



Safe Passage: Enhancing Accessibility and Equity Along Clark Lane

U.S. DEPARTMENT OF TRANSPORTATION
FY24 Safe Streets and Roads for All

MAY 16, 2024



Key Information Table

Title	Instructions
Lead Applicant Name	City of Columbia, Missouri
Lead Applicant Unique Entity Identifier (UEI)	WZR4KM9CBTV3
Eligible Entity Type	Political subdivision of a State or territory
Do you have additional applicants as part of a multijurisdictional group of eligible entities?	No
Total Applicant Jurisdiction Population	126,254 ¹
Percent of Population in Underserved Communities in the project area Census Tract(s)	100%
Project Area Fatalities 2017-2021	1 (Persons Killed in Fatal Crashes – 2017-2021 Missouri Department of Transportation Crash Data ² . An additional fatality occurred in 2022)
Project Area Serious Injuries 2017-2021 OR Project Area Injuries Severity Unknown 2017-2021	7 (Persons Disabled or Suspected Seriously Injured – 2017-2021 Missouri Department of Transportation Crash Data ²)
Project Title	Safe Passage: Enhancing Accessibility and Equity along Clark Lane
Applicant roadway safety responsibility (select all that apply):	• Ownership and/or maintenance responsibilities over a roadway network; • Safety responsibilities that affect roadways;
Roadway users that this project will <u>significantly</u> benefit (check one that best applies)	• Pedestrian and Bicycle • Roadway • Transit
Does your project include Demonstration Activities?	No
Would you consider accepting funding for only demonstration activities and/or supplemental planning?	No

¹ https://data.census.gov/profile/Columbia_city:_Missouri?g=160XX00US2915670

² <https://datazoneapps.modot.mo.gov/>



Title	Instructions
Total Federal Funding Request	\$8,416,248
Total Non-Federal Share	\$2,104,062
Total SS4A Funds Requested	\$8,416,248
Total Other Federal Funds Used	\$0
Total Project Cost	\$10,520,310
Total Federal Funds Allocated to Underserved Communities	\$8,416,248; 100%
Supplemental Planning Activities (A) Federal Funding Request	\$0
Supplemental Planning Activities (A) Total Project Costs	\$0
Planning, Design, and Development Activities for Projects/Strategies (B) Federal Funding Request	\$0
Planning, Design, and Development Activities for Projects/Strategies (B) Total Project Costs	\$1,372,214
Carrying Out Projects and Strategies (C) Federal Funding Request	\$8,416,248
Carrying Out Projects and Strategies (C) Total Project Costs	\$10,520,310
Existing Comprehensive Safety Action Plan (or equivalent)	See Appendix G



Contents

Key Information Table	ES-1
Contents	i
List of Figures.....	i
List of Tables	i
List of Appendices	ii
I. Overview	1
II. Project Location	4
III. Response to Selection Criteria	6
Selection Criterion #1: Safety Impact	6
Selection Criterion #2: Equity, Engagement, and Collaboration	8
Selection Criterion #3: Effective Practices and Strategies	10
Selection Criterion #4: Other DOT Strategic Goals	10
IV. Project Readiness	12

List of Figures

Figure 1: Columbia, Missouri	1
Figure 2: Unsafe Accommodations Along Clark Lane.....	1
Figure 3: Columbia’s 2019 High Injury Network.....	3
Figure 4: Woodland Springs Court to Ballanger Lane Conceptual Design.....	4
Figure 5: Project Location Map	5
Figure 6: Underserved Communities Map.....	5
Figure 7: Clark Lane Corridor Renderings.....	7
Figure 8: Clark Lane Corridor FEMA Flood Maps.....	10

List of Tables

Table 1: Crashes by Severity Rating (2017-2021)	6
Table 2: Top 10 Clark Lane Crash Types	6
Table 3: Design and Implementation Schedule	12



List of Appendices

Appendix A - Letters of Funding Commitment
Appendix B - Letters of Support
Appendix C – Safety Calculations
Appendix D - Design Concept
Appendix E - Implementation Grant Supplemental Budget
Appendix F - USDOT ETC Explorer Maps
Appendix G - Vision Zero Action Plan & Updates
Appendix H - Self-Certification Eligibility Worksheet
Appendix I - Project Schedule
Appendix J - Fatal Crashes Map (2017-2021)
Appendix K – Systematic Focus Areas for Engineering Solutions
Appendix L – Sidewalk Master Plan (2023)
Appendix M - MoDOT Improve I-70 Project Renderings
Appendix N - Narrative Graphics & Corridor Photos



I. Overview

Situated in northeast Columbia, Missouri, the Clark Lane Corridor is a critical transportation route for the local underserved and disadvantaged communities, and, according to the Columbia's Vision Zero Action Plan³, is identified as one of the deadliest corridors in the area. The City is currently preparing an agreement with FHWA to use FY22 Safe Streets and Roads for All (SS4A) planning funds to update the High Injury Network (HIN) analysis to assist in prioritizing a list of corridors and intersections in need of countermeasures. Based on previous iterations of the HIN, the Clark Lane Corridor is expected to be listed as one of the top priority corridors in need of countermeasures to address the fatal and serious injury crash trends that occur there. However, before the updated analysis could start, Missouri Department of



Figure 1: Columbia, Missouri

Transportation announced the *Improve I-70 Project*⁴, a design-build project along 250 miles of I-70 from St. Louis to Kansas City, with construction starting in the Summer of 2024. To accommodate the *Improve I-70 Project*, a portion (not all) of the Clark Lane Corridor limits will have to be reconstructed. **City staff believes that the perfect opportunity to implement lifesaving countermeasures along Clark Lane is while the construction of the *Improve I-70 Project* is underway.**

Countermeasures are required along Clark Lane to better serve what has become a corridor of densely developed commercial and disadvantaged residential areas. Many of the residents who can't afford to purchase a personal vehicle that live along the corridor are educated and work within walking distance of their homes. However, the Clark Lane Corridor lacks the pedestrian and bicycle infrastructure needed to facilitate safe multimodal and environmentally friendly transportation.

The corridor is used by **13,822**⁵ vehicles a day and provides access to various residential and commercial developments. Over the past few decades, the corridor has only catered to vehicular traffic, but other modes of traffic have also increased. **The recommended improvements will connect users, especially the vulnerable, in safe ways, and will promote cohesive community development.** In the western portion of the project, near Clark Lane's intersection with US-63, there are several



Figure 2: Unsafe Accommodations Along Clark Lane

³ <https://www.como.gov/public-works/vision-zero/>

⁴ <https://www.modot.org/improvei70/home>

⁵ <https://datazoneapps.modot.mo.gov/bi/apps/publicmaps/Home/MapConfig/AADT>



areas where unsheltered individuals live. Those temporarily housed there need a new safe and accessible way to get to their destinations, whether across town via a crossing of I-70, or locally on the corridor via a busy street crossing that currently lacks crosswalks. One hundred percent of the funding will benefit a disadvantaged community in need of better ways to connect to jobs, businesses, healthcare, and education opportunities.

Missouri Department of Transportation’s (MoDOT) crash data from 2017 to 2021 shows that one person was killed in a pedestrian/motor vehicle crash on the Clark Lane Corridor and another pedestrian was killed in 2022. The city’s overall fatality rate is **6.96** (per 100,000 population). It’s important to note that the corridor runs through a CEJST community (tract number: 29019001502) that would benefit from an improved roadway and the addition of safe active transportation elements.

Request

The City of Columbia is requesting federal funding through the SS4A Implementation Grant Program to construct the following enhanced infrastructure safety improvements:

- Implementation funding for infrastructure improvements along Clark Lane from Route 63 to Ballenger Lane. The project will significantly improve the safety performance of the roadway and will upgrade the active transportation infrastructure. Elements of the project include reducing speed limits, speed feedback signs, lighting improvements, updating the roadway cross sections, constructing sidewalk and shared-use paths on both sides of the road, adding curb and gutter, implementing access management and traffic calming via median islands, and modernizing traffic signals. This project will be complementary to the *Improve I-70* project, which is planned to begin in the Summer of 2024. The scope of the I-70 project includes a new interchange roundabout at I-70 and Hanover Boulevard but leaves the rest of the corridor untouched.

Appendices A and B provide agency commitment letters/resolutions and support letters.

Following Through On The City’s Action Plan

The City of Columbia prepared the Vision Zero Action Plan (**Appendix G**) to identify improvement concepts to address the needs of transportation corridors in Columbia, such as the Clark Lane Corridor. Within the 2019 Action Plan updates, the City’s engineering team identified six systematic countermeasures to be implemented throughout the city to serve as a guideline when planning and approving future infrastructure improvements:

1. **“Manage Turning Movements (all directions)”** – A firm commitment to access management practices.
2. **“Emphasis and Focus on Left-Turn Movements”** – Additional emphasis for evaluating and improving, or potentially eliminating, left turn scenarios where possible.
3. **“Speed”** – The use of data to help evaluate corridors and locations that would see the highest potential crash reduction impacts for efforts that would lower actual travel speeds in those areas.



4. **“Visibility of Things”** – Efforts to enhance elements such as lighting, marking, sight distance, signage, etc. to improve visibility of objects and situations for all travel modes.
5. **“Clear zone and run off the road improvements.”**
6. **“Safe Pedestrian Crossing”** – Focused evaluation for determining and creating best practice improvements for all types of pedestrian crossings.

All of the proposed infrastructure improvements included in this project fall under these systemic countermeasures.

Safety Context

In December 2016, the City of Columbia adopted a Vision Zero Policy, setting a goal of eliminating traffic deaths and serious injuries in Columbia by 2030. The City Manager produced a three-year Action Plan, which was presented to the Council in May 2017 with initiatives for moving closer to zero by focusing on three key areas of engineering, education, and enforcement. With that, Columbia became the first city in Missouri and the 22nd city in the United States to adopt a Vision Zero Policy. The potential to improve safety is great, but more funding is needed to accomplish the City’s vision of zero deaths by 2030.

The City’s Vision Zero Action Plan, last updated in 2019, identified the Clark Lane Corridor as part of its high injury network. According to the data analysis conducted in the 2019 plan, the corridor is one of the City’s “priority streets”, defined in the plan as being a part of the three percent of streets where 70 percent of fatal and serious injury crashes occur. The Clark Lane project location was also within a city-defined “priority and strategic neighborhood”, a designation that represents low-income communities, communities of color, households with no vehicle, and Strategic Plan neighborhoods – a more defined version of the USDOT’s ETC / CEJST dashboards. It is important to note that an update to the HIN analysis is currently underway thanks to supplemental action plan funding through the SS4A program. Updates are not expected to impact the corridor's placement in the HIN.

The Clark Lane corridor is a heavily traveled and signalized minor arterial, with numerous access points and driveways, and minimal or no pedestrian crossings or shared use paths.



Figure 3: Columbia’s 2019 High Injury Network

Many road segments have shoulders that function as deceleration lanes, and the majority of the corridor only has sidewalks on one side or none at all, resulting in pedestrians using the same shoulders used by vehicular traffic. The land-use context includes a mixture of uses: retail commercial development, residential, schools, and parks. These land uses generate considerable pedestrian activity. Clark Lane is considered a major transit route in the city.



If USDOT provides SS4A implementation funding, the City of Columbia will implement the following improvements along the Clark Lane corridor to address these safety issues, complementing the *Improve I-70* project:

Full Corridor Improvements

US-63 to Ballenger Lane:

- Reduce speed limit to 35.
- Install 4 additional speed limit signs and 4 speed feedback signs.
- Add/improve street lighting, especially at intersections, signals, and pedestrian crossing locations. Install special underpass pedestrian lighting to complement the *Improve I-70* project improvements.
- Construct continuous active transportation facilities along the entire length of the roadway on both sides of road: a 6' wide sidewalk on the north side and a 10' mixed-use trail on the south side.



Figure 4: Conceptual Design, Woodland Springs Court to Ballenger Lane

Segment Specific Improvements

Woodland Springs Court to Ballenger Lane:

- Provide a two-lane divided road with on-street bike lanes.
- Install curb and gutter.
- Implement partial access management and provide left-turn lanes at major intersections.
- Add/improve crosswalks at Hanover Boulevard.

US-63 to Woodland Springs Court:

- Remove the shoulder.
- Narrow the existing 17' two-way left turn lane.
- Narrow the overall roadway width and widen sidewalks.
- Enhance the crosswalks using Pedestrian Hybrid Beacons, improved traffic signals, marked crosswalks, and pedestrian refuge islands as applicable at the following intersections:
 - New Market Boulevard
 - Creekwood Parkway
 - Woodland Springs Court
- Construct median islands strategically between US-63 and Woodland Springs Court for traffic calming.
- Install retroreflective backplates and flashing yellow arrow left-turn signals at the intersections of:
 - US-63 and Clark Lane
 - Clark Lane and Creekwood Parkway

II. Project Location

The proposed infrastructure project encompasses 1.32 miles of the Clark Lane corridor in the east portion of Columbia, Missouri. It is a diverse corridor with businesses, shopping districts, and education centers (along both the corridor and the surrounding roadway network) – many of which lack connectivity because the corridor presents a barrier. The design is motor-vehicle focused, and the corridor is not very walkable or bikeable. Safe street crossings are very limited, which entices pedestrians to jaywalk. This has contributed to pedestrian fatalities over the past several years.

Figure 5 shows the proposed project location, outlining the project limits, and primary elements including shared use paths, enhanced pedestrian crossings, and other important aspects called out in the legend of the map. The map also identifies areas of interest (health care facilities, food access, and schools) which are critical destinations for residents living in the surrounding



disadvantaged neighborhoods. Residents often walk, bike, or drive along the Clark Lane corridor to get to areas of interest. A more detailed version of **Figure 5** is provided in **Appendix N**.

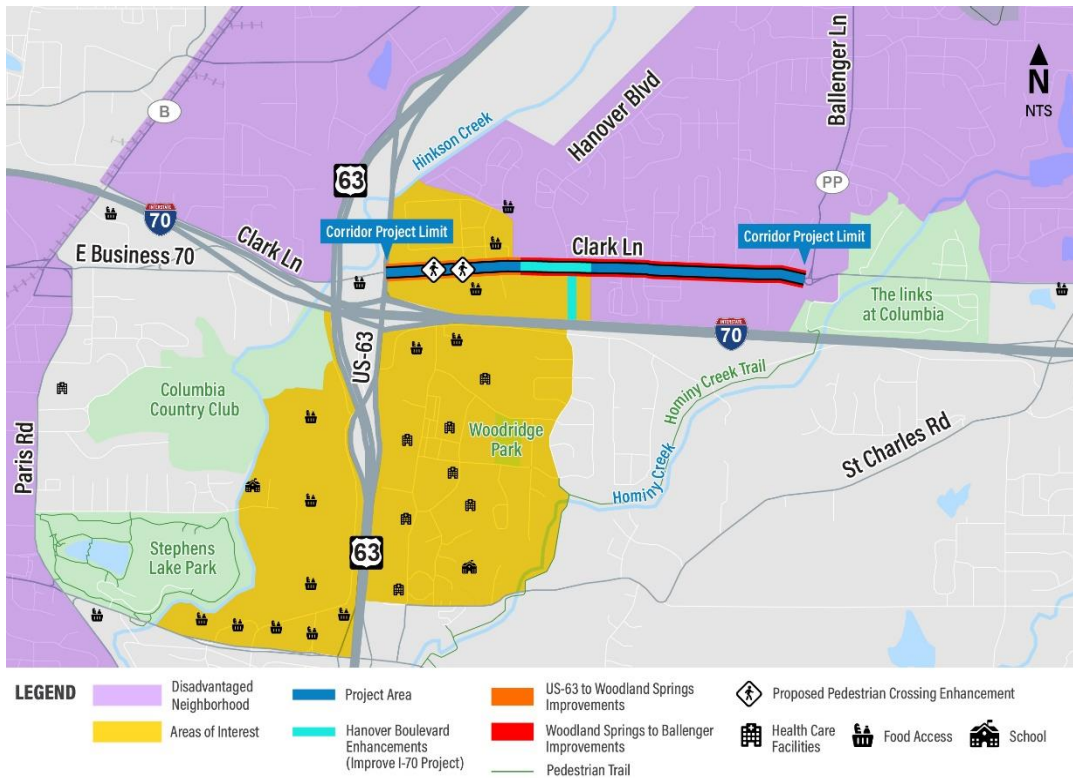


Figure 5: Project Location Map

Figure 6 (also found in **Appendix N**) shows the underserved and disadvantaged communities within Columbia and Boone County, combining data from the USDOT Equitable Transportation Community (ETC) Explorer and Climate and Economic Justice Screening Tool (CEJST). The corridor is entirely located within a disadvantaged census tract. According to the US Census Bureau, the median household income in the region is \$60,455 (**19 percent below the national average**), and 95.4 percent of residents are high school graduates – but only 55.3 percent have a Bachelor's degree or higher.

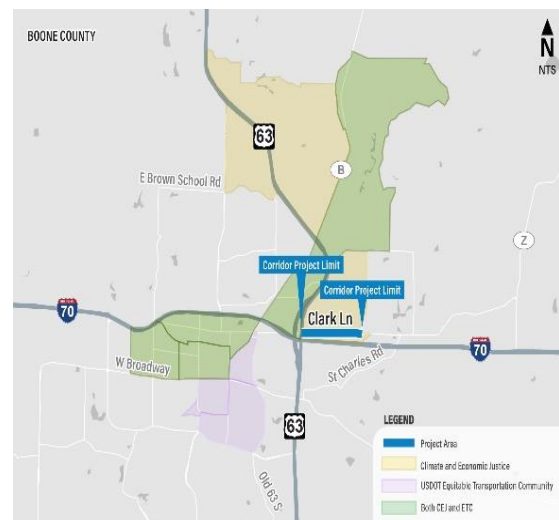


Figure 6: Underserved Communities



III. Response to Selection Criteria

Selection Criterion #1: Safety Impact

The City of Columbia's Vision Zero Action Plan, developed in 2019, identified the Clark Lane Corridor on its high injury network. The corridor is one of the City's "priority streets", meaning it is a part of the three percent of streets where 70 percent of fatal and serious injury crashes occur. The project location is also within a city-defined "priority and strategic neighborhood", a designation that indicates low-income communities, communities of color, communities with high proportions of no-vehicle households, and Strategic Plan neighborhoods, a more defined version of the USDOT's ETC / CEJST dashboards.

Safety Problem

When looking at historical trends from 2017 to 2021, the Clark Lane corridor experienced 1 fatal and 7 serious injury crashes. Another fatality recently occurred in 2022 outside of the 2017-2021 5-year period. Both fatalities were pedestrians, while the serious injury crashes involved several pedestrian-vehicle and vehicle-vehicle crashes. A review of the crash reports for fatal and serious injury crashes, in conjunction with an examination of the design aspects of the corridor, indicates that the contributing factors often included poor lighting (especially at intersections), inconsistent/high speed limits, lack of auxiliary turn lanes, lack of physical separation between vehicles and pedestrians, substandard vertical curves, poor access management, and high driveway density.

The Clark Lane corridor has commercial and residential development directly adjacent to the roadway where it's not well aligned with the land-use and multimodal context of the area. This presents several safety risks.

Table 1: Crashes by Severity Rating (2017-2021)

Crash by Severity Rating ⁶	Number of Persons in Crash	Percent of Persons in Crash
Serious Injuries	7	6%
Fatalities	1*	1%
Property Damage	63	55%
Minor Injuries	44	38%
Total	115	100%

*Additional Fatality Occurred in 2022

Table 2: Top 10 Clark Lane Crash Types (2017-2021)

Crash Type ⁷	Number of Crashes	Percent of Total Crashes
Rear End	54	47%
Left Turn Right Angle Collision	13	11%
Left Turn	9	8%
Head On	8	7%
Out Of Control	7	6%
Right Angle	7	6%
Pedestrian	4	3%
Right Turn Right Angle Collision	4	3%
Passing	3	2%
Parking Or Parked Car	2	2%
Total	111	95%

⁶ <https://datazoneapps.modot.mo.gov/bi/apps/crashes/Default.aspx?t=e192f8dd-6c23-4de7-93cf-a0cf7500b6bb>

⁷ <https://datazoneapps.modot.mo.gov/bi/apps/crashes/Default.aspx?t=e192f8dd-6c23-4de7-93cf-a0cf7500b6bb>



Safety Impact Assessment – Project Benefits

The proposed improvements along the Clark Lane corridor were specifically selected to address the identified pedestrian safety needs and historical high-severity crashes. The project is on the High-Injury Network as defined by the City’s Vision Zero Action Plan; see **Appendix G**. Crash Modification Factors (CMFs) have been listed for the proposed improvements that have well-documented research and appropriate star values in FHWA’s CMF Clearinghouse. To conservatively estimate crash reduction, only three CMFs were utilized that had comparatively lower crash-reduction potential, but had higher star ratings and were broadly applicable to the corridor. An analysis was performed utilizing the methodology outlined in the Highway Safety Manual (HSM) Part D using these CMFs:

1. Install Sidewalk (CMF ID: 11246, 4-stars)
 - a. Crash reduction of 40% for vehicle/pedestrian crashes, KABCO severity
 - b. Applied to pedestrian crashes from Woodland Springs Drive to McKee Street
 - c. <https://www.cmfclearinghouse.org/detail.php?facid=11246>
2. Install Lighting (CMF ID: 7774, 4-stars)
 - a. Crash reduction of 37% for nighttime crashes, KABC severity
 - b. Applied to nighttime pedestrian crashes from US-63 Connector to Woodland Springs
 - c. <https://www.cmfclearinghouse.org/detail.php?facid=7774>
3. Install Raised Median (CMF ID: 7789, 4-stars)
 - a. Crash reduction of 71% for all crashes, KABC severity
 - b. Applied to all motor vehicle crashes for full corridor
 - c. <https://www.cmfclearinghouse.org/detail.php?facid=2219>

If no improvements are made to the corridor, it is expected that there could be an additional 200 fatal and injury crashes on the corridor over the next 20 years. **Based on the conservative HSM Part D analysis, more than 140 of these crashes could be prevented, including 1.6 fatal crashes, 17.4 suspected serious injury crashes (A-type injury), and 123.6 minor injury (B-type injury) crashes.** The undiscounted societal benefit of this crash reduction is over \$70 million over 20 years (2022 dollars).

Implementation Costs

The request for \$8,416,248 of federal funding would cover 80 percent of the estimated total project cost. The local match of \$2,104,062, would go towards finalizing the 30% conceptual design plans, administrative costs, public outreach activities, and some construction needed to implement the project. **The City has committed enough funding to cover the 20% match amount plus any escalations in costs (see Appendix A).**



Figure 7: Clark Lane Corridor Renderings



Analysis of fatalities and injuries from 2017-2021 (5 years) shows 1 fatality and 51 injuries (7 serious / 44 minor), when weighted equates to 2.12 fatality crashes along the corridor.

With the proposed safety measures, every \$1,000,000 of the requested \$8,416,248 in funding spent would be projected to

address approximately 0.25 fatal crashes; this equates to 5.26 serious injuries over a 5-year period. Including the additional fatality in 2022, the \$8,416,248 requested would be estimated to result in a reduction of 0.37 fatal crashes and 7.74 serious injury crashes, over a 5 year period, for every \$1,000,000 spent. The City has prepared a detailed conceptual plan (**Appendix D**) for the corridor as well as a major quantities cost estimate (**Appendix E**).

"Clark Lane has long been on our priority list for safety improvements. Due to a lack of resources, quasi-/co-ownership of the road with MoDOT, and multiple and varied stakeholders, the planning and improvements have not been realized."

- City of Columbia Mayor Barbra Buffaloe

Selection Criterion #2: Equity, Engagement, and Collaboration

The **Enhancing Accessibility and Equity along Clark Lane** project constitutes an equitable investment in the safety needs of underserved communities and demonstrates engagement with a variety of public and private stakeholders. The City of Columbia focuses on equity, engagement, and collaboration in relation to implementation of its projects and strategies. The safety enhancements being pursued in this implementation grant will go towards a 100 percent disadvantaged and underserved community. The following outlines how the project addresses equity, engagement, and collaboration.

Key Population Groups

According to the CEJST, the project is located in a 100 percent disadvantaged census tract (29019001502). The entirety of the \$8,416,248 for this project will be benefiting a disadvantaged and underserved community.

Corridor Demographics

- Population of Census Tract: 6,873
- Persons of Color (POC): 2,404 (35%)
- Children under 10: 962 (14%)
- Ages of 10-64: 4,948 (72%)
- Elderly over 65: 824 (12%)

Community and Stakeholder and Engagement

Almost every project the City has proposed has required effective stakeholder engagement. Stakeholders not only include those living in the areas of the project but also those directly impacted by the projects and initiatives. These include (but are not limited to):

- Groups with disabilities
- Those experiencing homelessness
- Groups that have been adversely affected by traffic enforcement/prosecution
- Groups that require unique types of education and messaging
- Groups that perform equity analysis in the community
- Local businesses

City Public Works staff has attended a local community event called **Project Homeless Connect**, where people experiencing homelessness can receive services and information about resources



available to them. During this event, a survey was administered to attendees asking for information on their opinions about local traffic safety. **Clark Lane and the I-70/US-63 Connector were among the most commonly mentioned areas where respondents said they felt unsafe walking, and these are the areas proposed to be improved with the help of the SS4A funding.** Without this type of outreach, the City would not have been able to gather this information and use it towards projects such as those described in previous sections. The City plans to undertake its typical public involvement process during the final design of the Clark Lane corridor project to enable the public to provide input on design elements.

It should also be noted that the City received supplemental action plan funding through the SS4A program to update its citywide equity analysis.

Partnerships

By participating in the SS4A grant program, Columbia aims to build upon its existing efforts and embark on transformative projects. These initiatives will strengthen pedestrian and cyclist safety, enhance public transportation infrastructure, promote community engagement and education, and prioritize equity and inclusion in transportation planning.

Project Supporters



Collaboration with the Missouri Department of Transportation (MoDOT) is already underway. The City and MoDOT have held several coordination meetings regarding the *Improve I-70* project, in which both parties have discussed how the new improvements along I-70 will impact the Clark Lane corridor. These meetings will continue for the foreseeable future until the I-70 project is completed. Several local organizations have written formal letters of support, which can be found in **Appendix B**.

DOT Equitable Transportation Community Explorer – Component Areas

According to the DOT Equitable Transportation Community Explorer Tool, the project is located in **Census Tract 29019001505**. The percentiles below show that census tract 29019001505 has multiple component areas that rank within the disadvantaged threshold. These component areas include environmental burden, social vulnerability and transportation insecurity.

Social Vulnerability

- 200% Poverty Line: 89.9%ile (considered disadvantaged)
- No HS Diploma: 66.5%ile (considered disadvantaged)
- House Tenure: 85.2%ile (considered disadvantaged)
- Housing Cost Burden: 87.7%ile (considered disadvantaged)
- Endemic Inequality: 87.7%ile (considered disadvantaged)
- 65 or older: 68.2%ile (considered disadvantaged)
- 17 or Younger: 66.1%ile (considered disadvantaged)
- Disability: 93.7%ile (considered disadvantaged)
- Mobile Homes: 73.2% (considered disadvantaged)

Environmental Burden

- Airport Proximity: 72.4%ile (considered disadvantaged)
- Impaired Surface Water: 69.4%ile (considered disadvantaged)

Transportation Insecurity

- Transportation Access: 71.7%ile (considered disadvantaged)
- Transportation Cost Burden: 90%ile (considered disadvantaged)
- Transportation Safety: 79.4%ile (considered disadvantaged)



Selection Criterion #3: Effective Practices and Strategies

The City of Columbia has established effective safety practices, including a Vision Zero policy aimed at eliminating traffic fatalities and severe injuries by 2030. As the first city in Missouri to adopt such a policy, Columbia focuses on engineering, education, and enforcement initiatives to achieve this goal, aligning with other city plans such as the Complete Streets Policy. Columbia's commitment to Complete Streets, which integrates non-motorized enhancements, is supplemented by Safe Systems Approaches, ensuring safety for all citizens. **The proposed Clark Lane Corridor implementation project described this application are a direct result of those polices, plans, practices, and programs.**

To promote safe transportation design, Columbia considers the impact of land use and the built environment, aiming to protect surrounding ecosystems and underserved communities. Efforts in this regard include installing native pollinator species and preserving natural biodiversity. Furthermore, through a Safe Systems Approach, Columbia engages the public in safety education, implements programs for road users, and develops strategies to reduce travel speeds in high-risk areas.

Operational activities include infrastructure improvements, behavioral modification programs, and promotion of equity in transportation planning. Additionally, operational technologies prioritize safety for all road users, particularly those with disabilities, with projects addressing the needs of underserved populations. Infrastructure improvements will meet PROWAG accessibility requirements and address projects listed in the City's Sidewalk Master Plan (**Appendix L**).

Columbia's safety initiatives are supported by state highway safety plans, including the Missouri Department of Transportation Strategic Highway Safety Plan and the Missouri Department of Transportation Triennial Highway Safety Plan (a branch of the MoDOT Strategic Highway Safety Plan). These partnerships emphasize the goal of eliminating traffic fatalities and severe injuries statewide, with Columbia actively contributing to the effort through its commitment to safety and equity in transportation.

Selection Criterion #4: Other DOT Strategic Goals

Climate and Sustainability

The Clark Lane corridor upgrades aim to enhance non-auto travel options, reducing automobile emissions and improving safety for pedestrians and cyclists. The project will add necessary infrastructure along the corridor, making walking and biking safer and more practical for residents, workers, shoppers, and students. Additionally, it will connect to trail systems, benefiting citizens and those experiencing homelessness by providing safer ways to cross I-70. These changes align with Columbia's Climate Action and Adaptation Plan



Figure 8: Clark Lane Corridor FEMA Flood Map



(CAAP) 2022 Report, prioritizing pedestrian, cyclist, and transit-friendly street design, as well as managing natural areas and creating habitat corridors. **The project addresses flood risks in the Hinkson Creek Watershed, designated as a 500-year floodplain by FEMA, affecting vulnerable populations. The City plans to identify high-risk flood areas and mitigation measures, supporting the proposed project elements.**

Economic Competitiveness

Enhanced safety features for all road users are anticipated to stimulate economic activity by improving mobility and connectivity. The Clark Lane project, situated in a disadvantaged census tract with high poverty and low educational attainment, will address challenges in accessing major employers and critical services like education and health care. By increasing mobility, especially for underserved communities, the project can boost economic activity through increased consumer spending and foot traffic. Columbia also recognizes the unique challenges faced by surrounding residential communities regarding mobility and economic development, including high transportation costs. This project aims to alleviate these issues by enhancing connectivity, reducing transportation costs, and invigorating the local economy. It will improve roadway aesthetics, usability, and safety by adding trails, sidewalks, and signalized crosswalks, while also maintaining freight movement capability – which is especially important considering the anticipated traffic increases associated with the *Improve I-70* project. These improvements will attract and retain businesses and provide residents with multimodal transportation accessibility for work, shopping, education, and entertainment.

Workforce

Skilled construction labor in Columbia is abundant, with nearly 30 percent of the labor pool having experience in construction-related industries, where workers earn a median hourly wage of \$24.13, higher than the area's median wage. The City of Columbia is committed to non-discrimination and promoting diversity, equity, and inclusion in its workforce. **The Regional Economic Development, Inc. (REDI) offers support to Disadvantaged Business Enterprises (DBEs), including minority and women-owned businesses, providing opportunities for job placement in construction and other sectors. This initiative aims to help underserved communities, including minorities, gain employment.** With the University of Missouri's presence, opportunities for workforce participation are heightened, with 28 percent of the labor force comprising college-age workers, rising to 52 percent within a decade post-graduation, indicating a significant contribution to the local economy.^{8 9}

⁸ U.S. Census Bureau. "Sex by Age by Employment Status for the Population 16 Years and Over." American Community Survey, ACS 5-Year Estimates Detailed Tables, Table B23001, 2022, <https://data.census.gov/table/ACSDT5Y2022.B23001?q=B23001&g=160XX00US2915670&tp=false>. Accessed on March 19, 2024.

⁹ College-age population" is defined by the BLS as individuals aged 16-24. See more at <https://www.bls.gov/opub/ted/2023/labor-force-participation-rates-of-college-students-differ-by-enrollment-status-and-type-of-college.htm>. In this report, "post-college" refers to workers aged 25-34.



IV. Project Readiness

The City of Columbia staff are very familiar with the USDOT grant agreement and administration process. The City was recently awarded SS4A supplemental action planning and demonstration funding in FY22 and FY23. The City was also awarded federal funds through the Reconnecting Communities and RAISE programs for the Business Loop 70 Corridor Study and the COMO Transportation Center Project.

The Self-Certification Worksheet and USDOT pre-application eligibility review is provided in **Appendix H**. Implementation Grant Supplemental Budget is provided in **Appendix E**.

Schedule Commitment: The City of Columbia will be ready to execute and complete the full scope of work in this application within **4 years** of grant agreement execution. See the schedule in **Table 3**. In addition, the City of Columbia has already completed a conceptual design and cost estimate for the project.

NEPA/Environmental Reviews: The project will minimize impacts on the environment, allowing the City of Columbia to apply for a NEPA categorical exclusion. The City is not expected to need right-of-way, and there will be no issues or adverse effects on the surrounding environment or people when construction occurs. The NEPA process will proceed in an expedited manner in conjunction with the design. Prior projects requiring NEPA clearance in this portion of the Clark Lane Corridor have received approval in a timely manner.

Utility Relocations: Utility relocations will be part of the project, but they will be minimized by careful layout of the shared use paths. The conversion of the shoulder to a curb-and-gutter section will also help keep the template narrow, limiting utility relocation work.

Right-of-Way Acquisition: The current right-of-way is quite wide through much of the corridor. It is not expected that any residents or businesses would be relocated with the project.

Table 3: Design and Implementation Schedule

	2025*				2026				2027				2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
• Finalize 30% Design Plans																
• Environmental Clearance																
• Public Involvement																
• Procurement / Letting																
• Construction / Implementation																
• Final Report to USDOT																

*Assumes obligation / signed grant agreement will be completed 12 months after award in Q4 of 2024 as stated in the NOFO.