



# Greeley Regional Interchange Project

An Application for the United States Department of Transportation's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Transportation Discretionary Grants Program

July 12, 2021

Submitted by:







July 9, 2021

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

Re: City of Greeley RAISE Grant Application – US 34 and 35<sup>th</sup> Avenue Greeley Regional Interchange Project (GRIP)

Honorable Secretary Buttigieg:

The City of Greeley is pleased to present this application for funding under the United States Department of Transportation's Rebuilding America's Infrastructure with Sustainability and Equity (RAISE) grant program for the Greeley Regional Interchange Project (or GRIP). This letter is to certify the City of Greeley's financial commitment to the completion of the GRIP interchange project at US 34 and 35<sup>th</sup> Avenue should a RAISE grant be awarded for the project. The award of RAISE discretionary funding will advance the construction of this desperately needed interchange project to the construction phase at Greeley's busiest and most dangerous intersection, continue our local collaboration with the Colorado Department of Transportation on this regionally significant corridor, and bring forward the delivery of a diversified basket of benefits (all of which align directly with several of the sought-after outcomes and merit criteria of the RAISE program) to users of this corridor, the City of Greeley, and the region at large. The interchange will provide much needed improvements to mobility; significant reduction in congestion; and substantial improvements to the safety of motorists, pedestrians, and bicyclists.

Many of Colorado's state and local elected officials, local government, community organizations, and businesses are enthusiastically united in support of this project. Like the City of Greeley, they recognize that the provision of safer, more efficient, and more reliable transportation infrastructure is critical to improving, and maintaining, local and regional mobility.

Thank you for your time and consideration of this application that will provide tremendous improvement and benefit to not only the community, but the region for decades to come.

Sincerely,

A handwritten signature in black ink, appearing to read 'Paul Trombino III'. The signature is fluid and cursive, with a large initial 'P' and 'T'.

Paul Trombino III  
Public Works Director  
City of Greeley

# Summary Table

Field Name	Response
Project Name	Greeley Regional Interchange Project
Project Applicant	City of Greeley 1000 10th Street Greeley, CO 80631 www.Greeley.gov
Primary Contact	Joel Hemesath, P.E. Deputy Public Works Director Public Works Department (970) 350-9795 Joel.Hemesath@greeleygov.com
Primary Project Type Definition	Road
Secondary Project Type Definition	Road Crossing
Project Designation	Rural
Project Location	Greeley, Colorado
Consistency/Programming in Long Range Planning	The GRIP project is identified in, and its delivery is consistent with the core objectives of, the following state and regional long-range planning studies: <ul style="list-style-type: none"> <li>• US34 Planning and Environmental Linkages Study (CDOT)</li> <li>• 2045 Regional Transportation Plan (NFRMPO)</li> <li>• 2040 Regional Transit Element (NFRMPO)</li> <li>• Greeley Evans Transit Plan (GET)</li> </ul>
Project Costs	\$54,484,263
RAISE Grant Request	\$25,000,000
Estimated Federal Funding (Excluding RAISE)	\$0
Estimated Non-Federal Funding	\$29,484,263
Future Eligible Project Costs	\$54,484,263
Previously Incurred Project Costs	N/A
Total Project Costs	\$54,484,263
Are matching funds restricted to a specific component? If so, which one	N/A

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# Project Description

Located in the City of Greeley, a major regional center in northeastern Colorado, the Greeley Regional Interchange Project ('GRIP' or 'the Project') is a multifaceted program of improvements to US34 and the conversion of an existing at-grade intersection with a major local arterial into a grade-separated interchange. US34 is a central east-west transportation corridor for Northern Colorado's fastest growing communities and an important regional connection. Providing the primary accessibility between the fastest growing cities in Colorado – both in regard to population and economic growth – US34 is the major regional highway in this part of the state, connecting Greeley to Fort Collins and Loveland. US34, which also connects to I-25 and I-76, is one of the gateways to the epicenter of Colorado's nationally significant energy and agriculture industry region and is key to freight movement connecting to these two interstates (I-25 and I-76) of regional and national importance. US34 is also an important

*Figure 1: Existing Interchange – US34 and 35th Avenue*

conduit to recreation as its western extent provides the primary access point to Rocky Mountain National Park (RMNP), the fourth most visited national park in the nation.

Sustained growth and economic development along the corridor have increased the need to enhance multimodal safety, reduce recurring congestion, and improve regional mobility. The delivery and operation of GRIP will contribute to the realization of all three and will bring about a harmonization and continuity of free flow travel conditions along this key mobility corridor with outcomes stemming from the implementation of the Project to include: faster travel times throughout the entire corridor; an increase in vehicle capacity; a decrease in recurring and non-recurring congestion; and improved safety conditions resulting in a reduction in accidents and fatalities. Furthermore, construction and operation of GRIP will improve active transportation mobility and safety for students and those seeking recreation while also enabling the future expansion of regional and local transit services.



Source: City of Greeley

GRIP is a key project within the program of improvements planned and executed along the US34 corridor between Greeley and Fort Collins/Loveland. In a recent long-range planning study produced by the Colorado Department of Transportation (CDOT), GRIP is ranked in the top five of the overall priority projects and in the top two for priority safety projects.<sup>1</sup> Construction and operation of US34/35th interchange will improve overall multimodal mobility in Greeley and along this critical regional route. Improvements to this transportation infrastructure and associated improvements to mobility and accessibility will in turn benefit current and future businesses and services that provide the basis to improvements to the regional economy. GRIP's delivery and operation will improve safety along US34 (including for active transportation) while providing greater efficiency in the movement for personal vehicles, freight, and transit. US34 is a route for future east-west transit service connecting major population centers in Northern Colorado. This will provide greater opportunity for lower income residents and enable improvements

to quality of life through greater accessibility to employment, health services, essential services, and recreational activities.

GRIP primarily comprises the conversion of an at-grade intersection with US34 and 35th Avenue (existing intersection shown in Figure 1) into a grade-separated interchange and the addition of auxiliary lanes in both directions on the regional connector, and the construction of a tight diamond configuration with a partial cloverleaf on-ramp in the southwest quadrant of the interchange. Removal of the at-grade intersection will lead to the free flow of east-west traffic through this part of the US34 corridor thereby improving travel times, reducing congestion, and improving safety metrics (particularly the reduction of rear end crashes). The existing intersection has been the site of major multivehicle accidents in recent years, including the one shown below in Figure 2 which occurred in 2019 and involved commercial vehicles, transit vehicles, and personal automobiles.

Figure 2: Multivehicle Accident at US34 and 35th Avenue Interchange



Source: City of Greeley

1 Colorado Department of Transportation. US34 Planning and Environmental Linkages Study. January 2019

In addition to improving north-south efficiency along 35th Avenue, GRIP’s grade-separation will eliminate a significant north-south mobility barrier and safety concern for active transportation users (the existing at-grade crossing is heavily used by students) which, when coupled with other accessibility improvements to the regional shared-used trail running adjacent to US34, will further enhance overall corridor mobility. The construction of the park-n-ride at the southern extent of the project area will encourage and facilitate a higher level of shared commuting including connections to two local transit routes as well as a future regional transit route which will connect to other services such as Bustang (connecting to Denver) and Flex (connecting to Boulder). This will thereby reduce the number of cars on the road and therefore a reduction in emissions, vehicles operating costs, and wear and tear on state and local infrastructure.

The benefits and economic impacts which the GRIP’s delivery and operation will deliver are diversified and myriad. It will provide enhanced local and regional mobility and connectivity through the elimination of signals and grade-separation thereby allowing the free flow of passenger and freight traffic. The Project’s

implementation will generate significant safety improvements for both vehicular and active transportation. Grade-separation of US34 traffic, in addition to improving the efficiency of east-west travel along the corridor, will provide safer pedestrian and bike crossing which is especially important given several schools and major retail centers are located directly adjacent to the Project’s location. The elimination of traffic signals at the existing US 34/35th Avenue intersection will alleviate recurring congestion on the regional connector as well as at the busiest local arterial while also lowering greenhouse gases along the corridor through the reduction of idling emissions (where idle times can exceed 220 seconds during peak times).

The delivery of the GRIP project will generate benefits and impacts which align directly with several of the sought-after outcomes and merit criteria of the RAISE program. Most notably, the project will deliver significant economic benefits related to safety and economic competitiveness. The GRIP project is shown to be cost effective, generating over \$100M in discounted economic benefits against discounted costs of approximately \$45M, equating to a benefit-costs ratio (BCR) of 2.2:1 at a 7% discount.

## Project at a Glance

**Purpose:** Improve safety and efficiency along a rural highway corridor critical to multimodal mobility in Northeastern Colorado.

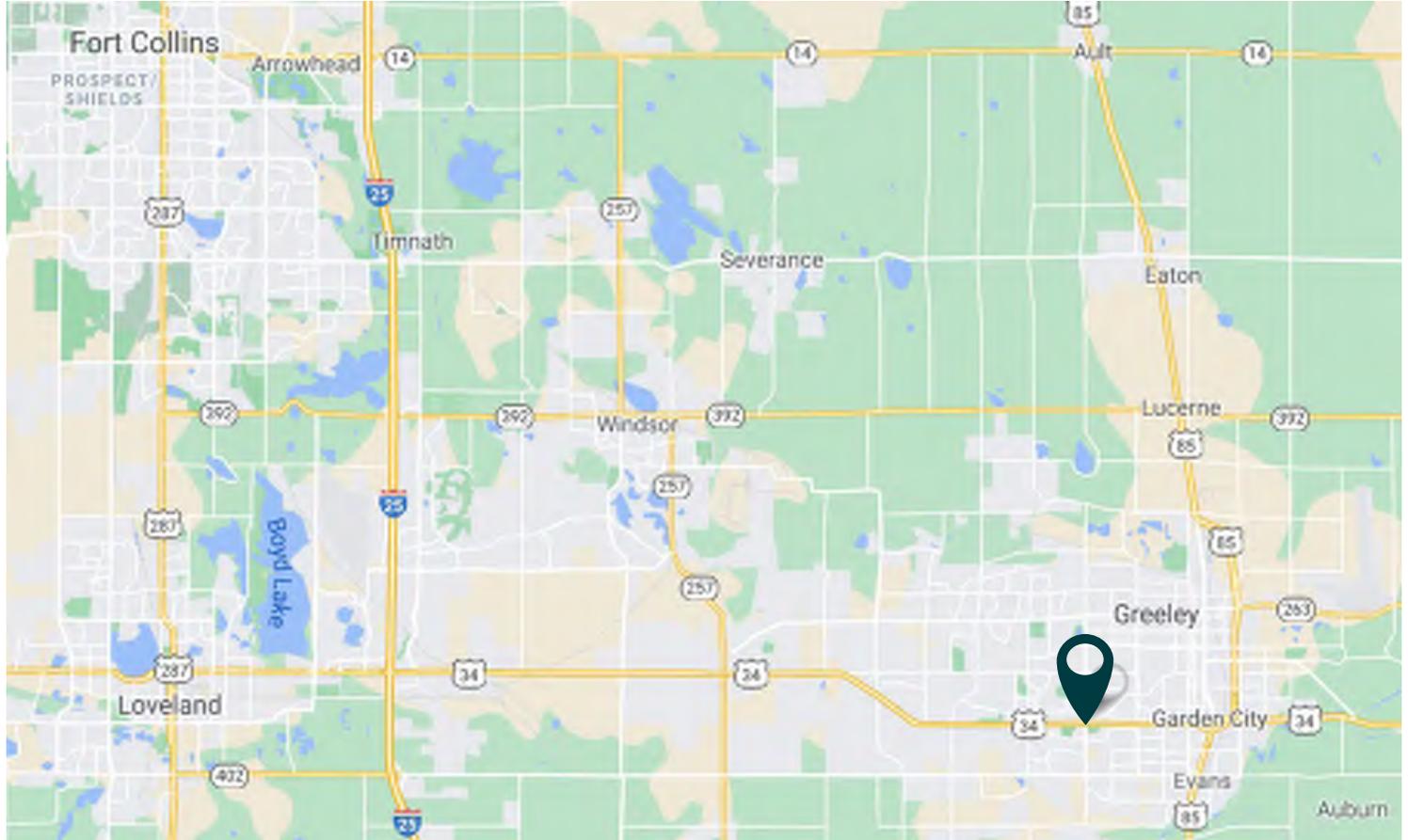
**Solution:** Replacement of an existing at-grade intersection with grade-separated interchange, addition of auxiliary lanes in each direction, transit improvements, and active transportation accessibility improvements to facilitate safer, more efficient mobility for the corridor’s users.

**Request:** \$25M RAISE grant for the \$54.5M project

# Project Location

The GRIP project is located in the City of Greeley in northeastern Colorado, approximately two and half miles west of the US34 connection with US85, a north to south highway of regional importance. US34 is the primary east-west transportation corridor for Northern Colorado fastest growing communities and an important regional connection between the region’s largest population and employment centers: Greeley, Fort Collins, and Loveland. The county seat of Weld County, Greeley is a city of approximately 110,000 people. The location of the project in a regional context is shown in Figure 3.

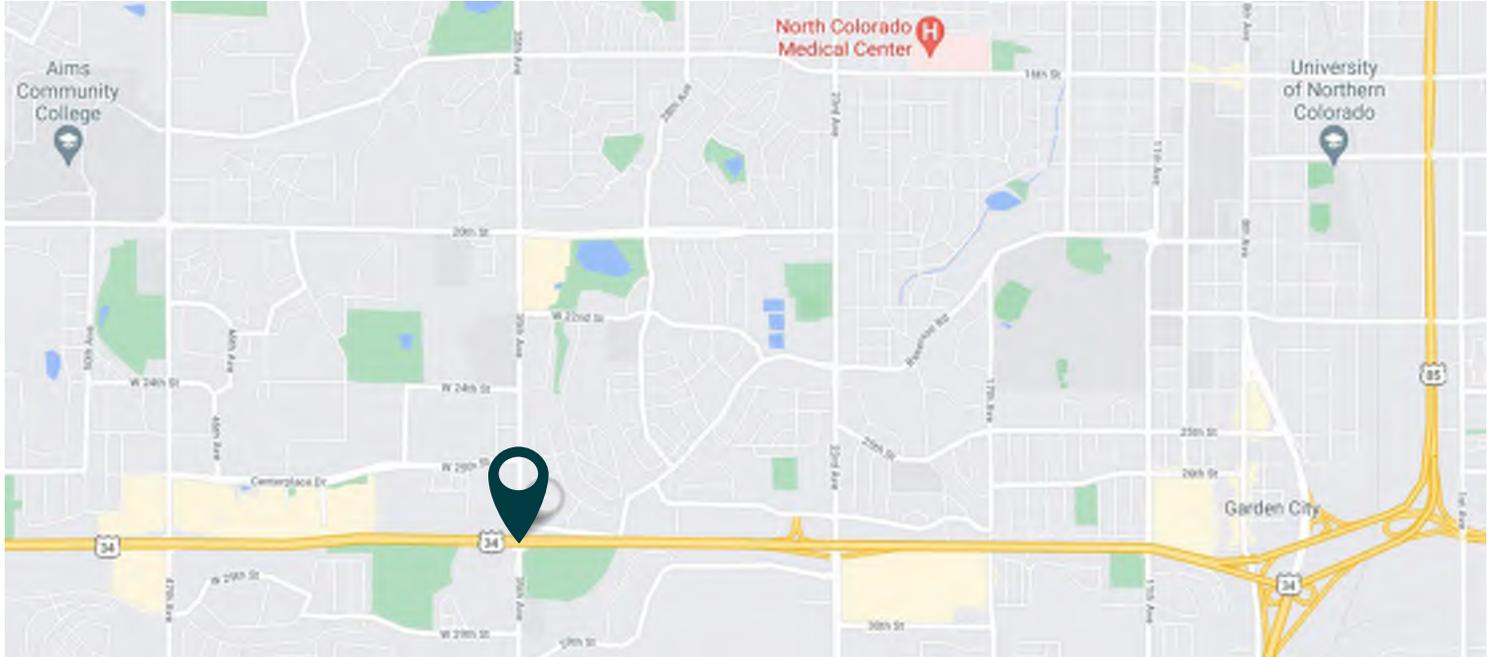
Figure 3: Location of GRIP Project (Regional Context)



Source: GooglePro

Downtown Greeley is located approximately 3.5 miles to the northeast of the GRIP project. Two major centers of tertiary education, the University of Northern Colorado and the Aims Community College, are located approximately three miles to the northeast and two miles to the northwest, respectively. The project’s location is shown in a local context below in Figure 4.

Figure 4: Location of GRIP Project (Local Context)



Source: GooglePro

Figure 5 shows the immediate project area and the intersection of US34 and 35th Avenue in its current configuration. 35th Avenue is one of the City’s principal north to south arterials and lies equidistant between the City’s two largest retail generating centers, Greeley Mall and Centerplace at Greeley. There are educational institutions located immediately to the north and south of the existing US34/ 35th Avenue intersection as well as a shared-use (active transportation) trail directly adjacent to US34 which is accessible from 35th Avenue. This intersection is the busiest and has the most accidents in the entire city.

Figure 5: Location of GRIP Project Area



Source: GooglePro

The existing at-grade intersection represents a significant north-south mobility barrier and safety concern for active transportation users, particularly students walking to/from the schools located on either side of US34. A recent multi-vehicle accident occurred at the intersection (in April 2021) just before school hours when students were actively using the intersection.<sup>2</sup> A picture of the existing at-grade intersection is shown in Figure 6.

Figure 6: Existing US34/35th Avenue Intersection (Looking East, Non-Peak)

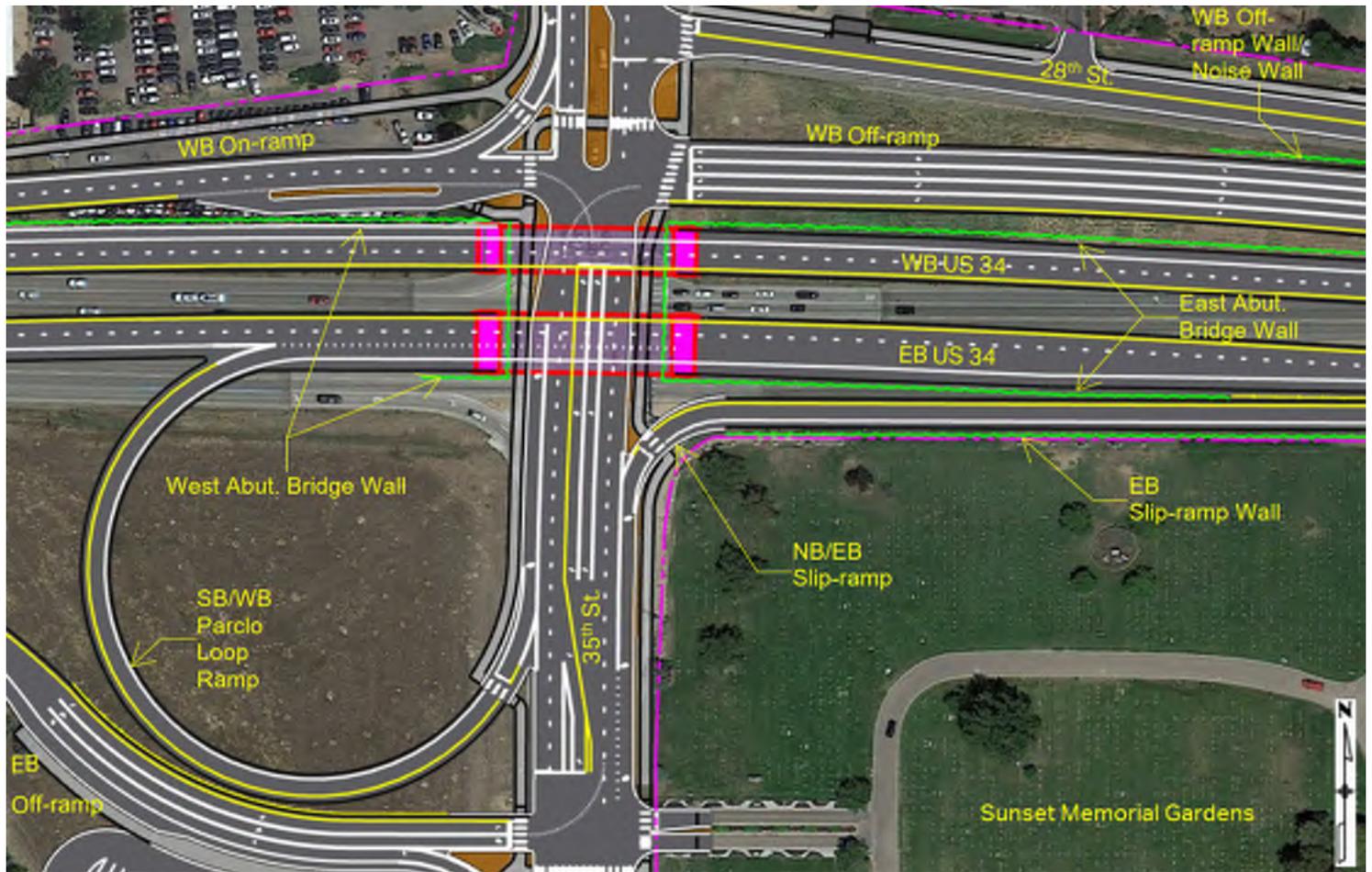


Source: GooglePro

GRIP is comprised of many components, the largest of which is the grade-separated interchange in which eastbound and westbound US34 pass over 35th Avenue. The interchange will provide much needed improvements to mobility; significant reduction in congestion; and substantial improvements to the safety of motorists, pedestrians, and bicyclists. As shown in Figure 7, the project includes a unique, hybrid interchange layout consisting of a tight diamond configuration in the northeast, northwest, and southeast quadrants and a partial clover leaf loop (parclo) in the southwest quadrant. A cemetery had to be worked around creating this innovative hybrid interchange. The tight diamond in the northern quadrants feature a new westbound off-ramp and an eastbound on-ramp for US34. The southwest quadrant includes the parclo loop providing the southbound 35th Avenue to eastbound US34 movement. The northbound 35th Avenue to eastbound US34 movement in the south-east quadrant is provided by a slip-ramp confined by the adjacent Sunset Memorial Gardens.

<sup>2</sup> The Denver Post. Witnesses: Semi Driver Ran a Steady Red, Causing Crash that Hospitalized 4 in Greeley. 22 April 2021. <https://www.denverpost.com/2021/04/22/witnesses-semi-driver-ran-a-steady-red-causing-crash-that-hospitalized-4/> Accessed 5/27/21

Figure 7: Greeley Regional Interchange Project – By Component



Source: GooglePro, AECOM

The project includes substantial mobility improvements such as a park-n-ride lot with pedestrian and transit access from the eastbound off-ramp (adjacent to the parclo loop) and the adjacent Home Depot parking lot; new transit stops adjacent to the westbound on-ramp and 28th Street; and multi-use paths for pedestrians and bicyclists along US34, 35th Avenue, and 28th Street. Due to the limited right-of-way and narrow interchange configuration, significant retaining walls are necessary to maintain the existing 28th Street alignment and avoid impacts to businesses, the cemetery, and residents. The project also includes noise walls mitigating noise impacts to residents, significant drainage improvements, and utility relocations typical of new interchanges.

# Project Parties

The City of Greeley is the applicant for RAISE grant funding and will contribute all the non-federal funding match toward the program of works described in this application. Because federal funding will be used, the project is being conducted in cooperation with the Federal Highway Administration (FHWA). In coordination with CDOT, the City of Greeley will conduct all necessary cultural, natural and other resource surveys required by the state and federal governments in order to ensure that all significant environmental resources are avoided and mitigated and that the public is informed of the proposed project and provided the opportunity to comment. To date, the public has been engaged in open houses that were very well attended. A survey has been done and a project website (<https://www.codot.gov/projects/us34designstudy>) is currently up continuing to provide the public with information. Throughout the course of project development, the City of Greeley will continue to coordinate with the CDOT, FHWA, and others as necessary to obtain the permits and approvals needed.

The program manager and grant administrator for the GRIP Project will be Joel Hemesath, Deputy Director of Greeley's Public Works Department.

## Experience with Project Delivery Using Federal Funds

The City of Greeley has experience utilizing federal discretionary and formulaic funding in the delivery of transportation infrastructure improvement projects. Recent examples of the

judicious administration of federal discretionary funding for the delivery of transportation projects include the use of Federal Transit Administration (FTA) discretionary funding each year from 2014 to 2021 for the replacement of Greeley - Evans Transit (GET) rolling stock and improvements to the City's transit network. The City of Greeley has used contributing formulaic federal dollars from a variety of FHWA funding mechanisms (such as Congestion Mitigation and Air Quality, Transportation Alternatives, and the Surface Transportation Block Grant) to deliver the following recent projects:

- US 34 (10th St): 35th to 23rd (Greeley) – Corridor Access Improvements (\$4.2M project, \$3M federal)
- 65th Ave: US 34 Bypass - 34th St Rd (Greeley) – Road Augmentation and Turn Lanes (\$4.1M project, \$2.1M federal)
- Greeley Fiber Optic Communication – ITS and Traffic Control (\$1.7M, all federal)

These projects were delivered on budget and on schedule.

The City of Greeley tracks the historical performance measures of the delivery of their transportation improvement projects in terms of the difference in expenditure and time of completion relative to the project schedule and estimated capital costs which are estimated prior to commencement. Over the last five years, the variance between the estimated schedule and cost versus actual schedule and cost has been less than 1% with the City of Greeley consistently delivering transportation improvement projects on time and on budget.

# Grant Funds, Sources and Use of All Project Funding

The total cost for delivering the Greeley Regional Interchange Project is estimated at \$54.5 million, approximately \$44 million of which will go towards construction elements. An overview of the total project costs, by component are shown below in Table 1.

Table 1: GRIP Project Costs

Component of Work	Cost	Federal Grant Cost Share	Non-Federal Share
<b>Removals</b>	\$1,994,345	\$1,000,000	\$1,056,745
<b>General Items</b>	\$2,757,200	\$1,500,000	\$1,257,200
<b>Earthwork</b>	\$2,038,392	\$1,000,000	\$1,038,392
<b>Roadway</b>	\$9,112,742	\$7,500,000	\$1,612,742
<b>Drainage</b>	\$3,065,280	\$2,500,000	\$565,280
<b>Structures</b>			
Bridges	\$2,640,061	\$2,000,000	\$640,061
Walls	\$8,026,403	\$6,000,000	\$2,026,403
Noise Walls	\$2,924,000	\$2,500,000	\$424,000
<b>Safety</b>	\$1,794,885		\$1,794,885
<b>Traffic</b>	\$3,219,910		\$3,219,910
<b>Lighting/Utility</b>			
Lighting	\$1,801,400	\$1,000,000	\$801,400
Utility	\$2,324,200		\$2,324,200
<b>Minor Environmental</b>	\$416,990		\$416,990
<b>Minor Traffic</b>	\$208,495		\$208,495
<b>Minor - Drainage/SWMP</b>	\$833,980		\$833,980
<b>Minor MOT</b>	\$416,990		\$416,990
<b>Minor Utilities</b>	\$416,990		\$416,990
<b>Force Accounts</b>	\$2,200,000		\$2,200,000
<b>Right-of-Way</b>	\$160,000		\$160,000
<b>Construction Engineering</b>	\$4,170,000		\$4,170,000
<b>Construction Indirects</b>	\$3,962,000		\$3,962,000
<b>Total Project Cost</b>	\$54,484,263	\$25,000,000	\$29,484,263

Source: AECOM

The City of Greeley is seeking \$25 million from the RAISE program – which would only apply to major construction elements – with the City providing the remainder of the project costs. An overview of the sources of funding for the GRIP project are shown in Table 2.

Table 2: Source of Greeley Regional Interchange Project

Entity	\$2021
<b>City of Greeley</b>	\$29,484,263
<b>Total Non-Federal Match</b>	\$29,484,263
<b>Federal Funds Sought (RAISE Ask)</b>	\$25,000,000
<b>Total Project Cost</b>	\$54,484,263

Source: AECOM

# Merit Criteria

The delivery of the GRIP project will generate benefits and impacts which align directly with several of the sought-after outcomes and merit criteria of the RAISE program. Most notably, the project will deliver significant economic benefits related to safety and economic competitiveness. The GRIP project is shown to be cost effective and delivers a benefits-costs ratio (BCR) of 2.2:1 at a 7% discount. An overview of the benefits generated by the GRIP Project are shown in Table 3.

Table 3: Summary of Benefit Cost Analysis Results – Greeley Regional Interchange Project

<b>GRIP(US34/35th Avenue Interchange)</b>	
<b>Project Benefits</b>	<b>7% Discount Rate</b>
Safety	\$48.4
Economic Competitiveness	\$49.4
<i>Auto Time Savings</i>	\$44.5
<i>Truck Time Savings</i>	\$2.1
<i>Truck Operating Savings</i>	\$2.8
State of Good Repair	\$4.7
<i>Residual Value</i>	\$6.0
<i>O&amp;M Costs</i>	-\$1.2
<b>Total Benefits</b>	<b>\$102.5</b>
<b>Project Costs</b>	<b>\$46.5</b>
Capital Costs	\$46.5
<b>Net Benefits</b>	<b>\$56.0</b>
<b>Benefit Cost Ratio</b>	<b>2.2</b>

Source: AECOM, USDOT (2021)

# Safety

Delivering projects which reduce the number of accidents and fatalities on its roads is the top objective of the City of Greeley. It is estimated that the delivery of the GRIP project will, over its first twenty years of operation, result in nearly 700 fewer vehicular crashes and 450 fewer injuries due to accidents on US34 and 35th Avenue. The grade-separation of US34 over 35th Avenue will eliminate the existing intersection which has been the site of numerous accidents in recent years (such as the one pictured in Figure 8), several taking place during times when pedestrians were present. The implementation of

Figure 8: Multivehicle Crash Involving Transit at US34/35th Avenue Intersection



Source: City of Greeley

GRIP will realize immediate safety benefits by reducing 73% of the accidents through the elimination of signaling on this section of US34.

The elimination of this sizable and daunting at-grade intersection will both eliminate a barrier to mobility for active transportation users as well as contributing to a safer route to and from school for students who travel on 35th Avenue between their places of learning and adjacent retail centers.

Table 4: Summary of Safety Benefits – GRIP Project

Period of Assessment	Reduced Injury Crashes	Reduced PDO Crashes	Value of Accident Reduction (\$M)	Discounted Value of Accident Reduction (\$M)
2026-2030	97.9	58.5	28.1	17.5
2031-2035	103.8	62.0	29.8	13.3
2036-2040	110.0	65.8	31.5	10.0
2041-2045	116.6	69.7	33.4	7.6
<b>Total</b>	<b>428.2</b>	<b>256.0</b>	<b>122.8</b>	<b>48.4</b>

Source: AECOM, USDOT (2021)

As shown in Table 4, the discounted benefits associated with the reduction in vehicular crashes and injuries generated by the implementation of the GRIP project are estimated to be \$46M, making the Project nearly cost effective on safety benefits alone.

## State of Good Repair

The GRIP project comprises the delivery of a complex mix of infrastructure components including (among many) new auxiliary lanes constructed of concrete, improved exits and entrances to the highway, transit elements, and noise and retaining walls. By far, the largest element of the project is the construction of bridges grade-separating US34 and 35th Avenue. This bridge will be designed with a minimum of 75-year asset life and will be ranked as “good” (indicating that it has no design or structural issues). Coupled with the provision of the other infrastructure elements of the GRIP project, this key corridor to regional and local mobility will be in a good state of repair. In addition, maintenance activities for the new infrastructure is anticipated to be limited to preventative maintenance for at least the first ten years of operation, leading to less vehicle delays during these activities. Given the asset lives of major elements of the project (bridges, ramps, concrete lanes, retaining walls), the project will also deliver approximately \$6M in discounted residual value benefits at the end of the assessment period.

## Economic Competitiveness

The GRIP project will generate significant time savings for users of both US34 and 35th Avenue through the elimination of the existing at-grade intersection. This will allow for the free flow of traffic, thereby reducing recurring congestion and providing faster travel times for users of the corridor, particularly those travelling east-west on US34. Over its first twenty years of operation, the GRIP project will generate approximately 3.7 million hours of travel time savings to passenger vehicles and over 170,000 hours of travel time savings to commercial vehicles. This equates to discounted travel time savings benefits of approximately \$45M and \$2M, respectively, as shown in Table 5.

Additionally, faster travel times on the GRIP corridor equate to reduced operating costs for commercial drivers. Discounted operating costs benefits for commercial vehicles are estimated at approximately \$3M over the assessment period. Taken together, the discounted benefits associated with travel time savings and vehicle operating costs savings are greater than the discounted project costs.

## Quality of Life

Improved mobility through the provision of more efficient and safer transportation infrastructure results in a number of quality-of-life improvements

Table 5: Travel Times and Operating Costs Savings – GRIP Project

Period of Assessment	Auto Travel Time Savings (Hours)	Commercial Truck Travel Time Savings (Hours)	Auto Travel Time Savings (\$M Discounted)	Commercial Truck Time Savings (\$M Discounted)	Commercial Truck Operating Costs Savings (\$M Discounted)
2026-2030	864,292	39,092	\$16.1	\$0.8	\$1.0
2031-2035	916,023	41,432	\$12.2	\$0.6	\$0.8
2036-2040	970,850	43,911	\$9.2	\$0.4	\$0.6
2041-2045	1,028,959	46,540	\$7.0	\$0.3	\$0.4
<b>Total</b>	<b>3,780,124</b>	<b>170,975</b>	<b>\$44.5</b>	<b>\$2.1</b>	<b>\$2.8</b>

Source: AECOM, USDOT (2021)

including greater accessibility and increases in both social inclusion and social equity. The GRIP project will result in safer vehicular travel, safer pedestrian routes to school for students, and the more efficient movement of both local and regional vehicular traffic. Furthermore, it will generate a reduction in recurring congestion as well as enabling the future expansion of local and regional transit. Greeley is dedicated to helping improve the lives of residents by engaging in transportation projects that result in safety and efficiency enhancements which provide equal accessibility to all cohorts of the City's and region's population. This interchange will also serve the City of Evans and improve their accessibility as 35th Avenue is an entryway into their city. The GRIP project adequately addresses these criteria and realizes the importance of the northeastern region of Colorado as an integral part of the state and country.

## Innovative Project Delivery

The City of Greeley has utilized a Project Delivery Selection Matrix (PDSM) tool commonly used by DOTs to determine the preferred method of project delivery. Currently, there are several types of project delivery systems available for publicly funded transportation projects. No single project delivery method is appropriate for every project. Each project must be examined individually to determine how it aligns with the attributes of each available delivery method. The project delivery method is the process by which a construction project is comprehensively designed and constructed including project scope definition; organization of designers, constructors, and various consultants; sequencing of design and construction operations; execution of design and construction; and closeout and start-up. Thus, the different project delivery methods are distinguished by the manner in which contracts between the agency, designers and builders are formed and the technical relationships that evolve between each party inside those contracts.

The most common systems are Design-Bid-

Build (DBB), Design-Build (DB), and Construction Manager/General Contractor (CMGC). CM/GC is a project delivery method in which the agency contracts separately with a designer and a construction manager. The agency can perform design or contract with an engineering firm to provide a facility design. The agency selects a construction manager to perform construction management services and construction works. The significant characteristic of this delivery method is a contract between an agency and a construction manager who will be at risk for the final cost and time of construction. Construction industry/Contractor input into the design development and constructability of complex and innovative projects are the major reasons an agency would select the CM/GC method. Unlike DBB, CM/GC brings the builder into the design process at a stage where definitive input can have a positive impact on the project. CM/GC is particularly valuable for new non-standard types of designs where it is difficult for the owner to develop the technical requirements that would be necessary for DB procurement without industry input.

The following project elements were taken into consideration when selecting design-bid-build as the preferred method of delivery for the GRIP project.

- **Delivery Schedule:** One of the key considerations on this project is the schedule. DB best supports the need for an accelerated construction schedule as construction proceeds in parallel with design. DBB or CM/GC project delivery would provide the best opportunity to get to construction quickly as the process to procure a contractor is much shorter.
- **Project Complexity and Innovation:** The GRIP project is a highly complex project. DBB project delivery will allow maximum innovation by the contractor/designer team as selection of that team will depend on demonstration of innovation and proposed additional requested elements (AREs) and/

or alternative technical concepts (ATCs). DB or CM/GC delivery will allow for real time feedback on design costs and provide critical input on constructability, real-time industry costs and phasing. DBB can also be conducive to innovation as the design schedule allows time to fully address complexities prior to procuring a contractor.

- **Level of Design:** As a factor in choosing between DBB and DB delivery method, the level of design is a key consideration. The advantage of DB is that final design will take place concurrently with construction rather than precede construction, thus shortening the construction schedule.
- **Cost:** Considering cost, all methods offer the advantage of competitive bidding on all elements of final design and construction by a contractor. The result will be the lowest cost for both final design and construction while providing the maximum scope, innovation, and quality of the design and construction.
- **Initial Risk Assessment:** For a DB project, since the DB team controls the final design and construction, the risk is shifted to the team for errors and omissions. Risks are assigned and appropriate funds allocated to the risk. Doing so will ensure the costs remain within budget while assuring the overall quality of the design and construction, while minimizing City of Greeley’s risk through the DBB project delivery method. CM/GC presents a shared risk between the City and the contractor.

Figure 9 shows the decision-making process for determining that DBB would be the optimal method of delivery for the GRIP Project, while Table 6 shows the decision matrix used in assessing all methods of project delivery.

Table 6: Decision Matrix for Identifying Preferred Project Delivery Method

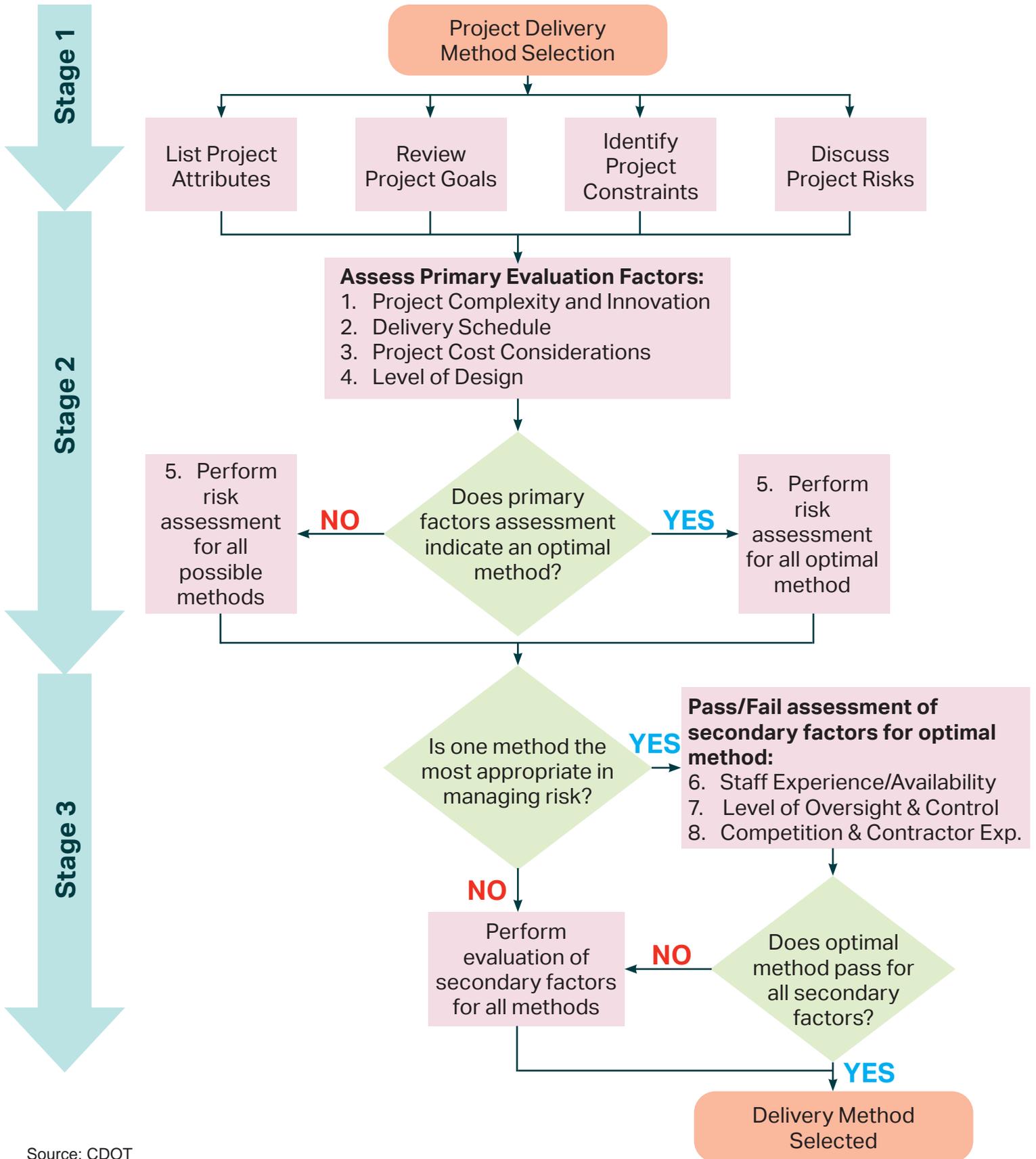
Project Delivery Method Opportunity/Obstacle Summary			
	DBB	DB	CM/GC
<b>Primary Evaluation Factors</b>			
1. Delivery Schedule	++	+	+
2. Project Complexity & Innovation	++	++	+
3. Level of Design	++	-	-
4. Cost	+	+	-
5. Perform Initial Risk Assessment	+	+	++
<b>Secondary Evaluation Factors</b>			
6. Staff Experience/ Availability (Owner)	++	-	-
7. Level of Oversight and Control	++	-	+
8. Competition and Contractor Experience	+	+	++

Source: City of Greeley

## Partnership

The City of Greeley is the applicant for RAISE grant funding and will contribute all of the non-federal funding match. Stakeholder collaboration is the foundation for good transportation on which all of Greeley’s projects are based. The CDOT commissioned US34 Planning and Environmental Linkages (PEL) Study from late 2019 represents collaboration between multiple local and regional agencies. That study identified US34/35th Avenue interchange project as a priority project. The GRIP project has broad support from the state and region’s elected officials, and the community at large. There is a US34 coalition of 8 communities in the corridor that support this project. In particular, GRIP is supported by a variety of stakeholders and elected officials, letter of support from whom can be found in Appendix B.

Figure 9: Colorado Department of Transportation Decision-Making-Process for Determining Optimal Project Delivery Method for GRIP



Source: CDOT

# Project Readiness

## Project schedule

Design and planning of GRIP is already well underway with preliminary design complete and final design underway. Final environmental clearance, ROW work (temporary easements), and final design are expected to be completed by fall of 2022. Construction on GRIP is scheduled to commence at the beginning of 2023 and complete by the first quarter of 2025. An overview of the schedule by project development stage is shown Table 7.

## Consistency with Long Term Planning and Previous Studies

One of FHWA’s initiatives to accelerate project delivery is through Planning and Environmental Linkages (PELs). PELs are generally conducted before any project construction funding is identified, and before specific problems and solutions are fully understood. They are a process typically used to identify transportation issues and environmental concerns in a large corridor, or in a specific location. The PEL process can also discover political needs and desires when a corridor crosses multiple jurisdictions, or it can simply be used as a tool to give a context of an area without intensive studies being performed. In Colorado, CDOT leads many PELs for roadway-related projects, including the development of a PEL study in late 2019 entirety of the US34 Corridor for which the City of Greeley was a sponsor and key contributor.

The US34 PEL study identified, assessed, and prioritized a program of multimodal works for this critical east-west transportation corridor connecting Northern Colorado’s fastest growing communities. The study states the region’s overarching objective of increasing the reliability of east-west regional travel while balancing local access, mobility, and freight needs. It notes that recurring traffic congestion and the regular occurrence of accidents on certain parts of the interregional corridor reduces the reliability of US34 to serve its function as a principal regional highway connecting the region’s communities as well as to nationally significant interstates (I-25 and I-76).

It identifies the long-term objective of having the US34 comprise a six-lane roadway with three lanes in each direction and the gradual removal of signalized intersections through the provision of grade-separated interchanges to facilitate the free flow of east-west traffic.

The US34/35th Avenue intersection’s replacement with a grade-separated interchange through the implementation of the GRIP project is identified as a safety priority, while the project’s improved access to localized active transportation connections to the shared-use trail running adjacent to US34 are consistent with the PEL’s stated objective of completing the region’s bicycle and pedestrian network to enhance overall corridor mobility. The trail will connect to other local trail systems and, in the long term, connect to the city of Loveland.

Table 7: Project Schedule – Greeley Regional Interchange Project

Project Development Stage	2021		2022				2023				2024				2025
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
FIR/Final Design															
Final Environmental Clearance															
ROW Work															
Procurement															
Construction															

Source: AECOM

The transit improvements of the GRIP project (new bus stop and park n’ ride) are also consistent with the PEL’s identified objective of expanding regional and local transit capabilities. This expansion of transit capabilities is also consistent with the objectives of the Greeley-Evans Transit’s (GET) 2016 Strategic Plan, the Greeley 2035 Transportation Masterplan, as well as the North Front Range Municipal Planning Organization’s (NFRMPO) 2040 Regional Transit Element (later incorporated into the 2045 Regional Transportation Plan).

## Right-of-Way

No permanent right of way (ROW) is to be acquired to allow for the development of the Project. Some temporary and permanent easements will be required in order to create embankments to facilitate the Project’s development. This application seeks no federal funding for the temporary or permanent acquisition of right-of-way, as the scope of the applicant project does not assume such acquisition will be necessary.

## Environmental Readiness

The GRIP project components will be evaluated under the National Environmental Policy Act (NEPA), with current environmental analysis expected to arrive at a Finding of No Significant Impact leading to the required level of documentation anticipated to be a Categorical Exclusion (CE). At time of application, it is believed that the nearly the entirety of the project scope of the GRIP project will be confined within existing City of Greeley and CDOT easements. The project team strongly believes this will allow for all of the project components to receive certification under a CE and greatly expedite the overall project since document preparation and review times will be streamlined. Over the past twenty years, City of Greeley and CDOT have collectively delivered hundreds of projects with similar scopes of work using documented categorical exclusions.

City of Greeley will conduct all cultural, natural and other resource surveys required by in order to ensure that all significant environmental

resources are avoided and mitigated and that the public is informed of the proposed project and provided the opportunity to comment. Throughout the course of project development, the City of Greeley will continue to coordinate with CDOT, FHWA and others as necessary to obtain the permits and approvals needed.

Below is description addressing the main construction elements of the GRIP project and the regulation citing the definition of those elements that are eligible for a categorical exclusion which could be applied projects within the project corridor: City of Greeley’s initial analysis indicates that the NEPA process could be completed with a categorical exclusion and completed in 6-9 months.

The following categorical exclusions are applicable to the proposed project construction activities:

*23 CFR 771.117 (c). (22) Projects, as defined in 23 U.S.C. 101, that would take place entirely within the existing operational right-of-way. Existing operational right-of-way means all real property interests acquired for the construction, operation, or mitigation of a project. This area includes the features associated with the physical footprint of the project including but not limited to the roadway, bridges, interchanges, culverts, drainage, clear zone, traffic control signage, landscaping, and any rest areas with direct access to a controlled access highway. This also includes fixed guideways, mitigation areas, areas maintained or used for safety and security of a transportation facility, parking facilities with direct access to an existing transportation facility, transportation power substations, transportation venting structures, and transportation maintenance facilities.<sup>3</sup>*

If, for unforeseen reasons, the project does not qualify for a categorical exclusion, the City of Greeley has institutionalized several environmental review innovations from FHWA’s Every Day Counts Toolkit to expedite environmental review which could be applicable to the GRIP Project program of works, including:

- Implementing Quality Environmental Documents: Greeley would use templates developed by CDOT for Non-Programmatic

Categorical Exclusions. These have streamlined the NEPA process: reducing costs and review times while maintaining document quality.

- Mitigation Banking: Greeley would tap into the first Permanent Water Quality (PWQ) Mitigation program of its type, which was developed by CDOT. It uses a mitigation fund for more effective watershed-level projects instead of on-site mitigation-by-project for PWQ impacts; it encourages partnerships with our municipal stakeholders that should also reduce the maintenance burden on City crews; and compliance is easily tracked by use of funds instead of tracking water or area treated.
- Programmatic Agreements: The City of Greeley, through regional and state agencies, has agreements with EPA, Colorado Parks & Wildlife, US Fish and Wildlife Service, Colorado Department of Health & Environment, US Army Corp of Engineers, US Forest Services, Bureau of Land Management, Federal Highway Administration, and the State Historic Preservation Office. All establish streamlined approaches for handling routine environmental requirements, reducing review times, and accelerating project delivery.
- NEPA 404 Merger: Integrating NEPA and the permitting process seeks to transform how agencies and stakeholders conduct concurrent, synchronize environmental and permitting reviews, saving time and cost for the agencies involved.

## Risk Identification and Management

Table 8 includes an assessment of the project risks. Overall, there are low risks associated in the delivery of the GRIP project to schedule and to cost utilizing RAISE funding as: NEPA approvals can be cleared through a Categorical Exclusion; much of the right-of-way has been purchased; and the proposed procurement process will be competitive.

3 Federal Highway Administration. 23 CFR § 771.117 - FHWA Categorical Exclusions. Accessed from <https://www.law.cornell.edu/cfr/text/23/771.117>

Table 8: Project Risk Assessment – GRIP Project

Risk	Risk Category	Mitigation Strategy
Getting a qualified contractor available to construct the Project	Low	The market is competitive due to the limited availability of work, in part due to constrained transportation funding by the State, as well as current macroeconomic conditions due to the ongoing COVID-19 pandemic.
Obtaining the quantum of funding required to carry out the entire project	Low	If full funding is not available, the project can be scaled as necessary, with certain segments or construction elements prioritized over others.
Environmental regulatory approvals, permitting, and clearances	Low	Greeley is expecting categorical exclusions for all segments and elements of the Project. The majority of the corridor's projects will be constructed without permanent right-of-way acquisition .
Construction schedule	Low	Greeley will set specific paving parameters to maximize construction and build in phases if needed. This area of Colorado is not as affected as other part of Colorado in terms of the seasonality of construction.
Cost overruns	Low	If cost overruns materialize, the project can be scaled as necessary, with certain segments or construction elements prioritized over others.

Source: City of Greeley, AECOM

# Appendix A – Benefits-Costs Analysis

12 July 2021

# **Benefit Cost Analysis**

to Support

## **City of Greeley's Application for the USDOT's 2021 RAISE Grant Program**

For the

## **Greeley Regional Interchange Program (GRIP)**

Prepared by:



**AECOM Technical Services  
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## Introduction

This memorandum presents the Benefit-Cost Analysis (BCA) for the Greeley Regional Interchange Program (GRIP) RAISE Grant application for the City of Greeley, CO. The GRIP project consists of grade-separating the interchange of US 34 and 35<sup>th</sup> Avenue in Greeley, Colorado. The Project will improve safety and reduce travel times for travelers at a busy intersection on an important east-west corridor that connects the citizens of Greeley to I-25.

The methodology used for the BCA follows the guidelines of the Notice of Funding Opportunity for the Department of Transportation’s National Infrastructure Investments Under the Consolidated Appropriations Act, 2021 (NOFO) and the *Benefit-Cost Analysis Guidance for Discretionary Grant Programs*, February 2021. Estimates of the expected benefits for each of the applicable five primary selection criteria specified in the NOFO are presented for the full completion of the project ‘build’ scenario against a baseline ‘no-build’ scenario. In this document, net benefits are estimated as the difference between the total benefits and total costs in the build and the no-build scenarios. Costs and benefits were discounted using a 7% discount rate as suggested by the Benefit-Cost Analysis Guidance. Benefits of the whole project are compared to the costs of the whole project, including costs paid by state, local, and private partners other than the Federal government, to compute the final BCA score.

Table 2 presents the Impact Matrix as specified in the NOFO. The Impact Matrix describes the project and what it changes. Table 1 presents the BCA for the project. The BCA was computed using the present value of benefits and costs over a life-cycle of 20 years. The benefit cost ratio (BCR) is 2.2:1 following the implementation of the Project based on a project life of 20 years, indicated that the project is cost-effective.

**Table 1: Benefit Cost Analysis Summary**

<b>Benefits and Costs (\$Millions)</b>	<b>Net Present Value, 7% Discount Rate</b>
Safety	\$48.4
Economic Competitiveness	\$49.4
<i>Auto Time Savings</i>	\$44.5
<i>Truck Time Savings</i>	\$2.1
<i>Truck Operating Savings</i>	\$2.8
State of Good Repair	\$4.7
<i>Residual Value</i>	\$6.0
<i>O&amp;M Costs</i>	-\$1.2
<b>Total Discounted Benefits</b>	<b>\$102.5</b>
<b>Discounted Costs</b>	<b>\$46.5</b>
<b>Net Benefits</b>	<b>\$56.0</b>
<b>Benefit Cost Ratio (BCR)</b>	<b>2.2</b>

**Table 2: Impact Matrix**

<b>Current Status / Baseline &amp; Problem to Be Addressed</b>	<b>Change to Baseline / Alternatives</b>	<b>Type of Impacts</b>	<b>Affected Population by Impacts</b>	<b>Economic Benefits (NPV at 7% Discount Rate)</b>	<b>Page Reference in BCA</b>
Drivers on US 34 in Greeley, CO experience long wait times and excessive accidents.	With a grade-separated interchange, drivers on US 34 will no longer have to wait at a signalized intersection. Drivers on 35 <sup>th</sup> Avenue will also experience fewer conflicts and less wait time. Auto accidents will be reduced.	Economic Competitiveness: Reduced Travel Time Reduced Operating Costs	Local Drivers	\$49.4M	5
		Safety: Reduced Accidents	Local Drivers	\$48.4M	6
		State of Good Repair: Residual Value O&M Costs	City of Greeley	\$4.7M	7

## Methodology

The NOFO lists five primary selection criteria against which project should be evaluated: State of Good Repair, Economic Competitiveness, Safety, Quality of Life, and Environmental Sustainability. Safety, State of Good Repair, and Economic Competitiveness benefits were quantified for the benefit cost analysis. Environmental Sustainability and Quality of Life benefits were not quantified but are described qualitatively.

**Safety:** Drivers will experience safety benefits from a reduction in the number and severity of crash types, as determined by the Crash Modification Factors (CMF) for the individual project components.

**Economic Competitiveness:** Drivers on both US 34 and 35<sup>th</sup> Avenue will experience travel time savings from reduced wait times. Drivers on US 34 will no longer need to stop at a traffic signal and drivers on 35<sup>th</sup> Avenue will have shorter wait times due to reduced conflicts. Trucks will also have reduced operating costs due to travel time savings.

**State of Good Repair:** The Project has a useful life that extends beyond the 20-year analysis period, as determined by the Bureau of Economic Analysis (BEA), and therefore has residual value at the end of the analysis period. The new grade-separated interchange and associated service roads will impact operations and maintenance (O&M) costs.

Net benefits are computed over a 20-year period and discounted to 2021 using a 7% discount rate, as recommended in the RAISE guidance documents. Net benefits are the difference in benefits and costs between a base case (no-build) and the alternative case (build). Costs and benefits were both calculated in constant 2019 dollars. Model inputs are shown in Table 3.

**Table 3: Model Inputs**

<b>Inputs</b>	<b>Value</b>	<b>Notes/Source</b>	
Discount Year	2021		
Discount Rate	7%		
Year 1	2026	1 <sup>st</sup> full year following construction	
Annualization Factor	312	6 days a week, 52 weeks	
Value of Time, All Purposes (\$2019)	\$17.90	Benefit-Cost Analysis Guidance for Discretionary Grant Programs, February 2021	
Value of Time, Trucks (\$2019)	\$30.80		
Average Passenger Vehicle Occupancy	1.67		
Value of Injury Crash Avoided (\$2019)	\$197,600		
Value of PDO Crash Avoided (per vehicle) (\$2019)	\$4,500		
Truck Operating Cost per Hour (\$2019)	\$41.86		ATRI Operational Cost of Trucking <a href="https://truckingresearch.org/wp-content/uploads/2020/11/ATRI-Operational-Cost-of-Trucking-2020-FINAL.pdf">https://truckingresearch.org/wp-content/uploads/2020/11/ATRI-Operational-Cost-of-Trucking-2020-FINAL.pdf</a>
<b>Traffic Data:</b>			
US 34 West of 35 <sup>th</sup> Ave 2019 AADT	37,000	CDOT	
US 34 East of 35 <sup>th</sup> Ave 2019 AADT	36,000		
35 <sup>th</sup> Ave North of US 34 2019 AADT	28,500		
35 <sup>th</sup> Ave South of US 34 2019 AADT	26,000		
AADT CAGR	1.2%		
Percent Trucks	4.3%		
<b>2014-2019 Accidents:</b>			
Fatal Crash (K)	0	CDOT	
Injury Crash (ABC)	153		
Property Damage Only (O)	143		
<b>Crash Modification Factors:</b>			
CMF 460 (ABC)	0.43	AECOM Traffic and Safety Analysis	
CMF 461 (O)	0.64		
CMF 326 (All)	0.23		
Total Peak Hour Conflicts	178,925		
SBL Peak Hour Conflicts	3,010		
CMF 326 Countermeasure Adjustment Factor	2%		

## Benefits

The GRIP Project has quantified benefits for three of the five merit criteria listed in the NOFO: Safety, Economic Competitiveness, and State of Good Repair. Quality of Life and Environmental Sustainability benefits were not quantified but are described qualitatively.

### Safety

By decreasing conflicts at a busy intersection, the Project will reduce the number and severity of traffic accidents. Crash Modification Factors (CMF) for the various improvements were applied to 2014-2019 crashes at the Project location. The total number of crashes by type (Fatal, Injury, and Property Damage Only [PDO]) from 2014 to 2019 are shown in Table 3. Three CMFs were applied to the historical crashes. CMFs 460 and 461 apply to converting an at-grade intersection to a grade separated interchange. CMF 460 was applied to injury (ABC) crashes and CMF 461 was applied to PDO (O) crashes. CMF 326 applies to installing a traffic signal. CMF 326 only applies to the southbound left turns from 35<sup>th</sup> Avenue onto W 28<sup>th</sup> Street (directly north of US 34). Therefore, CMF 326 was adjusted by a factor of the ratio of those southbound left turn peak hour conflicts to total peak hour conflicts, which is 2%.

There were no fatal crashes at the Project location between 2014 and 2019. The reduction in injury and PDO crashes expected from Project implementation are shown in Table 4.

**Table 4: GRIP Accident Reduction Benefits**

Year	Reduced Injury Crashes	Reduced PDO Crashes	Value of Accident Reduction (\$2019)	Value of Accident Reduction, Discounted 7%
2026	19.13	11.44	\$5,485,000	\$3,911,000
2027	19.35	11.57	\$5,550,000	\$3,698,000
2028	19.58	11.71	\$5,615,000	\$3,497,000
2029	19.81	11.84	\$5,680,000	\$3,306,000
2030	20.04	11.98	\$5,747,000	\$3,126,000
2031	20.27	12.12	\$5,814,000	\$2,956,000
2032	20.51	12.26	\$5,882,000	\$2,794,000
2033	20.75	12.41	\$5,951,000	\$2,642,000
2034	20.99	12.55	\$6,020,000	\$2,498,000
2035	21.24	12.70	\$6,091,000	\$2,362,000
2036	21.49	12.85	\$6,162,000	\$2,233,000
2037	21.74	13.00	\$6,234,000	\$2,112,000
2038	21.99	13.15	\$6,307,000	\$1,997,000
2039	22.25	13.30	\$6,381,000	\$1,888,000
2040	22.51	13.46	\$6,455,000	\$1,785,000
2041	22.77	13.62	\$6,531,000	\$1,688,000
2042	23.04	13.78	\$6,607,000	\$1,596,000
2043	23.31	13.94	\$6,684,000	\$1,509,000
2044	23.58	14.10	\$6,762,000	\$1,426,000
2045	23.86	14.26	\$6,841,000	\$1,349,000
<b>Total</b>				<b>\$48,373,000</b>

The present value of this benefit stream is estimated at \$48.4M over the 20-year project life using a 7% discount rate.

### ***Economic Competitiveness***

This project will increase the efficiency of traffic flows an important east-west artery between Greeley and I-25. The US 34/35<sup>th</sup> Avenue interchange is planned to be the first project along US 34 to upgrade the entire thoroughfare between Loveland and Greeley to allow drivers to efficiently travel to and from I-25 and I-76.

With a grade-separated interchange, drivers on US 34 passing through the 35<sup>th</sup> Avenue interchange would no longer need to stop at a signalized intersection. Drivers on 35<sup>th</sup> Avenue would still pass through a signalized intersection but would have reduced wait times due to fewer conflicts. Detailed traffic modeling was conducted by AECOM. Delay per vehicle and number of vehicles on both US 34 and 35<sup>th</sup> Avenue was modeled for each hour throughout the day for the Build and No Build scenarios. Traffic modeling showed a total of 980 vehicle-hours of delay per day in the No Build scenario and 420 vehicle-hours of delay per day in the Build Scenario. Modeling was conducted for 2022 and delays were increased at the estimated traffic growth rate of 1.2% annually. Trucks make up 4.3% of traffic on the affected roadways. An occupancy rate of 1.67 was applied to autos to calculate the total person travel time savings. Total travel time savings for each year of the analysis period are shown in Table 5.

**Table 5: Travel Time Savings**

Year	Project Year	No Build Annual Delay (Hours)	Build Annual Delay (Hours)	Annual Time Savings (Hours)	Annual Auto Time Savings (Hours)	Annual Truck Time Savings (Hours)	Total Time Savings (\$2019)	Total Time Savings, Discounted 7%
2026	1	314,000	137,000	177,000	169,000	8,000	\$5,283,000	\$3,767,000
2027	2	317,000	139,000	179,000	171,000	8,000	\$5,345,000	\$3,561,000
2028	3	321,000	141,000	181,000	173,000	8,000	\$5,407,000	\$3,367,000
2029	4	325,000	142,000	183,000	175,000	8,000	\$5,471,000	\$3,184,000
2030	5	329,000	144,000	185,000	177,000	8,000	\$5,535,000	\$3,010,000
2031	6	333,000	145,000	187,000	179,000	8,000	\$5,599,000	\$2,846,000
2032	7	336,000	147,000	189,000	181,000	8,000	\$5,665,000	\$2,691,000
2033	8	340,000	149,000	191,000	183,000	8,000	\$5,731,000	\$2,545,000
2034	9	344,000	151,000	194,000	185,000	8,000	\$5,798,000	\$2,406,000
2035	10	348,000	152,000	196,000	187,000	8,000	\$5,866,000	\$2,275,000
2036	11	352,000	154,000	198,000	190,000	9,000	\$5,934,000	\$2,151,000
2037	12	357,000	156,000	201,000	192,000	9,000	\$6,004,000	\$2,034,000
2038	13	361,000	158,000	203,000	194,000	9,000	\$6,074,000	\$1,923,000
2039	14	365,000	160,000	205,000	196,000	9,000	\$6,145,000	\$1,818,000
2040	15	369,000	162,000	208,000	199,000	9,000	\$6,217,000	\$1,719,000
2041	16	374,000	163,000	210,000	201,000	9,000	\$6,290,000	\$1,625,000
2042	17	378,000	165,000	213,000	203,000	9,000	\$6,363,000	\$1,537,000
2043	18	382,000	167,000	215,000	206,000	9,000	\$6,438,000	\$1,453,000
2044	19	387,000	169,000	218,000	208,000	9,000	\$6,513,000	\$1,374,000
2045	20	391,000	171,000	220,000	211,000	10,000	\$6,589,000	\$1,299,000
<b>Total</b>								<b>\$46,585,000</b>

The present value of this benefit stream is estimated at \$46.8M over the 20-year project life using a 7% discount rate.

Additionally, trucks will save operating costs associated with travel time savings. The operating cost per hour for trucks is composed of fuel, repairs, lease payments, insurance, benefits, and tires. Toll, permits, and driver pay is excluded.

**Table 6: Truck Operating Cost Savings**

Year	Project Year	Annual Truck Time Savings (Hours)	Total Operating Cost Savings (\$2019)	Total Operating Cost Savings, Discounted 7%
2026	1	8,000	\$320,000	\$228,000
2027	2	8,000	\$323,000	\$215,000
2028	3	8,000	\$327,000	\$204,000
2029	4	8,000	\$331,000	\$193,000
2030	5	8,000	\$335,000	\$182,000
2031	6	8,000	\$339,000	\$172,000
2032	7	8,000	\$343,000	\$163,000
2033	8	8,000	\$347,000	\$154,000
2034	9	8,000	\$351,000	\$146,000
2035	10	8,000	\$355,000	\$138,000
2036	11	9,000	\$359,000	\$130,000
2037	12	9,000	\$363,000	\$123,000
2038	13	9,000	\$368,000	\$116,000
2039	14	9,000	\$372,000	\$110,000
2040	15	9,000	\$376,000	\$104,000
2041	16	9,000	\$381,000	\$98,000
2042	17	9,000	\$385,000	\$93,000
2043	18	9,000	\$390,000	\$88,000
2044	19	9,000	\$394,000	\$83,000
2045	20	10,000	\$399,000	\$79,000
<b>Total</b>				<b>\$2,819,000</b>

The present value of this benefit stream is estimated at \$2.8M over the 20-year project life using a 7% discount rate.

### ***State of Good Repair***

State of Good Repair benefits include residual value at the end of the analysis period and changes to annual O&M costs.

### **Operations & Maintenance**

Project improvements will alter the required O&M for the affected highway segment. O&M costs are expected to be 0.25% of construction costs each year for the first ten years and increase the 0.5% of construction costs annually thereafter. Annual O&M costs are shown in

Table 7. Overall, the Project improvements will increase O&M by \$1.2M over the 20-year analysis period, discounted at 7%.

**Table 7: GRIP Annual O&M**

Year	Project Year	Net O&M (Increase) (\$2019)	Net O&M, Discounted 7%
2026	1	\$113,000	\$80,000
2027	2	\$113,000	\$75,000
2028	3	\$113,000	\$70,000
2029	4	\$113,000	\$66,000
2030	5	\$113,000	\$61,000
2031	6	\$113,000	\$57,000
2032	7	\$113,000	\$54,000
2033	8	\$113,000	\$50,000
2034	9	\$113,000	\$47,000
2035	10	\$113,000	\$44,000
2036	11	\$226,000	\$82,000
2037	12	\$226,000	\$76,000
2038	13	\$226,000	\$71,000
2039	14	\$226,000	\$67,000
2040	15	\$226,000	\$62,000
2041	16	\$226,000	\$58,000
2042	17	\$226,000	\$54,000
2043	18	\$226,000	\$51,000
2044	19	\$226,000	\$48,000
2045	20	\$226,000	\$44,000
<b>Total</b>		<b>\$3,383,000</b>	<b>\$1,217,000</b>

### Residual Value

The Project will have useful life remaining at the end of the 20-year project planning period, as determined by the BEA<sup>1</sup>. In addition to the concrete roadway, which has a useful life of 60 years, right-of-way does not depreciate. The residual value of the Project is shown in Table 8. The net present value (NPV) of this benefit is \$6.0M using a 7% discount rate.

<sup>1</sup> Table C.—BEA Rates of Depreciation, Service Lives, Declining-Balance Rates, and Hulten-Wykoff categories  
[http://www.bea.gov/scb/account\\_articles/national/wlth2594/tableC.htm](http://www.bea.gov/scb/account_articles/national/wlth2594/tableC.htm)

**Table 8: Project Components and Residual Value**

<b>Works Description</b>	<b>Useful Life</b>	<b>2026 Value (\$2019)</b>	<b>2045 Value (\$2019)</b>	<b>Residual Value, Discounted 7%</b>
PE & Soft Costs	N/A	\$8,667,000	\$0	\$0
ROW	Indefinite	\$158,000	\$158,000	\$31,000
Utilities	20	\$413,000	\$0	\$0
Construction	60	\$45,101,000	\$30,067,000	\$5,928,000
<b>Total</b>		<b>\$54,339,000</b>	<b>\$30,225,000</b>	<b>\$5,959,000</b>

### ***Environmental Sustainability***

The reduction in vehicle idling times as a result of the Project improvements will reduce vehicle emissions. These benefits were not quantified for the BCA.

### ***Quality of Life***

Improved mobility through the provision of more efficient and safer transportation infrastructure results in number of quality-of-life improvements including greater accessibility and increases in both social inclusion and social equity. The Project will result in safer vehicular travel, safer pedestrian routes to school for students, and the more efficient movement of both local and regional vehicular traffic. Furthermore, it will generate a reduction in recurring congestion as well as enabling the future expansion of local and regional transit. Greeley is dedicated to helping improve the lives of residents by engaging in transportation projects that result in safety and efficiency enhancements which provide equal accessibility to all cohorts of the city's and region's population. The Project adequately addresses these criteria and realizes the importance of the northeastern region of Colorado as an integral part of the state and country.

## Costs

A detailed engineering cost estimate for the Project was developed by AECOM. Total first costs of the Project, including engineering, right-of-way (ROW), and construction, are \$54.3 million in 2019 dollars. Project costs were allocated based on the project schedule and discounted to 2021 using a 7% discount rate. Costs per year by work description are shown in Table 9.

**Table 9: Costs per Year**

Design				
Calendar Year	Months	Percent	Total Costs (\$2019M)	Discounted 7%
2021	3	25%	\$2.17	\$2.17
2022	9	75%	\$6.50	\$6.08
<b>Total</b>	<b>12</b>		<b>\$8.67</b>	<b>\$8.25</b>
ROW/Utilities				
Calendar Year	Months	Percent	Total Costs (\$2019M)	Discounted 7%
2022	6	100%	\$0.57	\$0.53
<b>Total</b>	<b>6</b>		<b>\$0.57</b>	<b>\$0.53</b>
Construction				
Calendar Year	Months	Percent	Total Costs (\$2019M)	Discounted 7%
2023	12	44%	\$20.04	\$17.51
2024	12	44%	\$20.04	\$16.36
2025	3	11%	\$5.01	\$3.82
<b>Total</b>	<b>27</b>		<b>\$45.09</b>	<b>\$37.69</b>
<b>Project Total</b>			<b>\$54.34</b>	<b>\$46.47</b>

## Benefit Cost Analysis

The benefits and costs described in the preceding sections are shown in Table 10. Benefits and costs are shown in 2019 dollars and discounted to 2021 using a 7% discount rate.

**Table 10: Benefit Cost Analysis, 7% Discount Rate**

<b>7% Discount Rate</b>	<b>Project Total</b>
<b>Project Benefits</b>	<b>\$102.5</b>
Safety	\$48.4
Economic Competitiveness	\$49.4
<i>Auto Time Savings</i>	\$44.5
<i>Truck Time Savings</i>	\$2.1
<i>Truck Operating Savings</i>	\$2.8
State of Good Repair	\$4.7
<i>Residual Value</i>	\$6.0
<i>O&amp;M Costs</i>	-\$1.2
<b>Project Costs</b>	<b>\$46.5</b>
Capital Costs	\$46.5
<b>Net Benefits</b>	<b>\$56.0</b>
<b>Benefit Cost Ratio</b>	<b>2.2</b>

As shown in Table 10, the Project is cost-effective.

# Appendix B – Letters of Support

MICHAEL F. BENNET  
COLORADO

COMMITTEES:  
AGRICULTURE, NUTRITION, AND FORESTRY  
FINANCE  
INTELLIGENCE

United States Senate  
WASHINGTON, DC 20510-0609

WASHINGTON, DC:  
261 RUSSELL SENATE OFFICE BUILDING  
WASHINGTON, DC 20510  
(202) 224-5852

COLORADO:  
CESAR E. CHAVEZ BUILDING  
1244 SPEER BOULEVARD  
DENVER, CO 80204  
(303) 455-7600  
<http://www.bennet.senate.gov>

June 25, 2021

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

Honorable Secretary Buttigieg:

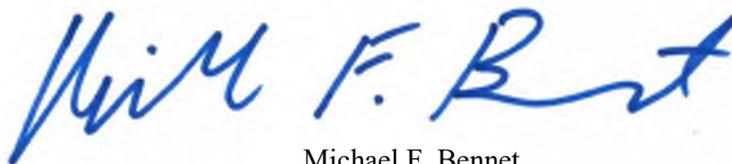
I write to express support for the application submitted by the City of Greeley (City) to the U.S. Department of Transportation for funding from the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant program. If awarded, the City will fund the Greeley Regional Interchange Project (GRIP), a critical component of a multifaceted program of multimodal improvements to the US34 corridor.

The US34 corridor is a key regional highway connecting Northern Colorado's largest regional population and economic centers. Sustained growth and economic development along the corridor have increased the need to enhance safety, reduce congestion, and improve mobility. Consistent with objectives of long-term state, regional, and local planning, construction and operation of the US 34/35th interchange will improve overall multimodal mobility in Greeley, and along this critical regional route.

The GRIP comprises the grade separation of US 34 over 35th Avenue in the City of Greeley. With RAISE monies, the GRIP will enable future transit services between Greeley, Loveland, and Fort Collins. The project's implementation will generate significant safety improvements for both vehicular and active transportation, enhancing local and regional mobility that benefits businesses and services supporting the regional economy.

The City's project facilitates safe and efficient multimodal mobility for all transportation users, to enhance regional mobility and support the economic vitality of the Northern Front Range and Colorado. I encourage you to give the application submitted by the City of Greeley your full and fair consideration consistent with all applicable laws and regulations. Thank you for your consideration, and please notify my office of any funds awarded.

Sincerely,



Michael F. Bennet  
United States Senator

COMMITTEES

COMMERCE, SCIENCE, AND TRANSPORTATION  
ENERGY AND NATURAL RESOURCES  
HEALTH, EDUCATION, LABOR, AND PENSIONS  
SMALL BUSINESS AND ENTREPRENEURSHIP

COLORADO

1001 SENATE OFFICE BUILDING  
1001 SENATE OFFICE BUILDING  
STATE 12-300  
DENVER, CO 80204  
(303) 224-1720

<http://www.johnhickenlooper.senate.gov>

July 8, 2021

The Honorable Pete Buttigieg  
Secretary of Transportation  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

Dear Secretary Buttigieg:

I am writing to request full and fair consideration for the City of Greeley's application for funding under the Department of Transportation's (DOT) Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project ('GRIP' or 'the Project').

The proposed GRIP will provide significant multimodal improvements to the US 34 corridor, which is a key regional highway connecting Northern Colorado's largest regional population and economic centers. Consistent with objectives of long-term state, regional, and local planning, construction and operation of the US 34/35th interchange will improve multimodal mobility in Greeley and along this critical regional route. GRIP will enable future transit services between Greeley, Loveland, and Fort Collins and the Project's enhancement of local and regional mobility and accessibility will in turn, benefit current and future businesses and services that support the regional economy.

GRIP comprises of a grade separation of US 34 over 35<sup>th</sup> Avenue in the City of Greeley; improvements to 8,000 feet of highway corridor on either side of the interchange including the addition of one auxiliary lane in each direction; and the construction of a tight diamond configuration with a partial cloverleaf on-ramp in the southwest quadrant of the interchange. Additional work will enable future local and regional transit connections while also improving accessibility to the regional shared-use trail adjacent to the corridor. The proposed interchange will improve safety and efficiency along the regional connection corridor and on 35<sup>th</sup> Avenue through the removal of traffic signals, thereby allowing the free flow of east-west traffic, and the elimination of at-grade bike/pedestrian crossing on US 34.

The Project's grade separation of US 34 traffic will provide safer pedestrian and bike crossing, which is especially important given several schools and major retail centers located directly adjacent to the Project's location. The elimination of traffic signals at the existing US 34/35<sup>th</sup> Avenue intersection will alleviate recurring congestion on the regional connector while also lowering greenhouse gases along the corridor through the reduction of idling emissions.

I ask that the Department of Transportation give full and fair consideration of the City of Greeley's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant to support the Greeley Regional Interchange Project. I also request that you keep my office informed of the application's status. Please do not hesitate to contact us if we can provide further information on this project which has significant local and regional benefits to increase mobility alternatives and support the economic vitality of the Northern Front Range and Colorado.

Sincerely,



John Hickenlooper  
United States Senator

**KEN BUCK**  
4TH DISTRICT OF COLORADO

2455 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515  
(202) 225-4676  
FAX: (202) 225-5870

**DISTRICT OFFICE:**  
502 CASTLETON BL. SUITE 112  
CASTLE ROCK, CO 80109  
PHONE: (720) 639-9165  
FAX: (720) 639-9134

5626 19TH STREET, SUITE A  
GREELEY, CO 80634  
PHONE: (970) 702-2136  
FAX: (970) 702-2951



**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-0605**

July 9, 2021

**HOUSE JUDICIARY COMMITTEE**  
SUBCOMMITTEE ON IMMIGRATION  
AND CITIZENSHIP  
SUBCOMMITTEE ON ANTI-TRUST, COMMERCIAL  
AND ADMINISTRATIVE LAW - RANKING MEMBER

**HOUSE FOREIGN AFFAIRS COMMITTEE**  
SUBCOMMITTEE ON ASIA, THE PACIFIC,  
AND NONPROLIFERATION

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

Secretary Buttigieg:

I am writing to express my support for the City of Greeley's application for funding under the DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project (GRIP).

The GRIP will provide critical improvements to the U.S. Highway 34 corridor, a key regional highway connecting Northern Colorado's largest regional population and economic centers. Sustained growth and economic development along the corridor have increased the need to enhance safety, reduce congestion, and improve mobility. GRIP will enable future transit services between Greeley, Loveland, and Fort Collins and enhance local and regional accessibility, benefitting current and future businesses that support the region's economy.

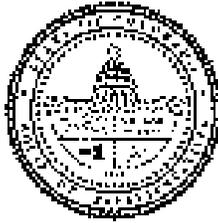
The GRIP will enable future local and regional transit connections while also improving accessibility to the regional shared-use trail adjacent to the corridor. GRIP will improve safety along the corridor and on 35<sup>th</sup> Avenue through the removal of traffic signals, thereby allowing the free flow of east-west traffic, and the elimination of at-grade bike and pedestrian crossings on Highway 34. In addition to improving the efficiency of east-west travel along the corridor, grade separation of Highway 34 traffic will provide safer pedestrian and bike crossings, which is important given several schools and major retail centers are located adjacent to the highway.

Thank you in advance for your full and fair consideration of the City of Greeley's grant application under the RAISE program for GRIP, as it is important in enhancing regional mobility and supporting the economic vitality of the Front Range and Northern Colorado. If you have any questions, please do not hesitate to reach out to my Washington, D.C. office at 202.225.4676.

Sincerely,

Ken Buck  
Member of Congress

State Representative  
MARY YOUNG  
Colorado State Capitol  
200 East Colfax Ave., Room 307  
Denver, Colorado 80203  
Capitol: 303-866-2929  
mary.young.house@state.co.us



Member:  
Public & Behavioral Health &  
Human Services Committee  
Education Committee

**COLORADO**  
**HOUSE OF REPRESENTATIVES**  
State Capitol  
Denver  
80203

June 18, 2021

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

**Re: Greeley Regional Interchange Project (GRIP) RAISE Grant Application**

Honorable Secretary Buttigieg:

I am writing to express my support for the City of Greeley's application for funding under the DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project ('GRIP' or 'the Project').

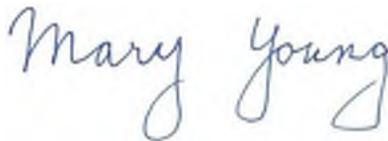
GRIP is a critical component of a multifaceted program of multimodal improvements to the US34 corridor, a key regional highway connecting Northern Colorado's largest regional population and economic centers. Sustained growth and economic development along the corridor have increased the need to enhance safety, reduce congestion, and improve mobility. Consistent with objectives of long-term state, regional, and local planning, construction and operation of the US 34/35th interchange will improve overall multimodal mobility in Greeley and along this critical regional route. GRIP will enable future transit services between Greeley, Loveland, and Fort Collins and the Project's enhancement of local and regional mobility and accessibility will in turn, benefit current and future businesses and services that support the regional economy.

GRIP comprises the grade separation of US 34 over 35<sup>th</sup> Avenue in the City of Greeley; improvements to 8,000 feet of highway corridor on either side of the interchange including the addition of one auxiliary lane in each direction; and the construction of a tight diamond configuration with a partial cloverleaf on-ramp in the southwest quadrant of the interchange. Additional work will enable future local and regional transit connections while also improving accessibility to the regional shared-use trail adjacent to the corridor. The construction and operation of the interchange will improve safety and efficiency along the regional connection corridor and on 35<sup>th</sup> Avenue through the removal of traffic signals, thereby allowing the free flow of east-west traffic, and the elimination of at-grade bike/pedestrian crossing on US34.

The benefits and economic impacts which the GRIP's delivery and operation will deliver are diversified and myriad. It will provide enhanced local and regional mobility and connectivity through the elimination of signals and grade separation thereby allowing the free flow of passenger and freight traffic. The Project's implementation will generate significant safety improvements for both vehicular and active transportation. Grade separation of US34 traffic, in addition to improving the efficiency of east-west travel along the corridor, will provide safer pedestrian and bike crossing, which is especially important given several schools and major retail centers located directly adjacent to the Project's location. The elimination of traffic signals at the existing US 34/35<sup>th</sup> Avenue intersection will alleviate recurring congestion on the regional connector while also lowering greenhouse gases along the corridor through the reduction of idling emissions.

I am very passionate about transportation alternatives that promote and facilitate safe and efficient multimodal mobility for all transportation users. I hope that federal participation for Greeley Regional Interchange Improvement Project is seriously considered given its importance in enhancing regional mobility and supporting the economic vitality of the Northern Front Range and Colorado.

Sincerely,

A handwritten signature in blue ink that reads "Mary Young". The signature is written in a cursive, flowing style.

Representative Mary Young, Ph.D.  
Colorado House of Representatives  
House District 50

Colorado State Capitol  
Denver, CO 80203  
Office:303-866-2929



## OFFICE OF THE BOARD OF COMMISSIONERS

PHONE: 970-400-4200

FAX: 970-336-7233

1150 O STREET

P.O. BOX 758

GREELEY, CO 80632

June 7, 2021

The Honorable Pete Buttigieg  
Secretary U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

### Re: Greeley Regional Interchange Project (GRIP) RAISE Grant Application

Honorable Secretary Buttigieg:

I am writing to express Weld County's support for the City of Greeley's application for funding under the DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project ('GRIP' or 'the Project').

GRIP is a critical component of a multifaceted program of multimodal improvements to the US34 corridor, a key regional highway connecting Northern Colorado's largest regional population and economic centers. Sustained growth and economic development along the corridor have increased the need to enhance safety, reduce congestion, and improve mobility. Consistent with objectives of long-term state, regional, and local planning, construction and operation of the US 34/35th Avenue interchange will improve overall multimodal mobility in Greeley and along this critical regional route. GRIP will enable future transit services between Greeley, Loveland, and Fort Collins and the Project's enhancement of local and regional mobility and accessibility will in turn, benefit current and future businesses and services that support the regional economy.

GRIP comprises the grade separation of US 34 over 35<sup>th</sup> Avenue in the City of Greeley; improvements to 8,000 feet of federal highway corridor on either side of the interchange including the addition of one auxiliary lane in each direction; and the construction of a tight diamond configuration with a partial cloverleaf on-ramp in the southwest quadrant of the interchange. Additional work will enable future local and regional transit connections while also improving accessibility to the regional shared-use trail adjacent to the corridor. The construction and operation of the interchange will improve safety and efficiency along the regional connection corridor and on 35<sup>th</sup> Avenue through the removal of traffic signals, thereby allowing the free flow of east-west traffic, and the elimination of at-grade bike/pedestrian crossing on US34.

The benefits and economic impacts which the GRIP's delivery and operation will deliver are diversified and myriad. It will provide enhanced local and regional mobility and connectivity through the elimination of signals and grade separation thereby allowing the free flow of passenger and freight traffic. The Project's implementation will generate significant safety improvements for both vehicular and active transportation. Grade separation of US34 traffic, in addition to improving the efficiency of east-west travel along the corridor, will provide safer pedestrian and bike crossing, which is especially important given several schools and major retail centers located directly adjacent to the Project's location. The elimination of traffic signals at the existing US 34/35<sup>th</sup> Avenue intersection will alleviate recurring congestion on the regional connector while also lowering greenhouse gases along the corridor through the reduction of idling emissions.

The Weld County Board of Commissioners are very passionate about transportation alternatives that promote and facilitate safe and efficient transportation system for all users. We hope you agree and your federal partnership for the Greeley Regional Interchange Improvement Project is seriously considered given its importance in enhancing regional mobility and supporting the economic vitality of the Northern Front Range and Colorado.

Sincerely,

Steve Moreno  
Chair, Weld County Board of Commissioners



June 7, 2021

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

**Re: Greeley Regional Interchange Project (GRIP) RAISE Grant Application**

Honorable Secretary Buttigieg:

I am writing to express my support for the City of Greeley's application for funding under the DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project ('GRIP' or 'the Project').

GRIP is a critical component of a multifaceted program of multimodal improvements to the US34 corridor, a key regional highway connecting Northern Colorado's largest regional population and economic centers. Sustained growth and economic development along the corridor has increased the need to enhance safety, reduce congestion, and improve mobility. Consistent with objectives of long-term state, regional, and local planning, construction and operation of the US 34/35th interchange will improve overall multimodal mobility in Greeley and along this critical regional route. GRIP will enable future transit services between Greeley, Loveland, and Fort Collins and the Project's enhancement of local and regional mobility and accessibility will in turn, benefit current and future businesses and services that support the regional economy.

GRIP comprises the grade separation of US 34 over 35<sup>th</sup> Avenue in the City of Greeley; improvements to 8,000 feet of highway corridor on either side of the interchange including the addition of one auxiliary lane in each direction; and the construction of a tight diamond configuration with a partial cloverleaf on-ramp in the southwest quadrant of the interchange. Additional work will enable future local and regional transit connections while also improving accessibility to the regional shared-use trail adjacent to the corridor. The construction and operation of the interchange will improve safety and efficiency along the regional connection corridor and on 35<sup>th</sup> Avenue through the removal of traffic signals, thereby allowing the free flow of east-west traffic, and the elimination of at-grade bike/pedestrian crossing on US34.

The benefits and economic impacts which the GRIP's delivery and operation will deliver are diversified and myriad. It will provide enhanced local and regional mobility and connectivity through the elimination of signals and grade separation thereby allowing the free flow of passenger and freight traffic. The Project's implementation will generate significant safety improvements for both vehicular and active transportation. Grade separation of US34 traffic, in addition to improving the efficiency of east-west travel along the corridor, will provide safer pedestrian and bike crossing, which is especially important given several schools and major retail centers located directly adjacent to the Project's location. The elimination of traffic signals at the existing US 34/35<sup>th</sup> Avenue intersection will alleviate recurring congestion on the regional connector while also lowering greenhouse gases along the corridor through the reduction of idling emissions.

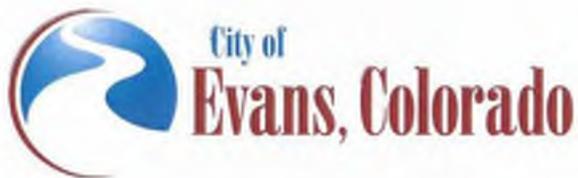
The NFRMPO region is very passionate about transportation alternatives that promote and facilitate safe and efficient multimodal mobility for all transportation users. We hope that federal participation for Greeley Regional Interchange Improvement Project is seriously considered given its importance in enhancing regional mobility and supporting the economic vitality of the Northern Front Range and Colorado.

Sincerely,

**Suzette  
Malette**

 Digitally signed by Suzette Malette  
DN: cn=Suzette Malette, o=NFRMPO,  
ou, email=smalette@nfrmpo.org,  
c=US  
Date: 2021.06.07 17:01:53 -06'00'

Executive Director  
North Front Range MPO



---

1100 37<sup>th</sup> Street • Evans, CO 80620 • (970) 475-1119

June 28, 2021

The Honorable Pete Buttigieg  
U.S. Secretary of Transportation  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

**Re: Greeley Regional Interchange Project (GRIP) RAISE  
Grant Application**

Honorable Secretary Buttigieg:

As the City Manager for Evans, Colorado, I am writing to express Evans' support for the City of Greeley's application for funding under the DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project ('GRIP' or 'the Project').

GRIP is a critical component of a multifaceted program of multimodal improvements to the US34 corridor, a key regional highway connecting Northern Colorado's largest regional population and economic centers. Sustained growth and economic development along the corridor have increased the need to enhance safety, reduce congestion, and improve mobility. Consistent with objectives of long-term state, regional, and local planning, construction and operation of the US 34/35th interchange will improve overall multimodal mobility in Greeley and along this critical regional route. GRIP will enable future transit services between Greeley, Loveland, and Fort Collins and the Project's enhancement of local and regional mobility and accessibility will in turn, benefit current and future businesses and services that support the regional economy.

GRIP comprises the grade separation of US 34 over 35<sup>th</sup> Avenue in the City of Greeley; improvements to 8,000 feet of highway corridor on either side of the interchange including the addition of one auxiliary lane in each direction; and the construction of a tight diamond configuration with a partial cloverleaf on-ramp in the southwest quadrant of the interchange. Additional work will enable future local and regional transit connections while also improving accessibility to the regional shared-use trail adjacent to the corridor. The construction and operation of the interchange will improve safety and efficiency along the regional connection corridor and on 35<sup>th</sup> Avenue through the removal of traffic signals, thereby allowing the free flow of east-west traffic, and the elimination of at-grade bike/pedestrian crossing on US34.

The benefits and economic impacts which the GRIP's delivery and operation will deliver are diverse and myriad. It will provide enhanced local and regional mobility and connectivity through the elimination of signals and grade separation thereby allowing the free flow of passenger and freight traffic. The Project's implementation will generate significant safety improvements for both vehicular and active transportation. Grade separation of US34 traffic, in addition to improving the efficiency of east-west

travel along the corridor, will provide safer pedestrian and bike crossing, which is especially important given several schools and major retail centers are located directly adjacent to the Project's location. The

elimination of traffic signals at the existing US 34/35<sup>th</sup> Avenue intersection will alleviate recurring congestion on the regional connector while also lowering greenhouse gases along the corridor through the reduction of idling emissions.

Evans is very passionate about transportation alternatives that promote and facilitate safe and efficient multimodal mobility for all transportation users. We hope that federal participation for the Greeley Regional Interchange Project is seriously considered given its importance in enhancing regional mobility and supporting the economic vitality of the Northern Front Range and Colorado.

Sincerely,



James L. Becklenberg  
City Manager



6/3/21

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

**Re: Greeley Regional Interchange Project (GRIP) RAISE Grant Application**

Honorable Secretary Buttigieg:

I am writing to express Greeley Evans Transit's support for the City of Greeley's application for funding under the DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project ('GRIP' or 'the Project').

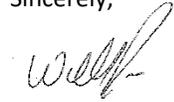
GRIP is a critical component of a multifaceted program of multimodal improvements to the US34 corridor, a key regional highway connecting Northern Colorado's largest regional population and economic centers. Sustained growth and economic development along the corridor has increased the need to enhance safety, reduce congestion, and improve mobility. Consistent with objectives of long-term state, regional, and local planning, construction and operation of the US 34/35th interchange will improve overall multimodal mobility in Greeley and along this critical regional route. GRIP will enable future transit services between Greeley, Loveland, and Fort Collins and the Project's enhancement of local and regional mobility and accessibility will in turn, benefit current and future businesses and services that support the regional economy.

GRIP comprises the grade separation of US 34 over 35<sup>th</sup> Avenue in the City of Greeley; improvements to 8,000 feet of highway corridor on either side of the interchange including the addition of one auxiliary lane in each direction; and the construction of a tight diamond configuration with a partial cloverleaf on-ramp in the southwest quadrant of the interchange. Additional work will enable future local and regional transit connections while also improving accessibility to the regional shared-use trail adjacent to the corridor. The construction and operation of the interchange will improve safety and efficiency along the regional connection corridor and on 35<sup>th</sup> Avenue through the removal of traffic signals, thereby allowing the free flow of east-west traffic, and the elimination of at-grade bike/pedestrian crossing on US34.

The benefits and economic impacts which the GRIP's delivery and operation will deliver are diversified and myriad. It will provide enhanced local and regional mobility and connectivity through the elimination of signals and grade separation thereby allowing the free flow of passenger and freight traffic. The Project's implementation will generate significant safety improvements for both vehicular and active transportation. Grade separation of US34 traffic, in addition to improving the efficiency of east-west travel along the corridor, will provide safer pedestrian and bike crossing, which is especially important given several schools and major retail centers located directly adjacent to the Project's location. The elimination of traffic signals at the existing US 34/35<sup>th</sup> Avenue intersection will alleviate recurring congestion on the regional connector while also lowering greenhouse gases along the corridor through the reduction of idling emissions.

We are very passionate about transportation alternatives that promote and facilitate safe and efficient multimodal mobility for all transportation users. We hope that federal participation for Greeley Regional Interchange Improvement Project is seriously considered given its importance in enhancing regional mobility and supporting the economic vitality of the Northern Front Range and Colorado.

Sincerely,

A handwritten signature in black ink, appearing to read "Will Jones". The signature is fluid and cursive, with a prominent loop at the end.

Will Jones  
Deputy Public Works Director / Interim Transit Manager  
Transit Provider for the Greeley/Evans Area



June 15, 2021

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

**Re: Greeley Regional Interchange Project (GRIP) RAISE Grant Application**

Honorable Secretary Buttigieg:

I am writing to express my support for the City of Greeley's funding application for the Greeley Regional Interchange Project (GRIP).

GRIP is a critical component of a multifaceted program of multimodal improvements to the US34 corridor, a key regional highway connecting Northern Colorado's largest population and economic centers. Sustained growth and economic development along the corridor has increased the need to enhance safety, reduce congestion, and improve mobility. Consistent with objectives of long-term state, regional, and local planning, construction and operation of the US 34/35th interchange will improve overall multimodal mobility in Greeley and along this critical regional route. GRIP will enable future transit services between Greeley, Loveland, and Fort Collins and the project's enhancement of local and regional mobility and accessibility will in turn, benefit current and future businesses and services that support the regional economy, including the University of Northern Colorado. This interchange is part of the route to UNC from west of Greeley and is used extensively by our community members.

The benefits and economic impacts which the GRIP's delivery and operation will deliver are diversified and myriad. It will provide enhanced local and regional mobility and connectivity through the elimination of signals and grade separation thereby allowing the free flow of passenger and freight traffic. The Project's implementation will generate significant safety improvements for both vehicular and active transportation. Grade separation of US34 traffic, in addition to improving the efficiency of east-west travel along the corridor, will provide safer pedestrian and bike crossing, which is especially important given several schools and major retail centers located directly adjacent to the Project's location. The elimination of traffic signals at the existing US 34/35<sup>th</sup> Avenue intersection will alleviate recurring congestion on the regional connector while also lowering greenhouse gases along the corridor through the reduction of idling emissions.

I am very passionate about transportation alternatives that promote and facilitate safe and efficient travel. I hope that federal support for GRIP is seriously considered given its importance in enhancing regional mobility and supporting the economic vitality of our community.

Sincerely,

Andy Feinstein  
President, University of Northern Colorado

June 28<sup>th</sup>, 2021

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590



**Re: Greeley Regional Interchange Project (GRIP) RAISE Grant Application**

Honorable Secretary Buttigieg:

I am writing to express my support for the City of Greeley's application for funding under the DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project ('GRIP' or 'the Project').

GRIP is a critical component of a multifaceted program of multimodal improvements to the US34 corridor, a key regional highway connecting Northern Colorado's largest regional population and economic centers. Sustained growth and economic development along the corridor has increased the need to enhance safety, reduce congestion, and improve mobility. Consistent with objectives of long-term state, regional, and local planning, construction and operation of the US 34/35th interchange will improve overall multimodal mobility in Greeley and along this critical regional route. GRIP will enable future transit services between Greeley, Loveland, and Fort Collins and the Project's enhancement of local and regional mobility and accessibility will in turn, benefit current and future businesses and services that support the regional economy.

GRIP comprises the grade separation of US 34 over 35<sup>th</sup> Avenue in the City of Greeley; improvements to 8,000 feet of highway corridor on either side of the interchange including the addition of one auxiliary lane in each direction; and the construction of a tight diamond configuration with a partial cloverleaf on-ramp in the southwest quadrant of the interchange. Additional work will enable future local and regional transit connections while also improving accessibility to the regional shared-use trail adjacent to the corridor. The construction and operation of the interchange will improve safety and efficiency along the regional connection corridor and on 35<sup>th</sup> Avenue through the removal of traffic signals, thereby allowing the free flow of east-west traffic, and the elimination of at-grade bike/pedestrian crossing on US34.

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I am very passionate about transportation alternatives that promote and facilitate safe and efficient multimodal mobility for all transportation users. I hope that federal participation for Greeley Regional Interchange Improvement Project is seriously considered given its importance in enhancing regional mobility and supporting the economic vitality of the Northern Front Range and Colorado.

Sincerely,

A handwritten signature in blue ink, appearing to read "Cooper Anderson", is written over a blue horizontal line.

Cooper Anderson, C.M.  
Airport Director  
Greeley-Weld County Airport Authority



June 8, 2021

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

**Re: Greeley Regional Interchange Project (GRIP) RAISE Grant Application**

Honorable Secretary Buttigieg:

I am writing to express our support for the City of Greeley's application for funding under the DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project.

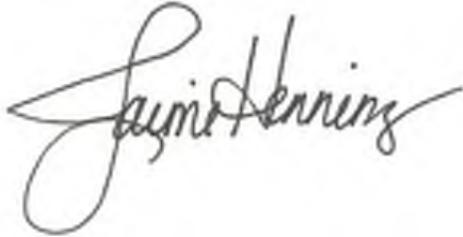
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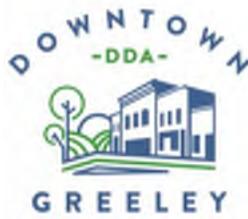
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We are very passionate about transportation alternatives that promote and facilitate safe and efficient multimodal mobility for all transportation users. We hope that federal participation for Greeley Regional Interchange Improvement Project is seriously considered given its importance in enhancing regional mobility and supporting the economic vitality of the Northern Front Range and Colorado.

Sincerely,

A handwritten signature in black ink that reads "Jaime Henning". The signature is written in a cursive style with a large, looping initial "J" and a long, sweeping underline.

Jaime Henning, CCE  
President & CEO, Greeley Area Chamber of Commerce



June 2, 2021

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Ave, SE  
Washington, DC 20590

**Re: Greeley Regional Interchange Project (GRIP) RAISE Grant Application**

Honorable Secretary Buttigieg:

I am writing to express our support for the City of Greeley's application for funding under the DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program for the Greeley Regional Interchange Project ('GRIP' or 'the Project').

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We are extremely passionate about transportation alternatives that promote and facilitate safe and efficient multimodal mobility for all transportation users. We hope that federal participation for Greeley Regional Interchange Improvement Project is seriously considered given its importance in enhancing regional mobility and supporting the economic vitality of the Northern Front Range and Colorado.

Sincerely,

Bianca Fisher, DDA Executive Director

