

Part 1

Base Information

1. Project Title	Sand Creek Regional Trail Improvements
2. Project <i>Start/End</i> points or Geographic Area <i>Provide a map with submittal, as appropriate</i>	North east of the I-70 and Quebec interchange south to Smith Road and east to the confluence of Sand Creek and Westerly Creek and from Havana St east to the City of Aurora.
3. Project Sponsor (<i>entity that will construct/ complete and be financially responsible for the project</i>)	Denver Parks and Recreation
4. Project Contact Person, Title, Phone Number, and Email	Jason Coffey, DPR Trails Planner, 720-913-0676, Jason.coffey@denvergov.org.

5. 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 with submittal</i>
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6. What planning document(s) identifies this project?	<input type="checkbox"/> DRCOG 2040 Fiscally Constrained Regional Transportation Plan (2040 FC RTP)
	<input checked="" type="checkbox"/> Local plan: Denver Moves: Pedestrians and Trail (2019), #37 High Priority Projects, page 79- The Complete Network, page 72. Game Plan for a Healthy City (2019), Strategy 5.4, page 162.
	<input checked="" type="checkbox"/> Other(s): Sand Creek Regional Greenway Trail, Denver Segment Master Plan (May 2016) <i>Provide link to document/s and referenced page number if possible, or provide documentation with submittal</i>

7. Identify the project's key elements .	
<input type="checkbox"/> Rapid Transit Capacity (2040 FC RTP) <input type="checkbox"/> Transit Other: <input checked="" type="checkbox"/> Bicycle Facility <input checked="" type="checkbox"/> Pedestrian Facility <input checked="" type="checkbox"/> Safety Improvements <input type="checkbox"/> Roadway Capacity or Managed Lanes (2040 FC RTP) <input type="checkbox"/> Roadway Operational	Grade Separation <input type="checkbox"/> Roadway <input type="checkbox"/> Railway <input type="checkbox"/> Bicycle <input type="checkbox"/> Pedestrian <input type="checkbox"/> Roadway Pavement Reconstruction/Rehab <input type="checkbox"/> Bridge Replace/Reconstruct/Rehab <input type="checkbox"/> Study <input type="checkbox"/> Design <input type="checkbox"/> Transportation Technology Components <input type="checkbox"/> Other:

8. Problem Statement What specific Metro Vision-related subregional problem/issue will the transportation project address?
<p>Currently the Sand Creek Regional Trail, the segments shown on the project map as phase A, are unimproved maintenance roads that do not meet the City and County of Denver Regional Trail design standards. The unimproved trail surfaces are subject to flooding, erosion, and mud that create ongoing trail system reliability and maintenance issues. This project will improve the multi-use trail system's reliability in the Denver metro region. Access to the Sand Creek Regional Trail is limited so improving access to the Greenway and Regional Trail from Smith Road will increase access to Open Space, recreation and active transportation options for Northeast Park</p>

Hill, Northfield and Commerce City and improve access to the Central Park RTD station. Road improvements to Smith Road are needed to better accommodate bicycle and pedestrian access to the RTD station and this project includes those improvements.

9. Define the *scope* and *specific elements* of the project.

Design and construct regional trail, with ROW and NEPA, to include realigning the trail, earth work, flood plain work, retaining walls, slope mitigation, landscaping and re-vegetation, concrete and asphalt paving, bridge work, concrete work, signs and markings, railings, site furnishings, re-vegetation and other appurtenances as necessary.

10. Would a smaller DRCOG-allocated funding amount than requested be acceptable, while maintaining the original intent of the project?

Yes No

If yes, define smaller meaningful limits, size, service level, phases, or scopes, along with the cost for each.

Removing the Quebec and I-70 trail connection to Smith Road and the Smith Road improvements would create a smaller project. The limits of the project would change to Quebec and I-70 east to Aurora along the Sand Creek Regional Greenway. This project is shown as phase A on the project map. The smaller project does not have a ROW phase. All costs include 3% escalation per year from 2019.

Cost:

Cost for the smaller project is \$3,217,675. Funding breakdown by year below.

Scope:

Design and construct regional trail, to include NEPA, realigning the trail, earth work, concrete work, flood plain work, retaining walls, slope mitigation, landscaping and re-vegetation, concrete and asphalt paving, signs and markings, railings, site furnishings, re-vegetation and other appurtenances as necessary.

Year	2020	2021	2022	Totals
Federal Amount	\$394,140		\$2,180,000	\$2,574,140
Local Amount	\$98,535		\$545,000	\$643,535
Phase	Design/Environmental		Construction	
Totals	\$492,675		\$2,725,000	\$3,217,675

A. Project Financial Information and Funding Request

1. Total Project Cost		\$8,846,000
2. Total amount of DRCOG Subregional Share Funding Request	\$7,076,800	80% of total project cost
3. Outside Funding Partners (other than DRCOG Subregional Share funds) List each funding partner and contribution amount.	\$\$ Contribution Amount	% of Contribution to Overall Total Project Cost
City and County of Denver	\$1,769,200	20%
	\$	
	\$	
	\$	
	\$	
	\$	
Total amount of funding provided by other funding partners (private, local, state, Regional, or federal)	\$1,769,200	

Funding Breakdown (year by year)*

**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 inflation factor of 3% per year from 2019.*

	FY 2020	FY 2021	FY 2022	FY 2023	Total
Federal Funds	\$833,600	\$508,800		\$5,734,400	\$7,076,800
State Funds	\$	\$	\$	\$	\$0
Local Funds	\$208,400	\$127,200		\$1,433,600	\$1,769,200
Total Funding	\$1,042,000	\$636,000		\$7,168,000	\$8,846,000
4. Phase to be Initiated <i>Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other</i>	Design/Env	ROW		Construction	

5. By checking this box, the applicant's Chief Elected Official (Mayor or County Commission Chair) or City/County Manager for local governments or Agency Director or equivalent for others, has certified it allows this project request to be submitted for DRCOG-allocated funding and will follow all DRCOG policies and state and federal regulations when completing this project, if funded.



Part 2 Evaluation Criteria, Questions, and Scoring

A. Subregional significance of proposed project

WEIGHT **30%**

Provide **qualitative and quantitative** (derived from Part 3 of the application) responses to the following questions on the subregional significance of the proposed project.

1. Why is this project important to the Denver subregion?

The Sand Creek Regional Trail connects City of Commerce City, City and County of Denver and the City of Aurora. The Sand Creek Regional Trail also connects to the South Platte River Trail and the High Line Canal and provides east/west active transportation connectivity and recreation access in the rapidly developing northeast Denver area.

2. Does the proposed project cross and/or benefit multiple **municipalities**? If yes, which ones and how?

The project will provide enhanced off-street bicycle and pedestrian connectivity from the City of Denver to City of Commerce City and the City of Aurora by completing the buildout of the Sand Creek Regional Trail. The project includes a new trail connection and route from the existing Sand Creek Regional Trail at I-70 and Quebec south to Smith Road. This connection to Smith Road will provide enhanced connectivity from Commerce City to the Central Park RTD station.

3. Does the proposed project cross and/or benefit another **subregion(s)**? If yes, which ones and how?

The project will benefit the Adams County Subregion by providing a high-quality bicycle and pedestrian trail linking the communities of City of Commerce City and City of Aurora through Denver. The project also includes a new connection south from the I-70 and Quebec area to Smith Road. This connection to Smith Road will enhance access to the Central Park RTD station and increase connectivity to the A Line for City of Commerce City.

4. How will the proposed project address the specific transportation problem described in the **Problem Statement** (as submitted in Part 1, #8)?

The Sand Creek Regional Trail Improvements project addresses the Metro Vision focus areas of: a Safe and Resilient Natural and Built Environment; a Connected Multimodal Region; Healthy, Inclusive, and Livable Communities; and a Vibrant Regional Economy by building out the last remaining unimproved regional trail corridor in Denver. The Safe and Resilient Natural and Built Environment will be enhanced by concrete paving on the unimproved segments of the trail. This paving will hold up better to flooding and make cleaning up after a flood event easier and provide a firm, stable surface for users. A Connected Multimodal Region will be enhanced by increasing access to RTD for Commerce City, plus Northeast Park Hill and Northfield in Denver. Healthy, Inclusive, and Livable Communities goals will be met by improving access to Open Space and improving the user experience on the regional trail and encourage more use of the trail and Open Space. Building out the regional trail and improving connectivity to recreation and active transportation infrastructure and transit enhances the Denver Metro area's competitive advantage over other western cities by maintaining Denver's reputation for active lifestyles, while helping to advance the multimodal mobility goals of the City and County of Denver.

5. One foundation of a sustainable and resilient economy is physical infrastructure and transportation. How will the **completed** project allow people and businesses to thrive and prosper?

This project will provide buildout of the last unimproved regional trail in the City and County of Denver and will provide this infrastructure in one of the rapidly developing areas of the metro region. The project will fill in the gaps in the regional trail by providing a 12' wide concrete multi-use trail and, where site conditions allow, a 4' wide crusher fine side path in the Sand Creek Greenway corridor. This project will enhance bicycle and pedestrian access to regional transit via the Central Park RTD station, and provide enhanced recreation and active transportation opportunities for the metro area.

6. How will connectivity to different travel modes be improved by the proposed project?

The project includes a trail connection and route south from Sand Creek Regional Trail at I-70 and Quebec to Smith Road, with some improvements to Smith Road, designed to enhance bicycle and pedestrian access to the Central Park RTD station. Walking, bicycling, and transit opportunities will all be enhanced with this project.

7. Describe funding and/or project partnerships (*other subregions, regional agencies, municipalities, private, etc.*) established in association with this project.

The project has letters of support from Sand Creek Greenway Partnership and Urban Drainage and Flood Control District.

B. DRCOG Board-approved Metro Vision TIP Focus Areas and Specific Denver Goals

WEIGHT

30%

Provide **qualitative and quantitative** (derived from Part 3 of the application) responses to the following questions on how the proposed project addresses the three DRCOG Board-approved Focus Areas (in bold).

VULNERABLE POPULATIONS AND EQUITY

1.A. Describe how the project will **improve mobility infrastructure and services for vulnerable populations (including improved transportation access to health services)** as defined in the [Adopted 2020-2023 TIP Policy](#):

Trails provide a “high comfort, low stress” way for residents to navigate their city. Many residents are interested in alternative transportation, such as biking or walking throughout the city, but see safety and convenience concerns as considerable barriers. Improving the trail infrastructure at Sand Creek will alleviate some of these fears, providing an opportunity for active transportation for residents of Commerce City, northeast Denver and northwest Aurora. The Denver Regional Equity Atlas shows a high number of children ages 5-17 within one mile of the Sand Creek Regional Trail. Children make up nearly 20% of the population of the two census block groups intersecting the 1-mile radius of the project site. There are between 6 - 10 CDPHE regulated health facilities within the two adjacent census block groups that contain the trail and trail connection.

Additionally, the trail connects to areas where as many as 40% of households do not have access to a vehicle. The project will construct a new trail connection, route and shared use sidewalk from Smith Road to Sand Creek Regional Trail near I-70 and Quebec. Residents in households without a vehicle available are likely to need access to transit and this project will enhance access to transit by building a trail and route to Smith Road to facilitate travel to the Central Park RTD station from Sand Creek Regional Trail. The project will provide bicycle and pedestrian access to transit in areas where as many as 50% of households face poverty. The areas surrounding the project site are predominantly minority populations, with the two adjacent census block groups containing between 25% to 50% minorities and many of the surrounding block groups having 50% to 95% minorities. This project will directly serve neighborhoods with a high percentage of minorities and people without personal vehicles, providing non-automobile dependent access to jobs and healthcare facilities.

1.B. Describe how your project is consistent with **Denver’s commitments to Equity principles** as defined below, and discussed in more detail in Chapter 4, Access to Opportunity, in the [Blueprint Denver \(Public Review Draft August 6, 2018\)](#).

Equity is providing everyone with access to opportunity regardless of income level, race, ethnicity, gender, ability, or age.

The August 6 draft of Blueprint Denver highlights Access to Opportunity as one of the key elements for addressing equity challenges. Building out the Sand Creek Regional Trail and connecting I-70 and Quebec to Smith Road with a multi-use trail, route and shared use sidewalk will enhance opportunities to access open space and active transportation options. In addition, the connection from I-70 and Quebec to Smith Road promotes access to the Central Park RTD station for residents of Northeast Park Hill and Commerce City. These recreation and transportation options will improve access to a high quality of life. Improved access to transit will increase opportunities to reach employment without the expense of driving an automobile. Trails are free to use and open to people of all backgrounds and abilities. Trails provide a safe, comfortable way for residents to move about the city, enjoying recreation opportunities and alternative commuter routes.

RELIABILITY OF THE MULTIMODAL TRANSPORTATION NETWORK

2.A. Describe how the project will **increase reliability of existing multimodal transportation network** as defined in the [Adopted 2020-2023 TIP Policy](#):

The project will improve the reliability of the existing Sand Creek Regional Trail by constructing a concrete trail in place of the unimproved service roads currently serving as the trail in segments of the corridor. These unimproved segments are subject to washouts and erosion during storm events and lead to disruptions in trail use patterns. This project will increase the reliability by providing a consistent surface type and decreasing delays caused by seeking alternate routes or having to proceed very slowly in muddy or slippery conditions.

2.B. Describe how the project will meet the goals of the [Denver Mobility Action Plan](#).

Meeting Mobility Action Plan mode shift goals of 30% commute mode share by 2030 will only be accomplished if Denver does everything it can to encourage commuters to get out of their cars. This project is a critical step towards delivering “a multi-modal network that encourages mode shift” (p.5), as this is the last regional trail in Denver to be built out. This project also works to “protect the climate and improve public health” by increasing “access to cleaner and healthier transportation choices” (p.6) by improving the high comfort/low stress multi-use trail network. Trails are the safe option people want when choosing to bicycle or walk to work or to access transit, and improving trails encourages bicycling and walking for recreation, which can improve public health outcomes. We must continue to improve the trail network if Denver is going to meet Mobility Action Plan goals.

2.C. If applicable, describe how the project will **increase multimodal person-trip capacity and access** as described in the [Denver Strategic Transportation Plan \(2008\)](#).

The 2008 Strategic Transportation Plan lays out a strategy for increasing person-trip, and building out Sand Creek Regional Trail and providing a new trail connection from Quebec/I-70 helps accomplish these goals. The project focuses on physical improvements designed to facilitate person-tips. Regional trails are designed for bicycle and pedestrian trips that are inherently non-automobile and definitively person-trips. Connecting Sand Creek Regional Trail to Smith Road (from Quebec and I-70) improves access to the regional trail for Northeast Park Hill residents. Additionally, this new trail connection, route, shared use sidewalk and the proposed improvements on Smith Road will better connect Northeast Park Hill and Commerce City to the Central Park RTD station. Connectivity of high comfort/low stress bicycle and pedestrian facilities are key to increasing the potential for non-automobile person-tips.

TRANSPORTATION SAFETY AND SECURITY

3A. Describe how the project will **improve transportation safety and security** as defined in the *Adopted 2020-2023 TIP Policy*:

The trail will be constructed of concrete to meet ADA guidelines and improve the current compacted soil condition in the currently unimproved segments. The improved trail surface will reduce the likelihood of slips and falls caused by loose material or inclement weather conditions. The Sand Creek Regional Greenway has some areas with frequent encampments. Part of the reason for these encampments is lower use of the trail due to the unimproved condition of the trail corridor. The average daily user count from 7/31/17 through 08/29/17 was 173. Once the trail is improved we anticipate use to increase and hope the increase in desired use could act to discourage nuisance uses like encampments along the trail corridor. The benefits of the improved trail surface and the benefits of more trail users will improve the safety and security for trail users.

3B. Describe how the project will meet the goals of [Denver's Vision Zero Action Plan](#).

By reducing or eliminating conflicts with automobiles, trails provide some of the safest active transportation and recreation routes available. Improving and expanding facilities designed exclusively for bicycle and pedestrian use will reduce conflicts with motor vehicles, helping Denver get to zero traffic deaths.

C. Consistency & Contributions to Transportation-focused Metro Vision and Denver Plans, Goals, and Objectives

WEIGHT **30%**

Provide **qualitative and quantitative** responses (derived from Part 3 of the application) to the following items on how the proposed project contributes to Transportation-focused Objectives (in bold) in the adopted Metro Vision plan. Refer to the expanded Metro Vision Objective by clicking on links. In addition, provide information related to the consistency with Denver goals, objectives, plans, and priorities.

[MV objective 2](#)

Contain urban development in locations designated for urban growth and services.

1. Will this project help focus and facilitate future growth in locations where urban-level infrastructure already exists or areas where plans for infrastructure and service expansion are in place?

Yes No

Describe, including supporting quantitative analysis

The Sand Creek Regional Trail sits within the Sand Creek Regional Greenway and in the City and County of Denver the Greenway is surrounded by Stapleton. Stapleton is a master-planned community designed to accommodate population growth within Denver. This project will provide multi-modal connectivity for residents of Stapleton, a connection to and from Commerce City and Aurora to the South Platte River Trail, and bicycle and pedestrian access to Northeast Park Hill. The communities adjacent to the Sand Creek Regional Trail are all built out or already planned for future development with all supporting infrastructure.

[MV objective 3](#)

Increase housing and employment in urban centers.

2.A. Will this project help establish a network of clear and direct multimodal connections within and between urban centers, or other key destinations?

Yes No

Describe, including supporting quantitative analysis

This project will improve the existing Sand Creek Regional Trail and provide a new trail connection and route from I-70 and Quebec to Northeast Park Hill. The new connection to Northeast Park Hill will provide enhanced connectivity to the RTD Central Park Station for trails users from Commerce City and the Northeast Park Hill neighborhood. The Sand Creek Regional Trail connects to the South Platte River Trail and the High Line Canal Trail, and completing Sand Creek Regional Trail improves the connectivity of the regional trail network in City and County of Denver. Improving access to RTD light rail and improving the regional trail network both facilitate access to urban centers.

2.B. How does this project focus or serve desired growth in areas identified on the Places map (Chapter 5, p. 126) in the [Blueprint Denver \(Public Review Draft August 6, 2018\)](#)?

The proposed connection from Quebec and I-70 to Smith Road will provide access to the future Regional Center surrounding the Central Park RTD station. This connection would include improvements to the Smith Road bridge over Quebec to enhance the comfort level for bicycles and pedestrians from Northeast Park Hill and Commerce City traveling to the Regional Center. Building out the regional trail in the Sand Creek Greenway will provide an

active transportation and recreation amenity for the Value Manufacturing District to the north of the Greenway. This project has the potential to increase the use of bicycling, walking and transit to jobs.

MV objective 4

Improve or expand the region’s multimodal transportation system, services, and connections.

3.A. Will this project help increase mobility choices within and beyond your subregion for people, goods, or services?

Yes No

Describe, *including supporting quantitative analysis*

The project will improve the region's multimodal transportation system by building out the Sand Creek Regional Trail to current trail standards, providing a more reliable connection between Commerce City and other areas of Adams County through Denver. The improved connection will also provide transit access from north Denver to the rest of the city and county. Segments of the trail today are dirt and gravel access roads and those unimproved segments will be reconstructed with a 12' wide concrete trail accompanied by a soft-surface side path. These improvements will make the Sand Creek Regional Trail more appealing to use and improve ADA accessibility with improved surfaces and grades. The project includes a new trail segment and route from I-70 and Quebec to Northeast Park Hill and Smith Road. This connection to Smith Road and the Northeast Park Hill neighborhood will increase mobility options by improving bicycle and pedestrian access to the RTD Central Park Station located off Smith Road.

3.B. If applicable, describe how this project is consistent with Denver’s specific alternative mode and/or project priorities contained in one or more of **Denver’s modal plans linked below or small area plans** (Neighborhood Planning Initiative, corridor plans, station area plans, Next Steps Studies, etc.). See Denvergov website: denvergov.org search bar and specific plan links below:

NOTE: The application does not need to address numerous plans. Provide documentation for the most applicable or relevant document(s) or plan(s).

Examples are listed below:

- Denver Moves: Transit
<https://www.denvergov.org/content/denvergov/en/denveright/transit.html>
- Denver Moves: Pedestrian and Trails
<https://www.denvergov.org/content/denvergov/en/denveright/pedestrians-trails.html>
- Denver Moves: Bicycles
https://www.denvergov.org/content/dam/denvergov/Portals/708/documents/FINAL_Denver_Moves.pdf
- Transit Oriented Development (TOD) Strategic Plan
https://www.denvergov.org/content/dam/denvergov/Portals/193/documents/TOD_Plan/TOD_Strategic_Plan_FINAL.pdf
- Small area plans (Neighborhood Planning Initiative, corridor plans, station area plans, Next Steps studies, etc.)

This project directly implements a strategy from the Game Plan for a Healthy City, 2019 Public Review Draft by upgrading and expanding the regional trail system. [[Game Plan for a Healthy City, 2019 Public Review Draft, Strategy 5.4, page 162.](#)]

This project also addresses several goals, standards and a specific project from the Denver Moves: Pedestrians and Trails, 2019 Draft. The goals of connectivity, destination access and safety are advanced by this proposed project. The buildout of the complete trail network is another plan element addressed by this project: building out the Sand Creek Regional Trail in Denver and providing a new connection to Smith Road from Quebec and I-70. [[Denver Moves: Pedestrians and Trails, 2019 Draft](#), Trails Element, Vision, Statement of Purpose, Goals &

Performance Measures, Goals and Performance Measures- Goal: 1 Connectivity, Goal: 2 Destination Access, Goal: 5 Safety (page 52)- Existing Conditions Recap, Goal: 2 Destination Access (page 53)- Infrastructure, Trail Design, Standard Cross Sections (page 56-57)- Benefits of the Complete Network- Bullet 4 (page 72)- High Priority Project Descriptions, #37 (page 79).]

MV objective 6a

Improve air quality and reduce greenhouse gas emissions.

4.A. Will this project help reduce ground-level ozone, greenhouse gas emissions, carbon monoxide, particulate matter, or other air pollutants?

Yes No

Describe, *including supporting quantitative analysis*

Improving air quality and reducing greenhouse gas emissions is one of the key drivers in developing and maintaining a world class multi-use trail network. Building out the unimproved sections of Sand Creek Regional Trail and providing better bicycle and pedestrian connectivity from the I-70 and Quebec interchange south to Northeast Park Hill increases the likelihood people will choose to make non-motor vehicle trips. One goal of the project is to increase the connectivity to the RTD Central Park Station and this could encourage people to bike or walk to the RTD station and take the train. The trail counts available do not differentiate between bike or pedestrian trips. Without knowing what the actual number of trail users will be it is hard to quantify what level of GHG emissions will be reduced, but providing the best multimodal opportunities is part of the overall strategy for reducing congestion and vehicle hours of delay and thus produces benefits to GHG emission levels. Cyclists and pedestrians produce little to no emissions during their commute whereas a typical vehicle in the U.S. emits about 404 grams of CO2 per mile, or 4.6 metric tons of carbon dioxide per year (<https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>).

4.B. If applicable, describe how this project is consistent with, or helps implement, Denver’s [80x50 Climate Action Plan](#), which set the City’s target to **reduce greenhouse gas emissions to 80% below 2005 levels by 2050**, and/or Denver’s [2020 Sustainability Goals](#).

Increasing active transportation options is a tool to encourage mode shift. This anticipated mode shift will reduce the number of automobiles on the road, thereby reducing emissions of ground-level ozone, greenhouse gases, carbon monoxide, and other pollutants. According to the EPA, transportation contributes equivalent greenhouse gas emissions to energy production in the U.S. (<https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>). Encouraging Denver citizens to find alternatives to automobile transit for work or leisure will play a significant role in meeting the City’s sustainability goals and improving air quality.

4.C. If applicable, describe if this project contains **water quality and green infrastructure** consistent with project types and focus areas identified in Denver’s [Green Infrastructure Implementation Strategy](#):

Sand Creek is a tributary of the South Platte River and improvements to the infrastructure within the Sand Creek Greenway, such as the Sand Creek Regional Trail are important because of the potential benefits to South Platte River Watershed. The benefit is reduced sediment flows by reducing the amount of material washed into the creek during high flow events. The concrete trail stabilizes the bank of the creek and will be designed with floods and high flow events in mind. Revegetation of the construction area will further help to stabilize soil along the creek and reduce sediment flow into the South Platte River. Additionally, Benefits of Green Infrastructure, section 2.5 (p.11) lists improved public health outcomes including, “increased physical activity such as walking and biking, improved mental wellbeing for all ages, reduced stress, and improved actual and perceived safety due to more pedestrian activity” as important elements of green infrastructure. This project will benefit these aspects and benefits of green infrastructure by providing a high quality active transportation and pedestrian facility that

enhances access to natural environments and open space while helping to stabilize the creek bank in one of the tributaries in the South Platte River Watershed.

[MV objective 7b](#)

Connect people to natural resource or recreational areas.

5.A. Will this project help complete missing links in the regional trail and greenways network or improve other multimodal connections that increase accessibility to our region’s open space assets?

Yes No

Describe, *including supporting quantitative analysis*

The Sand Creek Regional Greenway Trail is the last regional trail in Denver to be built out, and connects northeast Denver residents and businesses with the South Platte River Trail. The Sand Creek Regional Trail runs adjacent to the Sand Creek and is within the Sand Creek Regional Greenway. The Greenway is a natural resource and recreation area and this project will increase access to the natural and recreation resources by improving access to the Greenway via the trail. The connection from Quebec and I-70 to Northeast Park Hill will dramatically improve access to natural resources and recreational areas by providing a high-quality connection where the bicycle and pedestrian infrastructure is currently lacking.

5.B. If applicable, describe how your project meets the goals, objectives and priorities of the Denver Department of Parks and Recreation’s [Game Plan for a Healthy City \(Public review draft 2019\)](#).

This project addresses two of the Guiding Principles from the Game Plan: Every Person and Uniquely Denver by directly implementing strategy 5.4 listed in the plan. Strategy 5.4 states, “upgrade and expand regional trail system to meet new standards to improve safety, connectivity, wayfinding, and access.” Sand Creek Regional Trail connects Aurora, Denver and Commerce City to the South Platte River Trail (SPRT). SPRT is the main north/south regional trail connecting the Denver metro area to downtown. Additionally, the new connection to Smith Road and improvements to Smith Road will promote connectivity to Central Park RTD station for Northeast Park Hill in Denver and for Commerce City. The proposed project is exactly the type of project called for in the Game Plan for a Healthy City on page 162 by “connecting the communities that comprise the metropolitan area to Denver’s urban core.”

[MV objective 10](#)

Increase access to amenities that support healthy, active choices.

6. Will this project expand opportunities for residents to lead healthy and active lifestyles?

Yes No

Describe, *including supporting quantitative analysis*

Improving the Sand Creek Regional Trail and providing a new connection to Northeast Park Hill will increase access to amenities that support healthy and active choices. Access to high quality trails provides opportunities for individuals to be physically active through recreation or active transportation choices. This project will improve access to these active lifestyle choices that will benefit individual and public health.

[MV objective 13](#)

Improve access to opportunity.

7.A. Will this project help reduce critical health, education, income, and opportunity disparities by promoting reliable transportation connections to key destinations and other amenities?

Yes No

Describe, *including supporting quantitative analysis*

This project will improve access to active transportation and outdoor recreation opportunities in the Sand Creek Regional Greenway, and improve the overall quality of Sand Creek Regional Trail by building out the last remaining segment of regional trail in the City and County of Denver yet to be fully paved. The connection to Northeast Park Hill is designed to improve access to the regional trail network for a neighborhood currently cut off from easy bicycle and pedestrian access to Sand Creek Regional Trail by the Quebec and I-70 interchange.

7.B. Describe how your project addresses the neighborhood inequities related to transportation as depicted and mapped in the **Denver Neighborhood Equity Index** which was produced by the Denver Department of Public Health and Environment, which helps to inform decision makers about where city investment and resources are needed most for those living in Denver’s underserved neighborhoods?

General information on the Neighborhood Equity Index is on the Denvergov website:

<https://www.denvergov.org/content/denvergov/en/environmental-health/community-health/health-in-all-policies.html>

See the interactive map, by opening this [link](#) in a new window. The source of each indicator is described in the map. Click on each individual link and see specific map layers; for example, in Built Environment, there is information on “Access to Parks” separately.

Northeast Park Hill is a Denver neighborhood with residents facing the “highest hurdles to living healthy lives” according to the Denver Neighborhood Equity Index mapping tool. The proposed connection from the Sand Creek Regional Trail to Smith Road will increase access to the Sand Creek Greenway Open Space as well as active transportation options. Northeast Park Hill is also shown as a neighborhood in need of higher level of access to parks and this project will provide greater access to the parks within Stapleton if the Smith Road connection is built. In addition to completing the buildout of Denver’s portion of the Sand Creek Regional Trail, this project aims to improve access to recreation, active transportation and transit for residents of Northeast Park Hill.

MV objective 14

Improve the Denver Subregion’s competitive position.

8. Will this project help support and contribute to the growth of the subregion’s economic health and vitality?

Yes No

Describe, *including supporting quantitative analysis*

The contributions to the growth of the region's economic health and vitality may be indirect, but completing a world class regional trail network is certainly a positive for the region. The Denver region is already known as a center for outdoor recreation and active lifestyles and this project supports the City and County of Denver's position in this space. Providing infrastructure for multimodal transportation also enhances Denver's competitive advantage over other cities in the region and provides the infrastructure supportive of the Mobility Action Plan mode share goals of 30% of commuters taking transit, biking or walking by 2030.

D. Project Leveraging

WEIGHT 10%

9. What percent of outside funding sources (non-DRCOG-allocated Subregional Share funding) does this project have?

%

60%+ outside funding sourcesHigh
 30-59%Medium
 29% and below Low

Part 3

Project Data Worksheet – Calculations and Estimates

(Complete all subsections applicable to the project)

A. Transit Use

1. Current ridership weekday boardings	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Transit Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional daily transit boardings after project is completed. <i>(Using 50% growth above year of opening for 2040 value, unless justified)</i> <i>Provide supporting documentation as part of application submittal</i>	0	0
4. Enter number of the additional transit boardings (from #3 above) that were previously using a different transit route. <i>(Example: {#3 X 25%} or other percent, if justified)</i>	0	0
5. Enter number of the new transit boardings (from #3 above) that were previously using other non-SOV modes (walk, bicycle, HOV, etc.) <i>(Example: {#3 X 25%} or other percent, if justified)</i>	0	0
6. = Number of SOV one-way trips reduced per day (#3 – #4 – #5)	0	0
7. Enter the value of {#6 x 9 miles} . (= the VMT reduced per day) <i>(Values other than the default 9 miles must be justified by sponsor; e.g., 15 miles for regional service or 6 miles for local service)</i>	0	0
8. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	0	0
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:		

B. Bicycle Use

1. Current weekday bicyclists	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Bicycle Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional weekday one-way bicycle trips on the facility after project is completed.	0	0
4. Enter number of the bicycle trips (in #3 above) that will be diverting from a different bicycling route. (Example: {#3 X 50%} or other percent, if justified)	0	0
5. = Initial number of new bicycle trips from project (#3 – #4)	0	0
6. Enter number of the new trips produced (from #5 above) that are replacing an SOV trip. (Example: {#5 X 30%} or other percent, if justified)	0	0
7. = Number of SOV trips reduced per day (#5 - #6)	0	0
8. Enter the value of {#7 x 2 miles} . (= the VMT reduced per day) (Values other than 2 miles must be justified by sponsor)	0	0
9. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	0	0
10. If values would be distinctly greater for weekends, describe the magnitude of difference:		
11. If different values other than the suggested are used, please explain here:		

C. Pedestrian Use

1. Current weekday pedestrians (include users of all non-pedaled devices)	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Pedestrian Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional weekday pedestrian one-way trips on the facility after project is completed	0	0
4. Enter number of the new pedestrian trips (in #3 above) that will be diverting from a different walking route (Example: {#3 X 50%} or other percent, if justified)	0	0
5. = Number of new trips from project (#3 – #4)	0	0
6. Enter number of the new trips produced (from #5 above) that are replacing an SOV trip. (Example: {#5 X 30%} or other percent, if justified)	0	0
7. = Number of SOV trips reduced per day (#5 - #6)	0	0

12. Enter the value of {#7 x .4 miles} . (= the VMT reduced per day) <i>(Values other than .4 miles must be justified by sponsor)</i>	0	0
8. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	0	0
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:		

D. Vulnerable Populations

	Vulnerable Populations	Population within 1 mile
	Use Current Census Data	1. Persons over age 65
2. Minority persons		0
3. Low-Income households		0
4. Linguistically-challenged persons		0
5. Individuals with disabilities		0
6. Households without a motor vehicle		0
7. Children ages 6-17		0
8. Health service facilities served by project		0

E. Travel Delay *(Operational and Congestion Reduction)*

Sponsor must use industry standard Highway Capacity Manual (HCM) based software programs and procedures as a basis to calculate estimated weekday travel delay benefits. *DRCOG staff may be able to use the Regional Travel Model to develop estimates for certain types of large-scale projects.*

1. Current ADT (average daily traffic volume) on applicable segments	0
2. 2040 ADT estimate	0
3. Current weekday vehicle hours of delay (VHD) (before project)	0

Travel Delay Calculations	Year of Opening
4. Enter calculated future weekday VHD (after project)	0
5. Enter value of {#3 - #4} = Reduced VHD	0
6. Enter value of {#5 X 1.4} = Reduced person hours of delay <i>(Value higher than 1.4 due to high transit ridership must be justified by sponsor)</i>	0
7. After project peak hour congested average travel time reduction per vehicle (includes persons, transit passengers, freight, and service equipment carried by vehicles). <i>If applicable, denote unique travel time reduction for certain types of vehicles</i>	0
8. If values would be distinctly different for weekend days or special events, describe the magnitude of difference.	

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

F. Traffic Crash Reduction

1. Provide the current number of crashes involving motor vehicles, bicyclists, and pedestrians (<i>most recent 5-year period of data</i>)		Sponsor must use industry accepted crash reduction factors (CRF) or accident modification factor (AMF) practices (<i>e.g., NCHRP Project 17-25, NCHRP Report 617, or DiExSys methodology</i>).
Fatal crashes	0	
Serious Injury crashes	0	
Other Injury crashes	0	
Property Damage Only crashes	0	
2. Estimated reduction in crashes <u>applicable to the project scope</u> (<i>per the five-year period used above</i>)		
Fatal crashes reduced	0	
Serious Injury crashes reduced	0	
Other Injury crashes reduced	0	
Property Damage Only crashes reduced	0	

G. Facility Condition

Sponsor must use a current industry-accepted pavement condition method or system and calculate the average condition across all sections of pavement being replaced or modified.
Applicants will rate as: Excellent, Good, Fair, or Poor

Roadway Pavement

1. Current roadway pavement condition	Choose an item
2. Describe current pavement issues and how the project will address them.	
3. Average Daily User Volume	0

Bicycle/Pedestrian/Other Facility

4. Current bicycle/pedestrian/other facility condition	Poor
5. Describe current condition issues and how the project will address them.	
<p>The Sand Creek Regional Trail has been partially developed and this project seeks to complete the trail by filling in the gaps. Projects have taken place over the years that have improved segments of the trail but major sections remain little more than dirt maintenance roads. These dirt segments are difficult to maintain and subject to erosion and become very muddy after precipitation events. The segment from Westerly Creek to Havana Street has been improved and will not have trail improvements as part of this project, and the segment currently under construction with the Martin Luther King Blvd extension project will be completed by the time this project goes to construction. The segment improved under the rail road tracks by Central Park Blvd will be included to assess whether crusher fines can be added to the existing improved concrete trail. Other than the couple segments where improvements will not be made the entire corridor will be evaluated for improvements and the addition of amenities. The project map helps to delineate the various segments, but all the areas shown on the map in Phase A will be evaluated for potential improvements.</p>	

Phase B of the project seeks to extend a route from the existing Sand Creek Regional Trail at Quebec and I-70 down to Smith Road. This phase of the project also envisions improvements to the Smith Road bridge over Quebec to better accommodate bicycle and pedestrian connectivity to the RTD light rail station at Central Park. Together with the trail, route and bicycle and pedestrian improvements on Smith Road, access to Open Space, recreational and active transportation facilities and transit will be enhanced.

The existing count data for Sand Creek Regional Trail does not differentiate between bicycle and pedestrian use. The counts are user counts and combine both types of use. Therefore, section B and C of Part 3 of the application are not completed but the existing user counts are shown below. The counts below show the average daily user volume, the date range and the count location.

6. Average Daily User Volume: Sand Creek Regional Trail from 09/05/15 to 07/05/16 at I-70 and Quebec	74
7. Average Daily User Volume: Sand Creek Regional Trail from 07/31/17 to 08/29/17 at Union Pacific Rail Road tracks	173

H. Bridge Improvements

1. Current bridge structural condition from CDOT	
2. Describe current condition issues and how the project will address them.	
3. Other functional obsolescence issues to be addressed by project	
4. Average Daily User Volume over bridge	0

I. Other Beneficial Variables *(identified and calculated by the sponsor)*

1.	
2.	
3.	

J. Disbenefits or Negative Impacts *(identified and calculated by the sponsor)*

1. Increase in VMT? <i>If yes, describe scale of expected increase</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Negative impact on vulnerable populations	

3. Other: