



**Streets for People:  
Detroit Comprehensive Safety Action Plan**

September 14, 2022

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## EXECUTIVE SUMMARY

**Our streets should be safe, welcoming places for all.** Currently in the City of Detroit, that is a vision—not the reality. As of 2020, Detroit’s traffic crash fatality rate per capita is the second highest among large cities in the United States and our pedestrian fatality rate is the third highest. On average, 108 people were killed annually in traffic crashes in Detroit between 2017 and 2021. Our fatal crash average continues to rise steadily and has rapidly climbed during the Covid-19 pandemic, out of pace with the nation and other large cities. This crisis compounds disparities experienced by Detroit’s low-income residents and communities of color face every day.

Reducing and eliminating severe crashes, those that result in incapacitating injuries and death, requires a comprehensive strategy based on [the Safe System approach](#), which Detroit commits to through this Safe Streets and Roads for All (SS4A)-compliant Comprehensive Safety Action Plan (CSAP), an addendum to the Streets for People (SFP) transportation master plan. Like SFP, the CSAP has a plan horizon of ten years but is anticipated to be a living document that the City will update on a rolling basis as new information, partnerships, best practices, technologies, and community priorities emerge. **The CSAP reflects the City of Detroit’s commitment to advance SFP’s “Safety First” value, and it endorses the Southeast Michigan Council of Governments (SEMCOG) goal of eliminating traffic deaths and severe injuries by 2050.**

Following the Safe System approach, we acknowledge that severe crashes are unacceptable, preventable through redundant systems that minimize risk even though mistakes are inevitable, that we have the tools and knowledge to be proactive, and that we share responsibility with the public, the private sector, and our external partners to ensure that when crashes do occur, that they do not result in tragic outcomes. SFP and Detroit’s CSAP are the result of the strong and clear call to action that we heard from our residents, as well as our responsibility to ensure a transportation system and city that is safe for all.

Detroit’s street network was built for a city of nearly two million people, almost three times our current population. Detroiters deserve and demand safer streets. **Over the course of creating SFP, we heard from thousands of Detroiters who stated unequivocally that their number one transportation issue is safety, particularly speeding.** Our wide, low-traffic streets, remnants of another era, are contributing to our traffic safety crisis. Realizing our vision for our streets will require a comprehensive overhaul to meet the needs and activity levels of Detroit as it is today and as we envision it in the future.

We are approaching the issue with the urgency and attention that Detroiters expect. Detroit’s CSAP outlines a citywide approach that will be implemented by multiple departments over the coming years with strategies encompassing Safe Users, Safe Vehicles, Safe Speeds, Safe Streets, and Post-Crash Care with Equity, Dignity, and Transparency as its guide star and through line.

## PROBLEM DEFINITION

### The Nation's Roadway Safety Crisis

Every traffic death and serious injury represents a preventable tragedy with far ranging impacts on individuals, families, and communities. Those who lose their lives in traffic crashes are our loved ones, our children, parents, siblings, neighbors, or co-workers. They are also the people who deliver the goods we all rely on, transport older adults to hospital visits, and those who build and maintain our roads. Losing anyone to a traffic crash leaves all of us less whole, less stable, and has effects that spill over into the health of our communities. According to the Centers for Disease Control and Prevention (CDC), traffic crash deaths in the United States incurred \$55 billion in medical and work loss costs alone in 2018,<sup>1</sup> a number that may only scratch the surface of the true costs that we bear due to traffic deaths. Add to these figures financial and emotional costs and the magnitude of the severe traffic crash burden is an even greater cause for concern and action.

Traffic deaths are rising quickly in the United States, constituting a public health crisis on the nation's roadways. Between 2019 and 2020, traffic deaths rose 7% according to the National Highway Traffic Safety Administration (NHTSA). This was not, sadly, a one-time aberration resulting from the early months of the Covid-19 pandemic. Early estimates of fatalities in 2021 represent a further year-on-year increase of 10.5% - pushing the nation to a 16-year high and representing the largest annual recorded leap in traffic deaths.<sup>2</sup> NHTSA projects that 42,915 people died in traffic crashes in 2021.

The recent spike in national traffic deaths reverses a long decline in crash fatalities, at least for people in cars. For people walking and using assistive devices, matters are only becoming more extreme. Over the last 14 years, pedestrian deaths on US streets and roads have nearly doubled from 4,109 in 2009 to 7,265 in 2021,<sup>3</sup> a 40 year high.<sup>4</sup> This quiet crisis has particularly affected Indigenous, Black, and Hispanic/Latino people. Black Americans are twice as likely to be killed while walking as their white counterparts and Indigenous people are over three times as likely to be killed.<sup>5</sup> Similar racial and ethnic disparities emerge for people biking.<sup>6</sup>

When compared on the international level, the US lags almost all of its western European peers in traffic deaths per capita. The traffic fatality rate per capita in Canada is less than half that of the US.<sup>7</sup> According to analysis by the World Health

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<sup>1</sup> Centers for Disease Control and Prevention. WISQARS (Web-based Injury Statistics Query and Reporting System) [online]. Atlanta, GA: US Department of Health and Human Services, CDC; 2020. Available at <https://www.cdc.gov/injury/wisqars/index.html> Accessed 2 Sep 2020.

<sup>2</sup> <https://www.nhtsa.gov/press-releases/early-estimate-2021-traffic-fatalities>

<sup>3</sup> <https://smartgrowthamerica.org/wp-content/uploads/2022/07/Dangerous-By-Design-2022-v3.pdf>

<sup>4</sup> <https://www.ghsa.org/resources/news-releases/GHSA/Ped-Spotlight-Full-Report22>

<sup>5</sup> Dangerous by Design 2022

<sup>6</sup> <https://www.hsph.harvard.edu/news/press-releases/racial-disparities-traffic-fatalities/>

<sup>7</sup> <https://extranet.who.int/roadsafety/death-on-the-roads/#deaths>

Organization (WHO), the US lacks many of the recommended speed laws and international vehicle standards found in other developed countries.<sup>8</sup>

The crisis is so entrenched that it requires a national response, but there is reason to be hopeful. Through its 2022 *National Roadway Safety Strategy* and the SS4A program, the United States Department of Transportation (USDOT) has adopted the Safe System approach. The Safe System approach, which recognizes that severe crashes are preventable, unacceptable, a shared responsibility between all sectors, and can be mitigated through redundant systems that emphasize proactive response and speed reduction, has been successfully applied internationally, including in Sweden, the birthplace of Vision Zero. Since adoption in 1997, Sweden's Vision Zero policy has contributed to a 50% decline in the number of roadway deaths. In 2020 and 2021, traffic deaths continued to drop in Sweden. In fact, the United States is one of the only developed countries where traffic fatalities are rising.

There are evidence-based practices and policies that can help reverse course. To do so, however, we will need to comprehensively approach traffic deaths and the social factors, built environment, street designs, vehicle standards, and technologies that underly the worsening traffic safety crisis in the United States.

### **Detroit's Roadway Safety Crisis**

The need to adopt a CSAP for Detroit as part of SFP is based in the simple fact that severe traffic crash trends in Detroit mirror and in many ways exceed national ones.

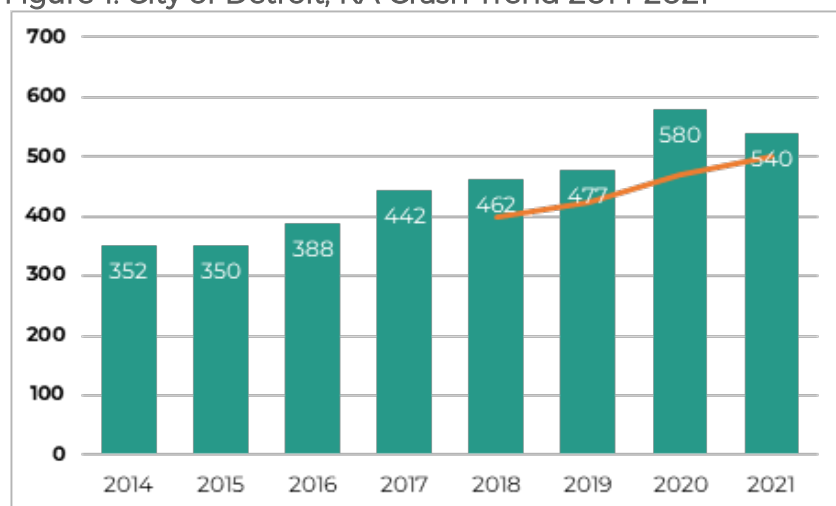
On average, 108 people were killed and 495 people were injured in traffic crashes annually on Detroit's surface streets between 2017 and 2021. The severe crash trends are headed in the wrong direction: the five-year severe crash average continues to rise steadily, as illustrated by the orange line in **Figure 1**. The overall number of people seriously injured or killed increased 47% from 2014 to 2021.

#### **Safety Data Presented in the CSAP:**

Unless otherwise noted, crash analysis conducted for the CSAP uses severe crash data (crashes resulting in incapacitating injuries and/or deaths – also referred to as KA crashes) reported by the Michigan Office of Highway Safety Planning from crash reports recorded by law enforcement agencies. The analysis excludes minor injury and property damage crashes reported by law enforcement in addition to any crashes on freeways. Consistent with standard crash definitions, crash data do not include crashes that occur entirely on private property or do not involve a motor vehicle. Greater detail on severe crash trends is provided in the **High Injury Network and Crash Trends Memo Update**.

<sup>8</sup><https://www.who.int/publications/i/item/WHO-NMH-NVI-18.20>

Figure 1: City of Detroit, KA Crash Trend 2014-2021

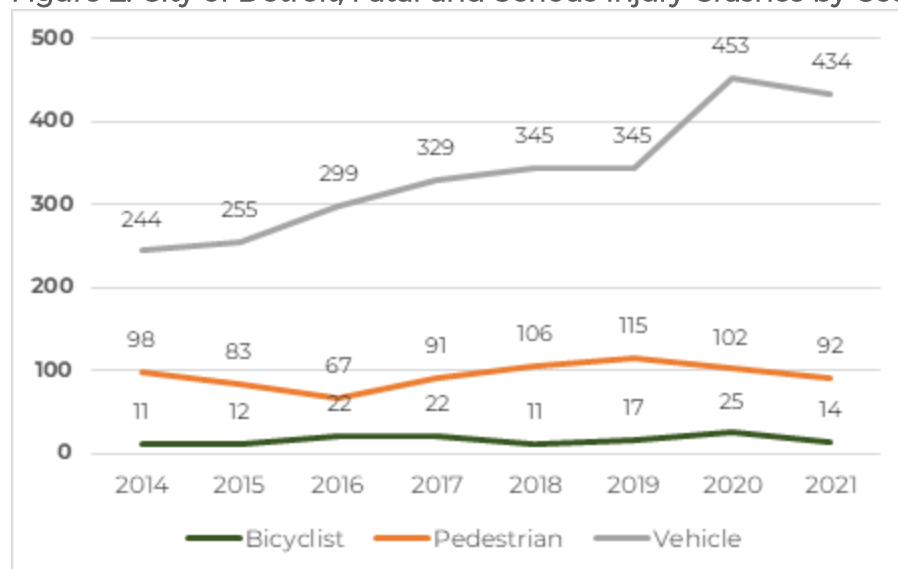


Source: MTCF

Between 2019 and 2020, fatalities on Detroit’s surface streets spiked from 94 to 150, an over 50% increase in just one year, far eclipsing the national trend. With 150 deaths, 2020 was the deadliest year on Detroit’s streets since 2004, the earliest year of data available by the Michigan State Police through the Michigan Traffic Crash Facts (MTCF) portal. Thankfully, fatalities dropped to 123 in 2021, but still reflect a 31% increase when compared to 2019.

Between 2014 and 2021, fatal and serious injury crashes increased on our streets. The break-out by user is shown in **Figure 2**. Crashes resulting in the death of a motorist have led the trend, particularly in 2020 and 2021. In 2021, motorist fatalities and serious injuries are up by almost 100 per year when compared to 2019.

Figure 2: City of Detroit, Fatal and Serious Injury Crashes by User, 2014-2021 C



Source: MTCF

Compared to other major US cities, Detroit is an outlier, at the top of the list for both overall traffic fatalities per capita and pedestrian fatalities per capita as of 2020 based on data reported by NHTSA, the most recent year for which data are available, as shown in **Figure 3**. At 28.71 deaths per 100,000 residents and 6.16 pedestrian deaths per 100,000 residents, we rank second and third, respectively, among other cities over 500,000.<sup>9</sup> Compared to similar statistics from 2017, Detroit’s per capita traffic death rate grew 88% between 2017 and 2020 while the median increase among major cities was 19%. Traffic fatalities tailed off locally in 2021, but even if the rate fell by half, Detroit would remain solidly within the top ten major cities nationally and the only representative from the Midwest.

Figure 3: Crash Fatality Rate by Major US City, 2020

Total Fatalities			Pedestrian Fatalities		
Rank	City	Fatality Rate*	Rank	City	Fatality Rate*
1	Memphis, TN	34.32	1	Memphis, TN	9.7
2	<b>Detroit, MI</b>	<b>28.71</b>	2	Tucson, AZ	6.68
3	Tucson, AZ	22.58	3	<b>Detroit, MI</b>	<b>6.16</b>
4	Jacksonville, FL	19.34	4	Nashville, TN	5.51
5	Albuquerque, NM	18.67	5	Fresno, CA	5.47
6	Louisville, KY	18.27	6	Albuquerque, NM	5.33
7	Dallas, TX	16.53	7	Louisville, KY	5.01
8	Atlanta, GA	15.8	8	Dallas, TX	4.91
9	Nashville, TN	15.49	9	Jacksonville, FL	4.89
37	Boston, MA	2.6 (lowest)	37	Boston, MA	0.58 (lowest)

\*for Every 100,000 People. Source: NHTSA Pedestrians Traffic Safety Fact Sheet, 2020

### Equity Implications

Non-freeway traffic deaths are over-represented in the City of Detroit compared to the Michigan and the Southeast Michigan Council of Governments (SEMCOG) region. These findings introduce serious equity implications when Detroit’s demographics are considered. As **Table 1** indicates, the representation of non-white, low-income, and otherwise systemically marginalized people in Detroit is significantly higher than in the state and metropolitan region. Michigan crash data provide little information about who is impacted in traffic crashes. National studies indicate that people of color, particularly Indigenous and Black people, experience disproportionately greater rates of traffic crash deaths than their peers.<sup>10</sup>

<sup>9</sup> Unlike the crash analysis and statistics reported in the rest of the plan, NHTSA data includes fatal crashes and deaths that occur on freeways.

<sup>10</sup> <https://www.hsph.harvard.edu/news/press-releases/racial-disparities-traffic-fatalities/>

Table 1: Disparities in Severe Crashes, 2017-2021

	Detroit	SEMCOG Region	State of Michigan
<b>Traffic Deaths per 10,000 Residents</b> (2019 estimates)	1.61	0.66	0.88
<b>KA Crashes per 10,000 Residents</b> (2019 estimates)	8.99	4.39	5.78
<b>Share Population Non-White, 2020</b>	89%	36%	27%
<b>Median Household Income</b> (in 2020 dollars), 2016-2020	\$32,498	\$64,068	\$59,234

Source: Census 2020; American Community Survey 5-year Estimates, 2016-2020; American Community Survey 1-year Estimates 2019; SEMCOG 2022

Notes: share population non-white are those people who identify as non-white, of multiple races, and/or Hispanic or Latino (the inverse of white alone, not Hispanic or Latino)

Detroiters are concerned about traffic safety and reckless driving in the city. Nearly 80% of Detroiters who responded to surveys administered during engagement through the Streets for People transportation master plan in 2021 listed “reduced speeding and increased safety” as their most desired improvement, leading every other type of improvement. Over 80% of those who responded noted that “speeding and other forms of dangerous driving” was a safety concern, outpacing all other concerns.

## Detroiters want and deserve safe streets.

84%

of respondents were concerned about speeding and dangerous driving.

79%

of respondents want to see improvements that reduce speed and increase safety.

Many

respondents want improved bus stops and lighting to increase safety.

Source: Streets for People

Based on the disproportionate impact of traffic violence on majority Black Detroit, equity is a through line throughout the CSAP. Rather than focusing on disparities in a stand-alone equity section, equity is embedded in every point of analysis we conduct and every strategy we propose.



## DETROIT'S COMMITMENT TO SAFE STREETS FOR ALL

Through SFP, the City of Detroit adopted five values that will guide the City's investments in transportation over the next ten years. These five values cut across the CSAP.

- **Safety First:** provide a safe travel experience for all by designing and stewarding Complete Streets that eliminate preventable traffic deaths and severe injuries and enable people to move freely without fear of harm.
- **Economic Prosperity:** strengthen the neighborhoods by advancing inclusive economic opportunity and job creation through capital investment.
- **Equity, Dignity, & Transparency:** increase equity and dignity for all residents and visitors to Detroit through transparent transportation decision-making processes and rigorous community engagement.
- **Access for All:** serve people of all ages and abilities with multiple high-quality mobility options.
- **Public Health & Environment:** preserve and protect Detroit's environment and improve health by providing opportunities for walking and biking, reducing vehicle miles traveled, and decreasing pollution caused by motor vehicles.

### Detroit's Street Safety Goal

The CSAP provides specificity around the strategies, actions, and projects that we will undertake over the next ten years (2022-2031) and beyond to meet our aspirations declared through the **Safety First** value. The CSAP also summarizes the data, engagement, and analyses that underpin the SFP plan. In addition, the CSAP endorses the provisional SEMCOG goal of eliminating fatal and serious injury crashes by 2050, which is expected to be formally adopted as part of the update to the Southeast Michigan Traffic Safety Plan in 2023. We have elevated the most urgent strategies to the SFP plan itself, but the CSAP provides the greatest level of detail on the steps we will take to eliminate severe crashes.

As Detroit's first comprehensive plan to address severe crashes using the Safe System approach, we expect that the CSAP will be a living document, updated as we learn more through local implementation, share experiences with national and international peers, engage and incorporate the lived experience of Detroiters, and as we collaborate with new stakeholders.

Our self-evaluation of the CSAP's conformity to USDOT's SS4A action plan requirements can be found in the **SS4A Self Certification Eligibility Worksheet** located in the **Appendix**.

### Safe System Approach

Detroit's response to the increasing rate of traffic deaths and serious injuries will incorporate the Safe System approach embraced by USDOT and cities that have adopted progressive traffic safety, planning, and engineering practices and policies

throughout the nation, such as Vision Zero cities and our peers in the National Association of City Transportation Officials (NACTO).

**We recognize that traffic crashes, especially those that result in death and serious injury, are not accidents, and that they are therefore preventable.** Severe crashes are the result of decisions made at the system level like street design standards and vehicle safety regulations, behaviors shaped by social determinants such as socioeconomic status, individual and group responses to environmental and social inputs and cues, and complex, instantaneous decision making by fallible humans, often at high speeds. Our transportation system should include multiple layers of mitigation to ensure that when mistakes occur, that they do not result in tragedy. The Safe System approach adopts long-standing thinking on risk management and accident prevention from public health. The principles of the Safe System, presented in **Figure 4**, summarize our approach to creating safe streets for all moving forward.

Figure 4: Safe System Principles



Source: FHWA

The Safe System approach updates past models that have produced a system that is not safe for all users. Fundamentally, a Safe System is built on redundancy, employing multiple strategies simultaneously to mitigate crash severity. This differs from past approaches that emphasized human behavior over other factors, with a corresponding single point of intervention, typically traffic enforcement. In the previous system, when a human inevitably makes a mistake – like driving while intoxicated – there are fewer safeguards. A more complete view of how the Safe System approach updates traditional traffic safety management is shown in **Figure 5**.

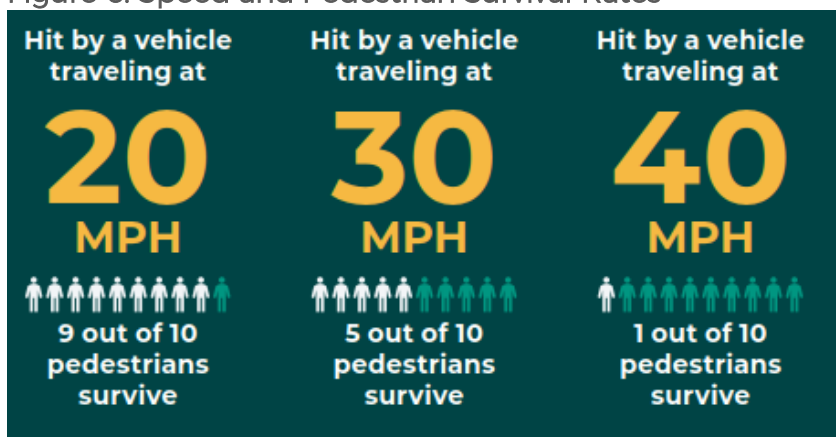
Figure 5: Safe System Innovations



Source: FHWA

Safe System diverges from past practices in recognizing the central role that speed and kinetic energy play in determining whether someone walks away from a traffic crash alive. People outside vehicles are particularly at risk of death in high speeds as they are not protected by safety equipment like airbags. Crash severity increases exponentially as speed increases. A person hit by a car traveling 35mph is five times more likely to die than a person hit by a car traveling 20 miles per hour,<sup>11</sup> with risk climbing as speeds climb as illustrated in **Figure 6**. The increase in pedestrian fatalities across the US is associated with the popularity of heavy light duty vehicles like SUVs that transmit greater force at any speed above 20mph.<sup>12</sup>

Figure 6: Speed and Pedestrian Survival Rates



Source: NACTO City Limits

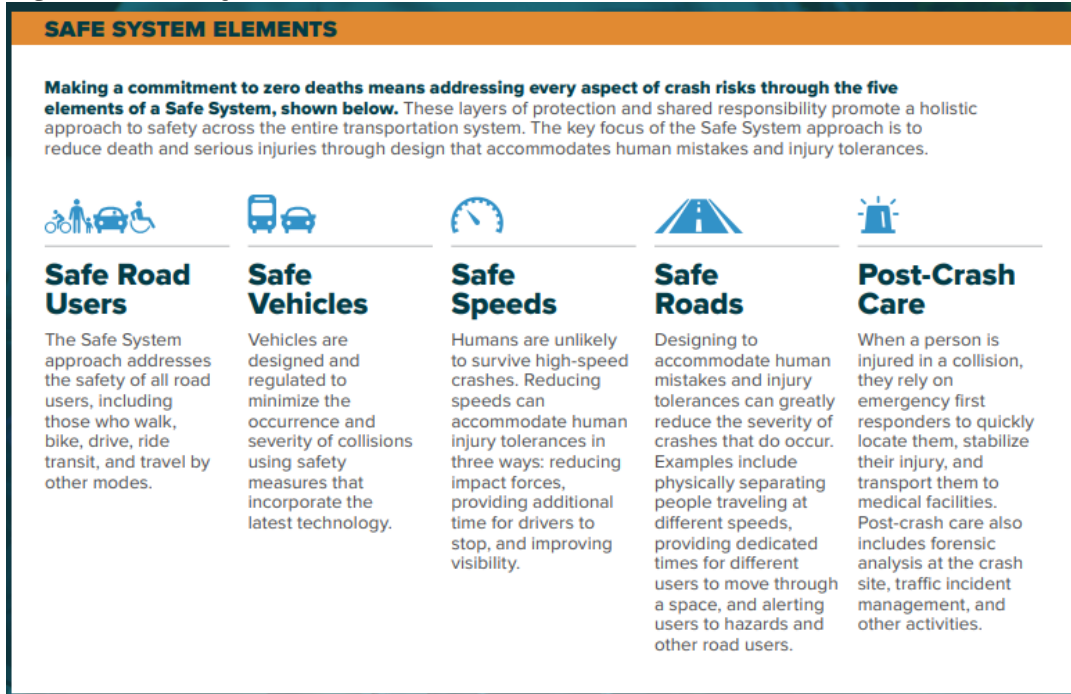
Utilizing all five Safe System Elements provides the redundancy necessary to prevent deaths and serious injuries on our streets. The elements, Safe Road Users, Safe Vehicles, Safe Speeds, Safe Roads (which we refer to as Safe Streets), and Post-Crash Care, are further detailed in **Figure 7**. The strategies and projects in Detroit’s CSAP are

<sup>11</sup> <https://nacto.org/publication/city-limits/the-need/speed-kills/>

<sup>12</sup> <https://www.iihs.org/news/detail/new-study-suggests-todays-suvs-are-more-lethal-to-pedestrians-than-cars>

themed around and evaluated against the five elements to ensure that that City is taking a comprehensive, multi-layered approach to mitigating crash severity.

Figure 7: Safe System Elements



Source: FHWA

## CSAP DEVELOPMENT

Development of Detroit's CSAP was driven by community engagement conducted through SFP, the interdisciplinary leadership of City staff representing multiple departments, coordination with regional stakeholders, and underpinned by policy review and data analysis to identify and prioritize strategies and countermeasures to tackle Detroit's most pressing traffic safety needs.

### Community Engagement

The Department of Public Works (DPW) conducted community engagement using multiple strategies to reach all Detroiters, particularly those who may not typically interact with their City government through traditional community meetings, hearings, and other formal channels.

Across three phases of safe, virtual engagement during the Covid-19 pandemic, thousands of participants spoke up to tell us about their priorities for transportation in Detroit. Detroiters who contributed to SFP overwhelmingly identified speeding as their chief safety concern when it comes to mobility, topping a list of other considerations, including crime. Detroiters are also concerned about the basics like cracked sidewalks, broken glass in bike lanes, poor road conditions, and lighting, and want streets that provide mobility choices for people regardless of how they choose to travel. Detroiters would like to walk and bike more, but personal and traffic safety concerns, inadequate maintenance, and incomplete networks prevent residents from being more active.

We developed the CSAP to respond to the high priority that Detroiters placed on safety and reckless driving during engagement, understanding that a high-level approach alone would not sufficiently address the safety needs that Detroiters identified. With a draft plan in hand, we re-engaged with the SFP Ambassadors to check our work – the first of many future engagements to ensure that we are addressing community needs and targeting disparities in traffic deaths and other outcomes important to Detroiters.

### Covid-safe Engagement

Over three phases of engagement online, through multiple social media platforms, and through traditional news blasts, we reached tens of thousands of Detroiters. The reach of our engagement efforts by method is summarized in the **Engagement Interactions** section located in the **Appendix**.

### Community Ambassadors + Meetings

At the outset of SFP, it was clear that we would need to go beyond normal engagement protocols to reach Detroiters who had previously been left out of the transportation planning process and those who may not have access to digital engagement mediums. To bolster these efforts, the city partnered with ten community organizations that were geographically dispersed throughout the city and had a large constituent base to ensure our engagement could reach the most residents as possible. We reconnected with these Community Ambassadors through

the CSAP to ensure that our strategies and projects meet the needs of Detroit’s diverse communities and to assess the potential impacts on marginalized people.

The Community Ambassadors were onboarded as part of the team at the outset of the engagement process, provided with talking points, and equipped with physical materials to distribute to their constituents. In total, the ambassadors helped to deliver 500 lawn signs to residents (in both English and Spanish), 500 posters to local businesses and organizations, and 500 kicker cards to participants. Additionally, the ambassadors helped the city organize 21 community meetings, with many piggybacking on existing district events, small neighborhood meetings, and more. In total, the ambassadors helped us reach over 1,100 people across these meetings.

### Engagement Results

Through the engagement process, we received approximately 3,100 responses to two rounds of surveys. Detroiters told us about their concerns and what they would like to see improved. The results are shown in **Table 2**. To ensure that we were reflecting the needs of majority Black Detroit, we validated the results against the share of people who self-identified as Black.

Table 2: SFP Engagement Survey Responses

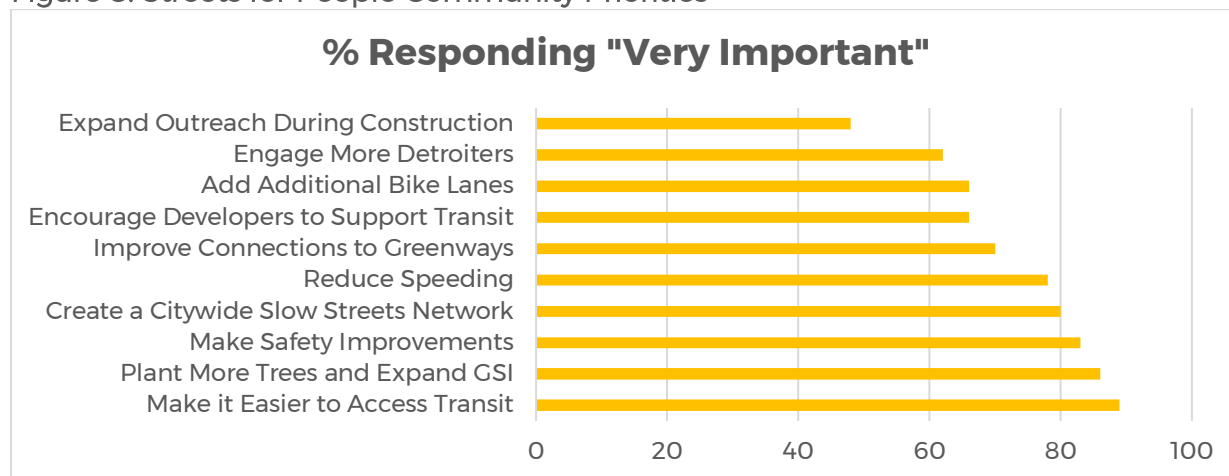
<b>“What concerns, if any, do you have moving about Detroit safely”</b>	<b>Total Responses</b>	<b>Percent of Total</b>	<b>Self ID as Black</b>	<b>Percent</b>
Speeding or Other Forms of Dangerous Driving	1,005	84%	554	86%
Damaged or Missing Sidewalks	560	47%	242	37%
People Walking in the Street	365	31%	194	30%
Inability to See Bicyclists	209	18%	86	13%
Vehicles Parked or Driving in Bike Lanes	365	31%	132	20%
Poor Road Quality	715	60%	366	57%
Wide Roads	161	13%	41	6%
Poor Lighting	607	51%	350	54%
Crime	642	54%	412	64%
Encounters with Police	200	17%	112	17%
None	9	1%	6	1%
<b>“What improvements would you like to see?”</b>	<b>Total Responses</b>	<b>Percent of Total</b>	<b>Self ID as Black</b>	<b>Percent</b>
Street improvements that balance the needs of all users	735	62%	362	56%
Reduced speeding and increased safety	939	79%	515	80%
Safer Connections to Schools	519	43%	241	37%
Safer Bike Routes	419	35%	153	24%
Better and More Convenient Public Transit	515	43%	224	35%
Increased Vibrancy	658	55%	314	49%
Improved Connections to Retail	516	43%	236	36%

Source: Streets for People



After synthesizing the needs into top-line strategies and actions developed for the draft plan, we engaged Detroiters again to learn what to prioritize in the coming years. The top ten actions that Detroiters identified as “Very Important” are presented in **Figure 8**. Make Safety Improvements, Create a Citywide Slow Streets Network, and Reduce Speeding were all in the top five with greater than 75% of respondents saying that they are very important. As reflected in the comprehensive safety strategies below, each of these items has been given particular weight and consideration.

Figure 8: Streets for People Community Priorities



## SS4A Steering and Implementation Committee

### Developing the CSAP

To develop the CSAP and guide future implementation, we convened representatives from departments across the City and technical staff throughout DPW into a newly formed Steering and Implementation Committee. Many participants had previously been involved in the SFP Working Group and had contributed to the high-level values, goals, strategies, and actions found in SFP. Representatives included leadership and staff from the following departments:

- Mayor’s Office
- City Council
- Department of Public Works - *Complete Streets, Traffic Engineering Division, City Engineering Division (DPW)*
- Detroit Department of Transportation (DDOT)
- Detroit Health Department (DHD)
- Detroit Police Department (DPD)
- General Services Department (GSD)
- Housing and Revitalization Department (HRD)
- Department of Neighborhoods (DON)
- Municipal Parking Department (MPD)
- Office of Development and Grant (ODG)
- Office of Mobility Innovation (OMI)
- Planning and Development Department (PDD)

Committee members came together over the course of three virtual and hybrid working meetings (see **Figure 9**) to build the strategies at the core of the CSAP. Meeting agendas included:

- **Meeting 1:** August 4, 2022 – Kick-off and Identification of Gaps, Barriers, and Opportunities
- **Meeting 2:** August 19, 2022 – Comprehensive Draft Strategy Development
- **Meeting 3:** September 6, 2022 – Strategy Refinement and Performance Measures

Figure 9: CSAP Steering and Implementation Committee Meeting



### Implementing the Plan

The CSAP will continue to meet at least quarterly over the next five years to monitor implementation, update the CSAP, and engage Detroiters around severe crash reduction. A smaller technical group will meet more frequently to keep actions progressing and to coordinate around larger interdepartmental, regional, and community efforts.

### External Stakeholder Engagement

Shared responsibility sits at the core of the Safe System approach. We acknowledge that the City cannot accomplish its goals alone. Improvements to some of the most dangerous surface streets in Detroit will require collaboration and leadership by other asset owners including Wayne County and the Michigan Department of Transportation (MDOT). Other stakeholders, like SEMCOG, can bring significant analysis, data, and other planning tools to the fore and coordinate with other municipalities to shape policy and prioritize investments.

We presented our CSAP, with an emphasis on the High Injury Network (HIN), which includes roadways under the management of others (presented in the **High Injury Network** section) to Wayne County, MDOT, and SEMCOG over the course of developing the CSAP and will continue to engage these partners, among others, as we move into implementation.



The City will also continue to leverage and build upon the strong partnerships with neighborhood and business associations, community organizations, and community members directly to ensure that the strategies outlined in this plan align with the communities’ expectations and priorities.

### Safety Analysis

Our response to Detroit’s unacceptable and high rate of traffic deaths and serious injuries is grounded in an analysis of the most recent five years of non-freeway traffic from MTCF: the period 2017 to 2021.

Following the Safe System approach, historical analysis is paired with an initial proactive analysis to identify the roadway features that are associated with elevated severe crash risk. Paired together, these analyses point to where we might prioritize our efforts in the coming years to address the crash types that constitute the bulk of severe crashes in Detroit with countermeasures that are proven to save lives.

Additional analysis, discussion, and detail may be found in the **High Injury Network and Crash Trends Memo Update** appended to this plan.

### High Level Trends

On average, 108 people were killed in traffic crashes annually in Detroit, and an additional 495 people were severely injured over the past five years. Severe crash trends are headed in the wrong direction: the five-year severe crash average continues to rise steadily. Data back to 2014 are detailed in **Table 3**.

Table 3: City of Detroit, KA Crashes and Persons, 2014-2021

Year	Crashes				People		
	Total Crashes	Change (%)	KA Crashes	Change (%)	Fatalities	Total KA	Change (%)
2014	13,513	-	352	-	102	415	-
2015	16,028	+18.6	350	-0.6	102	456	+9.9
2016	16,491	+2.9	388	+10.9	82	513	+12.5
2017	17,173	+4.1	442	+13.9	80	515	+0.4
2018	18,241	+6.2	462	+4.5	92	529	+2.7
2019	18,345	+0.6	477	+3.2	94	603	+14.0
2020	17,850	-2.7	580	+21.6	150	708	+17.4
2021	19,041	+6.7	540	-6.9	123	657	-7.2
<b>Subtotal 2017-21</b>	90,650	+10.9%	2,501	+22.2%	539	3,012	+27.6%
<b>5-Year Average</b>	18,130		500		107.8	602.4	

Source: MTCF

Analysis of the crash data indicates that implementing countermeasures that address the specific crash types could significantly reduce severe traffic crashes across the city based on their share of the overall number of crashes resulting in death or a suspected incapacitating injury (KA crashes) and their risk ratio, which indicates whether specific crash types or users are overrepresented in Detroit’s severe crash data:

- Fixed object crashes
- Angle crashes
- Pedestrian crashes
- Severe crashes involving drugs and/or alcohol

More detail on the high-level trends and crash types is provided below.

### Crash Analysis Findings

*Single Motor Vehicle (which includes vehicle-bicyclist, vehicle-pedestrian, and fixed object crashes) and Angle crashes are the most prevalent KA crash type in Detroit and are associated with elevated risk of severity. These crashes combine for 61% of all KA crashes in the five-year period between 2017 and 2021 as shown in **Table 4**.*

- When compared to their total share of all crashes, severe Single Motor Vehicle crashes resulted in a severity ratio of 3.42, with severe Angle crashes also overrepresented with a ratio of 1.15.<sup>13</sup>  
 Nearly 14% of all KA crashes do not have an associated crash type based on police reports, impairing a more complete analysis.

Table 4: City of Detroit, KA Crashes by Type, 2017-2021

	Crash Type											
	All	Single Motor Vehicle	Head-On	Head-On - Left Turn	Angle	Rear-End	Rear-End - Left Turn	Rear-End - Right Turn	Sideswipe Same Dir.	Sideswipe Opposite Dir.	Backing	Other/ Unknown
Citywide KA Crashes	2,501	760	120	89	768	231	12	2	121	37	2	359
Percent of all KA Crashes	100%	30%	5%	4%	31%	9%	1%	<1%	5%	2%	<1%	14%
Citywide Total Crashes	90,650	8,101	2,628	2,435	24,285	20,845	903	448	17,269	2,856	1,995	8,885
Percent of Total Crashes	100%	9%	3%	3%	27%	23%	1%	1%	19%	3%	2%	10%
Severity Ratio	1	3.42	1.66	1.33	1.15	0.4	0.5	0.2	0.25	0.47	0.05	1.47

Source: MTCF

<sup>13</sup> The severity ratio is the ratio of the share of severe crashes for a particular crash type to its share of overall crashes. For example, a crash type that represented 5% of severe crashes and 10% of all crashes would have a severity ratio of 0.5 indicating that it was underrepresented in citywide severe crashes.

*Crash Analysis Findings - continued*

Vulnerable users, including people walking, biking, and using assistive devices, are more at risk of being involved in a severe crash, and they have limited safe spaces protected from motor vehicles.

- Crashes involving pedestrians result in much more severe outcomes than typical vehicle crashes, as detailed in **Table 5**.
- Despite representing only 2.3% of all crashes in the city, pedestrian-involved crashes resulted in 20.3% of all KA crashes. Other vulnerable users are similarly over-represented in severe crashes but make up smaller shares of historical KA crashes.
- If volumes allow, modifying the cross-section of four-lane roadways to three-lanes, for example, would narrow crossing distances, provide space for pedestrian refuge islands, and provide an opportunity to install bicycle lanes.

Table 5: City of Detroit, KA Crashes by User Type and Driver Involvement, 2017-2021

	User Type						Driver Involvement			
	All	Vehicle <sup>1</sup>	Pedestrian	Bicycle	Motorcycle	ORV	Youth Driver <sup>2</sup>	Older Driver <sup>3</sup>	Alcohol & Drug	Intersection
<b>Citywide KA Crashes</b>	2,501	1,602	506	89	262	49	635	213	405	1,458
<i>Percent of all KA Crashes</i>	100%	64%	20%	4%	11%	2%	25%	9%	16%	58%
<b>Citywide KABC Crashes</b>	23,928	20,905	1,673	502	743	105	6,884	2,786	1,251	15,324
<i>Percent of all KABC Crashes</i>	100%	87%	7%	2%	3%	<1%	29%	12%	5%	64%
<b>Citywide Total Crashes</b>	90,650	86,754	2,054	706	996	140	21,189	10,891	2,254	50,015
<i>Percent of Total Crashes</i>	100%	96%	2%	1%	1%	<1%	23%	12%	3%	55%
<b>Severity Ratio</b>	1	0.67	8.78	4.5	9.5	10	1.08	0.7	6.48	1.06

Source: MTCF

<sup>1</sup>Vehicle-only (not involving a pedestrian, bicycle, motorcycle, or ORV)

<sup>2</sup>Young driver age range is 16-24

<sup>3</sup>Older driver age range is 65+

*Crash Analysis Findings - continued*

*Streets that are designed for safety at all hours and safe, convenient alternatives to driving are necessary to offset predictable human decisions and mistakes that are currently contributing to Detroit's severe crash problem.*

- Alcohol and drugs are associated with increased crash severity, as 16.2% of KA crashes involved alcohol or drugs despite being present in only 2.5% of all crashes citywide.
- The hour of 2-3AM account for more than one in ten alcohol and drug related KA crashes despite typically lower traffic volumes. Transit and rideshare programs extended through this hour may provide an alternative to driving personal vehicles.

*Reducing driver speeds through street design and other safety countermeasures may reduce the severity of prevalent and concerning crash types.*

- Single-motor vehicle and angle crashes are the most prevalent KA crash types. Lowering speeds would reduce the energy - and therefore the severity - of the majority of these crashes.
- Older drivers are involved in 8.5% of KA crashes citywide. The human body is generally less able to withstand trauma as it ages. Reducing speeds will reduce the kinetic energy and severity of these crashes.
- Streets with four or more lanes are associated with a greater severity ratio and are wider, generally faster, and have higher volumes which may account for the increase in KA crashes, as shown in **Table 6**.

Table 6: City of Detroit, KA Crashes by Number of Lanes, 2017-2021

Number of Lanes	KA Crashes	Percent of Total KA Crashes	Percent of Total Crashes (KABCO)	Severity Ratio	Ped/Bike KA Crashes	Ped/Bike Percent KA Crashes
1	125	5%	7%	0.67	35	28%
2	970	39%	42%	0.92	206	21%
3	262	11%	14%	0.77	58	22%
4	598	24%	22%	1.11	145	24%
5	251	10%	7%	1.37	70	28%
6	111	4%	4%	1.16	28	25%
7	144	6%	3%	2.07	46	32%
8	32	1%	1%	1.63	5	16%
9	8	<1%	<1%	1	2	25%
<b>Total</b>	2,501	100.0%	100.0%	1	595	24%

Source: MTCF

*Crash Analysis Findings - continued*

Meaningfully addressing severe traffic crashes in Detroit will require the enthusiastic and proactive partnership of MDOT and Wayne County.

- State and county streets are overrepresented for KA crashes compared to their percentage of mileage in the city (see **Table 7**).
- Higher volume and higher speed state and country streets experienced 8.47 and 4.83 KA crashes per centerline mile, in contrast to City owned streets, which include the residential network, which saw only 0.76 KA crashes.
- Although City streets make up 92% of centerline miles in the City, they only make up 38% of the HIN.

Table 7: City of Detroit KA Crashes by Roadway Ownership, 2017-2021

	All	Ownership		
		State	County	City
<b>Citywide KA Crashes*</b>	2,501	830	570	1,961
<b>Centerline Miles</b>	2,800	98	118	2,584
<i>Percent of Streets</i>	100%	4%	4%	92%
<b>KAs per Centerline Mile</b>	0.9	8.47	4.83	0.76
<b>HIN KA Crashes</b>	849	326	281	329
<i>Percent of all KA Crashes</i>	100%	38%	33%	39%
<b>HIN Centerline Miles</b>	81	26	24	31
<i>Percent of Streets</i>	100%	32%	30%	38%
<b>KAs per Mile</b>	10.48	12.54	11.71	10.61

Source: MTCF

\*Crashes by jurisdiction were determined using a 200' buffer from the street centerline to detect crashes associated with intersections. Therefore, the total KA crashes when summed by jurisdiction are >100%, or 2,501

*Crash Analysis Findings - continued*

Traffic crash deaths and serious injuries have inequitable impacts on majority Black Detroit. Non-freeway traffic deaths are over-represented in the City of Detroit when compared to the State of Michigan and the SEMCOG region, but there is little variation in Equity Areas as defined through SFP.

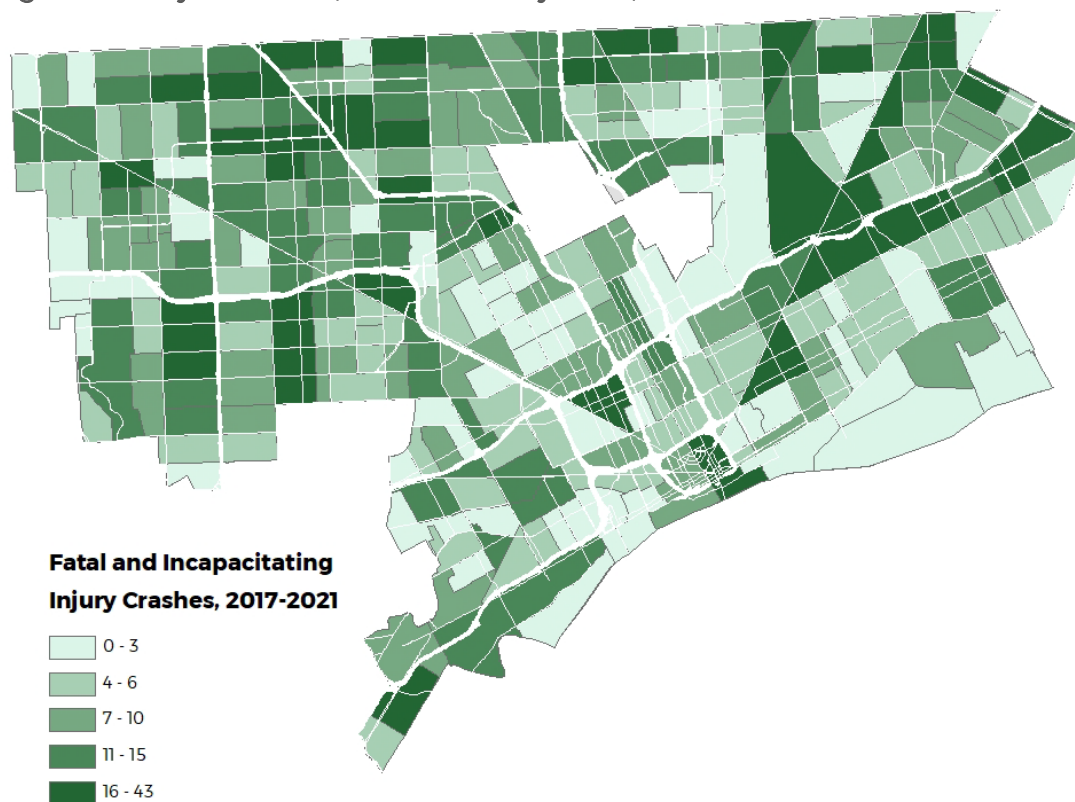
- At 1.61 deaths/10,000 residents, Detroit’s fatality rate is nearly twice that of Michigan and nearly 2.5 times that of the SEMCOG region.
- 56% of KA crashes occur in areas defined as Historically Disadvantaged Communities (HDCs) by USDOT, which represent 57% of Detroit’s population as shown in **Table 8**.
- Severe crashes are not uniformly distributed in Detroit, as demonstrated in **Figure 10**.

Table 8: City of Detroit, KA Crashes by HDC Status, 2017-2021

HDC STATUS	% of Detroit by Population (2019)	% of Detroit by Area	% of Detroit Crashes
<b>Not an HDC</b>	43%	42%	44%
<b>HDC</b>	57%	58%	56%

Source: MTCF; US DOT

Figure 10: City of Detroit, KA Crashes by Tract, 2017-2021



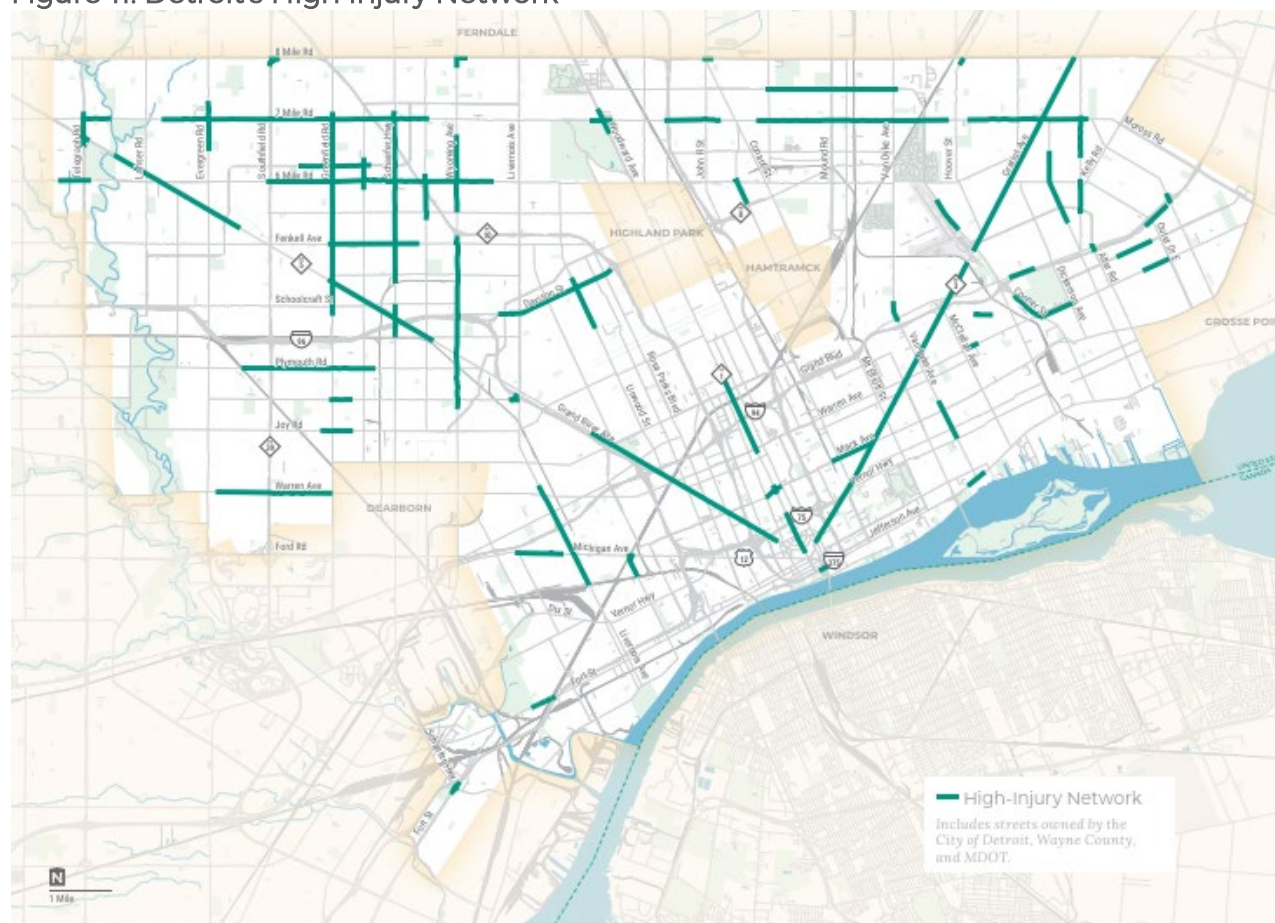
Source: MTCF



## High Injury Network

The HIN, developed through SFP using data from 2014-2018, was created to identify the most dangerous surface streets (excluding freeways) in Detroit based on historical crash frequency. The HIN, shown in **Figure 11**, represents just 3% of Detroit's streets, but accounts for 34% of all KA crashes between 2017 and 2021. The HIN allows us to effectively target proven safety countermeasures and comprehensive safety strategies in the areas where we know they will have a significant impact. In implementing the CSAP, we will use the HIN to prioritize our initial investments in safety interventions to make an impact right out of the gate.

Figure 11: Detroit's High Injury Network



Source: Streets for People

## Methodology

We identified the HIN using a two-step process, where an automated, data-driven analysis of crash clusters identified localized segments, which were then manually combined to define corridors as well as discrete hotspots. The threshold used to define a corridor was a continuous string of intersections that had more than one KA crash per intersection. Gratiot Avenue, Grand River Avenue, and 7 Mile Road emerged as long, continuous corridors, which were supplemented by shorter stretches of McNichols Road, Wyoming Avenue, and Livernois Road, among others.

Hot spots are intersections where four or more KA crashes occurred. In the HIN, hot spots are represented by the street segments approaching the intersection. The largest concentrations of hot spots were along 8 Mile Road and Woodward Avenue.

As the pattern of crash patterns is likely to change over time in response to changes in street design, activity patterns, and user behaviors, the HIN should be updated on a regular basis no greater than every five years.

## Findings

It is important to understand the types of streets that have both higher frequencies and consistent patterns of crashes resulting in death and/or serious injury. Our analysis of the HIN is a starting point for future study. While high-level findings are presented below, greater detail can be found in the **High Injury Network and Crash Trends Memo Update**.

- The HIN is primarily composed of arterial and collector streets, those streets that carry higher traffic, are associated with higher speeds, have longer pedestrian crossing distances, carry the City's transit riders, and have greater numbers of destinations and pedestrian generators.
- 62% of the HIN, by centerline mileage, is on streets owned by Wayne County or MDOT.
- 77% of the HIN, by centerline mileage, passes through or borders an HDC as defined by USDOT, suggesting an inequitable burden on marginalized people and equity populations.
- The corridors, limits, and other statistics for each of the HIN streets can be found in the **Appendix**.

## Countermeasures that Work

Based on our analysis of historical crash data and the types of streets that are associated with higher risk of crash severity, we identified three emphasis areas that can be matched to known roadway design countermeasures:

- Single vehicle, fixed-object crashes
- Angle crashes
- Crashes involving pedestrians.

Based on a review of national and international best practices including FHWA's Proven Safety Countermeasures,<sup>14</sup> Safe Transportation for Every Pedestrian toolbox,<sup>15</sup> and research collected through the Crash Modification Factors Clearing House,<sup>16</sup> we selected road design countermeasures that address these three severe crash types. We evaluated these countermeasures, detailed in **Table 9**, to ensure that they aligned with the design policies, priorities, and guidance in the *Detroit Street Design Guide* and their fit with the urban Street Types found throughout Detroit.

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<sup>14</sup> <https://safety.fhwa.dot.gov/provencountermeasures/>

<sup>15</sup> [https://safety.fhwa.dot.gov/ped\\_bike/step/resources/](https://safety.fhwa.dot.gov/ped_bike/step/resources/)

<sup>16</sup> <https://www.cmfclearinghouse.org/>



Table 9: Detroit Systemic Severe Crash Countermeasures

Severe Crash Type	Why may this crash type result in a severe outcome?	How might severity be reduced?	Countermeasure	Implementation Time	Crash Reduction Factor
<b>Single Vehicle (fixed object)</b>	Speeding leading to loss of control and high transfer of kinetic energy	Reduce speeding, particularly high-end speeds	Retime signals for lower speeds	Immediate	
			Lower posted speed limit	Quick	6% (all)
			Road Diet/through lane reduction	Quick to Mid-term	39% (all)
			Reduce lane widths	Quick to Mid-term	
			Add parking lane line	Quick	
			Reduce visual width with street trees/widened sidewalks	Mid-term	
		Reduce opportunities for reckless passing	Reduce merges and weaves	Quick to Mid-term	
			Add gateway treatments (chokers)	Quick to Mid-term	
<b>Angle</b>	High speeds through intersection	Reduce red light running	Remove unwarranted signals, replace with appropriate control	Mid-term	24% (all)
			Upgrade signal to LED signal heads	Quick	28% (all)
			Replace span cable signals with mast arms	Mid-term	5% (angle)
		Reduce conflicts, create safer conflict points	Road Diet/through lane reduction	Quick to Mid-term	39% (all)
			Add stop bars	Immediate	67% (angle)
			Change from permissive left turn phasing to protected only	Immediate to Mid-term	55% (all)
			No turn on red	Immediate	
			Add pedestrian countdown timers	Mid-term	9% (all)
			Add curb extensions or bus bulbs	Quick to Mid-term	32% (all)
			Simplify intersections, remove excess roadway, reduce skew	Quick to Mid-term	
			No-turn on red	Immediate	

Implementation Timeline:

**Immediate** = 3 months or less  
**Quick** = 3 months to 1 year  
**Mid-term** = 1-5 years

Table 9: Detroit Systemic Severe Crash Countermeasures – continued

Severe Crash Type	Why may this crash type result in a severe outcome?	How might severity be reduced?	Countermeasure	Implementation Time	Crash Reduction Factor
<b>Pedestrian</b>	Failure to yield the right of way	Reduce speeding, particularly high-end speeds	See above		
		Reduce pedestrian crossing distance and exposure	Retime signals for additional crossing time	Immediate	50% (ped)
			Add curb extensions or bus bulbs	Quick to Mid-term	32% (all)
			Add pedestrian refuge islands	Quick	31% (ped)
		Increase pedestrian visibility	Daylight intersections	Immediate to Quick	47% (all)
			Stripe high-visibility crosswalks	Quick	40% (ped)
			Improve intersection lighting	Mid-term	44% (ped)
			Add RRFB/HAWK	Quick to Mid-term	47-55% (ped)
		Reduce conflicts, create safer conflict points	Change from permissive left turn phasing to protected only	Immediate	55% (all)
			Add pedestrian countdown timers	Quick	70% (ped)
			Install hardened centerline	Immediate	
			Install side street raised crosswalks/raised intersection	Mid-term	45% (ped)
			Install leading pedestrian intervals	Immediate	19% (ped)
			Simplify intersections, remove excess roadway, reduce skew	Quick to Mid-term	
			No-turn on red	Immediate	

Implementation Timeline:

**Immediate** = 3 months or less  
**Quick** = 3 months to 1 year  
**Mid-term** = 1-5 years

## Policy, Practice, and Program Evaluation

Crash analysis enables us to prioritize crash types that underly Detroit's high levels of severe crashes and empowers us with the design countermeasures that address these crashes. However, we also need to understand the organizational, procedural, and legal means to implement them, as well as scale up other efforts across the five Safe System elements. To build that understanding, we evaluated local and state laws, policies, practices, and safety programs against national best practices. Through the CSAP development effort, the Steering and Implementation Committee discussed gaps, barriers, and opportunities – adding a thorough picture of where Detroit is today and what we might do together over the next few years. We recognize that while we have built a strong basis for delivering safety improvements, additional effort, resources, and collaboration are necessary for delivering our vision for safe streets in Detroit.

## Gaps, Barriers, and Opportunities Identified

Gaps, Barriers, and Opportunities came through a variety of sources. Steering and Implementation Committee members submitted known gaps, barriers, and opportunities through surveys and interactive polling and discussion in Committee Meetings. Staff also noted potential policy and process improvements through meetings on programs and in developing the comprehensive safety strategies and projects found at the end of the CSAP. We supplemented these with other known gaps and barriers in local and state legislation, policies, processes, some of which have been highlighted by others, including the League of American Bicyclists in their Michigan Report Card.<sup>17</sup> Gaps, barriers, and opportunities include:

### *Equity Impacts*

- **Issues:** Some safety strategies may have inequitable impacts on Detroiters, who are already disproportionately impacted by systemic racism, environmental injustices, barriers to opportunity, and other inequitable policies and practices. Certain safety countermeasures, for example, can be perceived as catalysts of gentrification. We must understand how countermeasures are perceived by community members and understand the historical and systemic context of those perceptions. We must also be mindful of any unintended consequences, disproportionately borne by any disenfranchised people in our city, of deploying certain countermeasures based on these perceptions. Steering and Implementation Committee members identified enforcement of speeding and parking laws as potential areas for negative impacts.
- **Opportunities:** To safeguard against these impacts, the City would benefit from a robust, culturally appropriate engagement approach and framework, mechanism, and/or advisory body to assess the impacts of policies, strategies, and programs on marginalized people.

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<sup>17</sup> <https://bikeleague.org/content/state-report-cards>

*Gaps, Barriers, and Opportunities - continued*

*Need for a Strong Culture of Traffic Safety*

- **Issues:** Detroit does not have a strong culture of traffic safety. Internally, for instance, City staff predominantly commute by car and have conducted meetings and other City business while driving. Externally, there is a high and noticeable prevalence of dangerous driving behaviors, specifically red light running. Further, there are few, if any, advocacy organizations solely focused on traffic safety and media outlets rarely cover the extent of broader traffic crash trends. Rather, local news coverage often reinforces the narrative of crashes being the result of unpreventable, inevitable “accidents.” Effectiveness of countermeasures may be muted if behavior (e.g., disobeying basic traffic laws) does not change on a population level.
- **Opportunities:** We must be clear about the extent of severe traffic crashes, which there is little information and understanding about, both among the public and within City government. As public sector workers and leaders, we have a responsibility to lead by example, adopting attitudes, training, and accountability to model the way to a safer Detroit. This can be accomplished through updates to internal staff training, expectations set by leadership, onboarding, and duties, as well as through City contracts and budgets.

*Need for Staff Empowerment*

- **Issues:** Steering and Implementation Committee members expressed that mid-level staff are hesitant to make decisions within the project development process and that the responsibility is reserved for those in City leadership positions.
- **Opportunities:** Establishing written procedures, processes, and guidance that are accepted by leadership could facilitate consistent decision-making, especially for concerns that might not require leadership attention. Clear channels of communication, information sharing, and collaboration would also alleviate demands on leadership. Additional training may also be beneficial for leadership and staff alike.

*Need for Internal Coordination and Collaboration*

- **Issues:** Multiple departments and public agencies are needed to implement basic projects that respond to community concerns, let alone implement a successful comprehensive safety program. Staff from traffic engineers and designers to planners and public health practitioners must work closely. Steering and Implementation Committee members noted silos between departments. Furthermore, they recognized that coordination is made even more difficult due to challenges in time, capacity, and lack of clearly defined responsibilities for implementing goals and objectives, in addition to some union rules.
- **Opportunities:** The CSAP provides a comprehensive, citywide approach to an issue area that concerns and depends on many departments and staff. By embracing a plan and goal to eliminate traffic fatalities and serious injuries

*Gaps, Barriers, and Opportunities – continued*

rooted in regular reporting, accountability, and shared tasks, staff will have greater opportunity and structure to collaborate to meet our shared goal.

*Need for Defined Project Development and Delivery*

- **Issues:** Steering and Implementation Committee members identified that we could deliver safety projects more efficiently. Right-of-way permitting was specifically noted for its protracted process for safety projects beyond paint, posts, and signalization. Concerns regarding implementation timelines can lead staff to use countermeasures that are less effective at addressing the underlining safety issues.
- **Opportunities:** Developing internal consensus around proven safety designs and expedited processes for delivering them could speed up implementation and lead to deployment of more robust countermeasures. Moving forward, DPW and its partners can better leverage the strengths of its various units in engagement, conceptual design, safety design, and construction to extend the City's abilities to deliver holistic improvements that will endure and minimize maintenance.

*Need for a Shared Approach with External Partners*

- **Issues:** Many of the severe crashes occur on streets or at intersections that are not under the City's jurisdiction. Without investment in these streets, we will not be able to reach our goals and ensure safer outcomes for all Detroiters. In the past, partner agencies have demonstrated hesitancy to use certain countermeasures, even proven ones. Even where countermeasures are proposed, lack of design flexibility may sometimes eliminate otherwise viable designs. Committee members noted that utility projects have been missed opportunities to implement safer street designs. Finally, many entities doing work in Detroit's public way are not deploying best practices and designs compliant with guidance such as the Manual of Uniform Traffic Control Devices (MUTCD), NACTO, and ADA to accommodate all users, particularly people walking and biking.
- **Opportunities:** Through effective coordination, the City and its partners can build understanding and confidence with implementing proven safety countermeasures. We must consistently communicate our expectations and develop processes to ensure that they are delivered through practices under our control, like permitting and inspection.

*Need for Sufficient Funding*

- **Issues:** Current funding levels for traffic safety efforts do not match the magnitude and volume of traffic safety issues contributing to the trends described in the CSAP. Furthermore, there is a lack of clarity as to which departments and units are responsible for funding multiple aspects of the City's safety program, in particular new technology. While dedicated safety programs like the Highway Safety Improvement Program (HSIP) have funded critical

*Gaps, Barriers, and Opportunities – continued*

projects in Detroit, they do not cover all needs, including proactive safety improvements. Of particular concern is the City's ability to fund maintenance of new infrastructure using available sources.

- Opportunities: Achieving eligibility to compete for SS4A funding could help Detroit advance its programs rapidly. Growing our partnerships, especially those that cross sectors and disciplines like public health, could also open new possibilities for funding programs. The CSAP could also provide a basis for prioritizing the investment of available funds where they are most needed and educating the public and decision makers about the level of need in Detroit.

*Data Gaps and Barriers to Sharing*

- Issues: While many useful internal public data sets exist (e.g., street type, crash type, land use), they have not been centralized and made available to all staff. Steering and Implementation Committee members also noted a lack of data sets that would enable and enrich decision-making, prioritization, and developing solutions to Detroit's safety issues. For instance, there is no institutionalized process for updating decision makers, collaborators, and the public on safety efforts and outcomes. Additionally, data (e.g., speed, volume, crashes, bike/ped activity) is not consistently collected and evaluated before and after project implementation. There are also gaps in crash data and a need for more accurate crash outcome information that may be available in hospital data sets.
- Opportunities: Detroit's open data portal provides a convenient and accessible landing page for consolidated safety information. SS4A funds may be used to fund new studies, purchase commercial data, or collect and supplement data.

*Incompatible Legislation and Policy Gaps*

- Issues: Steering and Implementation Committee members identified several local policy gaps and state-level legislative barriers. These include a lack of a local Complete Streets policy to promote consistency in project delivery for all users and Michigan State Police preemption of automated enforcement cameras. Additional gaps and barriers include the state's preemption of home rule authority to set default speed limits and repeal jaywalking laws, MDOT's speed study policy based on the disputed 85<sup>th</sup> percentile rule, lack of a local ordinance requiring motorists to stop for pedestrians in the crosswalk, and lack of an ordinance that explicitly prohibits parking and standing in bike lanes and transit stops.
- Opportunities: City Council has the authority to address and remedy gaps in legislation through new ordinances and amendments short of revisions to the City Charter as others in the state have demonstrated, such as Ann Arbor and Kalamazoo. Greater federal acknowledgement and coalitions with other municipalities and advocacy groups can move the needle on outdated speed setting practices.

## DPW Traffic Safety Programs

DPW is the primary implementing agency of traffic safety projects in Detroit. In 2009-10, the City refocused its safety program to utilize state and federal funding, primarily HSIP funds administered by MDOT, to engineer safer streets and intersections under the City's jurisdiction. Traffic safety programs are executed by multiple divisions and units of DPW, including Traffic Engineering Division (TED), City Engineering Division (CED), Street Maintenance Division (SMD), and the Complete Streets team (CS). DPW uses all available federal funding, on average around \$2 million per year, to systemically address severe crashes on major streets and around parks and schools.

Beginning in 2018, DPW launched a city-funded residential speed hump program, which is in high demand. DPW has received over 20,000 requests to date. The program rapidly expanded from 32 pilot locations in 2018 to over 5,300 in 2021. In 2023, we will celebrate the installation of our 10,000<sup>th</sup> speed hump. DPW has a proven track record for implementing federally funded safety projects that address severe crashes across its network on an annual basis.

DPW has evaluated safety countermeasures and advocated for the inclusion of new ones in its federally funded work. DPW also successfully advocated for the inclusion of parking lines to curtail dangerous driving in Michigan's HSIP program and actively pursues inclusion of proven safety treatments through its program.

DPW's safety programs strive to integrate and meet Detroit's broader transportation goals, DPW has grown the City's on-street bike network, which is now over 250 miles. To get the most out of every dollar spent, DPW aligns its safety efforts with routine maintenance and restoration needs like street resurfacing, and vice-versa.

### *Program Areas:*

#### - **TED**

- Resident Requests: DPW responds to resident requests for stop signs and other routine improvements on the residential network.
- Corridor and Intersection Safety Projects: Using federal HSIP and CMAQ funding, the City of Detroit has designed and implemented safety improvements on 116 miles of City streets and 122 intersections that demonstrate the greatest severe crash history and return on investment with proven safety countermeasures including road diets, box span signals, bicycle facilities, parking lane lines, sidewalk connections, and signal backplates. DPW regularly coordinates with SEMCOG to identify the top 100 intersections for safety improvements.
- Pavement Marking: As part of annual maintenance and for resurfacing projects, updating pavement markings, including adding standard and high-visibility crosswalk markings, implementation of road diets, parking lane lines, and on-street bicycle facilities.



- **Complete Streets**

- Residential Street Traffic Calming Program: Beginning in 2018, DPW began offering residential speed humps by community request.
- School and Park Safety Improvements: DPW improves streets around schools and parks with marked crosswalks, signage, sidewalk gap and ADA ramp upgrades, and other strategies funded in part through Michigan's Safe Routes to School (SRTS) program administered by the Michigan Fitness Foundation.
- Streetscape Improvements: DPW is investing \$80 million in bond funding to improve streetscapes and commercial corridors across the city. These streetscape improvements support the City's neighborhood planning efforts to improve safety and quality of life for Detroit residents. Streetscape improvements might include a variety of amenities including sidewalks, bicycle lanes, improved lighting, landscaping, neighborhood branding, and more.<sup>18</sup>

- **CED**

- Resurfacing Improvements: CED collaborates with TED to update pavement markings during street resurfacing projects as noted above. These projects also including updating pedestrian curb ramps to be compliant with the ADA. At times, these projects also include installing other safety improvements such as curb extensions.
- Sidewalk Repairs: While not exclusively a safety program, this initiative contributes to advancing a safer network for pedestrians by repairing sidewalk segments damaged by tree roots by request of adjacent property owners.
- Right of Way (ROW) Permitting: Although it is not exclusively a safety program, through ROW permits, DPW, CED, and CS have partnered with businesses, residents, and other stakeholders to create safer, more visible spaces for people through initiatives such as Open Streets, Outdoor Dining, Paint the Street, and other placekeeping efforts allowed by permit.

### **Other City Safety Programs and Initiatives for Safer Streets**

DPW is one of many City departments with a mission and responsibility to create and foster safe streets for Detroiters. Implementing a comprehensive safety program that incorporates all five Safe System elements requires the expertise of a diverse range of City leadership and staff, from human resources professionals to teachers and epidemiologists. The departments and offices below are actively engaged in promoting Safe Users, Safe Speeds, Safe Vehicles, Safe Streets, and Post-Crash Care.

#### *Program Areas:*

- **Detroit Department of Transportation (DDOT)**

- Automated Bus Consortium: In addition to routine safety responsibilities, DDOT is participating in a national collaborative investigation looking into the feasibility of automated bus deployment and accelerating the

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<sup>18</sup> <https://detroitmi.gov/departments/department-public-works/complete-streets/streetscape-program>



development of automated transit technologies, which would likely have a safety benefit for riders, operators, and other users of the public way.<sup>19</sup>

- **General Services Department (GSD)**
  - o Greenways: GSD is leading the planning and implementation of off-street greenways throughout Detroit to create a complete low-stress network to encourage walking, biking, and healthy activity. This includes the 27.5-mile Joe Louis Greenway that will connect parks and neighborhoods across the city, allowing residents to travel safely from McNichols to the riverfront – all without a car – through a combination of new trails, on-street protected bike lanes and links to existing trails like the Dequindre Cut and the RiverWalk.<sup>20</sup> GSD also continues plans to implement the Rouge Greenway and the Conner Creek Greenway.
  - o Park Improvements: GSD's 10-year Parks and Recreation Strategic Plan prioritizes safety for vulnerable users both coming to our park and recreation facilities, but also within our park system. Park improvements include pedestrian walking loops and sidewalk improvements around the park and recreation facilities.
  - o Blight Removal: GSD works to remove blight throughout the city, transforming blight into beauty, including leading demolition of blighted structures, mowing vacant lots, clearing blighted alleys, and focusing on removing blight from our commercial corridors.
- **Detroit Health Department (DHD)**
  - o Safe Routes Ambassadors: Detroit Safe Routes Ambassadors are pedestrian and bicycle outreach and education team members who utilize virtual and in-person platforms to provide safety education to Detroiters; students, seniors, families and motorists across the city. Detroit Safe Routes Ambassadors provide innovative, culturally competent presentations, workshops, and training to community members at group rides, pop-up events, and other activities. The Ambassadors promote walking and biking as safe, healthy, and fun forms of transportation.
- **Office of Mobility Innovation (OMI)**
  - o Mobility Pilots: OMI conducts pilots based on a human-centered design approach and thoughtful public and stakeholder engagement.
  - o Shared Micromobility Initiatives: OMI coordinates the deployment of shared modes such as scooters and bicycles.
  - o Transit-oriented Demonstrations: OMI is evaluating Automated Driving Systems through advanced safety testing, multi-agency collaboration, and transparent data architecture.
  - o Infrastructure-based Smart City Technologies: the Office is using artificial intelligence/machine learning-driven analytics for the management of traffic operations, maintenance, severe and fatal crash prevention, and general safety measures in partnership with multiple City departments.

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<sup>19</sup> <https://www.automatedbusconsortium.com/>

<sup>20</sup> <https://detroitmi.gov/departments/general-services-department/joe-louis-greenway>

## CSAP IMPLEMENTATION

Undertaking the creation of the CSAP uncovered opportunities for the City, its partners, and residents to develop a holistic approach to reducing and eliminating severe traffic crashes. While Detroit has established discrete safety programs and experience in efficiently delivering safety improvements, the CSAP is the City of Detroit's first plan to coordinate an in-depth response to severe crashes at the citywide level. The CSAP represents a starting point scaled to where we are at today that will be expanded in future years as we develop an approach that works for Detroit.

Our implementation program is built on three pillars:

- **SFP** which provides a Complete Streets and Safe System-informed approach to investments in Detroit's streets over the next ten years.
- **Comprehensive Safety Strategies** developed by the Steering and Implementation Committee in conversation with the SFP Community Ambassadors that respond to national best practice.
- **Systemic Safety Projects** that align our initial analysis of severe crashes in Detroit and proven safety countermeasures.

Together, these pillars cover all five Safe System elements – Safe Users, Safe Streets, Safe Speeds, Safe Vehicles, and Post-Crash Care. Critically, they respond to what we heard from Detroiters through our engagement efforts.

Many of the strategies and actions detailed below will help us better understand the scope of the challenge, the causes and factors that lead to severe crashes, the role of technology, the effectiveness of infrastructure and non-infrastructure strategies to address severe crashes alone and in tandem, and the equity impacts of our decisions and investments. As we move forward, we will monitor, evaluate, and report on our progress to continuously improve our capabilities to deliver great service and safe streets for all Detroiters.

### Streets for People

The CSAP is one facet of the SFP transportation master plan. SFP integrates and expands on recent planning efforts including Detroit's *Strategic Plan for Transportation*, *Downtown Mobility Study*, the *Detroit Sustainability Action Agenda*, and neighborhood Strategic Neighborhood Framework plans, among others.

Several of the issues and opportunities identified during CSAP development are addressed through the broader SFP plan, including:

- The development of Equity Areas, defined as the neighborhoods with the highest concentrations of seniors (people aged 65+), youth (people under 18), disabled residents, low-income residents, those without a car, and those living in sparsely populated areas. (*SFP, pages 23-24*)
- The creation of a network of Slow Streets that create low-stress streets for people walking and biking, particularly children and elders. (*SFP, pages 43-44*)

- A commitment to equitable engagement and greater definition around the tools and activities to engage underrepresented communities, particularly those with low access to technology. (*SFP, pages 55-56*)
- A standardized project development process and Complete Streets checklist. (*SFP, pages 57-60*)
- A framework for prioritizing investments based on the five SFP values, including Safety First across all DPW programs. (*SFP, pages 61-62*)
- The adoption of the *Detroit Street Design Guide*, which is rooted in the Safe System approach with an emphasis on speed reduction, pedestrian-first design, and providing a citywide network of facilities that safely accommodate users of all ages, abilities, and identities.

### Comprehensive Safety Strategies

The strategies recognize where we are as a City today and where we could go, given current and anticipated resources in the next ten years. They cover the targeted, evidence-based investments in infrastructure we will make, the programs we will launch, and the studies we will undertake. They also encapsulate the work we must do internally at the City and with our partners, such as the State of Michigan, SEMCOG, MDOT, and Wayne County. These may entail new partnerships, legislative changes, updates to processes and procedures, and policy changes – many of which we identified through our assessment of gaps, barriers, and opportunities.

The thirteen initial strategies are summarized in **Table 10** and categorized by Safe System Element. Each strategy is composed of a number of actions to advance the strategy. Greater detail on the initial actions, proposed timeframes for implementation, and responsible and supporting departments – where identified – are detailed on the following pages. The Steering and Implementation Committee may update or revise these from time to time as new information, community feedback, understanding of equity impacts, and other results from evaluation are received.

**Comprehensive Safety Strategies - continued**

Table 10: Detroit CSAP Comprehensive Safety Strategies

Strategy	Safe System Element Addressed				
	Safe Users	Safe Vehicles	Safe Speeds	Safe Streets	Post-Crash Care
Launch a Citywide Safety Campaign	X		X		
Reduce Speeding throughout Detroit	X		X	X	
Build a Culture of Shared Responsibility within City Government	X		X	X	
Eliminate Severe Crashes and Decrease Speeds on the High Injury Network			X	X	
Make Residential Streets Safe, Low-speed, Low-stress Places to Walk, Bike, and Live			X	X	
Create Commercial Streetscapes that Promote Safe Speeds and Crossings			X	X	
Proactively Target High Risk Locations for Systemic Improvements	X		X	X	
Create Safe, Comfortable, Complete Networks for People Walking, Using Assistive Devices, and Biking	X			X	
Promote Safe Fleets through City Procurement and Other Mechanisms		X			
Ensure that Nobody is Left Behind in a Safe Vehicles Future	X	X			
Respond to Fatal Crashes with All Due Urgency	X			X	X
Understand High-risk Behaviors and Streets through Data and Technology	X	X	X	X	
Evaluate Progress toward Safety Goals	X	X	X	X	X

*Comprehensive Safety Strategies - continued*

**Launch a Citywide Safety Campaign**

Building a citywide safety culture shared by all sectors including the public begins by getting the word out about Detroit’s severe crash issues, who they affect, how they’re caused, and what everyone can do to prevent them. Campaign messages, communicated across a variety of platforms, should focus on severe crashes and the role that speed plays in increasing crash severity. Our messages should be crafted to make the behavioral changes necessary to reduce and eliminate severe crashes.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Develop a culturally relevant traffic safety campaign focused on reducing serious injuries and deaths through speed reduction and targeting dangerous driving behaviors like red light running and failure to yield to pedestrians.	Within the next 1-2 years	<b>DPW, Media Services</b>
Emphasize driver education, awareness through warnings by civilian staff, and diversion programs prior to enforcement and fines at high crash locations and in areas with elevated levels of dangerous driving behaviors.	Within the next 1-2 years	<b>To be determined (TBD)</b>
Communicate information about the City's speed limits and any future changes to speed limits through PSAs and other channels available to the City.	Within the next 1-2 years	<b>DPW, Media Services</b>
Expand the Safe Routes to School in-class education program to high schools, focusing on safe driving behaviors and alternatives to driving.	Within the next 1-2 years	<b>DPW, DHD</b>
Convene a resident-led steering committee to guide messaging, engagement strategy, assess the equity implications of the safety campaign and any associated enforcement, including automated enforcement, and operationalize equity through traffic safety programs.	Within the next 1-2 years	<b>DPW, DON, PDD</b>
Collaborate with the Michigan Secretary of State to test drivers around how to operate safely around people walking and biking and develop traffic safety curricula that center the behaviors that contribute to severe crashes.	Within the next 3+ years	<b>TBD</b>

*Comprehensive Safety Strategies - continued*

**Reduce Speeding throughout Detroit**

We can't expect all drivers to slow down through messaging alone: we must design our streets for the behaviors we want to see. We will design streets for low speeds that are safe for people walking, using assistive devices, and biking. In addition to street design, we should lower posted limits to match target speeds, the speeds that we expect everyone to follow. Where necessary, we will also assess the possibility of non-traditional enforcement methods, thoroughly evaluated against the equity impacts of doing so.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Consistent with the <i>Detroit Street Design Guide</i> , prioritize context-sensitive street designs for 24-hour safety for all users over driver convenience for peak periods.	Ongoing	<b>DPW</b>
As streets are resurfaced, reconstructed, and redesigned, revise designs to achieve the target speeds associated with the applicable Street Type designated in the <i>Detroit Street Design Guide</i> and adjust the speed limit accordingly.	Ongoing	<b>DPW</b>
Ensure that proper and sufficient signage is posted on major streets to inform drivers of the posted speed limit.	Within the next 1-2 years	<b>DPW</b>
Advocate for the repeal of state legislation pre-empting home rule changes to default and zone-based speed limits and engage MDOT around reforming the Department's Speed Study methodology.	Within the next 3+ years	<b>TBD</b>
Create low-speed zones through changes to speed limits and self-enforcing roadway design in areas with high numbers of vulnerable users such as schools, parks, community centers, and senior and transitional housing.	Within the next 3+ years	<b>DPW, GSD, PDD, DON, DHD</b>
Assess the fairness, consistency, efficacy, and equity implications of current traffic enforcement practices, fines, and legal processes.	Within the next 3+ years	<b>TBD</b>
Following the lead of other US cities, explore how dangerous driver behaviors like speeding might be curtailed through automated systems and/or unarmed civilian enforcement.	Within the next 3+ years	<b>TBD</b>

*Comprehensive Safety Strategies - continued*

**Build a Culture of Shared Responsibility within City Government**

The Safe System Approach is rooted in shared responsibility, the belief that it's up to everyone to reduce severe crashes. The City has an opportunity to lead by example, through its embrace of the severe crash elimination goal and Safe System approach across our services and business processes. Perhaps as important is the role that City employees have in modelling behaviors. If we set a citywide goal to eliminate traffic crashes, we must walk the walk: we cannot accept unsafe driving by City employees.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Build awareness of Safe System concepts and practices through training and messaging for City staff, contractors, and governmental partners.	Within the next 1-2 years	<b>DPW</b>
Review all new and existing engineering policies, standards, guidance, and procedures against the Safe System principles and SFP goals.	Within the next 1-2 years	<b>DPW</b>
Continuously improve the City's ability to implement best-in-class design treatments by updating design guidance, policies through review of emerging literature and best practices, participation in peer exchange, and experimentation with new treatments.	Within the next 1-2 years	<b>DPW</b>
Develop and implement a safer driver training program for all employees who drive as part of their duties including emphasis on speeding and safe operations around people walking, biking, on scooters, and using assistive devices.	Within the next 3+ years	<b>TBD</b>

*Comprehensive Safety Strategies - continued*

**Eliminate Severe Crashes and Decrease Speeds on the High Injury Network**

For many years, severe crashes have been accepted as the cost of doing business, making our ambitious goal seem unachievable to many. By investing in the HIN, not only do we have an opportunity to make a significant impact in severe crashes, but we can demonstrate that zero roadway deaths and serious injuries are possible. As we improve the HIN, we will need to evaluate the scale of our impact and revisit our priorities as necessary to continue to pursue the highest value investments in safety.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Coordinate with MDOT and Wayne County to leverage federal funds to address HIN corridors that are not within the City's jurisdiction.	Within the next 1-2 years	<b>DPW</b> , Mayor's Office
Incorporate the HIN as a factor in developing the annual major street resurfacing program and continue to implement safety improvements through resurfacing.	Within the next 1-2 years	<b>DPW</b>
Study all HIN corridors under City jurisdiction for safety improvements and implement at least one corridor safety project per year using a combination of rapid-delivery improvements such as striping and signal timing as well as capital investments like RRFBs, curb extensions, and refuge islands.	Within the next 1-2 years	<b>DPW</b>
Revise the HIN on a recurring basis with updated crash data (e.g., every 3 or 5 years) to identify new corridors for improvement and highlight successful reductions in serious and fatal crashes.	Within the next 3+ years	<b>DPW</b>



*Comprehensive Safety Strategies - continued*

**Make Residential Streets Safe, Low-speed, Low-stress Places to Walk, Bike, and Live**

While the majority of severe crashes occur on busier arterial and collector streets, we can't neglect safety on low volume residential streets, which form a vital network for walking and biking to neighborhood destinations, particularly parks and schools.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Create guidelines for temporary traffic calming and tactical urbanism pilots, the Paint the Street program, and longer-term interim design treatments.	Ongoing	<b>DPW</b>
Continue to apply for federal and state SRTS grant funding for safety treatments around neighborhood schools and evaluate partnerships with other city departments to make more comprehensive safety improvements in future years.	Ongoing	<b>DPW, DHD</b>
Evaluate striping improvements and the potential for other safety treatments in concert with park upgrades.	Within the next 1-2 years	<b>DPW, GSD</b>
Evaluate the impact of freight and heavy trucks on traffic safety particularly on streets in residential neighborhoods and develop strategies and guidelines to mitigate unsafe conditions.	Within the next 1-2 years	<b>DPW</b>
Expand the Traffic Calming Program toolbox beyond speed humps on local and residential-collector streets.	Within the next 1-2 years	<b>DPW</b>
Pilot a Slow Street Network project and evaluate success through safety data and resident feedback.	Within the next 3+ years	<b>DPW, PDD</b>

**Create Commercial Streetscapes that Promote Safe Speeds and Crossings**

To realize the full potential of our commercial streetscapes, we must ensure that they are inviting places for everyone and that economic activity, socializing, and building community are not overshadowed by unsafe street conditions.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Incorporate speed reduction countermeasures as part of all streetscape projects and lower speed limits consistent with target speed where feasible.	Within the next 1-2 years	<b>DPW</b>
Expand the criteria for streetscape prioritization to include areas with high severe crash rates and high-risk roadway features.	Within the next 1-2 years	<b>DPW, PDD, Mayor's Office</b>

*Comprehensive Safety Strategies – continued*

**Proactively Target High Risk Locations for Systemic Improvements**

Our analysis of severe crashes, vulnerable users, and high-risk roadway features indicates where we can make impactful investments to prevent severe crashes before they occur. Doing so will require taking quick actions, which we can do by deploying and testing new countermeasures and revising internal processes.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Prioritize areas near community amenities such as schools, parks, recreation centers, and senior centers for safety countermeasures.	Within the next 1-2 years	<b>DPW, GSD, PDD, DON, DHD</b>
Prioritize systemic safety countermeasure in Streets for People Tier 1 and Tier 2 Equity Areas	Within the next 1-2 years	<b>DPW</b>
Deploy and evaluate rapid implementation countermeasures including paint, post, and signal timing treatments.	Within the next 1-2 years	<b>DPW</b>
Improve traffic signal equipment and technology to address the needs of people walking, especially youth, elders, and people with disabilities.	Within the next 1-2 years	<b>DPW</b>
Expedite systemic safety improvements through the Right of Way permitting process.	Within the next 1-2 years	<b>DPW</b>
Proactively deploy countermeasures matched to the crash types most likely to result in an incapacitating injury or death including single vehicle, angle, and pedestrian crashes.	Within the next 1-2 years	<b>DPW</b>

*Comprehensive Safety Strategies – continued*

**Create Safe, Comfortable, Complete Networks for People Walking, Using Assistive Devices, and Biking**

Through SFP we have made a commitment to ensure that Detroiters can get around safely and comfortably no matter who they are or how they travel. We also know that people walking, biking, and using assistive devices are at heightened risk of severe crashes. We must ensure that our streets are intentionally designed to move people outside of cars safely to where they want to go.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Continue to build out the Joe Louis Greenway, other greenways, and separated bikeways that connect Detroiters with low-stress, safe infrastructure.	Ongoing	<b>GSD, PDD, DPW</b>
Improve lighting at pedestrian crossings and multi-use trail crossings.	Within the next 1-2 years	<b>TBD</b>
Make pedestrian crossings at intersections safer using proven safety treatments like curb extensions, refuge islands, high visibility crosswalk markings, signage, signals, and beacons.	Within the next 1-2 years	<b>DPW</b>
Close gaps in the sidewalk network and improve sidewalks using the <i>Detroit Street Design Guide</i> to accommodate all users and invite use.	Within the next 1-2 years	<b>DPW</b>
Add mid-block crossings between significant pedestrian generators where crossing distances between existing signals or enhanced crossings are unrealistic.	Within the next 1-2 years	<b>DPW</b>
Update the City’s non-motorized plan.	Within the next 3+ years	<b>DPW, PDD, GSD</b>
Ensure routine maintenance of pedestrian infrastructure such as sidewalks and crosswalks to reduce walking in the roadway.	Within the next 3+ years	<b>DPW</b>

*Comprehensive Safety Strategies – continued*

**Promote Safe Fleets through City Procurement and Other Mechanisms**

The vehicles on our streets should be as safe for people outside the vehicle as those inside the vehicle. Certain vehicles may have features like poor visibility, excessive weight, or high stand-over that make them less safe for people walking and biking. These risks should be mitigated by safety technologies if there are not alternate models or designs fit for duty. The City can continue to lead by example through requirements and incentives to ensure that public fleets and those used by City contractors minimize severe crash risk for all users of our streets.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Develop and publicize a standard for outward visibility from inside vehicles, especially large commercial and service vehicles (e.g., forward driving position, highly transparent cabs, vehicle height, weight, and size).	Within the next 3+ years	<b>TBD</b>
Adopt updated safety standards for City procurements of fleet and service vehicles.	Within the next 3+ years	<b>TBD</b>
Encourage or incentivize businesses operating in/doing business with the City to voluntarily adopt this standard for their vehicle fleets.	Within the next 3+ years	<b>TBD</b>
Advocate for the voluntary adoption of standards for improved vehicle safety technology at the federal level and in interactions with manufacturers including pedestrian crash standards and advanced safety systems, among other features.	Within the next 3+ years	<b>TBD</b>
Explore the feasibility of installing speed limiters on City fleet vehicles.	Within the next 3+ years	<b>TBD</b>

*Comprehensive Safety Strategies – continued*

**Ensure that Nobody is Left Behind in a Safe Vehicles Future**

Advances in vehicle safety technologies are anticipated to continue, making cars and trucks safer for operators and passengers. We can't leave out people who may not be able to afford a new, safer vehicle or people who cannot or do not wish to drive.

Therefore, we will explore avenues for making our current fleets safer, whether those are personal cars, scooters, or buses.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Develop a clear set of policies related to the deployment and use of micromobility.	Ongoing	<b>OMI, DPW</b>
Continue and expand resident-directed technology pilots like OMI's ADS and AV programs, among others.	Ongoing	<b>OMI</b>
Advance safe, convenient, affordable, and appealing alternatives to personal vehicle ownership including shared mobility, transit, walking, and bicycling through investments in the built environment, pilot programs, subsidies for low-income people, and incentives.	Ongoing	<b>DPW, DDOT, OMI</b>
Evaluate how automated buses would improve safety and other impacts, both positive and negative.	Ongoing	<b>DDOT</b>
Pilot tail light clinics and other programs to ensure that all people, regardless of income, can operate safe vehicles.	Within the next 3+ years	<b>TBD</b>
Advocate for the voluntary adoption of standards for improved vehicle safety technology at the federal level and in interactions with manufacturers including pedestrian crash standards and advanced safety systems, among other features.	Within the next 3+ years	<b>TBD</b>
Explore the feasibility of piloting speed limiters on City fleet vehicles.	Within the next 3+ years	<b>TBD</b>

*Comprehensive Safety Strategies – continued*

**Respond to Fatal Crashes with All Due Urgency**

While we implement our safety plan and build partnerships and a shared safety culture across sectors and with the broader public, we acknowledge that tragic crashes will continue to occur. We have a responsibility to respond to severe crashes as well as to increase our understanding of their causes and effects.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Make fatal crash statistics available to the public and decisionmakers on a regular basis.	Within the next 1-2 years	<b>DPW, DPD, Media Services</b>
Design and implement safety improvements at fatal crash locations.	Within the next 1-2 years	<b>DPW</b>
Establish an interdisciplinary fatal crash investigation team to explore the contributing factors of each fatal crash in Detroit, including but not limited to road design.	Within the next 3+ years	<b>TBD</b>
Collaborate with medical professionals to integrate hospital and crash data, better understand who is most affected by severe crashes, improve the efficacy of behavioral interventions, and unlock alternate sources of funding.	Within the next 3+ years	<b>TBD</b>
Convene a severe crash survivors' network.	Within the next 3+ years	<b>TBD</b>
Investigate signal priority for emergency response vehicles to promote faster and safer response to crashes and other locations (as well as transporting injured persons to medical facilities).	Within the next 3+ years	<b>TBD</b>

*Comprehensive Safety Strategies – continued*

**Understand High-Risk Behaviors and Streets through Data and Technology**

Crash data from police reports are used as the key indicator of the magnitude, location, and characteristics of severe and fatal crashes in Detroit. However, they only provide a partial picture of high-risk behaviors and often miss critical opportunities for intervention. To accurately assess and target these areas, Detroit will need more relevant data to complete the safety picture for planning, evaluation, and tracking, likely from a variety of existing and emerging sources.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Collect, consolidate, expand, and share data on severe crashes, speeds, and dangerous driving behaviors to better understand where severe crashes occur now, may occur in the future, and who is impacted.	Within the next 1-2 years	<b>DPW, DPD, OMI</b>
Continuously improve data collection and analysis methods to track and evaluate the effectiveness of countermeasures using customized, simple, and automated tools and dashboards.	Within the next 1-2 years	<b>DPW, DPD, OMI</b>
Continuously monitor new technology, and improve existing technology, to inform what countermeasures to deploy, and where to deploy them.	Within the next 1-2 years	<b>DPW, DPD, OMI</b>
Obtain anonymized big data products such as crowd-sourced telematics data to determine where and when speeding and harsh-braking occurs throughout the city.	Within the next 3+ years	<b>DPW, OMI</b>
Deploy traffic cameras and other sensors for validating crowd sourced data and permanent monitoring on the HIN and in areas with high levels of speeding.	Within the next 3+ years	<b>DPW, OMI</b>



*Comprehensive Safety Strategies – continued*

**Evaluate Progress toward Safety Goals**

Eliminating severe crashes depends on our ability to learn from our actions and further develop our capabilities and processes. Evaluation also holds us accountable. More detail on how we will evaluate, progress, and coordinate implementation is provided in the **Monitoring and Accountability** section that follows.

Related Action	Timeframe to Initiate	Responsible and Supporting Department(s)
Conduct an annual report of progress made toward the Comprehensive Safety Action Plan (CSAP) strategies, present to the Steering & Implementation Committee, Mayor, and City Council, and evaluate whether the CSAP needs to be updated.	Within the next 1-2 years	<b>DPW</b>
Evaluate two corridor safety projects annually using crash data, resident feedback, and other data sources to assess the efficacy of interventions and identify whether further improvements are needed.	Within the next 1-2 years	<b>DPW, PDD, DON</b>

**Systemic Safety Projects**

**Project Types**

The comprehensive safety strategies and the results from our analysis of the most recent five years (2017-2021) of severe crash data point to certain safety projects that will address crash hot spots in addition to systemic interventions to address high-risk locations and streets before severe crashes occur.

Our future systemic safety projects, which are summarized in **Table 11**, include but are not limited to infrastructure projects. Planning and implementing these projects will be a joint effort between departments and with public, private, and community partners. Infrastructure projects on City streets, for instance, will mainly implemented by DPW, but we will look to partner with Wayne County and MDOT to initiate similar projects on streets in Detroit under their jurisdiction.

Project scopes tie back to the systemic countermeasures identified in **Table 9**, covering investments that can be designed and constructed quickly at multiple locations, or larger scale corridor projects that require more engagement and coordination before construction can begin.

Every year, we will look for opportunities to implement these projects throughout the City using SS4A, Highway Safety Improvement Program (HSIP), and Congestion Mitigation and Air Quality (CMAQ), Transportation Alternative Program (TAP) funds, as well as existing City budget allocations. By building new partnerships, we will take advantage of new opportunities, but also better align our programs and resources to reduce fatalities and serious injuries.

Table 11: CSAP Systemic Safety Project Types

Project Category	Project Type	Potential Scope	SS4A Eligible	HSIP Eligible	CMAQ Eligible	TAP Eligible
Infrastructure	Enhanced Protection Projects	Streetscape, curb extensions, separated bike lanes, one to two way conversions, lighting, tree pits and GSI	Yes	Unlikely	Unlikely	Yes
	Rapid Response Projects	Striping, crosswalk markings, paint and post treatments, signal retiming	Yes	Likely	Unlikely	Yes
	High Speed Streets	Road diet, speed limit reduction, speed feedback signs	Yes	Only if history of KA crash	Unlikely	Yes
	Traffic Signals	Modernization, APS, updates, retiming, interconnects	Yes	Only if history of KA crash	Likely	Yes
	School and Park Safety Upgrades	Crosswalk markings, raised crosswalks, curb extensions, sidewalk gaps, ADA compliance and repair	Yes	Only if history of KA crash	Unlikely	Yes
	Enhanced Pedestrian and Bicycle Crossings	Active crossing infrastructure (e.g., RRFBs, PHBs, flashers), refuge islands, crosswalk markings, cross-bikes	Yes	Only if history of KA crash	Unlikely	Yes
	Complex Intersections	Geometric changes, signal upgrades, protected intersections	Yes	Only if history of KA crash	Unlikely	Yes
	Transit Improvements	ADA compliant bus stops, bus bulbs and transit islands, stop optimization, queue jumps, TSP, signage, dedicated transit lanes	Yes	Unlikely	Likely	Yes
	Slow Streets Network	Bicycle boulevards, raised crosswalks and speed tables, traffic calming	Yes	No	Unlikely	Yes
	Separated Bikeways	At-grade or sidewalk level, protected intersections	Yes	Unlikely	Unlikely	Yes
	Safety Treatment Maintenance	Markings, signage, replacement costs	Yes	No	No	No
	Fatality Spot Improvements	As determined by investigation team	Yes	Likely	Unlikely	Likely
	Non-Infrastructure	Safe Routes Ambassadors	Staff, curriculum, collateral, and expenses for ambassador program	Yes	No	No
Plan Updates		Modal plans, CSAP, supplemental studies, engagement	Yes	No	No	No
Project Evaluation and Research		Professional services, data collection,	Yes	No	No	No
Shared Mobility Pilot Projects		Equipment, operations, professional services	Yes	No	Unlikely	Unlikely
Technology and Data	Data Acquisition and Refinement	In-vehicle collectors, field units, big data products, manual data collection/observation, apps, dashboards, software and data licenses	Yes	No	No	Unlikely
	ITS Technologies and Smart Cities Infrastructure	Interconnection, wireless communications, cameras, sensors	Yes	No	Possibly	No

### Prioritization Criteria

The CSAP provides an opportunity to reconsider how we select safety projects and our capital investments more broadly. By scoring our projects based on criteria that align with the goals in SFP and those laid out in the SS4A program, we will be able to determine that our projects will deliver a high return on investment, help achieve stated outcomes, and score well on federal grant opportunities.

The Detroit CSAP prioritization criteria will be used to assess and select all safety projects, especially candidates for discretionary grant programs like SS4A, HSIP, CMAQ, and TAP. DPW will also use the rubric to evaluate the potential benefits of routine investments like resurfacing and generational opportunities such as streetscapes.

Candidate projects will be scored for Safety Impact, Equity, and Sustainability, Climate Change, & Economic Competitiveness based on the 50-point rubric presented in **Table 12**.

Table 12: CSAP Project Prioritization Criteria

Category	Criteria	Detail	Points
<b>Safety Impact [25 total]</b>	Project Located on the HIN	Intersection project on HIN or corridor project on HIN	12
	Uses Detroit CSAP severe crash reduction countermeasures, including at least 1 speed reduction countermeasure	3 or more countermeasures	5
		2 countermeasures	3
	Project improves safety around a school or a park	Within 1/8 mile (660')	5
	Increases safety and comfort for people walking, using assistive devices, or biking	Scope includes safer crossings, Slow Streets, bicycle facilities, and/or filling gaps in the sidewalk network	3
<b>Equity [15 total]</b>	Project is located in an Equity Area	SFP Tier 1 and HDC	10
		SFP Tier 2 and HDC	8
		SFP Tier 1 only	7
		SFP Tier 2 only	5
	Project has prior community support	Documented through a neighborhood plan or community-identified high-risk location	5
<b>Sustainability, Climate Change, &amp; Economic Competitiveness [10 total]</b>	Improvements support transit or transit access through safer crossings, enhanced transit amenities, or enhanced transit operations	Project located on a ConnectTen route, at a transfer intersection, or documented in a DDOT, SMART, or RTA plan	6
	Improvements increase tree canopy and/or decrease impermeable surfaces	Scope includes new trees or tree replacements, rain gardens, permeable pavements, or infiltration	4

## Equity Implications and Analysis

We recognize that, despite our best intentions, our design policies and safety programs can lead to consequences with negative and potentially traumatic effects, in part or in aggregate. These outcomes are, to a certain degree, a result of policies and decisions that reflect the biases, lived experiences, and blind spots of their authors and systemic factors, such as institutional racism.

Notably, these negative effects are not experienced equally by all. Negative impacts tend to compound for those who are already the most marginalized. National studies demonstrate that Black, Indigenous, and Hispanic/Latino people experience disproportionately high crash fatality rates.<sup>21</sup> Other research shows that people with disabilities experience traffic fatalities at significantly higher rates than the general population,<sup>22</sup> and people living in low-income areas are killed in traffic crashes at far higher rates than in high-income areas.<sup>23</sup> Transportation safety professionals have been working to make streets safer for decades, but these stark disparities persist. We are obligated to ensure that our efforts to create safe streets for all address known disparities and reform the systems that produced them.

Some of the most racially and ethnically segregated Census tracts in Michigan are located in Detroit and have simultaneously have high rates of traffic fatalities, poverty, asthma hospitalizations, and transportation insecurity, and low rates of educational achievement, access to quality jobs, and health insurance coverage. These factors are likely connected, not isolated phenomena. Prior to the Covid-19 pandemic, majority Black Detroit had a life expectancy at birth five years lower than Michigan as a whole and six years lower than the nation – driven in large part by persistent disparities in life expectancy based on race and ethnicity.<sup>24</sup>

Our work to create a more equitable, just, and inclusive Detroit must recognize and atone for these harms and mitigate against future ones. Critically, we must consider how our efforts to eliminate severe traffic crashes relate to other outcomes – positive and negative – that impact the lives of Detroiters.

Our responsibility in creating the CSAP is to institute a framework for assessing who our plans, policies, and investments impact, what the potential benefits or harms may be, and how we might mitigate the harms and amplify the benefits. Those most marginalized must be at the foreground of our analysis and actively engaged in determining how we move forward.

### Safety through Inclusion

Through SFP, we uphold five values, including but not limited to Safety First. Equity, Dignity, & Transparency holds equal weight in guiding how we invest in and steward the transportation system.

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<sup>21</sup> <https://www.hsph.harvard.edu/news/press-releases/racial-disparities-traffic-fatalities/>

<sup>22</sup> <https://bmjopen.bmj.com/content/5/11/e008396.full>

<sup>23</sup> <https://smartgrowthamerica.org/dangerous-by-design/>

<sup>24</sup> <https://detroitfuturecity.com/dashboard/health/>

SFP acknowledges that our streets need to be designed so that everyone is safe and belongs, regardless of who they are and how they travel. Street safety extends beyond eliminating severe traffic crashes. We acknowledge that many people, especially the most marginalized in our society, are unsafe or excluded in public spaces. We will design spaces in which residents and visitors to Detroit of all backgrounds and identities are safe from harm, welcomed, and uplifted. Across all our programs and through our severe crash elimination efforts we will:

- Engage residents and vulnerable groups early and often in the design process.
- Create inclusive public spaces that are joyful, accessible, welcoming, and respectful to everyone.
- Prioritize the safety needs of the most vulnerable such as women, children, elders, LGBTQ+ people, people with disabilities, people experiencing homelessness, and other marginalized populations.
- Preserve history, art, and cultural memories to increase community ownership and provide space for expression and civic engagement.
- Empower people to define what safety looks like on their streets understanding that residents experience safety and comfort differently depending on their unique identities and communities.
- Cultivate active, alluring spaces that people take pride in, that will be cared for over time, and sustained.

### **Initial CSAP Equity Assessment**

We asked SFP Community Ambassador organizations representing communities in Southwest, Northwest, and Northeast Detroit to review strategies proposed in the CSAP prior to publication. We wanted to know how they and their constituents might feel about the proposed strategies and actions and what potential negative impacts might result from implementing them.

Overall, the Ambassadors supported the Safe System approach and emphasis on street designs that are safe for all users and encourage slow speeds. Ambassadors in attendance did not identify any major equity concerns. Ambassadors provided the following feedback to consider when developing and implementing safety strategies:

- Who is most impacted by the problem and who is most impacted by the solution?
- What is the scale of the issue that you are solving for? If you don't yet know, find out before initiating strategies with known, possible, or unknown equity impacts. If the scale of the issue is small, the equity risks may outweigh the benefits.
- Are all major safety issues important to the community addressed, including all types of users from all corners of the city?

We acknowledge that this conversation was a starting point, not a final appraisal, for our understanding of how the CSAP strategies may impact Detroiters, in particular those who are already experiencing disproportionate burdens.

### **Assessing Equity Moving Forward**

Our initial equity assessment revealed that there is no substitute for collaborating with community stakeholders, especially stakeholders representing groups most adversely affected by traffic violence. Fostering relationships with community stakeholders and members is the most robust way to understand the causes that underly these disparities and what the impacts of particular strategies may be.

Moving forward, we will supplement the plan with a Racial Equity Impact Assessment (REIA) to systemically evaluate how people of different races and ethnicities in particular will likely be affected by the proposed strategies and actions in the CSAP.<sup>25</sup> Through this process we will:

- Identify who are the non-governmental stakeholders.
- Develop a more thorough documentation of racial inequities, especially as they relate to traffic violence in Detroit.
- Examine the causes of traffic violence and related inequities.
- Consider the impacts of proposed traffic safety strategies and projects and determine how to amplify positive impacts and mitigate negative ones.
- Develop measures of success to supplement other safety outcomes.

### **The Role of Enforcement Strategies**

Traditionally, traffic safety programs have included engineering, enforcement, and education strategies to change behaviors on our streets. When considering deep-rooted inequities, such as those discussed above, it is important to acknowledge the complex relationship many communities have with law enforcement. In some of Detroit's neighborhoods, police officers are upheld as community resources that can help in times of need. However, it is well-documented that law enforcement disproportionately impacts people of color, and that compounding inequities in the justice system can significantly alter the course of Black and Brown lives.

As the CSAP is implemented in the years ahead, in lieu of strict law enforcement strategies that can disproportionately affect people of color, it will be important to prioritize strategies that empower community members to have influence in the decision-making process that impacts their neighborhoods and individual lives. These empowerment strategies should consider alternative community-supported enforcement techniques and education efforts that are equitable, culturally competent, and community-led.

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<sup>25</sup> [https://www.raceforward.org/sites/default/files/RacialJusticeImpactAssessment\\_v5.pdf](https://www.raceforward.org/sites/default/files/RacialJusticeImpactAssessment_v5.pdf)

## Monitoring and Accountability

**The CSAP provides a clear, comprehensive blueprint for meeting the provisional regional goal of eliminating fatal and serious injury crashes in the City of Detroit by 2050.** While this goal is achievable, especially if we see non-linear improvements in crash trends year-to-year, it is also aspirational, recognizing the immense work ahead to modify behaviors and institute systems change.

Many of the CSAP strategies can be implemented within one or two years, but some may take longer or may entail an ongoing effort. We recognize that it is not a realistic goal to assume that we will complete all the strategies within 2 years, 10 years, or even 28 years and declare that our mission has been accomplished. We must continuously adapt our approach for efficacy and equity. Are our efforts moving the needle on our core goal of eliminating severe crashes? What feedback are we receiving from Detroiters about the impact on their lives and communities? Through the CSAP, our aim is to establish a comprehensive safety program with a robust framework for monitoring and evaluation to effect and show incremental progress each year and to change course when progress slows.

### Performance Measures

Through the CSAP, the City adopts the program-level, outcome-based performance measures shown in **Table 13**, which derives its 2050 targets from SEMCOG’s proposed regional goal.<sup>26</sup> CSAP performance measures may be expanded in future years as our understanding of severe crashes increases. For instance, we are just starting to develop a local understanding of the causal pathways that influence severe traffic crashes and the relationships between safety and other outcomes that Detroiters face. So too are we just beginning to collect data systematically about driver behaviors.

Table 13: Detroit CSAP Performance Measures

Performance Measure	Source	2021 Baseline	2050 Regional Target
Non-freeway crashes resulting in a fatality (annual)	MTCF	113	0
Non-freeway fatalities (annual)	MTCF	123	0
Non-freeway crashes resulting in a fatality or incapacitating injury (annual)	MTCF	540	0
Non-freeway crashes resulting in a fatality or incapacitating injury (five year rolling average)	MTCF	500	0
Non-freeway crashes resulting in a pedestrian fatality (annual)	MTCF	38	0
Non-freeway pedestrian fatalities (annual)	MTCF	39	0
Non-freeway crashes resulting in a bicyclist fatality (annual)	MTCF	1	0
Non-freeway bicyclist fatalities (annual)	MTCF	1	0
Non-freeway crashes resulting in a pedestrian/bicyclist fatality or incapacitating injury (annual)	MTCF	106	0

<sup>26</sup> Note: These measures may be updated when SEMCOG finalizes the regional targets.



### **CSAP Implementation and Responsibilities**

The CSAP's Steering and Implementation Committee will keep City departments and partners accountable to implementation progress.

Following the adoption of the CSAP, the committee will meet quarterly at minimum to identify implementation priorities and challenges and align department efforts. It will also serve in an oversight capacity to assist City staff in developing and reviewing an annual report. The committee will also establish an internal technical working group and assign or invite other subject area experts to assist with developing and implementing various activities and tasks for each CSAP strategy.

The Steering and Implementation Committee's first order of business will be to determine and initiate the highest priority strategies and actions to attenuate and bend Detroit's severe crash trends. As part of this task, the Steering and Implementation will identify the responsible department(s), supporting actors, external partners, and potential resources to move priority actions forward.

### **Reporting Progress**

The Steering and Implementation Committee will publish an annual report of progress made toward our goal to eliminate severe crashes, status of and updates to the CSAP strategies, and an overall evaluation of our efforts in the third quarter of every year. The annual report will be publicly available and presented to the Mayor and City Council.

DPW Complete Streets staff will lead the development of the annual report, but multiple departments will be asked to contribute to ensure that the responsibility and accountability of the CSAP is shared across the City. The experiences, feedback, and perspectives of Detroiters will be critical to shaping our understanding of where we are and where we're heading. As part of our commitment to Safety through Inclusion, we will engage Detroiters prior to publishing the annual report through surveys, focus groups, and by getting out into the community to learn how our projects and strategies are working, how we could improve them, and where we may need to reorient our efforts.

# APPENDICES

## SS4A Self Certification Eligibility Worksheet

Question	Response, Document and Page Number
<p>1. Are both of the following true:</p> <ul style="list-style-type: none"> <li>a. Did a high-ranking official and/or governing body in the jurisdiction publicly commit to an eventual goal of zero roadway fatalities and serious injuries?</li> <li>b. Did the commitment include either setting a target date to reach zero, OR setting one or more targets to achieve significant declines in roadway fatalities and serious injuries by a specific date?</li> </ul>	<p><b>No</b>, Streets for People endorses a zero-based goal for Detroit and endorses the region’s provisional goal to eliminate deaths and serious injuries from traffic crashes by 2050, but this goal has not been adopted by City Council or the Mayor.</p>
<p>2. To develop the Action Plan, was a committee, task force, implementation group, or similar body established and charged with the plan’s development, implementation, and monitoring?</p>	<p><b>Yes</b>, See CSAP, SS4A Steering and Implementation Committee, Page 15</p>
<p>3. Does the Action Plan include all of the following?</p> <ul style="list-style-type: none"> <li>a. Analysis of existing conditions and historical trends to baseline the level of crashes involving fatalities and serious injuries across a jurisdiction, locality, Tribe, or region;</li> <li>b. Analysis of the location(s) where there are crashes, the severity, as well as contributing factors and crash types;</li> <li>c. Analysis of systemic and specific safety needs is also performed, as needed (e.g., high risk road features, specific safety needs of relevant road users; and</li> <li>d. A geospatial identification (geographic or locational data using maps) of higher risk locations.</li> </ul>	<p><b>Yes</b>,</p> <ul style="list-style-type: none"> <li>a) See CSAP, Safety Analysis, Page 17</li> <li>b) See CSAP, Safety Analysis, Page 17</li> <li>c) See CSAP, Safety Analysis, Page 17</li> <li>d) See CSAP, High Injury Network, Page 23</li> </ul>
<p>4. Did the Action Plan development include all of the following activities?</p> <ul style="list-style-type: none"> <li>a. Engagement with the public and relevant stakeholders, including the private sector and community groups;</li> <li>b. Incorporation of information received from the engagement and collaboration into the plan; and</li> <li>c. Coordination that included inter- and intra-governmental cooperation and collaboration, as appropriate.</li> </ul>	<p><b>Yes</b>,</p> <ul style="list-style-type: none"> <li>a) See CSAP, Community Engagement, Page 13</li> <li>b) See CSAP, Community Engagement, Page 13</li> <li>c) See CSAP, External Stakeholder Engagement, Page 16</li> </ul>

Question	Response, Document and Page Number
<p>5. Did the Action Plan development include all of the following?</p> <ul style="list-style-type: none"> <li>a. Considerations of equity using inclusive and representative processes;</li> <li>b. The identification of underserved communities through data; and</li> <li>c. Equity analysis, in collaboration with appropriate partners, focused on initial equity impact assessments of the proposed projects and strategies, and population characteristics.</li> </ul>	<p><b>Yes,</b></p> <ul style="list-style-type: none"> <li>a) See CSAP, Community Engagement, Page 13</li> <li>b) See SFP Transportation Master Plan, Page 23 and CSAP, Streets for People, Page 34</li> <li>c) See Equity Implications, Page 51</li> </ul>
<p>6. Are both of the following true?</p> <ul style="list-style-type: none"> <li>a. The plan development included an assessment of current policies, plans, guidelines, and/or standards to identify opportunities to improve how processes prioritize safety; and</li> <li>b. The plan discusses implementation through the adoption of revised or new policies, guidelines, and/or standards.</li> </ul>	<p><b>Yes,</b></p> <ul style="list-style-type: none"> <li>a) See CSAP, Policy, Practice, and Program Evaluation, Page 27</li> <li>b) See CSAP, Streets for People, Page 34 and Comprehensive Safety Strategies, Page 35</li> </ul>
<p>7. Does the plan identify a comprehensive set of projects and strategies to address the safety problems identified in the Action Plan, time ranges when the strategies and projects will be deployed, and explain project prioritization criteria?</p>	<p><b>Yes,</b> see CSAP Comprehensive Safety Strategies, Page 35 and Prioritization Criteria, Page 51.</p>
<p>8. Does the plan include all of the following?</p> <ul style="list-style-type: none"> <li>a. A description of how progress will be measured over time that includes, at a minimum, outcome data</li> <li>b. The plan is posted publicly online.</li> </ul>	<p><b>Yes,</b></p> <ul style="list-style-type: none"> <li>a) See CSAP, Monitoring and Accountability, Page 54</li> <li>b) See: <a href="https://streetsforpeople.detroitmi.gov">Streets for People   City of Detroit (detroitmi.gov)</a></li> </ul>
<p>9. Was the plan finalized and/or last updated between 2017 and 2022?</p>	<p><b>Yes,</b> the plan was published in 2022</p>

## Engagement Interactions

### Online + Social Media Engagement

Throughout 2021, we tracked engagement conducted through online mediums, including the project website, Instagram, Facebook, and TikTok. The table below summarizes the number of views and activity each of these mediums contributed to the overall awareness of SFP.

	Phase I October - February	Phase II March - May	Phase III June - July	TOTALS
<b>Website views</b>	7496	2550	623	<b>10,669</b>
<b>Instagram - Reach</b>	1490	4100	1376	<b>6,966</b>
<b>Instagram - Engagement</b> (likes, comments, shares, saves)	287	473	119	<b>879</b>
<b>Facebook - Reach</b>	10,300	7,080	1,348	<b>18,728</b>
<b>Facebook - Engagement</b> (likes, reactions, comments, shares)	425	1,981	595	<b>3,001</b>
<b>Facebook posts</b>	8	22	8	<b>38</b>
<b>Avg FB reach per post</b>	1,287	321	168	<b>592</b>
<b>Avg FB engagement per post</b>	53	90	74	<b>72</b>
<b>Tiktok views</b>	n/a	n/a	4,659 / 7 videos	<b>4,659</b>

### News “Blasts” + Surveys:

In order to further the reach of SFP, our team utilized existing city databases to push information out at key milestones of the planning process. Two text blasts were sent out to over 30,000 residents to inform residents about the initiative and ask individuals to take the SFP online surveys. Three email newsletters were sent to over 2,500 residents through existing city listservs to update residents on the progress of SFP. Additionally, three surveys were developed to solicit community feedback throughout the engagement lifecycle. The city received over 3,100 responses to these surveys, as detailed in the table below.

	Phase I - October - February	Phase II - March - May	Phase III - June - July
<b>Respondents</b>	# of survey responses: 1,037	# of map comments: 799 # of survey responses: 1,194	# of survey responses: 140

## High Injury Network Summary

### HIN Corridors

Corridor Name	Total Length (mi)	Jurisdiction	Primary Land Use	SFP Street Type	Priority Network	SFP Equity Tier	Historically Disadvantaged Community	KA Crashes 2017-2021				
								All	Ped Only	Bike Only	Single Vehicle	Angle
7 Mile - Woodbine to Rouge River	0.5	County	COMMERCIAL	Arterial-Commercial	Everyone	2	Yes	7	2	0	1	2
7 Mile - Greenfield to Manor	4.28	County	COMMERCIAL	Arterial-Commercial	Everyone	2	Yes	62	14	1	3	23
7 Mile - Omira to Goddard	0.91	City	COMMERCIAL	Arterial-Commercial	Everyone	3	Yes	19	3	0	2	8
7 Mile - Norwood to Runyon	3.09	City	COMMERCIAL	Arterial-Commercial	Everyone	2	Yes	29	5	0	4	7
7 Mile - Bradford to Brock	1.94	City/County	COMMERCIAL	Arterial-Commercial	Pedestrian	2	No	43	7	3	7	11
Chalmers - Spring Garden to Longview	1.23	City	COMMERCIAL	Arterial-Residential	Pedestrian/Transit	1	Yes	10	1	0	1	4
Chicago - Winthrop to Terry	0.39	City	COMMERCIAL	Arterial-Residential	Bike	2	Yes	7	2	0	0	5
Conner - Kenmoor to Flanders	0.6	City	RESIDENTIAL	Other	Bike	2	Yes	2	0	0	1	0
Conner - Olga to Warren	0.57	City	COMMERCIAL	Arterial-Commercial	Bike	2	Yes	8	0	0	2	2
Davison W - Tuller to Davison Exit Ramp	1.98	MDOT	COMMERCIAL	Arterial-Commercial	Auto	1	Yes	34	9	2	1	11
Evergreen - Plainview to Curtis	0.79	City	COMMERCIAL	Arterial-Residential	Pedestrian/Transit	1	Yes	7	0	0	2	1
Fenkell - Winthrop to Steel	1.47	County	COMMERCIAL	Arterial-Commercial	Pedestrian/Transit	2	Yes	15	3	0	1	5
Fort - Kaier to Lawndale	0.42	MDOT	COMMERCIAL	Industrial	Freight	2	Yes	4	1	0	1	1
Grand River - Rouge River to Artesian	2.33	MDOT	COMMERCIAL	Arterial-Commercial	Everyone	3	Yes	25	6	0	1	7
Grand River - Winthrop to Manor	1.96	MDOT	COMMERCIAL	Arterial-Commercial	Everyone	2	Yes	22	5	0	1	8
Grand River - Columbus to Elizabeth	3.47	MDOT	COMMERCIAL	Arterial-Commercial	Everyone	1	Yes	20	3	1	1	4
Gratiot - 8 Mile to Randolph	8.83	MDOT	COMMERCIAL	Arterial-Commercial	Everyone	1	Yes	147	49	4	8	45
Greenfield - Cambridge to Davison W	3.27	County	RESIDENTIAL	Arterial-Residential	Everyone	3	Yes	42	14	2	1	11
Groesbeck - 8 Mile to Collingham	0.13	MDOT	INDUSTRIAL	Arterial-Commercial	Auto	4	No	2	1	0	0	1
Harper - Malcolm to Annsbury	0.44	City	COMMERCIAL	Arterial-Commercial	Pedestrian/Transit	1	Yes	3	1	0	1	0
Harper - Courville to Harvard	0.49	City	COMMERCIAL	Arterial-Commercial	Pedestrian/Transit	4	No	9	4	0	2	2
Hayes - Maddelein to Troester	0.68	City	RESIDENTIAL	Arterial-Residential	Pedestrian/Transit	1	No	7	2	0	1	3
Hayes - Alma to Promenade	0.55	City	COMMERCIAL	Arterial-Commercial	Pedestrian/Transit	2	Yes	5	0	0	1	2
Hubbell - Thatcher to Grove	0.52	City	RESIDENTIAL	Arterial-Commercial	Pedestrian/Transit	3	No	3	1	0	1	1
Jefferson E - Baldwin to Seminole	0.36	City	COMMERCIAL	Arterial-Commercial	Auto	1	Yes	0	0	0	0	0
Jefferson W/E - Bates to Beaubien	0.23	MDOT	COMMERCIAL	Downtown	Transit	3	No	3	2	0	0	0
Jos Campau - Jerome to Davison E	0.45	City	COMMERCIAL	Arterial-Commercial	Bike	1	Yes	2	0	0	1	0
Joy - Prevost to Terry	0.52	County/City	COMMERCIAL	Arterial-Commercial	Pedestrian/Transit	2	Yes	6	3	1	0	1
Linwood - Pasadena to Tuxedo	0.9	City	COMMERCIAL	Arterial-Commercial	Auto	1	No	13	6	2	1	0
Livernois - Walton to John Kronk	1.79	City	INDUSTRIAL	Arterial-Commercial	Bike	3	Yes	16	4	1	1	3
Mack - Dequindre to Elmwood	0.75	City	COMMERCIAL	Arterial-Residential	Auto	1	Yes	7	0	0	0	6
McNichols - Salem to Riverview	0.53	County	COMMERCIAL	Arterial-Commercial	Auto	3	Yes	5	2	0	0	2

Corridor Name	Total Length (mi)	Jurisdiction	Primary Land Use	SFP Street Type	Priority Network	SFP Equity Tier	Historically Disadvantaged Community	KA Crashes 2017-2021				
								All	Ped Only	Bike Only	Single Vehicle	Angle
McNichols - Ashton to Santa Barbara	3.65	County	COMMERCIAL	Arterial-Commercial	Auto	3	Yes	64	17	1	7	14
Meyers - Santa Maria to Pilgrim	0.75	City	COMMERCIAL	Arterial-Commercial	Pedestrian/Transit	3	Yes	10	3	1	1	3
Michigan - Casper to Cicotte	0.78	MDOT	COMMERCIAL	Arterial-Commercial	Everyone	3	Yes	9	5	0	0	1
Outer Dr E - Binder to Van Dyke	2.12	County	RESIDENTIAL	Arterial-Residential	Bike	3	Yes	23	2	1	3	11
Outer Dr E - Evanston to Edsel Ford	0.14	County	COMMERCIAL	Arterial-Residential	Pedestrian/Transit	3	Yes	2	0	0	0	1
Outer Dr E - Beaconsfield to Courville	0.62	County	RESIDENTIAL	Arterial-Residential	Pedestrian/Transit	3	Yes	4	0	1	0	2
Outer Dr W - Ferguson to Mark Twain	1.17	County	RESIDENTIAL	Arterial-Commercial	Bike	3	Yes	19	4	0	3	11
Plymouth - CSX to Freeland	2.15	City	COMMERCIAL	Arterial-Commercial	Auto	2	No	29	9	0	2	10
Schaefer - Cambridge to IWC	2.77	City	COMMERCIAL	Arterial-Commercial	Pedestrian/Transit	4	Yes	14	5	0	1	2
Schaefer - Schoolcraft to Fullerton	0.53	City	COMMERCIAL	Arterial-Commercial	Auto	2	No	6	0	1	1	3
Shoemaker - Garland to Lemay	0.31	City	VACANT	Collector-Commercial	Pedestrian/Transit	1	Yes	2	1	0	0	0
Telegraph - 7 Mile to Curtis	0.55	MDOT	COMMERCIAL	Arterial-Commercial	Auto	2	Yes	9	0	0	0	5
Van Dyke - Genoa to Walbridge	0.34	MDOT	COMMERCIAL	Arterial-Commercial	Everyone	1	Yes	6	2	0	1	1
Van Dyke - Sylvester to Vernor	0.68	City	VACANT	Arterial-Residential	Pedestrian/Transit	1	Yes	3	1	0	0	2
Warren E - Cooper to Hurlbut	0.19	County	COMMERCIAL	Arterial-Commercial	Everyone	2	Yes	1	1	0	0	0
Warren E - Conner to Lenox	0.57	County	COMMERCIAL	Arterial-Commercial	Everyone	1	Yes	4	2	0	1	1
Warren E - Berkshire to Outer Dr E	0.46	County	COMMERCIAL	Arterial-Commercial	Everyone	2	Yes	4	0	0	1	2
Warren W - Auburn to Greenfield Rd	1.88	City	COMMERCIAL	Arterial-Commercial	Everyone	2	Yes	14	5	0	1	1
Woodward - Pallister to Hancock	1.35	MDOT	COMMERCIAL	Arterial-Commercial	Everyone	2	No	13	3	1	5	3
Woodward - Sproat to State	0.73	MDOT	COMMERCIAL	Arterial-Commercial	Everyone	2	Yes	4	1	0	0	1
Wyoming - Margareta to Puritan	1.25	City	COMMERCIAL	Arterial-Commercial	Pedestrian/Transit	3	Yes	7	1	0	0	3
Wyoming - Keeler to Westfield	2.78	City	COMMERCIAL	Arterial-Commercial	Auto	2	Yes	26	3	1	3	9

**HIN Intersections**

Intersection Name	Primary Land Use	SFP Street Type	SFP Equity Tier	Historically Disadvantaged Community	KA Crashes 2017-2021				
					All	Ped Only	Bike Only	Single Vehicle	Angle
8-Mile/Dequindre	COMMERCIAL	Arterial-Commercial	1	Yes	6	1	0	3	0
8-Mile/Wyoming	COMMERCIAL	Arterial-Commercial	1	Yes	8	3	1	2	2
Clark/Michigan	INDUSTRIAL	Industrial	3	Yes	5	0	0	2	2
Chicago/I-96	COMMERCIAL	Arterial-Commercial	3	Yes	5	0	0	2	2
Fort/Schaefer	COMMERCIAL	Arterial-Commercial	3	Yes	4	2	0	0	2
Grand River/Telegraph	COMMERCIAL	Arterial-Commercial	3	Yes	8	0	0	1	3
Harper/Cadieux	COMMERCIAL	Arterial-Commercial	3	No	4	1	0	0	0
Southfield/8 Mile	COMMERCIAL	Arterial-Commercial	4	Yes	5	0	1	0	2
Woodward 7 Mile	COMMERCIAL	Arterial-Commercial	3	Yes	2	1	0	1	0
Woodward/Mack	COMMERCIAL	Arterial-Commercial	1	No	2	0	0	0	1