

FINAL REPORT OF THE CITY OF MADISON JOINT TRANSPORTATION COMMISSION AND TRANSPORTATION POLICY AND PLANNING BOARD TRAFFIC CALMING SUBCOMMITTEE

JULY 13, 2021

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Table of Contents

I.	Executive Summary.....	3
II.	Traffic Calming Subcommittee.....	5
III.	Background.....	6
IV.	Traffic Calming Subcommittee Work Plan.....	11
V.	Traffic Calming Subcommittee Priority Recommendations.....	14
VI.	Exhibit A – Safe Streets Madison Prioritization Tool.....	20
VII.	Exhibit B – Resources for Solutions and Interventions.....	22

I. Executive Summary

In February of 2020 the Transportation Commission (TC) and the Transportation Policy and Planning Board (TPPB) jointly created the Traffic Calming Subcommittee (TCS). TCS was charged with developing and issuing a Final Report that “identifies opportunities to improve outcomes and processes related to: traffic calming, safety enhancements, and pedestrian and bicycle system enhancements in the City of Madison (including, but not limited to, the Neighborhood Traffic Management Program and the Pedestrian Bicycle Enhancements Program), with a goal of equitable distribution of resources that improves safety and encourages increased walking and biking across the city.”

TCS work was delayed by the pandemic, so subcommittee meetings did not begin until July of 2020. TCS met over a series of 29 meetings, and after reviewing significant background information (Sections II and III of this Final Report), outlined and followed its work plan (Section IV of this Final Report), and developed its TCS Priority Recommendations (Section V of this Final Report).

TCS recommends that the TC and TPPB accept this Final Report and recommend adoption of this Final Report and adoption of all the TCS Priority Recommendations by the Common Council. Following are highlights from the TCS Priority Recommendations.

TCS recommends that the following existing programs and projects be consolidated into a single new program called Safe Streets Madison (SSM). It is also recommended that budget accounts and/or funding for these existing programs and projects be consolidated into available funding for SSM:

- Neighborhood Traffic Management Program (NTMP) - NTMP was created by resolution as approved by the Common Council on August 19, 1997, and modified by several subsequent resolutions approved by the Common Council. TCS resolution being proposed to the Common Council related to this Final Report and Priority Recommendations will recommend termination of the NTMP, with its traffic safety functions transferred into the new Safe Streets Madison program.
- Pedestrian Bicycle Enhancements Program
- Safe Routes to School Program
- Vision Zero Projects
- Additional projects identified through SSM may also be funded through the following programs or budgets: Bikeways, Sidewalks, New Street Lights or New Traffic Signals

TCS recommends that SSM resources be focused primarily on projects that directly meet the program’s two key priorities:

- Implement traffic safety measures in a fair and equitable manner to eliminate traffic deaths and serious injuries on City streets.
 - Data from the High Injury Network (HIN) would be used to determine where safety improvements should be made.
 - Improved traffic safety would also help foster walking, biking, and transit in the city.
- Improving connectivity by closing gaps in the City’s pedestrian and bicycle (ped/bike) networks in a fair and equitable manner and to ensure that they are accessible for all ages and abilities.
 - Enhancing the ped/bike networks will encourage and facilitate walking, biking, and transit; and it will improve safety for vulnerable users by creating low-stress networks.

SSM will work in conjunction with Vision Zero, Complete Green Streets, and other initiatives in order to improve traffic safety and make walking, biking, and access to transit safer in Madison.

Equity is a top priority for the City of Madison; and equity is at the forefront of discussions, actions and improvements in all City transportation initiatives and programs. TCS recommends that the SSM program utilize and leverage the robust equity-related data gathered and analyzed by Vision Zero and Complete Green Streets in order to facilitate equitable project prioritization and selection. TCS met with staff from the City's Racial Equity and Social Justice Initiative (RESJI) in order to obtain input and technical assistance regarding application of the RESJI Tools. TCS incorporated conversations regarding racial equity and social justice as each element and aspect of the SSM program was reviewed, discussed, and developed.

TCS recommends that SSM staff should take a proactive look at crash data and the ped/bike network gaps, prioritizing those sources for potential projects. Resident complaints alone should not be the primary driver of program priorities, since a complaint-based system is inherently not equitable. Expanding the current community outreach efforts by staff to connect more fully with residents across all sectors of the City will help achieve the SSM priorities in a fair and equitable manner.

TCS recommends that Transportation Commission (TC) review and approval be required for requests made through the new SSM program. TC should consider all program priorities and evaluation criteria when making decisions regarding project prioritization and funding, using the Safe Streets Madison Prioritization Tool.

Consolidating multiple programs into SSM will create a single more efficient public engagement process. TC review can be used as an anchor point around which public feedback and input can be solicited. Public involvement will be fundamental to the success of the SSM program and should incorporate multiple elements, including consultation with Neighborhood Resource Teams (NRTs) and conventional City public outreach such as issuing press releases and communicating through Alders.

TCS recommends building a toolbox of best practices for potential solutions and interventions based upon National Association of City Transportation Officials (NACTO) and other relevant guidance, with best practices reviewed and updated periodically. Possible solutions should be primarily evaluated based on how effectively they address the problem identified, as well as how cost effective they are projected to be. TCS recommends that all options for potential solutions and interventions should be considered on all types of streets (including collectors and arterials).

There are always priorities to balance when making transportation decisions; and the City will need to recognize and accept certain trade-offs. As the City works to achieve the key priorities of Safe Streets Madison, TCS recommends that policies be developed in Vision Zero, Complete Green Streets, Transportation Demand Management, etc. to address and mitigate the referenced potential barriers to Safe Streets Madison, so the obstacles can be mitigated or removed.

TCS recommends that the new SSM program be adopted and implemented as outlined in this Final Report under the direction of the City Traffic Engineer. TCS also recommends that the City Traffic Engineer further develop the SSM program, including all the TCS Priority Recommendations, and bring the completed program to TC for approval. TCS recommends that the TC perform an oversight role throughout the implementation process; and that the implementation, outreach and education for the SSM program occur in 2021. TCS also recommends that TC be responsible for approving any future changes to the Safe Streets Madison program. TCS recommends that all appropriate City departments and divisions cooperate with the City Traffic Engineer's development and implementation of the new SSM program.

II. Traffic Calming Subcommittee (TCS)

In February of 2020 the Transportation Commission (TC) and the Transportation Policy and Planning Board (TPPB) jointly created the Traffic Calming Subcommittee (TCS). Resolution creating the TCS was approved by the TPPB on February 3, 2020 and by the TC on February 12, 2020.

Purpose of the TCS is shown in the Resolution as follows:

“The Traffic Calming Subcommittee (‘TCS’) shall be responsible for developing and issuing a final report to be presented to the Transportation Commission (TC) and the Transportation Policy and Planning Board (TPPB) that identifies opportunities to improve outcomes and processes related to: traffic calming, safety enhancements, and pedestrian and bicycle system enhancements in the City of Madison (including, but not limited to, the Neighborhood Traffic Management Program and the Pedestrian Bicycle Enhancements Program), with a goal of equitable distribution of resources that improves safety and encourages increased walking and biking across the city.”

Duties of the TCS are shown in the Resolution as follows:

“The TCS shall create a Final Report as described in the Purpose section above. The Final Report is due to the TC and TPPB no later than October 15, 2020, unless otherwise extended by both the TC and TPPB. The TCS is encouraged to regularly update the TC and TPPB on its progress and to provide the TC and TPPB with draft reports, if available, leading up to the issuance of the Final Report.”

TCS was scheduled to begin meeting on March 16, 2020; however, the subcommittee meetings were suspended as a result of the pandemic and the limited IT resources available to support the transition to virtual City public meetings. Since the work of the TCS was delayed due to the pandemic, TC and TPPB approved extending the due date of the Final Report to February 15, 2021 (TC on October 14, 2020 and TPPB on October 19, 2020), to April 15, 2021 (TPPB on January 4, 2021 and TC on January 13, 2021), and to July 15, 2021 (TC and TPPB on March 24, 2021).

TCS began meeting on July 16, 2020; and it met 29 times with excellent attendance by members, alternate members, and staff. In addition, members, alternate members, and staff contributed significant hours outside the meetings researching and preparing assignments in order to complete the work of the TCS in a timely manner.

TCS progress report was presented to a Joint TC/TPPB Meeting on September 30, 2020, with support expressed for outlined goals and components of an effective program. Summary TCS Priority Recommendations were presented to TPPB and TC (on January 4, 2021 and January 13, 2021 respectively); and these recommendations received full support from both bodies. Updates regarding the TCS Priority Recommendations were presented to a Joint TC/TPPB Meeting on March 24, 2021, with full support expressed by both bodies.

TCS members and alternate members would like to express appreciation to staff for organizing the meetings, setting up a TCS folder in Legistar to store subcommittee documents, performing significant research, and providing valuable information and presentations which helped the subcommittee formulate the best solutions and recommendations.

III. Background

As noted on the City of Madison’s website and also stated in MGO Section 3.14 (Department of Transportation), the purpose of the City’s Department of Transportation is to develop and maintain a safe, efficient, economical, equitable, and sustainable transportation system for Madison’s residents and visitors in a way that is consistent with the City’s land use system and regional transportation goals. For decades, the City of Madison has been committed to improving traffic safety, walkability, bikeability, and access to transit for everyone, especially those most vulnerable and dependent users. Following are brief summaries of some of the plans and initiatives which were studied and utilized by the Traffic Calming Subcommittee (TCS) in the completion of its work.

Imagine Madison

Imagine Madison Comprehensive Plan was adopted by the Common Council on August 7, 2018 and addresses related transportation goals and strategies:

- Included in the Guiding Lenses (driving forces behind many of the plan’s recommendations) are references to traffic safety, a multi-modal transportation system, technological changes that affect the transportation system, and equity.
- “Madison will have a safe, efficient, and affordable regional transportation system that offers a variety of choices among transportation modes.”
- “Ensure all populations benefit from the City’s transportation investments.”
- “Expand and improve the City’s pedestrian and bicycle networks to enable safe and convenient active transportation.”
- “Both the City’s pedestrian and bicycle networks have major connectivity gaps that must be filled to further encourage biking and walking as safe and convenient transportation choices.”
- Sidewalk gaps are noted on the “Tier 1 Sidewalks Map.” “These sidewalks are close to schools, transit routes, or along other features that attract pedestrians, and should be constructed without necessarily waiting for adjoining street reconstruction if site conditions allow.”
- Report also encourages continuing a program of “context-sensitive” enhanced pedestrian and bicycle amenities and safety features (such as “raised intersections, rectangular rapid flashing beacons, bumpouts, bike racks, bike boxes, striped/bike lanes, colored crosswalks, pedestrian islands, and/or pedestrian-oriented streetlights, among other things”) in street reconstruction projects.
- “The City’s RESJI tools can help facilitate conscious consideration of equity and examine how communities of color and low-income populations will be affected by proposed City transportation projects.”

Madison in Motion

Madison in Motion was approved by the Common Council on February 28, 2017 and identified several related transportation goals and issues:

- “Madison in Motion, the City of Madison’s Sustainable Transportation Master Plan, provides a framework for future transportation decisions in the City, ensuring a future with improved walkability, bikeability, transit availability.”
- “Bike and pedestrian networks are already popular alternatives, but require strategic interventions to provide network connectivity and further develop walking and biking as viable modes.”
- “Lack of sidewalk connectivity in some areas provides one of several barriers to walking. Other barriers include:
 - Uninviting streets that lack sidewalks;

- Difficult street crossings due to a lack of safe gaps in traffic, or traffic turning into the pedestrian right of way;
- Physical barriers such as highways and at grade rail crossings.”
- “Bus stops that are not located at controlled intersections can also create pedestrian crossing challenges.”
- “Gaps in the bicycle network can create challenges for cyclists in navigating and arriving safely at their destination. Gaps take various forms, from areas without or with poorly-defined bike facilities, to challenging intersections and or corridors that aren’t comfortable to most riders.”

Existing Programs

Existing programs largely focus on answering residents’ complaints related to local streets (one block at a time); so they often do not take a broader perspective. This short-term view may not appropriately balance the needs of all modes of travel, address all safety and connectivity issues in that area/corridor, or consider less traditional types of solutions and interventions.

Observations by members of the TC and TPPB revealed that traffic safety interventions/improvements and pedestrian and bicycle (ped/bike) enhancements/improvements were being addressed through several different programs, and were using various evaluation methods and approval processes.

In light of the 2020 City of Madison transportation-related commitments to Vision Zero, Complete Green Streets, and Metro Transit Network Redesign initiatives, it was viewed as the appropriate time to develop a consistent approach to addressing traffic safety interventions/improvements and ped/bike enhancements/improvements across the city.

Vision Zero

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. In the traditional approach, traffic deaths are inevitable; but in the Vision Zero approach, traffic deaths are preventable. Madison became a Vision Zero Community on July 14, 2020, when the resolution was approved by the Common Council. As approved in the resolution, “the Mayor and the Common Council of the City of Madison commit to a goal of zero deaths and serious injuries that are a result of crashes on City streets by 2030; and that the Vision Zero Action Plan will put equity at its forefront, striving to impact most vulnerable and dependent users of the most dangerous parts of the transportation network to improve the health and well-being of those traveling on streets and paths in the City of Madison. And that, the Plan will use data and community outreach to develop strategies that aim to end death and serious injuries on City streets in the effort to ensure outcomes will be experienced equitably throughout the City.”

Also noted in the July 14, 2020 Vision Zero resolution, “pedestrian and bicycle safety shall be a priority for the City of Madison with updated infrastructure and safety improvements to ensure those most vulnerable on the roads are protected.” As shown on the City’s Vision Zero webpage, “City of Madison Vision Zero initiative strives to improve pedestrian and bike safety for all users throughout the city and improve the identified high injury intersections, all in an effort to prevent avoidable fatal crashes.”

Further information from the City’s Vision Zero webpage includes the following: “Vision Zero uses data to target improvements that will reduce crashes, save lives and address inequities experienced on the street related to crashes. Vision Zero focuses on creating a transportation system that is safe for all neighborhoods and for people of all ages and abilities, no matter how they travel. Data will drive our focus on where to invest time and money to improve the highest injury intersections and roadways. The City of

Madison recognizes the disparity, racial and economic difference in neighborhoods and will focus on improving lower income community roadways included in the high injury network.”

High Injury Network

Data will be provided from the High Injury Network (HIN) to facilitate the Vision Zero strategy to eliminate traffic deaths and severe injuries. HIN will identify where crashes occur repeatedly and why, tracking severe and fatal crashes from all modes of travel (motor vehicles, pedestrians, and bicycles). HIN will identify locations where investments in safety are most urgent, helping prioritize the areas in the city where resources should be invested to help prevent injuries and deaths in the future. As noted in the Vision Zero Madison Strategic Vision Plan, “Most of Madison’s fatal and injury crashes occur on a small network of streets.”

There is a collaborative effort underway between the City of Madison and the Traffic Operations and Safety Laboratory (TOPS lab) in the Department of Civil and Environmental Engineering at the University of Wisconsin-Madison. Data will be provided by the City of Madison; and the TOPS lab will provide the statistical expertise and develop the process to obtain and update the HIN. Two approaches will be taken for the development of the HIN for the City of Madison:

1. Conducting a spatiotemporal analysis of crash locations in relation to roadway facilities in the network
2. Introducing crash prediction models and rigorous statistical methods to assess the degree of safety of roadway facilities in the network.

Complete Green Streets

On December 15, 2009, the Common Council approved a resolution reaffirming the City of Madison’s commitment to Complete Streets, which indicates, “Complete Streets is a national movement to ensure that streets are designed to enable safe access for all users, pedestrians, bicyclists, motorists and transit riders, of all ages and abilities, to be able to move safely along and across the street. Madison has a long history of following complete streets concepts without naming these as such. This resolution reaffirms the City’s commitment to these concepts.”

On September 1, 2020 the Common Council approved a resolution authorizing the Mayor to enter into an 18-month Complete and Green Streets contract with a consultant; and as noted in the RFP the consultant will “develop a policy document which will help Madison’s policy makers assign priorities in the distribution of right of way. The policy document should consider network connectivity, location context and green streets priority areas.” As noted in the RFP, “Anticipated outcomes of the study and policy document include:

- Establishing a modal hierarchy.
- Developing a street typology that addresses modal function of streets, with the goal of providing a complete network for each mode. The typology should identify how modes are prioritized by street within the available right of way. The typology is meant to acknowledge, yet be independent, of building and land use character. Parking and loading needs are a part of the consideration.
- Establishing the types of facilities that would be appropriate for the different street typologies. (Note, typical sections are not required.)
- Establishing recommendations for areas within the city where distributed green infrastructure (DGI) has been determined to be of greater importance in the allocation of right of way as a result of the storm water management studies that are currently underway by City Engineering. This may include providing a methodology for deciding in what context high cost treatments should be considered, and where demonstration off-site measures may be considered.

- Establishing areas within the city tree canopy has greater importance in the allocation of right of way and expenditure of funds. For undeveloped areas, determining optimal right of way dedications that balance distributed green infrastructure, street function/typology, and land use density.”

As noted on the Complete Green Streets website: “Streets in Madison move people, but are also our largest public spaces. Neighbors, business owners, bicyclists, transit users, and the health of our streams and lakes all have a stake in how that public space is allocated.” “Complete Streets are for everyone, no matter who they are or how they travel. There is no one design of a Complete Street but instead each street considers the specific context of the community, neighborhood and street. A complete street is designed and operated in a way that prioritizes safety, comfort and access to destinations for all people who use the street. Green streets are part of healthy, equitable urban design that views streets as vital public spaces. Incorporating green elements into streets improves mental and physical health through better air quality, valuable shade and beautification and contact with nature in areas where access to parks is limited. Green infrastructure is also part of designing for resilience and is critical for climate change mitigation and adaptation.”

How public input can influence Complete Green Streets:

- Identify priorities for a complete network of streets to support all types of travel and build a more sustainable city
- Build community support for innovative ideas
- Guide future street project designs and understand community values to better inform decision-making
- Ensure improvements are applied across the City equitably
- Ensure green improvements like trees and rain gardens are made in the most impactful places.

Let’s Talk Streets

Madison is working on several initiatives related to street design and operation in 2021 (Vision Zero, Complete Green Streets, and the TCS initiative); and these projects will impact: the way the City makes decisions about streets in the future; how streets are designed; who streets serve; how streets are used; and how to make streets safer. So the City is performing coordinated engagement for these transportation projects seeking feedback from residents regarding their experiences with Madison streets and input regarding what Madison streets should look like.

According to the Let’s Talk Street website, “With significant growth and development, rising concerns about safety, and increased awareness of disparities, we need public input to help us define our community’s transportation values and priorities, in order to ensure that these studies reflect those values. We want these future decisions to be rooted in shared community values.”

Launch events occurred in mid-June 2021. Outreach will be conducted through multiple channels in order to be inclusive. Let’s Talk Streets survey is open to everyone, with a link posted on the Let’s Talk Streets website.

Metro Transit Network Redesign Study

Since improved transit availability is one of our goals in Madison, improving access to transit is a companion goal. It will be important to take Metro Transit’s redesigned network (planned for 2022-2023 implementation) into account as decisions are made on solutions and interventions to improve traffic safety, and to improve connectivity and enhance the City’s ped/bike networks.

As noted on the Metro Transit website, “The Metro Transit Network Redesign aims to create a new system of bus routes to better meet the needs of Madison area residents and businesses. The network redesign is balancing a number of important goals:

- Simplify service
- Reduce travel times
- Increase ridership
- Reduce vehicle miles traveled
- Improve service for underserved and disadvantaged communities
- Improve evening and weekend service
- Complement the East-West Bus Rapid Transit route.”

IV. Traffic Calming Subcommittee (TCS) Work Plan

Developing the Work Plan

Traffic Calming Subcommittee (TCS) developed its initial Work Plan, and then updated it as appropriate throughout the process:

- Review the current programs and identify what is working, where there are issues, and where there are opportunities for improvement
- Research and study information on programs from other cities
- Consider equitable distribution of resources (where have investments been made; and where should investments be made)
- Importance of public input, participation, and transparency
- Establish priorities and connect with Vision Zero and Complete Green Streets
- Remember to view traffic safety and ped/bike connectivity from a broader perspective (i.e. not block by block), and consider the impact on all modes of travel (i.e., negative impact of speed humps on EMS, Fire, and bus routes)
- Should existing programs be maintained and modified, or should a new program be created
- Focus on deliverables, and draft specific priority recommendations

Goals of an Effective Program

TCS identified the primary goals of an effective program to be used in guiding its work:

- Outcomes focused (improves safety and encourages walking, biking, and transit)
- Equitable (all ages and abilities, all areas of the city, all kinds of roadways)
- Good public process/access (transparency, accessibility, inclusivity, good outreach and engagement)
- Efficient and cost-effective
- Interventions should be considered for areas/corridors rather than block by block
- Priorities should be aligned with Vision Zero and Complete Green Streets Initiatives

Elements of an Effective Program

TCS identified the major elements of an effective program to be used in the next phase of its work:

- How to get requests/issues into the program
- Evaluating requests and determining solutions/interventions
- Prioritizing recommended interventions
- Public input
- Decision making
- Implementation
- Evaluating the effectiveness of individual interventions
- Funding
- Assessing and reviewing the program to determine what changes might be needed in the future

Current Programs

TCS reviewed the current programs, with primary focus on the Neighborhood Traffic Management Program and the Pedestrian Bicycle Enhancements Program.

- Staff reviewed current program requirements, timelines, ranking evaluation criteria, recent projects, and distribution of projects across the city over the past nine years.
- Flow charts were created by staff to demonstrate how requests flow through the programs.

- Staff was asked to provide a listing of elements they felt were critical to include in the new program.
- Staff presented a demonstration of CityWorks, which is currently used to track and map requests.
- 2021 budget data was reviewed for all related program and project accounts, with significant discussion regarding which programs and projects should be included in the new program.

Vision Zero, Complete Green Streets, Let’s Talk Streets, and the Metro Transit Redesign Initiatives

In light of the City of Madison transportation-related commitments to Vision Zero, Complete Green Streets, and the Metro Transit Network Redesign Study, TCS members needed to ensure that they were familiar with each of these initiatives and how they impact moving toward the goals of improved traffic safety and complete low stress all ages and abilities ped/bike networks in Madison.

Since Madison is working on several initiatives related to street design and operation in 2021 (Vision Zero, Complete Green Streets, and the TCS initiative), the City is using Let’s Talk Streets to perform coordinated engagement to seek feedback from residents regarding their experiences with Madison streets and input regarding what Madison streets should look like.

Each of these initiatives was summarized in the Background Section of this Report.

Racial Equity and Social Justice Initiative

On March 4, 2021, TCS met with staff from the City’s Racial Equity and Social Justice Initiative (RESJI) in order to obtain input and technical assistance regarding application of the RESJI Tools. RESJI best practices were discussed at length and links to the RESJI tools were provided for TCS members to review and utilize as the new program is developed and refined. Neighborhood Resource Teams (NRTs) are currently being used by staff in Traffic Engineering to help connect with the voices from portions of our community not always heard directly at the City’s Boards, Committees and Commissions (BCCs); and NRTs were emphasized as an excellent resource for the new program. In order to be fair during the identification of safety issues, the prioritization of projects, and the decision making process in the new program, the City needs to bring more voices to the table. In addition, the City should strive to hear from residents not traditionally heard, using all methods available for those connections. As noted in the RESJI Process Guide, “this is not a prescriptive or linear process;” so the TCS incorporated conversations regarding racial equity and social justice as each element and aspect of the SSM program was reviewed, discussed, and developed. In addition, after finalizing its draft priority recommendations, TCS devoted another meeting on July 1, 2021 to discussions regarding racial equity and social justice in order to make sure this important perspective was appropriately considered and addressed in the TCS Priority Recommendations. TCS members utilized the Racial Equity and Social Justice Tools in order to perform this final review; and recommended additions and revisions were made.

Desirable Level of Safety on Our City Streets

TCS members watched the video Fire Trucks and Vision Zero from the National Association of City Transportation Officials (NACTO) website and reviewed the related FAQ before engaging in a lengthy discussion at the TCS about the desirable level of safety versus the level of danger on the City’s streets; and what traffic safety interventions and ped/bike enhancements could be implemented on all streets including emergency service routes. Should Madison design its streets and plan traffic safety measures using the traditional assumptions for large fire trucks and emergency response parameters or should more innovative alternatives be considered? What is the appropriate balance between the priorities of improved traffic safety (i.e. “skinny streets” and “slow streets”) and current Madison Fire Department (MFD) and Emergency Medical Services (EMS) response parameters? How can the Madison Fire Department’s/Emergency Medical Services’ objections to certain traffic safety measures (such narrowing streets, installing speed

humps, etc.) on EMS routes be mitigated, so Madison can consider the best street designs that promote optimal improvement in traffic safety? Who should make the final determination as to whether streets can be narrowed, speed humps installed, etc. on EMS routes? Where specifically are the primary and secondary EMS routes located in the City? How will Vision Zero and Complete Green Streets address these issues?

As TCS members discussed the desirable level of safety on our streets and the often competing priorities, the conversation evolved into a discussion about potential barriers to the new SSM program. As a result, a section was added to the Final Report summarizing potential barriers to Safe Streets Madison.

Developing the TCS Priority Recommendations

TCS developed the first draft of its Priority Recommendations in December 2020; and these recommendations were refined and enhanced as each element of the new program was reviewed, discussed and finalized.

Research on Programs in Other Cities

Staff researched and prepared presentations on traffic calming and related programs in other cities, including information on goals/objectives/priorities, design/process, funding, measures of success, community feedback, and other factors the subcommittee members should consider in their work:

- Seattle, WA (Traffic Calming; Home Zone; Neighborhood Greenways; Safe Routes to School Mini Grant)
- Philadelphia, PA (Traffic Calming & Safety Initiative; Neighborhood Slow Zone Program)
- Boulder, CO (Neighborhood Speed Management Program; Vision Zero Innovation Program; Neighborhood Green Streets)
- Spokane, WA (Traffic Calming Program)
- Nashville, TN (Traffic Calming Program)
- San Francisco, CA (Traffic Calming Program)
- Birmingham, AL (Traffic Calming Program)
- Cambridge, MA (Traffic Calming)
- Fort Collins, CO (Neighborhood Traffic Mitigation Program)
- Ann Arbor, MI (Traffic Calming Program)
- San Antonio, TX (Traffic Calming)
- Eugene, OR (Traffic Calming)
- Portland, OR (Neighborhood Greenway)
- Charlotte, NC (Neighborhood Traffic Management Program)
- Milwaukee, WI (Neighborhood Traffic Management Program)
- Saskatoon, Canada (Traffic Calming – Both Neighborhood-Driven and City-Driven)
- Toronto, Canada (Traffic Calming Program)
- Vancouver, Canada (Traffic Calming)

V. Traffic Calming Subcommittee (TCS) Priority Recommendations

Creation of the New Program - Safe Streets Madison

Traffic Calming Subcommittee (TCS) recommends that the following existing programs and projects be consolidated into a single new program called Safe Streets Madison (SSM). It is also recommended that budget accounts and/or funding for these existing programs and projects be consolidated into available funding for SSM:

- Neighborhood Traffic Management Program (NTMP) - NTMP was created by resolution as approved by the Common Council on August 19, 1997, and modified by several subsequent resolutions approved by the Common Council. TCS resolution being proposed to the Common Council related to this Final Report and Priority Recommendations will recommend termination of the NTMP, with its traffic safety functions transferred into the new Safe Streets Madison program.
- Pedestrian Bicycle Enhancements Program
- Safe Routes to School Program
- Vision Zero Projects
- Additional projects identified through SSM may also be funded through the following programs or budgets: Bikeways, Sidewalks, New Street Lights or New Traffic Signals

Safe Streets Madison Program Priorities

TCS recommends that SSM resources be focused primarily on projects that directly meet the program's two key priorities:

- Implement traffic safety measures in a fair and equitable manner to eliminate traffic deaths and serious injuries on City streets.
 - Data from the High Injury Network (HIN) would be used to determine where safety improvements should be made.
 - Improved traffic safety would also help foster walking, biking, and transit in the city.
- Improving connectivity by closing gaps in the City's pedestrian and bicycle (ped/bike) networks in a fair and equitable manner and to ensure that they are accessible for all ages and abilities.
 - Enhancing the ped/bike networks will encourage and facilitate walking, biking, and transit; and it will improve safety for vulnerable users by creating low-stress networks.

SSM program priorities are designed to be in alignment with other ongoing City initiatives such as Vision Zero and Complete Green Streets.

Equity is a top priority for the City of Madison; and equity is at the forefront of discussions, actions and improvements in all City transportation initiatives and programs. TCS recommends that the SSM program utilize and leverage the robust equity-related data gathered and analyzed by Vision Zero and Complete Green Streets in order to facilitate equitable project prioritization and selection. TCS recommends that the SSM program be implemented in a way that equitably distributes resources based on the program's safety and connectivity priorities and is transparent in all elements of the SSM program.

TCS recommends that the City prioritize street reconstruction in areas of the city which have safety issues (as determined by using data from the HIN) and/or have gaps in the ped/bike networks. In addition, when streets are considered for reconstruction for non-safety reasons such as pavement condition, the City should proactively consider the need for traffic safety improvements and filling gaps in the ped/bike networks.

Balancing Priorities in the Safe Streets Madison Program

SSM will work in conjunction with Vision Zero, Complete Green Streets, the Metro Transit Redesign Study and other initiatives in order to improve traffic safety and make walking, biking, and access to transit safer in Madison. With limited resources available to fund the SSM program, funding will be focused on SSM's two key priorities: 1) implementing traffic safety measures in a fair and equitable manner to eliminate traffic deaths and serious injuries on City streets, using data from the HIN to determine where safety improvements should be made; and 2) improving connectivity by closing gaps in the City's pedestrian and bicycle (ped/bike) networks in a fair and equitable manner and to ensure that it is accessible for all ages and abilities.

Addressing known safety issues as identified through the HIN can include instituting interventions to reduce motor vehicle speeds on our roadways as an important component of SSM projects. However, while speeding often exacerbates safety concerns, it is only one of many causes contributing to these known safety issues. So addressing speed alone will not be sufficient to achieve the two key priorities of SSM. SSM projects will consider potential solutions drawing from a large toolbox of resources; and the Transportation Commission (TC) will prioritize various interventions based on what is most efficacious as well as most cost effective.

Since SSM will assign the highest priority to projects addressing known safety issues as identified through the HIN, as well as ped/bike connectivity issues, SSM should not be expected to address the sole issue of speeding on a residential street. However, safety improvements or interventions on a residential street may be considered in the SSM program if the location is identified as part of the HIN or if the request is submitted identifying known safety traffic issues and/or gaps in the ped/bike networks. SSM staff will also consider temporary or low-cost speed reduction tools to improve traffic safety on residential streets until more permanent solutions can be considered or initiated.

SSM staff will analyze safety and connectivity issues from a broader zone perspective in order to mitigate any dispersal impact. For example, if measures to address speeding are initiated on a residential street, speeding typically migrates to an adjacent or nearby street and transfers the speeding problem rather than resolving it. Therefore, speeding on residential streets needs to be addressed through this broader perspective.

TCS recognizes that there are motor vehicle speeding issues on most of our City's streets. One of the goals of Vision Zero Madison is to cultivate a driving culture that prioritizes safety over speed, recognizing that education and commitment from the general population is needed to change current behaviors. TCS supports "20 is Plenty," the Vision Zero initiative being launched by the City which should help reduce motor vehicle speeds by changing the speed limit on residential streets citywide from 25 MPH to 20 MPH. In addition, as residential streets are resurfaced over the longer term, space on the street can be reallocated and crossings improved. During reconstruction of any residential streets, those streets will be redesigned to improve safety and connectivity and accommodate all ages and abilities. Madison's Complete Green Streets initiative is also addressing speeding on our City streets as it works to set a consistent vision for streets with safe access and movement for users of all transportation modes and for all ages and abilities.

Prioritizing and Evaluating Requests in the Safe Streets Madison Program

TCS recommends that requests for traffic safety improvements continue to be accommodated through all current channels (i.e., phone calls, emails, social media, CityWorks, Alders, City staff, events, neighborhood meetings, Neighborhood Resource Teams, community organizations, visual observation, etc.).

However, TCS also recommends that SSM staff should take a proactive look at crash data and the ped/bike network gaps, prioritizing those sources for potential projects. TCS feels that previous programs largely focused on local streets and did not necessarily address the most pressing safety and connectivity issues.

Resident complaints alone should not be the primary driver of program priorities, since a complaint-based system is inherently not equitable. Expanding the current community outreach efforts by staff to connect more fully with residents across all sectors of the City will help achieve the SSM priorities in a fair and equitable manner. TCS recommends that SSM program staff proactively engage with the Neighborhood Resource Teams, the Alders, and other neighborhood contacts, in order to help identify areas where there are serious traffic safety concerns, where residents do not feel safe walking and/or biking, and gaps in the low stress all ages and abilities ped/bike networks. Strategies used should recognize that not all residents have equal access to technology, equal knowledge of City programs/processes, or equal access to City staff, Boards, Committees and Commissions. SSM program staff should be transparent in all aspects of the program, so residents can understand current program priorities and the decision making process.

TCS recommends that Transportation Commission (TC) review and approval be required for requests made through the new SSM program. TC should consider all program priorities and evaluation criteria when making decisions regarding project prioritization and funding. As requests are evaluated, it is important to view traffic safety and ped/bike connectivity requests from a broader perspective (i.e., not just block by block) and to consider the impact on all modes of transportation.

Staff should bring requests under the SSM program to the TC for review and approval at least twice each year. Requests may be brought forward by staff to TC more frequently as appropriate. Relevant construction contract timing constraints should be considered when scheduling TC review and approval.

Consolidating multiple programs into SSM will create a single more efficient public engagement process. TC review can be used as an anchor point around which public feedback and input can be solicited. Public involvement will be fundamental to the success of the SSM program and should incorporate multiple elements, including consultation with Neighborhood Resource Teams (NRTs) and conventional City public outreach such as issuing press releases and communicating through Alders. TCS recommends that the degree and mechanism for public involvement be commensurate with the scale, impact, and type of project under consideration.

TCS recommends that some prescreening be done by staff to determine if the project would meet program priorities. For projects which prescreen as meeting program priorities, a survey of stakeholders should be considered. It should be noted that TCS recommends discontinuing the current formal postcard voting process utilized in the Neighborhood Traffic Management Program, since it solicits feedback from a very narrow group. Stakeholders should be viewed as a broad group of potentially affected individuals and organizations and not merely neighborhood residents immediately adjacent to the project location.

TCS recommends that staff utilize the SSM Prioritization Tool spreadsheet (as shown in Exhibit A) to prioritize potential projects, using data from the HIN and other sources. As the SSM Prioritization Tool is used by staff and the TC, the tool will be enhanced and further developed appropriately to best reflect the priorities of the program. Prior to implementing any updates to the SSM Prioritization Tool, staff will bring these proposed changes to the TC for approval. Staff and members of the TC should consider the following as they prioritize and evaluate SSM requests, with at least 50% of SSM annual funding dedicated to addressing known safety issues:

- Funding projects to address or eliminate documented safety issues on roadways most impacted by injuries and fatalities, as determined by data from the HIN

- Funding projects which help fill gaps in the pedestrian network, with the ultimate goal of creating low stress facilities that meet the needs of people of all ages and abilities
- Funding projects which help fill gaps in the bike network, with the ultimate goal of creating low stress facilities that meet the needs of people of all ages and abilities
- Multiple alternatives should be considered for an issue (i.e. interventions that offer different results, have different costs, etc.)
- Expected impact of the proposed solution on safety issues (i.e. estimated 0-100% resolution; with the goal to achieve 100% resolution if possible and cost effective)
- Expected impact of the proposed solution on pedestrian gap issues (i.e. estimated 0-100% resolution; with the goal to achieve 100% resolution if possible and cost effective)
- Expected impact of the proposed solution on bike gap issues (i.e. estimated 0-100% resolution; with the goal to achieve 100% resolution if possible and cost effective)
- Environmental justice and social vulnerability factors
- Cost benefit analysis for both large and small requests
- It should also be determined if it would be more efficient to defer a request and address the issue(s) in conjunction with a planned upcoming project.

As is current practice, different levels of problem solving would be utilized. As appropriate, staff will recommend using pilots or “quick builds” to test potential solutions using less expensive materials such as construction barrels, paint, etc. Smaller and easily resolved issues would be brought forward by staff as standalone projects which could be implemented immediately. Sometimes a series of potential interventions might be planned in phases or implemented over several funding periods (i.e., an iterative approach). Certain requests would be more efficiently addressed by incorporating recommended interventions into another planned project.

TCS recommends using the existing CityWorks program to track and display SSM requests on the City’s website.

Determining Solutions and Interventions in the Safe Streets Madison Program

TCS recommends building a toolbox of best practices for potential solutions and interventions based upon National Association of City Transportation Officials (NACTO) and other relevant guidance, with best practices reviewed and updated periodically. Possible solutions should be primarily evaluated based on how effectively they address the problem identified, as well as how cost effective they are projected to be. TCS recommends that the SSM program goal be 100% resolution of issues as often as possible. In addition, potential solutions should take racial equity and social justice factors into account, including the affordability of any special assessments and the ongoing maintenance considerations.

Whereas in the past, programs such as the Neighborhood Traffic Management Program have primarily relied on a narrow set of interventions such as speed humps and traffic circles, TCS recommends that all options for potential solutions and interventions should be considered on all types of streets (including collectors and arterials). This toolbox includes solutions which previously have not been considered because of concerns about and/or potential impacts on: motor vehicle level of service; access for fire/EMS; accommodating buses, snow plows, semis, garbage trucks, etc.; parking; acceptance by local residents; and capital and maintenance costs (i.e. lack of available funding).

Some examples of interventions that have not typically been considered or implemented include:

- Reducing turning radii at intersections to slow turning traffic
- Removing slip lanes at intersections to eliminate conflict points
- Using motor vehicle diverters to eliminate through-traffic and reduce traffic volumes

- Considering narrower street cross-sections to reduce speeds (“skinny streets”)
- Creating pinch-points (“chokers”) where two motor vehicles going in opposite directions cannot easily pass each other
- Removing on-street parking to improve sightlines (“daylighting”) or to add more space for walking or biking facilities
- Reducing the number of lanes on multi-lane roadways to reduce speeds and/or to create additional space for walking and biking facilities
- Creating physically protected bike lanes using flex points, barrels, or other low-cost separations
- Converting one-way couples into two way streets

Resources for Solutions and Interventions which can be utilized for improving traffic safety and enhancing ped/bike connections are shown in Exhibit B.

Potential Barriers to Safe Streets Madison

As noted in the discussions regarding the desirable level of safety on our City streets, as well as the sometimes competing priorities when considering different traffic safety interventions and ped/bike enhancements, the following potential barriers or obstacles to Safe Streets Madison were identified:

- Motor vehicle level of service (willingness to accept delays and a reduction in motor vehicle throughput)
- Access for fire/EMS
- Accommodations for buses, snow plows, garbage trucks, and other large vehicles
- Motor vehicle parking and other competing priorities for the right of way (ROW)
- Storm water management
- Capital costs and ongoing maintenance costs (i.e. lack of available funding)
- Lack of acceptance by local residents
- Jurisdictional issues (Wisconsin Department of Transportation, Wisconsin Office of the Commissioner of Railroads, adjoining municipalities, etc.)

There are always priorities to balance when making transportation decisions; and the City will need to recognize and accept certain trade-offs. As the City works to achieve the key priorities of Safe Streets Madison, TCS recommends that policies be developed in Vision Zero, Complete Green Streets, Transportation Demand Management, etc. to address these potential barriers so any obstacles can be mitigated or removed.

Implementation of the Safe Streets Madison Program

TCS recommends that the new SSM program be adopted and implemented as outlined in this Final Report under the direction of the City Traffic Engineer. TCS also recommends that the City Traffic Engineer further develop the SSM program, including all the TCS Priority Recommendations, and bring the completed program to TC for approval. TCS recommends that the TC perform an oversight role throughout the implementation process; and that the implementation, outreach and education for the SSM program occur in 2021. TCS also recommends that TC be responsible for approving any future changes to the Safe Streets Madison program. TCS recommends that all appropriate City departments and divisions cooperate with the City Traffic Engineer’s development and implementation of the new SSM program.

Let’s Talk Streets initiative is gathering important input from the public to help define Madison’s transportation values and priorities, specifically related to Vision Zero, Complete Green Streets, Traffic Calming and Pedestrian/Bicycle Enhancements, and other ongoing decisions about street design and traffic operations. Let’s Talk Streets website indicates that the current Traffic Calming and Pedestrian/Bicycle

Enhancements programs are under review by the TCS to improve equitable project distribution and to ensure that projects align with the most pressing safety needs. Feedback obtained through Let's Talk Streets will provide valuable information to help enhance the SSM program.

TCS recommends utilizing a robust public education and outreach process to help facilitate communication about the transition to the new SSM program. TCS recommends developing talking points and a one page summary of SSM, in order to provide consistent communications about the new program through the following channels:

- City of Madison Press Releases
- Alders
- City Staff, Boards, Committees and Commissions
- Neighborhood Meetings
- Neighborhood Resource Teams
- Community Organizations
- Events
- Social Media and other Online Communications
- Phone Calls and Emails to Answer Questions
- New Safe Streets Madison Website (as developed)

TCS recommends periodic review and assessment to evaluate the need for any enhancements to the SSM program. TCS also recommends that staff evaluate the effectiveness of individual interventions after project completion (on a targeted basis).

VI. Exhibit A – Safe Streets Madison Prioritization Tool

The Safe Streets Madison Prioritization Tool has been developed to help guide the evaluation, prioritization, and selection of projects that will improve traffic safety issues and close gaps in our all ages and abilities walking and biking networks.

The tool weights those projects highest that are expected to produce the most improvement at the lowest cost in these three areas: High Injury Network, Pedestrian Network Gaps, and Bicycle Network Gaps.

Columns C-E (High Injury Network, Ped Gap Issue, Bike Gap Issue) are meant to account for the severity of the issue and level of impact on users.

Columns G-I (Expected impact on safety, Expected impact on ped gap, Expected impact on bike gap) are meant to account for the improvement of these issues that is expected based on the proposed intervention.

Column J (Environmental justice area/social vulnerability impact) gives additional weight to projects that are expected to have a higher positive impact on communities of color and low-income communities.

Column K is the sum total of the weight of each identified issue (columns C-E) times the expected improvement (columns G-I) times the equity factor (column J) with High Injury Network (column C) being weighted twice as much as both Ped and Bike Network gaps (columns D&E).

Column L is the projected cost of the project.

Column M is the total benefit of all categories times equity factor, divided by cost.

This tool is meant to provide a relative sorting of potential projects that will serve as a basis for staff recommendations and final determination by the Transportation Commission. Additional factors such as already planned projects should be considered for final determination.

Descriptions, point ranges and calculations are shown on the next page of this Final Report.

	Description	Point range and calculation
Location	Either the point/block of biggest concern, or a broader zone if applicable depending on issue. Could include alternatives for the geographic scope (smaller or larger area to be addressed).	n/a
Issue/concern	Brief, qualitative description of what the issue is (e.g. "Part of high injury network, with frequent pedestrian injuries in crosswalks").	n/a
High injury network	Is the location on the Vision Zero High Injury Network?	0-10 (higher score indicates more severe safety issue)
Pedestrian gap issue	To what extent is the location a gap in the pedestrian network?	0-10 (higher score indicates more severe/important pedestrian gap)
Bike gap issue	To what extent is the location a gap in the all ages all abilities bike network?	0-10 (higher score indicates more severe/important bike gap)
Proposed solution(s)	Multiple alternatives can be proposed when they have different expected impacts and/or different costs. When multiple solutions are proposed, each will be ranked separately on the criteria below.	n/a
Expected impact on safety	To what extent will the proposed solution resolve the identified safety issue?	0-100%, with 100% completely resolving the issue
Expected impact on pedestrian gap	To what extent will the proposed solution close the identified pedestrian gap?	0-100%, with 100% completely resolving the issue
Expected impact on bike gap	To what extent will the proposed solution close the identified bike gap?	0-100%, with 100% completely resolving the issue
Environmental justice area/social vulnerability impact	To what extent do the identified issues affect environmental justice and socially vulnerable areas or populations?	Low impact: 100% Medium impact: 115% High impact: 130%
Total benefit	Sum/product of above criteria.	(Safety score * safety impact + ped gap score * ped gap impact + bike gap score * bike gap impact) * environmental justice impact * 10
Total cost	Cost estimate.	In thousands of dollars
Overall cost/benefit		Total benefit / total cost

VII. Exhibit B – Resources for Solutions and Interventions

As described in the section on *Determining Solutions and Interventions*, TCS recommends using a wide variety of solutions and interventions to achieve the Safe Streets Madison program’s goals. The resources listed below reflect that variety. However, they should not be seen as exhaustive, and they periodically need to be reviewed and updated to reflect up-to-date research and best practices. There is some overlap between the documents, and staff should use their judgment to assess which solutions and interventions are used for a specific project.

Locally, the Greater Madison MPO has posted a report on Pedestrian/Bicycle Facilities, Policies, and Street Standards, which details locally-adopted requirements along with national recommendations and best practices to help local planning and engineering staff and elected/appointed officials make informed decisions regarding development and design standards, and to give them tools to make roadways safer for all users.

- Greater Madison MPO. *Pedestrian/Bicycle Facilities, Policies, and Street Standards: Review of Community Requirements in the Greater Madison MPO Planning Area and Recommended Best Practices*, May 2021.

https://www.greatermadisonmpo.org/planning/documents/PedestrianFacilityRequirementsandPoliciesandStreetStandards_FINAL_5_25_21.pdf

Madison is an Affiliate Member City of NACTO, the National Association of City Transportation Officials. NACTO has published a number of guides on urban street design:

- *Urban Street Design Guide*. 2013. Island Press. <https://nacto.org/publication/urban-street-design-guide/>
- *Urban Bikeway Design Guide* (2nd edition). 2014. Island Press. <https://nacto.org/publication/urban-bikeway-design-guide/>
- *Don't Give Up at the Intersection: Designing All Ages and Abilities Bicycle Crossings*. 2019. <https://nacto.org/publication/dont-give-up-at-the-intersection/>
- *Transit Street Design Guide*. 2016. Island Press. <https://nacto.org/publication/transit-street-design-guide/>

Further resources are available from the Federal Highway Administration (FHWA)

- *Traffic Calming ePrimer*, 2017. https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm
- *Course on Bicycle and Pedestrian Transportation*, Lesson 11: Traffic Calming. https://safety.fhwa.dot.gov/ped_bike/univcourse/pdf/swless11.pdf
- *Traffic Calming, Auto-Restricted Zones and Other Traffic Management Techniques: Their Effects on Bicycling and Pedestrians*, 1993. https://safety.fhwa.dot.gov/PED_BIKE/docs/case19.pdf

Finally, the Institute of Transportation Engineers maintains a series of fact sheets on traffic calming measures:

- <https://www.ite.org/technical-resources/traffic-calming/traffic-calming-measures/>