

USDOT RAISE Discretionary Grant

La Porte Road Revitalization Project

April 14, 2022





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1. PROJECT DESCRIPTION

1.1 Project Overview

The La Porte Road Revitalization Project (hereafter called “the Project”) will transform the La Porte Road thoroughfare from an outworn auto-centric, commercial street into a multimodal corridor that meets modern design standards for safety and performance. The Project entails the reconstruction of the roadway to make multiple intersection improvements along this 2.7-mile corridor in order to address ongoing safety and traffic concerns. It will also reconfigure the corridor to eliminate certain travel lanes and re-allocate the right-of-way to a separated bike and pedestrian path, and to added turn lanes in select locations to facilitate traffic movement. Multiple spot investments throughout the corridor will create ADA accessible transit stop locations where none exist, add lighting to enhance safety, add trees and native plantings, and improve access to multiple large adjacent parcels that are undeveloped or in need of redevelopment.

The reconstruction of the La Porte Road corridor provides an important economic development opportunity for the City of Waterloo. The Mayor’s Strategic Plan, Waterloo Vision 2030, identifies redevelopment of the corridor as a foundational step to realizing the Plan’s vision of the corridor as a local recreational/ tourism corridor that diversifies the economy. La Porte Road connects the new Lost Island amusement/ water park and KOA campground complex at the south end of the corridor to Waterloo’s downtown, traversing the city’s largest shopping and

The La Porte Road Revitalization Project ...

- Improves safety at high crash locations and along the full corridor with improved lighting and a reconstructed road
- Improves the performance of the corridor for vehicles while converting some existing right-of-way to active transportation modes
- Adds amenities for transit riders in the corridor
- Addresses inequities in the provision of bicycle and pedestrian infrastructure between areas of persistent poverty and more prosperous parts of the corridor
- Connects to an “area of persistent poverty” to important commercial centers and recreational areas.
- Improves land in a major commercial corridor for development, promoting infill development

hotel district¹. By creating a safe and attractive transportation corridor between the two economic nodes—waterpark complex and downtown—the city’s plan projects there will be “gravitational pull” between the two that spark investment in the mostly-vacant Crossroads Mall and several large undeveloped parcels midway along the corridor. The Plan anticipates that

¹ The Lost Island Waterpark is a major Midwestern attraction; it has been named to USA Today’s top 10 outdoor waterparks in the U.S. for 5 consecutive years. Up to 150,000 people a season visit the waterpark. Building on this success, the locally-owned management company has invested to create a companion Lost Island Theme Park that will open in the summer of 2022. Experience Waterloo, the region’s tourism and visitor bureau, has reported that the theme park’s economic impact will be between \$32 and \$67 million annually, depending on the number of months it is open. See the article for renderings and background. <https://www.desmoinesregister.com/story/money/business/2021/03/25/lost-island-theme-park-waterloo-iowa-expected-open-summer-2022/4771773001/>.



future “opportunities to attract biking tourism to the city will center around this area as the trail along Hess [see footnote] and La Porte Road is constructed and avenues are built to connect crossroads to downtown.”²

The north portion of the La Porte Road corridor traverses an Opportunity Zone that has seen a drop in jobs and an increase in commercial and residential vacancy rates; and which meets the definition of an “area of persistent poverty” described in RAISE grant guidance³. This Project aligns with the

² The City Council voted to change the name of Hess Road to La Porte Road in early 2022 to make it easier for tourists to navigate the area. The Mayor’s strategic plan is available at: Waterloo_2030_Community_Vision_Report.pdf (revize.com). There are eight main initiatives; the fifth one describes the Mayor’s vision for the economic and recreational expansion of the La Porte Road corridor.

³ The Project traverses Census Tract 9 and borders Census Tract 10 on its eastern boundary. Every resident of Tract 10 must cross La Porte Road to reach the economic and governmental center of Waterloo east of the tract and La Porte Road. In addition, residents of Tract 10 to the east of the corridor must cross the corridor to get to the western part of Waterloo.

types of development intended by the city’s “2000 Downtown Master Plan” and Black Hawk Long-Range Transportation Plan (2018) which call for an extensive bicycle and pedestrian network throughout the city.

1.2 The Transportation Challenge and Project Response

As the southern gateway to the City of Waterloo, and a primary corridor providing access to southern economic anchors for the city, the La Porte Road corridor faces a number of safety and development challenges. These are described in Table 1 and illustrated in Figure 1.

Table 1: Transportation Challenges and Project Response

Transportation Challenge	Project Element/Response
La Porte Road is at the end of its useful life.	The Project will reconstruct the road to meet current IDOT design standards.
Several intersections along the corridor have crash rates above the statewide average for similar facilities.	These intersections will be redesigned to be safer. Lighting will also be added to the full corridor.
There are no accommodations for pedestrians or bicycles in this part of the city; the active transportation network is non-existent in this area.	Lanes are being removed to make space for a separated, designated pedestrian and bicycle path that will provide access for travelers away from vehicular traffic.
Traffic flow backs up at “pinch” points in the corridor.	Turn lanes will be added at key locations to maintain the flow of traffic and prevent queuing.
North of the project area, an extensive network of trails provides recreational and commuting opportunities to the community. The La Porte Road Project area does not currently include such accommodations, thus further disadvantaging local households, many of which are already located in an “area of persistent poverty.”	The Project will fill a gap in the local bicycle and pedestrian network to connect this “area of persistent poverty” to the city’s extensive network of trails. This redresses inequity in the provision of trails between disadvantaged neighborhoods and areas of greater prosperity.



Table 1: Transportation Challenges and Project Response (continued)

Transportation Challenge	Project Element/Response
Properties adjacent to La Porte Road are located in a 100-year flood plain.	The Project will increase elevations of adjacent properties to add developable land to the City of Waterloo.
Access to large land parcels is restricted, making them less attractive for commercial development and tempering the ability of the city to attract growth and investment to the opportunity zone and corridor.	The Project will improve access to commercial properties located in an opportunity zone and an area of the city with large developable parcels.
There are a number of excess ROW parcels in the corridor for which the public is responsible for maintenance and upkeep.	As part of the Project, excess ROW parcels will be sold to the private sector, expanding the tax base and removing the cost of maintenance from city and Iowa DOT coffers.
Existing transit stops are not ADA compliant. The absence of sidewalks adds to the inaccessibility of this corridor for disabled residents.	Transit stops in the corridor will be modified to be ADA compliant; a dedicated bike and pedestrian path will be added that is separated from the flow of traffic. Three MET transit routes will use the improved corridor. The demographics of these routes indicate that routes have comparatively high shares of non-English speaking, disabled, senior, minority, and impoverished households compared to other MET routes.

1.3 Detailed Scope of Improvements

As part of this improvement plan, several geometric changes have been planned for the La Porte Road corridor. Beginning at the north end of the study area, the alignment of La Porte Road is planned to be shifted west, and the Frontage Road between E. Mitchell Avenue and Cornwall Avenue will be removed. Studies have confirmed that the new La Porte Road alignment can accommodate the traffic that had previously used the Frontage Road. A slip ramp will connect La Porte Road to U.S. 218.

In this northernmost section of the corridor, the cross section will be converted from a 4-lane undivided, to a 3-lane section. La Porte Road will have a single lane in each northbound and southbound directions, along with a continuous center turn lane. Moving south, the cross section will widen to 5 lanes at E. Ridgeway Avenue, and that width will carry south until Bopp Street. From Bopp Street to Grimm Street, La Porte Road will return to a 3-lane section. At Grimm Street, La Porte Road will reduce to a 2-lane undivided roadway, with left-turn lanes added at existing and proposed intersections.



Pedestrians frequently walk on road shoulders. There are no sidewalks or markings to designate space for bicycles.



The absence of turn lanes translates into long queuing in several places along the corridor. Some drivers who know the corridor sometimes try to “beat the light” in order to avoid the queues.



The absence of paved shoulders or a dedicated path translates into bicyclists frequently using the main travel lane, where drivers can come up on them at speed.

Figure 1: Existing Conditions in the Corridor

Turn lane improvements are also planned at several intersections, such as E. Mitchell Avenue and E. San Marnan Drive. At the far south end of the corridor, the Project will tie into a proposed roundabout that is currently an existing 4-way stop-controlled intersection.

Lighting improvements will be undertaken throughout the corridor. Conflict lighting will be installed from Grimm Street to the southern terminus of the corridor. Higher levels of corridor lighting are planned for areas north of Grimm Street, and bridges under which the corridor travels. These lights will be LED fixtures; replacing sodium fixtures where lighting exists. Many areas of the corridor are unlit at present.

Mass transit investments are planned along the corridor as well. At present, there are no formal bus stops along La Porte Road, but rather a system by which the bus service drops people off upon request. As shown in the photos in Figure 1, there are no sidewalks or pedestrian amenities at these stops. The local transit operator, MET, plans to add multiple stop locations on both sides of the roadway. These locations are planned for the vicinity of La Porte Road (LPR)/Mitchell (bench), LPR/Ridgeway (shelter), LPR/Howard (bench), LPR/San Marnan (bench), and La Porte Road at Shaulis Road (bench). While most would be designed as simple stop locations (i.e., outfitted with a bench and a paved platform), the Ridgeway location will include a shelter along with the stop. All will be constructed in an ADA compliant manner using Universal Design features.

New signalization will be added to the corridor. There will be four emergency vehicle pre-emption devices: one each at the San Marnan, Ridgeway, and Mitchell intersections and one beacon at the fire station driveway. Adaptive signals will be installed that monitor traffic movement and adjust the red and green time to maintain flow. Pedestrian push-button signals will be installed at the major intersections along

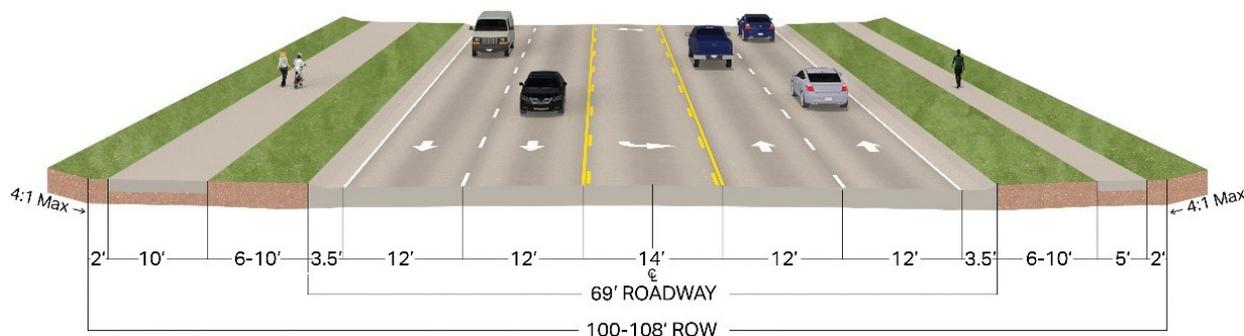


Figure 2: A Typical Profile of the Revitalized La Porte Road (Typical 69' B-B Section)

the corridor; each device will provide audible instructions for sight impaired travelers.

A new pedestrian and bike trail will further separate these users from traffic. A potential cross section is illustrated above in Figure 2. The Project adds 3,866 linear ft of 5-ft wide sidewalk and 14,848 linear ft of 10-ft wide bike trail in an area where these modes are entirely absent. Native plants that support pollinators will be added to ditches and shoulders. Street trees will be added to the corridor.

The Project will be delivered in coordination with other types of infrastructure while the road is under construction. Power, broadband fiber and water utilities will make investments to take advantage of the road construction—a “dig once” approach to providing multiple utilities in the corridor. The existing pavement will be recycled to form the subbase for the new road corridor. Overhead power lines will be relocated from overhead cables to underground conduits. This will allow the power to be more reliable during storms and other incidents, as well as removing large objects in the shoulder area that form a safety risk for run-off-the-road incidents. Broadband fiber is similarly being installed while the road is under construction, significantly reducing the cost of installation. Water infrastructure is also being added. The Project includes

a water quality and detention basin that cleanses storm water and reduces adverse environmental impacts to the Cedar River, which is listed as having impaired water quality. CIP pipelining will be installed while the road is under construction to reduce the need to treat storm water runoff as the amount of infiltration is reduced—reducing treatment plant operating cost.

Iowa DOT will let the Project; the City of Waterloo will oversee the construction. Both agencies have delivered projects with similar scope and technical requirements in the past.

1.4 History of Previously Incurred Project Costs

To date, \$731,250 has been spent to advance design and environmental permitting for the Project. This work was funded with \$509,116 of STBG funds, and \$222,134 in local funds.

1.5 The Broader Context of the Project

Downtown Waterloo is shaped by two major land features: U.S. 218 and the Cedar River. Together, they form a natural corridor running in a northwesterly direction north of U.S. 20/I-380, and a southeasterly direction south of U.S. 20/I-380. U.S. 218



is the primary southern gateway to Waterloo; the La Porte Road corridor is the first major parallel arterial west of U.S. 218. Not designed as a frontage road, it nevertheless functions in a similar way, as a local non-highway alternative commercial corridor into Waterloo.

Waterloo's John Deere TechWorks Campus is a 30-acre research and innovation center north of the Project which has been a major driver of Waterloo's economic transformation from a manufacturing and agricultural center to a city with a more diversified economy. It is located along the north end of U.S. 218, outside of the Project corridor but it still influences demand for north-south travel. Traffic is growing in the corridor as the TechWorks and various riverfront amenities attract commuters and day-trippers from Interstate 380, U.S. 20 and communities to the south. The opening of the new theme park will further increase traffic in the corridor.

In addition, the Project connects to the American Discovery Trail (ADT), a first-of-its kind system of recreational trails and roads that collectively form a coast-to-coast hiking and biking trail across the mid-tier of the United States⁴. The City of Waterloo has invested in numerous bike/pedestrian paths (over 100 miles in the Waterloo-Cedar Falls area), driven by a long-term plan to connect all areas of the city to its unique riverfront, and to build a series of connecting trails which can attract and distribute ADT bikers and hikers throughout the city to capture economic benefits.

Locally, the Project closes an important gap in the city's growing bicycle and pedestrian network as shown in the map in Figure 3 and Figure 6. There is inequity in access to this bike and trail provision. The northern

end of the U.S. 218 corridor has extensive bike and pedestrian trail infrastructure, but the southern end, which contains the above noted "areas of persistent poverty," (Figure 6, panel 4) is lacking. As shown in Figure 3, this Project intends to close that gap.

Furthermore, because of the current lack of designated pedestrian/biking facilities, auto drivers frequently see pedestrians and bikers commuting on road – creating safety hazards and revealing a clearly unmet need for this type of infrastructure in the area.

The Project outlined in this application, for which RAISE grant funding is being sought, is founded on two decades of work that has already been done to realize city planners' and community members' vision of their "New Waterloo."⁵ The Project will continue their efforts by improving public infrastructure in a traffic corridor central to the city's economic and cultural well-being, and addressing past inequities in the allocation of transit, bike and pedestrian facilities. The infrastructure investments planned within this Project will connect to and/or seek to directly improve access between city amenities, "areas of persistent poverty," and a growing base of jobs and recreational amenities in the entertainment district to the south. In short, the Project seeks to leverage transportation infrastructure investment to achieve a more equitable and inclusive community. This work will thus further the city's progress toward its goal of becoming an even more vibrant and equitable locale, and build upon the many successes it has already achieved.

4 More information on the ADT is available at <https://discoverytrail.org/>.

5 Visitors to the city's website can find a section devoted to tracking progress toward the implementation of this "New Waterloo" (<http://thenewwaterloo.com/about/>) should they wish to know more about the many plans the city is putting into place.



Area of Persistent Poverty and Historically Disadvantaged Community

The Project is located in Black Hawk County, partially within an “area of persistent poverty,” as defined by the RAISE grant guidance. The Project traverses much of Census Tract 9. It also borders Census Tract 10 on the eastern side of the tract’s boundary. From a Justice 40 perspective, every resident of Census Tract 10 located just east of the Project corridor must cross the corridor to get to the main part of Waterloo to the east. Residents of Tract 10 cross the corridor for west-bound trips. These residents will benefit from the intersection improvements. The Project does not traverse an historically disadvantaged community.

Federally Designated Community Development Zones

The Project traverses a designated Opportunity Zone.

The Project serves areas of high poverty, high shares of households without a car, high shares of households with commuters who typically walk to work, and priority areas called out in the MPO’s pedestrian master plan Figure 6 depicts the corridor demographics.



Figure 4: Waterloo’s Current and Future Opportunity Zones

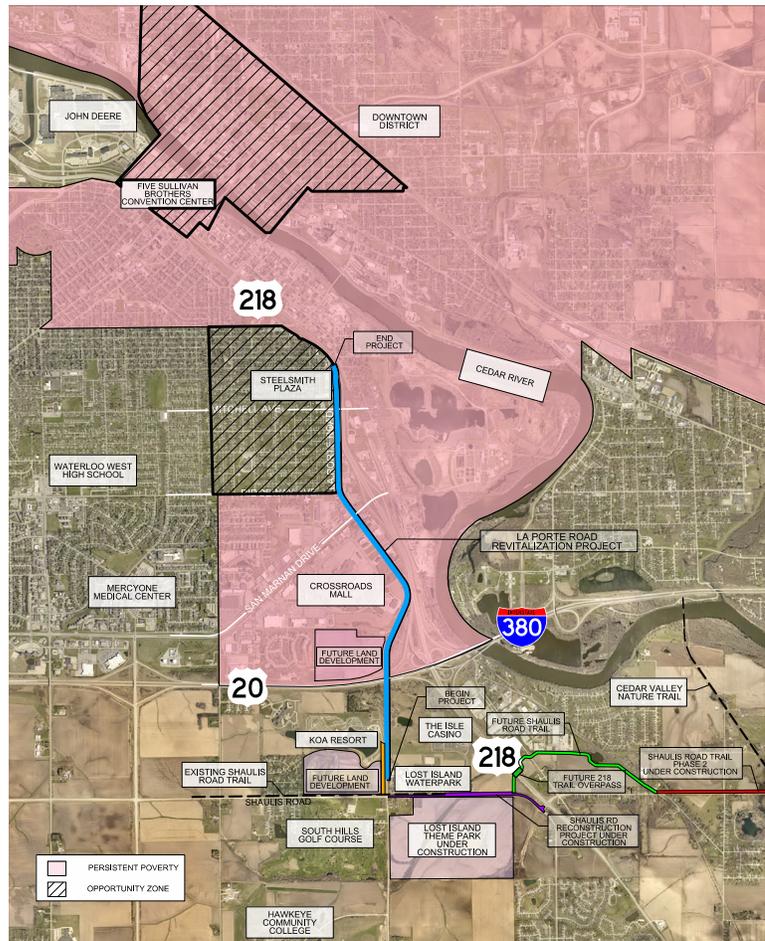
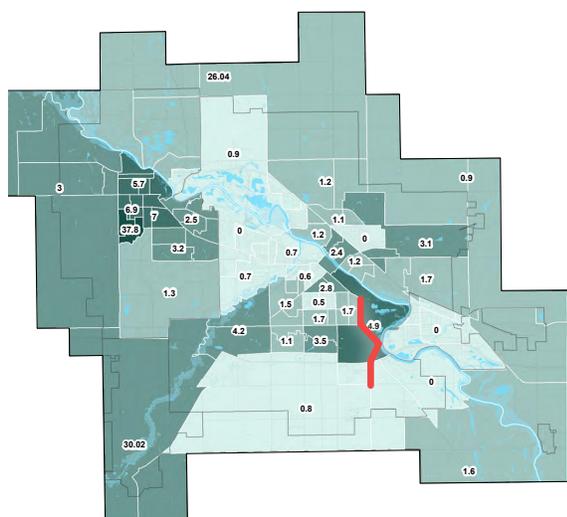


Figure 5: Project Site Within the Context of the city and Areas of Persistent Poverty

Note: The northern part of the Project corridor traverses Census Tract 9, an area of persistent poverty.



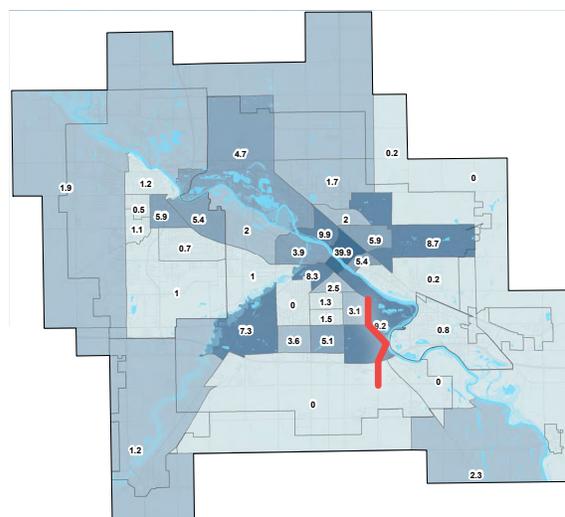
Percent of Workers Who Walk to Work

Based on U.S. Census 2015-2019 American Community Survey 5-Year Estimates by Census Tract

- 7.1 - 37.8
- 4.3 - 7.0
- 1.8 - 4.2
- 1.0 - 1.7
- 0.0 - 0.9
- City Boundaries



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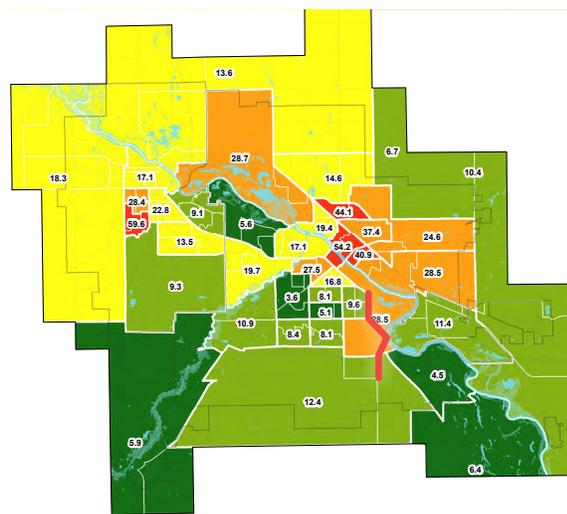
Percent of Workers with No Vehicle Available

Based on U.S. Census 2015-2019 American Community Survey 5-Year Estimates by Census Tract

- 10.0 - 39.9
- 6.0 - 9.9
- 3.7 - 5.9
- 1.6 - 3.6
- 0.0 - 1.5
- City Boundaries



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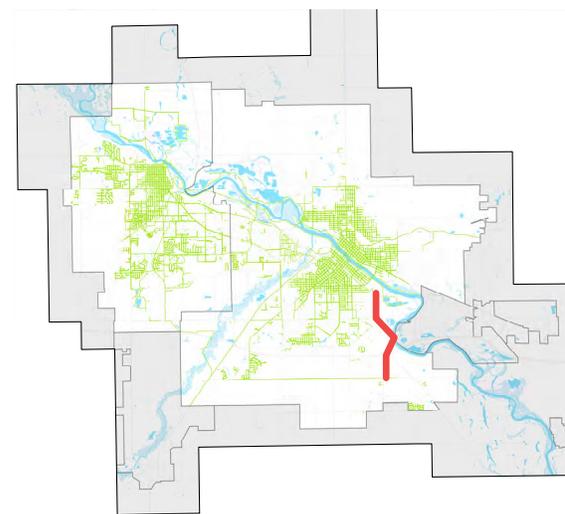
Percent of Residents in Family Households Whose Income is Below the Poverty Level

Based on U.S. Census 2015-2019 American Community Survey 5-Year Estimates by Census Tract

- 37.5 - 59.6
- 22.9 - 37.4
- 12.5 - 22.8
- 6.75 - 12.4
- 3.57 - 6.74
- City Boundaries



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Existing sidewalks in Waterloo and Cedar Falls

Based on most recent INRCOG data as of April 2017

- Sidewalk or Trail
- City Boundaries



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— La Porte Road Revitalization Project

Figure 6: The Project Location in Waterloo, Iowa Relative to the Demographics

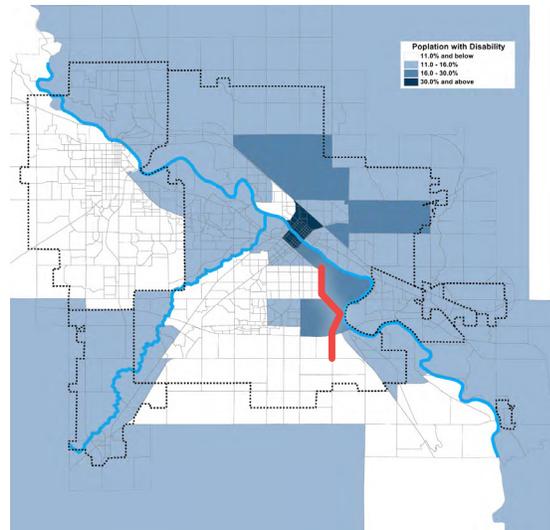


In doing so, the city seeks to assist existing businesses to strengthen and grow in their current locations. This Census Tract also contains low-income areas along the U.S. 218 corridor that needs transportation investment. The area is riddled with incompatible houses next to industrial businesses. This area is not only an area of persistent poverty, as designated in the Notice of Funding Opportunity, but also an Opportunity Zone. As described in the Innovation section, the city has also established a TIF in this corridor.

Through all of the above-mentioned districts and designations, the city is working to create business-ready sites and a business/neighborhood environment to encourage business startups and economic growth. This is not simply an economic development theory; through past use of these steps and initiatives, the city has seen selective successes in business growth, neighborhood revitalization and overall community improvement. The city is seeking to recreate that success in the La Porte Road corridor.

The Project’s investments to improve ADA access are particularly valuable as the Project is located in an area of the city with one of the higher concentrations of disabled residents, as shown below in Figure 7. As Table 4 shows later in this application, the demographic composition of neighborhoods that align the bus routes using the Project corridor have elevated concentrations of disabled and elderly residents. The following map underscores the need for investments to be ADA compliant.

The Project also traverses a designated Opportunity Zone as shown previously in Figure 4.



— La Porte Road Revitalization Project

Source: Black Hawk County Long-Range Transportation Plan, Adopted 2018

Figure 7: Share of the city’s Population with a Disability

3. GRANT FUNDS, SOURCES AND USES OF ALL PROJECT FUNDING

The estimated cost of the overall Project was \$26,193,400 as of 2021. Converting this to year-of-expenditure dollars, it is anticipated to be budgeted at \$28,479,396. The City of Waterloo is requesting \$20,500,000 in RAISE Grant Funding. The city will provide a match of \$8,494,732 that is comprised of \$312,404 in city funds from fee and revenues, \$8,030,000 in SWAP funding, and \$151,328 in TAP funding.

3.1 Previously Incurred Expenses

To date, \$731,250 has been spent to advance the project design and environmental permitting. This work was funded with \$509,116 in STBG funds, and \$222,134 in local funds.



3.2 Future Eligible Costs

All future Project expenses are eligible for RAISE funding. The total value of future Project expenses is \$28,479,396 (\$YOE).

3.3 Source and Amount of Funds

The city will provide matching funds from its general property tax collections, Local Option Sales Tax, Storm Water Management Fees and/or Bonding Revenue and MPO STBG funds.

3.4 Documentation of the Funding Commitment for Non-Federal Funds

A letter of funding commitment from the City of Waterloo is provided in the Supplemental Materials for this application.

3.5 Federal Funds Applied & Source of Any Required Non-Federal Match

A total of \$151,328 in federal TAP funds are applied to the Project. The non-federal match is sourced from Iowa DOT STBG SWAP Funds and the City of Waterloo.

3.6 Budget Showing Sources and Uses of Funds

The City of Waterloo is requesting \$20,500,000 million in RAISE funding. This represents 70.7% of the total Project costs of the Project’s major activities, which are summarized in Table 2. Project funding sources are allocated across the major project components as detailed in Table 3.

Table 2: Summary of Project Costs by Major Cost Category (in \$2020)

Year	Total Capital Costs (\$2020)	Discounted Capital Total (7%)	Design Costs (\$2020)	Discounted Design (7%)	Construction Costs (\$2020)
2023	\$6,765,519	\$5,909,266	\$1,645,817	\$1,437,520	\$5,119,702
2024	\$3,538,983	\$2,888,865	\$638,177	\$520,943	\$2,900,806
2025	\$8,491,887	\$6,478,420	\$1,531,324	\$1,168,240	\$6,960,563
2026	\$8,816,262	\$6,285,873	\$1,589,818	\$1,133,518	\$7,226,444
Total	\$27,612,651	\$21,562,424	\$5,405,136	\$4,260,221	\$22,207,515
Total Costs (\$2020)	\$27,612,651	\$21,562,424			
Total Costs (\$YOE)	\$28,994,732	\$22,550,674			

Table 3: Major Project Component by Funding Source, \$YOE

Year	Costs (\$YOE)	RAISE Funds (\$YOE)	Match Funds (\$YOE)
Design/Pre-Construction	\$5,675,676	\$4,000,000	\$1,675,676
Construction	\$23,319,056	\$16,500,000	\$6,819,056
Total	\$28,994,732	\$20,500,000	\$8,494,732



4. SELECTION CRITERIA

4.1 Summary of How the Project Aligns with RAISE Program Merit Criteria

Table 4 summarizes how the Project delivers outcomes associated with each of the Merit Criteria identified for the 2022 RAISE program. Each merit criterion is discussed in greater detail following the table.

Table 4: How the La Porte Road Revitalization Project Responds to the Merit Criteria

Merit Criterion	Relevant Project Outcomes
Safety	<ul style="list-style-type: none"> • There have been 372 crashes between 2011 and April 2022. Of these, 2 crashes have been fatal and 114 have entailed some level of injury. One of the fatalities involved a pedestrian walking in the road where there were no sidewalks. The Project investments are projected to avoid over 60 fatal or injury crashes over the 20-year analysis period, or 3 serious incidents per year. • Addresses known safety problems with a focus on protecting non-motorized travelers and those using transit. A partial list of improvements includes pedestrian signals with push buttons/audible instructions, enhanced crosswalks, street trees for traffic calming, turn lanes, and a roundabout. • Incorporates conflict lighting into Complete Streets treatment from Grimm Street to the south end of the corridor. A higher level of corridor lighting is used North of Grimm. • Incorporates elements of the National Road Strategy: <ol style="list-style-type: none"> a. Addresses deficiencies in a non-interstate highway that transitions to a local arterial—the locations called out in the Strategy for highest rate of incidents. b. Investments make the design of the highway safer such as those listed above. c. Investments assist people when crashes do occur by adding Emergency Vehicle Pre-emption Devices at four locations—3 intersections: San Marnan, Ridgeway, and Mitchell—and the beacon at the fire station driveway. d. Uses elements of a Complete Streets Strategy.
Environmental Sustainability	<ul style="list-style-type: none"> • Makes active transportation modes more available, leading to growth in active transportation trips. Pedestrian activity is projected to rise from an existing pedestrian count of 131 trips/day to 310/day, Biking activity is projected to rise from its current 164 trips/day to 259/day. There are approximately 2,953,989 vehicle trips annually in the corridor. The net change in active transportation trips (walking and biking trips combined) is estimated to increase by 275 trips/day or about 100,000 annually. That represents a 3.3 percent reduction in vehicle trips in the corridor.



Table 4: How the La Porte Road Revitalization Project Responds to the Merit Criteria (continued)

Merit Criterion	Relevant Project Outcomes
Environmental Sustainability (continued)	<ul style="list-style-type: none"> Over the 20-year span, 1.1 million vehicle miles transition to a non-carbon-based mode. Emissions reduction of over 3,742 metric tons of CO₂ over the 20-year analysis period. A 0.2 ton reduction in NO_x and a 0.01 ton reduction in Sox. Emissions of PM_{2.5} are reduced by 0.04 ton over the 20-year analysis period. Recycling of existing pavement to use as modified subbase. Uses LED lighting; removes sodium lighting where lighting exists. Water quality and detention basin that cleanses storm water and reduces adverse environmental impacts to the Cedar River, which is listed as having impaired water quality. Includes sanitary sewer CIP pipelining to reduce the need to treat storm water runoff as wastewater as the amount of infiltration is reduced—reducing treatment plant operating cost and sanitary sewer overflows. Native plantings in the ditches and the shoulder in the undeveloped portion of the corridor from Grimm Street south to the project limits support pollinators. Supports the reuse of the struggling mall and connects activity centers to promote infill development. Adds non-motorized modes for underserved population.
Quality of Life	<ul style="list-style-type: none"> Connects underserved areas with job and shopping centers. Creates a safe connection to the American Discovery Trail, a coast-to-coast route across the U.S. Reduces the incidence of power outages by moving overhead powerlines underground. Facilitates travel for households in the area that do not have a vehicle of their own. Adding transit amenities makes the wait more comfortable—Shaulis Rd., Howard Ave., Mitchell Ave., San Marnan Dr. (bench) and Ridgeway Ave. (shelter).
Mobility and Connectivity	<ul style="list-style-type: none"> Adds a sidewalk and bike path in an area of the city that lacks sidewalks—a sidewalk desert. Figures 3 and 6 illustrate the demographics and the missing active transportation links in this corridor. Incorporates Universal Design to make the corridor ADA compliant—wider sidewalks and new sidewalks where none exist. Adds two non-vehicular modes (bike and pedestrian) to the corridor and improves the transit mode. Fills in the gap in the local trail systems, and connects the local trails to the regional and national American Discovery Trail, a coast-to-coast route across the U.S.



Table 4: How the La Porte Road Revitalization Project Responds to the Merit Criteria (continued)

Merit Criterion	Relevant Project Outcomes
Economic Competitiveness and Opportunity	<ul style="list-style-type: none"> • Connects growing tourism center at the south end of the corridor to Downtown Waterloo. • Greater resiliency from moving power lines from overhead to underground—car dealerships and hotels have complained about the outages. Many households are inconvenienced too. • Increases non-motorized access in area of the city where percentages of commuting by walking and households without a car are high. See Figure 6. • Select union trades likely benefit from project, depending on bid outcome. • As the Iowa DOT will manage the letting, IDOT DBE goals will apply to the construction work. IDOT’s goals are a race conscious goal of 3.79% with a race neutral goal of 2.24%. • Increases the value of land in the corridor by making public investment to improve the character of the corridor.
State of Good Repair	<ul style="list-style-type: none"> • Returns the pavement to a state of good repair. • Modernizes the roadway that was built in the auto-centric 1950s to a modern, multimodal corridor with sidewalks, bike trails, and supportive transit amenities. • Upgrades signals and new roundabout to bring the corridor into compliance with modern design standards. • Updates controllers with adaptive signal systems and adds LED lighting. • Leverages the city’s asset management and pavement management system that is updated every two years with data provided by the State of Iowa. • Focuses on improving existing assets rather than expanding physical footprint. Implements a “road diet” approach that converts the existing 4-lane undivided roadway to a 3-lane roadway consisting of two through lanes and a center two-way left-turn lane (TWLTL). • Supports the rejuvenation of the local mall; the area around the mall is part of a Tax Increment Financing District. Also, the city leverages a 1% Local Option Sales Tax of which uses the revenues for road and bridge repairs.



Table 4: How the La Porte Road Revitalization Project Responds to the Merit Criteria (continued)

Merit Criterion	Relevant Project Outcomes
Partnership and Collaboration	<ul style="list-style-type: none"> • Project development has entailed significant public engagement and select design features reflect public input—increased sidewalk connections, undergrounded power lines, underdeck lighting to the bridges, and addition of EV charging stations. • Hotels seeking to add EV charging station for guests in parking areas; KOA already has EVs. Coordination with Mid-American Energy Company, by adding the lines when the road is under construction. The private installation cost is lower and more attainable, allowing commercial establishments to add EV chargers sooner. • Public engagement for the city’s Long-Range Transportation Plan cited the La Porte Road area near the mall as an area needing pedestrian and bike improvements. • Implementation includes participation from DOT, city, County, MPO, MET (transit operator), and community development initiatives for water and broadband, Mid-American Energy Company and, Waterloo Waterworks (reconstructing lines 300 ft south of U.S. 20 to 2,000 ft north of U.S. 20. Also, from San Marnan to the north limits of the Project (about 4,900 ft) at the same time).
Innovation	<ul style="list-style-type: none"> • Technical: Includes signal timing and pre-emption for emergency vehicles. Also, the signals are adaptive signals use AI to adapt to traffic in the corridor...adjust green / red time to maintain a constant flow. • Technical: Broadband deployment and the water main construction to save funds and prevent digging up street later. • Technical: Makes the corridor ready for future autonomous and connected vehicle use—and the ability to collect data on near misses and traffic operations and connected to traffic management center. • Technical: Supports the redevelopment of the largest commercial concentration of assets in the corridor and the city (outside of downtown). • Project Delivery: Dig once, support multiple investment types. • Innovative Finance: The Crossroads Mall anchors the surrounding Tax Increment District, whose revenues are used for economic development and corridor asset renewal. Also supports the Local Option Sales Tax.

4.2 Detailed Discussion of Each Merit Criterion

The following discussion provides additional detail on how the Project addresses each Merit Criterion, in the order they are listed in the Notice of Funding Opportunity.



Safety

This La Porte Road corridor improvement plan takes a “Complete Streets” approach to providing mobility for multiple modes of transportation. As described in the “Transportation Challenge” section, many sections of the roadway lack sidewalks and designated bike facilities. In addition, many bus stops are comprised of a sign marking where the bus will stop; transit passengers alight onto whatever vegetation is growing at the edge of the road, and no provisions are made for disabled passengers.

The Project will provide multiple design changes to the road that increase protection for non-motorized travelers. Many of these travelers are residents of underserved or disadvantaged neighborhoods. New sidewalks and shared use bike and pedestrian paths will help facilitate last mile transportation for transit passengers in the corridor and recreational traffic. Center medians are proposed in some locations to reduce midblock vehicular conflicts and provide pedestrian refuges, if needed. Lighting is being added, as well as amenities are being added to at key transit stops along the

corridor. Universal design features will make the corridor ADA compliant.

A predictive safety analysis (provided with the supplemental materials to this application) was performed to assess the degree of crash risk mitigation associated with these improvements. It projected that crash risk would fall by nearly 20% with the enhancements planned. In other words, one in five projected crashes could be avoided. These benefits are distributed throughout the corridor, including the portion of the corridor that falls in the “area of persistent poverty.”

Over the course of the analysis period (2026 to 2045), an estimated 61 fatal or injury crashes will be avoided—approximately 3 such crashes per year. In addition, over 100 property damage only incidents will be avoided. Table 5 summarizes the findings of the predictive crash reduction.

There have been 372 crashes between 2011 and April 2022 in the corridor, according to Iowa’s crash data base. Of these, 2 have been fatal and 114 have entailed some level of injury.

Table 5: Predicted Crash Reduction for La Porte Road Revitalization Project

Location	Segment	Predicted No. of Crashes (Baseline)			Predicted No. of Crashes (Build)			Crash Reduction Due to Project		
		FI	PDO	Total	FI	PDO	Total	FI	PDO	Total
Frontage Rd.	Byron Ave. to Easton Ave	31.47	57.82	89.29				31.47	57.82	89.29
La Porte Rd.	Shaulis Rd. to Grimm St.	29.11	61.58	90.69	14.67	31.03	45.70	14.44	30.55	44.99
La Porte Rd.	Grimm St. to San Marnan Dr.	23.57	43.69	67.26	21.82	42.63	64.45	1.75	1.06	2.81
La Porte Rd.	San Marnan Dr. to Byron Ave.	244.03	457.54	701.57	230.88	438.29	669.17	13.15	19.25	32.40
Total		328.18	620.63	948.81	267.37	511.95	779.32	60.81	108.68	169.49

Note: FI=fatal or injury crash; PDO=property damage only.



Environmental Sustainability

The Project supports beneficial environmental outcomes through influence on traveler behavior, through design, and the market's response to the modernized and reconstructed corridor.

Traveler Behavior. The Project adds non-motorized modes that serve an area of persistent poverty. By filling in a gap in the active transportation network and adding sidewalks and bike paths in an area where a higher-than-average share of households do not have access to a car and commute to work by walking, the Project supports the use of lower active transportation modes. There are approximately 2,953,989 vehicle trips annually in the corridor. The net change in active transportation trips (walking and biking trips combined) is estimated to increase by 275 trips/day or about 100,000 annually. That represents a 3.3 percent reduction in vehicle trips in the corridor. This is likely a conservative projection as it ignores the network effect of connecting the La Porte Road sidewalks to the existing network at the north end of the corridor and the likelihood that hotel and mall activity expands in the corridor over time.⁶ As described more fully in the benefit cost analysis technical memorandum, the diversion of auto travelers to active transport leads to an emissions reduction of over 3,742 metric tons of CO₂ over the 20-year analysis period. It also leads to a 0.2 ton reduction in NO_x and a 0.01 ton reduction in Sox. Emissions of PM_{2.5} are reduced by 0.04 ton over the 20-year analysis period.

Design Features. A number of design elements increase the environmental sustainability of the Project. These include

recycling existing pavement, LED lighting, use of native plantings, and investments to improve water quality.

Pavement Recycling. The Project will recycle the existing pavement on La Porte Road and use it as a modified sub-base. This approach has three main advantages. First, it avoids putting materials in the landfill. Second, it reduces the costs for transporting materials delivered to the La Porte Road Project site; these are financial (cost of trucking) and environmental (emissions and fuel associated with trucking materials to the site). Reusing something that is already at the site saves resources. In addition, by reusing materials that are already at the site and avoiding the wait for deliveries, there are time savings that benefit the project sponsor and corridor travelers that are spared a longer construction disturbance period.

Use of LED Lighting. The Project uses LED lighting and removes sodium lighting where lighting exists. The LED lights are up to 50% more energy-efficient than the yellow-orange high-pressure sodium lights they will replace. They last for 15 to 20 years, instead of two to five, saving both replacement costs and labor time.

Native Plantings. The Project will use native plantings in the ditches and the shoulders that support pollinators in the less developed portion of the corridor from Grimm Street to the southern limits. Pollinators play an essential role in Iowa's environmental and agricultural systems; planting habitat for them supports both biodiversity and crop production. The Iowa Department of Natural Resources reports that all pollinators, including a wide range of native species, are in decline due to disease, improper pesticide use and habitat decline. The same bulletin reports that "Roughly 35% of all crops worldwide are animal pollinated, and

⁶ Data drawn from La Porte Road Traffic Study, Black Hawk County MPO traffic data counts, and projects developed as part of the BCA analysis for this application.



60-80% of all flowering plants depend on animal pollination.”⁷

Water Quality Enhancements. The Project includes a water quality and detention basin that cleanses storm water and reduces adverse environmental impacts to the Cedar River, which is listed as having impaired water quality. The detention basin will remove 90% of the pollution in the first wash of storm water coming off of the roadway.

In addition, the Project includes sanitary sewer CIP (cured-in-place) pipelining to reduce the need to treat storm water runoff at the wastewater treatment plant as the amount of infiltration is reduced—reducing operating costs. Holes and cracks in the pipes that carry wastewater allow infiltration and also allow leakage. Infiltration increases the need to treat the water, increasing operating costs. Some breakage can be caused by tree and plant roots that find the sewer system an attractive source of water and nutrients; these roots create blockages and overflows as the pipe capacity is reduced. CIP pipelining rehabilitates the pipes, prevents infiltration/leakage and blocks roots. In doing so, this process will help Waterloo avoid the large capital cost of expanding treatment facilities and the environmental problems caused by sanitary sewer overflows.

Market Response. The Project supports the reuse of the city’s struggling mall and connects activity centers to promote infill development. The Project improves access to several large commercial properties located in an opportunity zone, making them more attractive for commercial ability and enhancing the city’s ability to market them to industry. Overall, this supports the

environment by working against sprawl and creating conditions that invite development along the corridor at an existing mall site and infill locations between the city center and the entertainment cluster at the southern end of the corridor.

Quality of Life

This Project introduces a number of enhancements that do not directly address safety or operational concerns, but do improve resident quality of life and boost the commercial attractiveness of the corridor. These are potentially difficult to monetize in a BCA, but they address the intangible benefits incorporated in how travelers and residents experience the corridor. These include ADA enhancements, shelters to protect from inclement weather,⁸ benches at bus stops and landscaping, for example.

In preparing the county’s long-range plan, respondents were asked about what types of transportation investments were important to them. Available responses were all related to pedestrian, bicycle, and transit improvements. Figure 8 shows the results of this question. A total of 1,421 responses were recorded among the seven investments, and an additional 307 respondents selected “none of the above.”

Comparing survey responses with the features of the Project demonstrates several points of alignment. The Project, for instance, will improve public transit, the surveyed community’s top priority with 279 responses. It will also install sidewalks, the second most important change to survey participants. Finally, it will construct new multi-use trails, an amenity which falls sixth on the list. Similarly during public meetings,

⁷ Iowa Department of Natural Resources, “Iowa’s Woodlands Vital Habitat for Native Pollinators,” Accessed <https://www.iowadnr.gov/portals/dnr/uploads/forestry/General/ForestPollinatorspub.pdf>

⁸ Waterloo residents experience 105 days with snow or rain precipitation and 64 days with snow on the ground, according to NOAA Climatic data compiled by Current Results.

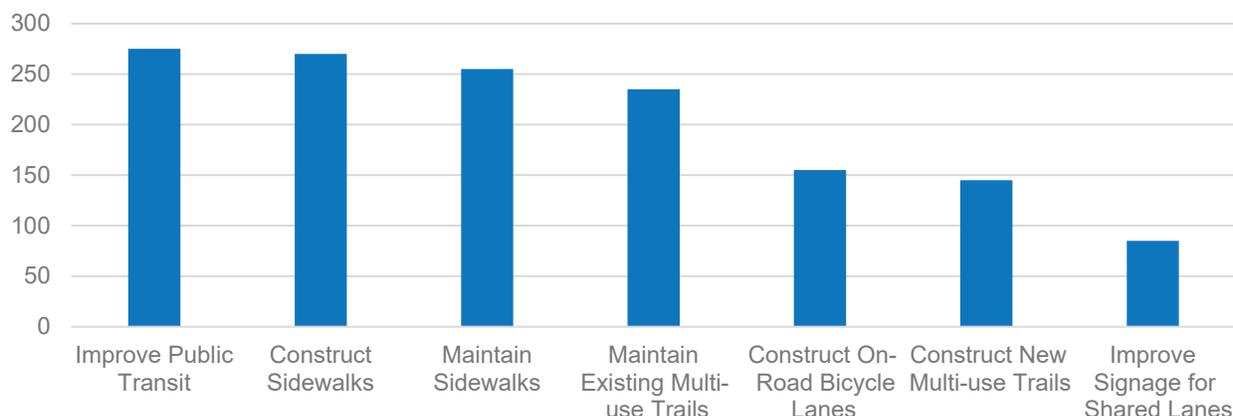


Figure 8: Community Survey Responses Answering “Which One Transportation Investment is Most Important to You?”

businesses reported that there were frequent power outages in the corridor; as a result, the powerlines will be put underground while the road is under construction. In short, this Project directly responds to the priorities of the metro area and city stakeholders.

In addition, three MET transit routes utilize the corridor, Routes 5, 5L and 10. Route 5L is the busiest one in the city with approximately 58,500 riders annually. Route 5 had about 29,000 riders annually prior to COVID-19’s restrictions. Route 10 had 6,304, but this route has no mid-day service and reduced summer service.

As illustrated in Table 6 below, these are also the routes with the highest share of minority residents and the highest share of seniors and households without a car. Moreover, the routes traverse much of the northern part of the corridor, which is in the “area of persistent poverty” discussed previously. This Project’s enhancements to these routes will make meaningful improvements in the daily quality of life for the residents in these disadvantaged areas, while improving the region’s broader network.

Table 6: Demographics of Bus Routes that Will Use the Improved La Porte Road Corridor

Route	Pop.	Jobs	Poverty	Minority	Seniors	Youth	Non-English	Disability	No Vehicle
1/West	15,202	7,432	16.0%	23.7%	13.9%	15.5%	2.7%	11.7%	10.7%
2/West	17,052	9,174	12.5%	24.3%	15.6%	22.9%	3.0%	11.3%	10.3%
3/East	6,277	4,662	32.8%	46.0%	11.6%	25.4%	1.6%	17.2%	21.7%
4/East	8,773	4,998	31.2%	56.1%	11.9%	26.3%	1.4%	17.9%	16.1%
5/La Porte	8,686	7,420	19.4%	28.6%	13.2%	24.3%	3.7%	13.7%	12.6%
5/W 11th	8,948	7,609	19.4%	28.8%	12.9%	24.4%	3.7%	13.7%	12.7%
6/University	19,359	13,736	19.4%	12.9%	13.0%	16.1%	1.7%	10.1%	8.4%
7/Rainbow	19,815	14,009	19.5%	13.2%	12.9%	16.0%	1.6%	10.2%	8.7%
8/West Loop	20,710	10,580	15.2%	22.8%	14.4%	23.3%	2.2%	11.7%	10.3%
9/CF Loop	15,334	10,263	26.1%	8.4%	9.1%	12.0%	2.2%	6.8%	6.4%
10/HCC	9,296	7,422	29.1%	11.1%	10.9%	9.4%	2.5%	7.3%	7.2%
11/UNI	5,555	3,142	51.7%	9.4%	3.4%	2.8%	0.9%	4.4%	3.4%
12/Safe Ride	7,605	4,387	36.7%	9.7%	6.5%	8.0%	2.0%	5.7%	5.7%

Source: Black Hawk County Long-Range Transportation Plan



Mobility and Community Connectivity

Waterloo's average Walk Score is 37 on a range of 0 to 100, where 100 is the most walkable place; a score of 37 indicates that a vehicle is needed for most daily errands. The demographics of the area and the absence of sidewalks and trails illustrated in Figure 6 explain why there is latent demand for sidewalks and bike facilities. (Latent demand for a product or travel mode is demand that a consumer cannot satisfy because they do not have enough money or because the mode is not available.) Even though there are no sidewalks or bike paths in the corridor, nearly 5 % of Census Tract 9's (an Area of Persistent Poverty) workers walk to work—one of the highest shares in the city. Similarly, over 9 % of the workers in Tract 9 do not have a vehicle available, again one of the highest shares in the city.

Demand for active travel modes in the La Porte Road corridor will be driven by both residents and hotel visitors in the corridor. The analysis for this grant projects that pedestrian activity will rise from an existing pedestrian count of 131 trips/day to 310/day in the first few years that the sidewalks and bike paths become available, rising gradually with the city's very slow population growth. This is likely a conservative projection as it ignores the network effect of connecting the La Porte Road sidewalks to the existing network at the north end of the corridor and the likelihood that additional hotels open up in the entertainment district over time. Biking activity is projected to rise from its current 164 trips/day to 259/day. Other trails in the area have an average usage of 300-400 users/day (some higher, some lower), so the La Porte trail would be consistent with that range, according to data from the Black Hawk County Long-Range Plan, (Figure 5-5, p. 125).

The thoughtful combination of corridor enhancements improves the operating performance for vehicles that use the corridor's road system while adding new sidewalks and bike trails, as well as places to board and alight transit. The Project builds on the concept of a "road diet" for much of the corridor's redesign.

This approach combines multiple low-cost investments that collectively deliver a high value in terms of safety and corridor performance. In the La Porte Road corridor, the Project will convert the existing 4-lane, undivided roadway segment to a 3-lane segment consisting of two through lanes and a center, two-way left-turn lane. The turn lane, in conjunction with the adaptive signals, will allow vehicular travelers to traverse the corridor with few delays, thus improving mobility. The Project saves travelers 20,700 hours in the opening year, growing over time to 56,000 hours by 2045.

The reclaimed space from the fourth lane that is now unused for vehicular travel is reassigned to other uses, including bike lanes, sidewalks, bus shelters, and landscaping, as described in the other sections of this application. The Project adds 3,866 linear ft of 5-ft wide sidewalk and 14,848 linear ft of 10-ft wide bike trail in an area where these modes are entirely absent. Moreover, the Project fills the gap in regional and local trail systems, and connects the regional trail to the national American Discovery Trail, a coast-to-coast route across the U.S.

The sidewalks will have curb cuts to accommodate pedestrians that have mobility restrictions. Transit platforms will be added in four locations along the corridor that will permit level boarding. Overall, the new bike, pedestrian and transit infrastructure will be ADA compliant, incorporating best practices in Universal Design.



Economic Competitiveness

The Project connects a growing tourism center at the south end of the corridor to Downtown Waterloo, traversing past the mall along the way. This corridor is identified in the Mayor's Strategic Plan and programmed to be an entertainment/recreation corridor for the city. The hotels, waterpark, campground, and other venues represent good employment opportunities. The corridor connects areas of persistent poverty to these community retail and recreational amenities. These areas are also employment centers of critical importance for this corridor, the Project increases non-motorized access in an area that has one of the highest percentage of people who commute by a non-motorized mode and households without access to a vehicle.

Businesses, households and traffic operations in the corridor will benefit from the improved reliability associated with placing power lines underground. Car dealerships and hotels in the corridor have raised concerns about power reliability at public meetings for the Project. As a simple example of the disruption to the economy, simple credit card transactions cannot be processed without power. Traffic signals operations go dark and require travelers to remember that the intersections revert to a 4-way stop.

The construction activity will benefit union trades and support small businesses in the community. As the Iowa DOT will manage the letting, DBE goals will apply to the construction work. IDOT's goals are a race conscious goal of 3.79%, with a race neutral goal of 2.24%. Select union trades will likely benefit from the Project depending on the letting.

The Project increases the value of land in the corridor by making public investment to

improve the character of the corridor and by improving the access to large parcels in the corridor that the city seeks to market. It also increases the attractiveness and access to the mall area. In supporting the economic health of these community development areas, the Project supports infill or redevelopment of existing sites rather than sparking sprawl. As these properties are redeveloped, the city's tax base is bolstered. The parcels in this corridor are some of the largest available in the city.

With multiple vacancies and a need for new business and retail space, the city is seeking to leverage improvements to the transportation network in and around this area to revitalize corridors for new business opportunity and site development. The value of properties adjacent to the Project corridor is \$46.5 million. Every percentage of land value that capitalizes the public improvements made to anchor this economy creates nearly \$500,000 in private value. Research on sidewalks reported in the Iowa Law Review has found that one Walk Score point can increase the price of a home ... 0.9%.”⁹ The article goes on to describe that “Even if walkability may encompass more than just sidewalks, such as proximity to the city center, a follow-up study controlled for distance to the business district, and the effect of walkability was still significant.” Land value uplift is excluded from the benefit cost analysis to avoid possible double counting with the travel time and other benefits estimated.

The retention of John Deere operations in the Waterloo economy, and John Deere's selection of Waterloo as a location for its

⁹ Vanessa Casado Perez. "Reclaiming the Streets," Iowa Law Review, vol.106. p. 2194-2195. Walk Score is a metric that falls between 0 and 100 that summarizes the ease of access from a specific location to typical destinations such as local job centers, shopping areas, schools/libraries, and government areas. Values between 90-100 indicate a walkers' paradise. Waterloo's average score is 37.



advanced manufacturing complex, are major elements in the city's strategy for transitioning from an economy based solely around food processing and equipment manufacturing, to one which is diversified through the development of businesses promoting professional services and entertainment. This Project supports Waterloo's diversification into such a broader range of economic and work opportunities, by providing a redesign of key areas that will offer an enhanced quality of life to potential and established residents, thereby helping the city attract and retain talent for these burgeoning industries.

The improvements to the south end of the corridor in particular will support the development of future, large venues in the city's entertainment district. Currently, for instance, Iowa offers only one full-scale theme park, Adventureland, in Des Moines. The Lost Island Theme Park, now under development in Waterloo, and opening later this year, will be even larger, and add great opportunity to the city's entertainment hub. This prospect has been deemed so beneficial to the local economy that private owners have committed more than \$100 million to the new project. This will create jobs, income, and tax revenues to help revitalize the city.

State of Good Repair

This Project will bring the La Porte Road corridor back into a state of good repair, adding enhancements that will make it a safer and more enjoyable place to be. The pavement, for instance, will be improved, reducing vehicle wear and tear.

The city has the tools and resources to maintain the Project in this state of good repair once redevelopment is complete. Waterloo has an asset management system

that allows it to track and prioritize the operations and maintenance of its assets. The city's pavement management system is updated every two years. Moreover, the city has a dedicated Road User Fund and Local Option Sales Tax that are used to fund the maintenance and operations of its transportation network. The Road Use Tax Fund is primarily funded by state fuel taxes and is used for street, maintenance, snow removal, traffic operations and traffic signals. The Local Option Sales Tax in the city is used for street repair and construction, including engineering costs.

As the Project is not adding (on net) new lane miles but rather converting an existing lane to sidewalks and bike trails, the change in operating costs will be modest in the context of the city's overall budget. The Project also focuses investment in prime areas for the generation of the Local Option Sales Tax dedicated to street and bridge uses and the Tax Increment Financing District revenues used to foster economic development. Thus, the success of the Project sparks a virtuous cycle of generating revenues that come back to support the maintenance of this and other public investments.

With the downturn in consumer spending caused by COVID-19 restrictions, the city's collection of local option sales taxes is lower than expected. This deficit makes it impossible for the city to advance this Project without help from an outside source, such as the RAISE program.



Partnerships and Collaboration



The City of Waterloo, Iowa is the applicant for the RAISE grant. The grant will be managed by the city's Engineering Department, which will also be responsible for delivering the Project. Specific responsibilities will include:

- Managing and reporting for the grant if selected for award,
- Being a funding partner,
- Maintaining the Project in a state of good repair,
- Ensuring that the final design of the project fits well with the surrounding network, and
- Providing oversight for the engineering and construction of the Project.

In addition, the City of Waterloo will be joined by the Black Hawk County Metropolitan Planning Organization (MPO), and the Iowa Department of Transportation (DOT) in delivering this Project.



INRCOG
Iowa Northland Regional
Council of Governments

The Iowa Northland Regional Council of Governments (INRCOG) is an association of local governments that is committed to identifying, securing, and coordinating local, regional, and federal government projects and programs for the enhancement of member communities in Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy counties. INRCOG prepared the Black Hawk County MPO 2045 Long-Range Transportation Plan. The INRCOG staff has been an advocate of this project by participating in the project management meetings and serving as a funding partner through the Black Hawk County Metropolitan Planning Organization (MPO). Specific responsibilities include:

- Providing funding for the Project, and

- Supporting development of the Black Hawk County Metropolitan Area Pedestrian Master Plan than informs the development of this Project



The Iowa DOT plans, constructs, and operates the state's transportation network. It is a funding partner for the Project, and will assist with the public bidding of the construction project.

Additional Stakeholders and Project Supporters. In addition, though they are not directly involved in the delivery or maintenance of the Project, a number of other stakeholders have written letters of support for the Project. These letters are provided with this application.



The Metropolitan Transit Authority of Black Hawk County (marketed as MET) is the primary provider of mass transportation for the cities of Waterloo and Cedar Falls. The agency was founded in 1972 after the private National City Lines, which had operated public transit under contract from the city, pulled out of providing fixed routes, leading to the city to directly take over this service. Three MET routes serve the study area, as described in the Quality of Life discussion in Section 4. Specific responsibilities will include:

- Integrating the new bus facilities into their operations.

WATERLOO WATER WORKS



An important part of the Collaboration and Partnership for this project has been the planning to permit multiple types of infrastructure to be installed during the time



that the road corridor is under construction. As noted elsewhere in this application, water infrastructure, broadband and power lines will be installed in the corridor at the same time. This coordination extends beyond public sector provisions of utilities and infrastructure, however. The public investments will accelerate private investment along the corridor. Hotel owners have noted to the Project team that they are seeking to add EV charging stations for guests in parking areas; KOA already has EV charges. Their private investment on their parcels are being made through coordination with Mid-American (the local power company). By adding the lines when the road is under construction, the private installation cost is lower and more attainable, allowing commercial establishments to add EV charges sooner.

Innovation (Technology, Project Delivery, Innovative Financing)

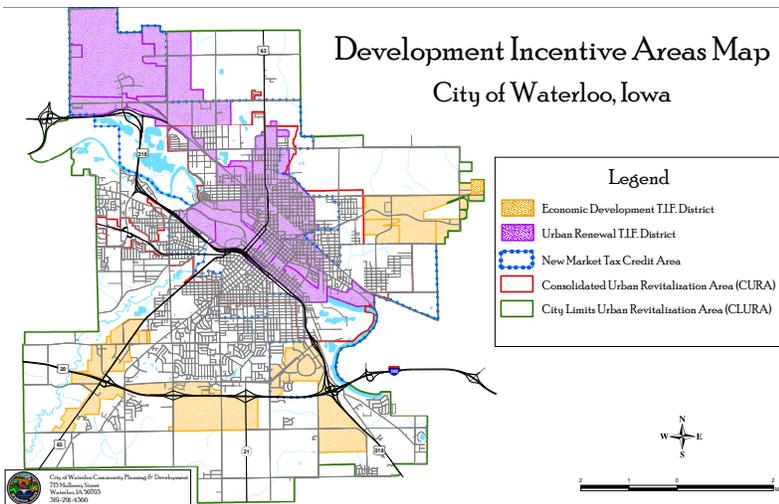
The Notice of Funding Opportunity (NOFO) recognizes innovations in three key areas: Technology, Project Delivery, and Innovative Financing. This Project has innovations of all three types.

Technology. The Project applies signal timing and pre-emption for emergency vehicles to improve the performance of the corridor, even

as a lane is removed. Also, the signals are adaptive, using AI to adapt to traffic in the corridor—adjusting green / red time to maintain a constant flow. The installation of broadband makes the corridor ready for future autonomous and connected vehicle use and smart streetlights.

Project Delivery. The Project has been developed with significant coordination with other infrastructure providers in order to make the best use of the time that the road will be under construction and not available to travelers. Broadband deployment and the water main investments are coordinated with road work in order to save funds and prevent impacts to the traveling public and pavement in the future.

Innovative Financing. Waterloo’s City Council voted unanimously earlier this year to expand the Crossroads Tax-Increment Financing District to include the La Porte Road corridor, which has also been designated as a federal “opportunity zone.” Thus, the city is coordinating economic development policy and funding measures with this public investment to revitalize the infrastructure backbone in the corridor.



Source: City of Waterloo

Figure 9: Development Incentive Areas Map for Waterloo



TIF districts are geographic zones created to attract development. New property tax revenue generated from growth in a district is retained by the city to spend on development incentives in that specific district.

The city has established a TIF District over this portion of the community to open up additional opportunities for public-private partnerships and improvements to the corridor for aging, inadequate or poorly designed infrastructure; and to encourage reinvestment into the corridor for job retention, creation, and improvements to property. The city's Urban Renewal Plan for this area defines TIF incentives, which can include tax rebates, grants, acquisition of property, and extension (or help with extension) of infrastructure needed for business development.

The city sees the planned improvements to this corridor as vital, due to the poor condition of the Crossroads Mall, older and improper land use along the highway corridor, and the juxtaposition of the out-of-date facilities in the corridor with the modernizations currently underway in the southern end of the city. All of the additional taxes gained by the increased tax base created in this area, for the 20-year time period allowed by State Code, can be gathered by the city for reinvestment into the district, to help create shovel-ready sites, further business expansion and development, and assist in infrastructure improvements.

In the past, Waterloo has assisted development projects economically in various ways, including:

- Providing tax rebates to relocate a diagonally-constructed sewer line along a lot on La Porte Road, allowing for the Fairfield Hotel to be built. Without these incentives, the additional cost of the sewer line relocation would have made the project economically infeasible.
- Providing tax rebates to fund the demolition and reconstruction of a former KMart building into a multi-tenant commercial strip mall and out-lot sector, which now houses a Freddy's Restaurant, Kwik Star convenience store, car wash and smaller retail strip center; along with openings for other businesses. This KMart lot had been vacant for years and was in a deteriorating state prior to commencing the project.
- Designating the area north of Ridgeway Avenue as being within the City's Urban Revitalization Area (CURA), established to help drive private reinvestment in the city's urban areas. The CURA was specifically designated in the 1990's after a "condition of housing study" performed by University of Northern Iowa students revealed a need for improvements in the area. The CURA allows for tax abatement on housing, commercial and industrial businesses in the area to increase them in taxable value.



5. PROJECT READINESS: ENVIRONMENTAL RISK

This section outlines the Project Schedule, required approvals and permits, NEPA status, and risk and mitigation strategies.

Project Schedule

Assuming six months for U.S. DOT application review, and allowing 6 months for grant negotiation, the City of Waterloo can have the corridor design and other pre-construction activities completed in the last six months of 2023. This is well before the required date of September 30, 2026, outlined in the NOFO.

Construction of the corridor can be completed in 36 months, spanning 2023 through the end of 2025. This is well ahead of the September 2031 date specified in the NOFO. This schedule includes buffer time for unusual weather conditions that could affect available working days, as all of the work must take place outdoors. Figure 10 below outlines the planned project schedule.

Required Approvals and NEPA Status

The city owns the required right-of-way, with the exception of minor construction easements that may be needed. While approvals are not required, the city has coordinated with the public transit agency

concerning the requirements for service enhancements. In addition, the city has coordinated with Iowa DOT, and the MPO which have provided partial funding for project development.

The city is negotiating a land swap with IDOT. Through this agreement, the city will obtain excess ROW originally obtained by IDOT but no longer needed. This swap will allow the city to expand the amount of developable land along the corridor.

In terms of NEPA, the city has begun consultation with FHWA, and it has been determined that the class of action would be a Programmatic CE for the enhancements in this application. Additional work to assess whether there were historic or archeological concerns was undertaken by the city as well.

Since this project is using a minimal amount of new ROW, impacts are also anticipated to be minimal. In keeping with state and federal laws and regulations, such as NEPA, the Clean Water Act, the National Historic Preservation Act and the Endangered Species Act, the project area was reviewed for several environmental factors. These factors included hazardous materials sites, threatened and endangered species habitats, wetlands, archaeological and historic architectural sites (as well as the potential for new sites), parks, trails, and recreational properties (also referred to as Section 4(f) resources), and business and residential impacts (related to potential access changes).

Activity	2022		2023		2024		2025	
	H1	H2	H1	H2	H1	H2	H1	H2
Apply for RAISE Funding	★							
Grant Negotiation, if selected								
NEPA/Final Design/Pre-Construction								
Construction								

Figure 10: Project Schedule



In January 2021, a cultural resources review was completed by the Office of the State Archaeologist, Cultural Resources Specialist. This report concluded, based on the low potential for finding new sites, that no further archaeological or historic architectural surveys were required. Likewise, database searches and/or field reviews were conducted for hazardous materials sites, threatened and endangered species habitats, Section 4(f) resources, wetlands, businesses and residences. No hazardous materials sites were found to be within the project area. There is natural habitat within the project area but none are suitable to support the threatened and endangered species listed for Black Hawk County.

In addition, no businesses or homes would be impacted by the project. Within the project area there is Lost Island Waterpark, a KOA campground, Shaulis Road Trail and South Hills Golf Course. Coordination with jurisdictional owners was conducted per Section 4(f) requirements; however, none of these resources would be impacted by the Project.

A check of the National Wetlands Inventory showed no mapped wetlands in the Project corridor. However, during a field delineation, wetlands were found to be present, and the report was forwarded to the U.S. Army Corps of Engineers for their jurisdictional determination. The Project will require a Section 401/408 permit for box culvert work and impacts to jurisdictional wetlands.

Next steps for this Project include completing a Programmatic Categorical Exclusion (PCE). The PCE is done by Iowa DOT staff and is usually completed within a 4- to 8-week period.

Public Engagement and Stakeholder Outreach

The City of Waterloo has sought public involvement and comment on the proposed La Porte Road Revitalization Project. The preliminary planning and design process for this Project began in early 2020, and due to the pandemic, meetings were limited to on-line gatherings for a period of time. A Project Management Team (PMT) was established with representatives from City of Waterloo departments (including Engineering, Planning, Community Development, Public Works and Traffic), Black Hawk County MPO staff, and the design team. This group met on a regular basis to monitor the development of the Project and to make decisions based on the groups represented by the staff. In addition to the PMT, a Stakeholder's Committee, consisting of local residents, property owners and business leaders located near the project corridor, was used to gather information about the corridor's needs and explore development concepts and ideas with community residents who have a strong connection to the area.

Because of the pandemic, in-person meetings were not allowed at the time these meetings were scheduled. A public information meeting was thus held virtually in November of 2020. The design team recorded a video documenting the proposed improvements, which was shared on the City of Waterloo's website as well as on the Project's Facebook page. The Project Team sent a total of 425 postcards to parcel owners along the corridor and e-mailed stakeholders as well. Nearly 150 people participated in a Facebook social media event. An additional YouTube site provided social media engagement so that final outreach numbers were even higher than that reported through Facebook.



In addition, the City of Waterloo has a Complete Streets Advisory Committee, comprised of local citizens, Black Hawk County MPO staff members, city staff members, and local business representatives and consultants to review projects and have “a second set of eyes” looking at pedestrian and other forms of transportation for design work and connections throughout the community.

The Design Team has presented updates to the city’s Complete Streets Advisory Committee and Stakeholders on a regular basis and has incorporated their feedback into the design.

Risks and Mitigation

The risks to delivering this project successfully are low. The city completes projects of this scale and complexity multiple times a decade as funding permits. Table 7 summarizes identified risks.

Table 7: Assessment of Project Risks by Type of Risk

Project Risk	Assessment/Mitigation
Application of TIF	The City of Waterloo has managed multiple TIF districts and has experienced staff to administer the district.
Schedule Risk	The Project schedule has completion dates well in advance of USDOT’s milestone dates, so there is buffer time for handling unexpected issues. The schedule takes Iowa’s weather conditions into account, understanding that work cannot advance during certain seasons.
Procurement Delays	None expected. The city’s Engineering Department regularly undertakes projects of this nature and has a dedicated staff.
Environmental Uncertainties	None expected. The construction will take place in an existing active transportation corridor.
Increases in Real Estate Acquisition Costs	None expected. Minor land acquisitions from the private sector are required. The city is securing an agreement with IDOT for the land swap.
Uncommitted Local Match	None expected. The non-federal match is identified, available and committed. Please see letter of commitment included with this application.
Unavailability of Domestically Manufactured Equipment	None expected. No special equipment is required. All construction materials can be domestically sourced.
Lack of Legislative Approval	None expected. No legislative approvals are required.



6. BENEFIT COST

The benefit cost analysis was conducted using the U.S. DOT 2022 Benefit-Cost Analysis Guidance for Discretionary Grant Programs document as a guide for preferred methods and monetized values. The parameters of the benefits analysis follow the protocols set by the Office of Management and Budget (OMB) Circular A-94 as well as the recommended benefit quantification methods by the U.S. DOT. Generally, for the benefits calculation, standard factors and values accepted by federal agencies were used, except in cases where local project-specific values were available. In such cases, modifications are noted and references are provided for data sources.

Some elements of this Project are not easily captured in a benefit cost analysis framework. For example, ADA enhancements to improve accessibility, benches and amenities, such as bus stops and landscaping, improve the experience of those using transit and traveling the corridor. These are largely non-market benefits—setting aside the safety benefits of ADA ramps for example. But we know they are valued by the community. As described in the Quality of Life section, the Project’s attributes have a close correspondence with the community preferences for transportation improvements. The community has indicated their value for these investments, just not the monetary value they place on a bus stop or ADA ramp, but also greater inclusion of mobility-impaired travelers in community life that these investments foster. Where possible, these benefits have been described qualitatively, consistent with best practices for benefit cost analysis.

Because many of the expected benefits cannot be readily quantified, the actual total benefits of the project are expected to be greater than the benefit cost ratio estimated. The quantitative results are conservative. In developing the benefit cost analysis, the Project Team considered a hedonic or “willingness-to-pay” approach to the estimation, but the available studies did not align well with the neighborhood context in which the Project investments will be made. Rather than overstate the quantitative results, we have been conservative in our estimation and transparent in describing the qualitative benefits that could not be monetized.

The No Build (baseline) assumes that the Project will not be built and the purpose of and need for the Project would not be met. The high crash locations will remain dangerous and pedestrians and bicyclists will share travel lanes with vehicles. The Project was compared to the No Build to identify the net benefits in the following categories: economic competitiveness, safety, environmental sustainability, state of good repair, and quality of life.

The benefits are expressed in constant 2020 dollars, which avoids forecasting future inflation and escalating future values for benefits and costs accordingly. The U.S. gross domestic product (GDP) chained price index from the OMB was used to adjust past cost estimates or price values into 2020 dollar terms. The use of constant dollar values requires the use of a real discount rate for discounting to the present value. In accordance with federal funding requirements, the BCA uses a 7% discount rate.



The following table summarizes the Project impacts and resulting benefit cost summary.

Table 8: Summary of Project Impacts and Benefit Cost Results

20-Year Analysis Period (2026-2045)	Discounted at 7%
Costs (2020 \$M)	
Capital Cost	\$21.56
Total Costs	\$21.56
Benefits (2020 \$M)	
Economic Competitiveness Benefits	
Vehicle Travel Time Savings	\$6.43
Vehicle Operating Cost Savings	\$2.18
Sub-Total	\$8.61
Safety Benefits	
Reduced Roadway Fatalities and Crashes	\$12.29
Sub-Total	\$12.29
State of Good Repair Benefits	
Residual Value	\$1.70
Sub-Total	\$1.70
Environmental Sustainability Benefits	
Reduced Emissions	\$0.19
Sub-Total	\$0.19
Quality of Life Benefits	
Health Benefits	\$1.33
Mobility Benefits	\$5.92
Recreational Benefits	\$1.17
Transit Amenity Benefits	\$0.28
Sub-Total	\$8.70
Construction Detours (Disbenefit)	(\$2.15)
Operating & Maintenance Cost Savings	\$0.25
Total Benefits	\$29.58
Outcome	
Net Present Value of Benefits (\$M 2020)	\$8.02
Benefit-Cost Ratio	1.4

The analysis covers a 20-year operations period following the opening of the Project in January 2026. All values are in 2020 dollars. The BCA estimates the Project's net present value of benefits to be \$8.0 million, with a benefit-cost ratio (BCR) of 1.4, indicating that the Project's benefits justify its costs. The community's value for the qualitative benefits not included in the value increase the potential for Project success.

