Part 1 Base Information

1. Project Title	**Interstate 270 Corridor Environmental Assessment**
2. Project *Start/End* points or Geographic Area *Provide a map with submittal, as appropriate*	Interstate 270 from approximately Interstate 25 to Interstate 70. See Attachment 1 and Attachment 1.b for a map of the geographic area.
3. Project Sponsor *(entity that will construct/ complete and be financially responsible for the project)*	Adams County
4. Project Contact Person, Title, Phone Number, and Email	Melanie Sloan, Senior Transportation and Mobility Planner, Adams County msloan@adcovog.org, 720.523.6851
5. Does this project touch CDOT Right-of-Way, involve a CDOT roadway, access RTD property, or request RTD involvement to operate service?	☒ Yes ☐ No *If yes, provide applicable concurrence documentation with submittal*

6. What planning document(s) identifies this project?

☒ DRCOG 2040 Fiscally Constrained Regional Transportation Plan (2040 FCRTP)	
☒ Local plan:	Imagine Adams County Transportation Plan, 2012
☒ Other(s):	North Metropolitan Industrial Area Connectivity Study CDOT 10-Year Development Program 2040 Colorado Statewide Transportation Plan
Provide link to document/s and referenced page number if possible, or provide documentation with submittal	

7. Identify the project's **key elements**.

- ☒ Rapid Transit Capacity (2040 FCRTP)
- ☐ Transit Other:
- ☒ Bicycle Facility
- ☒ Pedestrian Facility
- ☒ Safety Improvements
- ☒ Roadway Capacity or Managed Lanes (2040 FCRTP)
- ☒ Roadway Operational

Grade Separation

- ☐ Roadway
- ☐ Railway
- ☐ Bicycle
- ☐ Pedestrian

- ☒ Roadway Pavement Reconstruction/Rehab
- ☒ Bridge Replace/Reconstruct/Rehab
- ☒ Study
- ☒ Design
- ☒ Transportation Technology Components
- ☐ Other:

8. **Problem Statement** What specific Metro Vision-related subregional problem/issue will the transportation project address?

The Interstate 270 Corridor Environmental Assessment project (I-270 project) will support the 2040 MVRTP goals of A Connected Multimodal Region and a Vibrant Regional Economy through the study and development of designs for future construction on and to the 5.4 mile I-270 corridor (identified as a DRCOG fiscally constrained major roadway) and connecting interstates, regional roadways, employment centers,

neighborhoods and regional trails through the identification of improvements to known safety, reliability, and operational concerns for moving people and goods along this corridor.

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

The I-270 project will complete a National Environmental Policy Act process (consistent with CDOT's environmental assessment template) and complete preliminary designs to address identified safety, reliability and operational issues along the functionally obsolete, congested 5.4-mile Interstate 270 corridor. Considerations of the study and design process will include managed lanes, improvements along and to connections to the South Platte River Trail, interchange improvements, among others.

10. What is the status of the proposed project?

The I-270 corridor has been identified for roadway improvements in the 2040 MVRTP. The Fiscally Constrained MVRTP identified the corridor for CDOT-controlled regional funding in 2035-2040 to construct roadway segment improvements and managed lanes.

Over the past several years, the Central 70 project has consumed the region's attention and funding, suspending the I-270 project's status in regional transportation planning and implementation efforts. With that project in construction, attention has returned to this important, regional corridor.

An Inter-Governmental Agreement (IGA) between CDOT and the HPTE is in place, resulting in completion of a topographical survey and system-level traffic analysis of I-270, valued at $900,000, with Adams County providing $300,000 of those funds (see Attachment 2).

CDOT recently completed a Planning and Environmental Linkages (PEL) study of I-270 and Vasquez Boulevard, including its interchange with I-270. Commerce City is advancing a sub-regional TIP application for immediate improvements to the interchange of these two facilities. Improvements of that project would be completed in such a way that would not conflict with improvements identified through this I-270 project.

The Sand Creek Regional Greenway Trail, Denver Segment (2016), set forth improvements along the regional Sand Creek trail to the boundary between the City and County of Denver and Commerce City in Adams County, east of the I-270 corridor.

The I-270 Environmental Assessment project is the first step towards realizing these planned and potential improvements.

11. 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.

A. Project Financial Information and Funding Request

1. Total Project Cost	**$5.3 million**

2. **Total amount of DRCOG Subregional Share Funding Request**	**$1,800,000**	**34.0%** 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**
Adams County	$2,500,000	47.1%
City of Commerce City	$1,000,000	18.9%
	$	
	$	
	$	
	$	
Total amount of funding provided by other funding partners *(private, local, state, Regional, or federal)*	**$3,500,000**	66.0%

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	$1,800,000		$	$	**$0**
State Funds	$	$	$	$	**$0**
Local Funds	$1,750,000	$1,750,000	$	$	**$0**
Total Funding	$0	$0	$0	$0	**$0**
4. Phase to be Initiated *Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other*	Study	Design	Choose an item	Choose an item	

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 **40%**

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

- Why is this project important to your subregion?

I-270 is a critical component of the region's transportation network, is identified as a regional roadway in the 2040 MVRTP and is included in that report's Fiscally Constrained project list, and is identified as a Primary Highway in the CDOT State Highway Freight Plan.

It is a 5.4-mile long controlled-access interstate highway with two through lanes in each direction that are separated by a depressed median.

It serves as the inner beltway, providing a direct connection to Colorado's only north/south (I-25) and east/west (I-70) interstates. These two interstates will soon incorporate managed lanes, leaving I-270 as a non-managed lane connection between the two.

I-270 corridor plays a critical role in public safety operations, serving as a regional evacuation and hazardous material route.

When initially built, I-270 created access barriers for adjacent vulnerable populations as well as industrial-residential conflicts: these remain today. These barriers inhibit residents' access to the nearby regional Sand Creek and South Platte trails and their access to employment and commercial areas, such as grocery stores. The project area crosses severely depressed census tracts: seven Environmental Justice (EJ) traffic analysis zones are located in the project area, one of which is "minority-concentrated," two are "low-income concentrated;" four are both "low-income and minority-concentrated (See Part 3).

Today, 84,120 individuals live or work within 1-mile of the I-270 corridor; a number that is expected to grow 20 percent by 2040 (See Part 3). The Colorado State Demography Office projects that between 2018 and 2050, population growth will be greater than 200,000 people in each county: Adams and neighboring Denver and Arapahoe counties. The demographer's office also forecasts total job growth between 2017 and 2040 will be greater than 100,000 in neighboring Arapahoe County and between 20,001 and 100,000 jobs in Adams and Denver counties. The three counties of Adams, Arapahoe and Denver are served by I-270 and its interstate connections and provide one another with over 40% of each county's commuting employees. (See Attachments 3, 4 and 5).

I-270 sees daily traffic volumes of 103,000 vehicles per day (vpd) west of the Vasquez Boulevard interchange and approximately 91,000 vpd east of that interchange. By 2040, I-270 is projected to serve nearly 420,000 vehicle trips per day with a truck modal split of nearly 17% daily truck traffic equaling more than 70,000 trucks per day. Today, truck traffic represents 11% of daily travel volumes on I-270, equaling 12,100 trucks per day. For comparison, a typical roadway sees about 2% of its volume as freight/trucks (See Attachments 6 and 7).

Built in the 1960s, the majority of structures, pavement, and drainage within the project area is in poor condition and reaching the end of its useful service life. Facilities built in this era typically used design principles for shorter trucks and lower volumes of freight vehicles than current conditions, creating roadway and interchange designs that are functionally obsolete due to narrower lanes, tighter turning radii and other geometric constraints at interchanges, as well as missing on- and off-ramps.

Functionally, I-270 experiences a three-hour congestion window - nearly three times that of any interstate in the region, and it is projected to reach four-hours of delay by 2040 if no improvements are made to the corridor (See Part 3 and Attachment 8). The 2040 MVRTP Fiscally Constrained plan identifies I-270 as having one of the highest congestion costs to freight businesses in the region, with a majority of the corridor costing greater than $3,000/mile (See Attachment 9).

The age, poor condition, and congestion results in fatal crash rates along the corridor that are higher than the state average. From 2013 – 2017, there were 1,036 reported crashes on the I-270 corridor, five of which were fatalities and 40% of which resulted in injury (421). Most of the crashes were rear-end collisions (815) or sideswipes (261). This high number of rear end accidents is likely due to the condition and congestion along the corridor (See Part 3 and Attachments 10 and 11).

Finally, I-270 is the only Colorado interstate that has not benefitted from comprehensive planning or improvements in the last decade. The Fiscally Constrained MVRTP identified the corridor for CDOT-controlled regional funding in 2035-2040 to construct roadway segment improvements and managed lanes. This project is the first step towards that goal.

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

The I-270 Corridor crosses unincorporated Adams County, Commerce City and the City & County of Denver. The corridor also provides connections to Arvada, Westminster and Federal Heights to the west and Thornton to north via connecting state and interstate highways.

Congestion reduction would improve air quality and reduce greenhouse gas emissions and considerations of the project will include improvements and connections to the adjacent Sand Creek trail and nearby South Platte trail, benefiting the residents of adjacent communities in unincorporated Adams County, Commerce City and the City & County of Denver.

Improved freight and commuter movements would also benefit numerous municipalities along U.S. 85 (Commerce City, City & County of Denver, Brighton) and U.S. 36 (Westminster, Broomfield, Louisville, Superior, and Boulder) through connections with these two interstates.

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

Origin and destination data indicates the majority of daily trips within I-270 are vehicles passing through the corridor to reach destinations on U.S. 36, Interstate 70, or Vasquez Boulevard. Employees commute from Adams, Arapahoe and Denver counties to each other county at a significant rate, with I-270 providing connections between them.

As the region's inner beltway and rural to urban connection, the I-270 project benefits the subregions of Arapahoe, Broomfield, Boulder, Denver, Jefferson and Weld counties, and the cities and suburbs within those counties.

Congestion reduction identified through this project would also support the economic vitality of the metropolitan area by enabling global competitiveness, productivity and efficiency of businesses, as identified in DRCOG's freight planning efforts.

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

The I-270 project will complete a National Environmental Policy Act process consistent with CDOT's environmental assessment template and complete preliminary designs to address identified issues along the functionally obsolete, crash-prone and congested 5.4-mile Interstate 270 corridor. The I-270 project will produce a long-term corridor solution and design process, with managed lanes, technology and other congestion mitigation strategies; provisions for safe and efficient connections to regional pedestrian and bicycle trails; and improvements to the mainline and 6 interchanges along the corridor, included in the study's considerations, among others. Project improvements, identified in the 2040 Fiscally Constrained MVRTP for CDOT-controlled regional funding in 2035-2040, to address known crash, safety, efficiency and congestion problems on the corridor cannot be funded or constructed without first completing this environmental assessment.

- 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?

The I-270 project will study and develop designs for the 5.4 mile corridor that will address current levels of congestion and vehicle hours of delay, provide safety improvements to reduce the number of crashes, including fatal crashes, improve the existing operational issues for truck traffic, prepare for the population and employment growth of the Adams County subregion and economically linked subregions of Arapahoe, Denver, Jefferson and Boulder counties, provide improved, safer access to pedestrian and bicycle trail systems within the project area, and explore the potential for managed lanes to address the projected increased travel volumes while providing reliable travel times.

Maintaining a vibrant economy depends upon the region's ability to work together toward the following outcomes:

1. All residents have access to a range of transportation, employment, commerce, housing, educational, cultural and recreational opportunities.
2. Investments in infrastructure and amenities allow people and businesses to thrive and prosper.

To obtain these outcomes requires that transportation system improvements that improve the flow of people, goods and services, be funded; that local and regional transportation services improve personal mobility, housing and employment access, as well as independence and well-being, especially for those with mobility obstacles or impairments; and that underserved populations and those negatively impacted by prior transportation decisions receive at least a proportionate share of transportation benefits relative to the entire regional population. These MetroVision strategies will be part of the I-270 project study and ultimately realized through improvements of this corridor.

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

The I-270 project will study and identify opportunities to remove the barrier effect the interstate has to nearby Sand Creek and South Platte regional trails for those walking and biking.

Crash, safety, efficiency and congestion improvements identified through the project will ultimately support vehicle and freight movements along the corridor—as well as support current and potential

expansion of the successful Flatiron Flyer, which serves the US36 corridor, the Peoria/Smith transit station and Denver International Airport, and vehicle access to nearby N-line commuter rail stations and park-and-rides. The consideration of managed lanes in the assessment will also support different travel modes through providing reliable travel times.

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

This project builds on long standing partnerships with and the support of CDOT and Commerce City, through which over half of the I-270 corridor travels. Several CDOT studies of the corridor are ongoing or completed CDOT. The Denver and Boulder subregions politically recognize the benefit of an improved I-270 corridor, which will begins with the completion of the environmental assessment (Attachment 12).

B. DRCOG Board-approved Metro Vision TIP Focus Areas

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).*

1. Describe how the project will **improve mobility infrastructure and services for vulnerable populations (including improved transportation access to health services).**

The project area has long-standing challenges, including creating barriers for residents and employees to access commercial areas, grocery stores and other goods and services, and conflicts between industrial and residential uses. These occur within severely depressed census tracts: seven Environmental Justice (EJ) traffic analysis zones are located in the project area, one of which is "minority-concentrated," two are "low-income concentrated;" four are both "low-income and minority-concentrated (See Part 3).

An example of the barrier I-270 creates is experienced by residents of the Globeville, Elyria and Swansea neighborhoods, who travel by car to obtain food, goods and services at the commercial area at Vasquez Boulevard/60th Avenue. Residents cannot access these necessary goods and services closer to home because they do not exist in their neighborhoods. Man-made and natural barriers to pedestrian and bicycle facilities (including the nearby Sand Creek and South Platte regional trails) allow for no safer, more comfortable route to this area than by car.

Providing reasonable travel options through safer and more reliable travel times, support of convenient and reliable public transportation, and safer pedestrian and bicycle facilities to individuals who do not own vehicles is a critical factor to ensuring access to jobs and the ability to participate in the same quality of life as the general population.

Long-term corridor improvements could enhance existing, proposed and new multimodal routes providing increased active transportation options and the potential for better health outcomes of these residents.

Ultimately, the project provides an opportunity to correct many of the problems caused by the original interstate construction.

2. Describe how the project will **increase reliability of existing multimodal transportation network.**

I-270 is a critical regional asset that serves as a direct connection between I-25 and I-70, is a CDOT Primary Highway in the state's Highway Freight Plan, is a route for the Flatiron Flyer regional bus service, which

serves the US36 corridor, the Peoria/Smith transit station and Denver International Airport, serves as an official hazardous material route for the region, and serves as a regional evacuation route.

Travel reliability on I-270 impacts vehicular, freight, and transit operations, safety and efficiency (including for emergency responders) both on the corridor and on the local street network at the interchanges (See Part 3). The current three-hours of delay, and projection of four-hours of delay in 2040, severely inhibits the corridor's reliability today and in a future of projected growth within the project area (in both population and employment). Without improvements, this future demand will exacerbate the current levels of congestion and place more of a burden on the local street network as drivers divert their route from I-270.

Identifying a long-term solution for the I-270 Corridor will allow reliable trip times, balancing increased travel demand in a sustainable manner.

3. Describe how the project will **improve transportation safety and security.**

The 50-year-old highway has many design deficiencies and is generally in poor condition. 75% of the I-270 corridor has an asphalt surface, the majority of which is severely cracked and worn. The remaining 25% has a concrete surface in fairly good condition. A 1,000-foot segment of the interstate was built over a municipal solid waste landfill and is seeing secondary compression settlement. In some areas, the settlements ranch from 16.5 to 33 inches, resulting in undulating distress areas with "roller coaster" type sections (See Attachment 13).

A total of 12 bridge structures are in the corridor; nine are rated as good and three are rated as fair or poor. The majority of the structures between I-70 and I-76 are functionally obsolete and nearing the end of their useful life

Within the corridor, there are three system interchanges (I-70, I-76, an I-25/U.S. 36) and three service interchanges (Quebec Street, U.S. 85/Vasquez Boulevard, and York Street). Many of the interchanges in the corridor are missing ramps, which requires traffic to take a more circuitous route to access the interstate. Additionally, the high number of interchanges along the corridor increases the potential for crashes due to poor designs and weaving movements as drivers seek to maneuver across travel lanes and interstate on- and off-ramps.

The age, poor condition, and congestion results in fatal crash rates along the corridor that are higher than the state average. From 2013 – 2017, there were 1,036 reported crashes on the I-270 corridor, five of which were fatalities and 40% of which resulted in injury (421). Most of the crashes were rear-end collisions (815) or sideswipes (261). This high number of rear end accidents is likely due to the condition and congestion along the corridor.

This project is the first step toward realizing a safer and more secure travel route for all types of users across a broad range of transportation demands. Improvements to this corridor would also provide additional, reliable regional emergency responder, critical evacuation and safer hazardous material routes.

C. Consistency & Contributions to Transportation-focused Metro Vision Objectives

WEIGHT **20%**

*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.*

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*

Despite known issues and a lack of prior public investment, the entire project area continues to be a core economic driver and significant employment.

Key regional industry sectors (Wholesale Trade, Manufacturing, Transport and Warehousing, Construction) make up nearly 65 percent of the total jobs in the area. The Metro North Chamber of Commerce notes these companies rely heavily on inter-and intrastate corridor travel and DRCOG's freight planning determined that "the majority of freight movement in the Denver region occurs via commercial vehicles such as trucks and vans across the entire roadway system."

Today, 84,120 individuals live or work within 1-mile of the I-270 corridor; a number that is expected to grow 20 percent by 2040 (See Part 3). The Colorado State Demography Office projects that between 2018 and 2050, population growth will be greater than 200,000 people in Adams County and the neighboring economically linked subregions of Denver and Arapahoe counties. The demographer's office also forecasts total job growth between 2017 and 2040 will be greater than 100,000 in neighboring Arapahoe County and between 20,001 and 100,000 jobs in Adams and Denver counties.

The I-270 corridor serves a high concentration of wholesale trade & warehousing firms, which makes up 8.1% of jobs within Adams' County, 2.5% within Arapahoe County and 5.6% within the City and County of Denver (See Attachment 14). The state demographer's office documented this sector grew by over 20,000 employees between 2008 and 2017 (See Attachment 15). I-270 has a concentration of wholesale trade and warehousing firms along and adjacent to its corridor (See Attachment 16).

Right-of-way along the I-270 corridor varies, but is generally 300-feet wide. It is a 5.4-mile long controlled-access interstate highway with two through lanes in each direction that are separated by a depressed median.

This project assumes the existing right-of-way would be adequate to accommodate any improvements identified through the project, including widening, if necessary, by using the existing median. The study will evaluate this assumption.

MV objective 3	**Increase housing and employment in urban centers**.

2. 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*

DRCOG's Workforce Commuting Patterns found 88 percent of Commerce City's 67,437 workers commute to their jobs from outside of the community, many of which rely on I-270 and Vasquez Boulevard. The State Demographers Office Community Profiles for Adams, Arapahoe and Denver counties found that these three economically linked subregions provide at least 40% of each of their in-commuting employees.

Each of these counties are served by I-270 and its interstate connections and the nearby Sand Creek and South Platte regional pedestrian and bicycle trails.

The intent of the project is to facilitate development adjacent to and within existing residential, commercial and industrial areas of the Denver region's Urban Growth Boundary/Area (See Attachment 17 and Attachment 18):

- Over half of the I-270 corridor is in Commerce City adjacent to the greatest concentration of original industry and residences
    - Much of the housing was built before the construction of I-270, and has or is being zoned for industrial use.
    - Local land use plans have been amended to reduce the patchwork of land uses and zoning to improve cohesiveness of neighborhoods and industrial districts.
    - The Mile High Greyhound Park redevelopment will be a mixed-use area with residential, retail, commercial, civic and educational spaces, creating 1,454 jobs adjacent to the I-270 and US 85 interchange, within the Adams County Enterprise Zone.
- About one-third of the corridor is in a predominantly industrial area of Adams County
    - Collaboration between businesses and non-governmental organizations are in place to implement economic development directly related to job creation or preservation, and to promote nonprofit or governmentally funded community development projects within or near to the project corridor.
    - Victory Crossing Development is a 900-acre site adjacent to the Dick's Sporting Goods Park and within the Adams County Enterprise Zone. At final development, Victory Crossing will provide up to 1.5 million square feet of mixed-use development and a National Wildlife Refuge Center that will attract over 50,000 visitors per year. To date, the site has seen more than $100,000,000 of private investment and nearly 1 million visitors annually.
- Sixteen-percent of the corridor is in the City and County of Denver
    - Here, land use transitions from industrial to mixed use (residential, commercial and employment centers).
    - The former Stapleton International Airport is being redeveloped to include between 30,000 and 35,000 jobs, just south and east of the Adams County Enterprise Zone and is less than a mile from the interstate.
    - The National Western Center will redevelop the former National Western Stock show space into a 250-acre National Western Center Campus which will provide food, entertainment, event and education spaces and activities. This development is just south of the Adams County Enterprise Zone adjacent to the South Platte River.

I-270 is a critical connection for these planned developments.

The Sand Creek Regional Greenway Trail, Denver Segment (2016) set forth improvements along the regional Sand Creek trail to the boundary between the City and County of Denver and Commerce City in Adams County, east of the I-270 corridor. Also, regional Bus Rapid Transit Service and improved connections to the N-Line will enhance transportation connections (Part 3).

The intent of the I-270 project will be to evaluate and recommend improvements and/or connections to these networks and to make crash, safety, efficiency and congestion improvements, where appropriate, for improved travel for all modes.

MV objective 4	**Improve or expand the region's multimodal transportation system, services, and connections**.

3. Will this project help increase mobility choices within and beyond your subregion for people, goods, or services? ☒ Yes ☐ No

Describe, *including supporting quantitative analysis*

As discussed previously, Adams, Arapahoe and the City and County of Denver are economically linked subregions that share connecting interstates, regional roadways, employment centers, employees and regional trails and their users. Identifying a long-term solution for the I-270 corridor, its interchanges and the conditions of and connections to nearby pedestrian and bicycle facilities, will allow safer and more reliable and efficient travel and trip times across the region for people, goods and services.

MV objective 6a **Improve air quality and reduce greenhouse gas emissions**.

4. 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*

The Denver region is designated as an ozone non-attainment area. The transportation sector is the second largest contributor to greenhouse gas emissions in Colorado, accounting for 28 percent of Colorado's gross emissions. Given the current three hour congestion window and percentage of truck trips, reducing congestion and idling times will have a significant environmental benefit. The potential for system improvements along the corridor, including managed lanes, support and enhancement of regional bus rapid transit and the potential for improved connections to nearby regional trails, could help reduce future oil consumption, and greenhouse gas, carbon monoxide, and particulate matter emissions through less idling during congestion and increased transportation options.

MV objective 7b **Connect people to natural resource or recreational areas**.

5. 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 award-winning 14-mile long Sand Creek Regional Greenway Trail runs parallel to I-270 and intersects with the 18-mile long regional South Platte River Trail between Brighton Boulevard and US-76. The I-270 project will assess and design improvements to the condition of and connections to these regional trails, where needed, for the benefit of residents east of the interstate, employees commuting to jobs within the project area, and regional trail users.

Dedicated safe pedestrian and bicycle connections will improve the safety of vulnerable populations in their daily lives and when accessing shopping centers at 60th Avenue and Vasquez Boulevard, such as residents from the Globeville, Elyria and Swansea neighborhoods who rely on this commercial area to obtain food, goods and services.

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*

Improved, safer access pedestrian and bicycle facilities and access to nearby regional trails will provide residents with active transportation options and the health benefits experienced from them.

MV objective 13	**Improve access to opportunity**.

7. 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*

Within one-quarter mile of the I-270 project area, the population is 70% minority and 20% of the population lives in poverty. These rates are double the state average: 34% and 10 percent, respectively. Seven Environmental Justice (EJ) traffic analysis zones are located in the project area, one of which is "minority-concentrated," two of which are "low-income concentrated;" and four of which are both "low-income and minority-concentrated." Access to personal vehicles is typically lower and reliance on public transportation and pedestrian and bicycle facilities is typically higher within these zones.

This project provides an opportunity to improve travel and mobility for these various residents. Long-term corridor improvements can enhance existing, proposed and new transportation connections as well as provide an opportunity to correct many of the problems caused by the original interstate construction.

MV objective 14	**Improve the region'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*

Improving I-270 is critical to the economic health and vitality of the Adams County subregion, including Commerce city, because it serves as a vital commercial and commuter connection. Additionally, I-270, through its support of and connection to the economically linked subregions of Arapahoe, Denver, Jefferson and Boulder counties, serves as a vital commercial and commuter connection to the region and beyond.

CDOT identifies I-270 as a Primary Highway in its State Highway Freight Plan. Currently, average vehicles per day (vpd) on I-270 is 103,000 west of Vasquez Boulevard and approximately 91,000 vpd east of that interchange. By 2040, vpd on I-270 is projected to reach nearly 420,000. Today, freight trucks account for 11% of vpd; in 2040, freight trucks are projected to represent 17% of vpd, a 55% increase.

The DRCOG Freight Planning factors recognize that ensuring a reliable, safe and efficient roadway supports the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency, and increases the accessibility and mobility options available to people and for freight. High levels of congestion slow truck operations and increase the cost of moving freight, which is ultimately passed on to consumers through higher prices.

The I-270 project will study and develop designs to support and enhance freight trucks on this corridor in support of the metropolitan region's economic health and vitality.

D. Project Leveraging

WEIGHT **10%**

9. What percent of outside funding sources (non-DRCOG-allocated Subregional Share funding) does this project have?	66%	60%+ outside funding sources .....High 30-59% .....Medium 29% and below .....Low

Part 3 Additional Considerations

The ADCOG Subregional Forum has established five additional considerations to guide project selection within the subregional process. These considerations may be used by the ADCOG Subregional Forum in the project evaluation process in combination with the above listed criteria. The five additional considerations are:

- Does the project benefit a small community, which for this process is defined as a community with a population of less than 50,000 people?
- Is this project a suburban connector?
- Does the project address a gap in existing service?
- Is this the logical next step of a project?
- Is the project construction ready?

Applicants should provide an attachment to the application to address these additional considerations.

Part 4 Project Data Worksheet – Calculations and Estimates

(Complete all subsections applicable to the project)

A. Transit Use

1. Current ridership weekday boardings	1,044
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	38,501	45,619	**84,120**
2040	51,820	53,223	**105,043**

Transit Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional daily transit boardings after project is completed. *(Using 50% growth above year of opening for 2040 value, unless justified)* *Provide supporting documentation as part of application submittal*	0	0
4. Enter number of the additional transit boardings (from #3 above) that were previously using a different transit route. (Example: **{#3 X 25%}** *or other percent, if justified)*	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.) (Example: **{#3 X 25%}** *or other percent, if justified)*	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**) *(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)*	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	38,501	45,619	**84,120**
2040	51,820	53,223	**105,043**

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)	1,016
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	38,501	45,619	**84,120**
2040	51,820	53,223	**105,043**

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**) *(Values other than .4 miles must be justified by sponsor)*	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	5,229
	2. Minority persons	15,021
	3. Low-Income households	3,627
	4. Linguistically-challenged persons	6,125
	5. Individuals with disabilities	6,334
	6. Households without a motor vehicle	2,119
	7. Children ages 6-17	11,716
	8. Health service facilities served by project	22

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	110,000

2.	2040 ADT estimate	419,919
3.	Current weekday vehicle hours of delay (VHD) (before project)	3

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** *(Value higher than 1.4 due to high transit ridership must be justified by sponsor)*	0
7.	**After project peak hour congested average travel time reduction** per vehicle (includes persons, transit passengers, freight, and service equipment carried by vehicles). *If applicable, denote unique travel time reduction for certain types of vehicles*	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 *(most recent **5-year** period of data)*		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	5	
	Serious Injury crashes	313	
	Other Injury crashes	421	
	Property Damage Only crashes	1,036	
2.	Estimated reduction in crashes applicable to the project scope *(per the five-year period used above)*		
	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	Poor
2.	Describe current pavement issues and how the project will address them.	

75% of the I-270 corridor has an asphalt surface, the majority of which is severely cracked and worn. The remaining 25% has a concrete surface in fairly good condition. A 1,000-foot segment of the interstate was built over a municipal solid waste landfill and is seeing secondary compression settlement. In some areas, the settlements ranch from 16.5 to 33 inches, resulting in undulating distress areas with "roller coaster" type sections. This project will identify a solution for implementation consistent with the National Environmental Policy Act.

3. Average Daily User Volume	110,000

Bicycle/Pedestrian/Other Facility

4. Current bicycle/pedestrian/other facility condition	Poor

5. Describe current condition issues and how the project will address them.

There are numerous man - and natural-made barriers for access to and crossing of I-270 in addition to freight-vehicle-pedestrian conflicts that prohibit safe access. The project will identify improvements to be implemented when funding becomes available to address the known and to be identified barriers and conflicts.

6. Average Daily User Volume	0

H. Bridge Improvements

1. Current bridge structural condition from CDOT

A total of 12 structures are in the corridor; nine are rated as good while three structures are related as fair/poor. The majority of the structures between I-70 and I-76 are functionally obsolete and nearing the end of their useful life.
E-17-WZ: Good
E-17-AT: Fair
E-17-ZZ: Good
E-17-CB: Good
E-17-IO: Good
E-17-IN: Good
E-17-IK:Good
E-17-IJ:Good
E-17-MU:Good
E-17-ID: Fair
E-17-IE: Fair
E-17-IC: Poor

2. Describe current condition issues and how the project will address them.

The I-270 project will identify solutions for addressing bridge conditions consistent with the National Environmental Policy Act.

3. Other functional obsolescence issues to be addressed by project

The interchanges in the I-270 corridor, when constructed in the 1960s, were designed for shorter trucks and lower volumes of freight vehicles than current conditions, with roadway and interchange designs that are functionally obsolete due to narrower lanes, tighter turning radii and other geometric constraints at interchanges, as well as missing on- and off-ramps. These combine to increase crash potential and often redirects drivers to take a more circuitous route to access the interstate. The most notable is at the I-270 and Vasquez Boulevard interchange. This interchange is a 1960's urban cloverleaf – except that it is missing the northbound to eastbound movement. It is recognized by DRCOG as one of 18 regional bottlenecks due to the high percentage of truck traffic, seven on- and off-ramps within 900 feet, substandard interchange configuration, tight turning radii on the interchange ramps reduce

the efficiency of merging traffic, and the high number of vehicle weaving movements increase the potential for crashes.	
4. Average Daily User Volume over bridge	264,100

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? *If yes, describe scale of expected increase*	☐ Yes ☒ No
TBD	
2. Negative impact on vulnerable populations Inaction has a negative consequence by increasing travel-related congestion (to 4 hours/day) and perpetuating unsafe situations along the functionally obsolete project area.	
3. Other:	