

Purpose: Tool for consistent ranking requests to the Safe Streets Madison program

Objective: Develop a ranking scheme that is consistent with the two priorities of the Safe Streets Madison program:

1. Implement traffic safety measures in a fair and equitable manner to eliminate traffic deaths and serious injuries on city streets.
2. Improving connectivity by closing gaps in the city's pedestrian bicycle (ped/bike) network to ensure that it is accessible for all ages and abilities.

Additional considerations are the possibility of funding small requests that can easily be addressed. Further, ranking criteria need to be well defined, measurable, and when possible avoid requiring excessive effort in collecting data for them. Finally, the process and its outcomes must incorporate racial equity.

Step 1

One way to achieve these objectives is a two-step process: The first evaluation step assess

- a) Is the request part of the Vision Zero High Injury Network?
- b) Is the request at an identified gap in the walk/bike network?

Question for TCS: Should equity require a separate evaluation step?

If we assume that the processes that identified the High Injury Network and walk/bike network already include an assessment of racial equity, maybe no separate evaluation is necessary. Making this assumption seems questionable, though, and therefore it appears advisable to add racial equity and environmental justice in the first step of the evaluation process:

- c) Is the request located in an environmental justice area, or does the request affect a large proportion of residents with a high social vulnerability index?

Requests that fit none of the three criteria will not advance to the second step. However, staff would assess, using their professional judgement, whether these requests can be resolved with the small amount of money set aside for this purpose or without additional capital expenditure (e.g. remove vegetation blocking sightlines; repair existing streetlight, adjust road marking schedule).

Requests that fit either or both criteria in step 1 will receive more extensive evaluation in step 2, described below.

Question for TCS: Should prioritization take into account how many criteria in step one are fulfilled?

Rather than just using step 1 to winnow the overall number of requests, the three criteria could be used in the final ranking. E.g. if we envision a 50 point scoring system, a request that is on the HIN, would fill a bike/walk gap, and is located in an EJ area would already go into the second step with 10 + 10 + 10 points. Whereas a request that is on the HIN but not a bike/walk gap nor in an EJ area would start with only 10 points.

Issues in step 1

Lack of well-defined pedestrian network

In previous meetings, there has been concern that currently there is no well-established inventory of the bike/walk network and the gaps therein. For walking, the City has an inventory of missing sidewalks. However, Madison in Motion (MiM) identified additional barriers to a walking network (p. 29)

- Uninviting streets that lack sidewalks
- Difficult street crossings due to a lack of safe gaps in traffic
- traffic turning into the pedestrian right of way
- Physical barriers such as highways and at grade rail crossings

These types of barriers have not been catalogued. “The first step in breaking down pedestrian barrier challenges will be to locate areas where pedestrian demand is present, or is likely to occur in the future.” (MiM, p. 44)

Lack of well-defined bicycle network

More work has been done to identify Madison’s bicycle network.

- Madison in Motion provides a map of Existing and Proposed Bikeways (p. 75)
- The City has identified “arterial bike paths” and “bike routes”
- The Greater Madison Area MPO has created a region-wide analysis of the traffic level of stress for people biking

However, the action steps “Conduct a bicycle facility capacity evaluation and plan for the isthmus, in order to determine the appropriate bicycle facility design based on usage” and “Conduct a bikeway facility audit for the City, to help identify implementation priorities for the bicycle route network” have not been completed yet (MiM, p. 74)

Step 2

The evaluation in step 1 will yield more projects than can be funded in a given year, necessitating a second evaluation step. In general, this step should use different ranking criteria than those used for Vision Zero or identifying bike/walk gaps, so as not to overweight those and create duplicate work. Given the issues with a lack of a well-defined walk/bike network described above (which seems unlikely to be resolved by the time that Safe Streets Madison is implemented), the list of criteria used in this step may need to be expanded.

Elements potentially not captured in step 1:

- Pedestrian crossings
 - Crossing distance (taking into account median islands)
 - Crossing control type (unmarked, marked, RRFB, full signal etc.)
 - Distance to nearest controlled intersection
 - Curb cuts and tactile paving
 - Crosswalk compliance/gaps in motor vehicle traffic/crossing delay
- Origin/Destination density with x distance from project

- Transit: Proximity to nearest stop and number of boardings at stop
- Population
- Schools
- Grocery
- Medical facilities
- Parks
- Jobs
- Community centers, libraries, social facilities
- Impact on network if gap were to be closed
 - May be difficult to assess quantitatively
 - Example: Closing a gap at the edge of bike network provides benefit to fewer users than closing a gap at a central node

Assessing potential solutions in prioritization?

An unresolved question has been how the proposed solutions and their feasibility play into prioritization: Is the goal to produce a list of the projects with the largest benefit, no matter what is required to resolve the issue, or should an assessment of feasibility (capital and maintenance, cost, availability of funding, competing interests) be part of the prioritization process? One major downside of taking into account the solution when prioritizing projects is that developing the solution itself may require significant resources.