CALIFORNIA SYSTEMIC SAFETY
ANALYSIS REPORT PROGRAM

# LANCASTER SAFER STREETS ACTION PLAN

January 2020

lancaster
SAFER STREETS
ACTION PLAN

# EXECUTIVE SUMMARY

The purpose of the Lancaster Safer Streets Action Plan is to develop a systemic safety framework in support of reductions in the number and severity of crashes in the City of Lancaster. This plan lays the groundwork and provides the resources necessary for the preparation of successful Highway Safety Improvement Program (HSIP) grant applications by the City. It involves a data-driven process to address fatal and severe injuries for people traveling on foot, by bike, or by car; identify high-risk roadway characteristics; recommend countermeasures to address these crashes and characteristics; and ultimately, devise a traffic safety program to eliminate traffic-related deaths and severe injuries.

The Safer Streets Action Plan was funded through a Systemic Safety Analysis Report Program (SSARP) grant provided by the California Department of Transportation (Caltrans). The SSARP will build on the work completed in the City of Lancaster Complete Streets Safety Assessment (CSSA), completed in 2018, by expanding the geographic area analyzed for safety issues, and by incorporating a systemic and proactive approach to safety analysis. The SSARP process focuses not only on historically high-crash locations, but also incorporates analysis of high-risk roadway characteristics and contextual factors to identify safety solutions that can be implemented throughout the roadway network and, in many locations, before crashes occur.

### THE PURPOSE OF THE SAFER STREETS ACTION PLAN IS TO:

1. Provide a citywide systemic safety framework
2. Identify representative locations and corresponding key crash types
3. Develop a list of safety countermeasures recommended for each location
4. Provide resources to secure funding to improve the representative locations

The SSAR program was initiated by Caltrans to help local agencies take a more proactive approach to identifying safety improvement projects by completing a system-wide, data-driven analysis of crashes. The SSAR evaluation includes crash and roadway database development, review of local crash data, safety data analysis, crash profile analysis, safety countermeasures identification, and project prioritization.

Chapter 1 contains a review of the plans and policies already in place in Lancaster that govern roadway planning and construction. The plans and policies summarized in this chapter include the General Plan, the Citywide Traffic Calming Policy, the Plan

of Trails & Bikeways, the Safe Routes to School Plan, and the Lancaster Master Plan of Complete Streets. The goals and projects identified in these plans were used to inform and supplement the recommendations in the Lancaster Safer Streets Action Plan.

The crash analysis process – described in Chapter 2 and Appendix A – involved creating a crash database to identify locations with a history of crashes and examining the crash trends at those locations to discern patterns and contributing factors. The database includes crashes that occurred from January 1, 2013 through the end of 2017, provided through the City's Crossroads database. The database of 9,742 crashes, including 79 fatal crashes and 146 crashes resulting in severe injury, shows that the most common type of crash is a broadside crash, and the most common cause of a crashes is a right-of-way violation by a driver.

In addition to identifying locations with a history of crashes, this Plan also evaluated the systemic nature of crashes in the city, focusing not only on where crashes have occurred, but if the number of crashes exceeded the expected crash rate for that location. This analysis helped to pinpoint lower volume streets with safety issues, in addition to the locations with the highest number of crashes.

Chapter 3 includes the recommended representative projects and locations. Through the crash analysis process, nine intersections and three roadway segments were identified as representative project locations. These locations represent a variety of roadway contexts seen throughout Lancaster, and the projects recommended for each location can also be considered for locations with similar characteristics or similar crash patterns. At each location, a short-, medium-, and long-term project list is presented in this chapter. To aid in the preparation of HSIP grant applications, each project is accompanied by a cost estimate, the benefit-cost ratio, and planning graphics that illustrate the proposed improvements.

Chapter 4 presents a summary of available funding sources that can be used to finance safety projects in addition to HSIP funding. This list includes regional, state, and federal funding programs, a description of the program purpose, and the date of the next funding opportunity.

To address the safety concerns identified in the crash analysis, a safety Countermeasure Toolbox is presented in Appendix B. The Toolbox includes a series of infrastructure improvement projects that can be used in HSIP funding applications. Each countermeasure is described along with its key design features, benefits, and application contexts. These countermeasures are used in the project lists in Chapter 3 and can be a resource to the City for future planning and safety improvements.

While infrastructure improvements are the core focus due to their efficacy and because they can be funded by HSIP, Appendix B also contains holistic recommendations for other improvements that support a safe transportation system. Other recommendations focus on bus stop safety, the importance of maintenance, curbside management, future fleet safety recommendations, and general policy for education and enforcement.

# ENGINEER'S SEAL

**PREPARED BY**

(Name) Date
(Title)
(ID Number)
Project Engineer

**SIGNED FOR APPROVAL**

(Name) Date
(Title)
(ID Number)
City of Lancaster

By signing and stamping this Systemic Safety Analysis Report, the engineer is attesting to this report's technical information and engineering data upon which local agency's recommendations, conclusions, and decisions are made.

# STATEMENT OF PROTECTION OF DATA FROM DISCOVERY AND ADMISSIONS

Section 148 of Title 23, United States Code

REPORTS DISCOVERY AND ADMISSION INTO EVIDENCE OF CERTAIN REPORTS, SURVEYS, AND INFORMATION — Notwithstanding any other provisions of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section, shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at the location identified or addressed in the reports, surveys, schedules, lists, or other data.

# ACKNOWLEDGMENTS

The 2019 Lancaster Safer Streets Action Plan was funded through a Systemic Safety Analysis Report Program (SSARP) grant provided by the California Department of Transportation (Caltrans).

## CALTRANS SSARP GRANT ID: P3022

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CHAPTER 1

# PLAN AND POLICY REVIEW

This chapter provides a review of previous planning efforts that are relevant to enhancing traffic safety as part of the Lancaster Safer Streets Action Plan. Lancaster aims to achieve a multimodal sensitive roadway system that responds to the evolving transportation landscape and addresses safe mobility for all.

The Lancaster Safer Streets Action Plan will adhere to the guidelines under the Systematic Safety Analysis Reporting Program (SSARP), a data-driven procedure to address fatal and severe injuries for people traveling on foot, by bike, or by car; identify high-risk roadway characteristics; recommend countermeasures to address these crashes and characteristics; and ultimately, devise a traffic safety program to eliminate traffic-related deaths and severe injuries.

Over the years, the City of Lancaster has amended its General Plan, Zoning Code, and adopted other guiding plans with the goal of making Lancaster a more sustainable and livable community. These plans include:

- Citywide Traffic Calming Policy, 2008
- Lancaster Master Plan of Trails and Bikeways (MPTB), 2012
- Lancaster Safe Routes to School (SRTS) Master Plan, 2016
- Lancaster Master Plan of Complete Streets (MPCS), 2017
- Lancaster Complete Streets Safety Assessment, 2018

This chapter provides a summary of the priorities established in previous planning efforts, a review of the methodologies and safety analyses that informed the recommended list of projects, and a discussion on how the recommendations align with the City's traffic safety goals and affirm the direction of the Lancaster Safer Streets Action Plan.

## OVERVIEW OF PLANS AND POLICIES

Prior plans have taken varied approaches to developing project lists based on existing conditions, crash data, community input, traffic analyses, and other methodologies. Key findings were analyzed in each plan to understand what safety analyses have been performed and what can be improved to inform the Lancaster Safer Streets Action Plan. Table 1 - Safety Analyses Completed in Relevant City of Lancaster Plans provides a summary of key findings from each plan.

**TABLE 1** SAFETY ANALYSES COMPLETED IN RELEVANT CITY OF LANCASTER PLANS

| PLANS | CRASHES (PED/BIKE ONLY) | COMMUNITY OUTREACH | SAFETY COUNTERMEASURES/ DESIGN GUIDELINES | EDUCATION AND ENFORCEMENT PROGRAMS | PRIORITIZED PROJECT LIST |
|---|---|---|---|---|---|
| 1. General Plan 2030 (2009) | n/a | n/a | Per amendment (17-04), City will consider traffic calming before raising speed limits in designated areas | n/a | n/a |
| 2. Citywide Traffic Calming Policy (2008) | n/a | n/a | Traffic calming countermeasures included | Education and enforcement programs included as part of the traffic calming countermeasures | n/a |
| 3. Master Plan of Trails & Bikeways (2012) | Crashes were analyzed and were not primary basis for project list | Community input informed development of projects | Design guidelines for bicycle, pedestrian, trails, new development, landscape design and public realm enhancements included | Education & enforcement programs recommended | Project list was determined based on existing conditions, community input and field observations |
| 4. Master Plan of Complete Streets (2015) | n/a | Community input informed development of project list | Complete streets design guidelines and suggested road cross sections included | n/a | Project list was determined based on existing conditions, community input, traffic forecasting analysis, and field observations |
| 5. Safe Routes to School (SRTS) Plan (2017) | Crashes were analyzed and were not primary basis for project list | Community input informed development of project list | Guidelines on school area countermeasures, and signs and markings per CA MUTCD included | Education & enforcement programs recommended | Project list was determined based on community input and field observations |
| 6. Complete Streets Safety Assessment (CSSA) (2018) | Crashes were analyzed and were not primary basis for project list | n/a | Pedestrian, bicycle and other road user safety countermeasures included | Current education & enforcement programs evaluated, and new programs recommended | Project list was determined at the request of City staff |

## GENERAL PLAN 2030

Adopted on July 14, 2009, Lancaster's General Plan serves as the long-term vision to address numerous aspects of the City, including housing, transportation, land use, and public health, among others.

The Plan describes compact growth strategies that could facilitate shorter trips and encourage increased bicycling and walking. One of the stated assumptions in the General Plan is that Lancaster will experience population growth, and that much of this will be accommodated by high-intensity urban infill. Land use in Lancaster is categorized as either an Urbanizing Area or Rural Area, and all of the population growth projected through 2030 could be accommodated in the Urbanizing Area. The General Plan also assumes that the rising cost of fuel, as well as state and regional initiatives to curb greenhouse gases, will result in increased use of alternative modes of transportation. Under this assumption, it is critical to promote roadway safety as there will be more vulnerable road users walking and biking on Lancaster's streets.

Two components of the General Plan, Chapter IV, Plan for Active Living and Chapter V, Plan for Physical Mobility, further specify how Lancaster will enable more trips to be made by foot or bicycle.

- Chapter IV, Plan for Active Living calls for the adoption and implementation of the MPTB to create a safe and integrated system of bicycle, pedestrian, and equestrian trails.
- Chapter V, Plan for Physical Mobility specifies several actions and policies related to improving the safety of all modes. This may include implementing streetscape enhancements, balancing vehicular travel with pedestrian access, providing bicycle parking, and requiring pedestrian access to new developments. Notably, "where conflicts arise between motorist convenience and the livability and well-being of neighborhoods, the latter concerns shall have priority" (Specific Action 14.2.3(a)).

### GENERAL PLAN AMENDMENT NO. 17-04 AND SUBDIVISION ORDINANCE AMENDMENT OF CHAPTER 16.20

An amendment of portions of the City's General Plan was adopted in conjunction with the approval of the MPCS to support the proposed complete streets design approach. These changes are reflected within Chapter V, Plan for Physical Mobility, and others.

One of the key changes is the revisions to street performance evaluation metrics, outlined in Chapter V Specific Action 14.1.1(c), which eliminates vehicle delay—measured as level of service (LOS)—as a significant effect under the California Environmental Quality Act.

According to the staff report dated August 8, 2017, the revision to the City's general plan based on the MPCS created the following metrics:

- Within the City's "infill area", which is currently defined in the Lancaster Municipal Code as the area bounded by Avenue I, 20th Street East, Avenue L, and 30th Street West, peak hour LOS "D" may be acceptable and is weighed against other indicators. Mitigation of strictly vehicular-based LOS effects will not be required simply based on the LOS measurement.
- In other areas of the City, peak hour LOS "D" remains the general objective, but the language allows the City to evaluate the effects of mitigating vehicular-based impacts against other City goals and objectives.

As the General Plan is a policy framework, no traffic safety analyses or specific projects were identified to

inform the development of the SSARP. However, the General Plan highlights key policies and objectives related to roadway safety in the Public Health and Safety, Mobility, and Active Living plan elements, including a focus on the importance of resident participation in community safety, and providing safe and convenient opportunities for recreation.

## CITYWIDE TRAFFIC CALMING POLICY, 2008

The Lancaster Traffic Calming Policy aims to slow traffic on neighborhood streets and along arterial streets. It provides constituents who raise concerns of traffic impacts in their neighborhoods with a process to mitigate those impacts with traffic calming measures. The policy provides the City with a methodology for implementing traffic calming treatments on City arterials, and provides petitioning neighborhoods with a Traffic Calming Toolkit. The Traffic Calming Toolkit includes the following traffic calming measures:

- Education and enforcement strategies
- Radar speed monitoring trailers
- Speed feedback signs
- Roadway narrowing
  - *Chokers*
  - *Bulb-outs*
- Lane narrowing through striping
- Raised medians
- Gateway treatments
- Mini-roundabouts
- Speed humps
- Speed tables
- Raised crosswalks
- Diagonal diverters
- Partial street closures
  - *Semi-diverters*
  - *Forced turn barriers*
- Full street closures with culs-de-sac

Many of the tools listed here provide specific safety benefits and have an associated Crash Reduction Factor. This toolbox also includes several education and enforcement traffic calming measures, including educational workshops, speed trailers, speed feedback signs, and traditional enforcement by the sheriff's department.

## LANCASTER MASTER PLAN OF TRAILS & BIKEWAYS, 2012

The Lancaster Master Plan of Trails & Bikeways envisions a well-connected network of on- and off-road bikeways, trails and enhanced pedestrian facilities to accommodate users of all ages and abilities, including equestrians. It also includes recommendations to comply with Americans with Disability Act requirements.

The Plan specifies several actions the City can take to attain the goal of reducing the number of pedestrian- and bicycle-involved crashes (see Chapter 4, Goals, Policies, and Actions, Policy 3). These include implementing a citywide network of trails, bikeways and walkways; reducing conflict points between the different modes; calming vehicular traffic on appropriate streets; implementing education, encouragement, and enforcement strategies; and providing signage for routes, wayfinding, and safety tips at trailheads.

### CRASH ANALYSES

The Lancaster Master Plan of Trails and Bikeways provides a crash analysis of bicycle- and pedestrian-involved crashes from 2005 through 2009. It displays these crashes on two maps, one for bicycle-involved crashes and the other for pedestrian-involved crashes. The maps show the location of each crash and whether it was an injury crash or a fatality.

The analysis compares the number of bicycle- and pedestrian-involved crashes with statewide statistics on a per-capita basis. The analysis also describes the primary crash factors for bicycle- and pedestrian-involved crashes in the aggregate, and not for each crash.

## COMMUNITY OUTREACH

Development of the Lancaster Master Plan of Trails and Bikeways involved public outreach to various stakeholder groups at several stages of the planning process. A combination of community-wide workshops, targeted workshops, a questionnaire and City receipt of general comments were used. The survey revealed that the most common deterrent to bicycling in Lancaster is, "lack of safe streets to ride on." "Lack of safe streets to walk along," is the second most common deterrent to walking, behind "destinations are too far."

A series of walk audits were conducted, each of which included a discussion of different devices to slow and calm traffic, the importance of land use mixes, network connectivity, and how to retrofit incrementally. Attendees were then led on a brief walk in each location to observe the street environment and identify safety concerns, and potential solutions to make the surrounding neighborhood a more friendly environment for pedestrians and bicyclists. Challenges including speeding and pedestrian crossings were identified as general problems at all three walk audits.

## COUNTERMEASURES & RECOMMENDATIONS

In the Plan recommendations, the bikeway portion proposes bike lanes, signed bike routes, buffered bike lanes, and colored bike lanes based on what would physically fit on existing streets. It also includes planned bikeways on new or expanded roads as they are built. Lane reductions are proposed where the streets have excess capacity to reallocate space for bicycle improvements. Bike paths and paved multipurpose paths are recommended on rights-of-way such as along waterways, utility corridors, and gaps of existing streets. While crash analysis was only one part of the Plan development, creating defined and protected spaces for bicycles to operate within the roadway creates a safer environment for all modes.

The trails component recommends a citywide network of trails for pedestrians, joggers, bicyclists, and equestrians. Some of these trails are planned to be shared by different modal users. Trail facilities include:

- Paved bike paths
- Paved multipurpose paths
- Earthen multipurpose paths
- Earthen equestrian trails
- Earthen jogging trails and rubber sidewalks
- Pedestrian trails

Pedestrian improvements are recommended at 60 intersections. These improvements include countermeasures such as, but not limited to:

- High-visibility crosswalks
- Advance stop/yield lines
- Signs
- Signal modifications
- Crossing islands
- Reduced curb radii
- Curb extensions
- Rectangular rapid-flash beacons

Missing sidewalks are also identified, as well as improvements at railroad crossings.

### SAFETY PROGRAMS (EDUCATION & ENFORCEMENT)

Ongoing and proposed education and enforcement programs to improve active transportation are listed in the Lancaster Master Plan of Trails and Bikeways to improve the safety of those walking and bicycling. Though these programmatic strategies do not need to be incorporated into the SSARP, City staff may choose to conduct more detailed studies on what programs are currently effective and could be implemented to possibly improve traffic safety.

### REPRESENTATIVE PROJECT LIST

The proposed projects came directly from community input, City staff preferences, and consultant expertise on appropriate facilities and countermeasures. These projects were separated into on- and off-street facilities and divided into short-, medium-, and long-term implementable projects. Criteria for prioritization included safety considerations, along with input from stakeholder workshops, preferences by City staff and the technical advisory committee, land use and geographical characteristics, user-friendliness, and cost effectiveness.

Through the SSARP process, the City has an opportunity to revisit the Representative Project List and conduct additional analysis on existing safety issues along the corridors that have been identified for improvements. Conducting this additional safety analysis will also allow the City to revisit the project recommendations and may provide further supporting evidence for high-risk locations. With this additional safety analysis, some Lancaster Master Plan of Trails and Bikeways projects may rise to the top of the SSARP prioritized project list, and still others may be more competitive for funding due to the additional safety analysis conducted.

## LANCASTER SAFE ROUTES TO SCHOOL PLAN, 2016

The Lancaster Safe Routes to School (SRTS) Plan provides recommendations to make walking and bicycling safer to all 30 public schools in Lancaster.

### CRASH ANALYSES

Five-year crash analyses (2009-2013) for bicycle- and pedestrian-related crashes were mapped within each school's enrollment boundary. The maps defined the location of the crashes, and whether they were injury- or fatality-crashes. Further details about the crash statistics were not studied. These crash maps served to inform existing conditions, and were not explicitly referenced in the development of the representative projects list.

### COMMUNITY OUTREACH

The effort commenced with public workshops for stakeholders at each school that presented on why SRTS is important, along with a sampling of the "5E" approach—education, encouragement, enforcement, engineering, and evaluation strategies—to make walking and bicycling safer and more attractive for Lancaster's students and parents. After the presentation, stakeholders participated in walk audits around their school sites and a mapping exercise that identified locations where safety issues and other barriers discourage walking and bicycling along common routes to each of the schools.

### RECOMMENDATIONS & COUNTERMEASURES

The SRTS Plan recommends pedestrian countermeasures at each identified intersection, new sidewalks where they are missing, and new bikeways. The recommended list of projects was developed based on community input and in-field observations. Recommended bikeways for school-specific

improvements are generally consistent with the MPTB. However, as the SRTS Plan was completed later than the MPTB, some modifications are recommended.

### SAFETY PROGRAMS (EDUCATION & ENFORCEMENT)

The SRTS Plan applied the "5E" approach to make walking and bicycling to school safer for students, and encourage more students to do so. Potential education and enforcement programs were identified by stakeholders, such as more pedestrian and bicycle education training and increased enforcement during school pick-up/drop-off times. Input was collected from the SRTS workshops as to what the stakeholders wanted to see enacted at their schools.

### PRIORITIZED PROJECT LIST

The projects from the SRTS Plan came directly from the locations identified in the stakeholder workshops. The consultants recommended countermeasures based on issues (speeding, not stopping at stop signs, etc.) that stakeholders noted for each location. Between four to ten projects were proposed at each of the 30 schools. There was no safety analysis conducted of each location.

As with the Master Plan of Trails and Bikeways, the City has an opportunity to revisit the SRTS Prioritized Project List and conduct additional analysis on existing safety issues at locations that have been identified for improvements. Conducting this additional safety analysis will also allow the City to revisit the project recommendations and may provide further supporting evidence for high-risk locations.

## LANCASTER MASTER PLAN OF COMPLETE STREETS (2017)

Lancaster recognizes the importance of improving the safety and accessibility of all people, making the street more comfortable and enjoyable for walking and bicycling, improving the connectivity of the street network, and balancing the transportation system of all users. The Master Plan of Complete Streets (MPCS) provides guidance on future development of Complete Streets through flexible development standards and design guidelines to enable safe, comfortable, and convenient travel to the greatest extent possible for users of all ages and abilities.

### CRASH ANALYSES

No crash analyses were conducted to inform the projects in the MPCS.

### COMMUNITY OUTREACH

For the MPCS, one public outreach event was conducted to give input on transportation issues and where stakeholders would like to see complete streets principles implemented.

### SAFETY PROGRAMS (EDUCATION & ENFORCEMENT)

No programmatic strategies were recommended as part of the MPCS.

### RECOMMENDATIONS & DESIGN GUIDANCE

Design guidance covered in the MPCS includes sidewalks, roadways, intersections and crossings. Complete street cross sections for each street classification are provided to illustrate what could be applied to roadways in respect to lane widths, number of lanes, on-street parking, and bike lanes. For each street type, multiple configurations are suggested to provide design flexibility based on the local context and the priorities of the adjacent communities. More generally, the proposed cross sections include two travel lanes (one lane in each direction) and a center turn lane for streets with fewer than 20,000 vehicles a day, and four travel lanes (two lanes in each direction) and a center turn lane

for streets with between 20,000 and 40,000 daily vehicles. Typical roadway widths recommended in the MPCS are shown in Figure 1 - Complete Streets Typical Widths. Though not explicitly recommended as safety countermeasures, the design guidance for slowing speeds and promoting active modes of transportation have the effect of promoting roadway safety for all modes. Additionally, the MPCS provides the City with simple and intuitive multi-modal level of service (MMLOS) tools to undertake qualitative assessments of local street conditions for different modes.

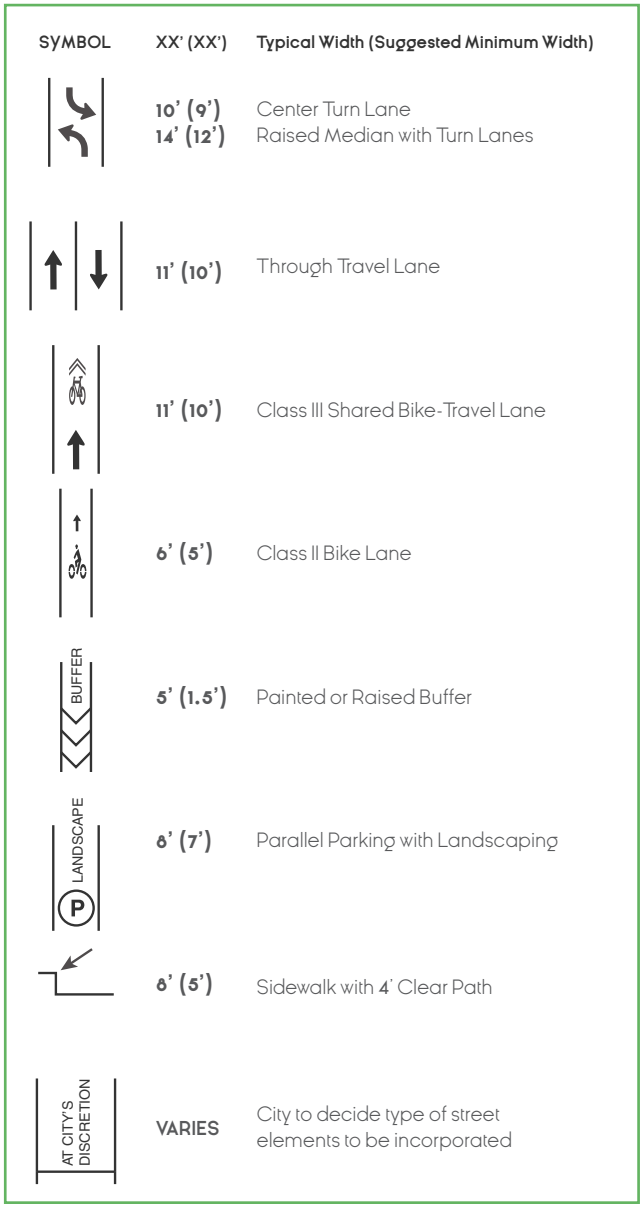
## PRIORITIZED PROJECT LIST

Potential Complete Streets in Lancaster have also been identified as part of the MPCS, as shown in Table 2 - City of Lancaster Complete Streets Candidate Corridors. These street segments were chosen based on existing street classifications, adjacent land-uses, projected ADT volumes, community concerns, and in-field observations. The recommended corridor treatments include reducing the number of travel lanes, installing medians, widening walkways to provide meandering sidewalks, and incorporating buffered bike lanes.

The MPCS is complementary to, and supportive of, other plans adopted by the City of Lancaster to promote safety and active transportation, including the Lancaster MPTB and the SRTS Master Plan.

As with the Master Plan of Trails and Bikeways and Safe Routes to School Plan, the City has an opportunity to revisit the Complete Streets Candidate Corridors and conduct additional analysis on existing safety issues along corridors that have been identified for improvements. Conducting this additional safety analysis will also allow the City to revisit the project recommendations and may provide further supporting evidence for high-risk locations.

**FIGURE 1** COMPLETE STREETS TYPICAL WIDTHS




*Source: Lancaster Master Plan of Complete Streets, 2017*

**TABLE 2** CITY OF LANCASTER COMPLETE STREETS CANDIDATE CORRIDORS

| CORRIDOR NUMBER | STUDY CORRIDOR | FROM | TO |
|---|---|---|---|
| 1 | 30th Street W | Avenue J | Avenue L |
| 2 | 10th Street W | Avenue J | Avenue K |
| 3 | Sierra Highway | Avenue I | Avenue K |
| 4 | Division Street | Avenue I | Avenue J |
| 5 | Challenger Way | Lancaster Boulevard | Avenue K-8 |
| 6 | 20th Street E | Lancaster Boulevard | Avenue K |
| 7 | 30th Street E | Avenue J-8 | Avenue L |
| 8 | Avenue I | 30th Street W | 15th Street W |
| 9 | Avenue J | Division St | 20th Street E |
| 10 | Avenue K | 20th Street W | Sierra Highway |
| 11 | 25th Street W | Lancaster Boulevard | Avenue J |
| 12 | Valley Central Way | Avenue I | Avenue J |
| 13 | 15th Street W | Avenue J | Avenue K |
| 14 | Yucca Avenue | Avenue I | Milling St |
| 15 | 15th Street E | Avenue I | Avenue K |
| 16 | Lancaster Blvd | 30th Street W | 20th Street W |
| 17 | Avenue J-8 | 30th Street W | 20th Street W |
| 18 | Avenue K-8 | 35th Street W | 10th Street W |
| 19 | Avenue L | Business Center Parkway | 10th Street W |

*Source: Lancaster Master Plan of Complete Streets, 2017*

## CITY OF LANCASTER COMPLETE STREETS SAFETY ASSESSMENT, 2018

The Complete Streets Safety Assessment (CSSA) was prepared to support the development of the SSARP. The primary objective of the CSSA is to improve traffic safety in Lancaster at identified locations within the document.

### CRASH ANALYSES

The CSSA provides the most comprehensive aggregate crash analysis prior to the SSAR. It includes an overview of pedestrian- and bicycle-related crash data over a 4-year period (2014-2017), summarizing characteristics of the traffic crashes based on frequency by day of the week and hours of the day, primary crash factors, and most prevalent locations of crashes. Projects identified in the CSSA, however, were primarily selected based on City staff preferences, and no safety analysis was conducted specific to each project location.

### COMMUNITY OUTREACH

Community outreach was not a component in the development of the CSSA.

### RECOMMENDATIONS & COUNTERMEASURES

The assessment examines four intersections (includes the roundabout at Challenger Way and Avenue L) and three street segments that were selected by City staff. These locations are:

- Intersections
  - *10th Street West & Avenue K-4*
  - *Challenger Way & Avenue K*
  - *27th Street East & Avenue K*
  - *Challenger Way & Avenue L roundabout (recently completed)*
- Street Segments
  - *Avenue L – 32nd Street West to 37th Street West*
  - *Challenger Way – Avenue J to Avenue J-5*
  - *Avenue K – Gadsden Avenue to 10th Street West*

Countermeasures to address the safety challenges at these locations were recommended. The toolbox includes countermeasures to focus on:

- Motor-vehicle crashes (i.e., signs, markings and enhancements)
- Intersection design (i.e., traffic signal design, roadway operations, engineering design)
- Law enforcement efforts on prevention
- Driver awareness campaigns on local patterns (i.e., distracting driving)
- Traffic control devices updates
- Design of pedestrian facilities
- Adequacy of bicycle facilities
- New bicycle-friendly infrastructure (i.e., shared-use paths, bike racks on buses)
- Bicycle assess to schools and transit
- Promotion of bicycle safety awareness campaigns

### SAFETY PROGRAMS (EDUCATION & ENFORCEMENT)

The CSSA provides a detailed review of past and present enforcement efforts provided by the Los Angeles County Sheriff's Department. It details the Department's current traffic crash reporting process, training, and database management and recording systems. Pedestrian and bicycle safety education and sheriff enforcement strategies are recommended. Automated enforcement measures on traffic signals, such as red light cameras and 'rat boxes' are also suggested.

### PRIORITIZED PROJECT LISTS

The CSSA provided recommendations for four intersections and three street segments in Lancaster that were selected by City staff. For each location, short-, medium-, and long-term improvements were recommended. Short-term improvements generally include resurfacing and restriping, while long-term improvements involve curb and median construction.

*The SSARP will build on the work completed in the CSSA plan by expanding the geographic area analyzed for safety issues, and by incorporating a systemic and proactive approach to safety analysis. The SSARP process focuses not only on historically high-crash locations, but also incorporates analysis of high-risk roadway characteristics and contextual factors to identify safety solutions that can be implemented throughout the roadway network and, in many locations, before crashes occur. For the intersections and street segments with recommended projects in the CSSA plan, the SSARP process allows for an opportunity to validate those projects with additional data and expand the geographic scope of safety countermeasure implementation to other locations.*

## CALIFORNIA STRATEGIC HIGHWAY SAFETY PLAN (SHSP) AND IMPLEMENTATION PLAN, 2015-2019 (2015)

California adopted a two-plan approach that includes the SHSP and the Implementation Plan. The SHSP is statewide coordinated safety plan that provides a framework for reducing highway fatalities and severe injuries on public roads. The Implementation Plan includes strategies to implement the SHSP and achieve the overall vision and objectives in reductions to traffic-related fatalities and severe injuries.

The SHSP aims to achieve a safe and sustainable transportation system by utilizing a data-driven "4E" approach: engineering, enforcement, education, and emergency medical services. This approach serves to improve roadway infrastructure and assist with behavioral change by focusing on areas with the greatest opportunity for reductions in preventable traffic-related fatalities and severe injuries. A fifth E—evaluation—will be added into a companioning Evaluation Plan that will assess both the process and performance of the SHSP. The Evaluation Plan will be completed after the five-year life of the SHSP.

The SSARP report is designed to prepare studies that specifically evaluate SHSP's 15 Challenge Areas. Challenge areas include:

- Roadway Departure and Head-On Crashes
- Intersections, Interchanges, and Other Roadway Access
- Work Zones
- Alcohol and Drug Impairment
- Occupant Protection
- Speeding and Aggressive Driving
- Distracted Driving
- Driver Licensing and Competency
- Pedestrians
- Bicycling
- Young Drivers
- Aging Road Users
- Motorcycles
- Commercial Vehicles
- Emergency Medical Services

## OTHER RELEVANT PLANS

The Downtown Specific Plan (2008) recommends a combination of land use regulations and development guidelines to create a walkable downtown area. This Plan is meant to provide a high-level strategy for the downtown area. Promoting a walkable environment increases roadway safety by providing infrastructure to not only support walking, but also to calm vehicular traffic, improve pedestrian safety, and promote a greater sense of place.

The Lancaster Transit-Oriented Development Zones (2015) promotes high-quality, walkable, mixed-use, and transit-oriented neighborhoods surrounding the Lancaster Boulevard core and the Metrolink station. Similar to the Downtown Specific Plan, defining TOD zones provides a clear direction for how pedestrian-oriented streets, public open spaces, and the built environment interact with one another to foster a strong sense of community security while encouraging pedestrian activity.