



STAFF REPORT

City Council

Meeting Date:

10/24/2023

Staff Report Number:

23-241-CC

Informational Item:

Receive an update on the Vision Zero Action Plan

Recommendation

Staff recommends that the City Council receive an update on the in-progress Vision Zero Action Plan (VZAP) in advance of a study session tentatively scheduled for the Nov. 7 City Council meeting. No action is requested of the City Council at this time. Feedback from the City Council at the study session will be critical to preparing the draft plan by the end of the 2023 calendar year, as required to maintain funding eligibility for regional grant funds, including \$5 million for the Middle Avenue pedestrian and bicycle crossing of the Caltrain tracks.

Policy Issues

The VZAP is consistent with General Plan policies CIRC 1.1, 1.7, 1.8, and 1.9 that establish vision zero as the City's guiding safety policy and establish specific safety policies for multimodal travel and safe routes to school.

Background

The City's VZAP, also referred to as a local road safety plan (LRSP), is being developed to implement the City's Vision Zero policy to eliminate fatalities and reduce collisions by 50% by 2030, as identified in the Circulation Element of the General Plan. A local safety plan is required for local jurisdictions to compete for several grant programs, including the Highway Safety Improvement Program, the regional One Bay Area Grant (OBAG) program, the federal Safe Streets for All program, and others. The City received a grant from the OBAG program for the Middle Avenue Caltrain crossing project and staff anticipate pursuing other grant sources for safety improvements in the future. Without an adopted local safety plan, the City would not be eligible to pursue these grant funding sources.

The VZAP will serve as an extension of the City's Transportation Master Plan (TMP), which was adopted by City Council Nov. 17, 2020. The TMP included safety as one of several factors to prioritize transportation investments in the City. The VZAP focuses exclusively on safety and uses the nationally developed safe system approach to eliminating fatalities and serious injuries on our roads. This approach recognizes that humans make mistakes and that we need to collaborate with all agencies and groups that have a role in safety, including roadway designers, vehicle development, emergency responders, educators, the public and decision makers. It takes a public health approach that seeks to reduce the physical forces that result from collisions to a level where humans can survive when collisions occur. Attachment A provides a hyperlink to Federal Highway Administration materials on safe systems.

On Nov. 15, 2022, the City Council authorized an agreement with Fehr & Peers to help the City develop the VZAP. Building on the City's ongoing work to develop the Environmental Justice element, the City engaged with Climate Resilient Communities (CRC) to help extend the outreach for the plan to engage populations in Menlo Park in historically underserved areas of the City (Belle Haven) and with groups that are more likely

to experience collisions. More information about the outreach conducted is provided below.

On Sept. 12, the City Council conducted a study session on the Neighborhood Traffic Management Program (NTMP). During that update, the City Council discussed implementing the NTMP within an overall safety strategy. The VZAP is expected to serve as that broad safety strategy, with the revised NTMP implementing that strategy on local, residential streets.

Analysis

The VZAP includes several work products, including:

- Policy review and benchmarking
- Existing collisions analysis
- Safety strategies development
- Priority projects identification
- Action plan development

Policy review and benchmarking

Fehr & Peers reviewed existing documentation on City policies and practices and compared these to national safety practices. Attachment B summarizes the benchmarking analysis.

Collision analysis

Using data on traffic collisions, Fehr & Peers reviewed the locations where collisions occur, the severity of these collisions, the demographics and other characteristics of individuals impacted by collisions, and what factors contribute to collisions. Attachment C summarizes the findings of the collision analysis.

The team also identified the City's high collision corridors. This map identifies the approximately 20% of streets in the City that experience over 90% of serious injuries and fatalities in Menlo Park (Attachment D). These roads include the surface state highways that traverse Menlo Park (El Camino Real/ State Route 82, Bayfront Expressway/State Route 84, Willow Road/State Route 114) and many of the streets that circulate traffic within and through town (examples include Bay Road, Chilco Street, Coleman Avenue, Middle Avenue, Newbridge Street, Ravenswood Avenue, Sand Hill Road, Santa Cruz Avenue, Valparaiso Avenue and Willow Road).

Safety strategies development

A key feature of the safe systems approach is that it takes a systemic, proactive approach to roadway safety. The objective of this analysis is to develop safety solutions that respond to the specific challenges on City streets and to apply those solutions across the transportation network that have similar characteristics as areas where there are collisions.

To support this approach, the team developed a set of six emphasis areas that organize safety solutions across the City's transportation system:

- State-owned roadways. These include El Camino Real (State Route 82), Bayfront Expressway (State Route 84), Willow Road (State Route 114), and University Avenue (State Route 119). While only 7% of roads in the City are state-owned, over 40% of serious injuries and fatalities in the City occur on these roads.
- City circulatory roadways. These include roads that tend to have higher vehicle volumes and speeds and serve both local traffic and people connecting between neighborhoods or to major transportation facilities. This includes between 14 and 20% of City streets, but at least 35% of serious injuries and

fatalities.

- Local residential streets. These include local roadways that are primarily intended for local access and are classified as neighborhood connectors or local roads. These roads have fewer collisions overall, but certain types of collisions are more present. Following direction from the City Council at the Sept. 12 study session on the NTMP, the NTMP program will be re-focused on implementing safety strategies on local roads, while providing a mechanism for residents to make requests for speed reduction strategies.
- Signalized intersections. Only 5% of City intersections are signalized, but over 40% of serious injuries and fatalities occur at these locations.
- Side-street stop controlled intersections. The City also has many intersections with stop controls only on the minor street. These streets tend to have a larger share of pedestrian collisions, especially for pedestrians over 65 years of age.
- School zones. These include roads both near schools and along recommended safe routes to school. Many school zones overlap with higher speed and volume streets, both City and state-owned. Many of the City's recommended routes to school may not have dedicated biking and walking paths. Many recommended routes to school are also on streets managed by San Mateo County, the Town of Atherton, and Caltrans. Attachment E provides a hyperlink to the City's recommended routes to schools maps, including an online map with all recommended routes.

Attachment F provides maps of each of the emphasis areas, including information about the collision types observed for each type of road. The team has begun developing strategy toolboxes designed to address the specific collision and roadway characteristics of each emphasis area, and anticipates publishing these toolboxes before the Nov. 7 study session.

Outreach

The project team has conducted a number of outreach and engagement events as part of the project, including:

- Two meetings of a stakeholder working group that includes representatives from multiple City departments, the Menlo Park Fire Protection District, SamTrans, Caltrans, and the City's Complete Streets Commission.
- A listening session with community-based organizations (CBO) serving Menlo Park residents to gather input and encourage participation in public events.
- Two workshops, one held in English and one in Spanish, at the Belle Haven Library. Over 80 individuals participated in these workshops.
- A pop-up event at the Menlo Park downtown farmers market.
- Targeted presentations to the Menlo Park Safe Routes to School Task Force.
- A presentation to the City's Complete Streets Commission Aug. 24.

Information about the project, including outreach events, is posted to the City's website (Attachment G).

An additional round of outreach will be held in late October and early November, including a stakeholder working group meeting, CBO listening session, and workshops in English and Spanish. These meetings will review the proposed actions and priority projects for the plan. Staff is also working on a survey of the actions and projects and additional targeted outreach to schools, local businesses and organizations serving older adults and individuals with disabilities to be conducted in November in advance of finalizing the plan for Complete Streets Commission and City Council review and approval.

Next steps

The team has been using the information from the analysis and outreach conducted to date to develop a draft action plan that will include policies, strategies, and projects to improve transportation safety in Menlo Park. Staff and the consultant are currently developing actions and priority projects that will be the key product of the plan. The remaining schedule of actions include:

- Public and stakeholder outreach on actions and projects – late October to early November
- City Council study session on actions and projects – Nov. 7 (tentative)
- Draft final action plan released – early December 2023
- Complete Streets Commission review and recommendation of the draft plan – Dec. 12
- City submission of plan to MTC for compliance with OBAG requirements – Dec. 22 before winter closure (required to receive \$5 million in funding for the Middle Avenue Caltrain crossing project)
- City Council adoption of final plan – Jan. 9, 2024 (tentative)

Impact on City Resources

The City Council included funding for the VZAP in the fiscal year 2022-23 capital improvement program from the transportation fund. No additional resources are requested to complete the plan at this time.

Environmental Review

This informational update is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§15378 and 15061(b)(3) as it will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Hyperlink – FHWA Safe Systems approach website: highways.dot.gov/safety/zero-deaths
- B. Benchmarking analysis
- C. Hyperlink – Summary of collisions on Menlo Park roads: menlopark.gov/files/sharedassets/public/public-works/documents/transportation/transportation-projects/vzap_roadway-collision-trends.pdf
- D. High collision corridors
- E. Safe Routes to School recommended walking and biking maps – menlopark.gov/Government/Departments/Public-Works/Transportation-Division/City-Safe-Routes-to-School-program/School-Walk-and-Roll-maps
- F. Emphasis area maps
- G. Hyperlink – VZAP webpage: menlopark.gov/visionzero

Report prepared by:

Hugh Louch, Assistant Public Works Director – Transportation

Report reviewed by:

Nikki Nagaya, Deputy City Manager

	Category	Benchmark	Assessed Level of Implementation	State of Current Practice in Menlo Park
Safety Planning and Culture	Leadership and commitment	Leaders publicly commit to a "Zero" goal for traffic fatalities and serious injuries within a specific timeframe, and exhibit buy-in for the Safe System approach through media, public events, and support for related policies and programs.	Institutionalized practice	A key goal of the Transportation Master Plan, adopted in November 2016 is Vision Zero – Eliminate traffic fatalities and reduce the number of non-fatal collisions by 50% by 2040.
		Develop a safety plan aligned with the Safe System approach that establishes a "Zero" goal for traffic fatalities and serious injuries and identifies concrete actions to help Menlo Park achieve zero including designation of lead agency, timeline, and funding. Safety plan should include an assessment of the local challenges that have hindered safety interventions in the past and create a roadmap for addressing them.	Not a Current Practice	Will be institutionalized through development of Menlo Park VZAP
		Establish key safety performance indicators and implement a monitoring process to evaluate progress and intervene if city is not on track.	Occasional/ Partial Practice	The TMP includes two safety performance metrics, including "reduction in number of collisions for each mode of travel" and "elimination of collisions resulting in one or more fatalities," however it is not clear how the City tracks these. Will be institutionalized through development of Menlo Park VZAP.
		Identify a staff coordinator to manage the agency's safety program and convene an inter-agency working group that discusses safety projects and initiatives. The working group includes a representative from every agency or department that plays a critical role in advancing each Safe System element. Actively work to identify and overcome barriers to coordination across departments and agencies.	Not a Current Practice	
		Provide training to Menlo Park staff, directors, elected officials, and community stakeholders on the Safe System approach.	Not a Current Practice	
		Establish an ongoing Safe Routes to Schools program and funding mechanism.	Occasional/ Partial Practice	SR2S is active, but funding mechanism is not identified.
		Meaningful Engagement	Establish a website to inform the public about Menlo Park's safety program goals and progress and the effectiveness of implemented safety projects.	Occasional/ Partial Practice
	Provide public safety materials in common languages spoken by Menlo Park residents whose first language is not English.		Occasional/ Partial Practice	City's website has some safety-related materials prepared in multiple languages, but not all materials.
	Data and analysis	Apply a proactive and transparent approach to data-driven safety analysis, including the use of systemic profiles, emphasis areas based on roadway or contextual contributing factors, mode-specific conditions assessments (e.g., bicycle network stress or distance between marked crossings), and equity considerations.	Not a Current Practice*	Will be institutionalized through development of Menlo Park VZAP
		Establish a process for citizens to report safety hazards or request safety interventions and a data-driven approach for evaluating the reports/requests.	Occasional/ Partial Practice	ACT Menlo Park allows users to report and track service requests. It is not clear how requests are evaluated and whether they are done so by a data-driven process. Recommend creating a transparent process to respond to requests that is data driven.
		Focus network screening and benefit/cost calculations on fatal and serious injuries, instead of all collisions, to identify the core safety issues for human vulnerability.	Not a Current Practice*	Will be institutionalized through development of Menlo Park VZAP
		Maintain a GIS inventory and actively work to improve accuracy of crash data and roadway data such as missing sidewalks, bikeways, intersection controls, etc.	Occasional/ Partial Practice	City has GIS database that is actively maintained, however the database has limited information when compared with the statewide database, and has potential geocoding issues.
		Use innovative data collection and analysis approaches, such as crowdsourcing or video detection data, to identify emphasis areas related to near misses or crashes previously unreported by vulnerable communities.	Not a Current Practice	
	Funding	Develop a project evaluation framework that prioritizes funding based on fatal and serious injury crash reduction opportunities, especially for equity populations. Audit the city's Capital Improvement Program (CIP) for opportunities to enhance safety benefits and remove safety risks of funded projects.	Not a Current Practice	
		Apply for grant programs to fund safety projects.	Occasional/ Partial Practice	TMP details HSIP and ATP as example funding sources. It is unclear to what extent the city actively pursues safety grant funding.
		Institutionalize safety considerations in all project types to systematically fund projects through operations and maintenance efforts (such as repaving projects).	Not a Current Practice	
	Development review	Conduct safety impact assessments of new developments to identify mitigation and cost sharing opportunities.	Not a Current Practice	
	Equity first	Clearly define equity in the safety plan and include equity considerations throughout the emphasis areas and strategies.	Not a Current Practice*	Will be institutionalized through development of Menlo Park VZAP
		Incorporate equity considerations in implementation and assessment plans, such as goals related to safety improvements for populations that are traditionally underserved.	Not a Current Practice	
		Meaningfully engage populations that are traditionally underserved in shared decision-making for safety efforts.	Not a Current Practice*	Will be incorporated into development of Menlo Park VZAP; however, must be carried through future projects for it to be institutionalized.

	Category	Benchmark	Assessed Level of Implementation	State of Current Practice in Menlo Park
Safe Users	Education	Perform outreach through educational programs, with a focus on the behaviors and target audiences most linked to death and serious injuries. Utilize partnerships with community-based organizations and advocacy groups.	Occasional/ Partial Practice	Menlo Park PD releases educational advisories around topics such as drunk driving and DUIs. Other City agencies/departments can also participate in these advisories and/or the City can work with community-based organizations to strengthen education on this topic. Education should focus on behaviors most linked to traffic deaths and serious injuries.
		Use demonstration projects to raise awareness of new designs, encourage support among stakeholders for safety projects requiring capacity trade-offs, and solicit feedback from the public. Demonstration projects also provide opportunity to measure safety effects and encourage innovation and design flexibility.	Not a Current Practice	
	Enforcement	Investigate and document the impacts of traffic safety enforcement and traffic safety surveillance on minority communities. Take steps to mitigate disproportionate impact of enforcement on disadvantaged populations.	Not a Current Practice	
		Reallocate enforcement activities to target those behaviors and locations most linked to death and serious injury.	Not a Current Practice	
Research	Develop and implement strategies for robust demographic data collection in crash reporting.	Not a Current Practice		
Safe Roadways	Collision avoidance	Systemically install proven countermeasures to separate users in space, separate users in time, and increase attentiveness and awareness, such as: protected signal phases, clear zones, and vertical and horizontal separation for pedestrians and bicyclists.	Occasional/ Partial Practice	The City has installed safety-related countermeasures to increase awareness of various users, including green-painted intersection conflict markings for bike lanes. The VZAP will recommend countermeasures to achieve this, and institutionalizing this will be a candidate Action Plan item for the VZAP.
		Complete infrastructure connectivity for pedestrians and bicyclists and make progress toward providing separation where needed based on crash exposure, crash history, characteristics of the roadway, and adjacent land uses associated with higher levels of use.	Institutionalized practice	Sidewalk Master Plan's (2009) purpose is to close gaps in the City's existing sidewalk network. Bicycle Master Plan (2005) has similar purpose for bicycle network. TMP builds on these goals and includes a "safety prioritization criteria" related to closing gaps in these networks.
	Kinetic energy reduction	Systemically install proven countermeasures to manage motor vehicle speed and collision angles, such as roadside appurtenances, roundabouts, refuge islands, hardened center lines, and road diets.	Occasional/ Partial Practice	The City has installed safety-related countermeasures to manage motor vehicle speeds, including various traffic calming measures. The VZAP will recommend countermeasures to achieve this, and institutionalizing this will be a candidate Action Plan item for the VZAP.
		Evaluate intersection design and control decisions in the planning or scoping stage for opportunities to better prioritize reducing kinetic energy transfer, following new FHWA guidance.	Not a Current Practice	
	Policies and tradeoffs	Designate functional class and modal priority for roadways to pinpoint the most effective safety countermeasures and streamline tradeoff decisions - evaluated at a network scale for network-based priorities.	Not a Current Practice	
		Ensure safety for all users is prioritized, and accessibility maintained, during construction and road maintenance projects.	Not a Current Practice	
Innovation	Provide infrastructure for smarter roadways and intelligent transportation systems (ITS) in support of data collection and analysis, as well as proactive system management. Consider long-term network priorities and immediate pedestrian and bicyclist safety and mobility needs when citing EV charging stations.	Not a Current Practice		
Safe Vehicles	Supportive infrastructure	Enable infrastructure-to-vehicle communication to provide warnings to drivers that support safer driving behavior.	Not a Current Practice	
		Provide supportive infrastructure for dynamic curbside management and autonomous vehicles to enable active safety technology.	Not a Current Practice	
	Fleet Management	Support safer operations of city and commercial vehicles through a transition plan of city's vehicle fleet to lower-mass and safety feature enhanced vehicles; heavy vehicle route restrictions to avoid high-pedestrian areas; and curbside management programs to limit user conflicts around stopped or loading vehicles.	Occasional/ Partial Practice	City is publicly committed to updating its fleet, and newer vehicles likely will have more safety feature enhancements. City does not have heavy vehicle route restrictions or a curbside management program.
Data	Collect data about the involvement of AVs in crashes for future data analysis, and to inform design and policies.	Not a Current Practice		
Safe Speeds	Design and operations	Adopt roadway design standards that are focused on speed management, such as target speed-based design, for residential and arterial roadways. Adjust roadway geometries for context-appropriate speeds.	Not a Current Practice	
	Enforcement	Deploy speed safety cameras, with a focus on equitable fee structures. Where not permitted, monitor changes in state legislation that may allow for this in the future.	Not a Current Practice	
	Policy and training	Follow speed limit setting methodologies that determine appropriate or target speeds based on land use context, roadway context, and/or modal priority - accounting for the human body's ability to tolerate crash forces rather than the historic behavior of road users. Consider utilizing innovative data sources to systemically assess prevailing versus target speeds and develop a plan to lower speeds in areas with a large discrepancy.	Not a Current Practice*	The VZAP will use recommendations about speed limit setting.
Provide speed management training to staff focused on fatality and serious injury minimization.		Not a Current Practice		

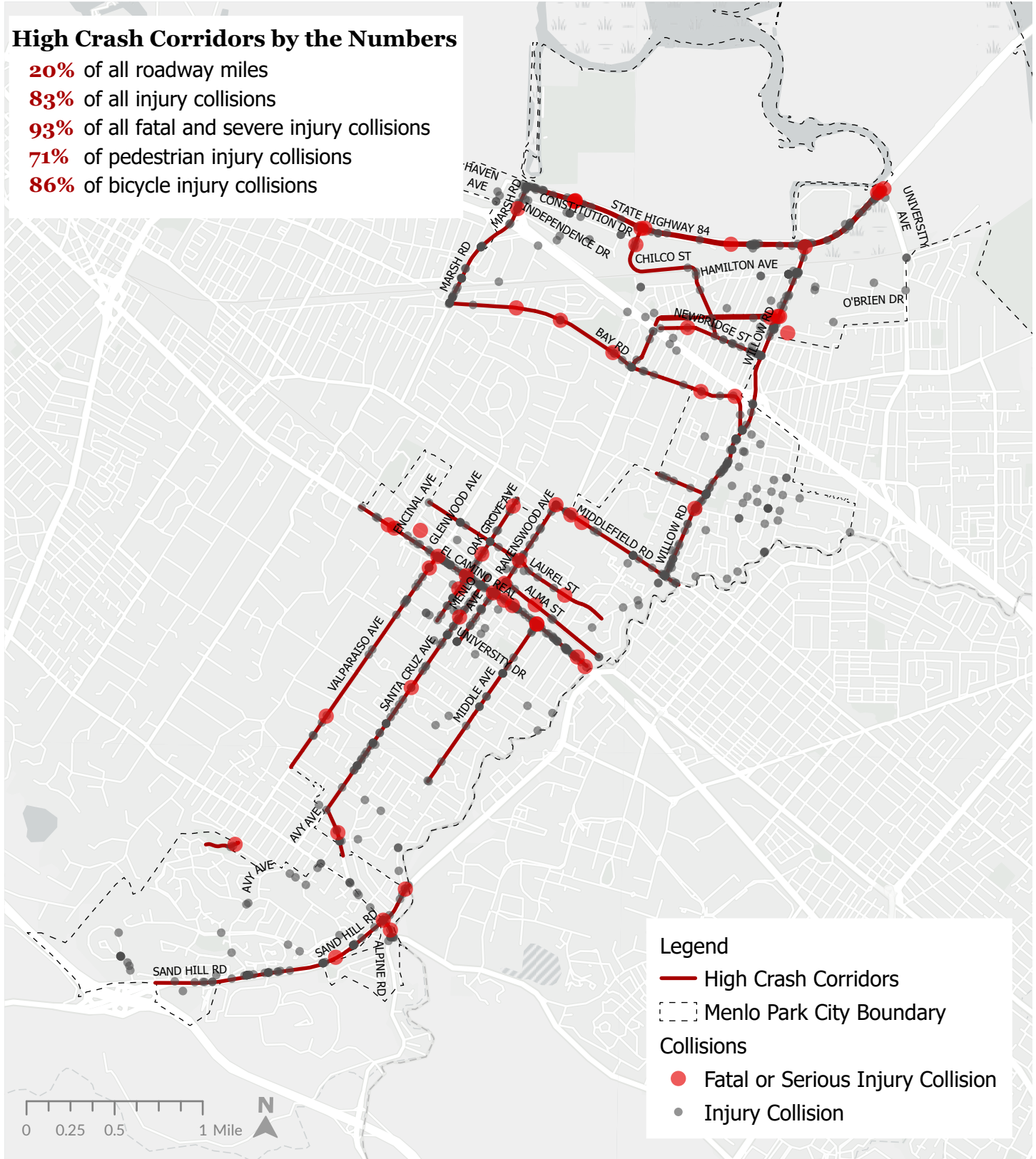
	Category	Benchmark	Assessed Level of Implementation	State of Current Practice in Menlo Park
Post-Crash Care	Crash investigation	Employ collision reporting practices that promote complete and accurate data collection and documentation of road user behavior and infrastructure.	Occasional/ Partial Practice	City collects collision data, but collision database is limited. It does not include information regarding factors that led to the collision or detailed information on the parties involved in the collision. The City has concerns that some collisions are not properly geocoded.
		Establish a feedback loop such that key insights from crash investigations are shared with roadway designers and/or influence outreach and education. Consider the creation of an inter-agency rapid response team to immediately investigate the sites of collisions and make recommendations for near-term safety enhancements.	Not a Current Practice	
	Partnerships	Share data across agencies and organizations, including first responders and hospitals, to develop a holistic understanding of the safety landscape and improve accuracy.	Not a Current Practice	
		Connect with victims' families and the advocacy community to offer support and resources, and encourage partnerships with outreach and education.	Not a Current Practice	

Menlo Park Vision Zero Action Plan

Emphasis Area Map: High Crash Corridors

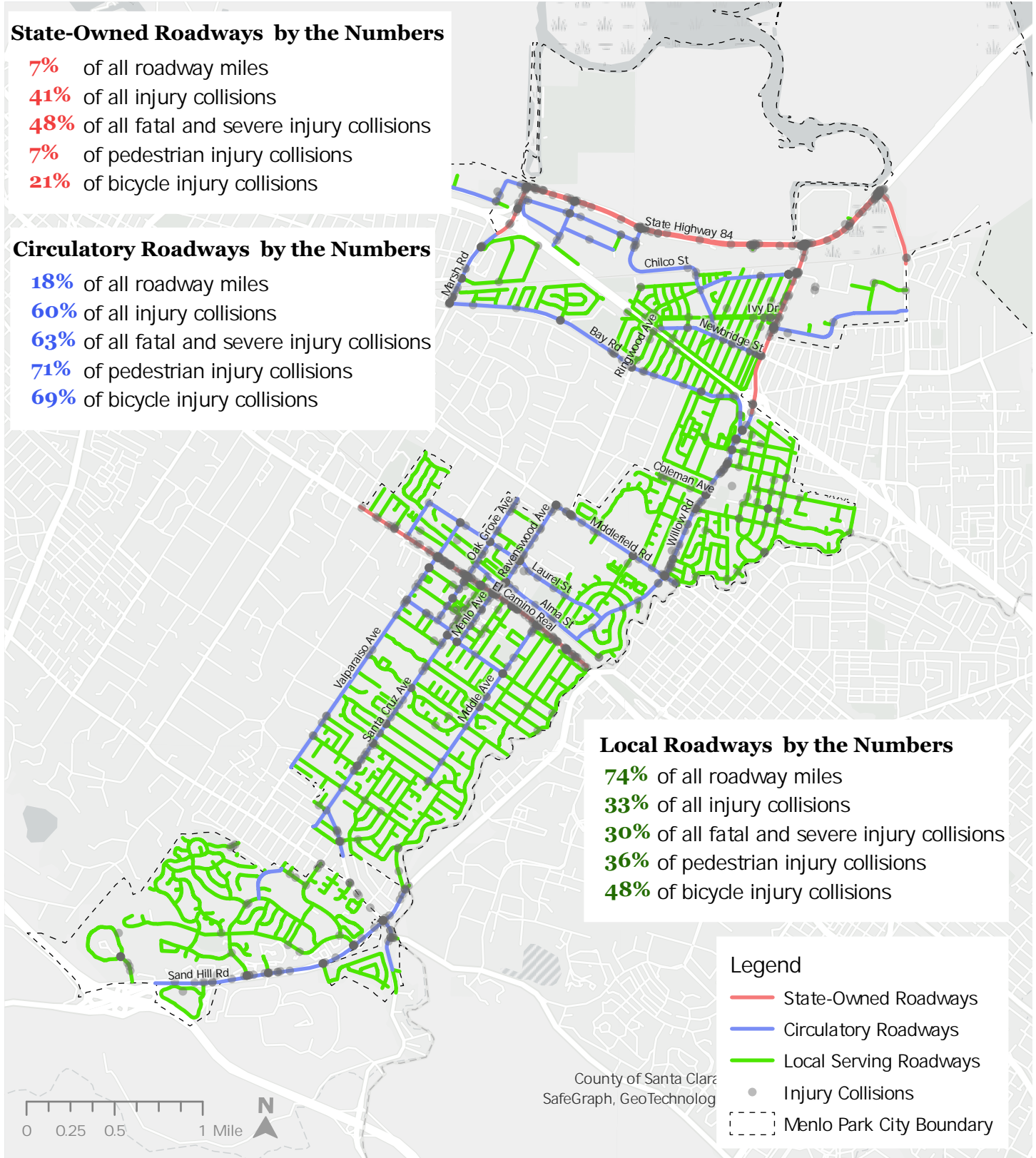
High Crash Corridors by the Numbers

- 20%** of all roadway miles
- 83%** of all injury collisions
- 93%** of all fatal and severe injury collisions
- 71%** of pedestrian injury collisions
- 86%** of bicycle injury collisions



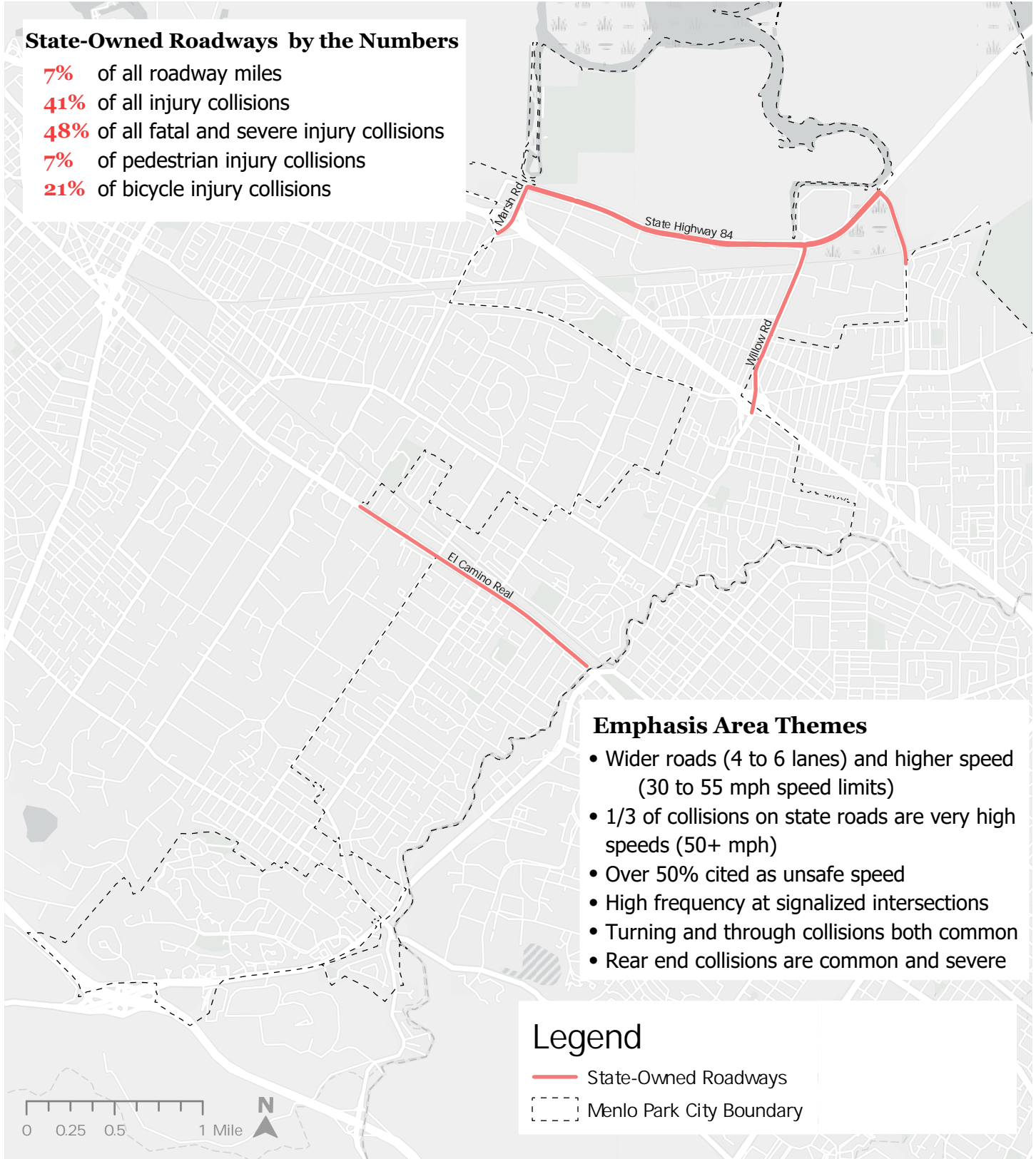
Menlo Park Vision Zero Action Plan

Emphasis Area Map: All Roadways



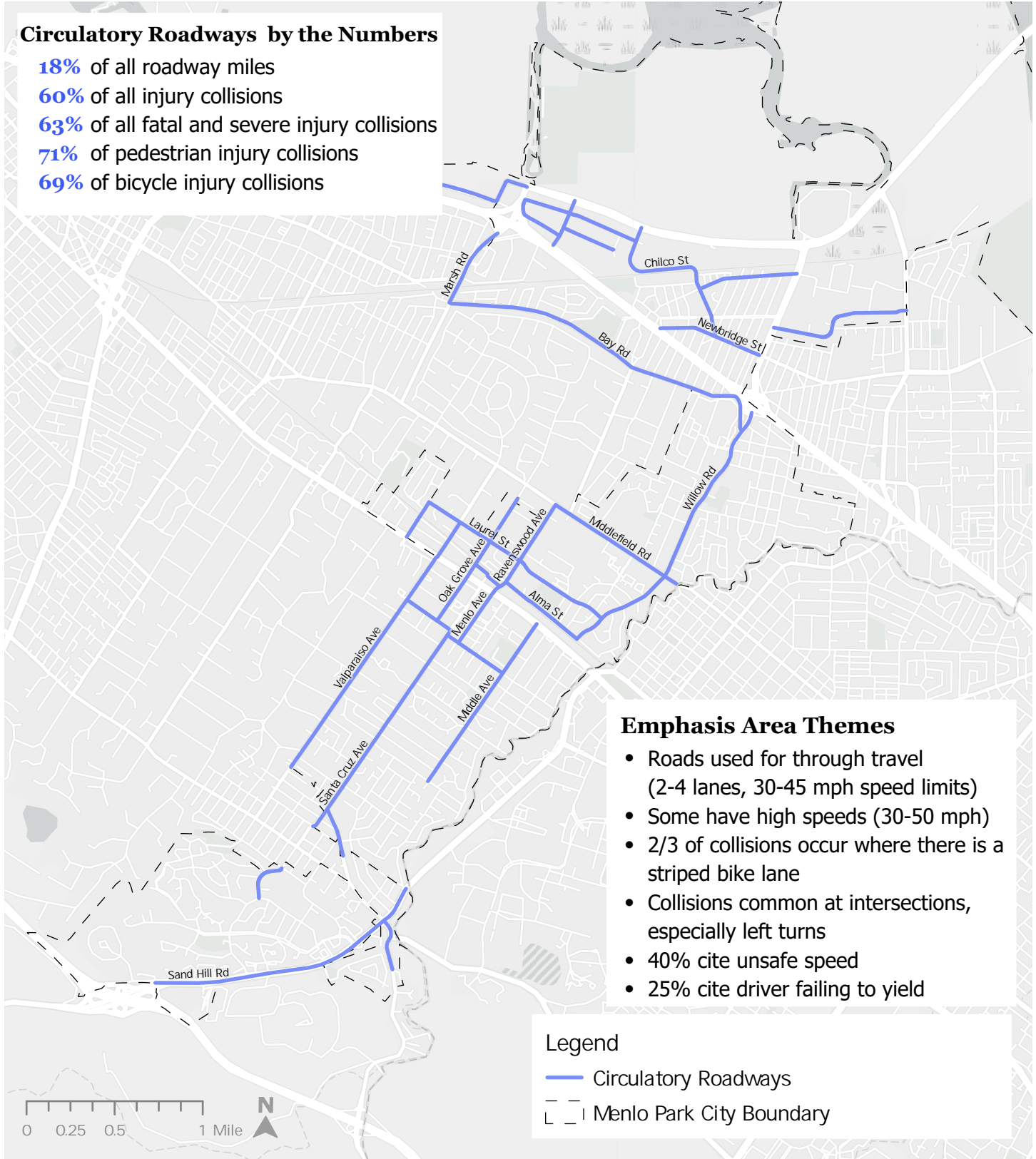
Menlo Park Vision Zero Action Plan

Emphasis Area Map: State-Owned Roadways



Menlo Park Vision Zero Action Plan

Emphasis Area Map: City-Owned Circulatory Roadways

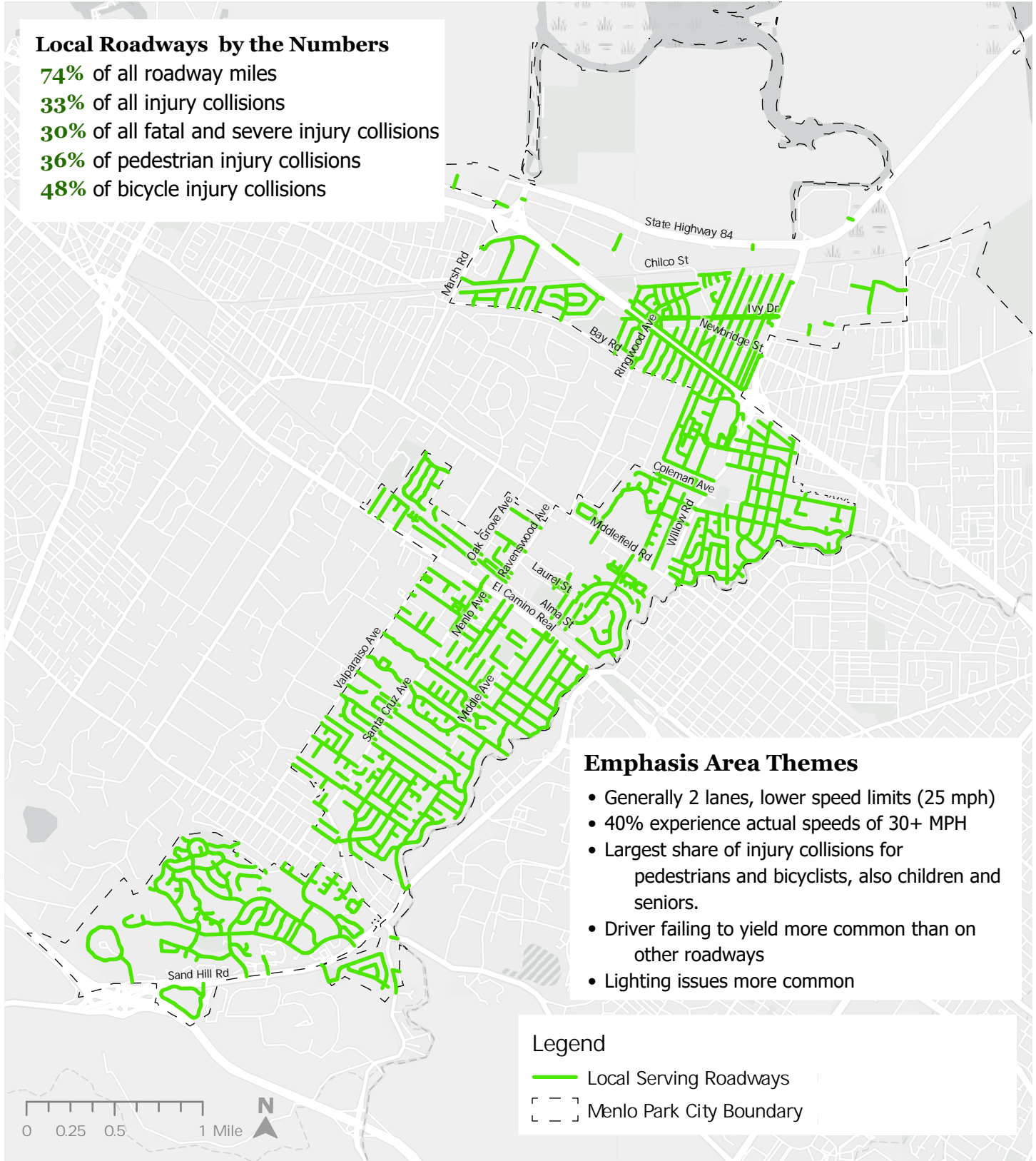


Menlo Park Vision Zero Action Plan

Emphasis Area Map: Local Roadways

Local Roadways by the Numbers

- 74% of all roadway miles
- 33% of all injury collisions
- 30% of all fatal and severe injury collisions
- 36% of pedestrian injury collisions
- 48% of bicycle injury collisions



Emphasis Area Themes

- Generally 2 lanes, lower speed limits (25 mph)
- 40% experience actual speeds of 30+ MPH
- Largest share of injury collisions for pedestrians and bicyclists, also children and seniors.
- Driver failing to yield more common than on other roadways
- Lighting issues more common

Legend

- Local Serving Roadways
- - - Menlo Park City Boundary

Menlo Park Vision Zero Action Plan

Emphasis Area Map: Intersections

Side Street Stop Intersections by the Numbers

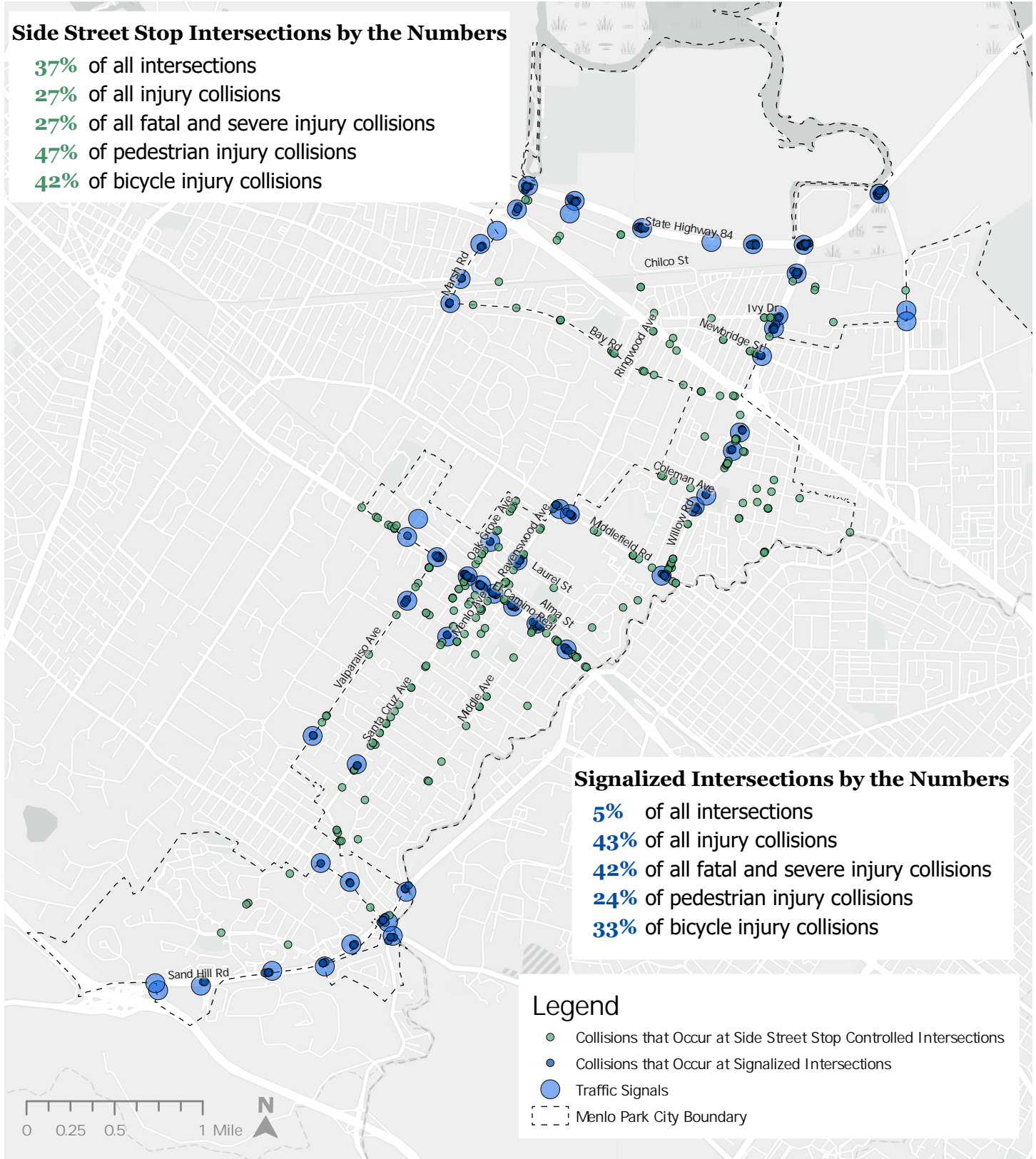
- 37%** of all intersections
- 27%** of all injury collisions
- 27%** of all fatal and severe injury collisions
- 47%** of pedestrian injury collisions
- 42%** of bicycle injury collisions

Signalized Intersections by the Numbers

- 5%** of all intersections
- 43%** of all injury collisions
- 42%** of all fatal and severe injury collisions
- 24%** of pedestrian injury collisions
- 33%** of bicycle injury collisions

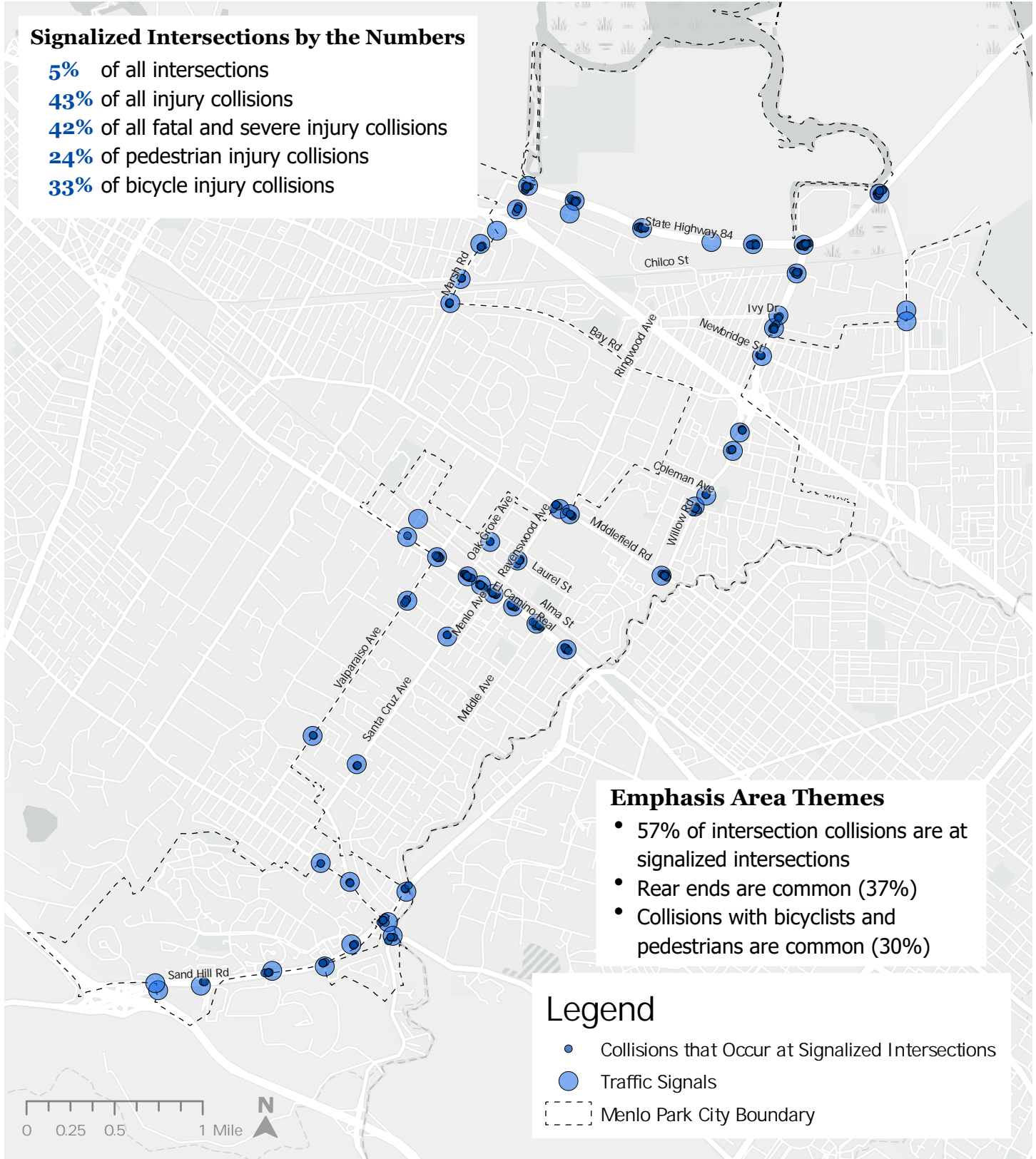
Legend

- Collisions that Occur at Side Street Stop Controlled Intersections
- Collisions that Occur at Signalized Intersections
- Traffic Signals
- Menlo Park City Boundary



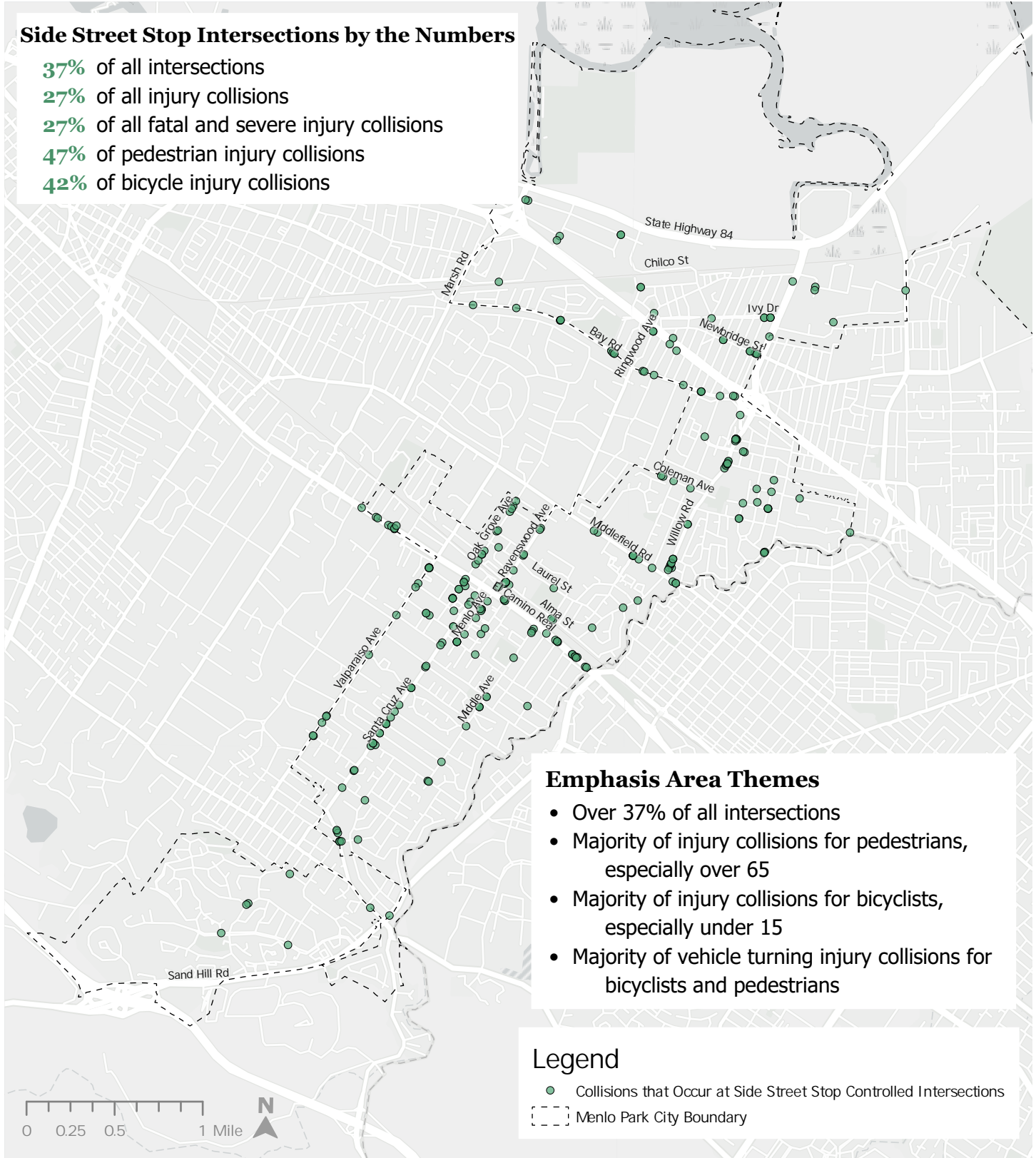
Menlo Park Vision Zero Action Plan

Emphasis Area Map: Signalized Intersections



Menlo Park Vision Zero Action Plan

Emphasis Area Map: Side Street Stop Controlled Intersections



Menlo Park Vision Zero Action Plan

Emphasis Area Map: Schools

