

Building Bridges to Employment and Equity Project

Applicant: City of Dubuque, Iowa (Rural) DOT RAISE Request: \$2.28 Million Local Match: \$2.1 Million



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TABLE OF CONTENTS

Section	Page Number
Executive Summary	1
I. Project Description	5
A. Dubuque's Transportation Challenges	5
B. Dubuque's RAISE Solution	7
C. Project History	9
D. Detailed Statement of Work	10
E. Expected Users	11
F. Local and Regional Significance	12
G. Racial Equity and Reducing Barriers to Opportunity	12
H. Climate Change and Environmental Justice	12
II. Project Location	13
III. Grant Funds, Sources, and Uses of All Project Funding	16
IV. Merit Criteria	17
A. Safety	17
B. Environmental Sustainability	18
C. Quality of Life	20
D. Mobility and Connectivity	22
E. Economic Competitiveness and Opportunity	23
F. State of Good Repair	25
G. Partnership and Collaboration	26
H. Innovation	27
1. Innovative Technologies	27
2. Innovative Project Delivery	27
3. Innovative Financing	28
V. Project Readiness	28
A. Environmental Risk	28
i. Project Schedule	28
B. Required Approvals	29
i. Environmental Permits and Reviews	29
a. NEPA Status	29
b. Other Reviews, Permits, or Approvals	29
c. Environmental Studies	29
d. NEPA Discussions	29
e. Right-of-Way Acquisition Plans	29
f. Public Engagement	29
ii. State and Local Approvals	29
iii. Federal Transportation Requirements Affecting State	29
and Local Planning	
C. Assessment of Project Risks and Mitigation Strategies	29
VI. Results of Benefit-Cost Analysis	30

EXECUTIVE SUMMARY

The City of Dubuque, Iowa, requests \$2.28 million in U.S. Department of Transportation (DOT) Rebuilding America's Infrastructure with Sustainability and Equity (RAISE) planning funds to design and engineer the construction of a railroad overpass, Complete Street enhancements, and new shared-use paths supporting the economically-distressed North End, Point, and Washington neighborhoods. The Building Bridges to Employment and Equity (B2E2) project will directly benefit low-income residents in Areas of Persistent Poverty (Census Tracts 1 and 5) by connecting them to economic opportunities and key community assets.

Dubuque's North End, Point, and Washington neighborhoods contain the city's oldest housing stock and the highest concentration of households living in poverty. Dilapidated rental units, perceptions of high crime, and repeated flooding events have resulted in historic economic disinvestment and negative safety perceptions. These areas, located in the center of Dubuque's urban core, are disconnected from vital economic, recreational, and civic hubs in the community, including:

• *Kerper Boulevard Industrial Park:* For decades, Dubuque has engaged in long-term economic development efforts to boost manufacturing, promote commercial development, and create jobs along its flood levee-protected Mississippi River waterfront. In the 1950s, the City helped to develop the 229-acre Kerper Boulevard Industrial Park to concentrate light manufacturing and other business uses along 16th Street. Private sector companies

have invested millions of dollars and plan to expand their operations within the park. Large vacant and underutilized buildings are targeted for reuse within the area. However, access to the Kerper Boulevard Industrial Park is constrained by railroad tracks, poor pedestrian/bike facilities, and unsafe roadways.

Redevelopment Areas: The former Dubuque Packing Company plant property, a 40-acre site located on 16th Street, is poised for redevelopment after sitting idle for more than a decade. Development on this key brownfield site will serve as a regional jobs magnet, expanding economic opportunity along the 16th Street corridor. However, transportation and mobility access to the area is constrained. Dangerous intersections, unsafe conditions. and limited pedestrian/bike accommodations separate this redevelopment area from Dubuque's residents, particularly those with no vehicle.



Figure 1. Project area, with transportation infrastructure and key community destinations identified.

- *Chaplain Schmitt Island:* Across the Peosta Channel on 16th Street, a former landfill was reclaimed and renamed in memory of World War II hero Chaplain Aloysius Schmitt in the 1980s. Current commercial and recreational venues on Chaplain Schmitt Island include the Q Casino & Resort, Mystique Community Ice Center, hotels, restaurants, and marinas. RAISE investment will help accelerate additional public and private investment on the island, including a long-planned hotel expansion at the Q Casino, a 350,000-square foot outdoor concert and events venue, and redevelopment of the southern portion of the island as a destination and jobs center with new housing, retail, restaurants, entertainment facilities, and recreational amenities. Improved multimodal access for workers is critical to this growth.
- *Historic Millwork District:* The Historic Millwork District, a 43-acre abandoned industrial area, contains over 1 million square feet of warehouse space. Once the nation's largest millwork district, the former industrial area had declined for decades. Dubuque has successfully reclaimed the Historic Millwork District (supported with 2010 TIGER funds) and developed the area as a mixed-use regional engine of growth, with 1,000 new residents and



Figure 2. RAISE investment will connect workers in distressed neighborhoods with job opportunities in the revitalized Historic Millwork District.

more than 1,000 jobs. Residents from Dubuque's North End, Point, and Washington neighborhoods face access barriers to this employment center with hazardous intersections, poor pedestrian/bike facilities, and inefficient transit options.

• *Intermodal Transportation Center:* Built with Federal Transit Administration (FTA) support, Dubuque's Intermodal Transportation Center is located at the intersection of 9th Street and Elm Street. This transit facility serves as a transfer location for local and regional buses. North End, Point, and Washington neighborhoods face the same transportation barriers along Elm Street accessing the Intermodal Transportation Center.

Planning improvements will create the physical infrastructure needed to support a safe, connected transportation network that serves the distressed North End, Point, and Washington neighborhoods, providing enhanced multimodal access to the aforementioned key community destinations. RAISE planning funds will be used to design and engineer:

- A new vehicular and pedestrian/bike overpass at the 14th Street railroad tracks to reduce significant train-related delays that impair the efficient movement of people and freight and improve safety;
- Complete Street corridors and five roundabouts along the intersecting 16th Street and Elm Street corridors; and
- New pedestrian/bike shared-use paths to the Kerper Boulevard Industrial Park and Chaplain Schmitt Island.

An overpass at 14th Street is necessary to connect economically-distressed residents west of the railroad track with jobs and recreational opportunities to the east. Reconstructing 16th Street as a Complete Street will improve safety and increase capacity for planned economic growth in the

Kerper Boulevard Industrial Park, at the Dubuque Packing Company redevelopment site, and on Chaplain Schmitt Island, three key employment centers. Dubuque plans to transform Elm Street into a Complete Street, improving mobility and access from the City's most challenged residential neighborhoods to jobs in the Historic Millwork District and transit connectivity at the downtown Intermodal Transportation Center. The proposed roundabouts on 16th Street and Elm Street will improve vehicle flow and reduce crashes on dangerous roadways. New shared-use paths will further expand opportunities for biking and walking. Taken together, the B2E2 transportation enhancements will provide measurable outcomes that directly benefit low-income and minority residents of the North End, Point, and Washington neighborhoods.

Specifically, RAISE grant dollars will support planning that:

- Reduces significant train delays and improves the efficient movement of people and goods by constructing a vehicular and pedestrian railroad overpass at 14th Street, including street reconstruction from the new overpass to the eastern terminus of 14th Street, then north from 14th Street to the planned Sycamore Street roundabout on 16th Street;
- Better manages traffic on the 16th Street and Elm Street corridors by constructing five
 - roundabouts (Admiral Sheehy roundabout, Kerper Boulevard roundabout, Sycamore Street roundabout, Elm Street roundabout, and Five Points roundabout) and reconstructing the street pavement to improve vehicle flow and restore the corridors to a state of good repair;
- Improves pedestrian and bicycle safety with Complete Streets on the 16th Street and Elm Street corridors, as well as separate pedestrian/bike shared-use paths to the Kerper Boulevard Industrial Park and adjacent to the existing 16th Street bridge across the Peosta Channel;



Figure 3. Railroad tracks at 16th Street creates barriers for residents in the economically-distressed North End, Point, and Washington neighborhoods.

- Strengthens connectivity from low-income households in the North End, Point, and Washington neighborhoods to downtown Dubuque, Chaplain Schmitt Island, the Historic Millwork District, and the Intermodal Transportation Center;
- Enhances streetscapes to encourage further job-creating development;
- Mitigates climate change impacts through Complete Streets and shared-use paths that encourage modal shifts, reduce vehicle miles traveled (VMT), and lower vehicular emissions by providing safe, interconnected routes for walking and biking;
- Addresses racial inequities by connecting minorities who live in Census Tracts designated as Areas of Persistent Poverty with good-paying jobs and improved access to community services and critical amenities such as health care, education, food, and recreation;
- Boosts bus ridership along the 16th Street and Elm Street corridors for low-income residents, millennials, senior citizens, and persons with disabilities; and
- Reduces and mitigates stormwater runoff to minimize pollution impacts on the Mississippi River.

The planning project aligns with DOT's Strategic Framework FY 2022-2026 goals to address public health and safety, support environmental sustainability, increase equity, competitiveness, improve facilitate infrastructure condition, and advance social justice. Proposed improvements meet all of DOT's RAISE criteria. The project will:

conflicts with roundabouts, pedestrian creating and biking



Improve safety by providing a safe Figure 4. Proposed roundabouts will reduce crashes grade-separated rail crossing, reducing at some of Dubuque's most hazardous intersections and along 16th and Elm Streets.

- accommodations where they are insufficient or do not currently exist;
- **Promote environmental sustainability** by encouraging alternative travel modes, reducing fuel consumption, curbing emissions, and decreasing and filtering stormwater runoff through green infrastructure;
- Enhance quality of life and racial equity in disadvantaged neighborhoods, particularly in Census Tracts 1 and 5 (Areas of Persistent Poverty) where nearly one-third of residents are living in poverty, more than 20% of households have no access to a vehicle, 16% of persons are disabled, and 26% are minority;
- Improve mobility and community connectivity with alternative transportation modes, including full compliance with the Americans with Disabilities Act (ADA);
- Spur economic competitiveness by supporting mixed-use, transit-oriented development • as well as the ensuring the efficient movement of goods along corridors with manufacturing businesses;
- Align with DOT "state of good repair" goals by prioritizing investment in existing infrastructure;
- *Encourage partnerships* between the City, local businesses, neighborhood associations, cultural organizations, and other community stakeholders; and
- Demonstrate innovation through its sustainable design, integration with the City's Intelligent Transportation System (ITS) technologies, and incorporation of green infrastructure techniques to protect the Mississippi River.

The project will also leverage significant public and private sector support from the State of Iowa, East Central Intergovernmental Association, Dubuque Metropolitan Area Transportation Study, Jule transit system, Greater Dubuque Development Corporation, and local developers, for whom the project area's designation as a federal Opportunity Zone is already driving significant interest.

Due to significant constraints on the City's ability to fully fund this planning project on its own, RAISE resources are needed to close the financing gap and move the B2E2 project forward. Nonetheless, to demonstrate its strong commitment to the project, the City pledges to provide an over-match equal to 47.9% of total planning project funding. Planning efforts will commence upon grant award, and design and engineering will be complete by mid-2025. Limited property acquisition will be required as the project largely lies within the existing right-of-way. RAISE funds will easily be obligated by the September 30, 2026 deadline.

PROJECT DESCRIPTION I.

Dubuque (population 59,667) seeks to launch an ambitious effort to improve transportation infrastructure on two major, interconnected corridors:¹

- The 16th Street corridor represents Dubuque's economic future. Containing the Kerper Boulevard Industrial Park, Chaplain Schmitt Island, and key parcels of vacant land available for economic development (e.g., Dubuque Packing Company site), the community expects the B2E2 project to drive new, job-creating investments that will expand economic opportunity, especially for residents of the distressed neighborhoods in Census Tracts 1, 3, and 5 that qualify as Areas of Persistent Poverty in and around the project area. Employers along the 16th Street corridor have conducted locational surveys of their workers, indicating that access is a challenge from the North End, Point, and Washington neighborhoods.
- The Elm Street corridor, which intersects the 16th Street corridor, is a vital connector between the City's major downtown destinations (e.g., Historic Millwork District, Intermodal Transportation Center) and its economically-distressed neighborhoods. Hazardous intersections, poor pedestrian/bike facilities, and inefficient transit options hinder movement between these community nodes.

The proposed RAISE improvements will improve pedestrian, bicycling, and transit uses on the 16th Street and Elm Street corridors. A railroad overpass, Complete Street enhancements, and new shared-use paths will facilitate the movement of people from the North End, Point, and Washington neighborhoods residents to downtown Dubuque, the Historic Millwork District, the Intermodal Transportation Center, the Kerper Boulevard Industrial Park, Chaplain Schmitt Island, and other key areas.

A. Dubuque's Transportation Challenges

The 16th Street and Elm Street corridors were not designed to support the movement of North End, Point, and Washington neighborhood residents. 16th Street is a four-lane commercial corridor that serves vehicular mobility into and through the area, providing access to businesses along its length. There are no sidewalks or bike lanes along many parts of 16th Street. Access to the Kerper Boulevard Industrial Park and to Chaplain Schmitt Island Figure 5. Entrance to the Kerper Boulevard Industrial along 16th Street is often blocked by trains stopped on tracks in downtown Dubuque. The



Park.

two-lane Elm Street roadway includes intersections with high crash rates and outdated transit facilities. Sidewalks along Elm Street are in poor condition, not ADA compliant, and there are no marked bike lanes. Traffic analysis indicates that during the busiest times of day (morning and afternoon rush hour). Elm Street experiences significant congestion.

Dubuque's key transportation challenges include:

• *Railroad delays:* Downtown railroad tracks cleave the community, separating poorer

¹ U.S. Census Bureau, 2019 population estimate

neighborhoods from employment and recreational opportunities. Already, 8-10 trains park in downtown Dubuque for 20-30 minutes each as they pass through the community, causing traffic to and from the Kerper Boulevard Industrial Park and Chaplain Schmitt Island to be delayed for long periods of time. Railroad delays of up to 5 hours daily (including during peak times) impair the efficient movement of people and goods and impose additional costs on businesses. This transportation barrier will grow larger with the pending merger of the Canadian Pacific and Kansas City Southern railroads, as train traffic will nearly double to 18 trains per day that are forecasted to pass through Dubuque.

- *Congested streets:* Five intersections along the 16th Street and Elm Street corridors impede the flow of traffic to the Kerper Boulevard Industrial Park, Chaplain Schmitt Island, and areas of future economic development. This creates unnecessary delays, costs time and money, increases air emissions, and reduces the efficient movement of people and goods.
- *Crashes:* Five targeted intersections (16th Street and Admiral Sheehy Drive/Greyhound Park Road, 16th Street and Kerper Boulevard, 16th Street and Sycamore Street, 16th Street and Elm Street, and Elm Street and 20th Street) along the 16th Street and Elm Street corridors have some of the highest crash rates in Dubuque.
- *Insufficient/no sidewalks:* Pedestrians are unable to access existing and planned economic activity on both corridors due to insufficient or nonexistent sidewalks. This limits access to people who do not own a vehicle.
- *Poor/limited bike accommodations:* There are no dedicated bike lanes along either corridor, limiting bicycle circulation in the community.
- *Inefficient transit access:* While new jobs are being created along the 16th Street corridor and in downtown



Figure 6. Pedestrians in the background travel along missing sidewalks in Dubuque.

Dubuque, minority and low-income residents in the North End, Point, and Washington neighborhoods face difficulties accessing this employment using the bus system. Existing transit routes do not provide a viable option for residents in Census Tracts 1, 3, and 5.

- *ADA non-compliance:* Elderly and disabled residents traveling to the Crescent Community Health Center on Elm Street, Chaplain Schmitt Island, and downtown Dubuque are hindered by poor pedestrian and transit access.
- *Increasing traffic:* Over the next 20 years, annual average daily traffic (AADT) on the 16th Street and Elm Street corridors will grow from 20,000 and 9,000 vehicles, respectively, to more than 23,750 and 10,700 vehicles (a greater than 15% increase), resulting in significant peak period congestion. Without shifts to other modes of transportation, this will lead to increased crashes, unnecessary delays, wasted time and money, and reduced efficiency.
- *Inadequate capacity for future traffic volumes:* Travel demand modeling indicates that increasing volumes of traffic on the 16th Street and Elm Street corridors will result in a "C" and "B" level of service (LOS), respectively, at intersections along the route by 2042.
- Unappealing and unsafe streetscape: The 16th Street and Elm Street corridors lack safety and identity without sidewalks, uniform street lighting, and landscaping. The existing

streetscapes inhibit people from walking through the area and work against the community's goal of creating safe, vital commercial corridors and transit connectors.

• *Polluted stormwater runoff:* Discharges from rain events threaten the Mississippi River.

B. Dubuque's RAISE Solution

Construction of a vehicular/pedestrian overpass at the 14th Street railroad grade, Complete Street development for a 3,044-foot section of the 16th Street corridor and a 2,880-foot section of the Elm Street corridor, and the creation of pedestrian/bike shared-use paths to the Kerper Boulevard Industrial Park and Chaplain Schmitt Island are critical to the safety of residents in Dubuque's most challenged neighborhoods and the vitality of the community's economy. This infrastructure will connect distressed North End, Point, and Washington neighborhood residents to downtown Dubuque, the Historic Millwork District, the Intermodal Transportation Center, the Kerper Boulevard Industrial Park, Chaplain Schmitt Island, and other key areas.

Roadway improvements and new pedestrian/bicycle facilities will enhance Dubuque's vitality as an appealing place to live, work, and play. The proposed planning project will address deficiencies in east-west travel across the community; provide for increased walking, biking, and transit use; and support the revitalization of economically-distressed neighborhoods. Specific improvements include:

14th Street Railroad Overpass

• Construct a vehicular and pedestrian overpass (and related street improvements) to reduce train-related delays that negatively impact the safe and efficient movement of people and goods to and from the Kerper Boulevard Industrial Park and Chaplain Schmitt Island.

16th Street Corridor

- Reconstruct 16th Street from Elm Street to Greyhound Park Road as a Complete Street, with sidewalks and bike lanes to improve safety and access for pedestrians and bicyclists;
- Construct four roundabouts along the 16th Street corridor (Admiral Sheehy roundabout intersection of 16th Street with Admiral Sheehy Drive/Greyhound Park Road; Kerper Boulevard roundabout intersection of 16th Street and Kerper Boulevard; Sycamore Street roundabout intersection of 16th Street and Sycamore Street; and Elm Street roundabout intersection of 16th Street and Sycamore Street; and Elm Street roundabout intersection of 16th Street and Sycamore Street; and Flm Street roundabout intersection of 16th Street and Sycamore Street; and Flm Street roundabout intersection of 16th Street and Sycamore Street; and Flm Street roundabout intersection of 16th Street and Street) to improve the flow of traffic to and from the Kerper Boulevard Industrial Park and Chaplain Schmitt Island;
- Boulevard and capacity improvements to accommodate the future economic development planned for the industrial park and on the island;
- Streetscape enhancements and amenities to create a safe and inviting environment for mixed-use development; and
- Green infrastructure such as new street trees and nutrient-separating baffle boxes that capture pollutants (nitrogen, phosphorus, and solids), reduce runoff volume, and improve habitat for aquatic species living the in Bee Branch Creek and Mississippi River.

Elm Street Corridor

- Reconstruct Elm Street from 20th Street to 11th Street as a Complete Street, with sidewalks and bike lanes to improve safety and access for pedestrians and bicyclists; and
- Construct a roundabout at Five Points (intersection of Elm Street and 20th Street) to enhance safety and improve the flow of traffic to and from downtown Dubuque, the

Historic Millwork District, and the Intermodal Transportation Center.

Pedestrian/Bike Access

- Create a shared-use path for pedestrians and bikers from 16th Street to the Kerper Boulevard Industrial Park; and
- Improve safe access to employment and recreational opportunities across the Peosta Channel to Chaplain Schmitt Island with construction of a shared-use path adjacent to the existing 16th Street bridge.



Figure 7. Complete Street improvements on Elm Street will provide better access to Dubuque's Intermodal Transportation Center.

DOT Secretary Pete Buttigieg has emphasized using federal transportation investment as a tool to help communities "create high-quality jobs, improve safety, protect our environment, and generate equitable economic opportunity for all Americans." RAISE investment in Dubuque's proposed B2E2 project will repair broken corridors, stimulate economic development, help residents improve the quality of their lives, and create pathways to lift people out of poverty and expand the region's middle class, especially for residents of distressed neighborhoods in and around the project area. RAISE funding will produce a variety of desired outcomes, including:

- *Increased transportation choices:* RAISE funding will enable Dubuque to increase the number of residents who bike, walk, or use transit to work and play.
- *Safer streets and sidewalks:* A separated grade at rail crossing, roundabouts, improved sidewalks, dedicated bike lanes, and pedestrian/bike shared-use paths will help reduce vehicular and non-vehicular accidents, making Dubuque a safer place to live and visit.
- *Increased density:* 16th Street and Elm Street revitalization supports Dubuque's goal to build density in the Historic Millwork District and North End, Point and Washington neighborhoods, particularly for low-income residents who cannot afford to own a vehicle.
- *Economic growth:* RAISE investment will magnify the impact of the project area's Opportunity Zone designation, helping to unleash significant economic growth and job creation along the 16th Street corridor and connecting low-income residents to high-quality employment opportunities via the Elm Street corridor.
- *Improved environment:* Investments in walkability, bikeability, and green infrastructure will help improve air quality, decrease stormwater runoff, and generate other significant environmental benefits, helping Dubuque make progress toward the goals of its <u>2020</u> <u>Climate Action Plan</u>.
- Healthier community: Providing opportunities for increased walking and biking, safer access to community recreational amenities, and reducing environmental pollution will impact the health and well-being of Dubuque's citizens while addressing needs for improved physical activity identified in the City's <u>2019-2021 Community Health Needs</u> <u>Assessment Health Improvement Plan</u>.
- *Improve racial equity:* RAISE funding will improve access to living-wage jobs and key community resources and amenities for the community's minority populations.
- *Mitigate effects of climate change:* The construction of Complete Streets and new shareduse paths will help mitigate the negative effects of climate change by reducing VMT, fuel consumption, and vehicular emissions.

C. Project History

Dubuque has achieved substantial progress on its community revitalization goals. In the Historic Millwork District, a \$5.6 million TIGER grant was awarded in 2010 to construct Complete Streets. Those efforts led to the Historic Millwork District's rebirth. Virtually empty in 2008, the neighborhood is now attracting new residents and employing new workers. More than \$150 million was leveraged locally in private sector investment based on the TIGER funding. Dubuque was also recognized by the U.S. Environmental Protection Agency (EPA) in 2013 with a National Award for Smart Growth Achievement for the Historic Millwork District's turnaround.

Regular flooding in the North End, Point, and Washington neighborhoods (Census Tracts 1, 3 and 5) has imperiled homes for decades, disproportionately impacting minority and low-income residents. Dubuque spent \$250 million to resurrect a buried creek and install green infrastructure features to reduce the risk of flood damage to 1,155 properties in the Bee Branch Watershed, where over 50% of residents either



Figure 8. Low-income and minority residents in Dubuque's Washington neighborhood will benefit from transportation investment.

live or work. The City also created a linear park along the Bee Branch Creek, with amenities including an amphitheater, bike/hike trails, bridges, lighting, and landscaping. In 2016, Dubuque received a \$31.5 million Natural Disaster Resilience Grant from the U.S. Department of Housing and Urban Development (HUD) as a part of Iowa's Watershed Approach grant for flood-proofing and additional stormwater infrastructure improvements in the Washington neighborhood.

In partnership with the Greater Dubuque Development Corporation, the City launched an initiative to restore the 16th Street and Elm Street corridors on the north end of Dubuque. The goals of this "True North" effort are to redevelop, reuse, and repurpose commercial and/or industrial assets with the greatest opportunity for a transformative effect; and pursue infrastructure improvements capable of creating the physical, financial, and cultural environment necessary to enable new businesses to develop and existing businesses to reinvest. The proposed RAISE transportation improvements are a critical component of community-wide efforts to support the True North partnership objectives.

Improved access to the Kerper Boulevard Industrial Park, Chaplain Schmitt Island, and future development on vacant brownfield sites has been the focus of multiple planning efforts, including the <u>Chaplain Schmitt Island Master Plan</u>, the <u>Chaplain Schmitt Placemaking and Implementation</u> <u>Plan</u>, the <u>Imagine Dubuque 2037 Comprehensive Plan</u>, and the <u>Tri-State Area Integrated Walking</u>, <u>Biking, and Hiking Network Plan</u>. Chaplain Schmitt Island was also rezoned in 2017 to allow for planned unit development.

Dubuque has anticipated transportation infrastructure enhancements to the 16th Street corridor for many years. The City has reconstructed the sanitary sewer from Fengler Street to Kerper

Boulevard, and from Kerper Boulevard to Sycamore Street, including reconstruction of the south two lanes of Kerper Boulevard and capacity improvements to accommodate future economic development planned for the Kerper Boulevard Industrial Park and on Chaplain Schmitt Island.

D. Detailed Statement of Work

The proposed RAISE project described above will improve multimodal circulation, enhance pedestrian and biking opportunities, decrease VMT, reduce crashes, promote economic development, curb greenhouse gas emissions, and provide equitable transportation access to minority/low-income residents. A detailed statement of work follows:

- 1. Overall Management
 - <u>Execute Funding Agreement</u>: A RAISE funding agreement will be established between the City and DOT.
 - <u>Designate Project Manager</u>: Dubuque will identify a project manager to supervise and implement the work. Duties will include public outreach, project management, planning oversight, reporting, and compliance with all funding requirements.

2. Project Preparation

• <u>Partnership Agreements</u>: Confirm local and regional stakeholder support.

3. Procurement

- <u>Bid</u>: Prepare solicitation and competitively bid the design and engineering project.
- <u>Contract</u>: Select the contractor and confirm the overall design team.

4. Planning

- <u>Conceptual Design</u>: The consultant will develop overpass, Complete Street, and shared-use path concepts for the City's review. To support conceptual design, the consultant will develop a Transportation Demand Management (TDM) strategy to reduce VMT on the 16th Street and Elm Street corridors; update corridor and intersection analyses to consider current and future stress factors, including user conflicts and mode switches; and develop alternative design options. The concepts should show roadway cross section, aesthetics, and any other necessary information. This task includes all work items necessary to prepare a preferred concept along with a Benefit-Cost Analysis (BCA).
- <u>30% Schematic Design</u>: Once the preferred infrastructure concepts are determined, the consultant will conduct the following tasks:
 - Define the project scope;
 - Create a high-quality rendering showing different perspectives of the preferred overpass, Complete Street, and shared-use path concepts for use in public engagement;
 - Develop a preliminary cost estimate and schedule for the work;
 - Finalize the infrastructure design criteria; and
 - Determine land acquisition needs.
- <u>60% Design Plan</u>: Following preliminary design, the consultant will:
 - Finalize the expectations and objectives of the project;
 - Confirm the constructability of the overpass, Complete Streets, and shared-use paths;
 - Determine construction permit requirements;

- Implement acceptable value engineering requirements, if applicable;
- Identify preferred equipment and materials; and
- Complete National Environmental Policy Act (NEPA) documents and other state and local permits.
- <u>90% Design Plan</u>: After review by the Iowa Department of Transportation (Iowa DOT), the consultant will:
 - Complete set of plans and specifications for construction;
 - Develop final construction cost estimate and schedule for the work;
 - Create construction phasing plan; and
 - Finalize permit package.

5. Community Engagement

- <u>Outreach</u>: Outreach to the community will be integrated into the entire process. Since the North End, Point, and Washington neighborhoods have historically been marginalized and neglected, the community engagement process will be tailored to the needs of these areas and will amplify voices that may not have been traditionally included in planning processes. Staff from Dubuque's Office of Shared Prosperity and Neighborhood Support, which specializes in community engagement, will be active members of the planning team. Project leaders will communicate planning intentions, impacts, and design concepts through social media, the City web site, newsletters, and other outreach tools.
- <u>Public Meetings</u>: Share design concepts and plans with residents and local businesses through community forums and public meetings to seek feedback. To gather ideas, the City will have several design charrettes and walking tours of the corridors to get a deeper understanding of mobility challenges. Dubuque will work closely with community groups and other institutions to garner feedback and input on design.

6. Closeout

• <u>End</u>: Submit final report.

E. Expected Users

The B2E2 project directly supports residents living within Areas of Persistent Poverty in the North End, Point and Washington neighborhoods, as well as downtown households in the Historic Millwork District. The proposed RAISE improvements will benefit many populations, including:

- Low-income and minority residents who face multiple barriers to economic opportunity, particularly those who live in Census Tracts 1 and 5 (Areas of Persistent Poverty);
- Economically-distressed residents who do not own a vehicle and depend on safe streets, sidewalks, and bike lanes to travel within the community;
- Users of Dubuque's Jule transit system with poor access to bus facilities;
- Millennials who opt to not own a car;
- Senior citizens and disabled residents who cannot effectively access the 16th Street corridor, critical services such as the Crescent Community Health Center on Elm Street, and Chaplain Schmitt Island;
- Developers and business advocates who demand transportation improvements along 16th Street and at the 14th Street railroad grade; and
- Tourists and other visitors who currently cannot easily access Chaplain Schmitt Island from mainland Dubuque.

F. Local and Regional Significance

The B2E2 project is of local and regional importance. Locally, the project will help the City revitalize struggling neighborhoods by delivering direct benefits to residents who live in Areas of Persistent Poverty. The project complements efforts in Dubuque to focus investment in several key areas. RAISE investment will strengthen economic opportunity along the 16th Street and Elms Street corridors and provide better transportation access for residents within low-income households in the project area. Developers are interested in reclaiming vacant buildings and brownfields across the community. Transportation investment supports these efforts and will promote further revitalization in this part of the city.

Regionally, Dubuque is an employment center for the tri-state region of Iowa, Illinois, and Wisconsin. Based on the City's experience in revitalizing the Historic Millwork District, RAISE funding is expected to spark significant new job-creating investments along the entire 16th Street and Elm Street corridors. This boom in economic activity will benefit the whole rural region. DOT investment will support the Dubuque area as it works to grow needed jobs.

G. Racial Equity and Reducing Barriers to Opportunity

RAISE investment in Dubuque's transportation infrastructure will build on efforts already undertaken to improve equity and reduce barriers to opportunity for minority residents, particularly those living in and adjacent to the B2E2 project area. Based on U.S. Census data, the 2021 *Dubuque Equitable Poverty Reduction and Prevention Plan* notes that a staggering 56.1% of Black residents live in poverty, compared to 13.2% for White residents, and experience unemployment at a rate four times higher than Whites. The highest median household income among Black Dubuquers is found in Census Tract 5 with a value of only \$22,059, followed by Census Tract 1 with a value of \$21,382.²

RAISE investment will help ameliorate these inequities by reducing obstacles that systematically and structurally block individuals from equal access to economic opportunities. The B2E2 project's interconnected Complete Streets components will enhance safe access to key job centers and critical community resources, including the Crescent Community Health Center and the nearest grocery store on Elm Street, and reduce the negative impacts of automobile dependency for minority residents living in and around the project area. Potential new development may also provide a second grocery option for the neighborhood.

H. Climate Change and Environmental Justice

RAISE investment will help Dubuque make significant progress toward achieving its climate change mitigation goals as outlined in the City's <u>2020 Climate Action Plan</u>. The B2E2 project aligns with the plan's goal to reduce VMT by 10% by 2030. To help achieve this goal, the plan calls for transforming 25% of local roads into Complete Streets and increasing public transit ridership. Complete Streets and a connected system of transit, bike, and pedestrian infrastructure will also contribute to Dubuque's goal of a 34% reduction in greenhouse gas emissions by 2030.

The project will advance environmental justice by delivering economic and social benefits to distressed Dubuque residents who are subject to the greatest environmental hazards, including flooding, proximity to contaminated industrial sites, and lead paint in housing.

² U.S. Census Bureau, 2015-2019 American Community Survey

II. PROJECT LOCATION

Located on the banks of the Mississippi River, Dubuque is Iowa's oldest city. Dubuque was established as a fur-trading post and mining community, and later flourished as a manufacturing hub. Manufacturing reigned in Dubuque until the mid-1900s. As Dubuque's retail and industrial sectors moved to the western suburbs or fled completely, the downtown deteriorated and fell into disrepair. With the collapse of the farm economy in the 1980s, the community watched as the Dubuque Packing Company (located along the 16th Street Corridor) closed up shop, and then as John Deere – then the city's largest employer – reduced its workforce by three-quarters of its peak.

Dubuque has reinvented itself. After decades of population and job loss, the city is rebounding. Over the last 100 years, Dubuque has seen its economy shift from chiefly manufacturing to the tourism, retail, health care, education, and financial service sectors. Dubuque now serves as the employment center for the tri-state region of Iowa, Illinois, and Wisconsin. In recent years, Money magazine rated Dubuque as one of the best places to live in America and Forbes ranked the community as one of the best small cities for businesses and careers.^{3,4} The community enjoys a business-friendly environment, skilled workforce, and high quality of life.



Figure 9. Downtown Dubuque.

Dubuque is a compact, dense community with 24,151 households and 1,990.9 people per square mile.⁵ The city is ethnically-diverse, with a minority population of 12.2%. Approximately one-third of Dubuque's population are millennials between the ages of 20 and 44 and 19.0% of residents are 65 years or over. A significant proportion of the city's population suffers with a disability (13.6%). Between 2016 and 2020, the median household income in Dubuque was \$54,938 (compared to \$61,836 in Iowa and \$64,994 nationally) and 13.2% of residents lived below the poverty line (compared to 11.1% statewide and 12.8% across America). No vehicles are available to 8.3% of Dubuque's population.⁶

Dubuque's northern North End (Census Tract 5), Point (Census Tract 3), and Washington (Census Tract 1) neighborhoods, located within the project area, are significantly more diverse and low-income than the city as a whole. Minorities comprise 26.7%, 17.1%, and 28.8% of Census Tracts 1, 3, and 5, respectively, compared to 12.2% across Dubuque. Median household incomes are also 25-50% lower in these neighborhoods (\$42,262 in Census Tract 1, \$48,295 in Census Tract 3, and \$32,977 in Census Tract 5) than the national level (\$64,994). Poverty is more than twice as high than the United States rate in Census Tracts 1 and 5. Disability rates also range between 15.9-20.1% in the project area.⁷ RAISE investment will provide direct benefits to minority and low-

³ Money Magazine, "Best Places to Live in America", 2017

⁴ Forbes Magazine, "Best Small Cities for Businesses and Careers", 2014

⁵ 2020 Census estimate

⁶ U.S. Census Bureau, 2016-2020 American Community Survey

⁷ Ibid.

	Census Tract 1	Census Tract 3	Census Tract 5	Dubuque	lowa	United States
Minority	26.7%	17.1%	28.8%	12.2%	15.0%	39.9%
Median Household Income	\$42,262	\$48,295	\$32,977	\$54,938	\$61,836	\$64,994
Poverty	29.1%	17.0%	29.5%	13.2%	11.1%	12.8%
Receive Food Stamps/SNAP Benefits	27.2%	18.9%	32.0%	11.4%	9.8%	11.4%
No Vehicle	20.2%	8.4%	14.2%	8.3%	5.7%	8.5%
Commute by Walking/Biking	21.9%	3.4%	14.5%	5.3%	4.4%	4.4%
Commute by Transit	3.3%	2.3%	0.5%	1.3%	0.9%	4.6%
Age Under 18	15.6%	19.7%	27.0%	20.1%	23.1%	22.4%
Millennials Age 20-44	47.5%	23.2%	38.0%	33.1%	31.9%	33.2%
Age 65 and Over	8.7%	20.7%	11.6%	19.0%	17.1%	16.0%
Persons with Disabilities	20.1%	15.9%	16.5%	13.6%	11.8%	12.7%

income residents, as demonstrated in the chart below:

Source: U.S. Census Bureau, 2016-2020 American Community Survey

Many households in the project area do not have a vehicle. North End, Point, and Washington neighborhood residents also commute more by walking, bike, and transit. Alternative transportation options are particularly important to millennials, low-income residents, and people who do not own vehicles in Dubuque. Maintaining an efficient transportation system with reliable buses, safe streets, bike lanes, and sidewalks is imperative to reducing barriers to opportunity for these populations.

Connection to Existing Transportation Infrastructure

Within the B2E2 project area, the eastern end of the 16th Street Corridor connects to Kerper Boulevard, a major north/south artery, which links the project area to U.S. Highway 151, the freeway that connects Dubuque to Wisconsin on the east side of the Mississippi River, and to U.S. Highway 61, which connects Dubuque to Illinois on the east side of the river via U.S. Highway 20. Eastbound 16th Street continues past Kerper Boulevard to the transportation network on Chaplain Schmitt Island via a four-lane bridge. The Elm Street corridor intersects with 14th Street/Loras Boulevard, a major east/west arterial, and to the Dubuque Intermodal Transportation Center at 11th Street in downtown Dubuque, which provides transit connections to Dubuque's West End, as well as hospitals, universities and other destinations. The Elm Street Corridor is connected to Central/White Street, a major north/south thoroughfare, via 20th Street at the northern terminus of the project area (Five Points intersection).

Geographic Details

The proposed project is located within a U.S. Census-designated Urbanized Area (UA Code 24823) with a population under 200,000, per the 2010 Census Urban Area designation. Geospatial coordinates for the project area are 42°30'36.48"N and 90°39'38.70"W. Census Tracts 1 and 5 are designated as federal Opportunity Zones and Areas of Persistent Poverty.

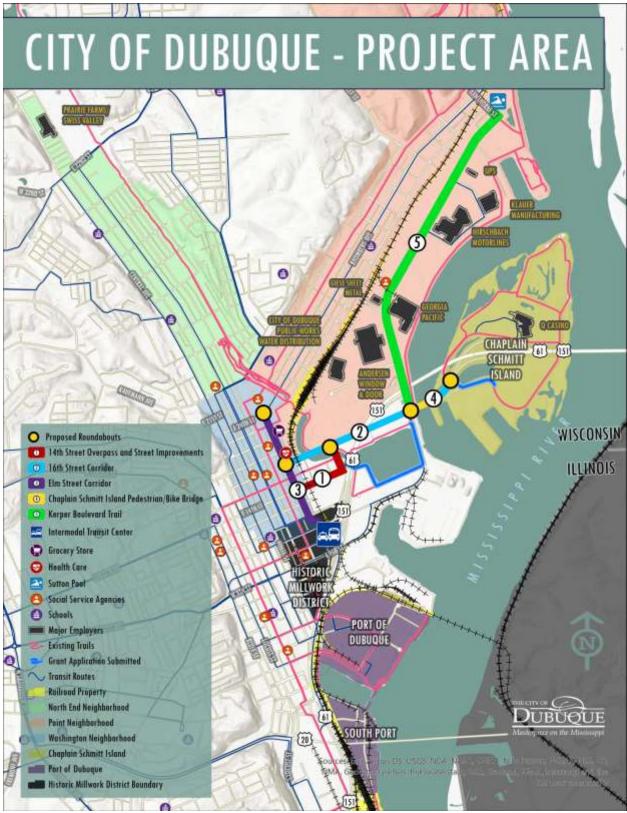


Figure 10. Project map.

III. GRANT FUNDS, SOURCES, & USES OF ALL PROJECT FUNDING

Dubuque seeks \$2.28 million in RAISE funding to support planning for the B2E2 project, including a railroad overpass, Complete Street enhancements, and new shared-use paths. The total cost of the project is \$4.38 million. RAISE investment will represent 52.1% of the total project. The City commits to match RAISE funds with \$2.10 million in non-federal money, which represents 47.9% of the total project.

Budget Description	Cost	RAISE Request	Other Federal Support	Non-Federal Match	Matching Source		
Conceptual	\$800,000	\$100,000	\$0	\$700,000	City of		
Design	(18.3%)	(12.5%)	(0%)	(87.5%)	Dubuque		
30%	\$1,000,000	\$600,000	\$0	\$400,000	City of		
Schematic Plan	(22.8%)	(60.0%)	(0%)	(40.0%)	Dubuque		
60% Design	\$1,350,000	\$900,000	\$0	\$450,000	City of		
Plan	(30.8%)	(66.7%)	(0%)	(33.3%)	Dubuque		
90% Design	\$1,200,000	\$680,000	\$0	\$520,000	City of		
Plan	(27.4%)	(56.7%)	(0%)	(43.3%)	Dubuque		
Community	\$30,000	\$0	\$0	\$30,000	City of		
Engagement	(0.7%)	(0%)	(0%)	(100%)	Dubuque		
TOTAL	\$4,380,000	\$2,280,000	\$0	\$2,100,000			
	(100%)	(52.1%)	(0%)	(47.9%)			
Total Project C	Cost			\$4.38 r	million		
Total Local Match				\$2.10 million			
Total RAISE Funds Requested				\$2.28 million			
Percentage of RAISE Funds in Project				52.1%			
Percentage of	Local Match in Pro	oject		47.9%			

Match is evidenced by the attached letter of commitment. There are no restrictions on the use of any of the City's matching funds. No additional funding is required to complete this project.

Dubuque has an exemplary record of managing federal grants on-budget and on-time, having received numerous DOT (including TIGER and INFRA), EPA, HUD, and other federal grants over the years. The City has never been cited for an adverse OMB Circular A-133 audit finding and has never been required to comply with "high risk" terms or conditions under OMB Circular A-102.

The City's overall financial condition is in very good shape. Dubuque has an Aa3 credit rating.

IV. MERIT CRITERIA

A. Safety

Improving safety for all users is a key goal of Dubuque's proposed RAISE project. There are currently several points of conflict between cars and people in the public realm on the 16th Street and Elm Street corridors and their intersecting streets. 16th Street includes four travel lanes, two in each direction, and no sidewalks or marked bicycle lanes. There are four intersections along 16th Street that slow traffic and contribute to a very challenging pedestrian and bicycle experience. Elm Street, from the Five Points intersection to downtown Dubuque, includes two travel lanes, one in each direction. Sidewalks are narrow and there are no marked bicycle lanes. Several intersections slow traffic and contribute to a challenging pedestrian and bicycle experience, especially at the Five Points and 16th Street intersections. Rail tracks also separate economically-challenged neighborhoods in northern Dubuque from employment opportunities at the Kerper Boulevard Industrial Park and on Chaplain Schmitt Island. Once completed, the B2E2 project will improve safety by effectively managing traffic flows with a railroad overpass, roundabouts, new/enhanced pedestrian and bicycle facilities, and better signage. The redesigned 16th Street and Elm Street corridors will support motorists, pedestrians, bicyclists, and motorists.

A key project benefit is the elimination of an at-grade rail conflict in Dubuque. Currently, approximately 8-10 trains pass through the community daily. In March 2022, Dubuque experienced its most recent railroad-related fatality when an oncoming train hit a pedestrian. On average, there are 2.1 incidents per year in Dubuque County involving trains with injuries or fatalities, as reported by the Federal Railroad Administration. Train traffic is expected to increase through the city with the pending merger of the Canadian Pacific and Kansas City Southern railroads, with 10 more trains expected to pass through town daily. Residents from the North End, Point, and Washington neighborhoods must cross rail tracks to access employment and recreational opportunities at the Kerper Boulevard Industrial Park and on Chaplain Schmitt Island. RAISE planning dollars will help to design an overpass along 14th Street (the best alternative) to enable pedestrians, bicyclists, and motorists to safely cross rail tracks. The Canadian Pacific railroad provided a support letter for the project. The overpass will also increase response times of the City's first responders reacting to emergencies and reduce the likelihood of a train-related discharge of hazardous materials.

Crashes are a concern in the project area. Over the past decade, 114 crashes with 37 minor injuries and 1 serious injury were reported along the 16th Street corridor. For the Elm Street corridor (excluding the intersection of Elm Street and 16th Street), 64 crashes and 17 injuries were reported during the same time period. Traffic volume is expected to grow on both corridors due to new economic development. Traffic studies indicate that daily traffic will rise to 23,750 vehicles on 16th Street and 10,700 vehicles on Elm Street (a greater than 15% increase) in the next 20 years. The existing roads are not adequately designed to meet the needs of motorists, cyclists, pedestrians, and transit users. Without shifts to other modes of transportation, the 16th Street and Elm Street corridors will experience increased crashes.

Crash Severity (2011-2021)					
	16th Street Corridor	Elm Street Corridor			
Total Crashes	114	64			
Involving Injury	38	17			
Involving Property Damage Only	76	47			

Overpasses, roundabouts, and Complete Street enhancements are demonstrated transportation safety features that reduce surface transportation-related crashes, injuries, and fatalities. Design of a railroad overpass aligns with DOT goals to eliminate at-grade rail crossing due to their hazardous nature. Studies have shown that roundabouts are safer than traditional stop signs or signal-controlled intersections. The tight circle of a roundabout forces drivers to slow down, and the most severe types of intersection crashes - right angle, left-turn, and head-on collisions - are



Figure 11. Crashes at dangerous intersection in Dubuque will be avoided with roundabouts.

unlikely. Roundabouts reduced injury crashes by 75% at intersections where stop signs or signals were previously used for traffic control, according to studies by the Insurance Institute for Highway Safety. Roundabouts are also generally safer for pedestrians. Pedestrians walk on sidewalks around the perimeter and cross only one direction of traffic at a time. Crossing distances are relatively short and traffic speeds are lower than at traditional intersections. Finally, Complete Street elements including sidewalks, marked bike lanes, improved transit facilities, and street-level lighting will further reduce areas of conflict for pedestrians, bicyclists, and bus riders.

Essential street repairs on 16th Street and Elm Street corridors will reduce damage to vehicles, including deployed airbags, popped tires, damage to vehicle struts, as well as people reporting pedestrian harms from trip hazards.

Through its participation in the East Central Intergovernmental Association's Smart Traffic Routing with Efficient and Effective Traffic Systems (STREETS) initiative, Dubuque will leverage ITS technologies in the project area to create a smart, next-generation, traffic management and control system that will enable dynamic traffic routing to maximize roadway capacities and improve safety.

The City ascribes to DOT's Vision Zero goal of reducing traffic deaths and life-changing injuries to zero. The proposed improvements will help Dubuque shift traffic modes from personal vehicles to even greater walking, biking, and public transit activity. The existing conditions create unsafe conditions for bikers and pedestrians and the strong perception of an unsafe environment discourages residents from using these modes. Complete Street improvements will particularly benefit low-income and minority residents in northern Dubuque who are nearly three times more likely to walk to work and five times more likely to bike to work than all commuters in Dubuque.⁸

B. Environmental Sustainability

Another important goal of the B2E2 project is environmental sustainability. The project will demonstrate how investing in pedestrian/biking improvements and green infrastructure can generate multiple environmental benefits, including reduced VMT, curbed greenhouse gas emissions, improved air quality, decreased runoff, brownfields redevelopment, and smart growth.

⁸ U.S. Census Bureau, 2016-2020 American Community Survey

Dubuque's North End, Point, and Washington neighborhoods are identified as environmental justice areas of concern. According to the EPA's EJSCREEN tool, this area ranges between the 88th and 92nd percentiles for Iowa environmental indicators, and between the 61st and 72nd percentiles nationally, associated with vehicle-generated pollution. See results below:

Environmental Indicator	Percentile in Iowa	Percentile in United States
Particulate Matter (PM _{2.5})	88	63
Ozone (O ₃)	88	63
Diesel PM	88	63
Air Toxics Cancer Risk	88	61
Air Toxics Respiratory Hazard	88	61
Traffic Proximity and Volume	92	72

The 16th Street and Elm Street corridors will be redesigned to expand walking, biking, and transit facilities. Key environmental benefits will include:

- *Less idling:* Currently, approximately 8-10 trains daily stop in downtown Dubuque for extended time periods (20-30 minutes each), halting traffic traveling to and from the Kerper Boulevard Industrial Park and Chaplain Schmitt Island. The new 14th Street railroad overpass will reduce train-related delays, enabling users to travel uninterrupted to these key economic nodes. Roundabouts will also help to keep traffic moving across town.
- *Decreased VMT:* Making sidewalks and streets safer for biking and walking will increase the number of residents who use non-vehicular modes for travel. Improved transit services will also make bus travel a more attractive option. A shift of trips in the city from single-occupancy vehicles to walking, biking, and bus transit will decrease VMT.
- Reduced transportation-related air pollution and greenhouse gas emissions: The Imagine Dubuque 2037 Comprehensive Plan notes that nearly one-quarter of Dubuque's greenhouse gas emissions are related to transportation. Shifting trips in the city from singleoccupancy vehicles to walking, biking, and bus transit will significantly reduce fuel consumption and generate meaningful air benefits. Uncoordinated land use decisionmaking has led to air pollution hot spots in town, particularly in its disadvantaged North End, Point, and Washington neighborhoods (see EJSCREEN chart above). As more residents choose alternative transportation modes, Dubuque's air quality will improve with

less PM_{2.5}, O₃, nitrogen dioxide (NO₂), and carbon dioxide (CO₂) emissions. Decreasing air pollution will improve health outcomes and positively impact climate change.

• *More green infrastructure and less runoff:* Dubuque lies within the Mississippi River watershed. New sidewalks will include street tree plantings and bioswales. The benefits of green infrastructure include air quality improvements, traffic calming, noise reduction, lowering of the urban heat island effect, less stormwater runoff, improved water quality, and



Figure 12. The incorporation of green infrastructure will help Dubuque to reduce stormwater runoff and pollution impacts to the Mississippi River.

general pedestrian realm improvements. Street trees and bioswales have been shown to be a key tool in combating heat-related illnesses by lowering the ambient temperature in communities. Green infrastructure is also directly tied to equity as historically-redlined neighborhoods which were not targeted for regular tree planting.

- *Sustainable design:* During the design process, Dubuque will incorporate the use of lowercarbon pavement and construction materials to reduce greenhouse gas emissions and address climate change.
- Support better land use and transportation design: While less than 1.5 miles from the Intermodal Transportation Center, Dubuque's northern neighborhoods are disconnected from this transit hub. As such, development has bypassed these neighborhoods for areas better connected to the bus station. RAISE investment will create better access to local assets like the Intermodal Transportation Center and support smart growth.
- *Redevelopment of brownfield sites:* The North End, Point, and Washington neighborhoods have a legacy of brownfield contamination that has threatened the health of residents and overall economic development. Unknown exposure pathways may be putting neighborhood residents at risk for cancer and non-cancer health hazards. Dubuque is currently assessing and cleaning up brownfields with EPA funding. For example, the City will soon complete remediation of the Washington Neighborhood's Blum property, a former junkyard. RAISE investment will help Dubuque to tackle more contaminated sites and concentrate infill development for more efficient land use.
- *Enhanced energy efficiency:* The project will plan for the replacement of incandescent street lights on the rebuilt Complete Streets with energy-efficient LED street lights. Energy savings will generate meaningful reductions of carbon and other air pollutants.
- *Mitigates the negative environmental impacts on disadvantaged residents:* People are the product of their environment. Transportation-related air pollution is linked to health disparities in Dubuque. Less air pollution will address the health needs and concerns of residents. The region has a higher incidence rate of asthma than Iowa 1.68 hospitalizations per 10,000 (age-adjusted) in Dubuque County compared 1.39 across the state. Fewer harmful emissions will

improve health outcomes.

The City will model the recommended alternative to determine its environmental benefits.

C. Quality of Life

Dubuque's B2E2 project will improve quality of life in the project area and region in several important ways:

• Increasing accessibility for disadvantaged residents: The project was developed to provide safe, reliable, and economical transportation choices to the underserved North End, Point, and Washington neighborhoods in Dubuque. Complete Streets on 16th



Figure 13. RAISE funding will help Dubuque to build infrastructure for seniors and persons with disabilities that meets all ADA requirements.

Street and Elm Street, as well as new shared-use paths, will provide safe mobility options for pedestrians, cyclists, and transit users, particularly households in Areas of Persistent Poverty that do not own a vehicle. These residents depend on other modes of transportation to live, work, shop, and play. Transportation modeling of the recommended alternative will be conducted to determine the mode shift from vehicles to alternative means. That shift will significantly decrease household transportation expenses. By expanding transportation choices, more Dubuque households will be able to forego car ownership, or maintain one vehicle rather than two or more. For residents with low- and moderate-incomes in particular, the cost of car ownership is a significant economic burden.

- *Lowering transportation and housing costs:* Car ownership is expensive and often unaffordable to lower income populations. Eliminating the need for personal vehicles has the potential to drastically reduce the cost of living in Dubuque.
- *Removing transportation barriers:* ADA compliance measures will provide enhanced access opportunities for seniors and persons with disabilities. Following Universal Design principles, new sidewalks and improved transit will also connect individuals with mobility challenges to other community assets.
- Advancing racial equity: Dubuque's northern neighborhoods have a significant minority population (26.7% in Census Tract 1, 17.1% in Census Tract 3, and 28.8 in Census Tract 5), with a concentration Black/African American (15.6% in Census Tract 1, 4.8% in Census Tract 3, and 15.9% in Census Tract 5) residents.⁹ The proposed RAISE project squarely seeks to invest transportation resources into the revitalization of an area that will provide minority residents with improved access to essential services and promote upward economic mobility.
- *Improving health outcomes:* Historically, traffic pollution has disproportionately impacted Dubuque's North End, Point, and Washington neighborhoods. The EJSCREEN tool indicates that this area in is the 92nd percentile for traffic proximity and volume in Iowa. Poor air quality is a systemic issue that low-income individuals and people of color face. There is a strong link in these neighborhoods between poverty and chronic disease. According to a 2019-2021 *Community Health Needs Assessment*, chronic heart and lung disease are prevalent in Dubuque. Heart disease is rated as the second top cause of death in the city for people under the age of 75. Health disparities are also concentrated in economically-distressed areas. Anecdotally, Census Tracts 1, 3, and 5 have higher incidence rates of asthma than across all of Dubuque. Air pollution reductions will help to improve health outcomes.
- **Promoting neighborhood revitalization:** The project has the potential to completely revitalize the economically-distressed North End, Point, and Washington neighborhoods. Transit-oriented development will be promoted with a variety of housing options, commercial/retail opportunities, parks, and other amenities. The proposed Complete Street improvements support this revitalization effort. Transportation upgrades will help to leverage planned mixed-use, infill development, including revitalization of brownfields like the former Dubuque Packing Company site on 16th Street, which has remained vacant for more than a decade. Particular care will be taken to ensure that lower-income residents are able to remain in the neighborhood as a result of these investments.
- Improving connectivity to jobs, health care, and other critical destinations: The

⁹ U.S. Census Bureau, 2016-2020 American Community Survey

economic prosperity of a community is dependent on its ability to move people and goods. However, that mobility is constrained in Dubuque by poor transportation choices for northern neighborhoods. RAISE investment is critical to helping connect people with employment, education, health care, and other important destinations. 16th Street connects to the Kerper Boulevard Industrial Park and employment/ recreational opportunities on Chaplain



and other important destinations. 16th *Figure 13. A Complete Street on Elm Street will* Street connects to the Kerper Boulevard *improve access to key community destinations,* Industrial Park and employment/ *including the Crescent Community Health Center.*

Schmitt Island. Elm Street is a key community roadway that provides access to the downtown jobs, schools, the Crescent Community Health Center, a grocery store, and the Intermodal Transportation Center. The proposed improvements will enable residents and the goods produced in the project area to move efficiently about the community and region.

• *Saving time and money:* Dubuque households experience travel delay due to stopped trains and congested streets. Travel time savings contribute to quality of life. Less time spent behind the wheel will provide residents with more opportunity to enjoy leisure activities.

Complete Street improvements will connect minority and low-income residents to downtown employment opportunities and support the City's equity goals. Dubuque is one of the first communities in the country to adopt a local equity plan – the <u>Dubuque Equitable Poverty</u> <u>Reduction and Prevention Plan</u>. Mayor Brad Cavanaugh is committed to "closing the gaps" in the community so that race does not predict one's success. Dubuque has adopted numerous equity policies and practices to challenge long-standing racial bias. The City has also created new Office of Shared Prosperity and Neighborhood Support to ensure that historically-disenfranchised residents enjoy a seat at the table. The Director (Anderson Sainci) of the Office of Shared Prosperity and Neighborhood Support efforts to engage disadvantaged individuals in transportation planning.

D. Mobility and Community Connectivity

The project is being designed to improve the movement of both motorized and non-motorized travelers. Currently, North End, Point, and Washington neighborhood residents have poor access to downtown Dubuque, the Historic Millwork District, the Intermodal Transportation Center, the Kerper Boulevard Industrial Park, Chaplain Schmitt Island, and other key areas. Train tracks and poorly-designed roadways impede travel across the community. In particular, there is poor connectivity for pedestrians, bikers, and transit users. All travelers face barriers reaching jobs, schools, health care, and other critical local facilities.

The proposed B2E2 improvements will create an environment where people can easily work, live, and play. Following Universal Design principles, Dubuque will plan transportation infrastructure that is accessible for all travelers, including seniors and persons with disabilities. The project will feature roundabouts, a railroad overpass, safe sidewalks, bike lanes, improved lighting, signage, and linkages to trails. These mobility elements will help to connect nodes across the community.

The project's key mobility and community connectivity benefits include:

- *Increasing affordable transportation choices:* Walking, biking, and transit are safe, reliable, and economical transportation choices for disadvantaged residents. Complete Streets on the 16th Street and Elm Street corridors and new shared-use paths will provide mobility options for pedestrians, cyclists, and bus users.
- *Trail connectivity:* The proposed 16th Street shared-use path will connect walkers and bicyclists to the extensive trail system on Chaplain Schmitt Island.
- *Expanding accessibility for all:* The City is incorporating Universal Design principles into 6th Street Bridge planning to ensure that infrastructure improvements benefit all users. Project features will comply with all ADA requirements to ensure access for individuals with mobility challenges, including seniors and persons with disabilities. Community design workshops will ensure that all viewpoints are considered.
- *Living vehicle-free:* The project will help residents and commuters avoid the cost of owning a car, particularly low-income households in Dubuque's northern neighborhoods. According to AAA, the overall annual average cost to own and operate a car in 2021 was \$9,666.¹⁰ Each vehicle that the project helps an individual avoid owning or using means significant funds are available for other expenses. Providing transportation choices such as improved transit, better walkability, and bike lanes helps residents decide to forgo owning a personal vehicle and generates significant local purchasing power.

E. Economic Competitiveness and Opportunity

Infrastructure improvements to the interconnected 16th Street and Elm Street corridors will drive Dubuque's economic future. The City has invested significant resources to grow businesses and jobs in this part of town. Three areas are key to Dubuque's future economic:

- Kerper Boulevard Industrial Park: Operating since the 1950s, the Kerper Boulevard Industrial Park is poised for expansion. The 229-acre site is home to a number of existing tenants, including Georgia Pacific, Hirschbach Transportation, Drive Line, Union-Hoermann Press, Rainbo Oil, Van Meter Inc., Anderson/Eagle Window and Door Inc., Key City Plating, United Parcel Service, Rousselot, Black Rock Fabrication, Home Technology Systems, B&F Fastener Supply, Anova Pallet, Innocor Inc., Bradley Iron Works, Klauer Manufacturing Company, Dubuque Fire Equipment Inc., Flint Hills Resources, Quanex, Brightwood Corporation, Advantage Sheet Metal, Inc., Thompson Truck & Trailer, AG Trucking, Energetics, Automotive & Industrial Hardware, Weitz Sign Systems, Coca-Cola Bottling Inc., Bel-Aire Rental, Matthews Distributing, Drive Line of Dubuque, Hurst Logistics, Complete Off Road, Smart Retract-a-Gate, and Advance Designs. A number of vacant buildings and lots still exist within the industrial park. The True North campaign seeks to attract more light manufacturing and other business uses appropriate for the Kerper Boulevard Industrial Park and nearby brownfield sites. Companies in the Kerper Boulevard Industrial have surveyed workers and determined that their workforce lives largely within the North End, Point, and Washington neighborhoods. Their expansion in the area is predicated on improving access for these residents. New business growth will also be supported by a railroad overpass, Complete Street improvements, and a shared-use trail.
- *Chaplain Schmitt Island:* Transportation investment in the 16th Street corridor will support significant economic growth on Chaplain Schmitt Island. A former landfill, the island was

¹⁰ AAA's 2021 *Your Driving Costs* study

redeveloped in the 1980s into a major commercial recreational and destination. The current attractions include the Q Casino & Resort and its indoor restaurants and amenities. Dubuque Greyhound Park, Hilton Houlihan's Garden Hotel. Inn restaurant, Catfish Charlie's restaurant, American Marine. Mystique Community Ice Center, Dubuque Water Sports Club, Dubuque Yacht Basin Marina & RV Park, American Lady Yacht, MacAleece **Sports**



Figure 14. Improved access to Chaplain Schmitt Island will support Dubuque's efforts to grow jobs.

Complex, Miller-Riverview Park, Schmitt Island boat ramp, and several Veterans Memorials. Community leaders envision the island as a thriving jobs hub and a year-round destination. In 2017, Chaplain Schmitt Island was rezoned to allow for planned unit development. The Q Casino is currently planning a new hotel and the southern half of the area will be developed with new retail, restaurants, entertainment, and recreational amenities. Better vehicle and transit access, as well as more pedestrian and biking opportunities, is critical to this expansion.

• *Key redevelopment sites:* Complete Streets and pedestrian/bike accommodations are also essential to the redevelopment of area brownfields. A key site on the 16th Street corridor is the former Dubuque Packing Company plant. This vacant building has sat idle for more than a decade and is ripe for redevelopment. Dubuque has received EPA Brownfields Community-Wide Assessment and Cleanup funding to tackle additional brownfield challenges throughout the project area. For example, remediation efforts will soon be complete at the Washington Neighborhood's Blum property, a former junkyard. These cleanup activities will accelerate as transportation access improves and developers begin to reclaim more contaminated properties.

Key economic competitiveness benefits of the project include:

- *Travel time reliability:* A railroad overpass and shifting travel modes from vehicles to walking, biking, and transit use will reduce congestion and VMT on the 16th and Elm Street corridors. Improved traffic flow will save time and money for residents as well as local manufacturers.
- *Improved access to jobs:* RAISE dollars will improve the movement of workers in Dubuque. Complete Streets and shared-use paths will connect Areas of Persistent Poverty to jobs in the Historic Millwork District, at the Kerper Boulevard Industrial Park, and on Chaplain Schmitt Island. Sidewalks and bike accommodations along Elm Street will also connect neighborhoods to the downtown Intermodal Transportation Center.
- *Avoided transportation costs:* The project will help residents and commuters avoid the cost of owning a car, particularly low-income households in Dubuque. Each vehicle that the project helps an individual avoid owning or using means significant funds are available for other expenses. Providing transportation choices such as improved transit, better walkability, and bike lanes helps residents decide to forgo owning a personal vehicle and generates significant local purchasing power.

- *Better freight movement:* The proposed vehicular and pedestrian overpass at the 14th Street railroad grade increases economic competitiveness by reducing frequent and lengthy train delays that impair the efficient movement of people and goods and increase the cost of doing business. As Dubuque developed, its residential population has located to the west of its downtown train tracks, and major economic development and job opportunities have been sited, and continue to grow, to the east along the Mississippi River. Commuting to these employment centers is difficult. Every day, eight to 10 trains travel north-south on Canadian Pacific Railway's active line through downtown Dubuque. These roughly 8,000-foot trains (more than 1.5 miles of railcars) stop for approximately 20 to 30 minutes each at a railyard just north of downtown to switch cars, load and unload freight, receive orders, and pick up drivers. For up to five hours throughout the day (including during peak times), east-west connectivity is prohibited at five at-grade crossings. Visit Dubuque any day of the year, and one's journey will likely be delayed by trains bisecting the community. These choke points seriously impact the movement of business shippers.
- *Increased land productivity:* Opportunity Zone designation of Census Tracts 1 and 5 provides an additional economic development tool to attract private sector interest in Dubuque. The Opportunity Zone has jumpstarted the Kerper Boulevard Industrial Park's growth. The City and Greater Dubuque Development Corporation are actively reaching out to local landowners, developers, tax experts, and wealth advisors to promote the new capital gains tax benefits. New tax incentives targeting the distressed area will demonstrate how federal and state support can help struggling communities grow, generate employment, and improve quality of life. The surge of economic development that RAISE funding will unleash will also create significant local fees and taxes. New economic development on sites such as the Dubuque Packing Company are expected to generate significant annual City tax revenues. These projects are contingent on transportation improvements, including a railroad overpass.
- Support for Disadvantaged Business Enterprises (DBE): Dubuque will advertise the B2E2 project with a preference for local DBEs. The bidding process will provide opportunities for minority-owned businesses to compete for the work.
- *More local hiring and apprenticeship opportunities:* The City will include local hiring provisions in construction contracts that support the ability of residents to benefit from federal infrastructure investment in their neighborhoods. Dubuque will also encourage competing firms to include apprenticeship opportunities for local low-income individuals.

F. State of Good Repair

RAISE investment supports existing infrastructure on the 16th Street and Elm Street corridors, which have not been modified in decades. That disinvestment threatens Dubuque's aspirational economic development efforts in the B2E2 project area. Revitalization will improve the conditions of existing transportation facilities and infrastructure. With multiple congested intersections, traffic is unable to flow freely on either thoroughfare. The routes are particularly challenging and hazardous to pedestrians and bicyclists, as well as senior citizens and disabled residents, with limited or no sidewalks and bike accommodations. The proposed project is in complete alignment with DOT's "fix it first" approach.

Even the new infrastructure proposed for the B2E2 project area, particularly the 14th Street railroad overpass, will contribute to a state of good repair by creating an alternate route to the Kerper Boulevard Industrial Park and Chaplain Schmitt Island, thereby reducing pressure on 16th Street

to carry the bulk of traffic to and from these areas. Integration with the City's STREETS ITS system will also contribute to reducing wear and tear on roads in the project area by distributing traffic more evenly along these key access routes.

Dubuque seeks to develop Complete Streets on the interconnected 16th Street and Elm Street corridors, which serve pedestrian, bike, transit, commercial and personal vehicle traffic. However, neither corridor was designed for these mixed uses. Project elements include reconstruction of the roadway, five roundabouts, sidewalks and bike lanes, and appropriate pedestrian-scale street lighting. Complete Street improvements will provide better functionality, improve mobility along these thoroughfares, and help the City save money by matching the needs of the roadways with their actual design. Proposed upgrades in existing infrastructure help to minimize deterioration of the roadways and extend the life cycle of the Jule transit system's rolling stock investments.

Improved pedestrian and bike access also supports Dubuque's investment in existing multi-use trails. The new pedestrian/bike shared-use path adjacent to the 16th Street Bridge will improve safe access to job opportunities, recreation, and other community amenities on Chaplain Schmitt Island. The project will also provide pedestrian and bicycle connectivity to the Bee Branch Trail, Mississippi River Trail system, and National Scenic Byway system.

The project is consistent with the region's *Long Range Transportation Plan 2045*, which seeks to maintain transportation facilities and systems in a state of good repair. RAISE funding will also complement other efforts in Dubuque that focus investment established areas, including the *Chaplain Schmitt Island Master Plan* and the *Imagine Dubuque 2037 Comprehensive Plan*.

Dubuque has considered how the project's long-term operations and maintenance costs will be met. Economic growth along the corridors will create significant additional fees and tax revenues that can offset costs associated with maintaining 16th Street and Elm Street infrastructure. Transit improvements will also increase Jule bus ridership and create efficiencies that will save money.

Finally, the project will be a model for showcasing how the addition of multimodal infrastructure enhances the resilience of local transportation systems. Dubuque is prone to extreme weather events. Infrastructure planning will incorporate design features and durable materials that can withstand climate impacts.

G. Partnership and Collaboration

Dubuque has formed partnerships with key stakeholders to support the project, including:

Partner	Roles and Responsibilities
Iowa DOT	Will work with the City to expeditiously complete NEPA and other
	regulatory requirements at the appropriate time
East Central Intergovernmental	Will work with Dubuque to help implement the project and complete a
Association	BCA for construction
Jule Transit System	RAISE funds will leverage Elm Street and 16th Street transit investment
Greater Dubuque Development	Will work to grow jobs along the 16 th Street and Elm Street corridors
Corporation	through its True North business recruitment efforts
Dubuque Racing Association	The City and Dubuque Racing Association will continue to discuss a
	public-private partnership to assist with financing key components of the
	project

Local Developers	RAISE investment along the 16th Street and Elm Street corridors will be
	leveraged with the revitalization efforts of private developers

Dubuque has established a DBE program in accordance with DOT regulations. It is the policy of the City to ensure that DBEs have an equal opportunity to participate in DOT-assisted contracts.

Community involvement and engagement will be integrated into every part of the project. Historically, voices from Dubuque's northern neighborhoods have not been heard as loudly as other areas. The City's Office of Shared Prosperity and Neighborhood Support will work to engage area residents. All public engagement with be multi-lingual to ensure an equitable process. Dubuque has incorporated stakeholder engagement into its project schedule to ensure that there is robust public involvement, including through walkthroughs, surveys, workshops, and public meetings. As evidenced by the attached letters of support, there has already been a strong effort to engage with local and regional stakeholders.

This project enjoys strong bipartisan, intergovernmental support from Mayor Cavanaugh, the Dubuque City Council, the Dubuque County Board of Supervisors, the Iowa DOT, Governor Kim Reynolds, State Representatives Lindsay James and Charles Isenhart, State Senator Pam Jochum, U.S. Representative Ashley Hinson, and U.S. Senators Charles Grassley and Joni Ernst.

H. Innovation

i. Innovative Technologies

Dubuque will leverage East Central Intergovernmental Association's STREETS ITS initiative to create a smart, next-generation, traffic management and control system that will enable dynamic traffic routing to maximize roadway capacities and improve safety. This smart technology will help the City to manage growth along the corridor. Project innovations include:

- *ITS:* The project will include the installation of ITS technologies along the 16th Street and Elm Street corridors to enhance safety and mobility. The system will integrate with the City's existing STREETS ITS infrastructure and enable future functionality, such as Vehicle-to-Infrastructure (V2I), Vehicle-to-Vehicle (V2V), and Vehicle-to-Everything (V2X) technologies that will support autonomous vehicles.
- **Broadband integration:** The B2E2 project will support ongoing broadband and digital equity efforts. Dubuque has been installing multi-duct conduit, allowing up to seven internet carriers to provide fiber services throughout the area. Universal, redundant, high-speed broadband access will drive next-generation innovation and enhance equitable access to the Internet for city residents who live in distressed neighborhoods in and around the project area a critical need in today's digital economy.
- *Sustainable design:* Dubuque will incorporate the use of lower-carbon pavement and construction materials to reduce greenhouse gas emissions and address climate change.
- *LED street lighting:* The project will plan for the replacement of existing incandescent street lights on the rebuilt Complete Street with energy-efficient LEDs, which will save electricity, reduce costs, and curb emissions.

ii. Innovative Project Delivery

Dubuque will explore innovative project delivery options for planning, design, permitting, and review. Dubuque will engage with Iowa DOT and the regional Federal Highway Administration to discuss innovative strategies to expedite project delivery using Special Experimental Project

No. 14 (SEP–14) and Special Experimental Project No. 15 (SEP–15). Mobile survey and mapping applications such as LIDAR data and pavement condition scanning using drone UAV technology will be considered. The three dimensional scanning technology will allow for real-time 3D BIM modeling and the use of virtual reality visualization technology during both the design and public informational meetings to convey and display the proposed corridor improvements. Dubuque will also evaluate alternative methods for Accelerated Bridge Construction for both the 14th Street railroad overpass and 16th Street Peosta Channel bridge shared-use path.

iii. Innovative Financing

The private sector is a key supporter of the proposed RAISE improvements. Long-term, nonfederal revenue will be collected from local developers to support the construction and maintenance of RAISE-planned infrastructure. The potential for private sector investment is strengthened by Opportunity Zone designation. As part of its previous TIGER construction project, Dubuque secured a \$500,000 cash commitment from the Dubuque Racing Association to support Complete Streets along the 16th Street corridor and a pedestrian/bike shared-use path to Chaplain Schmitt Island. The Dubuque Racing Association is discussing additional financial support with the City for transportation infrastructure that facilitates access to the island.

V. Project Readiness

A. Environmental Risk

i. Project Schedule

Dubuque can begin work quickly upon award and all funds will be spent expeditiously:

	2023				2024				2025	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Funding Agreement										
Planning and Design Procurement										
Conceptual Design										
Selection of Preferred Alternative			x							
30% Schematic Design										
Share Renderings of Complete Street Concept				X						
Finalize Complete Street Design Criteria					X					
60% Design Plan										
Complete NEPA Documents										
90% Design Plan										
Complete Set of Plans and Specifications										
Finalize Permit Package										

X = Community Engagement

The City is confident that it can begin the project expeditiously upon grant award and agreement, proceed on this schedule, and complete design to prepare for permitting and construction.

B. Required Approvals

i. Environmental Permits and Reviews

a. NEPA Status

No environmental clearance is required to conduct planning on the 16th Street and Elm Street corridors. When the project is ready to construct, a NEPA Categorical Exclusion is expected as it falls primarily within the right-of-way and no adverse environmental impacts are anticipated.

b. Other Reviews, Permits, or Approvals

No additional reviews are necessary to initiate planning. The project poses no risk to cultural or environmental resources at this stage. As previously stated, Dubuque expects to receive a NEPA Categorical Exclusion when the City is ready to construct. The State Historic Preservation Office (SHPO) will also need to confirm that historic resources will not be affected and the U.S. Fish and Wildlife Service will have to uphold that no rare/endangered species are likely to be harmed. The City will also work closely with Stuart Anderson at Iowa DOT during the planning process.

c. Environmental Studies

No environmental studies are necessary to begin and complete the proposed planning project.

d. NEPA Discussions

During the planning process, Dubuque will initiate discussions with IA DOT to advance the proposed project's readiness. A NEPA Categorical Exclusion is expected.

e. Right-of-Way Acquisition Plans

Project improvements will occur largely within the existing right-of-way. Before construction, only minor temporary and permanent easement acquisition is anticipated.

f. Public Engagement

The project is the result of extensive public outreach, led by the City. The community has hosted numerous public meetings gathering input on ways to improve pedestrian, bicycling, and transit uses on the 16th Street and Elm Street corridors. Local leaders, businesses, and residents attended planning workshops and provided feedback on proposed transportation solutions. The City also used social media, online surveys, postcard mailers, and utility billing newsletters to solicit feedback and engage residents, as well as the City Life and City Expo programs that allow residents to interact with City staff. These comments helped to shape the alternatives that RAISE resources will help to study.

ii. State and Local Approvals

As this is a planning project, no state and local approvals are required at this time. The project is consistent with local/ regional plans to maintain transportation facilities in a state of good repair.

iii. Federal Transportation Requirements Affecting State & Local Planning

Upon planning completion, the Dubuque Metropolitan Area Transportation Study's *TIP* and Iowa DOT's *STIP* will be amended to include the 16th Street and Elm Street corridor improvements.

C. Assessment of Project Risks & Mitigation Strategies

Dubuque's RAISE project is both timely and low-risk. There are no issues in conducting the proposed planning. Long-term, the project poses few construction barriers. Most of the improvements are located within existing right-of-way. Only minor temporary and permanent

easement acquisition is anticipated. Potential construction mitigation strategies might include:

- *NEPA Delays:* The City will consult with Iowa DOT, which administers NEPA reviews on behalf of DOT for federal-aid projects. The project will likely receive a Categorical Exclusion, pending SHPO documentation that historic resources will not be affected and notice from the U.S. Fish and Wildlife Service confirming that no rare/endangered species will be harmed.
- Cost Overruns: Contingency costs will be built into a future construction budget.
- Technical Capacity: Dubuque has an exemplary record of managing federal grants, having received numerous DOT, HUD, EPA, and other federal grants over the years. Dubuque has previously implemented DOT TIGER and INFRA projects on-time and on-budget. The City has also successfully managed over \$66 million of federal-aid transportation projects, including right-of-way acquisition, railroad negotiation, and all aspects of scoping, preliminary design, detailed design, construction, and inspection. Dubuque has demonstrated its ability to hire professional firms and contractors, acquire property, and otherwise advance infrastructure projects in compliance with federal and state laws through various projects included on the TIP, be they bridge, highway, or road infrastructure enhancement projects. The City employs five engineers experienced with administering grant funds and managing federal-aid transportation projects. Key City staff to be involved in administering this project are: City Engineer Gus Psihoyos, Assistant City Engineer Bob Schiesl, Civil Engineer Jon Dienst, Land Surveyor Nate Kieffer, and Civil Engineer Nate Steffen. The City's team is familiar with typical cost estimates for the major components of the B2E2 project, including Complete Streets, the 14th Street railroad overpass, and the shared-use path to Chaplain Schmitt Island.

The B2E3 project will easily meet the deadline to obligate funds by September 30, 2026. Planning is ready to commence upon project award. The proposed budget is based upon recent estimates and previous experience with Complete Street projects.

As the project is planning-focused, there are no barriers to implementation. Construction of planned improvements will also move expeditiously as the project area is primarily located in the public right-of-way. Dubuque has evaluated whether any aspects of the natural, social, or economic environment would be affected by the project. As the activities that comprise the project are largely replacement in-kind of existing facilities, no impacts are anticipated.

VI. Results of Benefit-Cost Analysis

As a planning project, a BCA is not required. However, Dubuque expects significant economic, safety, environmental, and quality of life benefits once construction is complete, including:

- *Safety:* 16th Street and Elm Street are among Dubuque's most dangerous corridors. Traffic calming improvements will help to save lives and property in the targeted neighborhoods.
- *Travel delay:* Dubuque households experience significant travel delay due to stopped trains and congested streets. Travel time savings will benefit residents and area businesses.
- *Climate Impacts:* A railroad overpass, Complete Streets, and shared-use paths will reduce greenhouse gas emissions as a result of decreased idling and mode switching.
- *Redevelopment Opportunities:* The project is expected to have a significant impact on development. Coupled with Opportunity Zone designation in Census Tracts 1 and 5, RAISE investment will help to spur economic activity.