

ERIN MENDENHALL
Mayor



DEPARTMENT of COMMUNITY
and NEIGHBORHOODS
Blake Thomas
Director

CITY COUNCIL TRANSMITTAL

Lisa Shaffer, Chief Administrative Officer

Date Received: _____
Date sent to Council: _____

TO: Salt Lake City Council
Dan Dugan, Chair

DATE: April 20, 2022

FROM: Blake Thomas, Director, Department of Community & Neighborhoods

SUBJECT: Changing SLC's Prima Facie Speed Limit From 25 mph to 20 mph

STAFF CONTACT: Jon Larsen, Transportation Director, jon.larsen@slcgov.com, 801-535-7146
Dan Bergenthal, Traffic Safety Engineer, dan.bergenthal@slcgov.com, 801-535-7106

DOCUMENT TYPE: Ordinance

RECOMMENDATION: Pass an ordinance

BUDGET IMPACT: The estimated implementation cost is \$100,000

BACKGROUND/DISCUSSION: At the March 1, 2022, Work Session meeting, the City Council requested the Transportation Division investigate the feasibility of reducing the city's prima facie speed limit from 25 mph to 20 mph. This transmittal is our response to that request.

The Salt Lake City Transportation Division is committed to providing a safe and efficient multi-modal transportation system for the movement of people and goods. We support the goals of the Vision Zero and Zero Fatalities programs. We believe the only acceptable goal for traffic fatalities and serious injuries in our city is zero. We believe that death and injury on our city streets is preventable and acknowledge the importance of street design in mitigating speed and the frequency and severity of collisions.

The prima facie speed limit is the default speed limit on all streets, unless otherwise posted. Since this speed limit is established by city ordinance, the City Council has the authority to

change it. The change would apply to all streets without posted speed limits and local streets signed at 25 mph. The affected streets comprise approximately 420 miles or 70% of city-owned public roadways. See the attached files for Maps 1, 2 & 3. Please view these maps on a computer to allow for zooming in. A sampling of other cities that have recently reduced residential speed limits from 25 to 20 mph include Seattle, WA; Portland, OR; Eugene OR; Denver, CO; Boulder, CO; Minneapolis, MN; and St. Paul, MN.

Changing the prima facie speed limit should be based upon solid data. The following questions will be addressed: How does speed impact our streets? What will be the cost of changing the prima facie speed limit?

How Speed Impacts Our Streets

Over the last couple of decades, Salt Lake City has seen an ever-increasing boom in housing development, bringing additional residents to the city each year. In addition, with ongoing expansions to our pedestrian and bicycling infrastructure, and the relatively recent introduction of SLC GREENbike bikeshare and electric scooter sharing, our transportation infrastructure is serving an increasing number of bicyclists and pedestrians, also referred to as vulnerable road users. We expect this trend of increasing numbers of vulnerable road users to continue into the foreseeable future.

While increasing non-motorized and transit trips improves the efficiency of our transportation network by reducing the numbers of motorized vehicles, studies demonstrate that the negative effects of higher driving speeds persist. In 2019, the National Highway Transportation Safety Administration created a list of the negative consequences of speeding (<https://www.nhtsa.gov/risky-driving/speeding#:~:text=Increased%20stopping%20distance%20after%20the,Increased%20fuel%20consumption%2Fcost.>). Stating the opposite of those consequences demonstrates the positive effects of driving slower:

- Lower potential for loss of vehicle control;
- Increased effectiveness of occupant protection equipment;
- Shorter stopping distance after the driver perceives a danger;
- Lower degree of crash severity leading to less severe injuries;
- Lower economic implications of a speed-related crash; and
- Decreased fuel consumption/cost.

Annually, more than 6,000 collisions occur on Salt Lake City streets. Only about 4 percent of these crashes involve pedestrians and bicyclists, yet these two modes make up more than 46 percent of fatalities in our city. This is a cause for great concern. The main reason for the high percentage of fatalities with vulnerable road users is that the forces involved in a crash are applied directly to the human body. In contrast, occupants of enclosed vehicles are surrounded by metal structures that are engineered to absorb crash forces, minimizing the forces transferred to vehicle occupants.

As vehicle speeds increase, so do the severity of injuries. Kinetic energy increases exponentially with velocity [$\text{Kinetic Energy} = (1/2) * (\text{Mass}) * (\text{Velocity})^2$]. This means the kinetic energy/force

of a vehicle, traveling at 25 mph is 56% greater than an identical vehicle traveling at 20 mph, even though the vehicle is only traveling 25% faster. This is especially an issue for vulnerable road users. The following images display data from a widely referenced 2011 study by the AAA Foundation for Auto Safety in the United States: Impact Speed and a Pedestrian's Risk of Severe Injury or Death Technical Report, Washington, D.C. (<chrome-extension://efaidnbnmnibpcajpcg/lclefindmkaj/viewer.html?pdfurl=https%3A%2F%2Faaaafoundation.org%2Fwp-content%2Fuploads%2F2018%2F02%2F2011PedestrianRiskVsSpeedReport.pdf&clen=1337768&chunk=true>). The images provide context for how speed impacts the risk of death for pedestrians involved in vehicle crashes.

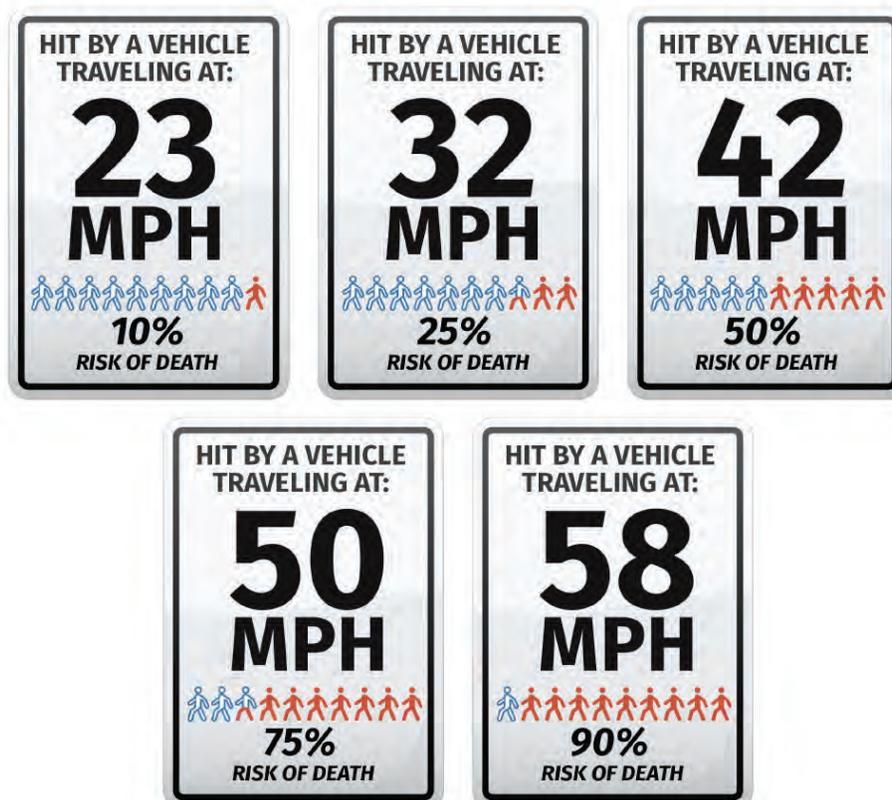
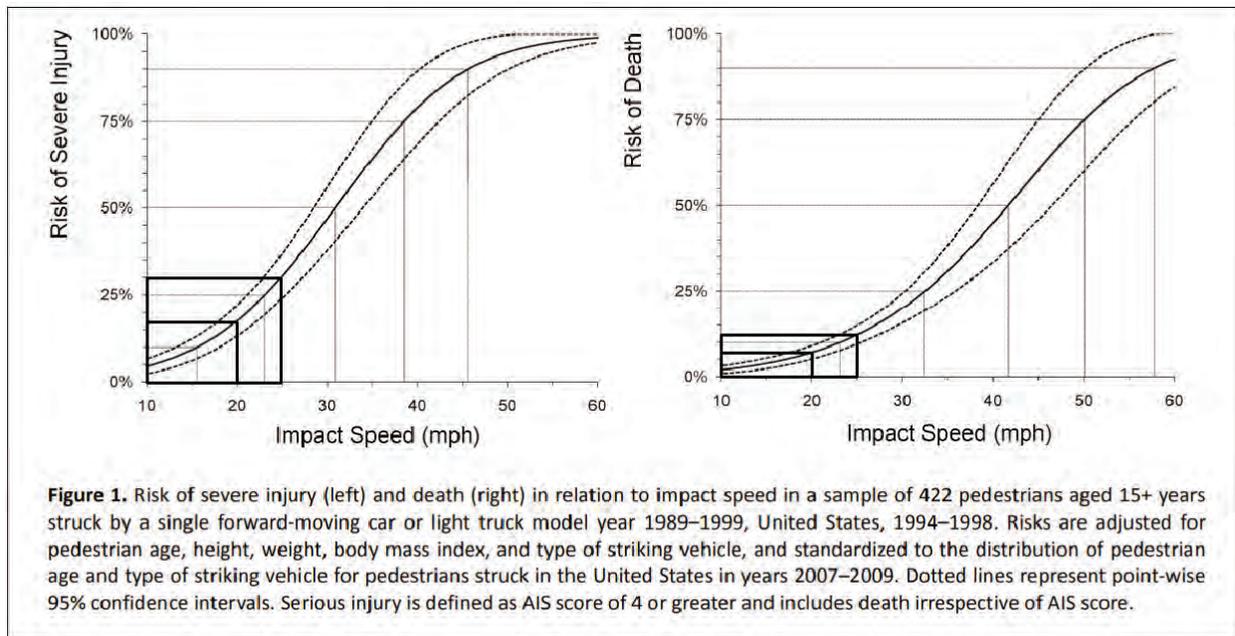


Image Source: United States Department of Transportation Pedestrian Safety Action Plan, 2020 (https://highways.dot.gov/sites/fhwa.dot.gov/files/2020-11/FHWA_PedSafety_ActionPlan_Nov2020.pdf).

According to the AAA study, the average risk of death for a pedestrian hit by a vehicle traveling at 20 mph is 7%, which rises to 12% at 25 mph, an increase in the risk of death of 71%. In regards to severe injury, a pedestrian hit by a vehicle traveling at 20 mph is 17%, which rises to 30% at 25 mph, a 76% increase in the risk of severe injury. See figure 1 below. The study also concludes that the risk of death at every speed is even higher for older pedestrians and pedestrians hit by trucks and other large vehicles. In addition, crashes are more likely to occur at high speeds as opposed to lower speeds and, when they do occur, high speed crashes are more likely to be deadly. As a result, the evidence shows that small reductions in speed result in large safety gains.



Source: Tefft, B.C. (2011). *Impact Speed and a Pedestrian's Risk of Severe Injury or Death (Technical Report)*, Washington, D.C.: AAA Foundation for Traffic Safety. <https://aaaafoundation.org/wp-content/uploads/2018/02/2011PedestrianRiskVsSpeedReport.pdf>

Based upon SLC crash data for 2015-2019, 223 out of 1336 (17%) of the total crashes involving pedestrians and bicyclists occurred on the streets that would be impacted by a change in the prima facie speed limit. This included 3 out of 28 (11%) of the total pedestrian and bicyclist fatalities and 21 out of 122 (17%) of the total pedestrian and bicyclist severe injury crashes that occurred during those years.

Moving beyond crash data, there is the element of neighborhood livability associated with vehicle speeds. The Transportation Division frequently receives complaints from residents claiming that most drivers are speeding on their streets. The speeding makes them feel uncomfortable walking, bicycling, and allowing their children to play outdoors. When studies are conducted, the results generally reveal that most traffic is traveling within a few mph of the posted or prima facie speed limit. What appears to be happening is that residents either perceive 25 mph to be “too fast” or “too dangerous,” or their thoughts are consumed by the few vehicles that infrequently travel at higher speeds (over 30 mph).

In January 2018, Portland City Council approved an ordinance reducing the speed limit on all residential streets from 25 mph to 20 mph. In October 2020, a study was completed by Portland State University (https://trec.pdx.edu/research/project/1467/Effect_of_Residential_Street_Speed_Limit_Reduction_from_25_to_20_mi/hr_on_Driving_Speeds_in_Portland,_Oregon) to determine if there was a change in observed speeds of vehicles following the speed limit reduction. According to the study: “Overall, the analysis suggests that the reduction of posted speed limits to 20 mi/hr has resulted in lower observed vehicle speeds and fewer vehicles traveling at higher speeds (e.g. over 30 mi/hr). It is most noteworthy that the reduction in the percentage of vehicles faster than 30 mi/hr and 35 mi/hr are larger in magnitude than the other changes. These changes are more meaningful for the Vision Zero speed reduction efforts, given

the link to crash severity for vulnerable road users.” Based on these results, it’s reasonable to conclude that reducing the prima facie speed limit in Salt Lake City from 25 to 20 mph will improve SLC neighborhood livability and safety. Lower observed speeds along with a reduction in vehicles infrequently traveling at higher speeds (over 30 mph) are exactly what many of our residents are asking for and what we, as safety professionals, are striving for.

Cost of Changing the Prima Facie Speed Limit

If the decision is made to change the prima facie speed limit, all existing twenty-five mph speed limit signs on local roads will need to be replaced. Collector roads signed at 25 mph will remain in place. We also expect the need to install additional signs (number currently unknown) to help educate the public. The estimated cost is \$100K.

The actual updating of the prima facie speed limit would only require a small change to a single city ordinance, section B of ordinance 12.36.020, which currently states:

B. Twenty Five Miles Per Hour: On all streets and at all places the prima facie speed limit shall be twenty five (25) miles per hour, except as otherwise provided in subsection A of this section, or in such other streets or places as otherwise posted or marked as directed by the city transportation engineer.

In summary, based upon the crash data for 2015-2019, a reduction in the prima facie speed limit has the potential to affect about 17% of the overall pedestrian and bicyclist crashes which occur on SLC streets. Lower speeds result in:

- Lower potential for loss of vehicle control;
- Increased effectiveness of occupant protection equipment;
- Shorter stopping distance after the driver perceives a danger;
- Lower degree of crash severity leading to less severe injuries;
- Lower economic implications of a speed-related crash;
- Decreased fuel consumption/cost;
- Increased sense of neighborhood livability.

If the City Council decides to move forward with this change, the Transportation Division recommends not increasing speed enforcement on neighborhood streets. Rather, a focus should be made to educate and enforce blatant speeding violations. The education campaign should focus on the benefits of slower speeds in our neighborhoods. Targeted outreach to minority communities should also be included in the education campaign to emphasize that the change in speed limit is intended to improve safety in their communities, not to provide an excuse for targeted police enforcement.

PUBLIC PROCESS: The Salt Lake City Transportation Advisory Board (TAB) discussed the idea of lowering the speed limit on residential streets in the city to 20 mph, in each of their meetings, August-December 2021. On December 16, 2021, the TAB sent a letter to the

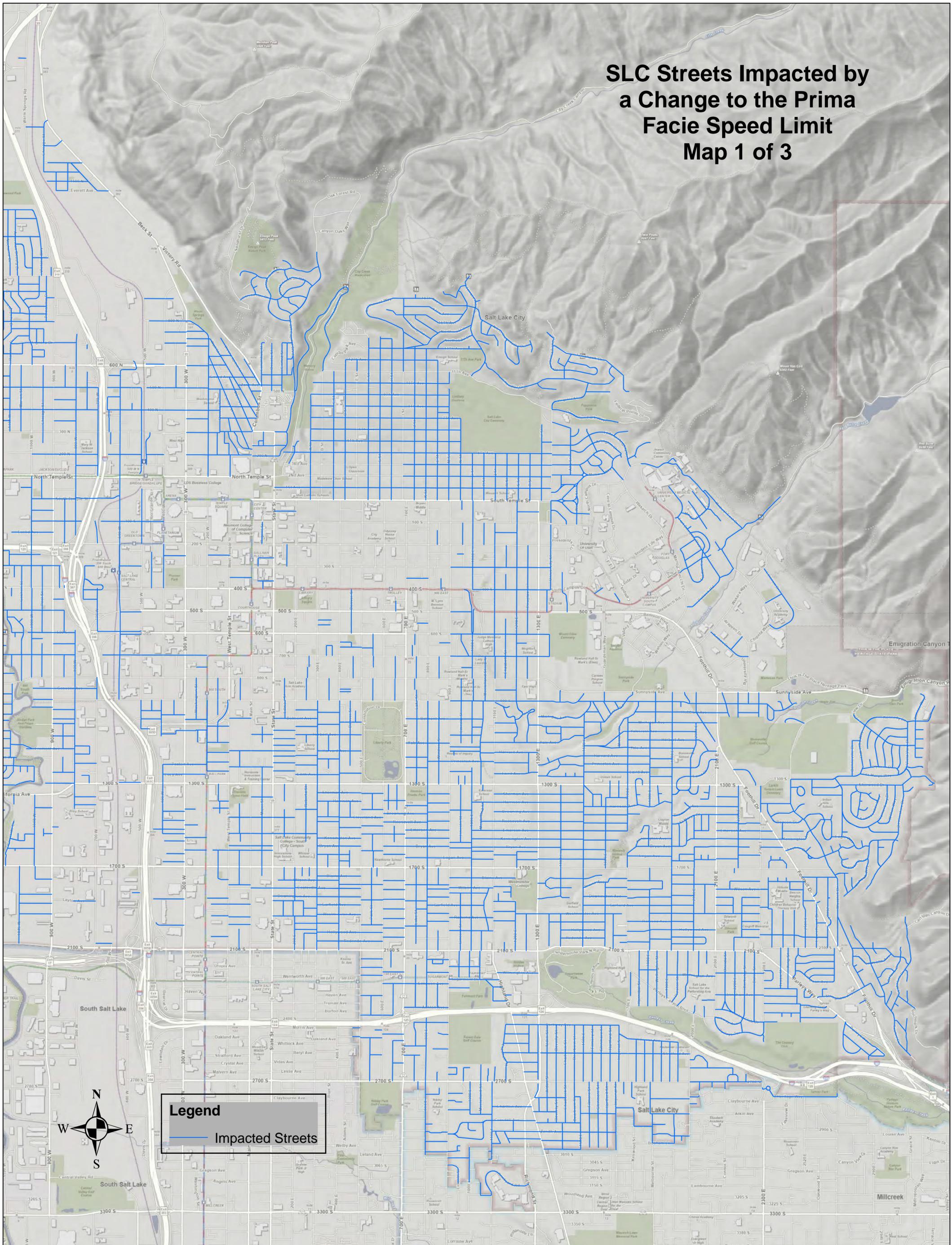
Administration and City Council expressing their support for slowing down traffic to make our neighborhoods safer. In general, TAB members are supportive of lowering residential speeds to 20 mph but are concerned that perhaps the only way for it to succeed would be to couple it with an effort to change the design of our streets (traffic calming/livable streets).

At the City Council's March 1, 2022, Work Session, a local community group, Sweet Streets SLC, made a presentation to the Council requesting a change to the prima facie speed limit, from 25 to 20 mph.

EXHIBITS:

- 1) Maps 1-3, SLC Streets Impacted by a Change to the Prima Facie Speed Limit
- 2) December 16, 2022 letter from the Transportation Advisory Board to the Administration and City Council regarding Neighborhood Traffic Slowing Efforts
- 3) Legislative Ordinance
- 4) Clean Ordinance

SLC Streets Impacted by a Change to the Prima Facie Speed Limit Map 1 of 3



Legend
— Impacted Streets



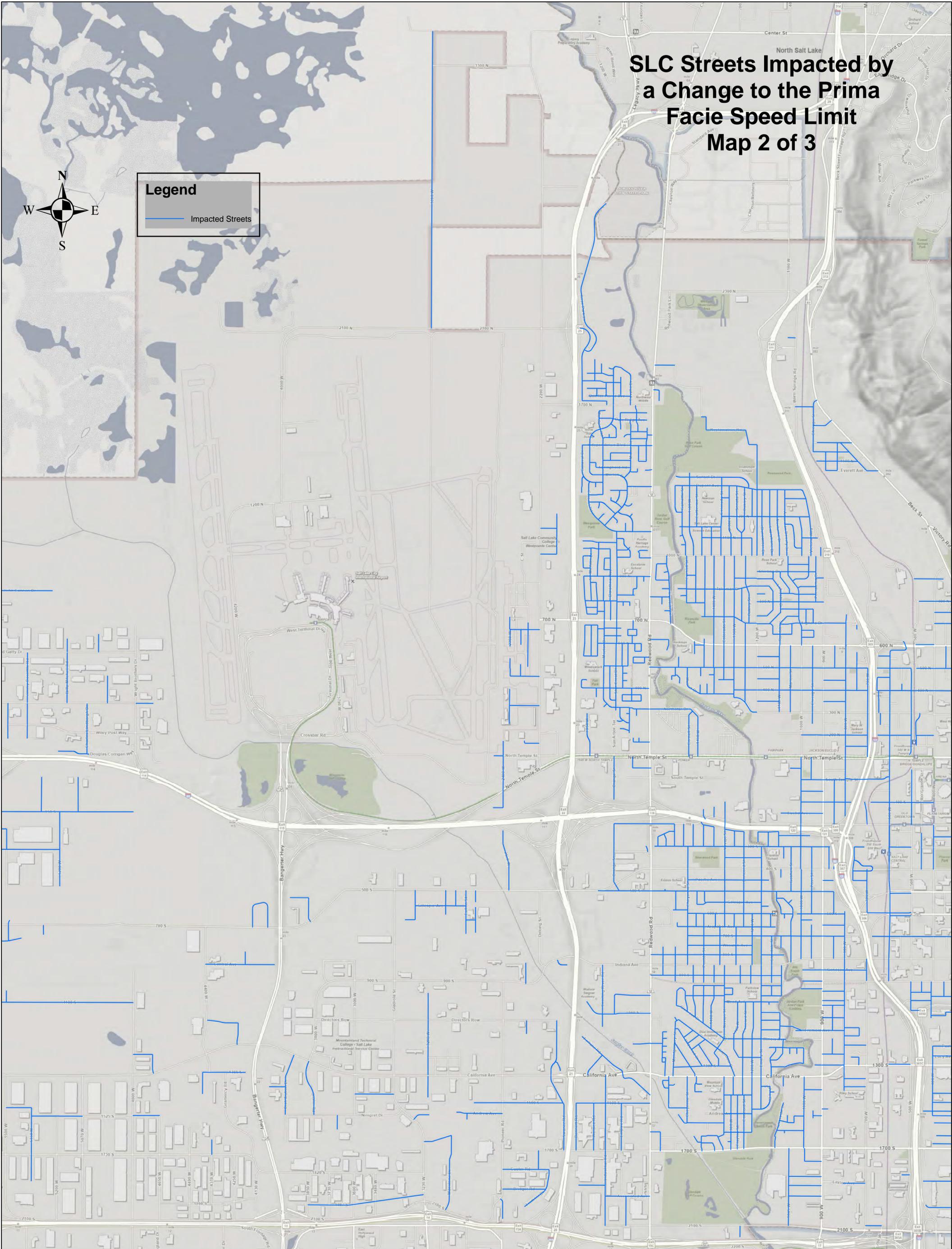
SLC Streets Impacted by a Change to the Prima Facie Speed Limit

Map 2 of 3



Legend

Impacted Streets

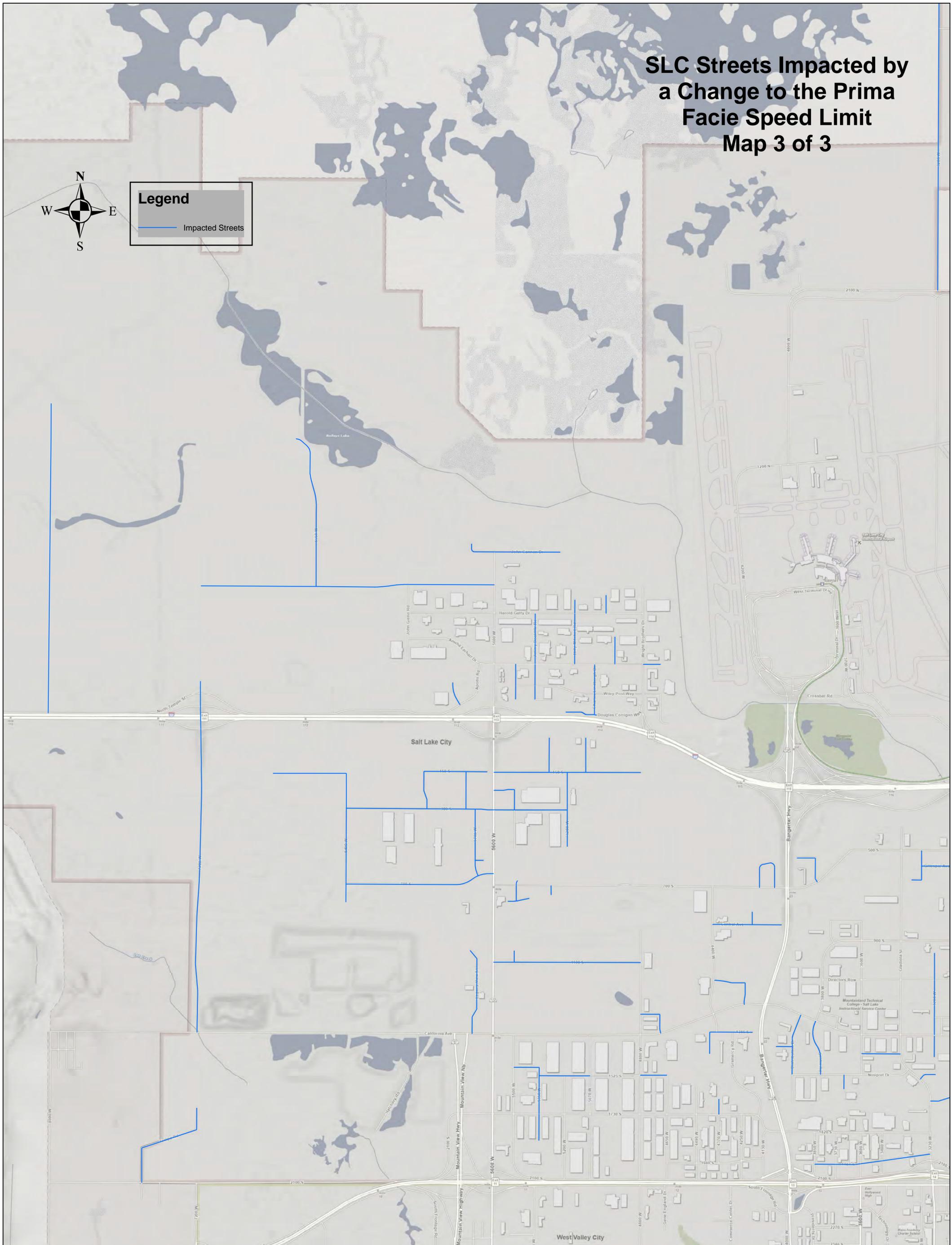


SLC Streets Impacted by a Change to the Prima Facie Speed Limit Map 3 of 3



Legend

- Impacted Streets



TRANSPORTATION ADVISORY BOARD

Salt Lake City Transportation Division Office - 349 South 200 East, Suite 150 - P.O. Box 145502
Salt Lake City, Utah 84114-5502

Neighborhood Traffic Slowing Efforts

Dear Mayor Mendenhall and City Council Members,

The Transportation Advisory Board supports every effort to make our neighborhoods safer. Over the last decade, many neighborhoods in Salt Lake City have made efforts to help slow down traffic in their communities. Some of these campaigns include the neighborhood pace car program, the "Slow Down 600 North" project, as well as Paint the Pavement projects, and most recently the Sweet Streets SLC "Twenty is Plenty" program.

As previously stated in our letter dated September 25, 2020, *"The Salt Lake City Transportation Advisory Board supports prioritizing the safety of vulnerable roadway users above the convenience and level of service of motor vehicle traffic in Salt Lake City. These include any users of the public right-of-way who are not protected by a vehicle, such as people walking, bicycling, using mobility devices and scooters; and people sitting, standing, and dining outdoors."*

Development of the Salt Lake City *Street & Intersection Typologies Design Guide* and the updates to the *Transportation Master Plan* will allow the City to adopt appropriate speed levels for our neighborhoods and city streets, thus offering more protection to people being outdoors. There are many tools available to use to make our communities safer, including use of temporary signage, permanent traffic calming, and continuous educational campaigns.

The safety of all our neighbors is essential. Reducing the motor vehicle speed in all areas will benefit the quality of life for everyone, especially people that are not using automotive transportation and other vulnerable users. Implementation of reduced speeds in those locations in the city will benefit the Complete Streets protocol, as well as assist street and traffic engineers to continue to understand the livability of the roads they are building. The Board also understands the need of education, engagement, and enforcement for any expected changes in roadway behavior.

The Transportation Advisory Board encourages the Mayor's Office and City Council to address neighborhood and community concerns about residential speeding and efforts to improve safety for Salt Lake City. Each neighborhood should not feel they must work individually to make their community safer; this is a city-wide concern. Adoption of a slower speed in neighborhoods program will provide a standard to all who use our streets, and increase safety as a priority.

Sincerely,

Courtney Reeser, Chair

Transportation Advisory Board

LEGISLATIVE DRAFT

SALT LAKE CITY ORDINANCE
No. _____ of 2022

(An ordinance amending Section 12.36.020 of the Salt Lake City Code
Pertaining to the Prima Facie Speed Limit)

WHEREAS, Chapter 12.36 “Speed Limits” sets forth the speed limits for streets within the Salt Lake City boundaries; and

WHEREAS, Section 12.36.020(B) of the Salt Lake City Code currently sets the prima facie speed limit for all streets at twenty-five (25) miles per hour, with some exceptions for school zones and school bus stops; and

WHEREAS, the Salt Lake City Transportation Division is committed to providing a safe and efficient transportation system for those travelling within Salt Lake City and further supports the goals of the Vision Zero and Zero Fatalities programs; and

WHEREAS, the Transportation Division has presented evidence that a reduction of the prima facie speed limit to twenty (20) miles per hour will likely decrease the frequency of collisions involving motorized vehicles, as well as the severity of outcomes for those involved in collisions, particularly for vulnerable road users such as bicyclists and pedestrians; and

WHEREAS, the Salt Lake City Council finds that updates to the current ordinance are necessary to reduce the prima facie speed limit within Salt Lake City from twenty-five (25) miles per hour to twenty (20) miles per hour to promote public safety and welfare.

NOW, THEREFORE, be it ordained by the City Council of Salt Lake City, Utah:

SECTION 1. Amending Section 12.36.020. Section 12.36.020 of the *Salt Lake City Code* shall be, and hereby is, amended to read as follows:

Where no special hazard exists that requires a lower speed for compliance with section 12.30.010 of this chapter, or its successor, the speed of any vehicle in excess of limits specified in this title is prima facie evidence that the speed is not reasonable or prudent and that it is unlawful:

LEGISLATIVE DRAFT

29 A. Twenty Miles Per Hour:

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- 1. Upon meeting or overtaking any school bus which has stopped on the street for the purpose of receiving or discharging any schoolchildren, provided such school bus bears upon the front and rear thereof a plainly visible sign containing the words "school bus" in letters no less than four inches (4") high which can be removed or covered when the vehicle is not in use as a school bus;
- 2. When passing a school building or the grounds thereof, or through a designated school crossing zone during school recess, or while children are going to or leaving school during opening or closing hours;
- 3. On all streets and at all places the prima facie speed limit shall be twenty (20) miles per hour, except on such other streets or places as otherwise posted or marked as directed by the city transportation engineer.

SECTION 2. Effective Date. This Ordinance shall become effective on the date of its first publication.

Passed by the City Council of Salt Lake City, Utah this __ day of _____, 2022.

CHAIRPERSON

ATTEST:

CITY RECORDER

Transmitted to Mayor on _____.
Mayor's Action: _____ Approved. _____ Vetoed.

MAYOR

CITY RECORDER

(SEAL)

LEGISLATIVE DRAFT

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Bill No. _____ of 2022.

Published: _____.

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No. _____ of 2022

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A. Twenty Miles Per Hour:

1. Upon meeting or overtaking any school bus which has stopped on the street for the purpose of receiving or discharging any schoolchildren, provided such school bus bears upon the front and rear thereof a plainly visible sign containing the words "school bus" in letters no less than four inches (4") high which can be removed or covered when the vehicle is not in use as a school bus;
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ATTEST:

CITY RECORDER

Transmitted to Mayor on _____.
Mayor's Action: _____ Approved. _____ Vetoed.

MAYOR

CITY RECORDER
(SEAL)

Bill No. _____ of 2022
Published: _____.

APPROVED AS TO FORM
Salt Lake City Attorney's Office

Date: April 21, 2022

Sara Montoya

Sara Montoya, Senior City Attorney