

Summary of the MIC's evaluation of the single FY 2027 CRP project application we received:

The application is from the City of Duluth for a project titled "Locking It In: Micro-mobility Parking in Duluth, MN".

The amount of CRP funding requested is \$225,000 of the total \$270,000 project budget. The city is able to accept partial funding.

The project is for FY 2027.

The calculated CO2 emissions reduction in year 1 is 135.5 e MT per year, for a calculated cumulative CO2 emissions reduction of 1181.65 e MT.

The calculated Cost Effectiveness (\$/MT) is \$228, which when compared with the "Cost Effectiveness Score" tab of the Minnesota_CRP_Scoring Tool_2024-38382402-v2" Excel Spreadsheet from MnDOT results in a Cost Effectiveness Score of 20 (of a total possible of 20).

After evaluation of the application narrative the Co-Benefit Equity Score = 2 (of a possible 5)

After evaluation of the application narrative the Co-Benefit Safety Score = 2.5 (of a possible 5)

After evaluation of the application narrative the Co-Benefit Access Score = 2.5 (of a possible 5)

After evaluation of the application narrative the Co-Benefit Health Score = 4 (of a possible 5)

Thus, the **total evaluation score for this project is 31** (of a possible 40)

Also see the application and relevant score/work sheets (attached).

City of Duluth FY 2027 CRP Application
 Project Type: T15 Reduce VMT

MN CRS CE Tool MIC Evaluation 01.29.2025



PROJECT TYPE: T15 - REDUCE VEHICLE MILES TRAVELED

DIRECTIONS:

Enter project data needed within the "INPUTS" section below. Click the "Reset to Default" button to clear all user input.
 The "CONSTANTS & INTERIM CALCULATIONS" section shows assumptions that cannot be changed or interim results that are calculated by the tool based on the project input data.
 The "RESULTS" section shows the results of the carbon emissions calculations, both estimated emission reductions in year 1 and cumulative emission reductions over the duration of the project.

[Reset to Default](#)

| INPUTS | | |
|---|--------|----------|
| Variables | Value | Unit |
| Year of project implementation | 2027 | - |
| Project lifetime | 10 | years |
| Annual reduction in light duty passenger vehicle miles traveled (total) | 394000 | miles/yr |
| Annual reduction in medium/heavy duty vehicle miles traveled (total) | 0 | miles/yr |

CONSTANTS & INTERIM CALCULATIONS

| Variables | Value | Unit |
|---|---------|-----------|
| Regional light-duty vehicle (LDV) fleet average GHG emission factor (Year 1) | 343.91 | g CO2e/mi |
| Regional light-duty vehicle (LDV) fleet average GHG emission factor (average of project lifetime) | 299.91 | g CO2e/mi |
| Regional medium/heavy duty fleet average GHG emission factor (Year 1) | 1120.01 | g CO2e/mi |
| Regional medium/heavy duty fleet average GHG emission factor (average of project lifetime) | 1070.6 | g CO2e/mi |

| RESULTS | | |
|--------------------------------|---------|-------------------|
| Variables | Value | Unit |
| Emissions reduction in year 1 | 135.5 | CO2 e MT per year |
| Cumulative emissions reduction | 1181.65 | CO2 e MT |

City of Duluth FY 2027 CRP Application Results Summary

MN CRS Evaluation 01.29.2025

| | Strategy | Year 1 emissions reduction (CO2 e MT per year) | Cumulative emissions reduction (CO2 e MT) | Total Costs (\$) USER INPUT REQUIRED | Cost Effectiveness (\$/MT) |
|-----|---|---|--|---|----------------------------|
| E1 | Expand public EV charging infrastructure network for light duty vehicles | | | | |
| E2 | Deploy charging infrastructure for medium- and heavy-duty freight vehicles | | | | |
| E3 | Purchase or lease battery electric transit buses | | | | |
| E4 | Purchase or lease battery electric school buses | | | | |
| E5 | Transition public fleet through purchase & lease of ZEVs | | | | |
| E6 | Initiate ZEV or EV sharing programs. | | | | |
| T1 | Construct or improve bicycle network | | | | |
| T2 | Construct or improve pedestrian network | | | | |
| T3 | Establish or expand micromobility programs | | | | |
| T4 | Improve street connectivity | | | | |
| T5 | Implement Bus Rapid Transit (BRT) systems with dedicated lanes and stations | | | | |
| T6 | Implement bus transit priority treatments | | | | |
| T7 | Add or expand bus service | | | | |
| T8 | Enhance bus frequency or hours of service | | | | |
| T9 | Establish or expand intercity bus services | | | | |
| T10 | Develop or improve intercity passenger rail services | | | | |
| T11 | Construct, expand, or enhance park and ride facilities | | | | |
| T12 | Construct roundabout to improve traffic flow | | | | |
| T13 | Construct left turn lane to improve traffic flow | | | | |
| T14 | Synchronize traffic signals to reduce delay time | | | | |
| T15 | Reduce vehicle miles traveled | 135.50 | 1181.65 | \$270,000 | \$228.49 |
| LC1 | Use low carbon materials in road construction and maintenance | | | | |
| LC2 | Used recycled pavement on construction sites | | | | |
| LC3 | Replace street lighting and traffic control devices with LEDs | | | | |
| RE1 | Implement renewable energy projects in highway right-of-way | | | | |
| RE2 | Install solar panels on transit stations, rest stops, parking, and other facilities | | | | |
| | Total | 135.50 | 1181.65 | \$270,000 | \$228 |

Carbon Reduction Program (CRP) Application

This application has been modified by the Northeast Minnesota Area Transportation Partnership (NEMNATP)

Applicant information

Name of applicant organization: City of Duluth

Name of contact: Mindy Granley

Contact address: 411 W. First Street

City: Duluth **State:** MN **Zip:** 55802

County: St. Louis

Phone: 218-730-5334 **Email:** mgranley@duluthmn.gov

Project information

1. **Title of project:** Locking It In: Micro-mobility Parking in Duluth, MN
2. **Project location:** Duluth, MN
3. **One sentence description of the work for which you are seeking support:** The City of Duluth is filling a key infrastructure component gap in the multimodal transportation network by adding convenient and reliably available micro-mobility parking within public right-of-ways.

Project readiness

Provide the project timeline and milestones, including any relevant planning or engineering studies. Be sure to describe how the project can be completed in the given timeframe. (250 words maximum)

There is a significant lack of parking for micro-mobility devices throughout the City of Duluth, as identified by the Zeitgeist Cycling Needs Assessment from the Fall of 2024. Additionally, the monthly school bike counts that have been conducted by the MIC and the City of Duluth since September of 2012 have demonstrated the importance of providing micro-mobility devices for schools and have identified schools where improved micro-mobility parking is needed. In the summer of 2024, CDBG funds were used to place a small number of micro-mobility racks in the City of Duluth urban core neighborhoods, including Downtown Duluth, Hillside and Lincoln Park. This project was as an initial step towards putting micro-mobility parking on public right-of-ways. This project received a positive response from the community, demonstrating the need and support for additional micro-mobility parking in Duluth.

Project funding

4. **Amount of funding requested:** \$225,000

5. **Total project budget:** \$270,000

Briefly explain the total estimated amount of funding needed for the project. Include the amount requested through this application and other sources.

The local match amount of \$40,000 is from the City of Duluth Sustainability Fund. The City will spend \$180,000 on micro-mobility shelters, \$60,000 on micro-mobility racks, and \$30,000 on portable micro-mobility racks (primarily used for events),

6. **Identify the local match amount:** \$45,000

7. **Identify the source of the local funds committed to the project (100 words maximum):**

City of Duluth Sustainability Fund

8. **Total amount of additional federal funds obligated to the project already, if applicable:**

[Click here to enter text.](#)

Source of additional federal funds obligated to the project already, if applicable (100 words maximum):[Click here to enter text.](#)

9. **Which funding program and fiscal year(s) is this project interested in applying for?**

Projects may submit for one or multiple funding years during this solicitation period. Check the fiscal year box or boxes in which you are submitting the LOI for funding.

Check the box or boxes of the funding year applying for.

Carbon Reduction Program FY 2027 FY2028

10. **Is this project able to accept partial funding?** Yes No

Alignment with the Carbon Reduction Strategy

11. **Category of project from the Carbon Reduction Strategy:**

Electrification Travel options Low carbon infrastructure and system management

12. **Strategy associated with the project from the Carbon Reduction Strategy:**

Install and maintain infrastructure network improvements for walking, rolling, and cycling.

13. **Project type in the Carbon Reduction Strategy that the project falls under:**

Construct or improve bicycle (micro-mobility) network

14. **Describe the work and how it reduces carbon (250 words maximum):**

This project is providing short and long-term micro-mobility parking which includes standard micro-mobility shelters, micro-mobility racks, and temporary micro-mobility racks for major events. By providing convenient and reliably available micro-mobility parking at everyday destinations, the project

will induce the demand for cycling and scootering, encouraging mode shift towards this active transportation mode. As described by the Federal Highway Administration, many micro-mobility trips end somewhere other than the user's home, so it is critical to provide accessible parking. Micro-mobility parking is a key transportation infrastructure component to reduce carbon in the transportation network. Specifically in Duluth, the bicycling needs survey conducted by Zeitgeist in the Fall of 2024 found that 50% of respondents only had bike parking at their final destination less than half the time, meaning bicycle parking is not reliably available in Duluth. This absence of reliable, convenient, and secure bicycle parking poses significant barriers and decreases the number of people who would otherwise mode shift towards cycling for transportation purposes. This need for bicycle parking can be extended to other forms of micro-mobility as well. This project will install micro-mobility parking in convenient and secure locations where the general public will be able to rely upon their micro-mobility device as a transportation mode to meet everyday needs. In the Duluth Comprehensive Plan, Imagine 2035, increasing bicycle parking is a strategy part of the policy to "add to the transportation network by systematically enhancing multimodal options."

Co-benefits of the project

15. Which co-benefits are relevant to your project (check all that apply):

 Equity Safety Access Health

Co-benefit: Equity

Describe how this project benefits disadvantaged communities. These communities can be defined through the Justice40 framework or alternative framework for assessing disadvantaged populations, including households without a motor vehicle and people with disability (see Appendix A).

500 words maximum

With increased security and comfort in this micro-mobility parking, people are more willing to undertake micro-mobility trips that they otherwise would not take. Micro-mobility is also a more affordable form of transportation than a personal vehicle, so increased micro-mobility parking increases access and mobility for those without a motor vehicle. With 32.4% of households in Duluth being cost-burdened and transportation being identified as a major cost, increased micro-mobility parking would enable a more affordable form of mobility for these cost-burdened households. Further, for those in apartment complexes, dormorties, high-density living situations, or for unhoused individuals, micro-mobility parking at home is also often an unmet need, since these individuals often do not have garages or backyards in which they can securely store their micro-mobility devices. Therefore, high-capacity and secure micro-mobility parking in key destinations would alleviate stress about the security of their transportation devices for their individuals.

Co-benefit: Safety

Describe how this project will improve real or perceived safety concerns in the community. These can be identified in a safety study or plan. If the safety concerns are not identified in a plan, they may be identified with an alternative approach, such as providing an aerial photo of the safety concern. Describe whether the project occurs in an area with high rates of motor vehicle serious injury or fatal crashes and/or areas with high rates of non-motorized serious injury or fatal crashes and whether the project has a safety component that addresses these challenges (See Appendix B).

500 words maximum

The Zeitgeist Cyclings Needs Assessment finds that previous experiences of micro-mobility devices getting stolen and fear of future theft discourages individuals from using micro-mobility for transportation. This is especially true with pricier micro-mobility devices, such as e-bikes. This is a key concern, given that e-bikes and other similar electronic devices are a key area of transportation growth in Duluth, given the hilly terrain. Additionally, due to the current lack of micro-mobility parking, bicycles, scooters and other small human powered transportation devices are parked haphazardly. There are safety concerns when people need to stand in the streets to park their micro-mobility devices onto light posts, trees, or traffic signs. Further, micro-mobility devices are located in areas where they block public access ways, fall over, damage trees, fencing, and light posts. When, people utilize items, a majority of which are City of Duluth owned and maintained assets, which are not designed for micro-mobility devices to be locked and stored, these devices can damage these items as well as not allow for the proper securing and holding of the device. By installing appropriately designed and located micro-mobility parking, the devices can be better managed, organized and reduce issues caused by the parking of these devices. Additionally, increasing micro-mobility parking will increase safety through more foot traffic for businesses, tourism, and public institution. This increased foot traffic leads to natural surveillance and more “eyes on the street”.

Co-benefit: Access

Describe how the project improves non-motorized access and transit or shared mobility access to key destinations. This can include improvements that encourage these modes through both infrastructure and land use. Describe how the project improves travel efficiency (via driving, carpool or other methods) to key destinations and how the project improved traveler comfort.

500 words maximum

Currently, due to the lack of micro-mobility parking options in Duluth, people need to go out of their way to park their micro-mobility devices, adding a huge barrier to micro-mobility in Duluth. Increasing the availability of micro-mobility parking increases efficiency and limits the need for people to search for somewhat acceptable parking for their transportation devices when they arrive at their destination. Adding covered bike racks by East High School, in Canal Park, and at Bayfront will also increase traveler comfort by increasing perceived security of micro-mobility devices and making travel in inclement weather more comfortable, since micro-mobility devices will remain dry. In addition to covered micro-mobility parking in key locations and fixed racks in business districts, this grant will provide portable micro-mobility racks that can be moved for major events in the City of Duluth, where large numbers of people are already taking micro-mobility devices, particularly bicycles, to reach these events, such as Bayfront concerts, Bent Paddle's Festiversary, Glensheen's Concerts on the Pier, etc. This will increase access to these key events and allows for flexibility so that micro-mobility parking can be taken to a variety of events.

Co-benefit: Health

Please describe how this project improves localized air quality, especially in communities with high rates of asthma (see Appendix C). Also describe how this project supports active transportation.

500 words maximum

Micro-mobility parking across Duluth will induce greater micro-mobility as forms of transportation. As discussed in previous responses, the Zeitgeist Cycling Needs Assessment found that insufficient bicycle parking is a barrier to bicycling in Duluth. With increased micro-mobility parking options, more people will cycle and engage in transportation to destinations in Duluth. The EJ Screening Tool finds that in Duluth, especially in West Duluth Lincoln Park, Hillside, Downtown (including Bayfront and Canal Park), and up by the mall, there are areas with asthma rates above the 50th percentile. Since motor vehicle trips are a significant source of air pollution, decreasing this number of trips through increased micro-mobility will improve air quality, and limit the negative effects of asthma in these areas. Additionally, engaging in micro-mobility and active transportation is a healthy form of transportation that lowers the risk of negative health effects in the future.

Cost-Effectiveness of Carbon Reduction

The amount of CO₂e reduced and the cost-effectiveness are estimated using the [Carbon Emissions Tool \(CET\)](#) and associated [CET Instructions and Tips](#). The total project cost is determined by the applicant. Further details regarding calculating the total costs of a project can be found in the CET. Similarly, the total carbon reduced is calculated for the whole project, not just a portion funded by the CRP. List your value for cost-effectiveness below in the units of Dollars/Metric Ton CO₂e reduced.

This project is \$270,000 for micro-mobility parking; with an average of \$500 per micro-mobility installation, this means that there are 540 more micro-mobility parking spots. With an average 1.5 trips per day for each new installation of micro-mobility parking (this number is low because it is averaged across this winter when there are fewer micro-mobility trips taken), this means that at minimum, 720 bike/micro-mobility trips a day are taken, instead of a light-duty personal vehicle. These 720 trips would have an average trip length of 1.5 miles (since most micro-mobility trips are short in length), so this is 1,080 daily vehicle miles avoided with the installation of this micro-mobility parking. Annually, this would be a reduction of 394,200 vehicle miles travelled. This is 203.00 Dollars/Metric Ton CO₂e reduced.

Which project types were used to calculate the carbon cost-effectiveness and what were the Year 1 and cumulative emissions reductions for the project?

Applicant should attach a replica table or screenshot of the 'Results Summary' tab to the project application.

Appendices

Appendix A: Definition of disadvantaged communities (Justice40)

[Justice40](#) is an initiative set forth through Federal Executive Order 14008 that aims to provide 40% of the benefits from certain federal grants, programs and initiatives to disadvantaged communities. To achieve this goal, many agencies have created definitions of disadvantaged communities to use in the solicitation of grants and other projects to ensure that disadvantaged communities are being served. Three tools have been identified for applicants to use if they wish, though using these tools is not required for determining whether a community is disadvantaged or not. Applicants are also encouraged to use other publicly available tools to showcase how their projects help serve disadvantaged communities. These tools are:

- USDOT [Climate and Economic Justice Screening Tool](#) (CEJST Tool)
- USDOT [RAISE Mapping Tool](#)
- EPA [EPA Environmental Justice Screening Tool](#) (EJ Screen Tool)
- USDOT [Equitable Transportation Community \(ETC\) Explorer](#)

Currently, the USDOT uses the [CEJST Tool](#) to define census tracts that are disadvantaged. This tool, created by the Department of Energy, uses 8 categories of burdens to define disadvantaged communities: Climate Change, Energy, Health, Housing, Legacy Pollution, Transportation, Water and Wastewater and Workforce Development. Any census tract is considered disadvantaged if it meets one of the 8 burdens listed above, is surrounded by disadvantaged census tracts and is at or above the 50th percentile for low income or is a federally recognized tribe. More information on the methodology and data of this tool is available [here](#).

The USDOT uses another tool for its RAISE (Rebuilding American Infrastructure with Sustainability and Equity) Grants, called the [RAISE Mapping Tool](#). This tool identifies census tracts that are either areas of persistent poverty¹ or historically disadvantaged communities. More information on tool use and methodology is available [here](#).

The [EJ Screening Tool](#) is used by the EPA to measure metrics related to environmental and public health impacts on communities. As part of this tool, there is a metric that measures general socioeconomic

¹ Areas of persistent poverty are defined as counties or census tracts where more than 20% of the population were recorded to live in poverty by the 1990 Census, 2000 Census, and the 2021 Small Area Income Poverty Estimates, or recorded a 20% poverty rate in the 2014-2018 5-year data series of the American Community Survey or is located in any US territory.

disparities called the EPA IRA Disadvantaged Communities that shows communities and census tracts that are disadvantaged. More information on the tool and methodology is available [here](#).

The USDOT [Equitable Transportation Community \(ETC\) Explorer](#) is an interactive web application that uses 2020 Census Tracts and data, to explore the cumulative burden communities experience, as a result of underinvestment in transportation, in the following five components: Transportation Insecurity, Climate and Disaster Risk Burden, Environmental Burden, Health Vulnerability and Social Vulnerability. It is designed to complement the [CEJST Tool](#) by providing users deeper insight into the Transportation disadvantage component of CEJST, and the ETC Explorer's Transportation Insecurity component, which will help ensure the benefits of DOT's investments are addressing the transportation related causes of disadvantage. USDOT's ETC Explorer is not a binary tool indicating whether a census tract is considered disadvantaged; it is a dynamic tool that allows every community in the country to understand how it is experiencing burden that transportation investments can mitigate or reverse.

Appendix B: Definition of high crash locations

High crash locations are generally defined and identified in local planning documents (e.g., roadway safety plans). There are online tools for identifying high-risk crash locations. Below are a few options, but others may be used as well with justification.

- [Minnesota Crash Mapping Analysis Tool](#) provides several analytical tools that allow users to assess crashes with 10-year rolling crash data. Applicants may need to coordinate with MnDOT District traffic staff to access the data.
- [Suitability for the Pedestrian and Cycling Environment \(SPACE\) Tool](#) combines many indicators, both sociodemographic and transportation related, that indicate the extent to which a community is suitable for active transportation (e.g., walking and bicycling). This tool is scored on a scale of 0 to 100, with 1 indicating the least suitable and 100 indicating the most suitable. One of the criteria for this tool is the safety risk of intersections for active transportation users. As an example, this can be used to showcase an area of high crash risk for non-motorized users. More details on SPACE tool use and score methodology can be found [here](#).

Appendix C: Definition of localized air quality improvements

Localized air quality improvements occur when lower quantities of harmful pollutants are emitted and therefore health outcomes for the community improve. These pollutants can include, but are not limited to:

- Fine particulate matter (PM 2.5)
- Particulate matter (PM-10)
- Oxides of nitrogen (NO_x) and volatile organic compounds (VOCs), which contribute to ozone formation
- Carbon monoxide (CO)

Most projects that reduce carbon emissions will also reduce localized air pollution, including projects that replace conventional vehicles with zero emission vehicles (ZEVs) and projects that reduce motor vehicle travel through mode shifts to walking, bicycling, transit and other options. As a result, the level of air pollutant emissions reduced may either be analyzed quantitatively or provide a qualitative discussion of how the project will reduce emissions, particularly in areas with high asthma rates.

To identify areas with high asthma rates, the [EJ Screening Tool](#) can be used. This tool has a metric for assessing asthma rates in communities. More information on the tool and methodology can be found [here](#). This tool provides information normalized to both the national and state level. Figures C1 and C2 show the Asthma Rates for the MSP metro area and the state of Minnesota which applicants may use if desired.

Figure C1: Asthma rates in the Minneapolis St. Paul area, EJSREEN 2024

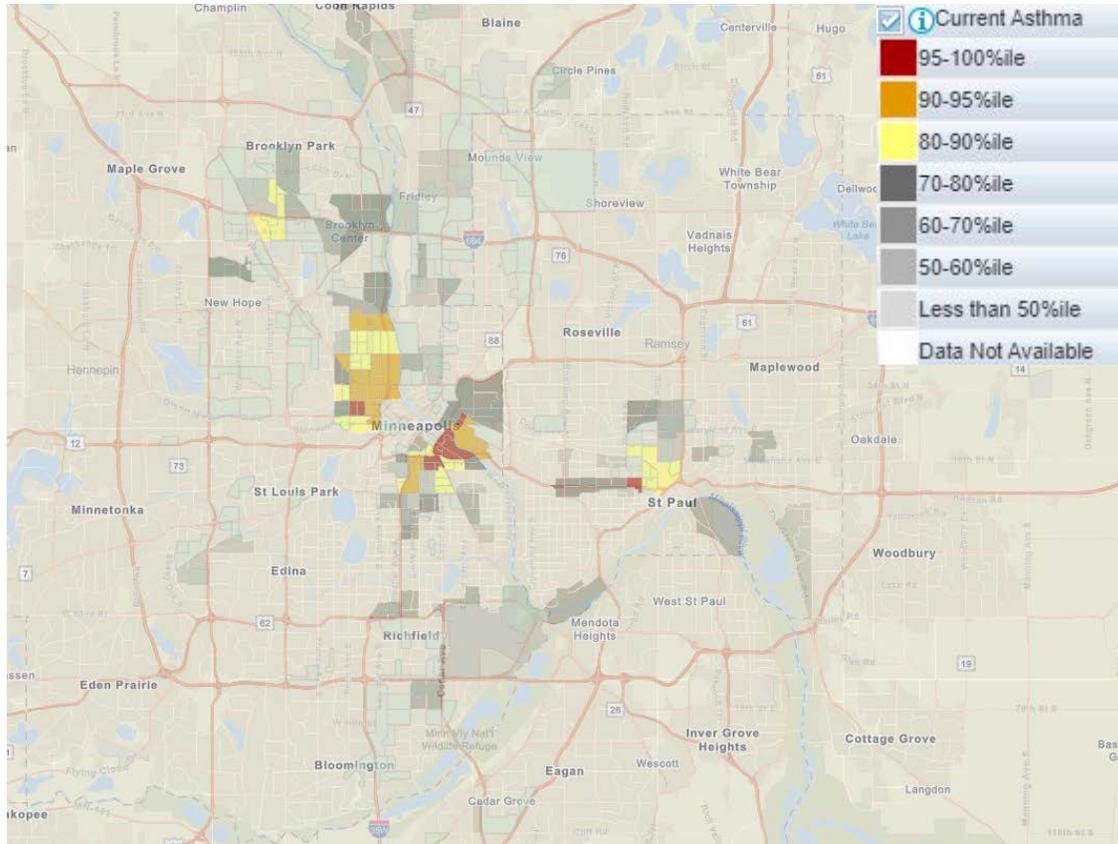


Figure C2: Asthma Rates in Minnesota, EJSOREN 2024

