produced (from #4 above) that are replacing an SOV trip. <i>(Example: {#4 X 30%} or other percent, if justified on line 10 below)</i>	17.70	26.70
6. = Number of SOV trips reduced per day (#4 - #5)	41.30	62.30
7. Enter the value of {#6 x .4 miles} . (= the VMT reduced per day) <i>(Values other than .4 miles must be justified by sponsor on line 10 below)</i>	16.52	24.92
8. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	15.69	23.67

9. If values would be distinctly greater for weekends, describe the magnitude of difference:

10. If different values other than the suggested are used, please explain here:

Describe, include quantitative information, including any items referenced above, in your response:

This infill sidewalk project will have significant impacts on bicyclist and pedestrian comfort. This corridor along Arapahoe Road intersects with the Cherry Creek Trail shared use path, a recognized active transportation corridor, just east of Jordan Road. Additional connections to Cherry Creek State Park will be made along the Lone Tree Creek Trail which is currently under construction. There is a Short Trip Opportunity Zone around Dayton Street and Arapahoe Road that will be served by this infill sidewalk. Where possible, the new shared-use sidepath will be 10' wide to provide a high-comfort bicycle facility. Near this project location, counters on the Cherry Creek Trail identified an average of more than 250 bicycle and pedestrian users per day in 2021. The company Strava provides heatmaps of where its users prefer to run and bike. Recent generated maps indicate pedestrians and bicyclists are actively avoiding the inconsistent infrastructure along Arapahoe Road.

C. Project Leveraging	WEIGHT	10%
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What percent of outside funding sources (non-Regional Share funding) does this project have?	10.00%	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">60%+ outside funding sources</td> <td style="text-align: right; padding: 2px 5px;">5 pts</td> </tr> <tr> <td style="padding: 2px 5px;">50-59.9%</td> <td style="text-align: right; padding: 2px 5px;">4 pts</td> </tr> <tr> <td style="padding: 2px 5px;">40-49.9%</td> <td style="text-align: right; padding: 2px 5px;">3 pts</td> </tr> <tr> <td style="padding: 2px 5px;">20-39.9%</td> <td style="text-align: right; padding: 2px 5px;">2 pts</td> </tr> <tr> <td style="padding: 2px 5px;">10.1-19.9%</td> <td style="text-align: right; padding: 2px 5px;">1 pt</td> </tr> <tr> <td style="padding: 2px 5px;">10%.....</td> <td style="text-align: right; padding: 2px 5px;">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 within the project 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:
 Jeff Dankenbring (PE#33911) reviewed potential impacts and included time and plans for mitigation, which will be further developed and implemented with progress of the pre-construction phase of the project.
 Please describe the anticipated specific pitfalls/roadblocks and the mitigation activities taken to date:
 Right-of-way acquisition per federal requirements (Uniform Act) will require time and attention, negotiation and funds. Utilities exist in the corridor and within the construction zone, which will require identification and management per the Colorado 811 law. Environmental clearance is expected to be a Categorical Exculsion, with no unusual issues. Materials and Construction will require management and coordination. Hydraulics and MS4 will require consideration and possibly mitigation with permanent water quality.

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: **Not Started**

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 any reason why your IGA will not be executed by Oct 1 of your first year of funding, 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? **Arapahoe County, Aurora, Greenwood Village, CDOT, and RTD.**

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

c- Right-of-way will be clarified and addressed in ROW plans and processes to proceed with notification, negotiation and acquisition.

e - Additional stakeholders, such as utilities, local businesses and residences, will become involved as the project evolves.

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:

Centennial is committed to the TIP Call and funding the project in the subsequent years identified. Partner agencies have received requests for support and estimates, and supported the project in DRCOG Executive Session.

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

Yes No

Please describe:

The Call 2 opportunity was not known when budgets were outlined for 2022. However, Centennial's CIP is committed to the project, possesses funding and will identify as needed in subsequent budgets for all phases considered.

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:

The project as an entire corridor side path infill has not been presented to the public for engagement as it is relatively new in project form. However, project segments were identified in the recently adopted 2040 TMP, and the need for the project is well known to lend towards public engagement and communication during implementation.

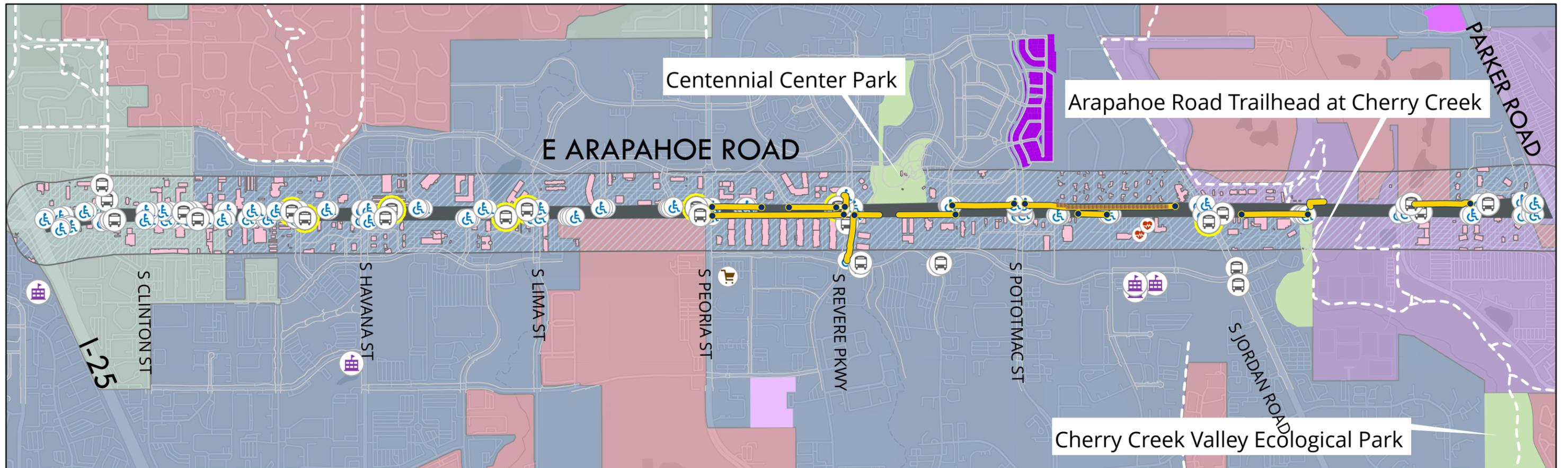
- c. Have any adjacent property owners to the proposed project been contacted and provided with the initial project concept?

Yes No N/A

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

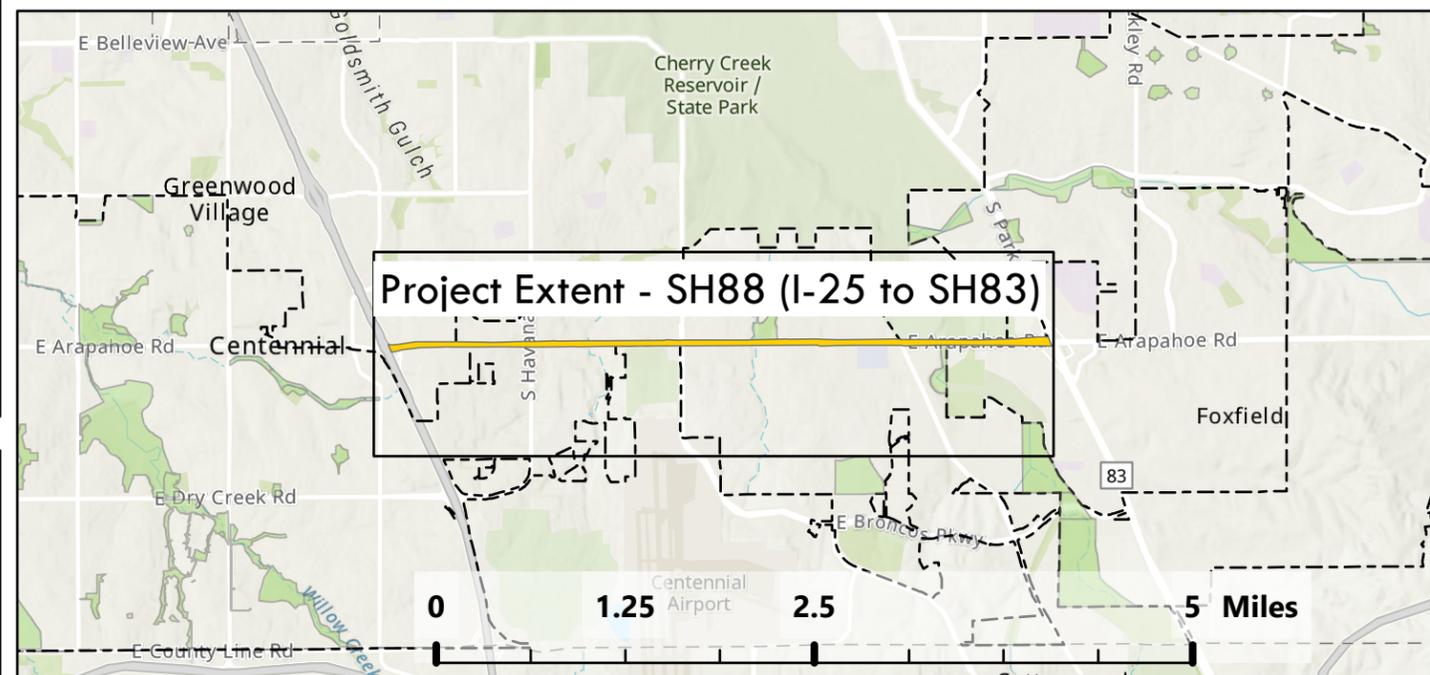
As land redevelopment occurs, owners are required to contribute property to meet the City's standard width for an arterial.

Submit completed applications through the [TIP Data Hub](#) no later than 3pm on March 18, 2022.



Project Summary

Feature	Estimate
Buildings in Corridor	387
Addresses in Corridor	429
Existing Bus Stops	26
Existing Bus Shelters	8
Existing ADA Ramps	170
Proposed Sidewalk (Est Mi.)	2.18
Sidewalk Connections	24
Park Connections	3
Trail Connections	2
Fence Replacement (Est Ft.)	1720



LEGEND

ARAPAHOE SIDE PATHS PROJECT Proposed Sidewalk Sidewalk Sidewalk Connections Fence Replacement Project Extent EXISTING FEATURES TO EVALUATE RTD Bus Stops	RTD Bus Shelters ADA Ramps ARAPAHOE CORRIDOR General Medical and Surgical Hospitals Grocery and Related Product Merchant Wholesalers Schools	Existing Sidewalk Nearby Trails Buildings in Corridor Nearby Parks Corridor (500' Buffer) Commercial Warehouse Congregate Care Residential	JURISDICTIONS ARAPAHOE COUNTY CITY OF AURORA CITY OF CENTENNIAL CITY OF GREENWOOD VILLAGE
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Esri, NASA, NGA, USGS, FEMA, City of Aurora, CO, City of Centennial, County of Arapahoe, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Esri Community Maps Contributors, City of Aurora, CO, City of Centennial, County of Arapahoe, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA



**Side Path Infill Project -
Arapahoe Rd from I-25 to Parker Rd
Estimate of Construction Costs**



Date Prepared: **June 22, 2022**

Item			Unit Cost	Quantity	Extended Cost	Notes
1	Clearing and Grubbing	LS	\$10,000.00	1	\$10,000	10 foot wide and 6 inches thick
2	Earthwork (CIP)	CY	\$30.00	7,500	\$225,000	
3	Hot Mix Asphalt	Ton	\$150.00	165	\$24,800	
4	Curb and Gutter	LF	\$60.00	2,241	\$134,500	
5	Sidewalk	SY	\$100.00	10,800	\$1,080,000	
6	Curb Ramps	SY	\$325.00	208	\$67,600	
7	Sound Wall	SF	\$25.00	13,600	\$340,000	
8	Retaining Wall	SF	\$45.00	6,200	\$279,000	
9						
10						
11						
12						

Total Major Items \$2,160,900

		% of Major Item Cost			
Total Major Items				\$2,160,900	A
Removals / Resets	% of A	5.0%		\$108,100	B-1
Landscaping	% of A	10.0%		\$216,100	B-2
Erosion Control	% of A	5.0%		\$108,100	B-3
Drainage / Dewatering	% of A	5.0%		\$108,100	B-4
Traffic Control / Detour	% of A	3.0%		\$64,900	B-5
Traffic - Striping	% of A	0.0%		\$0	B-6
Mobilization	% of A	12.0%		\$259,400	B-7
Misc. - Lighting/Commercial Signs/Curb Ramps	% of A	5.0%		\$108,100	B-8
Total of Bid Construction Items				\$3,133,700	B
Force Account Items	% of B	10.0%		\$313,400	C-1
Minor Contract Revisions	% of B	5.0%		\$156,700	C-2
Total of Bid Construction Items & Force Account Items				\$3,603,800	C
Construction Management/Materials Testing	% of C	10.0%		\$360,400	D-1
Total Construction Cost				\$3,964,200	D
Utility Relocations	% of D	3.0%		\$119,000	E-1
Contingency (Total Construction Cost)	% of D	10.0%		\$396,500	E-2
Total Project Cost Estimate				\$4,479,700	E

Opinion of Probable Construction Costs

In providing opinions of probable construction cost, the City has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinions of probable construction costs provided herein are to be made on the basis of our qualifications and experience. The City makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs.



June 10, 2022

Jeff Dankenbring
Public Works Director
City of Centennial
13133 E. Arapahoe Road
Centennial, CO 80012

RE: CDOT Region 1 Support Request for DRCOG TIP Subregional Call FY22-FY25

Dear Mr. Dankenbring,

This letter is to inform you that the Colorado Department of Transportation (CDOT) Region 1 concurs with the following City of Centennial application for the Denver Regional Council of Governments (DRCOG) Subregional FY22-25 Transportation Improvement Program (TIP) Call. This concurrence applies only for the Connect Pedestrian and Bike Way on Arapahoe Road from I-25 to Parker Road project, in the event this project is selected by DRCOG as a subregional project on or around August/September 2022. If this subregional project is awarded DRCOG funds at a later date, the local agency will need to submit a separate request for CDOT's concurrence at that time. The project as constructed will be maintained by the local agency, and not by CDOT.

Projects impacting state highways should assume that CDOT will manage the project and that the local agency is responsible for payment of CDOT's work, including indirect charges. An accurate project cost estimation, that accounts for cost escalation, is vital to the success of a project. Please note that per the DRCOG TIP Policy, if project costs increase on DRCOG-selected projects or the cost estimate is low, sponsors must make up any shortfalls. Regardless of CDOT's concurrence or support, sponsors should have no expectation of CDOT funding being available to help cover any funding shortfalls.

This concurrence is conditionally granted based on the scope as described. CDOT does however retain final decision-making authority for all improvements and changes within CDOT's right of way. As the project progresses the local agency will need to work closely with CDOT Region staff to ensure CDOT's continued concurrence.

This project must comply with all CDOT and/or Federal Highway Administration (FHWA) requirements including those associated with clearance for Right of Way, Utilities, and Environmental. All costs associated with clearances including right of way acquisition, utilities relocation, and environmental mitigation measures must be included in the project costs. CDOT staff will assist you in determining which clearances are required for your project. The CDOT Local Agency Manual includes project requirements to assist with contracting, design, and construction, which can be accessed at:

https://www.codot.gov/business/designsupport/bulletins_manuals/2006-local-agency-manual

Should you have any questions regarding this concurrence or if your agency would like to schedule time to meet with CDOT specialty units, please contact JoAnn Mattson at (303) 757-9866.

Sincerely,

Jessica Myklebust
CDOT Region 1 Transportation Director



Anthony DeVita

From: Christopher Quinn <Chris.Quinn@RTD-Denver.com>
Sent: Thursday, May 26, 2022 1:35 PM
To: Arthur Negretti
Cc: Todd Cottrell; Jeff Dankenbring; Anthony DeVita
Subject: RE: ACTF TIP Call #1 - concurrence on Centennial project

Hi Arthur,

This email is to provide RTD's concurrence with the City of Centennial's pedestrian and bikeway improvements project along Arapahoe Road.

We ask that you coordinate with RTD if/when there are any proposed improvements or modifications made to existing bus stops.

Please let me know if I can provide any additional information.

Chris

Chris Quinn

Project Manager

Planning

he | him | his

o. 303.299.2439

chris.quinn@rtd-denver.com

rtd-denver.com



Regional Transportation District
1660 Blake Street, BLK-21
Denver, CO 80202

We make lives better through connections.

From: Arthur Negretti <anegretti@centennialco.gov>
Sent: Monday, May 9, 2022 9:54 AM
To: Christopher Quinn <Chris.Quinn@RTD-Denver.com>; JoAnn Mattson <joann.mattson@state.co.us>
Cc: Todd Cottrell <tcottrell@drcog.org>; Jeff Dankenbring <jdankenbring@centennialco.gov>; Anthony DeVita <adevita@centennialco.gov>
Subject: RE: ACTF TIP Call #1 - concurrence on Centennial project

Hello Chris and JoAnn,

Attached please find an updated request for concurrence for **Call 2 for the Arapahoe Road Side Path Infill Project**. Your response within a week would be greatly appreciated.

Please email Jeff and Anthony.

Thanks,

Arthur Negretti | Engineering Manager

City of Centennial | Public Works

13133 E. Arapahoe Rd., Centennial, CO 80112

Main (303) 325-8000 | Direct 303-754-3304



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
62539	62420	119

(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 ≤ x < 2	2 ≤ x < 3	3 ≤ x < 4	4 ≤ x ≤ 5	
2.494						

OUTPUT

EMISSION REDUCTIONS

Pollutant	Total
Carbon Monoxide (CO)	1.269
Particulate Matter <2.5 μm (PM _{2.5})	0.003
Particulate Matter <10 μm (PM ₁₀)	0.012
Nitrogen Oxide (NOx)	0.097
Volatile Organic Compounds (VOC)	0.082
Carbon Dioxide Equivalent (CO ₂ e)	106.959
Total Energy Consumption (MMBTU/day)	1.391

*Units in kg/day unless otherwise noted

12. Does your subregion/agency pledge financial support to this project, if requested?

Yes No N/A

If yes, provide amount: \$25,000.00 Fiscal year(s) funds are provided in: 2024

If yes, where are funds coming from:

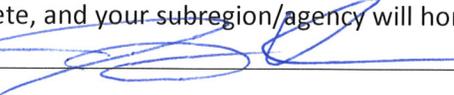
Local Agency (i.e., non-DRCOG funds)

Subregional Funding Target (forum must approve)

13. Please enter your name and date below which certifies the above information is accurate and complete, and your subregion/agency will honor any financial commitments made above:

Name:

Date:

 6/23/2022