SAFE ROUTES to SCHOOL Study

Solana Beach

February 26, 2023

Chapter

1

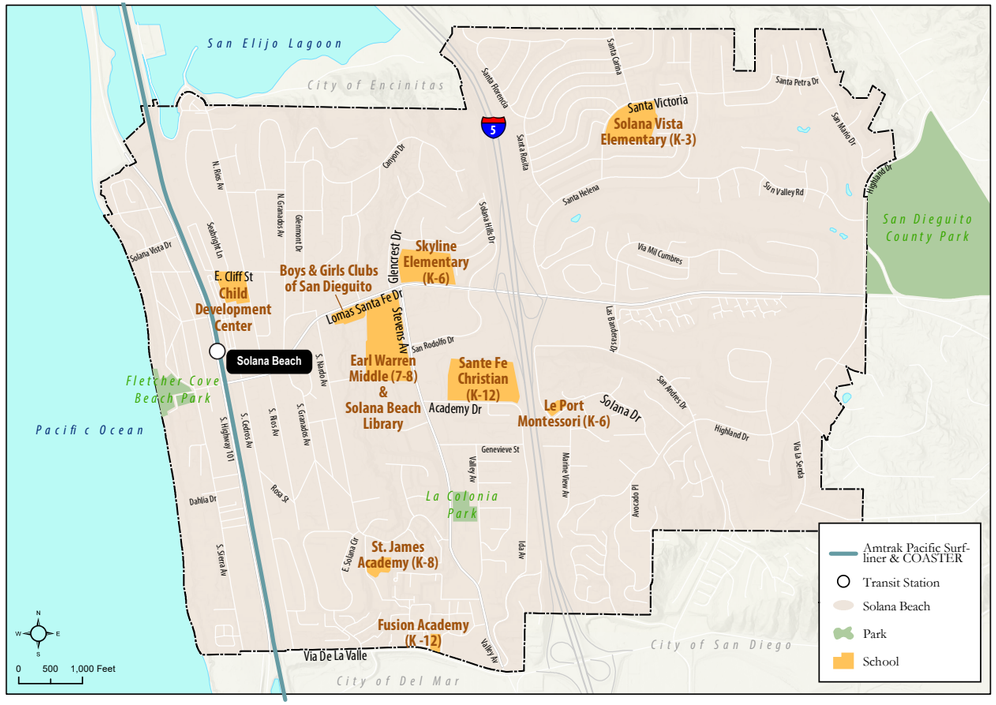
Solana Beach Safe Routes to School Study

1.0 Safe Routes in Solana Beach

1.1 Background

With funding from the California Department of Transportation (Caltrans) Sustainable Transportation Planning Grant Program, the City of Solana Beach and the Safe Routes to School (SRTS) Study project team spent more than a year reviewing walking and biking conditions around 9 project sites within the City.

To date, neither the Solana Beach School District nor the San Dieguito Union High School District has a formal SRTS program. On its parent resource page, the Solana Beach School District has links to the following resources: "Tips for Parents on Pedestrian Safety," "Teach Children to Walk Safely," and "Teaching Children to Walk Safely 2." The San Dieguito Union High School District website does not offer these types of resources. Earl Warren Middle School requires students who wish to ride their bicycle to school to attend a bicycle safety class.



Solana Beach Safe Routes to School *Project Location*

As part of the SRTS Study, the City of Solana Beach evaluated 9 project sites highlighted above. These sites included:

- Solana Vista Elementary
- Skyline Elementary
- Boys and Girls Club of San Dieguito
- Earl Warren Middle School
- Santa Fe Christian (K-12)
- Le Port Montessori (K-6)
- St. James Academy (K-8)
- Fusion Academy (K-12)
- CDC (Pre-school & Special Education)

1.2 The Vision

The Vision for Safe Routes to School in Solana Beach is that every student who wishes to walk or ride a bike to school is able to do so. The intent is that through the implementation of the projects and programs identified in this study, this vision will become a reality.

1.3 What is SRTS?

SRTS is a national program that uses programmatic and infrastructure improvements to create a safer journey to school for kids traveling on foot or by wheels: by bike, by scooter or skateboard.

The original program was funded by Congress in 2005, but since then the program has undergone several developments.

The programmatic elements include teaching kids how to safely navigate crossing a street on foot, properly secure a bicycle helmet, ride a bicycle, and the rules of the road for kids on bikes.

SRTS Programs are built on the "6 E's": Engagement, Equity, Engineering, Encouragement, Education, and Evaluation (Safe Routes Partnership). A detailed description of these are provided in Section 5

- **Engagement**: Engagement refers to engaging the school community to ensure a successful program. By listening to parents, kids, principals, teachers, crossing guards, and the community at large, the program can address each school and school district's needs.
- **Equity**: Ensuring that the SRTS program benefits all demographic groups, including low-income students, students of color, students of all genders, students with disabilities, and all people who make the journey to school, is of utmost importance.
- **Engineering**: SRTS programs prioritize improvements along streets that children commonly use to travel to school. These improvements are intended to make walking and biking safer and more comfortable with facilities such as signage and crosswalk upgrades, curb ramp installations, and bicycle facilities. They may also consider additional traffic calming measures along these routes, as conditions warrant.
- **Encouragement**: Encouraging students and their parents to walk and bike to school through events, activities, and programs helps promote behavior change.
- **Education**: Education in the SRTS program is multi-pronged. It includes teaching students and the community the skills to walk and bike safely, in addition to teaching them about the benefits of walking, rolling, and bicycling.
- **Evaluation**: Evaluation helps the City measure how well it is meeting the goals of its plan, identify any unintended consequences, and improve the effectiveness of each approach. Evaluation is a key component of any SRTS Program.

For fifteen years, the Safe Routes Partnership also included "Enforcement" as an prong of its suggested program framework. However, after acknowledging the legacy and impact of police brutality in this county, the Partnership has since stopped promoting Enforcement as a metric for SRTS Programs. Enforcement can still be considered an important part of an SRTS Program when implemented tactfully. Motorists, people on foot, or on bike are sometimes unaware of each other's rights and presence as they travel city streets, or unaware of the consequences of dangerous behaviors. Enforcement programs target all unsafe behaviors, regardless of mode, to enforce or educate about laws that reduce vehicle conflicts and collisions.

In addition to safety and physical benefits, there are educational benefits for children who arrive at school by walking or biking. Large nationally representative studies have shown that physical activity has a positive impact on academic achievement both in young children and in youth. By getting children to school actively, they arrive ready to learn.

1.4 How to Use This Study

This SRTS Study documents the actionable infrastructure and non-infrastructure recommendations. Examples of how stakeholders can use the SRTS Study to identify the content that is important and relevant to them are described below:

- **Parents/Caregivers** can use the SRTS Study to understand the travel environment near their student's school. (For this study, "parents or caregivers" are used interchangeably, and are most often cited as parents.)
- **Solana Beach Unified School District, San Dieguito Unified School District, and private school officials** can use the SRTS Study to continue or develop programs that educate and encourage students and parents/caregivers to promote walking and biking trips to school. They can also use the findings in the SRTS Study to seek grant funding or achievement awards.
- **City of Solana Beach officials** can use the SRTS Study to identify relevant issues and opportunities when mapping suggested routes for walking and bicycling, and to prioritize short-term and long-term infrastructure improvements. City officials can also use this SRTS Study to pursue SRTS funding opportunities.

This study contains six chapters to define projects, programs and funding opportunities. Chapter one is an overview of the national SRTS Program. Chapter 2 introduces Solana Beach and the study locations. Chapter 3 explains the outreach and engagement strategies utilized to prepare this study. Chapter 4 includes the mobility assessments for each of the schools, and recommendations for infrastructure improvements for each of the project sites. These recommendations reference their adherence to The City of Solana Beach's Lomas Santa Fe Corridor Improvement Project[1], the Comprehensive Active Transportation (CATS) Plan[2], the Santa Helena Neighborhood Trail Project[3], the Revitalizing Solana Highlands Project[4], and/or the Ocean Ranch Estates Project[5]. Chapter 5 includes general programmatic recommendations. Chapter 6 introduces potential funding opportunities for SRTS, and includes a prioritization matrix for each of the school's infrastructure recommendations.

Links to relevant documents:

1 Lomas Santa Fe Corridor Improvement Project: https://solanabeach.govoffice3.com/index.asp?SEC=1FCFB229-0811-40D7-9477-1FBF74DF033F&DE=450DCAEE-1195-43F5-A7E9-A203096B3AED&Type=B_BASIC

2 Comprehensive Active Transportation (CATS) Plan: http://solana-beach.hdso.net/docs/CATS_REPORT.pdf

3 Santa Helena Neighborhood Trail Project: https://www.cityofsolanabeach.org/en/city-services/city-projects/santa-helena-neighborhood-trail

4 Revitalizing Solana Highlands Project: https://solanabeach.govoffice3.com/?SEC=207E2E07-1777-4F8C-8BA5-8DD1780E6FF6

5 Ocean Ranch Estates Project: https://ceqanet.opr.ca.gov/2017061082/2/Attachment/ygMyuO

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Chapter

2

Solana Beach Today

2.0 Solana Beach Today

2.1 Introduction

The demographics of the City of Solana Beach have been gradually changing over the last several years, as an increased number of families with young children have moved to Solana Beach. Currently, approximately 16% of the residents are under the age of 18 and approximately 23% of the population are over the age of 65 (ACS 2018 Estimate). This results in a little more than one third of the population (39%) being considered vulnerable road users.

Vulnerable road users are users who have less protection and are more at risk in traffic. This includes pedestrians, bicyclists, as well as children, elderly, and disabled people. Younger children (under the age of 10) have less skill at estimating speed for automobiles and have less ability to process peripheral vision.

Additionally, within the City of Solana Beach there are a number of youths who ride e-bikes to school, which allow for more frequent rides, for longer distances, and up more hilly terrain than non-e-bikers of the same age. It also means that younger children are handling heavier bikes and have the ability to go faster.

Another factor to consider is a product of the COVID-19 pandemic: an increase in vehicular crashes since the lockdown began (National Highway Traffic Safety Administration).

This study recognizes the conditions to make travel safe for vulnerable users can best be achieved through infrastructure improvements over the long term. Immediate solutions such as education and enforcement for behavior changes can help bridge the gap until the infrastructure can be implemented. The outline for this approach is laid out in the following sections of this study.

2.1.1 The Project Locations

The Solana Beach SRTS Study addresses solutions to each of the 9 unique locations:

- **Solana Vista** – Kindergarten through Third Grade
- **Boys and Girls Club** – After School Programming
- **Fusion Academy** – Sixth through 12th Grade
- **Skyline Elementary** – Kindergarten through Sixth Grade
- **Santa Fe Christian** – Kindergarten through 12th Grade
- **LePort Montessori** – Kindergarten through Sixth Grade
- **Earl Warren Middle** – Seventh and Eighth Grade
- **St. James Academy** – Kindergarten through 8th Grade
- **Child Development Center** – preschool, pre-K, and special education

Skyline Elementary, Earl Warren Middle, Boys and Girls Club and Santa Fe Christian are in the heart of Solana Beach. Skyline Elementary, Earl Warren Middle School and the Boys and Girls Club abut Lomas Santa Fe Avenue, a multi-laned, east-west artery in Solana Beach. The City's library is co-located with Earl Warren Middle School. Similarly, the Boys and Girls Club is home to after school programming and a location to which children travel to for after-school care and swimming lessons and practice. Santa Fe Christian attracts students from throughout northern San Diego County, which draws auto drop-off traffic that must be safely navigated by children walking to the school, even if the walking occurs just from the car to the school.

St. James Academy and Solana Vista Elementary are located in predominately residential neighborhoods. St. James is located on Nardo Avenue, which lacks curb, gutter and sidewalk in many areas. Fusion Academy and LePort Montessori are surrounded by office uses.

2.1.2 Resident Demographics

The demographic composition of the students of each of these schools are referenced in Chapter 4 of this study. For comparison, in 2019, the City of Solana Beach residents as a whole were 85.3% White, 15.5% Hispanic or Latino (of any race), 7.3% Asian, 1.5% American Indian or Alaskan Native, 1.3% Black or African American, 0.3% Native Hawaiian and other Pacific Islander and 8.8% of some other race.

Chapter

3

Outreach and Engagement

3.0 Outreach and Engagement

3.1 Outreach and Engagement

In summer of 2021, the SRTS Study kicked off. This effort included developing a project website and questionnaire, conducting mobility assessments at nine project sites, and conducting three outreach events and three public meetings/workshops.

3.1.1 School Relations Committee

In June of 2021, the City met with the School Relations Committee, which is comprised of leadership from each of the project sites, to introduce and share information about the project. Concurrently, the City developed an online questionnaire and project website to promote the project to the broader community.

Specific to the project sites, the City created a SRTS toolkit that included promotional materials including fliers and postcards, an online questionnaire, and a student travel tally (see Appendices A and B).

The City presented to the School Relations Committee in September of 2021 and San Diego County SRTS Coalition and Walk Bike Solana in December of 2021 (all meetings virtual).

3.1.2 School Mobility Assessments

In the fall of 2021, nine school-based mobility assessments were conducted as part of the planning process. The schools were asked to notify their school communities and let parents and caregivers know that they could participate in the assessments. These assessment included a walking audit of the streets and intersections surrounding the project sites to assess walking and biking challenges.

3.1.3 Pop-Up Events

Due to the pandemic, in-person community outreach was temporarily suspended until Spring of 2022. Three pop-up events took place. The first at Fiesta Del Sol, the second at Fletcher Cove and the third at the Solana Beach Branch of the County Public Library. In the Spring of 2022, the City conducted pop-up outreach at the Fiesta Del Sol on May 20 and 21. Pop-Up Outreach was also conducted in advance of a Concert in the Cove at Fletcher Cove Park on August 18, 2022. The project team displayed boards showing the proposed recommendations set up on easels and were on hand to answer any questions. The recommendations were on display from 4:00 to 6:00 PM, for two hours before the concert. The display boards with the proposed recommendations were also set up at the Solana Beach Branch of the San Diego County Library. The recommendation boards were on display in the library for two weeks from Monday August 29th through Friday September 9, 2022 (see Figure 3.2.1).

3.1.4 City Council Meetings & Public Workshop

The SRTS project team provided City Council with an update with a PowerPoint Presentation on June 22, 2022. During the presentation on June 22nd, Council members were able to ask the project team questions and receive real-time responses.

An in-person public workshop was conducted on November 17, 2022. Approximately twenty people attended and provided community feedback on the proposed recommendations associated with each SRTS site.

3.2 Community Questionnaire

As part of the community engagement process, the City launched a project website and online survey (see Appendix B). Approximately 200 questionnaires were submitted. Some of the most common responses include:

- Identification of gaps in sidewalks and missing sidewalks in areas that lead to schools
- Concerns about people driving too fast along Lomas Santa Fe Drive
- Concerns about the long crossing distances and lack of visibility for youth
- Students biking on the sidewalk

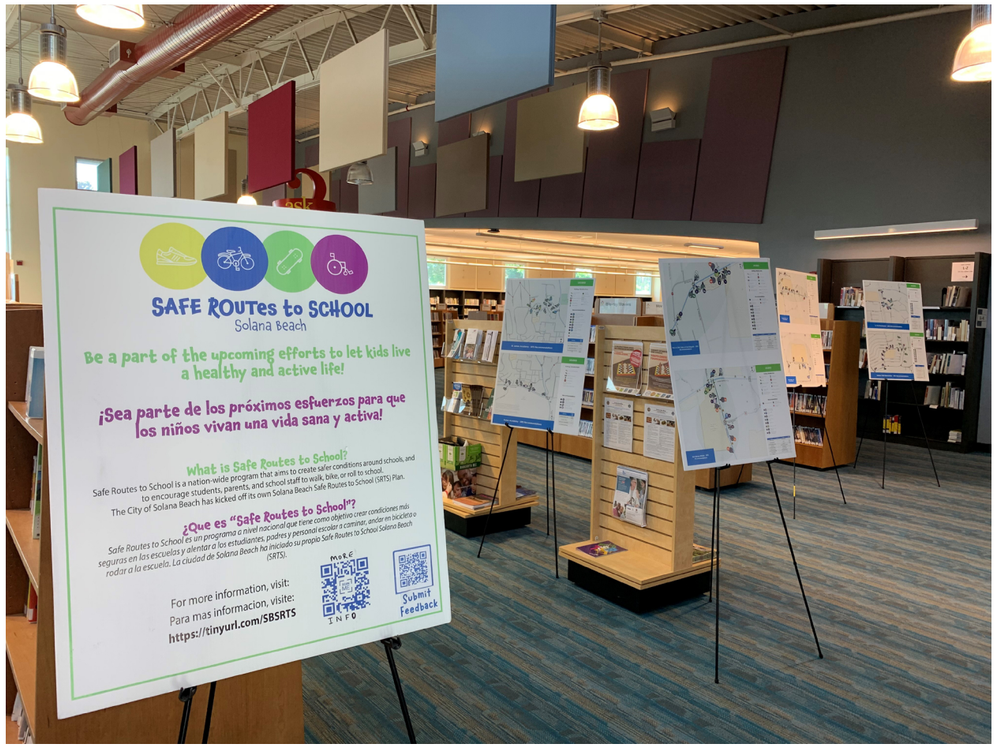

FIGURE 3.2.1 RECOMMENDATION BOARDS IN THE SOLANA BEACH LIBRARY

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Chapter

4 Recommendations

4.0 Recommendations to Improve Safe Routes to School in Solana Beach

Due to the compact nature of Solana Beach, walking, rolling, and riding to and from school should be an easy and real option for students to choose. However, when students experience obstacles in their routes, parents and students can have trouble feeling safe making those commutes to school. Each section in this chapter includes a mobility assessment, school profile, walking and biking conditions, and recommendations.

The mobility assessments identify the existing conditions of each school—including student demographics, census tract health indicators, assessments of the cycling and pedestrian infrastructure, observed safety concerns, results of community surveys, and other data that contributed to the site context of each school. This includes utilization of the Healthy Places Index, a tool developed by The Public Health Alliance of Southern California to spatially depict health outcomes, Cal Enviroscreen, a similar tool developed by The California Office of Environmental Health Hazard Assessment to depict communities affected by pollution, Pedestrian Environment Quality Evaluation (PEQE), a tool developed by CR Associates to assess and describe the quality of a pedestrian environment, and bicycle Level of Traffic Stress (LTS), a tool developed by Mekuria, et al. (2012) of the Mineta Transportation Institute to assess and describe a given bicycle environment (see Appendix D for PEQE Methodology). Results of these analysis tools are documented in this chapter.

4.1 Solana Vista Elementary School

Address: 780 Santa Victoria, Solana Beach, CA 92075 • District: Solana Beach School District

Solana Vista Elementary School is located south of Santa Victoria, west of Santa Rufina Drive, and north of San Patricio Drive. It is located approximately three-quarters of a mile east of Interstate 5 and nearly two miles east of State Highway 101. Land use surrounding Solana Vista Elementary School is primarily residential.

Mobility Assessment

A walk audit and on-site meeting for Solana Vista Elementary School in the City of Solana Beach was conducted on November 2, 2021. This event included the collection of observations of pick up and drop off, interviews with staff, field assessment/existing conditions confirmation, and a walk audit with staff. The purpose of the event was to identify issues that may make it unsafe or uncomfortable for students to walk, bike, or roll to and from school, to be incorporated into the broader mobility assessment for each school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.

Staff who attended the walk audit and on-site meeting included the Solana Vista Elementary School Principal Katie Zimmer and representatives from the City of Solana Beach, Circulate San Diego, and CR Associates. Additionally, one parent of a Solana Vista Elementary School student participated.

School Profile

Solana Vista Elementary School is one of two public elementary schools within the city limits of Solana Beach, and the only elementary school offering Kindergarten through 3rd grade education. During the 2019-2020 academic year, there were 343 students enrolled in the Kindergarten, 1st, 2nd, and 3rd grades. The demographic composition of these students, as shown in Figure 4.1.1, is relatively similar to that of Solana Beach as a whole; however, the City has a notably lower Hispanic population (15.5%) and higher white and Asian populations (76.2% and 4.9%, respectively) according to 2019 Census estimates (source: census.gov).

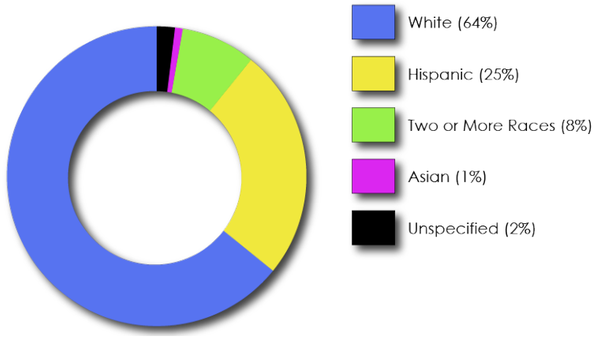


FIGURE 4.1.1. DEMOGRAPHIC COMPOSITION OF SOLANA VISTA ELEMENTARY SCHOOL STUDENTS DURING THE 2019-2020 ACADEMIC YEAR (SOURCE: GREATSCHOOLS.ORG).

Student Tallies

The Safe Routes to School Arrival and Departure Tally Sheet was administered in class by Solana Vista Elementary School staff the week of October 25, 2021 to better understand what mode(s) students use to travel to and from the campus. As displayed in Figure 4.1.2, the vast majority of students arrived and departed in a family vehicle, followed by walking. Bicycling, carpooling, and parking and walking to campus were reported similarly, though because "parking and walking" was not a defined category, not every teacher collected data for this particular mode. Note that the closest transit stop is approximately 1 mile away from the school, on Lomas Santa Fe.

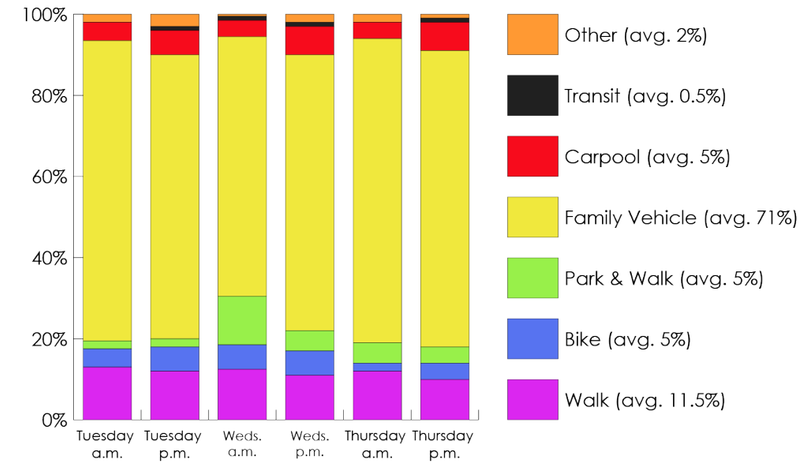


FIGURE 4.1.2. SOLANA VISTA ELEMENTARY SCHOOL STUDENTS' ARRIVAL AND DEPARTURE TALLIES COLLECTED DURING THE WEEK OF OCTOBER 25, 2021.

An online survey was administered to Solana Vista Elementary School parents via SurveyMonkey during October 2021. Of the 18 recorded responses, 9 parents noted that their children live greater than one mile from the school's campus while the other 9 respondents live less than one mile from the school's campus. As shown in Figures 4.1.3 and 4.1.4, vehicles are the most common mode of transportation used for arrival to and departure from school.

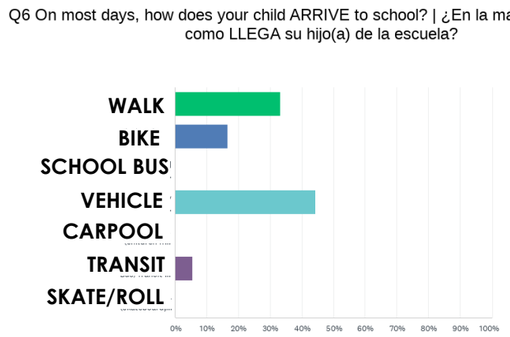


FIGURE 4.1.3. SOLANA VISTA ELEMENTARY SCHOOL PARENT SURVEY QUESTION DENOTING MEANS OF TRANSPORTATION FOR SCHOOL ARRIVAL.

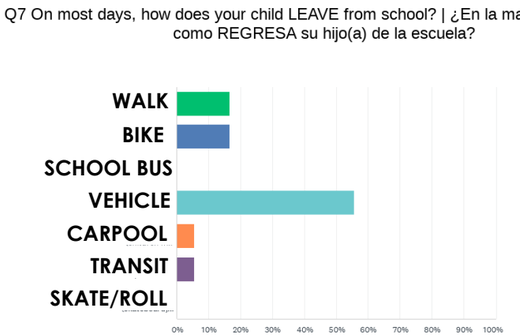


FIGURE 4.1.4 SOLANA VISTA ELEMENTARY SCHOOL PARENT SURVEY QUESTION DENOTING MEANS OF TRANSPORTATION FOR SCHOOL DEPARTURE.

Most parents felt that Solana Vista Elementary School was either acting neutrally or encouraging walking and biking to school, though just 50% of the respondents' children have asked permission to walk or bike to/from school in the past year. The most-often cited concerns relating to pedestrian and bicycle travel were speeding traffic, distance, unsafe intersections, and too much traffic. In order to address these issues, 16 parents (90% of respondents) expressed interest in helping identify safety issues at schools and five noted that they would be willing to help organize a neighborhood Walking School Bus or Bike Train.

Participation in Free and Reduced Meal Program

The percentage of Solana Vista Elementary School Students on free and reduced lunch assistance is significantly lower than the state and county percentages but slightly higher than the Solana Beach School District percentage (see Figure 4.1.5). However, free lunches are now provided to all public and charter school students as a result of the statewide Universal Meals Program, following the expiration of federal pandemic-era free lunch programs.

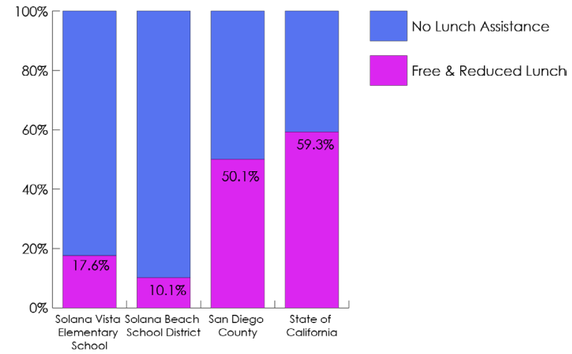


FIGURE 4.1.5. SOLANA VISTA ELEMENTARY SCHOOL IN COMPARISON TO THE SCHOOL DISTRICT, COUNTY, AND STATE AVERAGES (SOURCE: ED-DATA.ORG).

CalEnviroScreen and Healthy Places Index

CalEnviroScreen is a tool developed by The California Office of Environmental Health Hazard Assessment (OEHHA) that analyzes exposures, environmental effects, sensitive populations, and socioeconomic factors to determine which California communities have high pollution burdens. The CalEnviroScreen 4.0 results range from 0-100 (with higher scores indicating higher pollution burdens) and represent the overall percentile ranking of the selected census tract relative to the state's other census tracts.

Solana Vista Elementary School is located in census tract 173.03, which has an overall score in the 2nd percentile, indicating a relatively low pollution burden compared with other locations across the state (see Figure 4.1.6). When compared to neighboring census tracts within the City of Solana Beach the census tract containing Solana Vista Elementary School has an intermediate score, as the others are in the 1st and 15th percentiles.

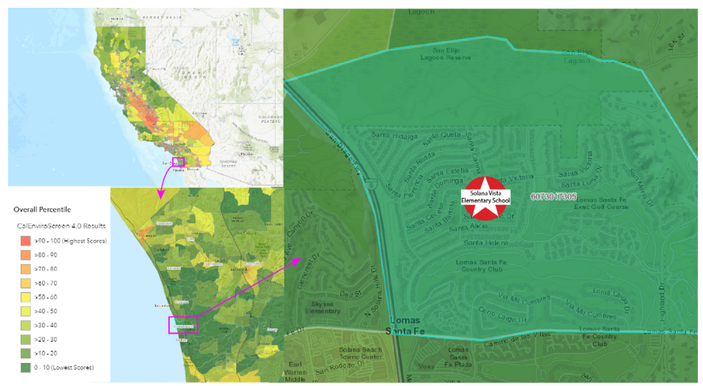


FIGURE 4.1.6. CALENVIROSCREEN 4.0 RESULTS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND CENSUS TRACTS WITHIN SOLANA BEACH (SOURCE: OEHHA.CA.GOV).

One of the indicators CalEnviroScreen reports is traffic density. The census tract in which Solana Vista Elementary is located has a traffic density score in the 79th percentile, indicating a significantly higher number of vehicles on the road compared to other California census tracts (see Figure 4.1.7).

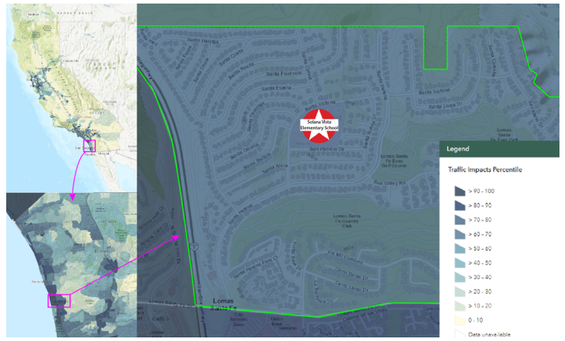


FIGURE 4.1.7. CALENVIROSCREEN 4.0 TRAFFIC DENSITY RESULTS (SOURCE: OEHHA.CA.GOV).

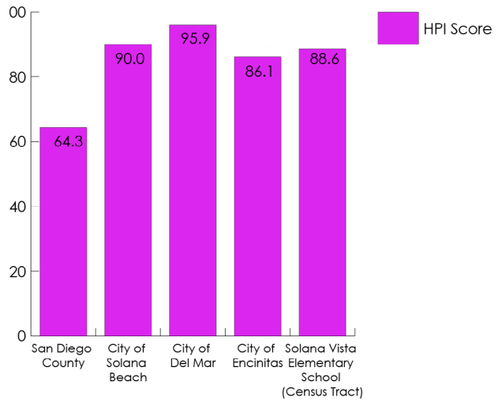


FIGURE 4.1.8. HPI SCORES FOR SAN DIEGO COUNTY, SOLANA BEACH, NEIGHBORING CITIES, AND SOLANA VISTA ELEMENTARY SCHOOL (SOURCE: HEALTHYPLACESINDEX.ORG).

The California Healthy Places Index (HPI) is a tool developed by the Public Health Alliance of Southern California that analyzes various policy areas (economics, education, transportation, housing, healthcare, etc.) to display how community conditions affect health outcomes. Results range from 0-100, with higher scores indicating healthier conditions. The census tract containing Solana Vista Elementary School has an HPI score higher than the County of San Diego and the City of Encinitas, but lower than the City of Solana Beach as a whole and the City of Del Mar (see Figures 4.1.8 and 4.1.9).

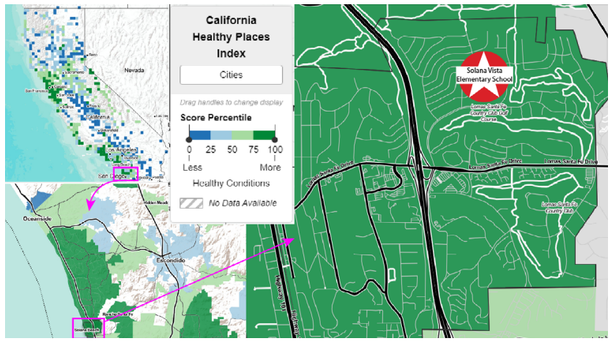


FIGURE 4.1.9. HPI VISUALIZATIONS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND THE CITY OF SOLANA BEACH (SOURCE: HEALTHYPLACESINDEX.ORG).

Walking

Figure 4.1.10 provides an overview of the existing pedestrian network and challenges observed and analyzed. Challenges to walking are evaluated through a process called Pedestrian Environment Quality Evaluation (PEQE) developed by CR Associates. The evaluation looks at the physical conditions and the quality of the sidewalks and crosswalks. Figure 4.1.11 shows the results of the PEQE scoring. The school's process to allow students to walk or bike is for the parents to notfy the school's authorities via email. The majority of those walking travel either from the northernmost edge of the school parking lot or from Santa Victoria.

There are two high-visibility crosswalks within the parking lot accompanied by traffic cone signage mandating their usage, though parents were observed ignoring these instructions when school administrators looked away. Pedestrians are guided to enter the campus at the two locations where crossing guards are stationed, as landscaping along the northernmost edge of the parking lot creates a barrier to entry, though someone external to Solana Vista Elementary School placed a few stepping stones in one landscaped area to facilitate an unofficial third entry point. It was noted by staff that the stones seem to be helpful for parents and students (see Figure 4.1.12).

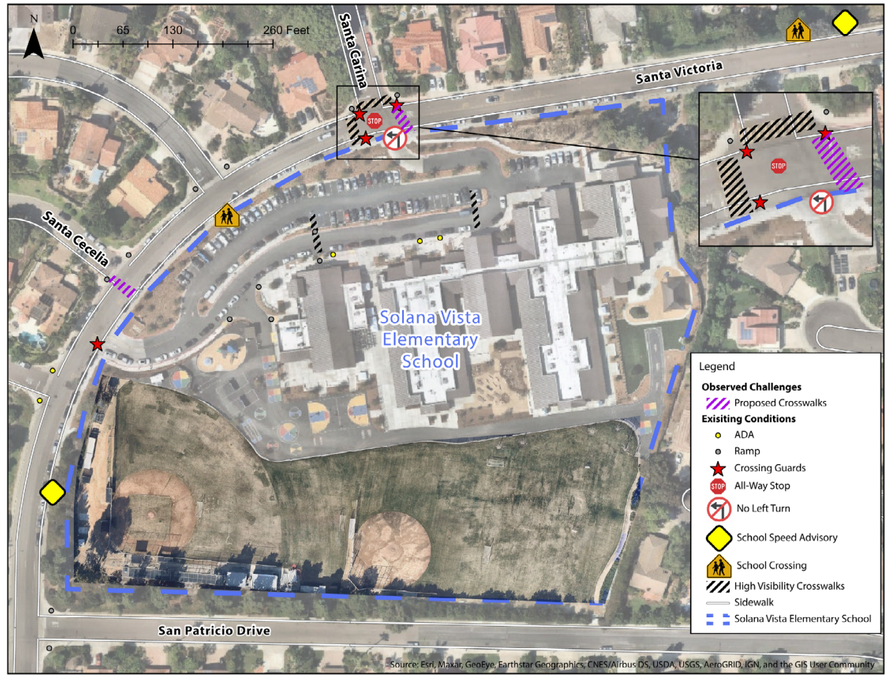


FIGURE 4.1.10. EXISTING PEDESTRIAN CONDITIONS AND OBSERVED CHALLENGES AND GAPS IN THE NETWORK.

FIGURE 4.1.11. PEDESTRIAN ENVIRONMENT QUALITY EVALUATION (PEQE) RESULTS FOR THE AREA SURROUNDING SOLANA VISTA ELEMENTARY SCHOOL.

FIGURE 4.1.12. STEPPING STONES THROUGH LANDSCAPING ON SANTA VICTORIA

FIGURE 4.1.13. CROSSING THE PARKING LOT EXIT ON SANTA VICTORIA

There are two locations along Santa Victoria where the Solana Vista Elementary School staff has requested high-visibility crosswalks: at the intersection with Santa Cecelia and at the intersection with Santa Carina. Staff has noted that the intersection of Santa Carina and Santa Victoria is of particular concern. A crosswalk installed at the easternmost side of the intersection would allow students to avoid utilizing the westernmost crosswalk and walking in front of the parking lot driveway (see Figure 4.1.13). Additionally, there is no curb cut at the terminus of the crosswalk on the school side.

Near the Solana Vista Elementary School parking lot entrance, a group of students from Earl Warren Middle School and Skyline Elementary School meet prior to walking to their schools with a supervising adult. Per a parent's assessment, this gathering seems to be organized via word-of-mouth.

Riding and Rolling

There are no bike lanes adjacent to Solana Vista Elementary School. Regardless, during the site assessment several adults were observed dropping students off on e-bikes (see Figure 4.1.16). School represenatives are cautious of e-bike usage and state that e-bikers may not follow pedestrian or car rules because, in their assessment, they fill an in-between role and there is no infrastructure to guide them. No students were observed riding their own e-bikes, but some students did bike to school. Once on the Solana Vista Elementary School campus, students can park their bikes in the designated parking area in front of the school (see Figure 4.1.14).

FIGURE 4.1.14. EXISTING BICYCLE CONDITIONS AND NETWORK.

FIGURE 4.1.15. BICYCLE LEVEL OF TRAFFIC STRESS (LTS) RESULTS FOR THE AREA SURROUNDING EARL WARREN MIDDLE SCHOOL.

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute. LTS classifies the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by CR Associates concluded that the roads directly adjacent to Solana Vista Elementary School have low LTS scores, where a higher score indicates higher stress (see Figure 4.1.15).

FIGURE 4.1.16. ADULT ON E-BIKE EXITING SOLANA VISTA ELEMENTARY SCHOOL PARKING LOT AFTER DROPPING OFF A STUDENT

FIGURE 4.1.17. STUDENT BIKING TO SCHOOL CROSSING SANTA VICTORIA

Drop-Off, Pick-Up, and Vehicle Movements

Solana Vista Elementary School is accessed via Santa Victoria, a street with two lanes in either direction and parking along both sides. Figure 4.1.18 demonstrates existing conditions as well as behavior observed during the mobility assessment.

The 'no-parking' designation along Santa Victoria is in effect around drop-off and pick-up hours of 8:00 a.m. – 8:45 a.m. and 2:30 p.m. – 3:15 p.m. In the mornings, most staff and students are inside by 8:30 a.m. Half of the Solana Vista Elementary School staff assist with the drop-off and pick-up processes, communicating with each other via hand-held radios to alleviate traffic in the stacking area, opening car doors, and serving as crossing guards at parking lot entrances (see Figure 4.1.19). School representatives expressed that they would prefer to have professional crossing guards in place rather than staff members performing these duties.

As vehicles enter the westernmost side of the Solana Vista Elementary School parking lot, they can opt to join the right lane—which leads to the drive-through area—or the left lane—which leads to the official parking area (see Figure 4.1.20). Those who choose to park will often walk the students to the school entrance.

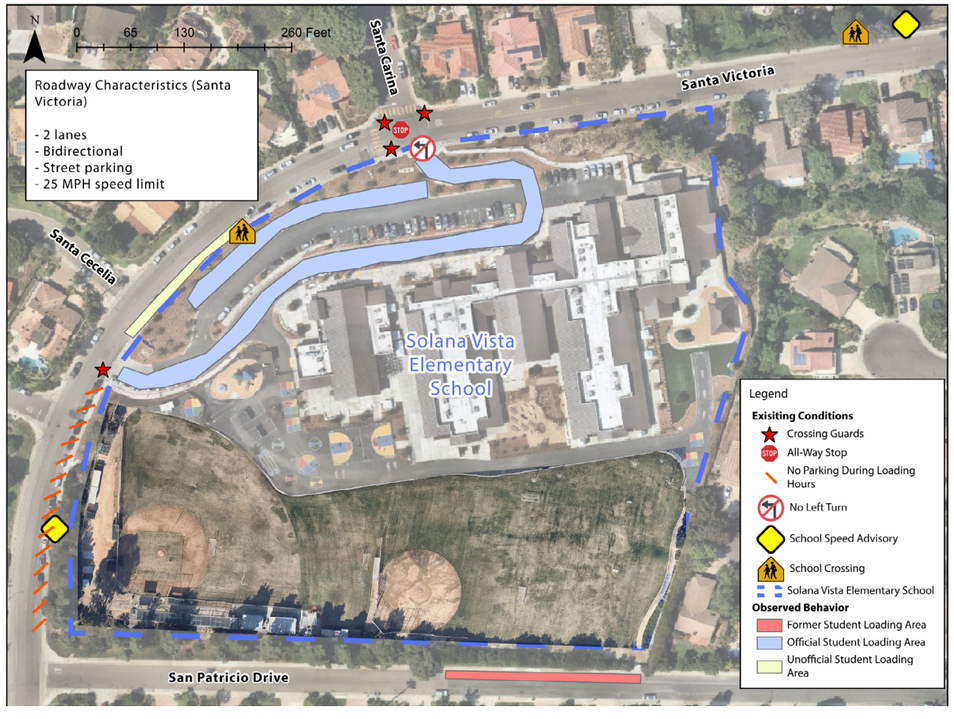


FIGURE 4.1.18. EXISTING ROADWAY NETWORK, OBSERVED VEHICLE BEHAVIOR, AND CONDITIONS.

The Solana Vista Elementary School principal mentioned that prior to the construction of the new campus, parents were permitted to load and unload along Santa Victoria, so some parents still do so unofficially. The southern side of the school along San Patricio Drive was closed for construction at the time of the site visit, but is now open for drop offs in the mornings and pick-ups after school ends.

All cars must exit the Solana Vista Elementary School parking lot either by turning right onto Santa Victoria or by going straight onto Santa Carina. Left turns are not permitted. As of the date of this report, the only signage communicating this restriction is a temporary sign adhered to a traffic cone, but the City of Solana Beach is working to implement an official sign. School staff mentioned that parents are often trying to reach Interstate 5 when they depart campus, which can be most easily accessed by turning left onto Santa Victoria, so instead they drive north onto Santa Carina and take the first left onto Santa Estella. According to administrators, residents of Santa Estella have complained of parents speeding down their street.

FIGURE 4.1.19. STAFF MEMBER SERVING AS CROSSING GUARD

FIGURE 4.1.20. VEHICLES IN THE DRIVE-THROUGH DROP-OFF LANE

Collision Summary

Between 2014 and 2018, there were zero pedestrian and bicycle crashes within a half-mile radius of Solana Vista Elementary School.

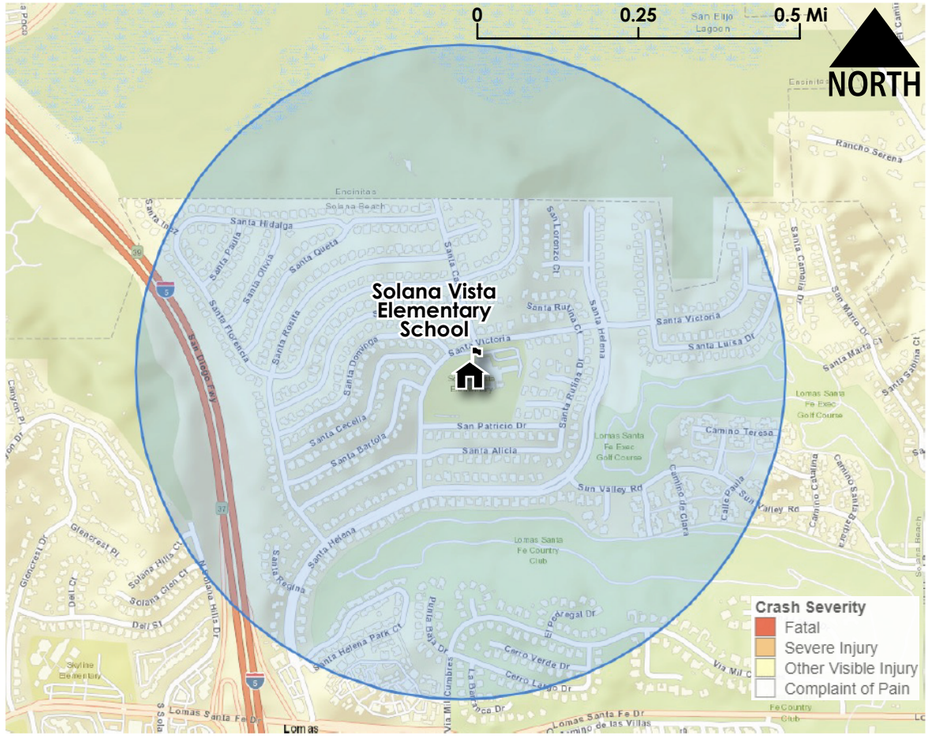
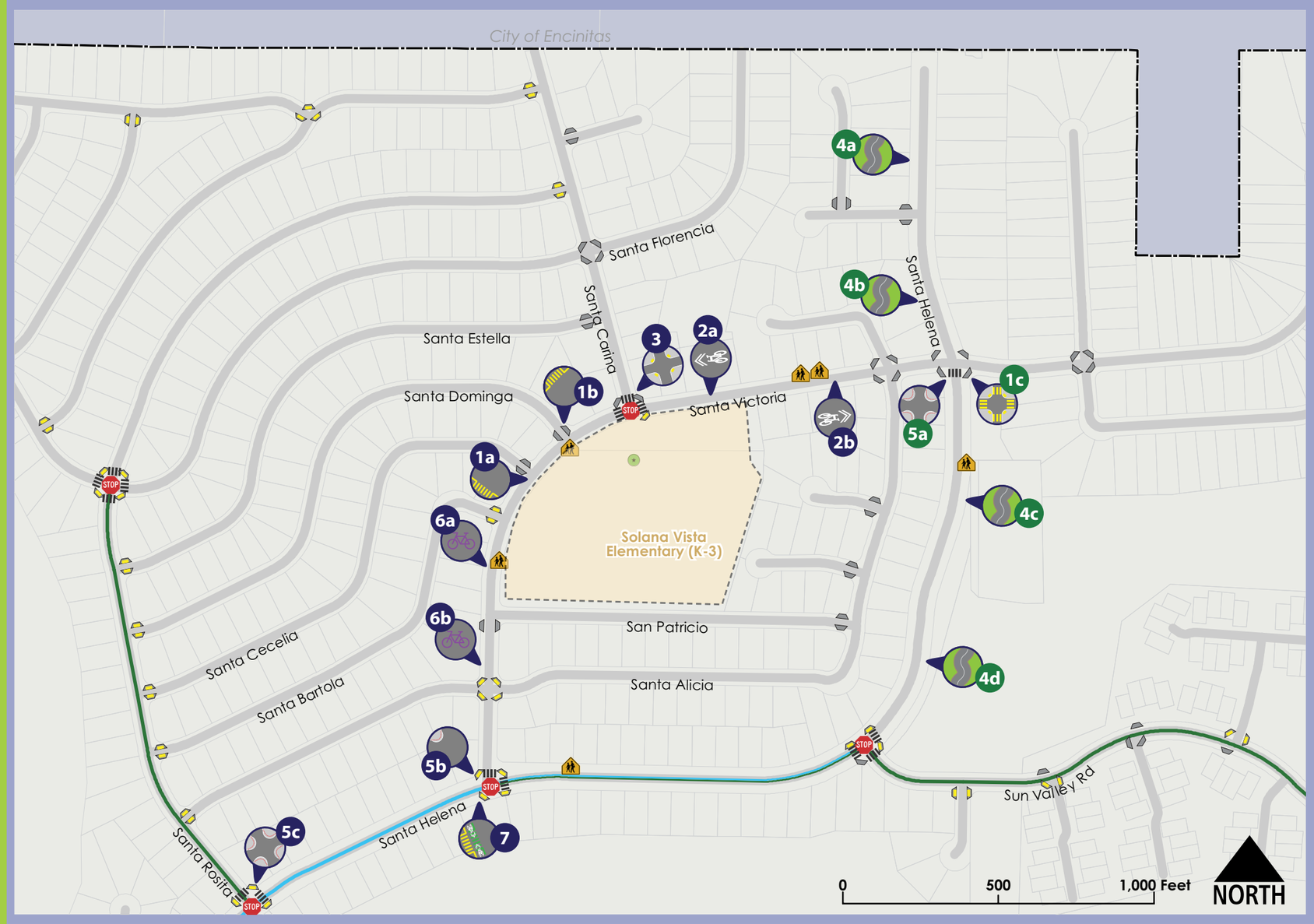


FIGURE 4.1.21. MAP OF BICYCLE AND PEDESTRIAN CRASHES WITHIN A HALF-MILE RADIUS OF SOLANA VISTA ELEMENTARY SCHOOL OCCURRING BETWEEN JANUARY 2014 AND DECEMBER 2018 (SOURCE: TIMS.BERKELEY.EDU).

4.1 Solana Vista Elementary School Recommendations

Several improvement opportunities were identified in the mobility assessment conducted for Solana Vista Elementary School (Solana Vista). Through the survey, it was found that the primary mode of travel for most students commuting to and from Solana Vista was the use of a family vehicle. This is partially due to the pedestrian environment, as there is only one high visibility crosswalk bridging both sides of Santa Victoria along Santa Carina. This lack of marked high visibility crosswalks creates unsafe conditions when students cross the road at other points that have no stop signs or crosswalks. There is no bicycle infrastructure and limited signage directly surrounding the school entrance and several missing sidewalks on adjacent roads. Further, speeding and excess traffic were cited as concerns for students in the areas surrounding the school. This is most visible along Santa Estella, where drivers have been observed increasing their speed as they approach I-5 from the school drop-off area.

Several interventions to improve the SRTS experience are recommended. By installing high visibility crosswalks on Santa Cecilia, Santa Dominga, and Santa Helena adjacent to Santa Victoria, more safe crossing opportunities will exist for students to utilize as they travel to and from school. To improve bicycle infrastructure, it is recommended to install Class III bikeway markings along Santa Victoria in both directions to indicate that the roadway is to be shared between bicyclists and other road users. Additionally, it is recommended to install multi-use paths along Santa Helena and a quarter-mile two-way Class IV cycle track between Santa Allicia and Santa Bartola with protective bollards separating bicycle and vehicle traffic. To augment the existing Class II and III bicycle facilities along Santa Helena and Sun Valley Rd and enable students to safely turn into Santa Victoria, it is recommended to construct a bicycle and walking crossing at that intersection. To improve pedestrian accessibility along the primary crosswalks along Santa Carina, it is recommended to install ADA-compliant curb ramps. Finally, to prioritize students crossing the Santa Helena and Santa Victoria intersection, it is recommended to install a four-way stop for vehicular traffic. These recommendations are highlighted on the graphic at right. A summary list of recommendations is provided in Section 6.3.



Recommended Feature	Qt./Mi.
High-Visibility Crosswalk	6
Shared Lane Marking	10
ADA Curb Ramp	8
Multi-Use Path	0.45 miles
Curb Extension	9
Two-Way Class IV	0.25 miles
Bicycle and Walking Crossing	1

Existing Infrastructure

ADA Compliant Ramp · Ramp · Marked Crosswalk · All-Way Stop · Bike Parking

School Site · School Signage · Class II Bike Lane · Class III Bike Route

Recommendations

1. Install High Visibility Crosswalk
2. Install Shared Lane Marking (Class III)
3. Install ADA Curb Ramp
4. Construct Multi-Use Path
5. Construct Curb Extension
6. Install Two-Way Class IV / Bollards
7. Construct Bicycle & Walking Crossing

Consistent with Santa Helena Plan

Deviates from Santa Helena Plan

4.2 Skyline Elementary School

Address: 606 Lomas Santa Fe Dr, Solana Beach, CA 92075 • District: Solana Beach School District

Skyline Elementary School is located north of Lomas Santa Fe Drive, east of Glencrest Drive, south of Dell Street, and west of Solana Hills Drive. It is located 700 feet west of Interstate 5 and approximately three-quarters of a mile east of State Highway 101. Land use between the school and Interstate 5 is largely residential, with some commercial uses. South of the school is Solana Beach Presbyterian Church and the Solana Beach Towne Center Mall, with multiple food and retail stores. Earl Warren Middle School is located southwest of the Lomas Santa Fe/ Stevens Avenue intersection.

Mobility Assessment

A walk audit and on-site meeting for Skyline Elementary School in the City of Solana Beach was conducted on October 14, 2021. This event included the collection of observations of pick up and drop off, interviews with staff, field assessment/existing conditions confirmation, and a walk audit with staff. The purpose of the event was to identify issues that may make it unsafe or uncomfortable for students to walk, bike, or roll to and from school, to be incorporated into the broader mobility assessment for each school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.

Staff who attended the walk audit and on-site meeting included the Skyline Elementary School groundskeeper and representatives from the City of Solana Beach, Circulate San Diego, and CR Associates.

School Profile

Skyline Elementary School is one of two public elementary schools within the city limits of Solana Beach, and the only elementary school offering 4th through 6th grade education. During the 2019-2020 academic year, there were 506 students enrolled. The demographic composition of these students, as shown in Figure 4.2.1, is relatively similar to that of Solana Beach as a whole; however, the City has a slightly lower Hispanic population (15.5%) and a slightly higher white population (76.2%) according to 2019 Census estimates (source: census.gov).

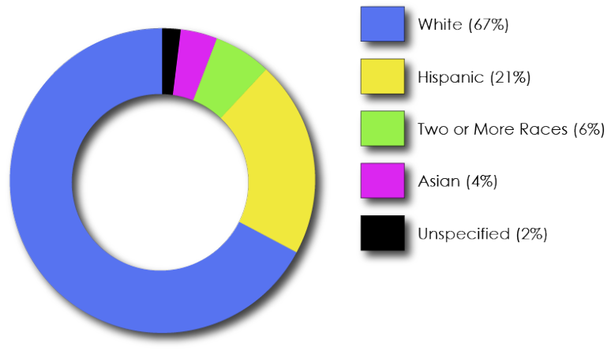


FIGURE 4.2.1. DEMOGRAPHIC COMPOSITION OF SKYLINE ELEMENTARY SCHOOL STUDENTS DURING THE 2019-2020 ACADEMIC YEAR (SOURCE: GREATSCHOOLS.ORG).

Student Tallies

An online survey was administered to Skyline Elementary School parents via SurveyMonkey during October 2021. Of the 29 recorded responses, 16 parents noted that their children live less than one mile from the school's campus while the other 13 respondents live between one and two miles from the school's campus. As shown in Figures 4.2.2 and 4.2.3, walking is the most common mode of transportation used for student arrival and departure.

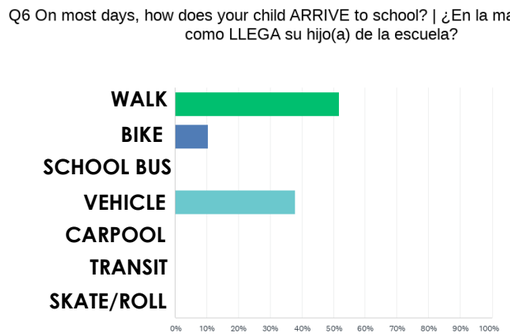


FIGURE 4.2.2. SKYLINE ELEMENTARY SCHOOL PARENT SURVEY QUESTION DENOTING MEANS OF TRANSPORTATION FOR SCHOOL ARRIVAL.

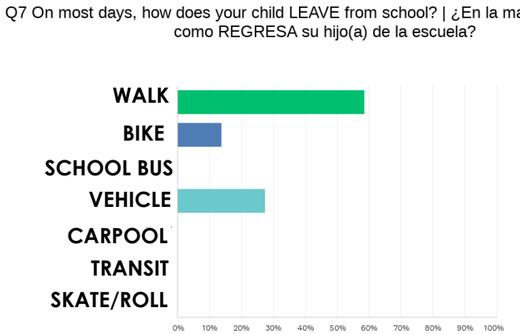


FIGURE 4.2.3. SKYLINE ELEMENTARY SCHOOL PARENT SURVEY QUESTION DENOTING MEANS OF TRANSPORTATION FOR SCHOOL DEPARTURE.

Most parents felt that Skyline Elementary School was either acting neutrally or encouraging walking and biking to school, and this sentiment was reflected in the statistic that 76% of the respondents' children have asked permission to walk or bike to/from school in the past year. The most-often cited concerns relating to pedestrian and bicycle travel were speeding traffic, unsafe intersections, too much traffic, and distance. In order to address these issues, 22 parents (75% of respondents) expressed interest in helping identify safety issues at schools and 7 noted that they would be willing to help with a Walk and Roll to School day or week event.

Participation in Free and Reduced Meal Program

The percentage of Skyline Elementary School students on free and reduced lunch assistance is significantly lower than the state and county percentages but notably higher than the Solana Beach School District percentage (for 2019-2020; see Figure 4.2.4). However, free lunches are now provided to all public and charter school students as a result of the statewide Universal Meals Program, following the expiration of federal pandemic-era free lunch programs.

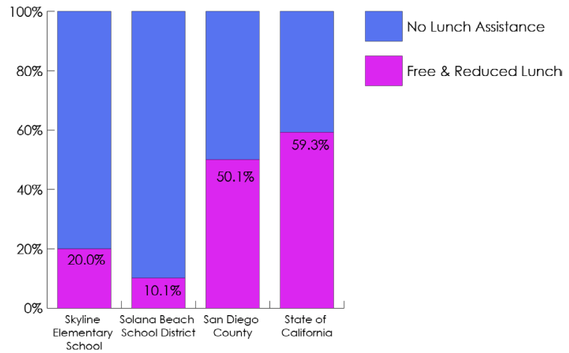


FIGURE 4.2.4. SKYLINE ELEMENTARY SCHOOL IN COMPARISON TO THE SCHOOL DISTRICT, COUNTY, AND STATE AVERAGES (SOURCE: ED-DATA.ORG).

CalEnviroScreen and Healthy Places Index

CalEnviroScreen is a tool developed by The California Office of Environmental Health Hazard Assessment (OEHHA) that analyzes exposures, environmental effects, sensitive populations, and socioeconomic factors to determine which California communities have high pollution burdens. CalEnviroScreen 4.0 results range from 0-100 (with higher scores indicating higher pollution burdens) and represent the overall percentile ranking of the selected census tract relative to the state's other census tracts.

Skyline Elementary School is located in census tract 173.03, which has an overall score in the 2nd percentile, indicating a relatively low pollution burden compared with other locations across the state (see Figure 4.2.5). When compared to neighboring census tracts within the City of Solana Beach the census tract containing Skyline Elementary School has an intermediate score, as the others are in the 1st and 15th percentiles.

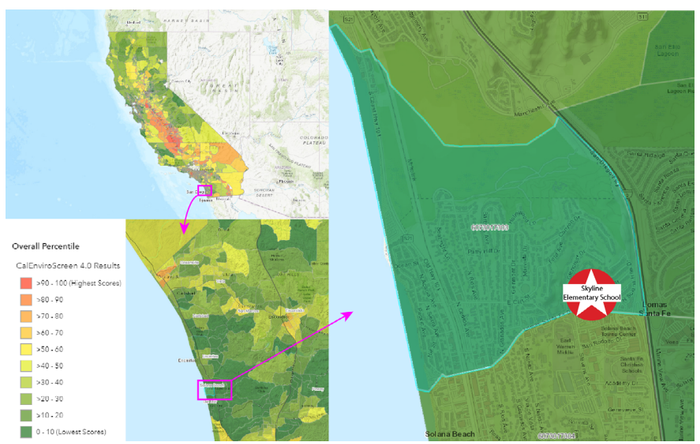


FIGURE 4.2.5. CALENVIROSCREEN 4.0 RESULTS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND CENSUS TRACTS WITHIN SOLANA BEACH (SOURCE: OEHHA.CA.GOV).

One of the indicators CalEnviroScreen reports is traffic density. The census tract in which Skyline Elementary School is located has a traffic density score in the 90th percentile, indicating a significantly higher number of vehicles on the road compared to other California census tracts (see Figure 4.2.6).

FIGURE 4.2.6. CALENVIROSCREEN 4.0 TRAFFIC DENSITY RESULTS (SOURCE: OEHHA.CA.GOV).

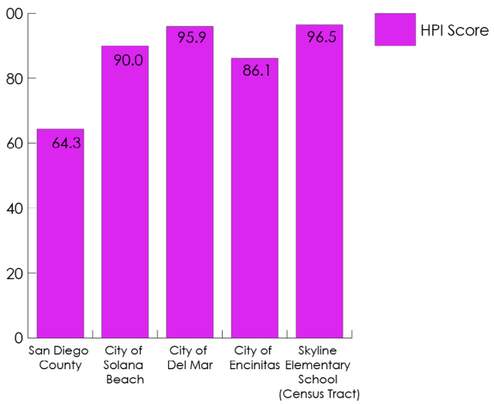


FIGURE 4.2.7. HPI SCORES FOR SAN DIEGO COUNTY, SOLANA BEACH, NEIGHBORING CITIES, AND SKYLINE ELEMENTARY SCHOOL (SOURCE: HEALTHYPLACESINDEX.ORG).

The California Healthy Places Index (HPI) is a tool developed by the Public Health Alliance of Southern California that analyzes various policy areas (economics, education, transportation, housing, healthcare, etc.) to display how community conditions affect health outcomes. Results range from 0-100, with higher scores indicating healthier conditions. The census tract containing Skyline Elementary School has an HPI score higher than the County of San Diego, the City of Solana Beach as a whole, and the neighboring cities of Del Mar and Encinitas (see Figures 4.2.7 and 4.2.8).

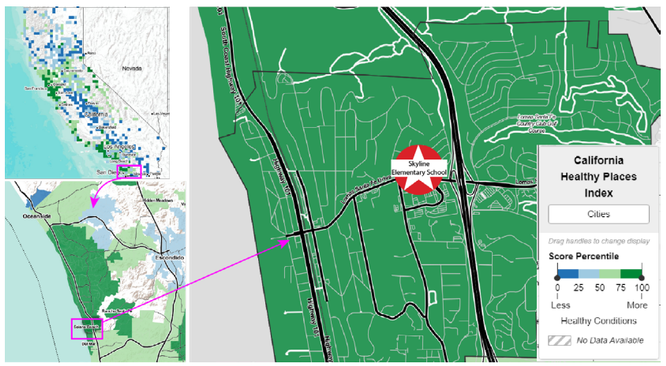


FIGURE 4.2.8. HPI VISUALIZATIONS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND THE CITY OF SOLANA BEACH (SOURCE: HEALTHYPLACESINDEX.ORG).

Walking

Figure 4.2.9 provides an overview of the existing pedestrian network and challenges observed and analyzed. Challenges to walking are evaluated through a process called Pedestrian Environment Quality Evaluation (PEQE) developed by CR Associates. The evaluation looks at the physical conditions and the quality of the sidewalks and crosswalks. Figure 4.2.10 displays the results of the PEQE scoring. Generally, the sidewalk network is complete with the exception of Glencrest Drive, west of Skyline Elementary School and a segment on the north side of Dell Street, about 170 feet east of the back entrance to the school. The City is in conversations with residents on Glencrest Drive regarding sidewalk installation.

The absence of a sidewalk on Glencrest Drive is particularly problematic because many students use this road to access the back entrance to Skyline Elementary School. The campus can be reached via a pedestrian walkway east of the intersection of Dell Street and Dell Court (see Figure 4.2.11). Staff has instructed students that this entrance is solely for pedestrian usage and is not for students being dropped off in a car.

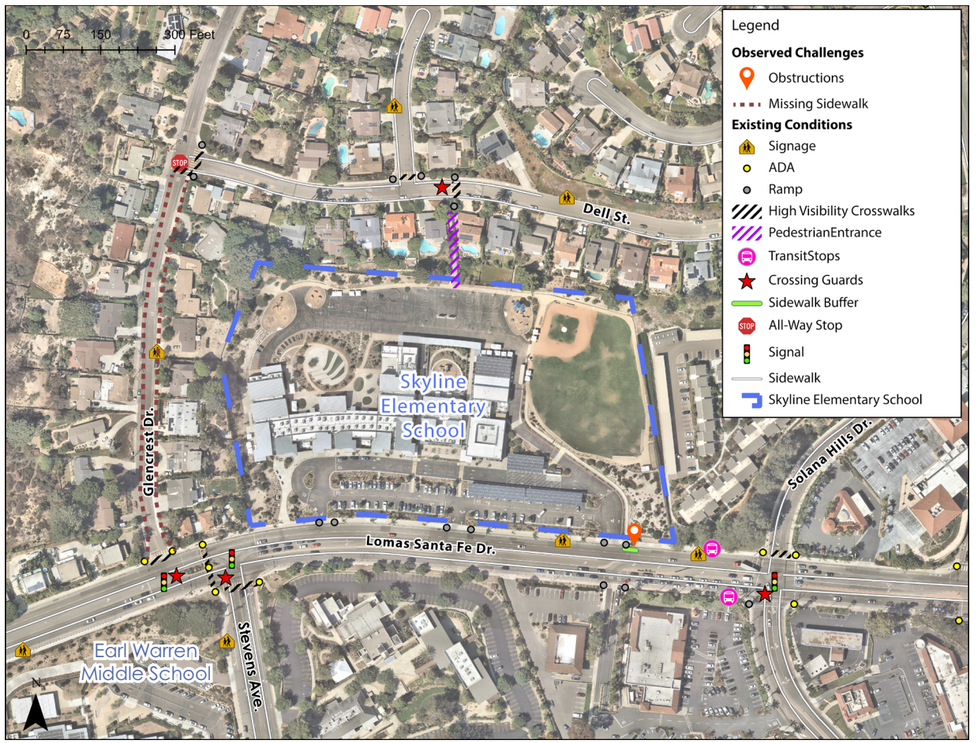


FIGURE 4.2.9. EXISTING PEDESTRIAN CONDITIONS AND OBSERVED CHALLENGES AND GAPS IN THE NETWORK.

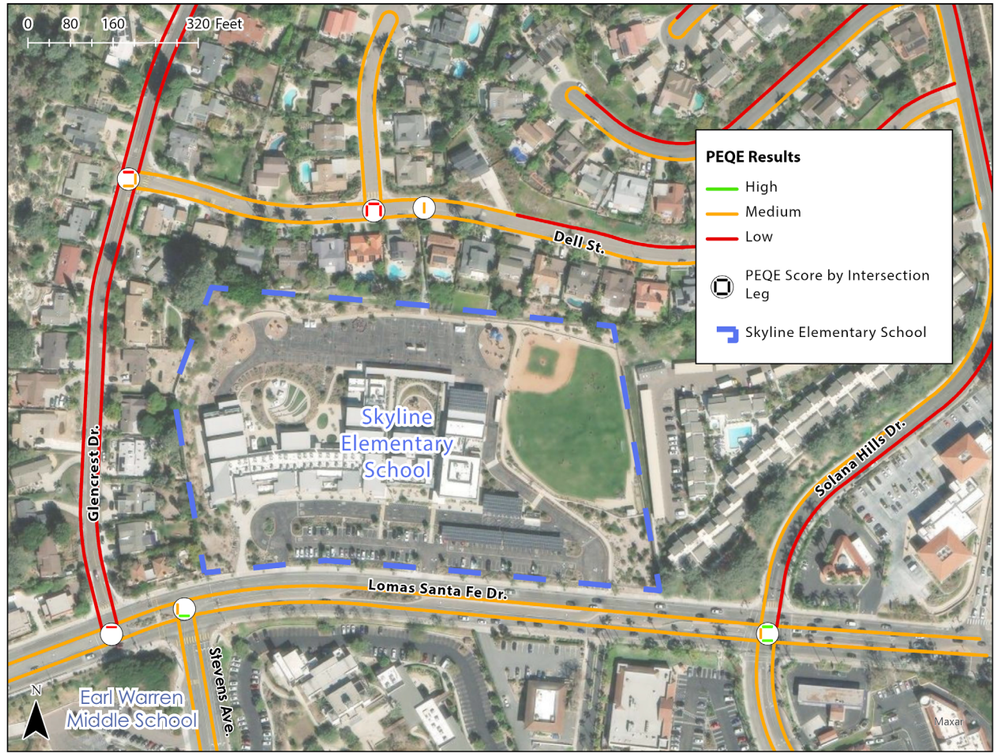


FIGURE 4.2.10. PEDESTRIAN ENVIRONMENT QUALITY EVALUATION (PEQE) RESULTS FOR THE AREA SURROUNDING SKYLINE ELEMENTARY SCHOOL.

FIGURE 4.2.11. PEDESTRIAN WALKWAY FROM DELL STREET

FIGURE 4.2.12. LOW VISIBILITY CROSSWALK ON LOMAS SANTA FE DR.

Missing truncated domes, low-visibility crosswalks, and other obstructions were observed within proximity to the school. Such issues complicate the walking environment and disproportionately affect vulnerable users. One such obstruction, a fire hydrant, was observed adjacent to the eastern walking entrance to Skyline Elementary School. In the same location, City of Solana Beach officials installed a railing that acts as a buffer between the sidewalk and the roadway.

Riding and Rolling

There are Class 2 bike lanes adjacent to Skyline Elementary School on Lomas Santa Fe Drive (see Figure 4.2.13). During the site assessment, several students were observed riding bicycles and scooters to school. As seen in Figure 4.2.15, there is ample parking for bicycles and scooters on the Skyline Elementary School campus. Students are not permitted to bring bicycles through the pedestrian entrance on Dell Street, so bicycle commuters enter campus via Lomas Santa Fe Drive. However, for students coming from the West and traveling East this can result in riding the wrong way on the sidewalk for the final 200 feet since navigating a left turn into the school from Lomas Santa Fe is beyond the skill set of an elementary school cyclist.

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute. LTS classifies the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by CR Associates concluded that the roads directly adjacent to Skyline Elementary School have low-to-medium LTS scores, where a higher score indicates higher stress (Figure 4.2.14).

FIGURE 4.2.13. THE EXISTING BIKE NETWORK SURROUNDING SKYLINE ELEMENTARY SCHOOL.

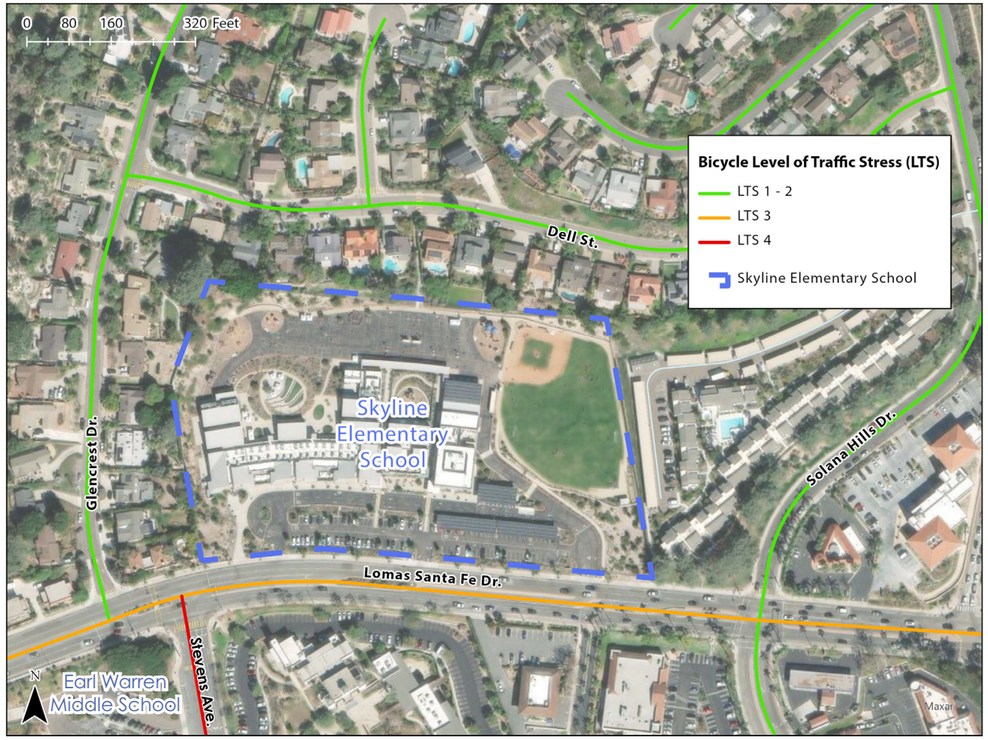


FIGURE 4.2.14. BICYCLE LEVEL OF TRAFFIC STRESS (LTS) RESULTS FOR THE AREA SURROUNDING SKYLINE ELEMENTARY SCHOOL.

FIGURE 4.2.15. AVAILABLE BIKE PARKING AT SKYLINE ELEMENTARY SCHOOL

Drop-Off, Pick-Up, and Vehicle Movements

Skyline Elementary School is accessed via Lomas Santa Fe Drive or Dell Street. Lomas Santa Fe Drive is a wide street with two lanes in either direction and dedicated turn lanes. Dell Street is has one lane in either direction and parking on both sides of the road. Figure 4.2.16 demonstrates existing conditions as well as behavior observed during the site assessment.

During the mobility assessment, parents were observed making illegal U-turns at two of the three legs of the Lomas Santa Fe Drive / Stevens Avenue intersection. Some of these movements are associated with student drop-off / pick-up at Earl Warren Middle School, which is located southeast of the Lomas Santa Fe Drive/ Stevens Avenue Intersection, while others are associated with Skyline Elementary School. There is concern about a car potentially flipping over or hitting a pedestrian. Drivers were also observed speeding along Dell Street, which is especially dangerous because there is an access point on this road for pedestrians to reach the school campus. Speed bumps are in place along Dell Street, but have not eliminated speeding.

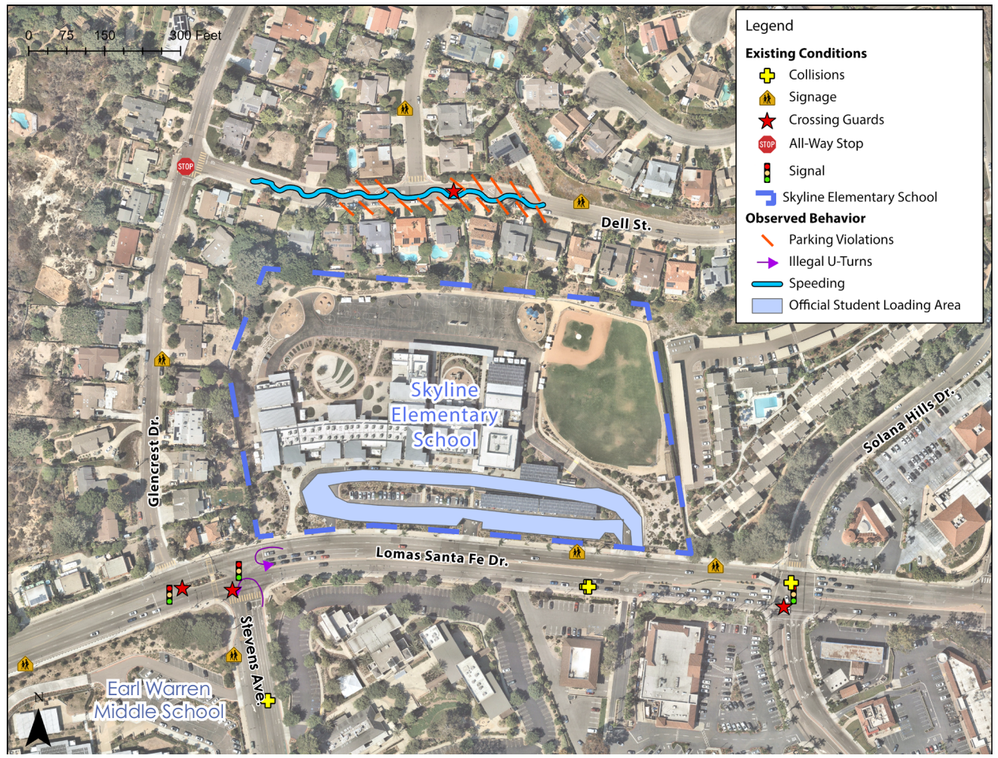


FIGURE 4.2.16. EXISTING ROADWAY NETWORK, OBSERVED VEHICLE BEHAVIOR, AND CONDITIONS.

FIGURE 4.2.17. ENTRANCE TO OFFICIAL LOADING AREA ON LOMAS SANTA FE

Drop-off occurs before 8:40 a.m. and pick-up occurs after 3:00 p.m. Vehicles enter the parking lot from the easternmost access point on Lomas Santa Fe Dr. and are permitted to drive through the lane closest to the school or to enter the parking area (see Figure 4.2.17). Having multiple lanes allows for drivers to pass one another, and there was minimal congestion during the observation period.

Collision Summary

Between 2014 and 2018, there were 13 pedestrian and bicycle crashes within a half-mile radius of Skyline Elementary School (see Figure 4.2.18). Within a quarter-mile radius of the school, there were three crashes causing visible injuries and two crashes causing severe injuries. There was one pedestrian fatality within a half-mile radius of the school (a woman was struck and killed by a motorist while attempting to cross Interstate 5 just before dawn in February 2018; source: delmartimes.net).

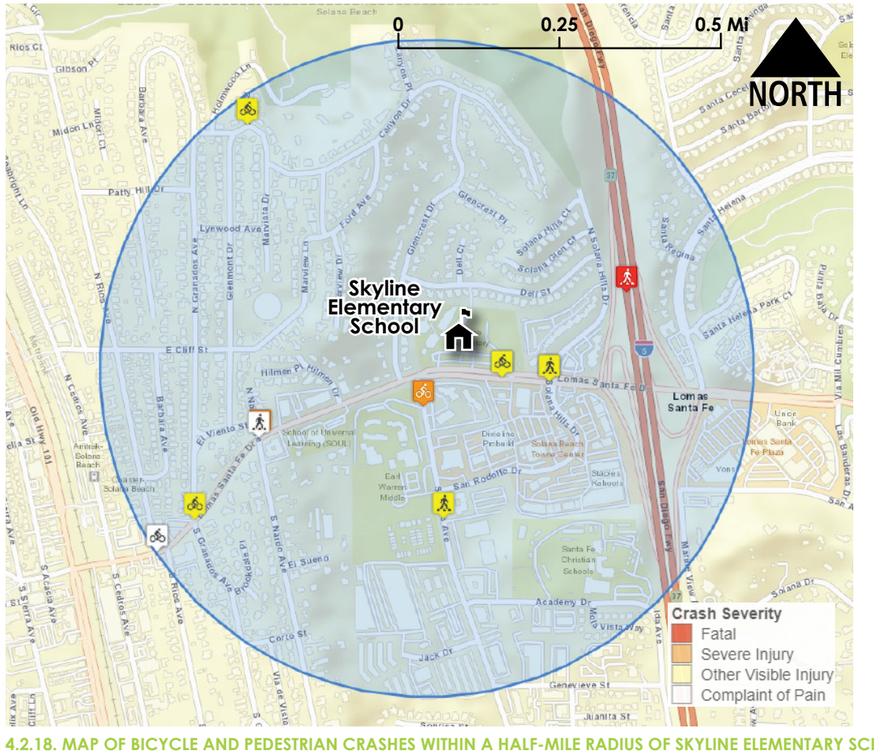


FIGURE 4.2.18. MAP OF BICYCLE AND PEDESTRIAN CRASHES WITHIN A HALF-MILE RADIUS OF SKYLINE ELEMENTARY SCHOOL OCCURRING BETWEEN JANUARY 2014 AND DECEMBER 2018 (SOURCE: TIMS.BERKELEY.EDU).

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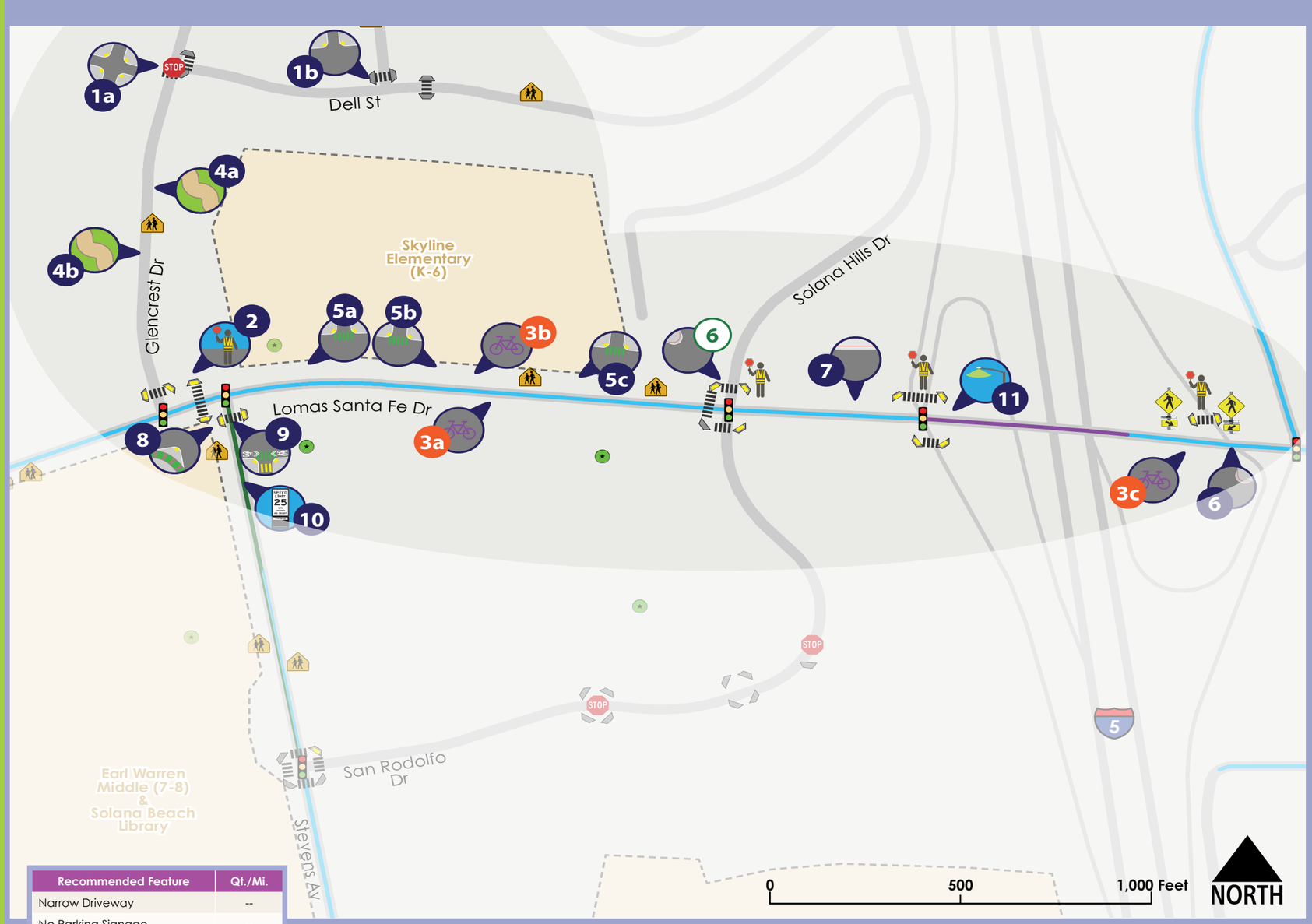
4.2 Skyline Elementary School Recommendations

Several walking and bicycling challenges were identified during the Skyline Elementary School (Skyline) mobility assessment. Around the pedestrian entrance along Dell Street, there are missing sidewalk segments, substandard crosswalks, missing curb ramps, and observed speeding behavior from drivers on Dell Street despite speed bumps existing along this corridor. As there are no bicycle facilities along Dell Street or Glencrest Drive, cyclists are required to use Lomas Santa Fe Drive to access Skyline. However, there is no safe way for eastbound cyclists to access Skyline on Lomas Santa Fe Drive without using the westbound bike lanes for 200 feet, increasing the potential for bicycle collisions. Other concerns that prevent the area from being ideal for walking and bicycling include the prevalence of illegal U-turn behavior on Lomas Santa Fe Drive and accessibility obstructions, such as missing truncated domes and low-visibility crosswalks.

A series of enhancements to the project area are recommended to improve the experience for students. Where Dell Street meets Glencrest Drive and Dell Court, it is recommended to install ADA curb ramps to enhance safe crossings for students. Placing a crossing guard at the intersection of Glencrest Drive and Lomas Santa Fe Drive is recommended to ensure the safety of vulnerable students and others crossing the street. To complete the sidewalk network along Glencrest Drive, it is recommended to install a decomposed granite (DG) path. At the driveway entrances along Lomas Santa Fe, it is recommended to install green conflict striping to remind vehicle users that the entry and exit points are shared between all road users, and they should exercise caution when crossing those conflict points. At the Solana Hills Drive and Lomas Santa Fe intersection, curb extensions are recommended to increase sidewalk space and decrease the speed at which vehicles can turn, creating a safer intersection for all. East of Solana Hills Drive along Lomas Santa Fe, it is recommended to widen the sidewalk for a more comfortable pedestrian experience. Creating a protected curb at the Stevenson Avenue and Lomas Santa Fe intersection is recommended to improve the safety of bicyclists at that intersection, as they would be protected from vehicles turning right onto the main arterial. A speed feedback sign on Stevens Avenue would function as an additional traffic calming measure. Finally, it is recommended to add enhanced lighting to the west side of the I-5 freeway on-ramp area. These recommendations are highlighted on the graphic at right. A summary list of recommendations is provided in Section 6.3.



Recommended Feature	Qt./Mi.
Narrow Driveway	--
No Parking Signage	--
Bicycle & Walking Crossing	--
Audible Signal	--
Bulb Out & Crosswalk	--
Shared Lane Marking	--
On-Street Parking Signage	--
ADA Curb Ramp	6
Sidewalk	--
Crossing Guard	1
Class IV	0.28 miles
Decomposed Granite Path	700 ft.
Conflict Paint Dwy Locations	3
Curb Extension	1
Widen Sidewalk	275 ft.
High-Visibility Crosswalk	--
Protected Curb Approach	--

Existing Infrastructure

ADA Compliant Ramp · Ramp · Marked Crosswalk · All-Way Stop · Traffic Signal · Bike Parking

School Site · School Signage · Rectangular Rapid-Flashing Beacons · Crossing Guard Location

Class II Bike Lane · Class III Bike Route · Class IV - Protected Bikeway

Recommendations

1. Install ADA Curb Ramp
2. Place Crossing Guard
3. Install Class IV
4. Construct DG Path
5. Install Conflict Paint at Driveway
6. Construct Curb Extension
7. Widen Sidewalk
8. Create Protected Curb Approach
9. Construct Bicycle & Walking Crossing
10. Place Speed Feedback Signage
11. Enhanced lighting

- # Consistent with Lomas Santa Fe Plan
- # Consistent with CATS Plan
- # New Recommendation
- (#) Deviates from Specified Plan

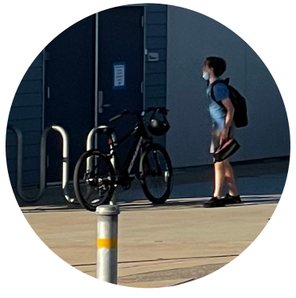
4.3 Earl Warren Middle School

Address: 155 Stevens Ave, Solana Beach, CA 92075 • District: San Dieguito Union High

The Earl Warren Middle School is located south of Lomas Santa Fe Drive, east of Nardo Avenue, and west of Stevens Avenue. It is located approximately one-third mile west of Interstate 5 and approximately one-half mile east of State Highway 101. Land use around Earl Warren Middle School consists of residential to the west, light industrial to the south, and commercial and office to the east. Adjacent to and south of the school is a public storage facility and west of the school is the Boys and Girls Club. Skyline Elementary is located northeast of Lomas Santa Fe Drive/Stevens Avenue intersection.

Mobility Assessment

A walk audit and on-site meeting for Earl Warren Middle School in the City of Solana Beach was conducted on October 13, 2021. This event included the collection of observations of pick up and drop off, interviews with staff, field assessment/existing conditions confirmation, and a walk audit with staff. The purpose of the event was to identify issues that may make it unsafe or uncomfortable for students to walk, bike, or roll to and from school, to be incorporated into the broader mobility assessment for each school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.



Staff who attended the walk audit and on-site meeting included the Earl Warren Middle School Principal Justin Conn and representatives from the City of Solana Beach, Circulate San Diego, and CR Associates.

School Profile

Earl Warren is the only public middle school within the city limits of Solana Beach. During the 2019-2020 academic year, there were 653 students enrolled in the 7th and 8th grades. The demographic composition of these students, as shown in Figure 4.3.1, is relatively similar to that of Solana Beach as a whole; however, the City has a slightly lower Hispanic population (15.5%) and a slightly higher white population (76.2%) than Earl Warren according to 2019 Census estimates (source: census.gov).

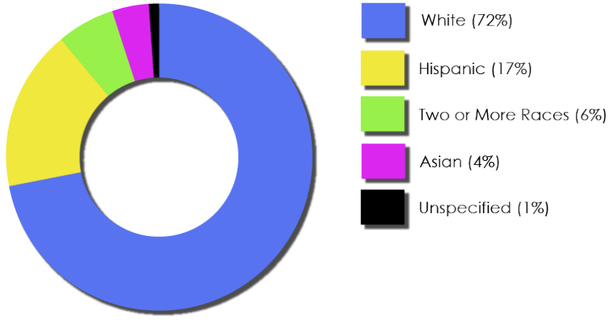


FIGURE 4.3.1. DEMOGRAPHIC COMPOSITION OF EARL WARREN MIDDLE SCHOOL STUDENTS DURING THE 2019-2020 ACADEMIC YEAR (SOURCE: GREATSCHOOLS.ORG).

Student Tallies

The Safe Routes to School Student Arrival and Departure Tally Sheet was administered by Earl Warren Middle School staff on October 7, 2021, to better understand what mode(s) students use to travel to and from the campus. As displayed in Figure 4.3.2, the vast majority of students arrived and departed in a family vehicle, followed by carpooling, walking, and biking respectively. Earl Warren Middle School does not offer "Yellow Bus" service to its general student population, and only one student reported taking the NCTD bus.

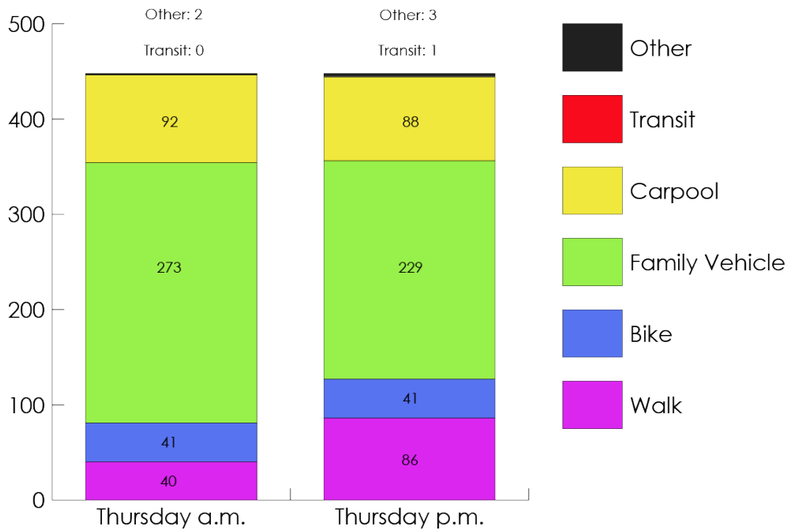


FIGURE 4.3.2. EARL WARREN MIDDLE SCHOOL STUDENTS' ARRIVAL AND DEPARTURE TALLIES COLLECTED DURING THE MORNING AND AFTERNOON OF THURSDAY, OCTOBER 7, 2021.

An online survey was administered to Earl Warren Middle School parents via SurveyMonkey during October 2021. Of the 56 recorded responses, 36 parents noted that their children live between one and two miles from the school's campus while the other 20 respondents live less than one mile from the school's campus. As shown in Figures 4.3.3 and 4.3.4, single-household vehicles are the most common mode of transportation used for student drop-off, but walking is the most common mode of transportation for departure from school.

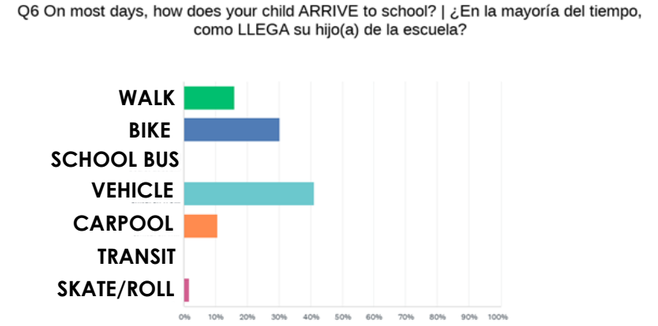


FIGURE 4.3.3. EARL WARREN MIDDLE SCHOOL PARENT SURVEY QUESTION DENOTING MEANS OF TRANSPORTATION FOR SCHOOL ARRIVAL.

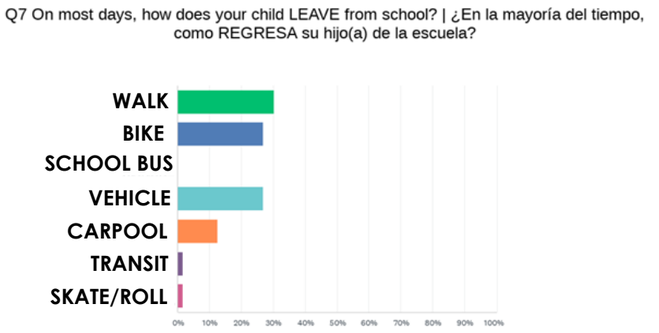


FIGURE 4.3.4. EARL WARREN MIDDLE SCHOOL PARENT SURVEY QUESTION DENOTING MEANS OF TRANSPORTATION FOR SCHOOL DEPARTURE.

Most parents felt that Earl Warren Middle School was either acting neutrally or encouraging walking and biking to school, and this sentiment was reflected in the statistic that 57% of the respondents' children have asked permission to walk or bike to/from school in the past year. The most-often cited concerns relating to pedestrian and bicycle travel were speeding traffic, unsafe intersections, too much traffic, too much to carry, lack of sidewalks and/or paths, and stranger danger. In order to address these issues, 36 parents expressed interest in helping identify safety issues at schools and 8 noted that they would be willing to help organize a neighborhood Walking School Bus or Bike Train.

Participation in Free and Reduced Meal Program

The percentage of Earl Warren Middle School students participating in the free and reduced lunch assistance is significantly lower than the state and county averages but slightly higher than the San Dieguito Union High District average (for 2019-2020; see Figure 4.3.5). However, free lunches are now provided to all public and charter school students as a result of the statewide Universal Meals Program, following the expiration of federal pandemic-era free lunch programs.

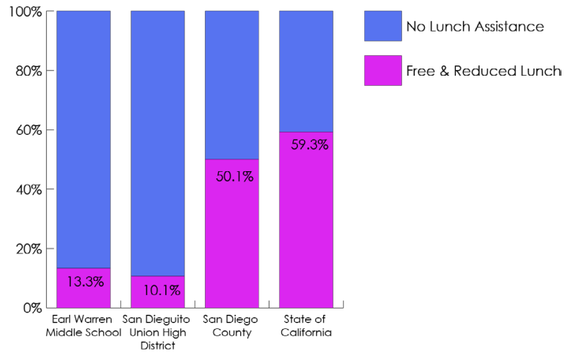


FIGURE 4.3.5. EARL WARREN MIDDLE SCHOOL IN COMPARISON TO THE SCHOOL DISTRICT, COUNTY, AND STATE AVERAGES (SOURCE: ED-DATA.ORG).

CalEnviroScreen and Healthy Places Index

CalEnviroScreen is a tool developed by The California Office of Environmental Health Hazard Assessment (OEHHA) that analyzes exposures, environmental effects, sensitive populations, and socioeconomic factors to determine which California communities have high pollution burdens. The CalEnviroScreen 4.0 results range from 0-100 (with higher scores indicating higher pollution burdens) and represent the overall percentile ranking of the selected census tract relative to the state's other census tracts.

Earl Warren Middle School is located in census tract 173.04, which has an overall score in the 15th percentile, indicating a relatively low pollution burden compared with other locations across the state (see Figure 4.3.6). However, when compared to neighboring census tracts within the City of Solana Beach the census tract containing Earl Warren Middle School has the highest score, as the others are in the 1st and 2nd percentiles.

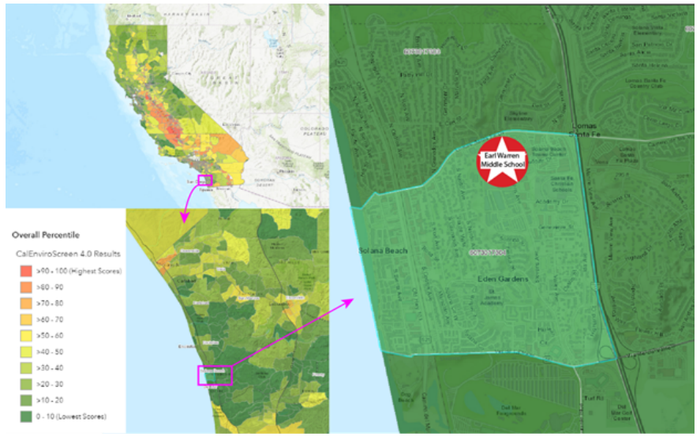


FIGURE 4.3.6. CALENVIROSCREEN 4.0 RESULTS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND CENSUS TRACTS WITHIN SOLANA BEACH (SOURCE: OEHHA.CA.GOV).

One of the indicators CalEnviroScreen reports is traffic density. The census tract in which Earl Warren Middle School is located has a traffic density score in the 92nd percentile, indicating a significantly higher number of vehicles on the road compared to other California census tracts (see Figure 4.3.7).

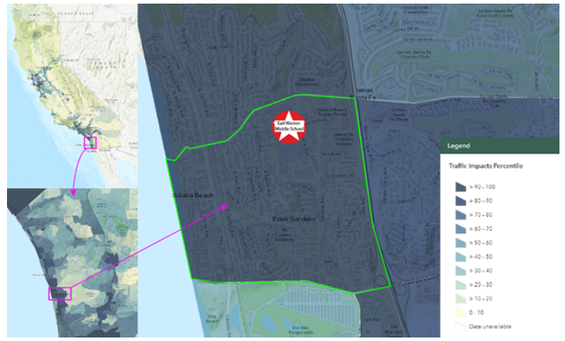


FIGURE 4.3.7. CALENVIROSCREEN 4.0 TRAFFIC DENSITY RESULTS (SOURCE: OEHHA.CA.GOV).

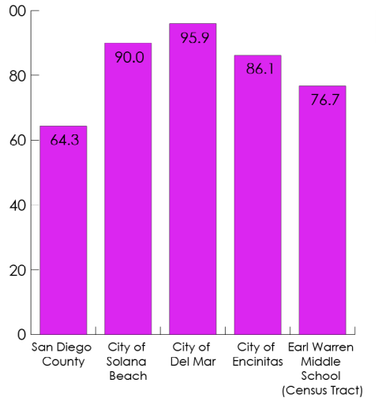


FIGURE 4.3.8. HPI SCORES FOR SAN DIEGO COUNTY, SOLANA BEACH, NEIGHBORING CITIES, AND EARL WARREN MIDDLE SCHOOL (SOURCE: HEALTHYPLACESINDEX.ORG).

The California Healthy Places Index (HPI) is a tool developed by the Public Health Alliance of Southern California that analyzes various policy areas (economics, education, transportation, housing, healthcare, etc.) to display how community conditions affect health outcomes. Results range from 0-100, with higher scores indicating healthier conditions. The census tract containing Earl Warren Middle School has an HPI score higher than the County of San Diego, but lower than the City of Solana Beach as a whole and the cities of Encinitas and Del Mar (see Figures 4.3.8 and 4.3.9).

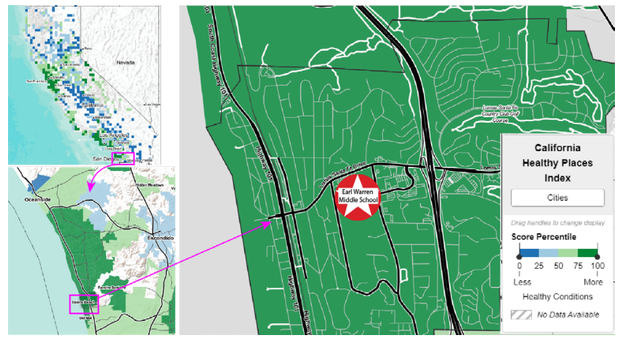


FIGURE 4.3.9. HPI VISUALIZATIONS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND THE CITY OF SOLANA BEACH (SOURCE: HEALTHYPLACESINDEX.ORG).

Walking

Figure 4.3.10 provides an overview of the existing pedestrian network and challenges observed and analyzed. Challenges to walking are evaluated through a process called Pedestrian Environment Quality Evaluation (PEQE) developed by CR Associates. The evaluation looks at the physical conditions and the quality of the sidewalks and crosswalks. A sidewalk network with medium and low PEQE scores can be a stressful walking environment, especially for the most vulnerable. Figure 4.3.11 shows the PEQE results. The majority of those walking traveled from east to west on Lomas Santa Fe Drive and south to north on Stevens Avenue. Generally, the sidewalk network is complete with the exception of Glencrest Drive, north of Lomas Santa Fe Drive. The City is in conversations with residents on Glencrest Drive regarding sidewalk installation. While there are bike lanes on both Lomas Santa Fe Drive and Stevens Avenue, students were observed riding on the sidewalk creating a potential conflict with students walking.

Missing truncated domes, cracked sidewalks, and other obstructions, such as utility boxes, were observed within proximity to the school (see Figures 4.3.12 and 4.3.13). This affects everyone who uses the sidewalk, but especially those with limited mobility as well as people with strollers. One such obstruction, a protruding guardrail, was observed adjacent to the NCTD bus stop along Lomas Santa Fe Avenue.

FIGURE 4.3.10. EXISTING PEDESTRIAN CONDITIONS AND OBSERVED CHALLENGES AND GAPS IN THE NETWORK.

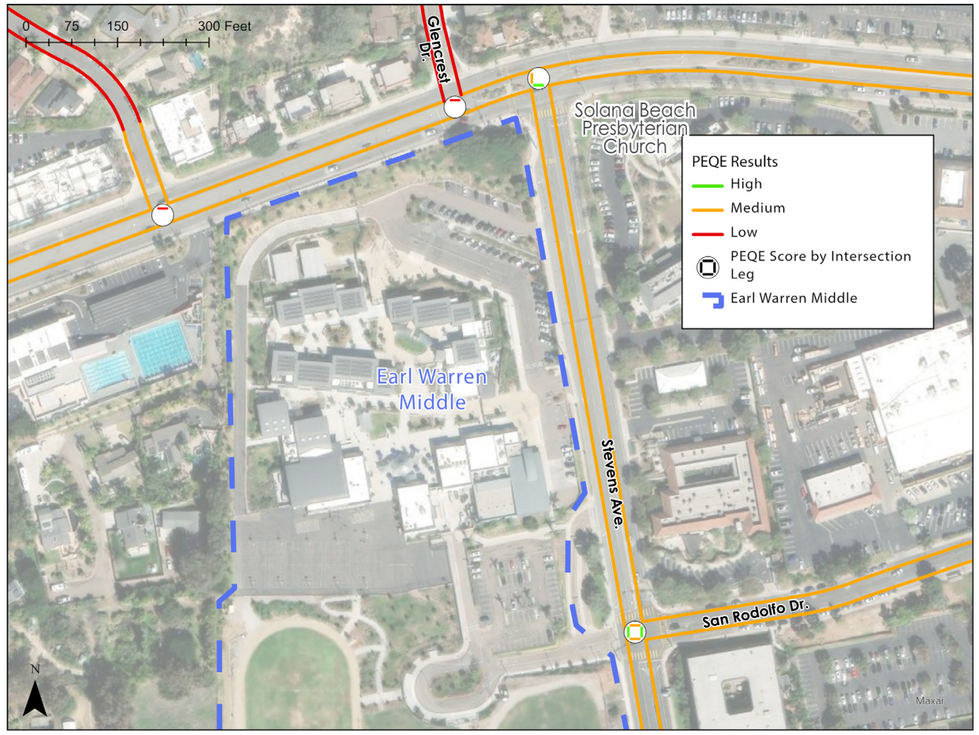


FIGURE 4.3.11. PEDESTRIAN ENVIRONMENT QUALITY EVALUATION (PEQE) RESULTS FOR THE AREA SURROUNDING EARL WARREN MIDDLE SCHOOL.

FIGURE 4.3.12. UTILITY BOXES OBSTRUCTING THE SIDEWALK ALONG SOUTH SIDE OF LOMAS SANTA FE DRIVE

FIGURE 4.3.13. MISSING TRUNCATED DOMES ON STEVENS AVENUE

Parents will sometimes use the parking lot of the Solana Beach Presbyterian Church across Stevens Avenue from the school for loading. When parents use this parking lot, students typically cross Stevens Avenue to the school (see Figure 4.3.10). The nearest crosswalk is approximately 850 feet to the north or south.

Public transit use by Earl Warren Middle School students to school is low (i.e. one student arrives by public bus). Transit could be promoted as the NCTD bus stop is just south of the school entrance on San Rodolfo Drive. however, the service only operates at hourly headways at all hours of the day.

Riding and Rolling

There are Class 2 bike lanes adjacent to the Earl Warren Middle School on both Lomas Santa Fe Drive and Stevens Avenue, as well as Class 3 bikes lanes along a small portion of Stevens Avenue (see Figure 4.3.14). During the mobility assessment, automobiles were observed traveling over the posted speed limit of 35 mph. Students ride their bicycles on the sidewalk, and parents with students also chose to ride on the sidewalk (see Figure 4.3.16). This behavior indicates a desire to be out of the roadway and a desire of the cyclist to have more of a buffer between themselves and moving cars.

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute. LTS classifies the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by CR Associates concluded that the roads directly adjacent to Earl Warren Middle School have medium-to-high LTS scores, where a higher score indicates higher stress. (see Figure 4.3.15).

Crossing guards noted that students often ride on the sidewalk. Students often bike through a landscaped corner at Lomas Santa Fe Drive and Stevens Avenue in order to access the school's parking lot (see Figure 4.3.14).

FIGURE 4.3.14. THE EXISTING BIKE NETWORK AND OBSERVED CHALLENGES.

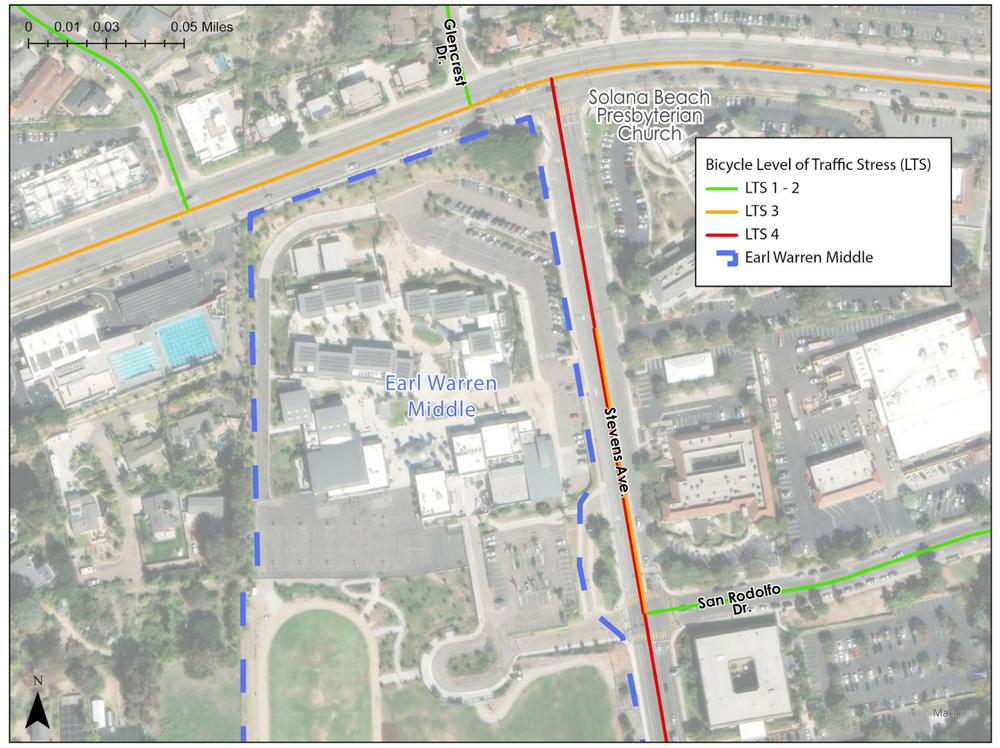


FIGURE 4.3.15. BICYCLE LEVEL OF TRAFFIC STRESS (LTS) RESULTS FOR THE AREA SURROUNDING EARL WARREN MIDDLE SCHOOL.

As seen in the image below, there is a limited amount of bicycle parking in front of the school, and there is a demonstrated need for additional capacity. Once filled, students bring their bikes into their classrooms. The school principal stated that more students started biking to school after the introduction of an e-bike program and the completion of a bike safety class that allowed more than 100 students to obtain permits to ride to school.

FIGURE 4.3.16. PARENT AND CHILD ON E-BIKE AT THE LOMAS SANTA FE DRIVE AND STEVENS AVENUE INTERSECTION.

FIGURE 4.3.17. AVAILABLE BIKE PARKING AT EARL WARREN MIDDLE SCHOOL.

Drop-Off, Pick-Up, and Vehicle Movements

Earl Warren Middle School is accessed by vehicle via Lomas Santa Fe Drive or Stevens Avenue. Both are wide streets with two vehicle lanes in either direction with dedicated turn lanes. Figure 4.3.18 demonstrates existing conditions as well as behavior observed during the mobility assessment.

During the mobility assessment, parents were observed making illegal U-turns at two of the three legs of the Lomas Santa Fe Drive / Stevens Avenue intersection. Some of these movements are associated with student drop-off / pick-up at Earl Warren Middle School while others are associated with Skyline Elementary School, which is located northeast of the Lomas Santa Fe Drive/Stevens Avenue intersection. At student drop-off and pick-up, parents use both the official and unofficial areas. The unofficial loading area on the west side of Stevens Avenue has signage prohibiting all vehicular movements other than loading. Just south of the unofficial loading area, parents often stop in the no parking zone to drop-off and pick-up students (see Figure 4.3.18).

Between 7:15-8:30 a.m. and 2:30-3:30 p.m., vehicles are only permitted to enter and exit the school from designated locations on Stevens Avenue. Also, during these periods, vehicles are not permitted to turn left out of the parking lot to help expedite student loading (see Figures 4.3.19 and 4.3.20).

FIGURE 4.3.18. EXISTING ROADWAY NETWORK, OBSERVED VEHICLE BEHAVIOR, AND CONDITIONS.

FIGURE 4.3.19. "DO NOT ENTER" SIGNS IN NORTHERN PARKING LOT ON EAST SIDE OF STEVENS AVENUE

FIGURE 4.3.20. "RIGHT TURN ONLY" SIGNS IN NORTHERN PARKING LOT ON EAST SIDE OF STEVENS AVENUE

Collision Summary

Between 2014 and 2018, there were 12 pedestrian and bicycle crashes within a half-mile radius of Earl Warren Middle School (see Figure 4.3.21). Within a quarter-mile radius of the school, there were three crashes causing visible injuries and one crash causing severe injury.

In addition to the four crashes causing injuries within a quarter-mile radius of Earl Warren Middle School, there was also one pedestrian fatality within a half-mile radius of the school (on February 23, 2018, a woman was struck and killed by a motorist while attempting to cross Interstate 5 just before dawn; source: delmartimes.net).

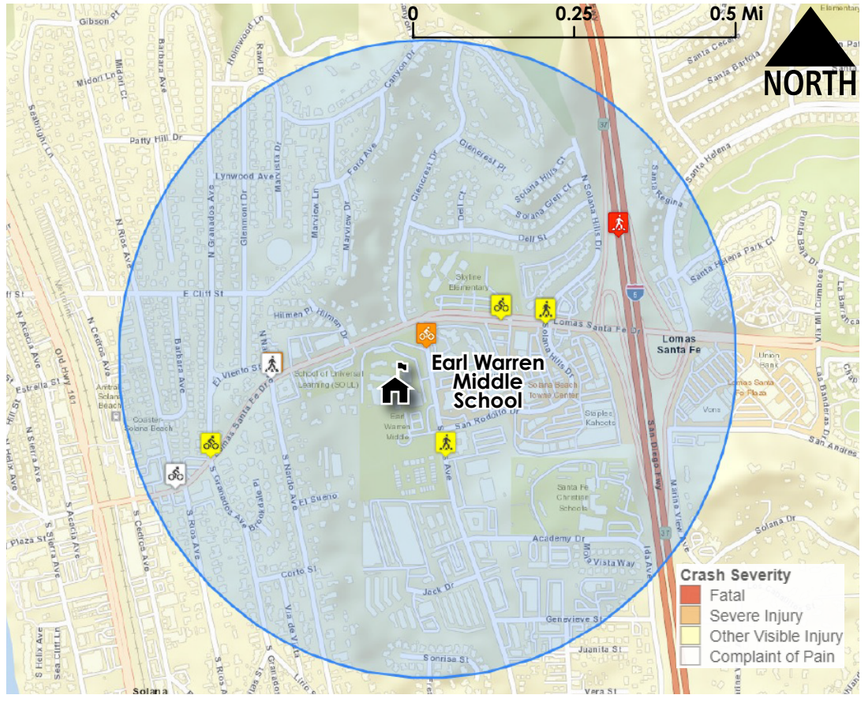
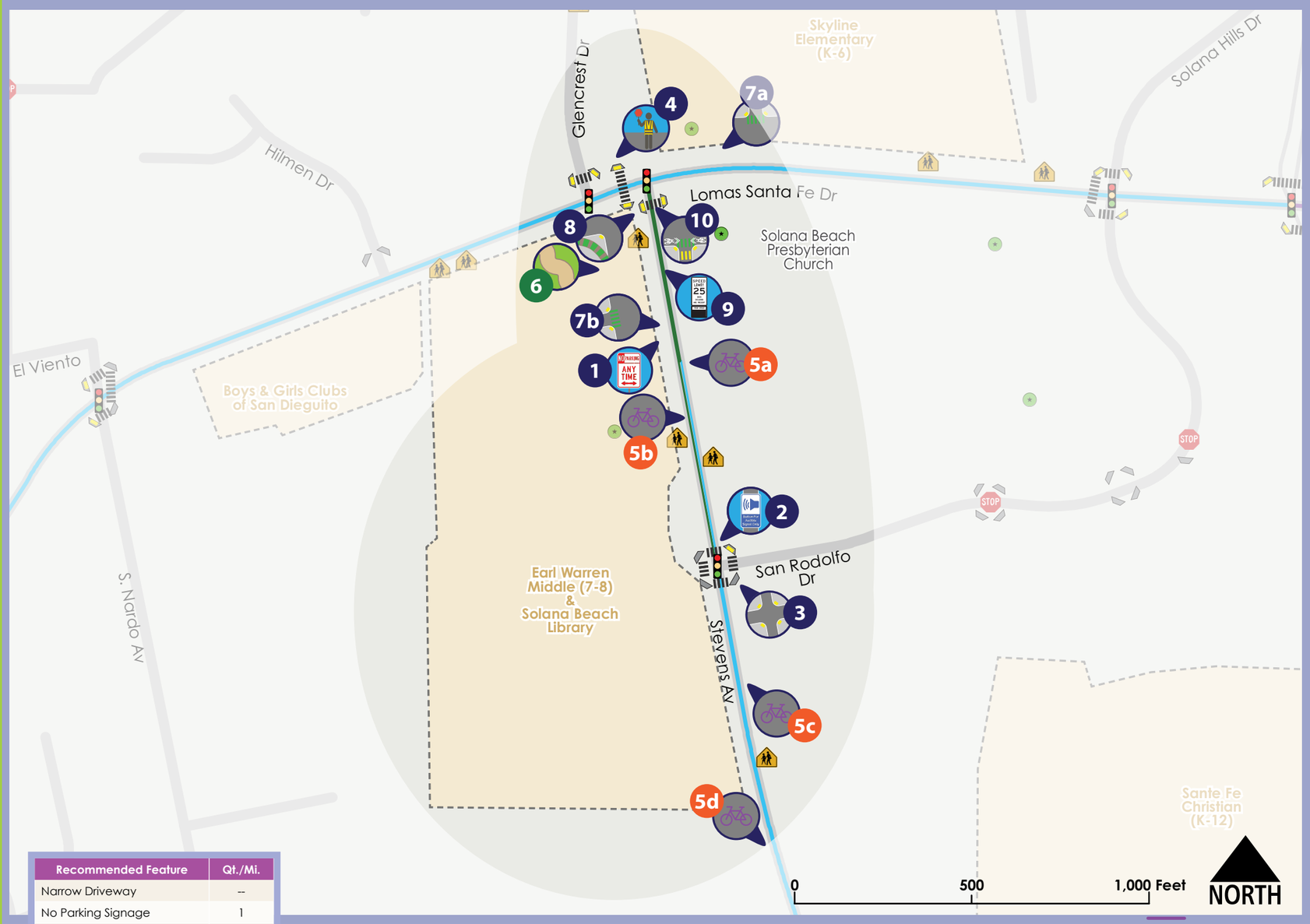


FIGURE 4.3.21. MAP OF BICYCLE AND PEDESTRIAN CRASHES WITHIN A HALF-MILE RADIUS OF EARL WARREN MIDDLE SCHOOL OCCURRING BETWEEN JANUARY 2014 AND DECEMBER 2018 (SOURCE: TIMS.BERKELEY.EDU).

4.3 Earl Warren Middle School Recommendations

The walking and bicycling environments around Earl Warren Middle School (Earl Warren) show several opportunities for improvement. The segment on Stevens Avenue surrounding Earl Warren causes a high level of stress for cyclists and students. Some contributors to this stress are insufficient bicycle infrastructure and the tendency for vehicles to speed on this roadway. Additionally, the vehicles entering and exiting official and unofficial student loading areas cause conflict points when the right-of-way is contested, or when illegal U-turns are performed. These factors contribute to the tendency for students to use the sidewalks instead of the roadway to travel. Students walking and bicycling are challenged by the need to share the sidewalk, especially amidst the observed obstructions that must be maneuvered around. For students dropped off at the nearby Solana Beach Presbyterian Church, the only nearby crosswalks are 850 feet away North or South, so some students opt to cross Stevens Avenue mid-block. Students traveling south on Glencrest Drive must also contend with missing sidewalks. Given these conditions, the Pedestrian Environment Quality Evaluation (PEQE) shows medium levels of stress for students along Lomas Santa Fe and Stevens Avenue.

There are several interventions recommended to remedy these challenges. Installing a no parking anytime sign at the unofficial student loading zone along Stevens Ave is recommended to improve the flow of traffic along this road segment. To improve accessibility and road safety, it is recommended to install an audible signal and ADA-compliant ramp at the Stevens Ave and San Rodolfo Drive intersection. To improve the crossing experience at the Lomas Santa Fe and Glencrest Drive intersection, it is recommended to add a crossing guard. To augment the bicycle infrastructure along Stevens Ave, it is recommended to add a 0.34-mile class IV cycle track in place of the Class II and III infrastructure that currently exists along this roadway segment. Additionally, it is recommend to install a deconstructed granite (DG) path along Lomas Santa Fe near the Stevens Avenue intersection to provide an additional pedestrian linkage to the parking lot. As a visual reminder for vehicles turning into the lot, it is recommended to install conflict paint at the northernmost entrance to the official student loading area. At the Lomas Santa Fe and Stevens Avenue crosswalk, it is recommended to add a protected curb to prevent collisions, and to install bicycle and walking crossings to improve visibility. Finally, a speed feedback sign on Stevens Avenue is recommended to help drivers regulate their speeds. These recommendations are highlighted on the graphic at right. A summary list of recommendations is provided in Section 6.3.



Recommended Feature	Qt./Mi.
Narrow Driveway	--
No Parking Signage	1
Bicycle & Walking Crossing	--
Audible Signal	1
Bulb Out & Crosswalk	--
Shared Lane Marking	--
On-Street Parking Signage	--
ADA Curb Ramp	4
Sidewalk	--
Crossing Guard	1
Class IV	0.34 miles
Decomposed Granite Path	~ 150 ft.
Conflict Paint Dwy Locations	1
Curb Extension	--
Widen Sidewalk	--
High-Visibility Crosswalk	--
Protected Curb Approach	1

Existing Infrastructure

ADA Compliant Ramp · Ramp · Marked Crosswalk · All-Way Stop · Traffic Signal · Bike Parking

School Site · School Signage · Rectangular Rapid-Flashing Beacons · Crossing Guard Location

Class II Bike Lane · Class III Bike Route · Class IV - Protected Bikeway

Recommendations

1. Install No Parking Any Time Signage
2. Install Audible Signal
3. Install ADA Curb Ramp
4. Place Crossing Guard
5. Install Class IV
6. Construct DG Path
7. Install Conflict Paint at Driveway
8. Create Protected Curb Approach
9. Place Speed Feedback Signage
10. Construct Bicycle & Walking Crossing

New Recommendation

Consistent with Lomas Santa Fe Plan

Consistent with CATS Plan

4.4 Boys & Girls Club of San Dieguito Barbara Harper Branch

Address: 533 Lomas Santa Fe Drive, Solana Beach, CA 92075

The Boys & Girls Club of San Dieguito Barbara Harper Branch is located south of Lomas Santa Fe Drive, east of Nardo Avenue, and west of Earl Warren Middle School. It is located approximately one-half mile west of Interstate 5 and approximately one-half mile east of State Highway 101. The Boys & Girls Club is surrounded by the land uses of residential to the south and west, commercial to the north and school use to the east. Northwest of the Boys & Girls Club is the Solana Beach Fire Department and east of the school is Earl Warren Middle School. Skyline Elementary is located across Lomas Santa Fe to the northeast about 1,000 feet east from the Boys & Girls Club.

Mobility Assessment

A walk audit and on-site meeting for the Boys & Girls Club of San Dieguito Barbara Harper Branch in the City of Solana Beach was conducted on December 15, 2021. This event included the collection of observations of pick up and drop off, interviews with staff, field assessment/existing conditions confirmation, and a walk audit with staff. The purpose of the event was to identify issues that may make it unsafe or uncomfortable for students to walk, bike, or roll to and from school, to be incorporated into the broader mobility assessment for each school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.

Staff who attended the walk audit and on-site meeting included representatives from Circulate San Diego and CR Associates.

School Profile

The Barbara Harper Branch is one of two Boys & Girls Club locations within the city limits of Solana Beach, and the only location serving middle and high school students. Youth at the Boys & Girls Club can participate in a variety of programs, including education, health and wellness, career development, leadership, and sports. No demographic information was available for this location.

CalEnviroScreen and Healthy Places Index

CalEnviroScreen is a tool developed by The California Office of Environmental Health Hazard Assessment (OEHHA) that analyzes exposures, environmental effects, sensitive populations, and socioeconomic factors to determine which California communities have high pollution burdens. The CalEnviroScreen 4.0 results range from 0-100 (with higher scores indicating higher pollution burdens) and represent the overall percentile ranking of the selected census tract relative to the state's other census tracts.

The Boys & Girls Club of San Dieguito Barbara Harper Branch is located in census tract 173.04, which has an overall score in the 15th percentile, indicating a relatively low pollution burden compared with other locations across the state (see Figure 4.4.1). However, when compared to neighboring census tracts within the City of Solana Beach the census tract containing the Boys & Girls Club has the highest score, as the others are in the 1st and 2nd percentiles.

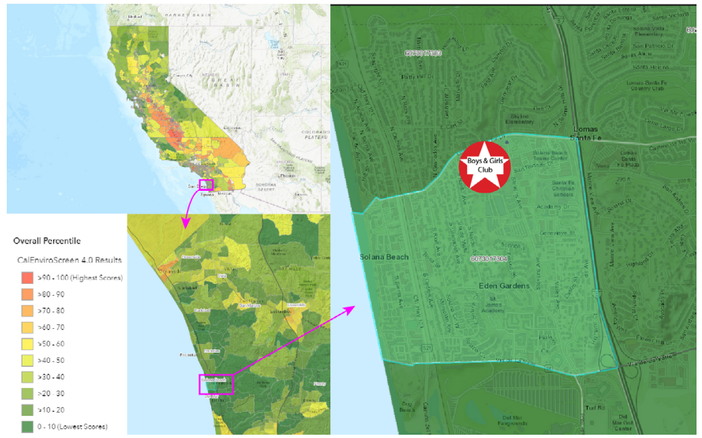


FIGURE 4.4.1. CALENVIROSCREEN 4.0 RESULTS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND CENSUS TRACTS WITHIN SOLANA BEACH (SOURCE: OEHHA.CA.GOV).

One of the indicators CalEnviroScreen reports is traffic density. The census tract in which the Boys & Girls Club is located has a traffic density score in the 92nd percentile, indicating a significantly higher number of vehicles on the road compared to other California census tracts (see Figure 4.4.2).

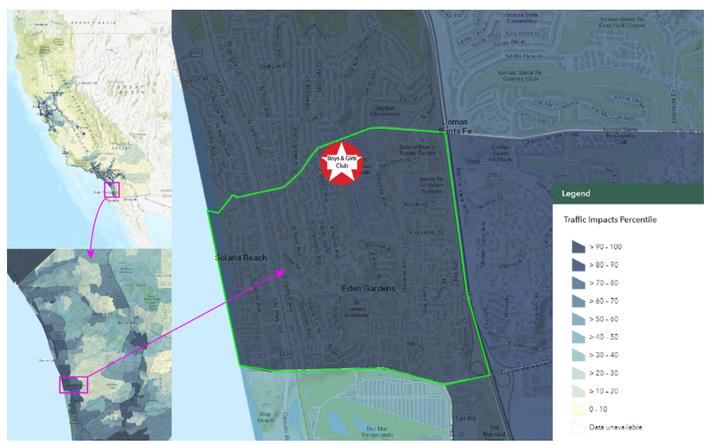


FIGURE 4.4.2. CALENVIROSCREEN 4.0 TRAFFIC DENSITY RESULTS (SOURCE: OEHHA.CA.GOV).

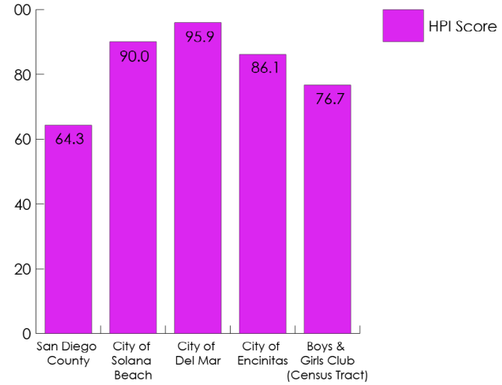


FIGURE 4.4.3. HPI SCORES FOR SAN DIEGO COUNTY, SOLANA BEACH, NEIGHBORING CITIES, AND THE BOYS & GIRLS CLUB (SOURCE: HEALTHYPLACESINDEX.ORG).

The California Healthy Places Index (HPI) is a tool developed by the Public Health Alliance of Southern California that analyzes various policy areas (economics, education, transportation, housing, healthcare, etc.) to display how community conditions affect health outcomes. Results range from 0-100, with higher scores indicating healthier conditions. The census tract containing the Boys & Girls Club has an HPI score higher than the County of San Diego, but lower than the City of Solana Beach as a whole and the cities of Encinitas and Del Mar (see Figures 4.4.3 and 4.4.4).

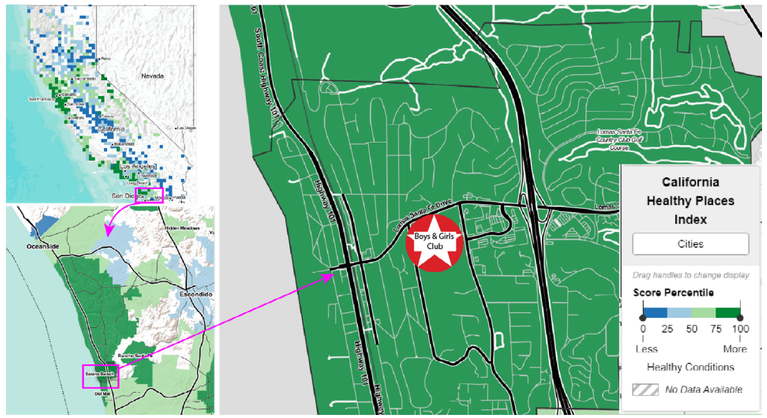


FIGURE 4.4.4. HPI VISUALIZATIONS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND THE CITY OF SOLANA BEACH (SOURCE: HEALTHYPLACESINDEX.ORG).

Walking

Figure 4.4.5 provides an overview of the existing pedestrian network and challenges observed and analyzed. Challenges to walking are evaluated through a process called Pedestrian Environment Quality Evaluation (PEQE) developed by CR Associates. The evaluation looks at the physical conditions and the quality of the sidewalks and crosswalks. Figure 4.4.6 shows the PEQE scoring.

FIGURE 4.4.5. EXISTING PEDESTRIAN CONDITIONS AND OBSERVED CHALLENGES AND GAPS IN THE NETWORK.

Generally, the sidewalk network is complete with the exception of Glencrest Drive, north of Lomas Santa Fe Drive, and the roads leading down to the Boys & Girls Club (see Figure 4.4.7). The City is in conversations with residents on Glencrest Drive regarding sidewalk installation. No pedestrians were observed attempting to access the Boys & Girls Club from either entry point, but staff conducting the mobility assessment also noted the steep grade of both roads. While there are bike lanes on both sides of Lomas Santa Fe Drive, students were observed riding on the sidewalk and creating a potential conflict with pedestrians. Potential explanations for this behavior could include a desire to be protected by the guardrail buffer between the sidewalk and the road, or a desire to avoid crossing the Nardo Avenue and Lomas Santa Fe Drive intersection.

Missing truncated domes, low-visibility crosswalks, and other obstructions were observed within proximity to the school (see Figure 4.4.8). This affects everyone who uses the sidewalk, but especially those with limited mobility as well as people with strollers.

Rates of public transit usage by Boys & Girls Club students is unknown. However, transit could be promoted as there are NCTD bus stops directly across from the campus on Lomas Santa Fe Drive. The Boys & Girls Club has a van which picks students up from Torrey Pines High School for after school programming.

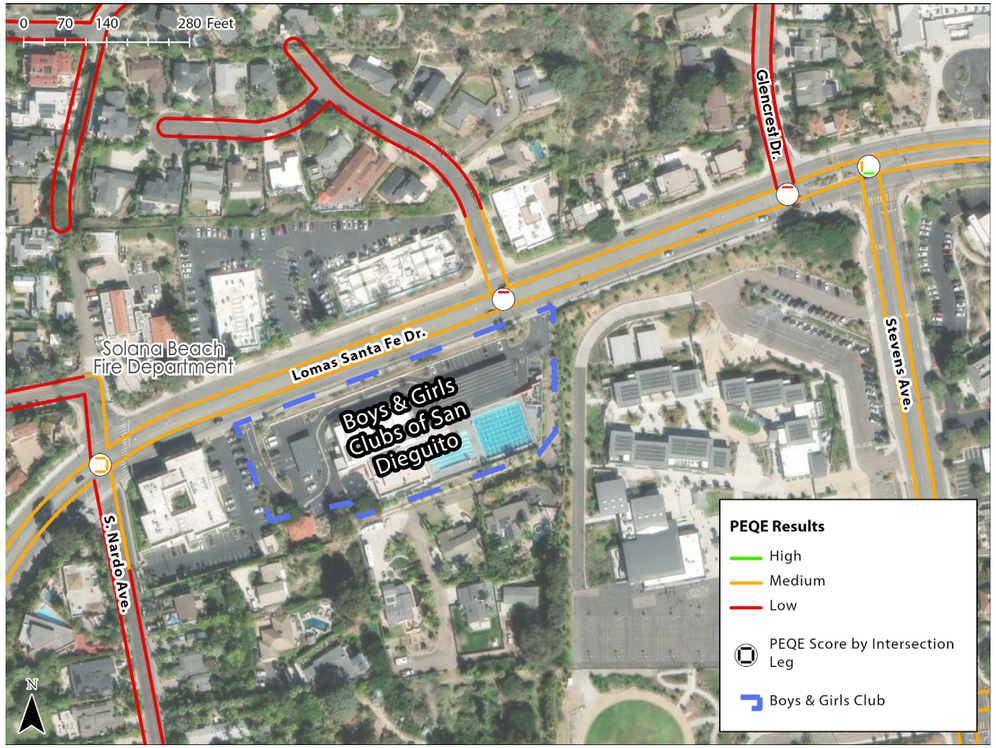


FIGURE 4.4.6. PEDESTRIAN ENVIRONMENT QUALITY EVALUATION (PEQE) RESULTS FOR THE AREA SURROUNDING THE BOYS AND GIRLS CLUB OF SAN DIEGUITO BARBARA HARPER BRANCH.

FIGURE 4.4.7. NO SIDEWALK LEADING FROM PRIVATE STREET TO CAMPUS

FIGURE 4.4.8. MISSING TRUNCATED DOMES ON LOMAS SANTA FE

Riding and Rolling

There are Class 2 bike lanes adjacent to the Boys & Girls Club of San Dieguito Barbara Harper Branch on Lomas Santa Fe Drive (see Figure 4.4.9). There are no designated bike lanes on Nardo Avenue. During the mobility assessment, students were observed riding their bicycles on the sidewalk or against traffic heading westbound on Lomas Santa Fe Drive (see Figure 4.4.11 and 4.4.12). This behavior indicates a desire to be out of the roadway and an intuitive desire of the cyclists to have more of a buffer between themselves and moving cars.

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute. LTS classifies the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by CR Associates concluded that the roads directly adjacent to the Boys and Girls Club have low-to-medium LTS scores, where a higher score indicates higher stress (see Figure 4.4.10).

FIGURE 4.4.9. THE EXISTING BIKE NETWORK AND OBSERVED CHALLENGES.

FIGURE 4.4.10. BICYCLE LEVEL OF TRAFFIC STRESS (LTS) RESULTS FOR THE AREA SURROUNDING THE BOYS & GIRLS CLUB.

As represented in Figure 4.4.9, there is a limited amount of bicycle parking in front of the Boys & Girls Club. At the time of the mobility assessment, there was no demonstrated need for additional capacity, though it was unclear whether or not the typical amount of students were present at the campus given the proximity to the winter holidays and the time of day. Circulate San Diego and CR Associates staff members were unable to speak with any representatives of the Boys & Girls Club during the mobility assessment.

FIGURE 4.4.11. STUDENT BIKING THE WRONG DIRECTION ON LOMAS SANTA FE DRIVE

FIGURE 4.4.12. STUDENTS RIDING ON SIDEWALK AND BIKING AGAINST TRAFFIC ON LOMAS SANTA FE DRIVE

Vehicle Movements

The Boys & Girls Club of San Dieguito Barbara Harper Branch is accessed by vehicles via Lomas Santa Fe Drive, which is a wide street with two vehicle lanes in either direction and dedicated turn lanes. There are two points of entry and exit; though drivers exiting via the westernmost access point are prohibited from turning left. Figure 4.4.13 demonstrates existing conditions on the campus and adjacent roadways.

There are multiple parking lots located on the Boys & Girls Club campus and there was no shortage of available parking spots. There are also several accessible parking spaces designated for disabled persons (see Figure 4.4.15). Within the campus, the speed limit for drivers is five miles per hour, and there are multiple signs interspersed throughout the area warning drivers to slow down and be aware of children at play (see Figure 4.4.14). There are also several traffic calming measures, such as chicanes and speed bumps, that force drivers to reduce their speeds.

FIGURE 4.4.13. EXISTING ROADWAY NETWORK AND CONDITIONS.

FIGURE 4.4.14. "SLOW DOWN KIDS PLAYING" SIGN IN PARKING LOT

FIGURE 4.4.15. ACCESSIBLE PARKING SPOTS

Collision Summary

Between 2014 and 2018, there were 18 pedestrian and bicycle crashes within a half-mile radius of the Boys & Girls Club of San Dieguito Barbara Harper Branch (see Figure 4.4.16). Of these 18 crashes there were no fatalities, but four caused severe injury and eight caused visible injury.

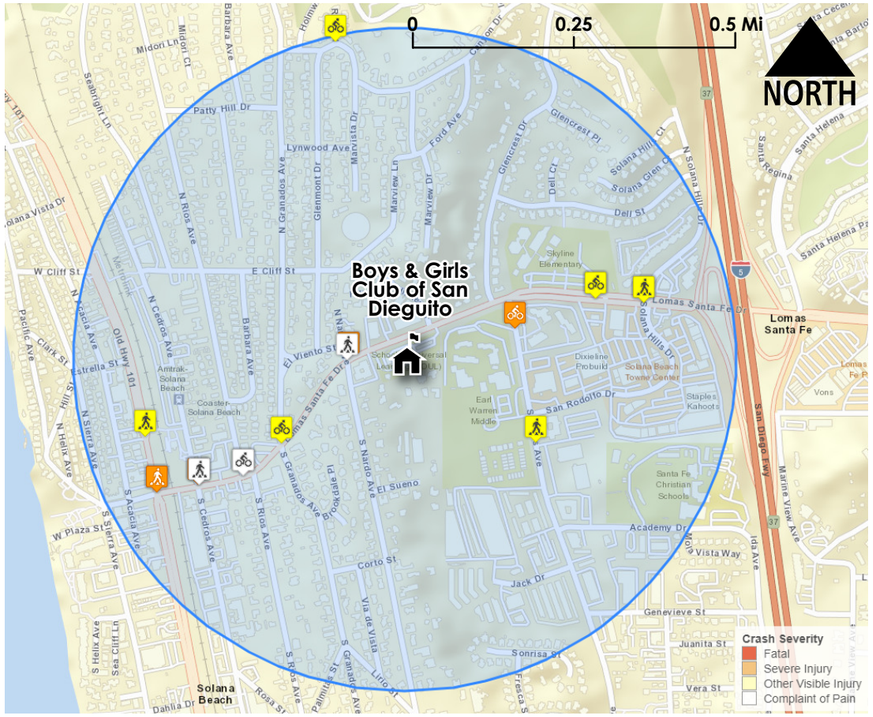
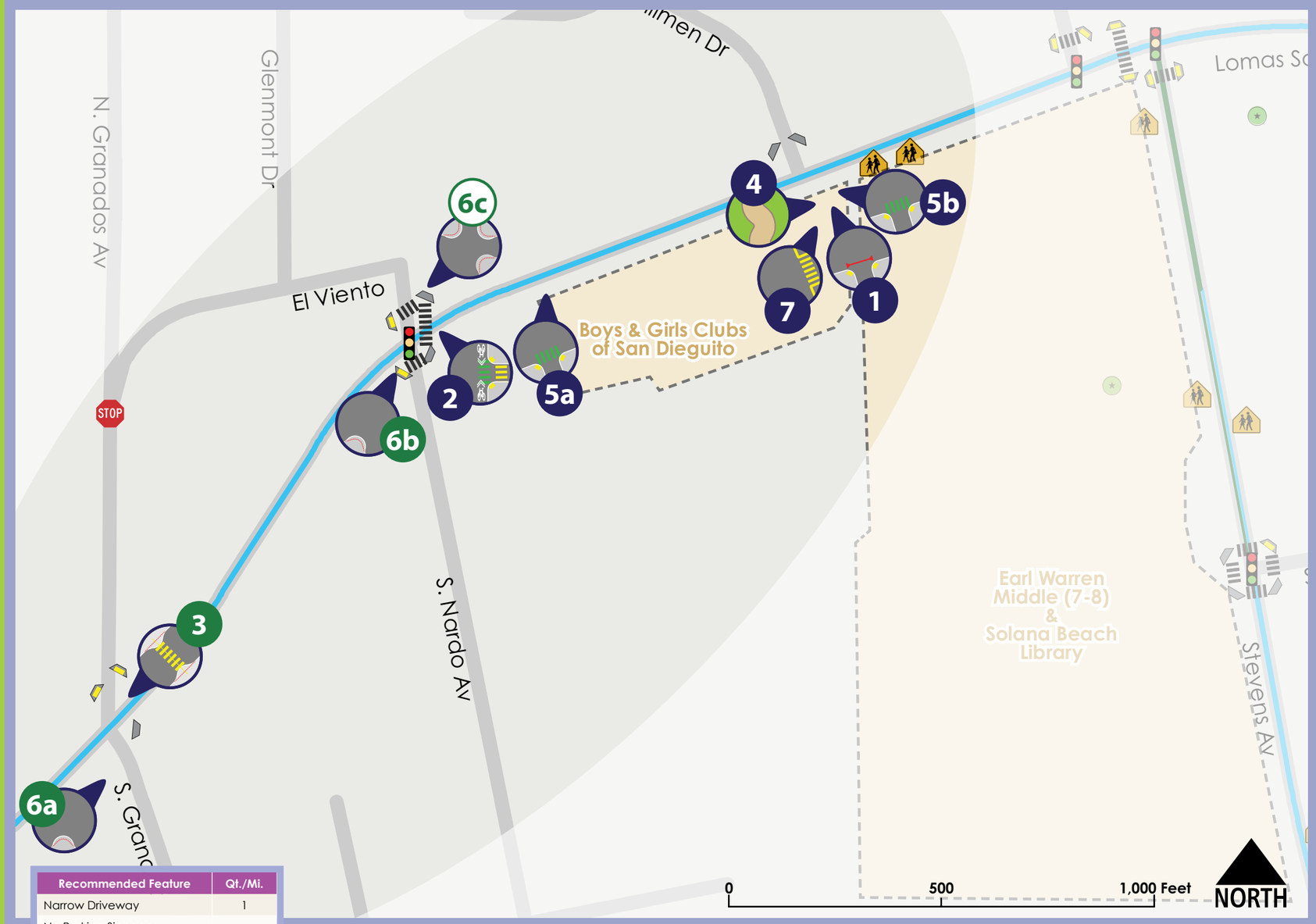


FIGURE 4.4.16. MAP OF BICYCLE AND PEDESTRIAN CRASHES WITHIN A HALF-MILE RADIUS OF THE BOYS & GIRLS CLUB OCCURRING BETWEEN JANUARY 2014 AND DECEMBER 2018 (SOURCE: TIMS.BERKELEY.EDU).

4.4 Solana Beach Boys and Girls Club Recommendations

There are opportunities to enhance the walking and bicycling environment surrounding the San Dieguito Boys and Girls Club. The traffic density score for this census tract shows that it is in the 92nd percentile, meaning that this area has a significantly higher number of vehicles on the road relative to other California tracts. This contributes to the level of traffic stress vulnerable road users experience, as evidenced by the frequency with which cyclists opt to travel along the sidewalk or in the bike lane going against the flow of traffic. Other contributors to difficulties in the walking and bicycling environment include low visibility crosswalks, missing truncated domes, obstructions, and missing sidewalks on the two entrance roads to the property.

Several interventions are recommended to improve this environment for walking and rolling students. At the northeast entrance point, it is recommended to narrow the driveway, install a high visibility crosswalk, and construct a decomposed granite (DG) path for safer student access. It is recommended to install conflict paint at the two entrances to remind the cars that turn in or out of the facility to yield to students on bikes. It is recommended to install Class IV cycle tracks along Lomas Santa Fe in either direction to further reduce traffic stress experienced by cyclists. A bulb out and crosswalk is recommended for the South Granados and Lomas Santa Fe intersection to increase pedestrian safety and slow down turning vehicles. At the intersection of Nardo Ave and Lomas Santa Fe, it is recommended to install curb extensions and bike and pedestrian crosswalks to improve safety through a reduction in crossing distances for vulnerable road users, an increase in visibility, and a decrease in the speeds at which cars can travel during turns. These recommendations are highlighted on the graphic at right. A summary list of recommendations is provided in Section 6.3.



Recommended Feature	Qt./Mi.
Narrow Driveway	1
No Parking Signage	--
Bicycle & Walking Crossing	1
Audible Signal	--
Bulb Out & Crosswalk	1
Shared Lane Marking	--
On-Street Parking Signage	--
ADA Curb Ramp	--
Sidewalk	--
Crossing Guard	--
Class IV	--
Decomposed Granite Path	~ 50 ft.
Conflict Paint Dwy Locations	2
Curb Extension	5
Widen Sidewalk	--
High-Visibility Crosswalk	1
Protected Curb Approach	--

Existing Infrastructure

ADA Compliant Ramp · Ramp · Marked Crosswalk · All-Way Stop · Traffic Signal · Bike Parking

School Site · School Signage · Rectangular Rapid-Flashing Beacons · Crossing Guard Location

Class II Bike Lane · Class III Bike Route · Class IV - Protected Bikeway

Recommendations

1. Narrow Driveway
2. Construct Bicycle & Walking Crossing
3. Construct Bulb Out & Crosswalk
4. Construct DG Path
5. Install Conflict Paint at Driveway
6. Construct Curb Extension
7. Install High Visibility Crosswalk

- # Consistent with Lomas Santa Fe Plan
- # Consistent with CATS Plan
- # New Recommendation
- (#) Deviates from Specified Plan

4.5 Santa Fe Christian School

Address: 838 Academy Drive, Solana Beach, CA 92075

Santa Fe Christian School is located north of Academy Drive, west of Interstate 5, and east of Stevens Avenue. It is located approximately one mile east of State Highway 101. Land use north and west of the school is primarily commercial, including the Solana Beach Towne Center. South of the school is a small residential area and a few churches.

Mobility Assessment

A walk audit and on-site meeting for Santa Fe Christian School in the City of Solana Beach was conducted on November 3, 2021. This event included the collection of observations of pick up and drop off, interviews with staff, field assessment/existing conditions confirmation, and a walk audit with staff. The purpose of the event was to identify issues that may make it unsafe or uncomfortable for students to walk, bike, or roll to and from school, to be incorporated into the broader mobility assessment for each school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.

Staff who attended the walk audit and on-site meeting included the Santa Fe Christian School Chief Financial & Operations Officer Kurt de Pfyffer and representatives from the City of Solana Beach, Circulate San Diego, and CR Associates.

School Profile

Santa Fe Christian School is a K-12 private school within the city limits of Solana Beach. During the 2020-2021 academic year, there were 1,086 students enrolled in the lower, middle, and upper schools. The demographic composition of these students, as shown in Figure 4.5.1, is dissimilar to that of Solana Beach as a whole. The City has a higher Hispanic population (15.5%) and a lower white population (76.2%) according to 2019 Census estimates (source: census.gov).

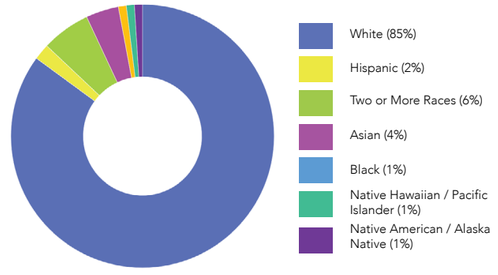


FIGURE 4.5.1. DEMOGRAPHIC COMPOSITION OF SANTA FE CHRISTIAN SCHOOLS STUDENTS DURING THE 2017-2018 ACADEMIC YEAR (SOURCE: NCES.ED.GOV).

Student Tallies

An online survey was administered to Santa Fe Christian School parents via SurveyMonkey during November 2021. The survey was sent to the approximately 47 school families who live in Solana Beach. Of the 21 recorded responses, 11 parents noted that their children live greater than one mile from the school's campus while the other 10 respondents live less than one mile from the school's campus. As shown in Figures 4.5.2 and 4.5.3, single-household vehicles are the most common mode of transportation used for student drop-off and student pick-up.

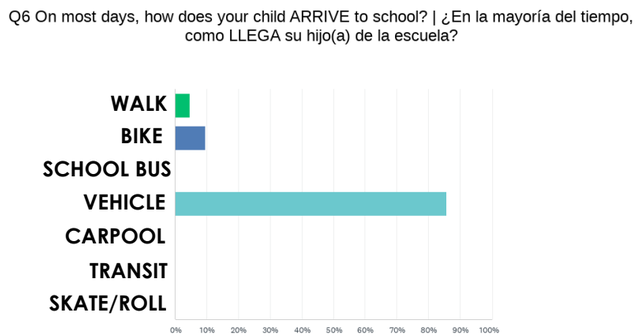


FIGURE 4.5.2. SANTA FE CHRISTIAN SCHOOLS PARENT SURVEY QUESTION DENOTING MEANS OF TRANSPORTATION FOR SCHOOL ARRIVAL.

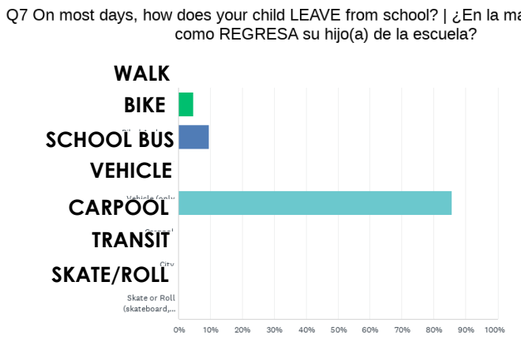


FIGURE 4.5.3. SANTA FE CHRISTIAN SCHOOLS PARENT SURVEY QUESTION DENOTING MEANS OF TRANSPORTATION FOR SCHOOL DEPARTURE.

Most parents felt that Santa Fe Christian School was neither encouraging nor discouraging walking and biking to school, though there seems to be student interest in doing so given that 48% of the respondents' children have asked permission to walk or bike to/from school in the past year. The most-often cited concerns relating to pedestrian and bicycle travel were speeding traffic, before or after school activities, too much traffic, and unsafe intersections. In order to address these issues, 13 parents expressed interest in helping identify safety issues at schools.

CalEnviroScreen and Healthy Places Index

CalEnviroScreen is a tool developed by The California Office of Environmental Health Hazard Assessment (OEHHA) that analyzes exposures, environmental effects, sensitive populations, and socioeconomic factors to determine which California communities have high pollution burdens. The CalEnviroScreen 4.0 results range from 0-100 (with higher scores indicating higher pollution burdens) and represent the overall percentile ranking of the selected census tract relative to the state's other census tracts.

Santa Fe Christian School is located in census tract 173.04, which has an overall score in the 15th percentile, indicating a relatively low pollution burden compared with other locations across the state (see Figure 4.5.4). However, when compared to neighboring census tracts within the City of Solana Beach the census tract containing Santa Fe Christian School has the highest score, as the others are in the 1st and 2nd percentiles.

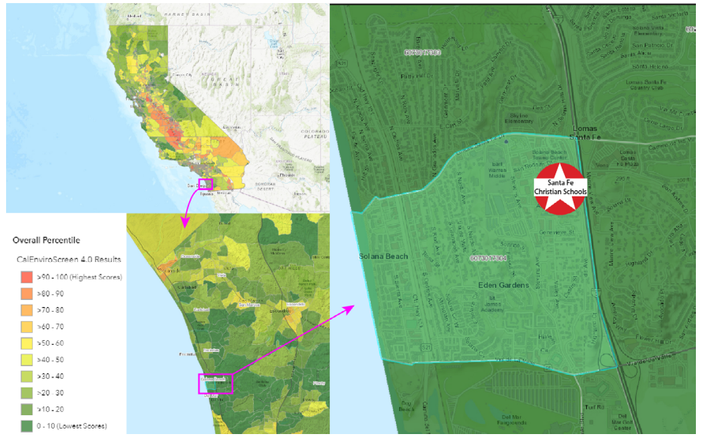


FIGURE 4.5.4. CALENVIROSCREEN 4.0 RESULTS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND CENSUS TRACTS WITHIN SOLANA BEACH (SOURCE: OEHHA.CA.GOV).

One of the indicators CalEnviroScreen reports is traffic density. The census tract in which Santa Fe Christian School is located has a traffic density score in the 92nd percentile, indicating a significantly higher number of vehicles on the road compared to other California census tracts (see Figure 4.5.5).

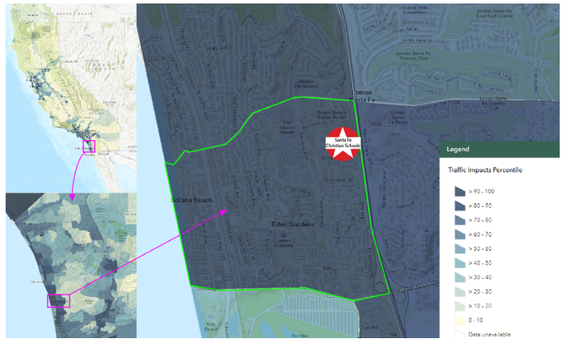


FIGURE 4.5.5. CALENVIROSCREEN 4.0 TRAFFIC DENSITY RESULTS (SOURCE: OEHHA.CA.GOV).

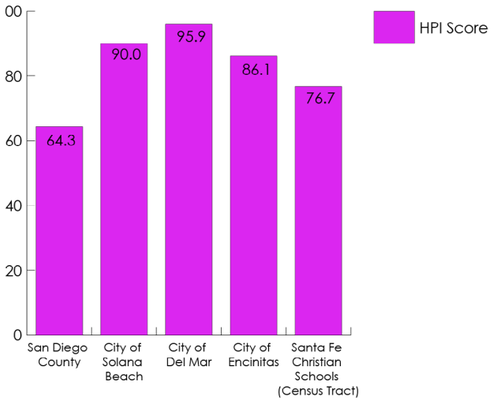


FIGURE 4.5.6. HPI SCORES FOR SAN DIEGO COUNTY, SOLANA BEACH, NEIGHBORING CITIES, AND SANTA FE CHRISTIAN SCHOOLS (SOURCE: HEALTHYPLACESINDEX.ORG).

The California Healthy Places Index (HPI) is a tool developed by the Public Health Alliance of Southern California that analyzes various policy areas (economics, education, transportation, housing, healthcare, etc.) to display how community conditions affect health outcomes. Results range from 0-100, with higher scores indicating healthier conditions. The census tract containing Santa Fe Christian School has an HPI score higher than the County of San Diego, but lower than the City of Solana Beach as a whole and the cities of Encinitas and Del Mar (see Figures 4.5.6 and 4.5.7).

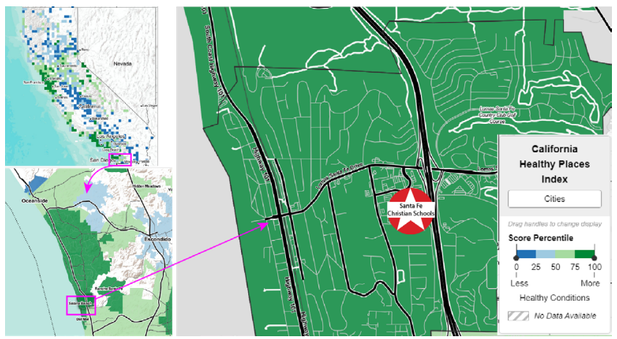


FIGURE 4.5.7. HPI VISUALIZATIONS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND THE CITY OF SOLANA BEACH (SOURCE: HEALTHYPLACESINDEX.ORG).

Walking

Figure 4.5.8 provides an overview of the existing pedestrian network and challenges observed and analyzed. Challenges to walking are evaluated through a process called Pedestrian Environment Quality Evaluation (PEQE) developed by CR Associates. The evaluation looks at the physical conditions and the quality of the sidewalks and crosswalks. There is a missing section of sidewalk as shown in Figure 4.5.8. The PEQE scores of the adjacent sidewalk network is shown in Figure 4.5.9. Very few students walk to Santa Fe Christian School. The school administrator posited that the students observed using the sidewalk were either traveling to parents' cars parked along Stevens Avenue or to the Solana Beach Towne Center mall on the corner of Academy Avenue and Stevens Avenue.

Missing truncated domes, incomplete sidewalks, and other obstructions were observed within proximity to the school (see Figure 4.5.10). One such obstruction, an A-frame sign, was observed blocking a dirt path alongside Academy Drive. A student bicycling along the path was forced to dismount her bicycle and move the sign prior to continuing her trip.

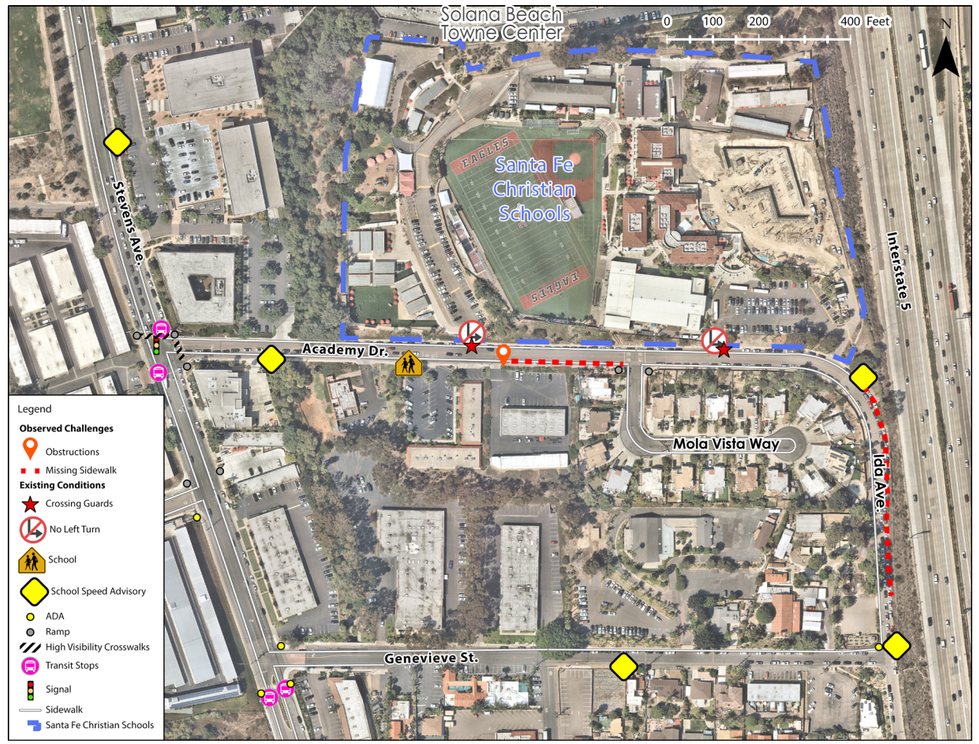


FIGURE 4.5.8. EXISTING PEDESTRIAN CONDITIONS AND OBSERVED CHALLENGES AND GAPS IN THE NETWORK.

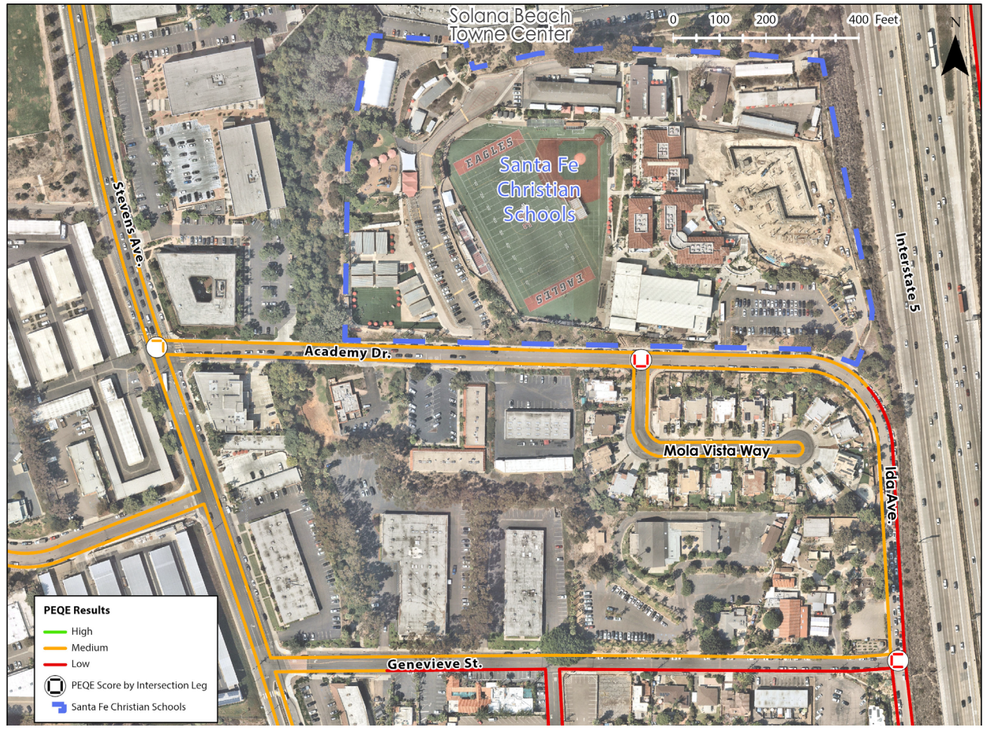


FIGURE 4.5.9. PEDESTRIAN ENVIRONMENT QUALITY EVALUATION (PEQE) RESULTS FOR THE AREA SURROUNDING SANTA FE CHRISTIAN SCHOOL.

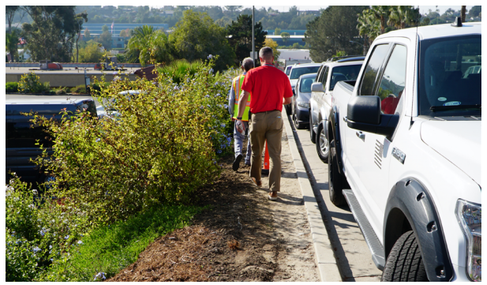


FIGURE 4.5.10. INCOMPLETE SIDEWALK ON ACADEMY DRIVE

FIGURE 4.5.11. BUSES DEPARTING PARKING LOT ON ACADEMY DRIVE

Regarding transit usage, no students were observed utilizing public transportation, but Santa Fe Christian School does operate five different bus routes. One bus travels south, three buses travel north, and one bus travels east to Poway, all departing at approximately 3:15 p.m. once all schools have been dismissed (see Figure 4.5.11). Three of the buses load in the eastern parking lot adjacent to the school gymnasium while the other two buses load adjacent to the school library at the northern edge of campus. Presently, the bus loading areas are not connected to the western parking lot. School administrators have the desire to connect the two parking lots via a road extension around the outside border of the campus.

Riding and Rolling

There are Class 2 bike lanes adjacent to the Santa Fe Christian School campus along Stevens Avenue, but no bike lanes along Academy Drive (see Figure 4.5.12). During the site assessment, one east bound bicyclist was observed riding on the sidewalk and was inconvenienced by an incomplete sidewalk. Other school aged youth on bikes, headed west on Academy Drive in the roadway (though Mr. De Pfyffer commented that they were not SFCS Students). School administrators believe that just one Santa Fe Christian School student bikes to school, but bicycle parking is available.

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute. LTS classifies the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by CR Associates concluded that the roads directly adjacent to Santa Fe Christian School have low-to-high LTS scores, where a higher score indicates higher stress (see Figure 4.5.13).

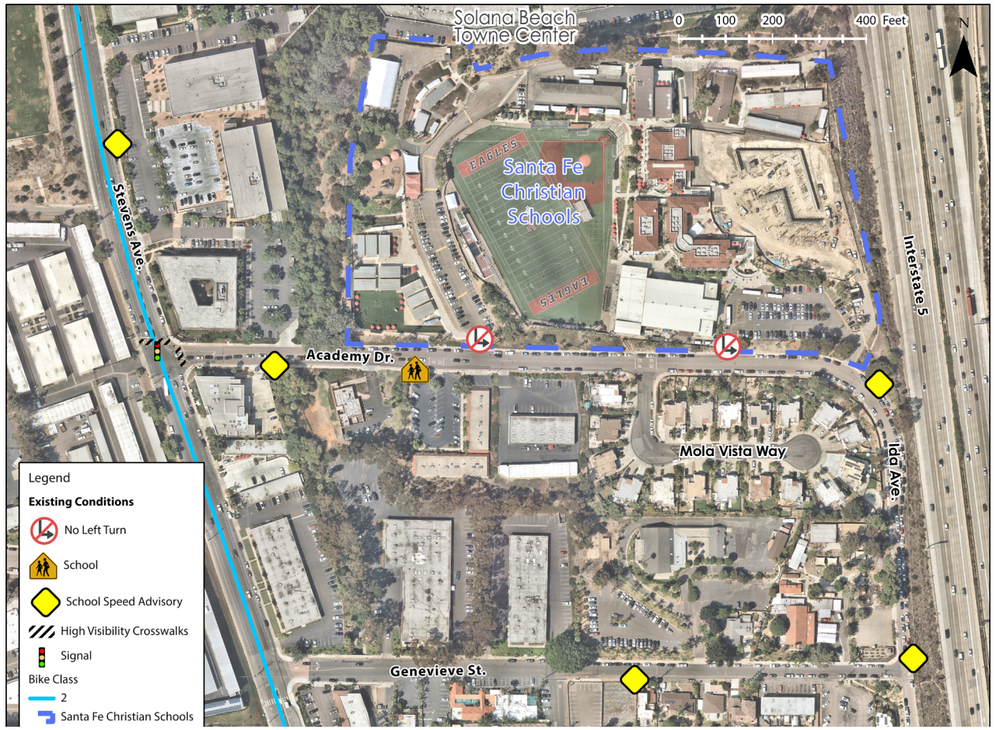


FIGURE 4.5.12. THE EXISTING BIKE NETWORK SURROUNDING SANTA FE CHRISTIAN SCHOOLS.

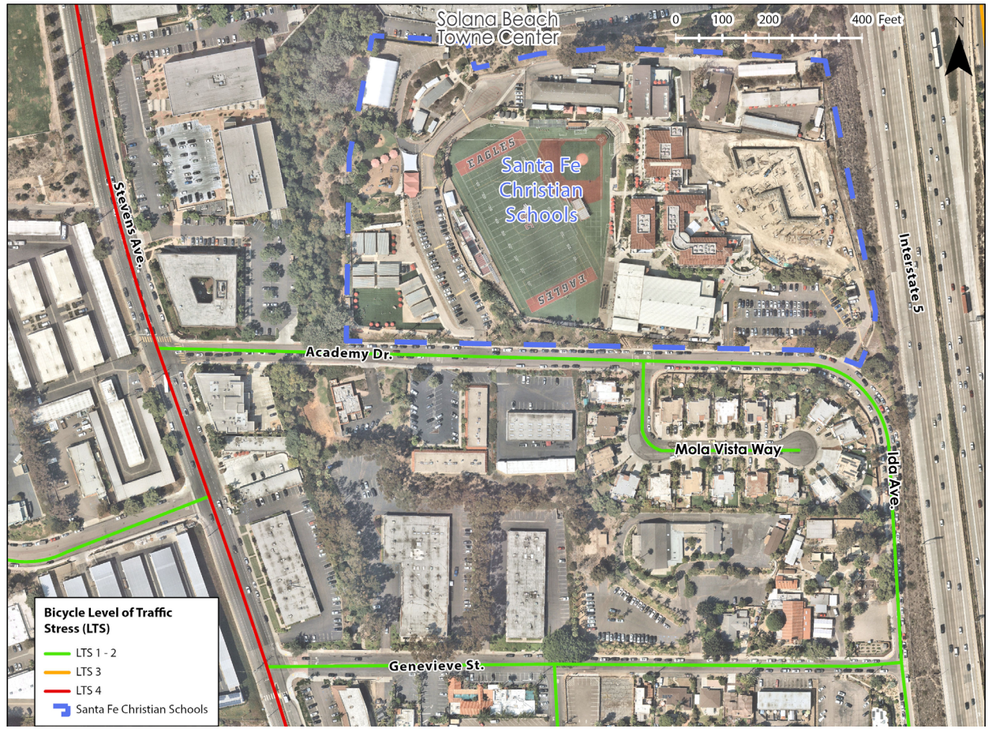


FIGURE 4.5.13. BICYCLE LEVEL OF TRAFFIC STRESS (LTS) RESULTS FOR THE AREA SURROUNDING SANTA FE CHRISTIAN SCHOOLS.

Drop-Off, Pick-Up, and Vehicle Movements

Santa Fe Christian School is accessed by vehicle via Academy Drive/Ida Avenue (Academy Drive turns into Ida Avenue at the intersection with Mola Vista Way). This is a street with two lanes in either direction and parking along both sides of the road, though Santa Fe Christian School staff have placed traffic cones intermittently to discourage parking (see Figure 4.5.15). The school strongly believes parking should be prohibited on the eastbound side of Academy Drive, but presently it is permitted. Figure 4.5.14 demonstrates existing conditions as well as behavior observed during the site assessment.

To mitigate vehicular congestion, Santa Fe Christian School staggers drop-off and pick-up periods for lower school (which is in session from 7:55 a.m. – 2:50 p.m.) and middle/upper schools (which are in session from 8:30 a.m. – 3:10 p.m.). Lower school parents were observed queuing in the eastbound lane of Academy Drive (see Figure 4.5.16). At times, the school administrator mentioned that this traffic can extend all the way up Stevens Avenue to Lomas Santa Fe Drive, though this was not witnessed during the site assessment. City officials also noted that businesses located along the southern edge of Academy Drive have complained that their patrons are unable to turn left out of the parking lot during loading hours because of the considerable traffic.

Figure 4.5.14 shows the observed conditions around Santa Fe Christian School.

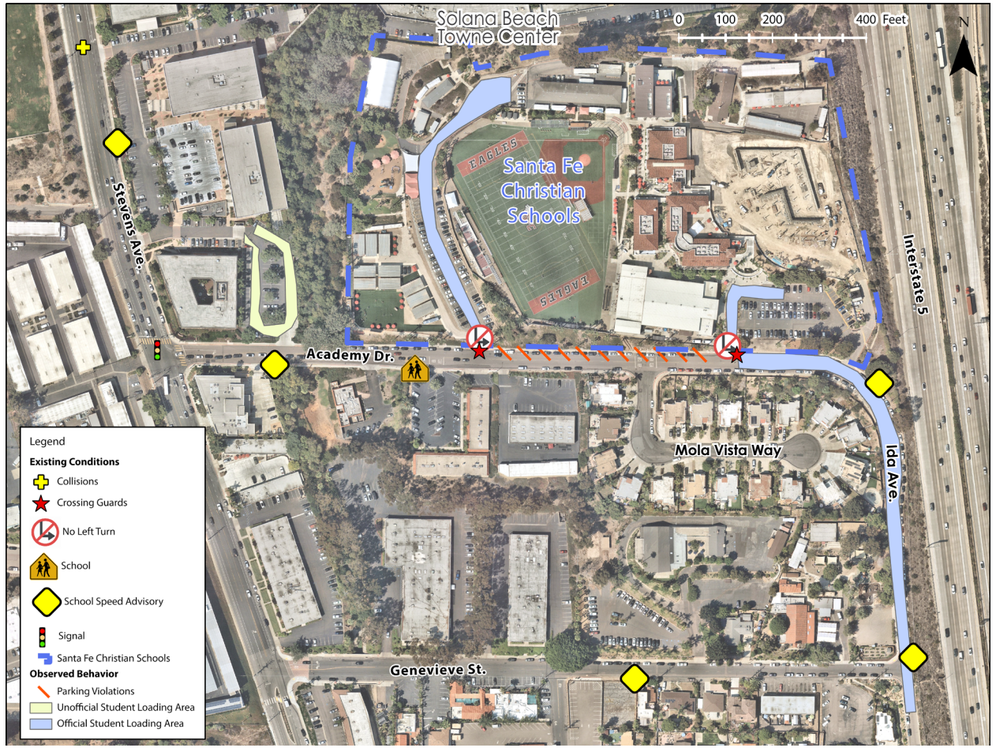


FIGURE 4.5.14. EXISTING ROADWAY NETWORK, OBSERVED VEHICLE BEHAVIOR, AND CONDITIONS.

FIGURE 4.5.15. SANTA FE CHRISTIAN SCHOOLS' PARKING RESTRICTIONS ALONG ACADEMY DRIVE.

FIGURE 4.5.16. LOWER SCHOOL PICK-UP QUEUE ALONG ACADEMY AVE.

The system for middle and upper school pick-up varies greatly from that of the lower school. These older students are allowed to be released from campus on their own, so drivers form a queue along Academy Drive/Ida Avenue in the westbound lane and wait for students to come to the cars (see Figure 4.5.17). As there is parking on both sides of the street, this practice causes stand-still traffic extending beyond Genevieve Street. In order to avoid this area, some parents unofficially load in the parking lot of the shopping center adjacent to the Santa Fe Christian Schools campus.

FIGURE 4.5.17. MIDDLE AND UPPER SCHOOL QUEUE ON ACADEMY DR.

FIGURE 4.5.18. STAND-STILL TRAFFIC REACHING GENEVIEVE ST.

Street parking is a major contributor to traffic issues, in the eyes of Santa Fe Christian Schools administrators. In addition to creating their own 'no-parking' zones, the school has also attempted to enforce parking restrictions on student vehicles. Historically, most of the street parking along Academy Drive and Ida Avenue is comprised of student vehicles. When people commit parking violations, the school contacts the sheriff's office to issue tickets (see Figure 4.5.19).

FIGURE 4.5.19. PARKING VIOLATIONS TO BE REPORTED FOR TICKETING ALONG IDA AVE.

FIGURE 4.5.20. PATRON FROM ADJACENT BUSINESS ATTEMPTING TO LEAVE ALONG GENEVIEVE ST.

Collision Summary

Between 2014 and 2018, there were six pedestrian and bicycle crashes within a half-mile radius of Santa Fe Christian Schools (see Figure 4.5.21). Of these six crashes, one was fatal and one caused severe injury. The pedestrian fatality occured on February 23, 2018 when a woman was struck and killed by a motorist while attempting to cross Interstate 5 just before dawn (source: delmartimes.net).

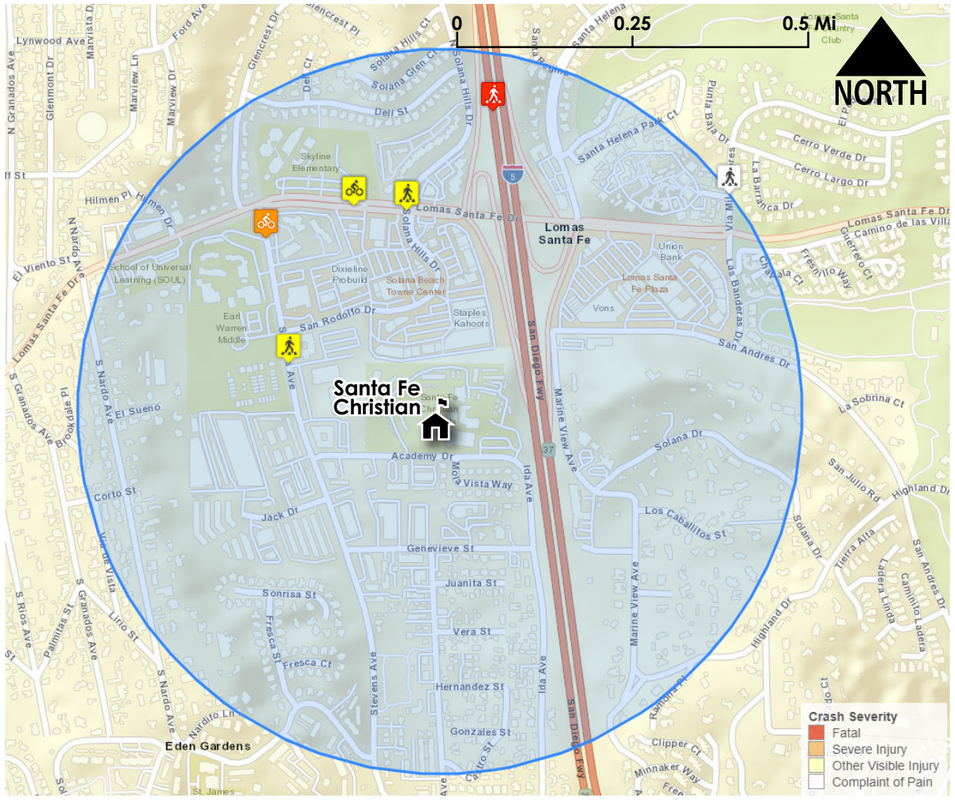
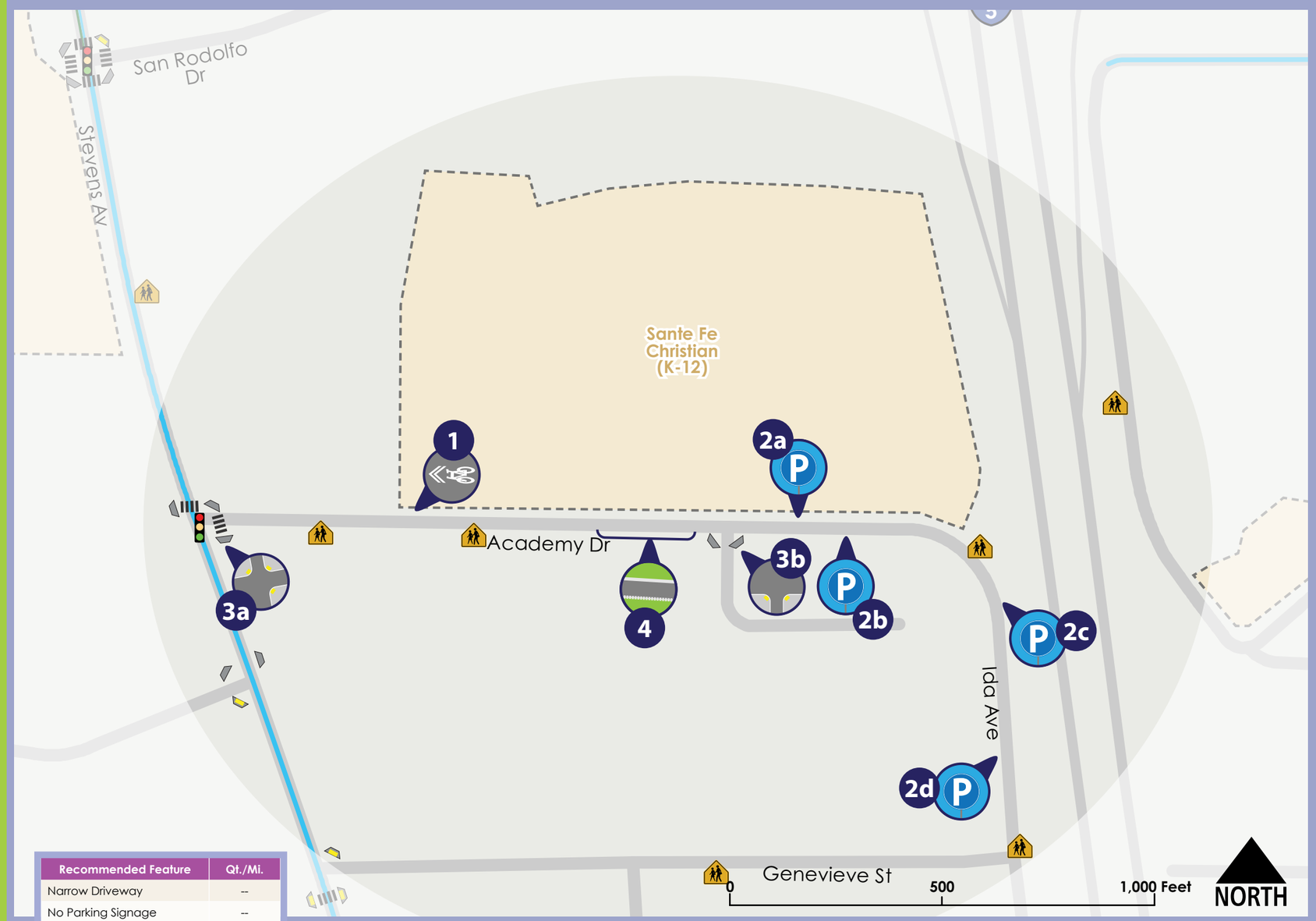


FIGURE 4.5.21. MAP OF BICYCLE AND PEDESTRIAN CRASHES WITHIN A HALF-MILE RADIUS OF SANTA FE CHRISTIAN SCHOOLS OCCURRING BETWEEN JANUARY 2014 AND DECEMBER 2018 (SOURCE: TIMS.BERKELEY.EDU).

4.5 Santa Fe Christian Academy Recommendations

The pedestrian and cyclist environment around Santa Fe Christian Academy (Santa Fe Christian) exhibits several opportunities for improvement. Missing truncated domes, incomplete sidewalks along Academy Drive, and physical obstructions contribute to a less comfortable walking experience. As this school falls into a tract with a traffic density score in the 92nd percentile, and parents cite excess and speeding traffic as reasons for commuting by vehicle, vehicular traffic is a particular challenge for students to navigate. Considerable traffic occurs during drop-off and pick-up times, which increases congestion and makes it difficult for parents to make left turns out of the shopping center parking lot. During pick-up times, queues form on Academy Drive/Ida Avenue in the outermost travel lanes, increasing congestion. Parking is a particular challenge, as staff parking has moved from on-campus spots to the eastbound side of Ida Avenue, and student parking is mostly discouraged but some spots are available on a Westbound segment of Ida Avenue.

To combat these challenges, several interventions are recommended. It is recommended to install four parking signs on Academy Drive and Ida Ave. This would clarify the parking regulations for all vehicle users, and permanently show the amount of parking available along this roadway. For cyclists, it is recommended to install shared lane markings along Academy Drive to indicate that lanes must be shared between cyclists and vehicles. To improve pedestrian safety and access, it is recommended to construct eastbound sidewalks on Academy Drive, in addition to ADA-compliant curb ramps at the intersection of Academy Drive and Stevens Avenue. These recommendations are highlighted on the graphic at right. A summary list of recommendations is provided in Section 6.3.



Recommended Feature	Qt./Mi.
Narrow Driveway	--
No Parking Signage	--
Bicycle & Walking Crossing	--
Audible Signal	--
Bulb Out & Crosswalk	--
Shared Lane Marking	4
On-Street Parking Signage	4
ADA Curb Ramp	5
Sidewalk	150 ft.
Crossing Guard	--
Class IV	--
Decomposed Granite Path	--
Conflict Paint Dwy Locations	--
Curb Extension	--
Widen Sidewalk	--
High-Visibility Crosswalk	--
Protected Curb Approach	--

Existing Infrastructure

ADA Compliant Ramp · Ramp · Marked Crosswalk · All-Way Stop · Traffic Signal · Bike Parking

School Site · School Signage · Rectangular Rapid-Flashing Beacons · Crossing Guard Location

Class II Bike Lane · Class III Bike Route · Class IV - Protected Bikeway

Recommendations

1 Install Shared Lane Marking (Class III)

2 Denote On-Street Parking

3 Install ADA Curb Ramp

4 Construct Sidewalk

New Recommendation

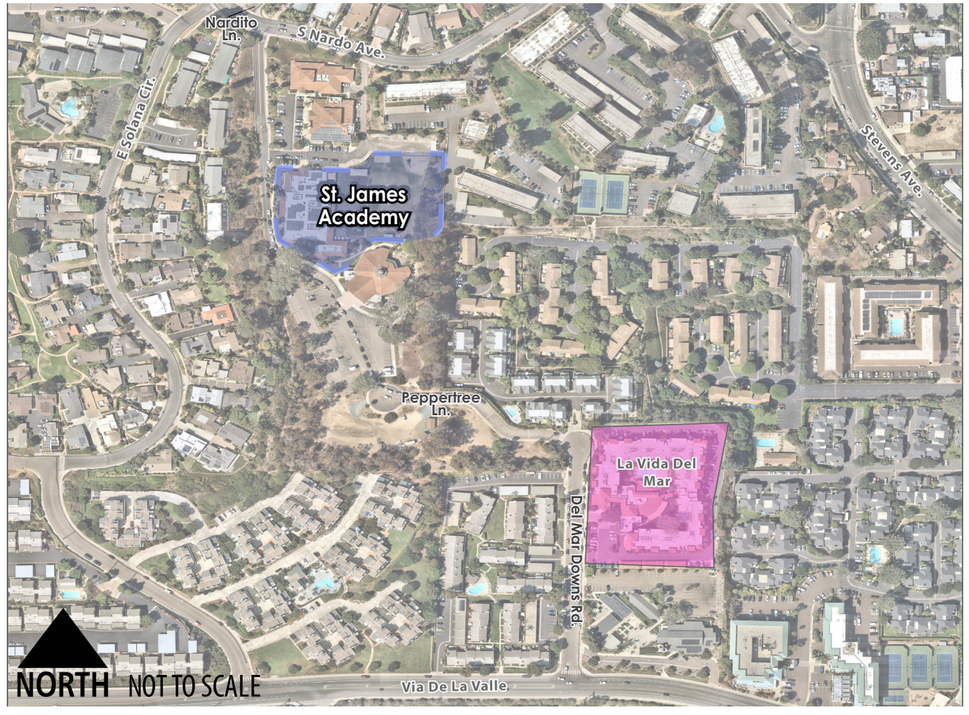
4.6 St. James Academy

Address: 623 S Nardo Ave, Solana Beach, CA 92075

St. James Academy is located south of South Nardo Avenue, east of East Solana Circle, and north of Peppertree Lane. It is located one-third mile east of State Highway 101 and slightly less than one mile west of Interstate 5. Land use surrounding the school is medium to high-density residential.

Mobility Assessment

A walk audit and on-site meeting for St. James Academy in the City of Solana Beach was conducted on October 19, 2021. This event included the collection of observations of pick up and drop off, interviews with staff, field assessment/existing conditions confirmation, and a walk audit with staff. The purpose of the event was to identify issues that may make it unsafe or uncomfortable for students to walk, bike, or roll to and from school, to be incorporated into the broader mobility assessment for each school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.



Staff who attended the walk audit and on-site meeting included representatives from the City of Solana Beach, Circulate San Diego, and CR Associates.

School Profile

St. James Academy is a private Catholic elementary-middle (PreK-8th grade) school located within the city limits of Solana Beach. During the 2017-2018 school year, there were 183 students enrolled in the Kindergarten through 8th grades and 29 students enrolled in Pre-Kindergarten. The demographic composition of these students, as shown in Figure 4.6.1, is similar in some ways to that of Solana Beach as a whole; however, the City has a much higher Hispanic population (15.5%) according to 2019 Census estimates (source: census.gov).

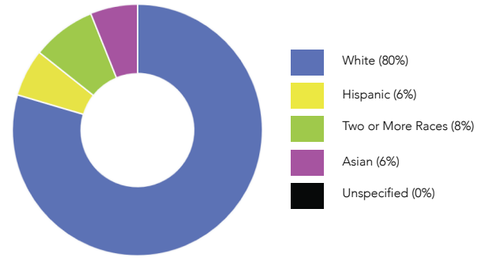


FIGURE 4.6.1. DEMOGRAPHIC COMPOSITION OF ST. JAMES ACADEMY STUDENTS DURING THE 2017-2018 ACADEMIC YEAR (SOURCE: NCES.ED.GOV).

CalEnviroScreen and Healthy Places Index

CalEnviroScreen is a tool developed by The California Office of Environmental Health Hazard Assessment (OEHHA) that analyzes exposures, environmental effects, sensitive populations, and socioeconomic factors to determine which California communities have high pollution burdens. The CalEnviroScreen 4.0 results range from 0-100 (with higher scores indicating higher pollution burdens) and represent the overall percentile ranking of the selected census tract relative to the state's other census tracts.

St. James Academy is located in census tract 173.04, which has an overall score in the 15th percentile, indicating a relatively low pollution burden compared with other locations across the state (see Figure 4.6.2). However, when compared to neighboring census tracts within the City of Solana Beach the census tract containing St. James Academy has the highest score, as the others are in the 1st and 2nd percentiles.

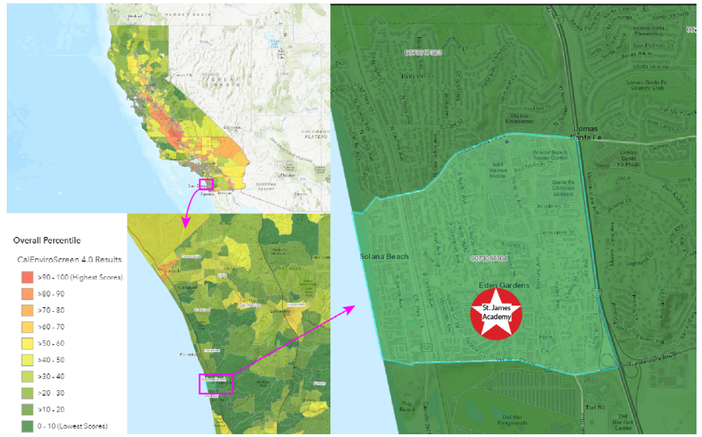


FIGURE 4.6.2. CALENVIROSCREEN 4.0 RESULTS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND CENSUS TRACTS WITHIN SOLANA BEACH (SOURCE: OEHHA.CA.GOV).

One of the indicators CalEnviroScreen reports is traffic density. The census tract in which St. James Academy is located has a traffic density score in the 92nd percentile, indicating a significantly higher number of vehicles on the road compared to other California census tracts (see Figure 4.6.3).

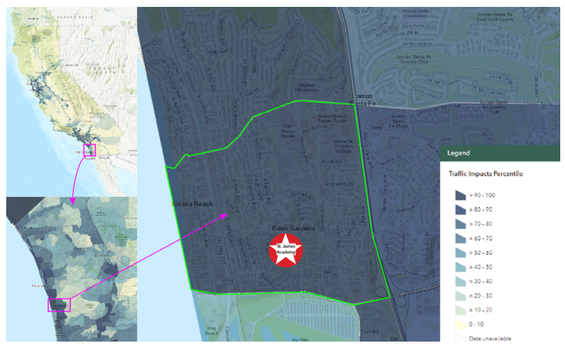


FIGURE 4.6.3. CALENVIROSCREEN 4.0 TRAFFIC DENSITY RESULTS (SOURCE: OEHHA.CA.GOV).

The California Healthy Places Index (HPI) is a tool developed by the Public Health Alliance of Southern California that analyzes various policy areas (economics, education, transportation, housing, healthcare, etc.) to display how community conditions affect health outcomes. Results range from 0-100, with higher scores indicating healthier conditions. The census tract containing St. James Academy has an HPI score higher than the County of San Diego, but lower than the City of Solana Beach as a whole and the cities of Encinitas and Del Mar (see Figures 4.6.4 and 4.6.5).

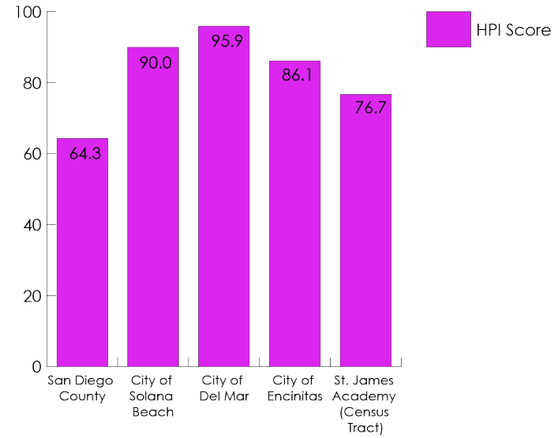


FIGURE 4.6.4. HPI SCORES FOR SAN DIEGO COUNTY, SOLANA BEACH, NEIGHBORING CITIES, AND ST. JAMES ACADEMY (SOURCE: HEALTHYPLACESINDEX.ORG).

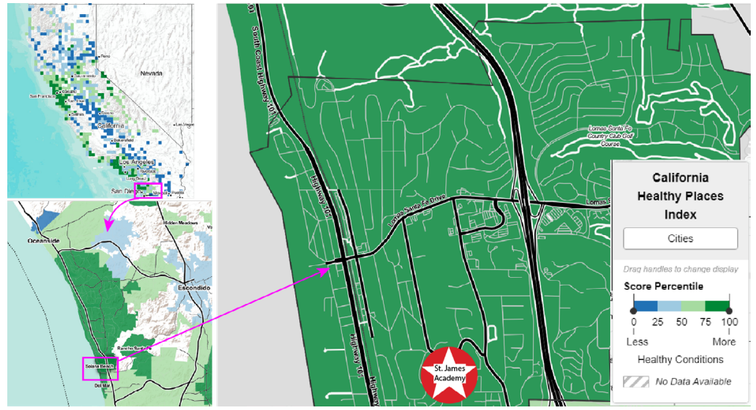


FIGURE 4.6.5. HPI VISUALIZATIONS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND THE CITY OF SOLANA BEACH (SOURCE: HEALTHYPLACESINDEX.ORG).

Walking

Figure 4.6.6 provides an overview of the existing pedestrian network, as well as, challenges and network gaps as observed during the mobility assessment. Challenges to walking are evaluated through a process called Pedestrian Environment Quality Evaluation (PEQE) developed by CR Associates. The evaluation looks at the physical conditions and the quality of the sidewalks and crosswalks. Figure 4.6.7 displays the results of the PEQE scoring. St. James Academy administrators estimate that 30% or less of the student population walks to school. The school administers a "walkers" list, this is a list of students who have been granted permission by their parents to walk off of campus. The list contains about 50 students, but this includes students who walk to the top of the driveway to be picked up on Nardo Avenue.

The sidewalk network surrounding St. James Academy is incomplete. There are no sidewalks along the western side of East Solana Circle, the northern side of South Nardo Avenue, either side of Nardito Lane (though it is a cul-de-sac), nor the western side of the unnamed street running through the St. James Catholic Community (see Figure 4.6.8). Several sidewalk obstructions were documented during the site assessment, including a telephone pole, plant remnants, and cracked concrete.

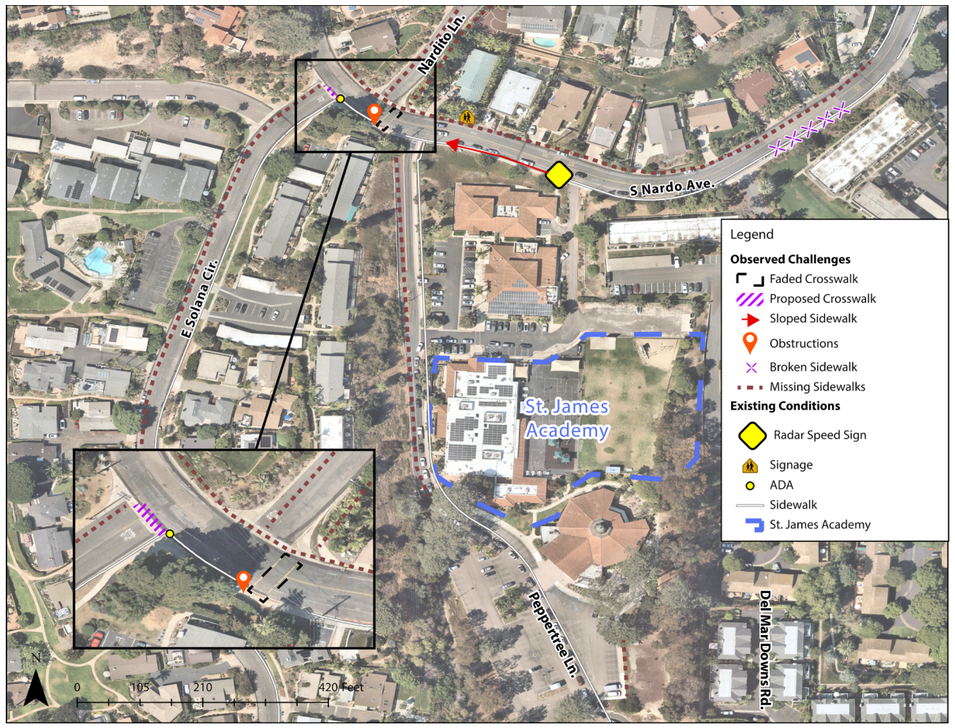


FIGURE 4.6.6. EXISTING PEDESTRIAN CONDITIONS AND OBSERVED CHALLENGES AND GAPS IN THE NETWORK.

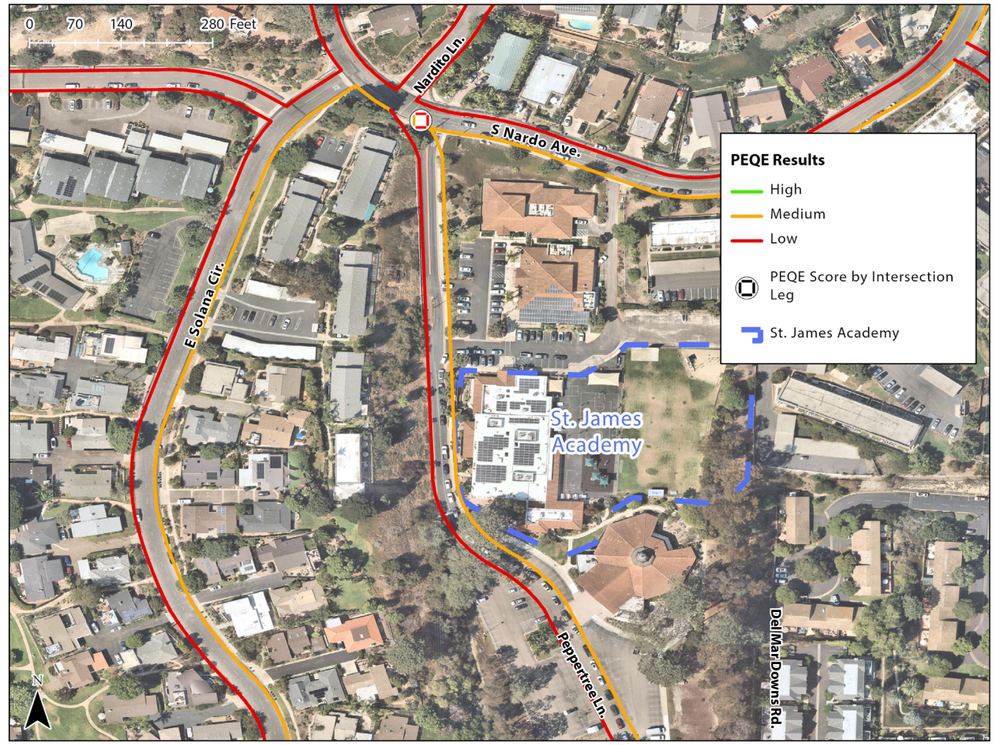


FIGURE 4.6.7. PEDESTRIAN ENVIRONMENT QUALITY EVALUATION (PEQE) RESULTS FOR THE AREA SURROUNDING ST. JAMES ACADEMY.

FIGURE 4.6.8. SIDEWALK MISSING ON WESTERN SIDE OF PRIVATE STREET

FIGURE 4.6.9. FADED CROSSWALK AT S. NARDO AVE

There are no high-visibility crosswalks in the vicinity of St. James Academy, and this analysis recommends the addition of one across East Solana Circle at its intersection with South Nardo Avenue. The crosswalk at the intersection of Nardito Avenue and South Nardo Avenue is faded (see Figure 4.6.9). St. James Academy does not have crossing guards stationed off of campus.

Riding and Rolling

There are no bike lanes adjacent to St. James Academy. Bicycle parking is available at the northern entrance to the St. James Catholic Community (see Figure 4.6.10).

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute. LTS classifies the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by CR Associates concluded that the roads directly adjacent to St. James Academy have low LTS scores, where a higher score indicates higher stress (see Figure 4.6.11).

FIGURE 4.6.10. THE EXISTING BIKE NETWORK AND OBSERVED CHALLENGES.

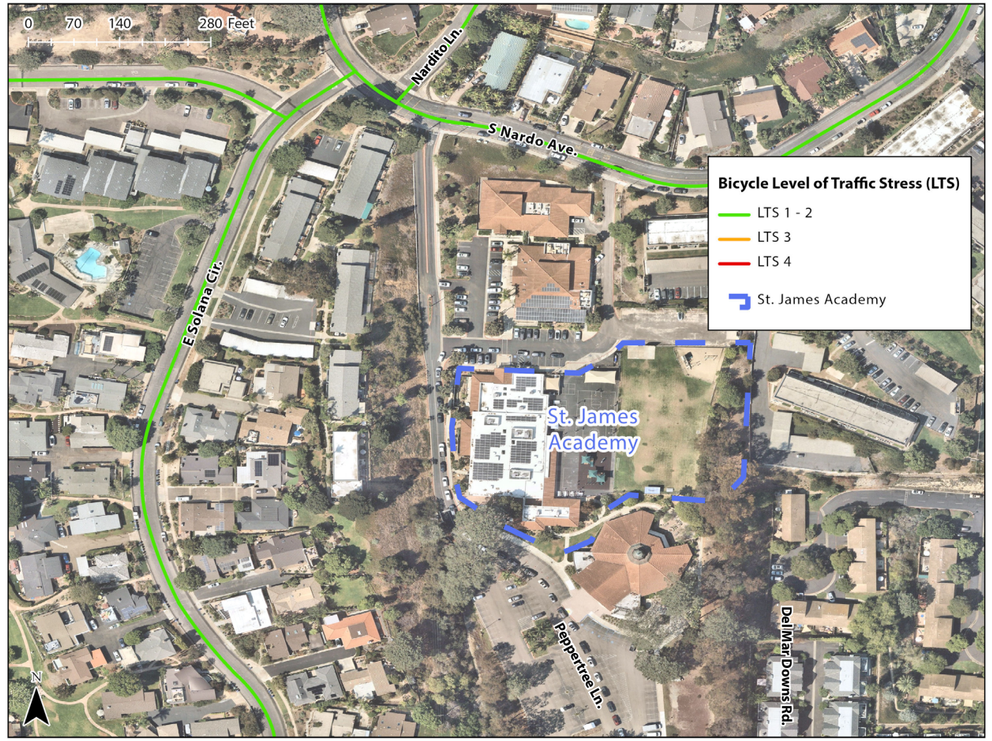


FIGURE 4.6.11. BICYCLE LEVEL OF TRAFFIC STRESS (LTS) RESULTS FOR THE AREA SURROUNDING ST. JAMES ACADEMY.

Drop-Off, Pick-Up, and Vehicle Movements

St. James Academy is accessed via South Nardo Avenue or Peppertree Lane. Both roadways are streets with one lane in either direction. South Nardo Avenue also has parking on both sides of the street. These streets lead to an un-named road running through the St. James Catholic Community, which contains the St. James Academy campus. This un-named road is narrow with one lane in either direction. Figure 4.6.12 demonstrates existing conditions as well as behavior observed during the site assessment.

Pick-up occurs in the St. James Academy parking lot to the north of the school campus. Parents were observed arriving nearly 45 minutes prior to the designated pick-up time. A long train of cars queues in the northbound lane of the un-named street bordering the St. James Catholic Community, stretching as far back as the southernmost parking lot. Available parking spots are cordoned off in the afternoons to allow for a longer line (see Figure 4.6.13). As vehicles near the designated pick-up area, staff members recognize the cars and utilize an intercom system to retrieve students when their rides arrive.

FIGURE 4.6.12. EXISTING ROADWAY NETWORK, OBSERVED VEHICLE BEHAVIOR, AND CONDITIONS.

FIGURE 4.6.13. PARKING SPACES CORDONED OFF

Cars exiting St. James Academy onto South Nardo Avenue encounter no signalization or intersection controls. Speed along South Nardo Avenue is regulated with the help of an electronic sign notifying passing vehicles of their speeds. Cars exiting south on Peppertree Lane/ Del Mar Downs Road do not encounter signalization or four-way stoppage at the intersection with Via De La Valle.

Collision Summary

Between 2014 and 2018, there were three bicycle crashes and zero pedestrian crashes within a half-mile radius of St. James Academy (see Figure 4.6.14). Of the three bicycle crashes, one caused severe injury. Within a quarter-mile radius of the school, there were zero crashes causing visible injuries and one crash causing severe injury.

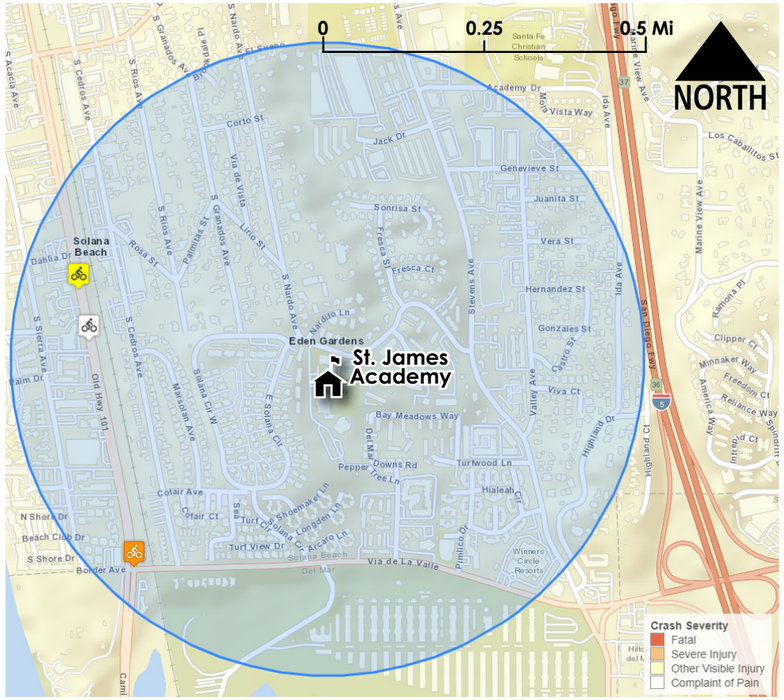
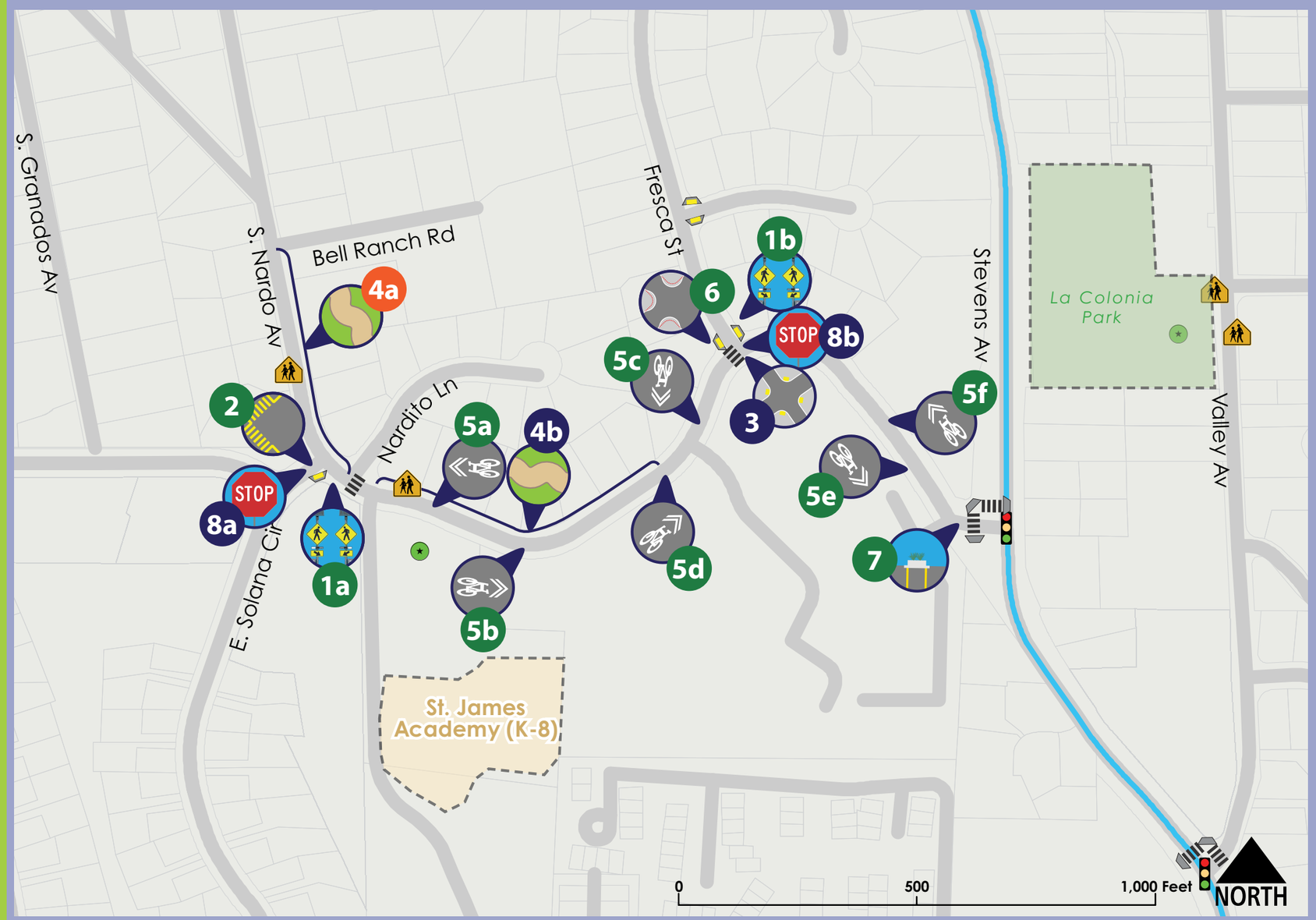


FIGURE 4.6.14. MAP OF BICYCLE AND PEDESTRIAN CRASHES WITHIN A HALF-MILE RADIUS OF ST. JAMES ACADEMY OCCURRING BETWEEN JANUARY 2014 AND DECEMBER 2018 (SOURCE: TIMS.BERKELEY.EDU).

4.6 St. James Academy Recommendations

Several walking and bicycling challenges were identified during the St. James Academy mobility assessment. Even though almost 30% of students walk to school, there are immediate gaps in the sidewalk network along S. Nardo Avenue, East Solana Circle, Nardito Lane, and the unnamed road running through St. James Academy. Other pedestrian challenges include a sloped sidewalk segment, a broken sidewalk segment, a faded crosswalk, and obstructions on S Nardo Avenue. Also, no crossing guards or high-visibility crosswalks are present at the immediately adjacent intersections. While there is no bicycle infrastructure surrounding the school grounds, cyclists experience a low level of traffic stress relative to other cycling environments. During drop-off and pick-up times, long queues form along the unnamed road closest to the school, and some parking is cordoned off in the afternoons to allow for efficient queues.

Several interventions are recommended to improve the biking and walking experience. At the intersection of South Nardo Avenue and East Solana Circle, it is recommended to add rectangle rapid flashing beacons, high visibility crosswalks and an all-way stop to increase visibility and safety during crossings. It is recommended to convert Fresca Street and South Nardo Avenue into an all-way stop and add rectangle flashing beacons, curb extensions, and ADA curb ramps to benefit student safety and comfort. To improve the pedestrian and bicycle network, it is recommended to add 0.27 miles of decomposed granite (DG) path and class III markings along South Nardo Avenue. Along South Nardo Avenue approaching the Stevens Avenue intersection, it is recommended to install a raised median to manage traffic flow around the intersection. These recommendations are highlighted on the graphic at right. A summary list of recommendations is provided in Section 6.3.



Recommended Feature	Qt./Mi.
Sidewalk	0.29 miles
High-Visibility Crosswalk	1
ADA Curb Ramp	4
Decomposed Granite Path	0.27 miles
Shared Lane Markings	6
Curb Extension	3

Existing Infrastructure

ADA Compliant Ramp · Ramp · Marked Crosswalk · All-Way Stop · Traffic Signal · Bike Parking

School Site · Park · School Signage · Class II Bike Lane · Class III Bike Route

Recommendations

1. Install Rectangle Rapid Flash Beacon
2. Install High Visibility Crosswalk
3. Install ADA Curb Ramp
4. Construct Decomposed Granite Path
5. Install Shared Lane Marking (Class III)
6. Construct Curb Extension
7. Construct Raised Median
8. Make All-Way Stop* *Subject to engineering analysis

Consistent with Solana Highlands Plan

Consistent with Ocean Ranch Estates Plan

4.7 Fusion Academy

Address: 512 Via De La Valle Suite 201, Solana Beach, CA 92075

Fusion Academy is located north of Via de la Valle, east of Pimlico Drive, and west of Del Mar Downs Road. It is located approximately 2/5 mile west of Interstate 5 and approximately one-half mile east of State Highway 101. Fusion Academy is surrounded by a variety of uses, including commercial, residential, and recreational. The school itself is located within a business park containing restaurants, a hair salon, a hotel, a tennis club, and a financial advisor, among others. The Del Mar Fairgrounds is located directly across Via de la Valle to the south from Fusion Academy.

Mobility Assessment

A walk audit and on-site meeting for Fusion Academy in the City of Solana Beach was conducted on December 15, 2021. This event included the collection of observations of pick up and drop off, interviews with staff, field assessment/existing conditions confirmation, and a walk audit with staff. The purpose of the event was to identify issues that may make it unsafe or uncomfortable for students to walk, bike, or roll to and from school, to be incorporated into the broader mobility assessment for each school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.

Staff who attended the walk audit and on-site meeting included representatives from Circulate San Diego and CR Associates.

School Profile

Fusion Academy, located within the city limits of Solana Beach, is a private school for middle and high school students. All classes conducted at Fusion Academy have a ratio of one student to one teacher. There are presently 55 full-time and part-time students enrolled.

The demographic composition of these students, as shown in Figure 4.7.1, is dissimilar to that of Solana Beach as a whole. The City has a lower Asian population (4.9%) and a higher white population (76.2%) than Fusion Academy according to 2019 Census estimates (source: census.gov).

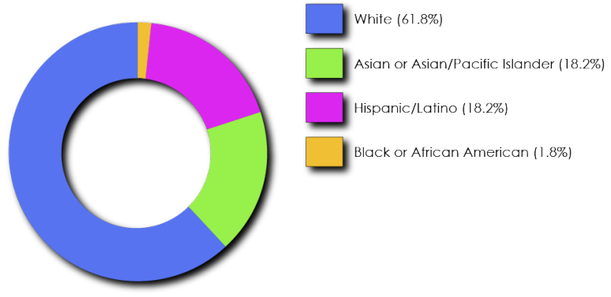


FIGURE 4.7.1. DEMOGRAPHIC COMPOSITION OF FUSION ACADEMY STUDENTS (SOURCE: USNEWS.COM).

CalEnviroScreen and Healthy Places Index

CalEnviroScreen is a tool developed by The California Office of Environmental Health Hazard Assessment (OEHHA) that analyzes exposures, environmental effects, sensitive populations, and socioeconomic factors to determine which California communities have high pollution burdens. The CalEnviroScreen 4.0 results range from 0-100 (with higher scores indicating higher pollution burdens) and represent the overall percentile ranking of the selected census tract relative to the state's other census tracts.

Fusion Academy is located in census tract 173.04, which has an overall score in the 15th percentile, indicating a relatively low pollution burden compared with other locations across the state (see Figure 4.7.2). However, when compared to neighboring census tracts within the City of Solana Beach the census tract containing Fusion Academy has the highest score, as the others are in the 1st and 2nd percentiles.

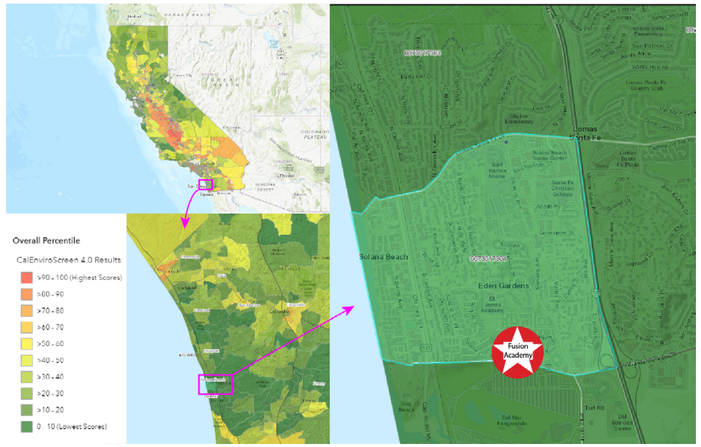


FIGURE 4.7.2. CALENVIROSCREEN 4.0 RESULTS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND CENSUS TRACTS WITHIN SOLANA BEACH (SOURCE: OEHHA.CA.GOV).

One of the indicators CalEnviroScreen reports is traffic density. The census tract in which Fusion Academy is located has a traffic density score in the 92nd percentile, indicating a significantly higher number of vehicles on the road compared to other California census tracts (see Figure 4.7.3).

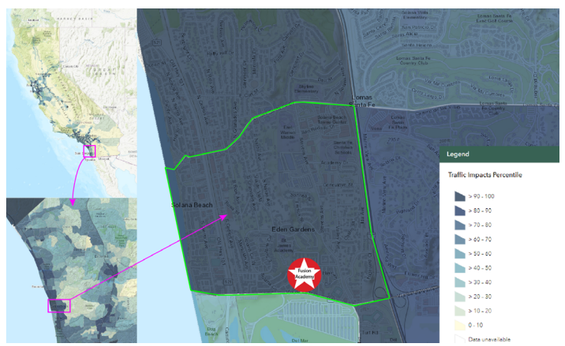


FIGURE 4.7.3. CALENVIROSCREEN 4.0 TRAFFIC DENSITY RESULTS (SOURCE: OEHHA.CA.GOV).

The California Healthy Places Index (HPI) is a tool developed by the Public Health Alliance of Southern California that analyzes various policy areas (economics, education, transportation, housing, healthcare, etc.) to display how community conditions affect health outcomes. Results range from 0-100, with higher scores indicating healthier conditions. The census tract containing Fusion Academy has an HPI score higher than the County of San Diego, but lower than the City of Solana Beach as a whole and the cities of Encinitas and Del Mar (see Figures 4.7.4 and 4.7.5).

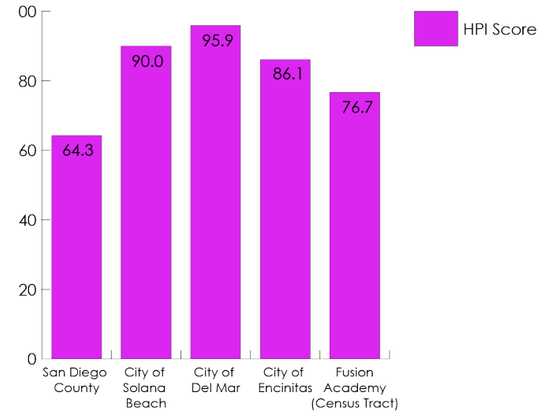


FIGURE 4.7.4. HPI SCORES FOR SAN DIEGO COUNTY, SOLANA BEACH, NEIGHBORING CITIES, AND FUSION ACADEMY (SOURCE: HEALTHYPLACESINDEX.ORG).

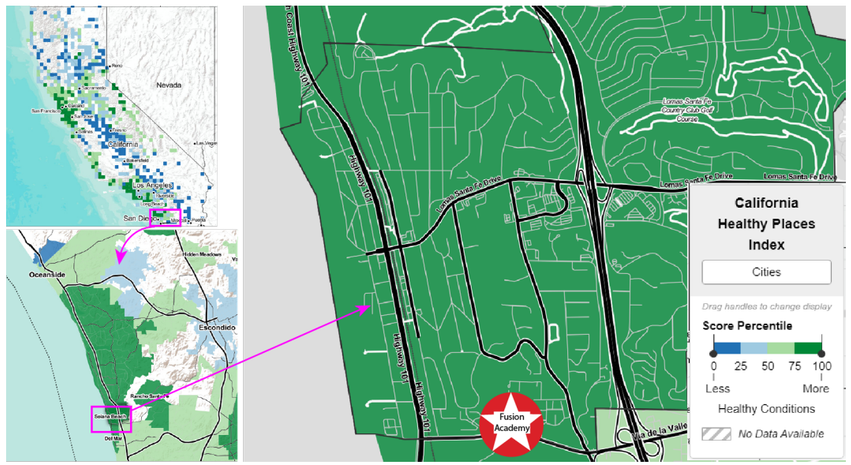


FIGURE 4.7.5. HPI VISUALIZATIONS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND THE CITY OF SOLANA BEACH (SOURCE: HEALTHYPLACESINDEX.ORG).

Walking

Figure 4.7.6 provides an overview of the existing pedestrian network and challenges observed and analyzed. Challenges to walking are evaluated through a process called Pedestrian Environment Quality Evaluation (PEQE) developed by CR Associates. The evaluation looks at the physical conditions and the quality of the sidewalks and crosswalks. Figure 4.7.7 shows the results of the PEQE scoring.

Along Via de la Valle, there are limited opportunities for pedestrians to cross safely. Anyone attempting to access Fusion Academy or the surrounding businesses from the street parking along the southern side of Via de la Valle must jaywalk, as the nearest crosswalk is nearly one-quarter-mile east at the intersection with Valley Avenue. Additionally, there is no signage indicating that a school is located in the area or alerting drivers to the presence of pedestrians.

Within the Fusion Academy campus, parking area, and surrounding road network there are no truncated domes or curb cuts (see Figures 4.7.8 and 4.7.9). This affects everyone who uses the sidewalk, but especially those with limited mobility as well as people with strollers.

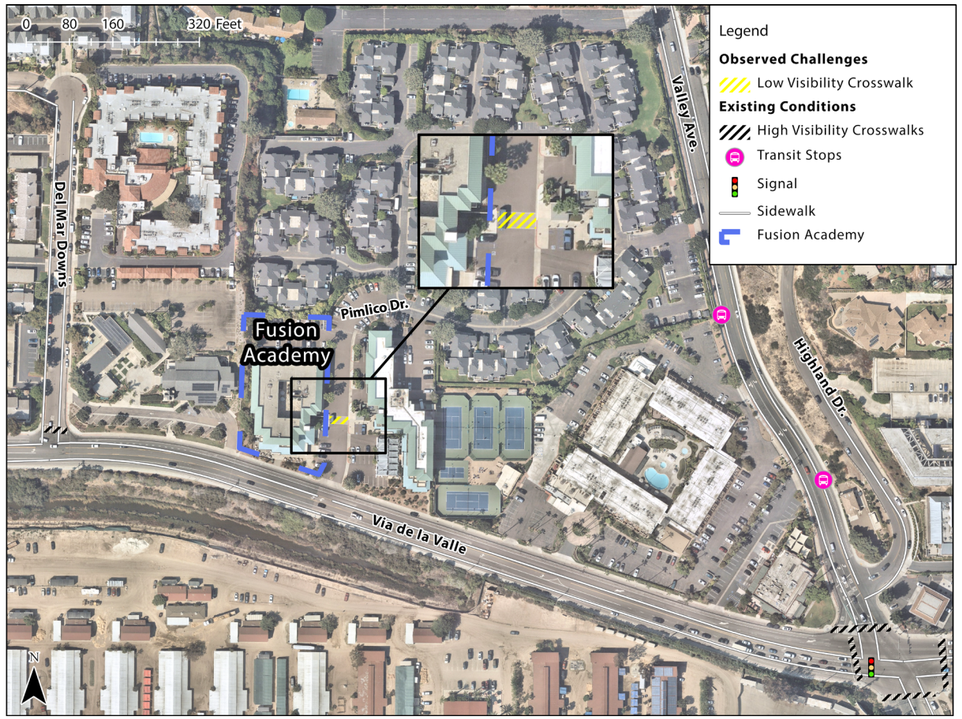


FIGURE 4.7.6. EXISTING PEDESTRIAN CONDITIONS AND OBSERVED CHALLENGES AND GAPS IN THE NETWORK.

FIGURE 4.7.7. PEDESTRIAN ENVIRONMENT QUALITY EVALUATION (PEQE) RESULTS FOR THE AREA SURROUNDING FUSION ACADEMY.

FIGURE 4.7.8. MISSING TRUNCATED DOMES ON VIA DE LA VALLE

FIGURE 4.7.9. LOW-VISIBILITY CROSSWALK AND MISSING CURB CUTS IN PARKING LOT OFF VIA DE LA VALLE

The rate of public transit usage by Fusion Academy students to school is unknown. However, transit could be promoted as the NCTD bus stop is northeast of the school's access road at its intersection with Valley Avenue.

Riding and Rolling

There are Class 2 bike lanes adjacent to Fusion Academy on both Via de la Valle and Valley Avenue (see Figure 4.7.10). During the mobility assessment, it was observed that the markings on these unprotected bike lanes had faded considerably (see Figure 4.7.12). Given that drivers frequently cross the bike lanes to access street parking on either side of Via de la Valle, maintaining these bike lanes should be a priority so that drivers exercise an appropriate amount of caution.

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute. LTS classifies the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by CR Associates concluded that the roads directly adjacent to Fusion Academy have low-to-high LTS scores, where a higher score indicates higher stress (see Figure 4.7.11).

FIGURE 4.7.10. THE EXISTING BIKE NETWORK SURROUNDING FUSION ACADEMY.

FIGURE 4.7.11. BICYCLE LEVEL OF TRAFFIC STRESS (LTS) RESULTS FOR THE AREA SURROUNDING FUSION ACADEMY.

As shown in Figure 4.7.10, there is a limited amount of bicycle parking in front of the school. During the mobility assessment there were no bicycles parked in the designated area; however, someone had parked an e-bike on Fusion Academy's second-story outdoor plaza (see Figure 4.7.13). This may demonstrate a need for bicycle parking that is more secure than standard racks along the main road.

FIGURE 4.7.12. UNPROTECTED BIKE LANE WITH FADED MARKINGS ALONG VIA DE LA VALLE

FIGURE 4.7.13. E-BIKE PARKED ON THE SECOND STORY PLAZA OF FUSION ACADEMY

Vehicle Movements

Fusion Academy is accessed by vehicles via Via de la Valle. Via de la Valle is a wide street with one lane in either direction, a central turn lane, and parking on both sides of the road. Figure 4.7.14 demonstrates existing conditions as well as behavior observed during the mobility assessment.

There are several parking areas within the vicinity of Fusion Academy, including street parking, lot parking, and garage parking (see Figure 4.7.15). No reserved parking spots for Fusion Academy staff or visitors were observed during the mobility assessment, but there was no shortage of parking available. A Fusion Academy-branded vehicle was parked in one of the parking lots, so it is evident that the school is able to access these spaces and perhaps even utilize them for overnight storage (see Figure 4.7.16). Despite the availability of parking spots, drivers were observed parked and idling within "no-parking" zones adjacent to the Fusion Academy campus (see Figure 4.7.14).

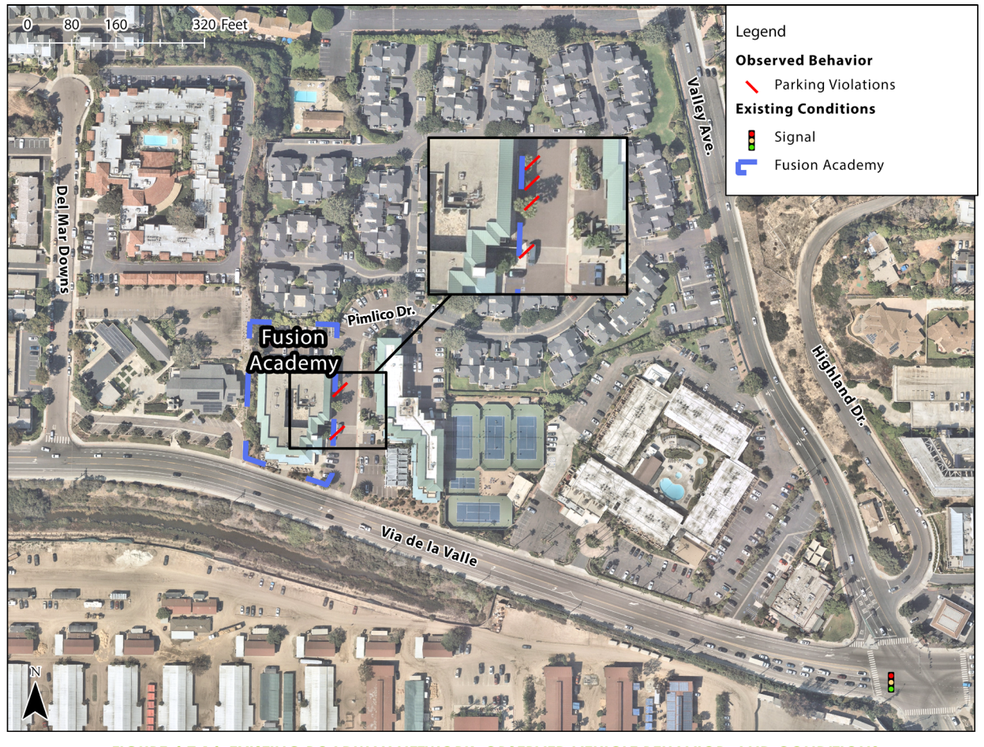


FIGURE 4.7.14. EXISTING ROADWAY NETWORK, OBSERVED VEHICLE BEHAVIOR, AND CONDITIONS.

FIGURE 4.7.15. PARKING LOT AND PARKING GARAGE AT FUSION ACADEMY

FIGURE 4.7.16. FUSION ACADEMY VAN PARKED IN LOT

Collision Summary

Between 2014 and 2018, there were two pedestrian and two bicycle crashes within a half-mile radius of Fusion Academy (see Figure 4.7.17). Both bicycle involved crashes resulted in severe injury. The intersection of State Highway 101 and Via de la Valle was the location for one pedestrian crash and one bicycle crash.

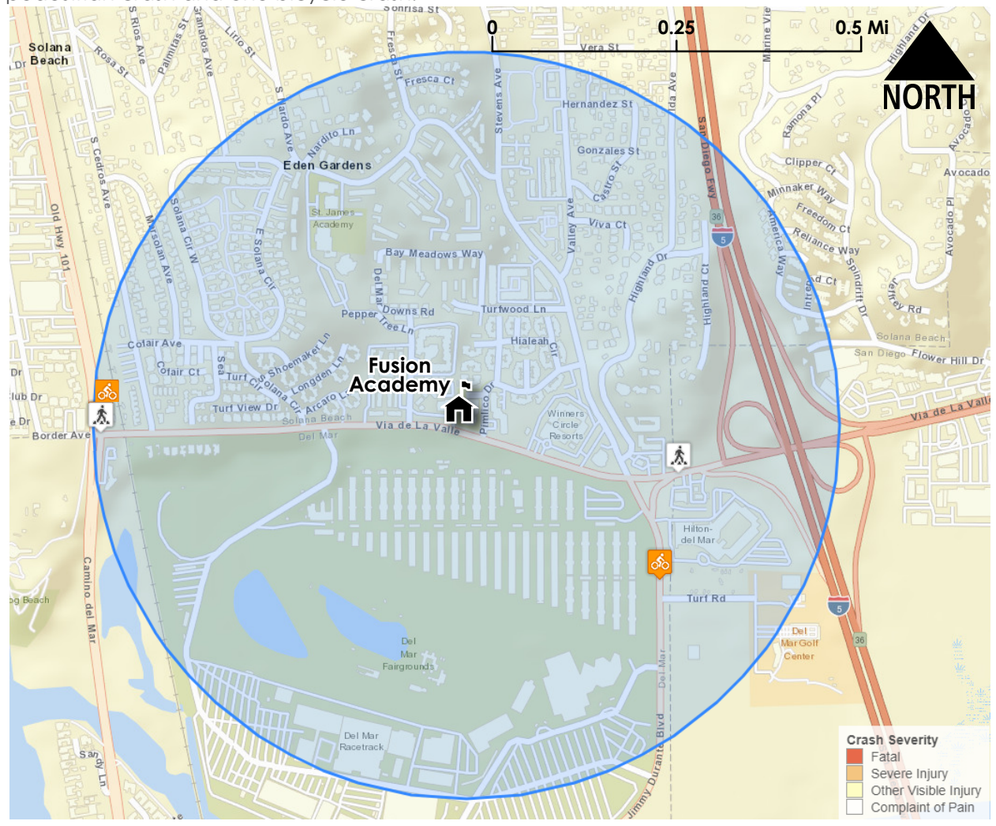
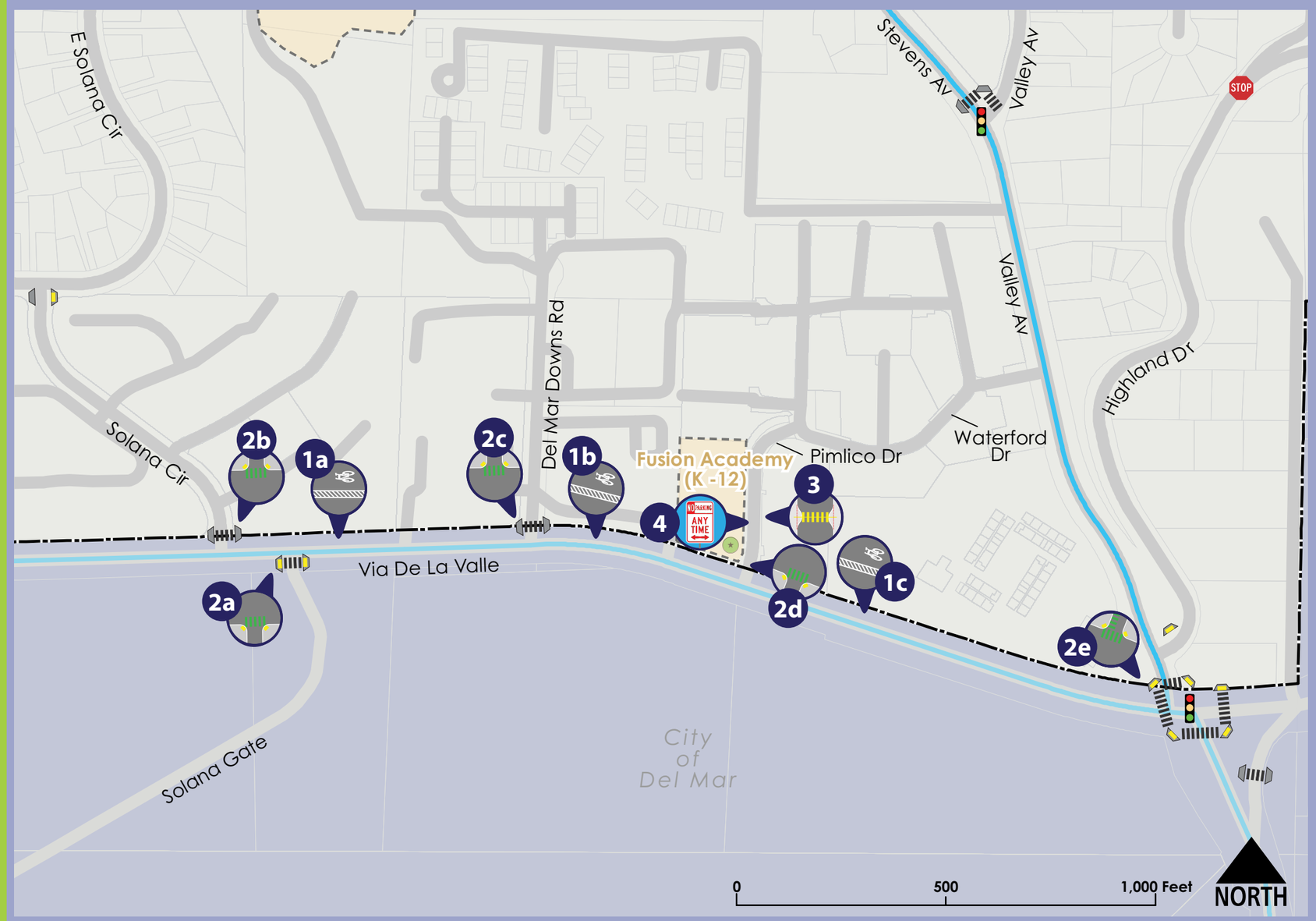


FIGURE 4.7.17. MAP OF BICYCLE AND PEDESTRIAN CRASHES WITHIN A HALF-MILE RADIUS OF FUSION ACADEMY OCCURRING BETWEEN JANUARY 2014 AND DECEMBER 2018 (SOURCE: TIMS.BERKELEY.EDU).

4.7 Fusion Academy Recommendations

Several factors contribute to the current biking and walking experience around Fusion Academy. Cyclists can access Fusion Academy using the Class II bike lanes along Via de la Valle and Valley Avenue. However, the bike lane markings are faded, and these lanes are located between travel lanes and on-street parking spots, which means some cars will sometimes pass through bike lanes to access street parking. Further, Via de la Valle is a long road with very few intersections that waklking or cycling students can use to cross without jaywalking. Without intersections that calm traffic, cars have little incentive to slow down and allow for cross-travel. Via de la Valle is also missing important pedestrian amenities such as curb cuts, truncated domes, and signage to indicate that the area is in a school zone with pedestrian activity.

The City of Solana Beach shares jurisdiction of Via De La Valle with the City of Del Mar. All recommendations for Via De La Valle and Pimlico Drive will be shared with the City of Del Mar. A series of improvements has been identified because the lack of infrastructure impacts the City of Solana Beach, Fusion Academy, and surrounding residents and businesses. To improve the cyclist experience, it is recommended to install buffered bike lanes to add some space between cyclists and vehicles. It is recommended to install conflict paint along five intersections around Fusion Academy to remind vehicles to yield to cyclist traffic. These recommendations are highlighted on the graphic at right. A summary list of recommendations is provided in Section 6.3.



Recommended Feature	Qt./Mi.
Buffered Bike Lane	0.68 miles
Conflict Paint	5
Bulb Out / Crosswalk	1
No Parking Signage	1

Existing Infrastructure

ADA Compliant Ramp · Ramp · Marked Crosswalk · All-Way Stop · Traffic Signal · School Site · Class II Bike Lane

Recommendations

1. Install Buffered Bike Lane
2. Install Conflict Paint at Driveway & Intersection
3. Construct Bulb Out & Crosswalk
4. Install No Parking Any Time Signage

4.8 LePort Montessori School

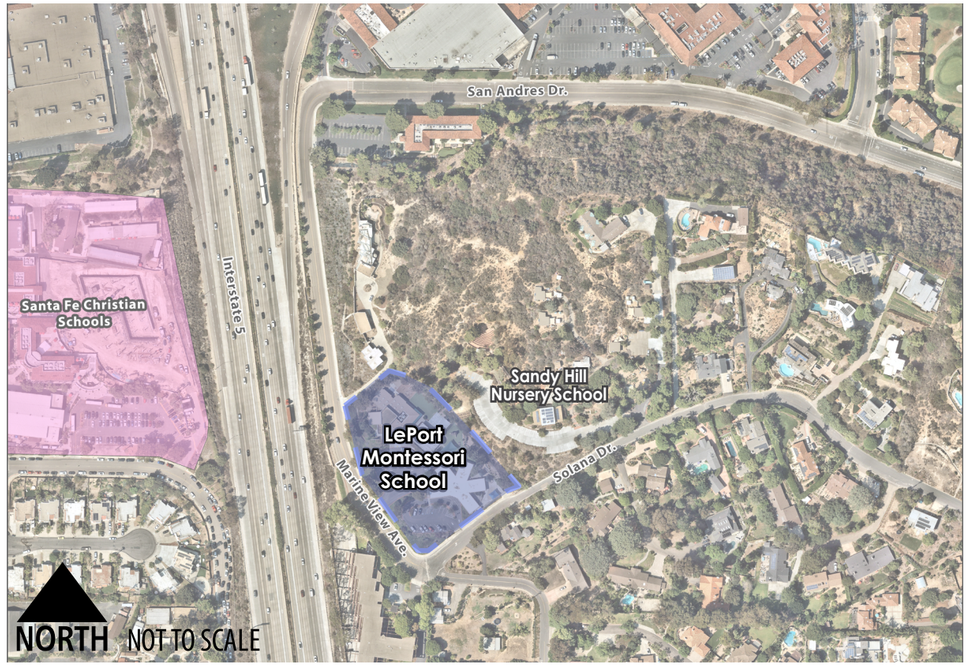
Address: 1010 Solana Dr, Del Mar, CA 92014

LePort Montessori School is located east of Marine View Avenue and Interstate 5 and north of Solana Drive. It is approximately 1.5 miles east of State Highway 101 and approximately 1/3 mile south of Lomas Santa Fe Drive. There are two campuses that were built in the 1970s and each campus has its own parking lot. Land use south of the school is primarily residential. Adjacent to LePort Montessori School on the east is Sandy Hill Nursery School.

Mobility Assessment

A walk audit and on-site meeting for LePort Montessori School in the City of Solana Beach was conducted on November 18, 2021. This event included the collection of observations of pick up and drop off, interviews with staff, field assessment/existing conditions confirmation, and a walk audit with staff. The purpose of the event was to identify issues that may make it unsafe or uncomfortable for students to walk, bike, or roll to and from school, to be incorporated into the broader mobility assessment for each school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.

Staff who attended the walk audit and on-site meeting included representatives from the City of Solana Beach, Circulate San Diego, and CR Associates.



School Profile

LePort Montessori School is the only private Montessori school within the city limits of Solana Beach. During the 2020-2021 school year, there were just under 100 students enrolled in Infant Daycare (as young as 3 months old) through 6th grade. The demographic composition of these students was not available.

CalEnviroScreen and Healthy Places Index

CalEnviroScreen is a tool developed by The California Office of Environmental Health Hazard Assessment (OEHHA) that analyzes exposures, environmental effects, sensitive populations, and socioeconomic factors to determine which California communities have high pollution burdens. The CalEnviroScreen 4.0 results range from 0-100 (with higher scores indicating higher pollution burdens) and represent the overall percentile ranking of the selected census tract relative to the state's other census tracts.

LePort Montessori School is located in census tract 173.06, which has an overall score in the 1st percentile, indicating a relatively low pollution burden compared with other locations across the state (see Figure 4.8.1). When compared to neighboring census tracts within the City of Solana Beach the census tract containing LePort Montessori School has the lowest score, as the others are in the 2nd and 15th percentiles.

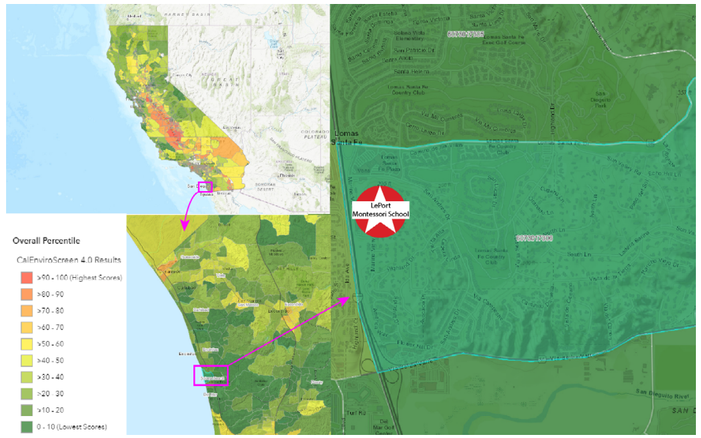


FIGURE 4.8.1. CALENVIROSCREEN 4.0 RESULTS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND CENSUS TRACTS WITHIN SOLANA BEACH (SOURCE: OEHHA.CA.GOV).

One of the indicators CalEnviroScreen reports is traffic density. The census tract in which LePort Montessori School is located has a traffic density score in the 81st percentile, indicating a significantly higher number of vehicles on the road compared to other California census tracts (see Figure 4.8.2).

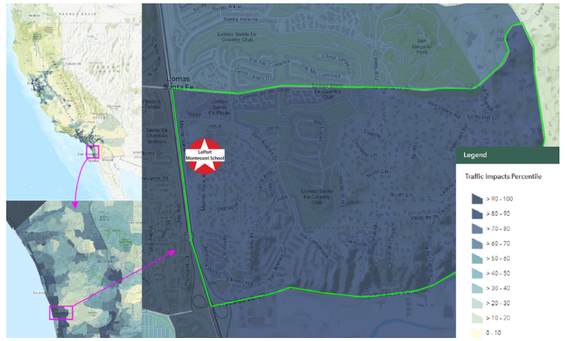


FIGURE 4.8.2. CALENVIROSCREEN 4.0 TRAFFIC DENSITY RESULTS (SOURCE: OEHHA.CA.GOV).

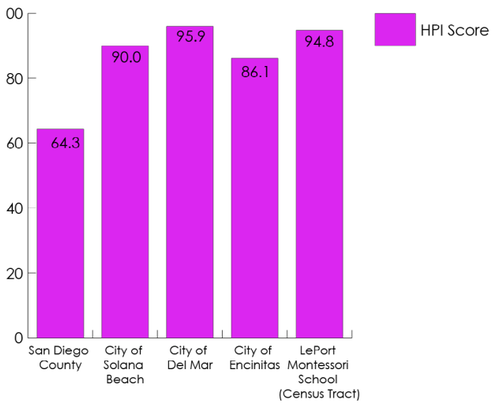


FIGURE 4.8.3. HPI SCORES FOR SAN DIEGO COUNTY, SOLANA BEACH, NEIGHBORING CITIES, AND LEPORT MONTESSORI SCHOOL (SOURCE: HEALTHYPLACESINDEX.ORG).

The California Healthy Places Index (HPI) is a tool developed by the Public Health Alliance of Southern California that analyzes various policy areas (economics, education, transportation, housing, healthcare, etc.) to display how community conditions affect health outcomes. Results range from 0-100, with higher scores indicating healthier conditions. The census tract containing LePort Montessori School has an HPI score higher than the County of San Diego, the City of Encinitas, and the City of Solana Beach as a whole but lower than the City of Del Mar (see Figures 4.8.3 and 4.8.4).

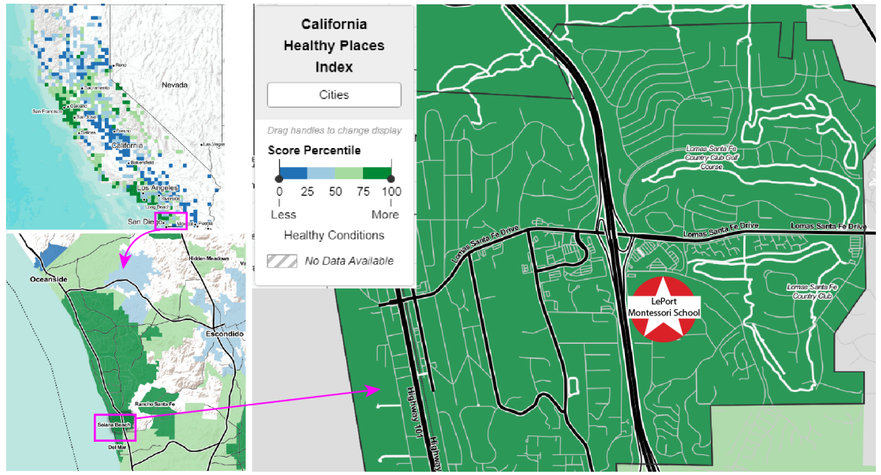


FIGURE 4.8.4. HPI VISUALIZATIONS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND THE CITY OF SOLANA BEACH (SOURCE: HEALTHYPLACESINDEX.ORG).

Walking

Figure 4.8.5 provides an overview of the existing pedestrian network and challenges observed and analyzed. Challenges to walking are evaluated through a process called Pedestrian Environment Quality Evaluation (PEQE) developed by CR Associates. The evaluation looks at the physical conditions and the quality of the sidewalks and crosswalks. An incomplete sidewalk network with medium and low PEQE can create stressful walking environments, especially for the most vulnerable. Figure 4.8.6 shows the PEQE score for the sidewalk network surrounding LePort. No students were observed walking to LePort Montessori School during the site assessment, presumably because of their young age or because most of the enrolled population commutes from elsewhere.

The eastern portion of Marina View Avenue that abuts the campus and the northern portion of Solana Drive that abuts the campus are the only two roads in the vicinity of LePort Montessori School that have high-quality sidewalks. Several sidewalk obstructions were observed elsewhere, including mailboxes, large amounts of dirt, and cracked asphalt (see Figure 4.8.7). Furthermore, there are no crosswalks anywhere external to the LePort Montessori School campus. During the site assessment a notable amount of pedestrian activity was observed within the school's surrounding area, but all observed parties were adults exercising or walking dogs and were seemingly traveling from an adjacent neighborhood off of Marina View Avenue.

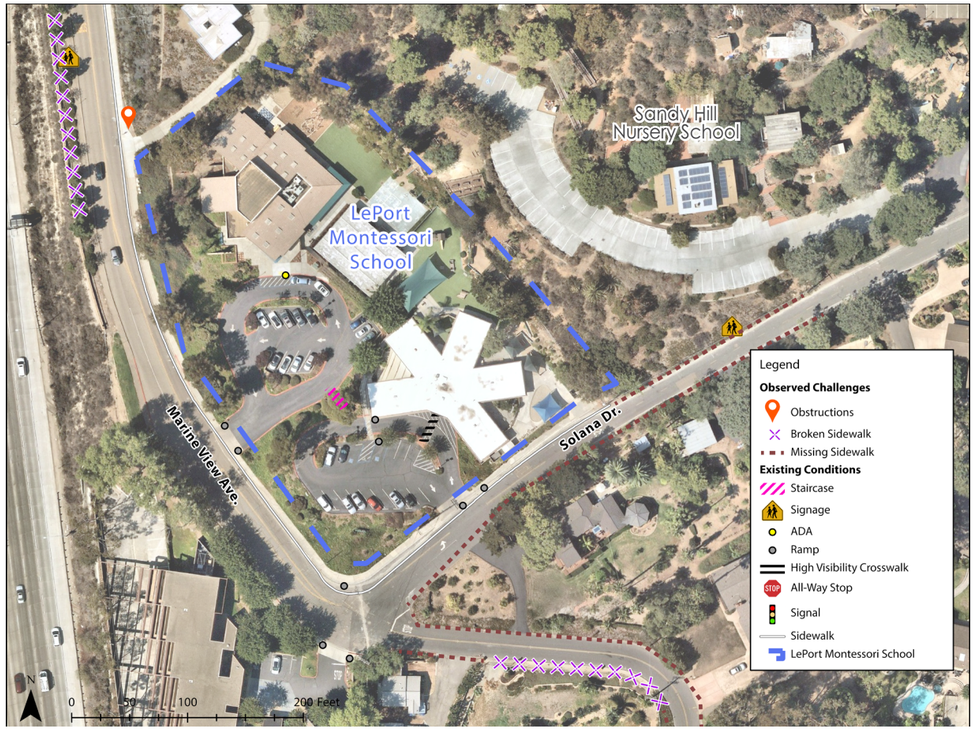


FIGURE 4.8.5. EXISTING PEDESTRIAN CONDITIONS AND OBSERVED CHALLENGES AND GAPS IN THE NETWORK.

FIGURE 4.8.6. PEDESTRIAN ENVIRONMENT QUALITY EVALUATION (PEQE) RESULTS FOR THE AREA SURROUNDING LEPORT MONTESSORI SCHOOL.

Within LePort Montessori School's campus, there are limited pedestrian facilities. Neither parking lot has sidewalks, and the entry to the northernmost parking lot is considerably steep. Some parents were observed walking between the two campuses in order to retrieve multiple students, and they were able to do so by utilizing a small staircase that connects the northern parking lot to the southern parking lot (see Figure 4.8.8). However, there are no curb cuts at either end of the stairs.

FIGURE 4.8.7. CRACKED SIDEWALK ON MARINA VIEWS AVE.

FIGURE 4.8.8. STAIRCASE CONNECTING LEPORT CAMPUSES

There are two ramps at LePort Montessori School – one on each campus. The northern campus's ramp has a truncated dome and is adjacent to a 'disabled loading only' parking area, though a vehicle with no disabled person parking placard was observed in this spot during the site assessment. The southern campus has one high-visibility crosswalk leading from the parking lot to the school's entrance, but there is a heavily-used parking spot directly blocking one side of it (see Figure 4.8.9).

FIGURE 4.8.9. DRIVER OBSTRUCTS THE HIGH-VISIBILITY CROSSWALK LEADING FROM THE PARKING LOT TO THE ENTRANCE OF LEPORT MONTESSORI SCHOOL ON SOLANA DRIVE.

Riding and Rolling

There are no bike lanes adjacent to LePort Montessori School, though there are Class 2 lanes along San Andres Drive to the north of the campus (see Figure 4.8.10). During the site assessment, no students were observed traveling on bicycles. There is no designated bicycle parking on the LePort Montessori School campus.

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute. LTS classifies the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by CR Associates concluded that the roads directly adjacent to LePort Montessori School have low-to-medium LTS scores, where a higher score indicates higher stress (see Figure 4.8.11).

FIGURE 4.8.10. THE EXISTING BIKE NETWORK SURROUNDING LEPORT MONTESSORI SCHOOL.

FIGURE 4.8.11. BICYCLE LEVEL OF TRAFFIC STRESS (LTS) RESULTS FOR THE AREA SURROUNDING LEPORT MONTESSORI SCHOOL.

Drop-Off, Pick-Up, and Vehicle Movements

LePort Montessori School is accessed by vehicles via Solana Drive and Marina Vista Avenue. Both are streets with one lane in either direction and no street parking. Solana Drive has a dedicated left-turn lane to enter the main LePort Montessori School parking lot. Figure 4.8.12 demonstrates existing conditions as well as behavior observed during the site assessment.

Morning drop-off is at 8:00 a.m. and there are three designated pick-up times: 12:00 p.m., 3:00 p.m., and 4:30 p.m. Pick-ups after 3:00 p.m. are only for infant students between the ages of three months and 24 months. The majority of drivers approach campus eastbound on Solana Drive. Because most of the student population is very young, parents must park their vehicles in order to assist the children out of or into their cars. Additionally, parents must sign children out on an iPad during pick-up and wait with their child during a temperature check at drop-off. As a result, a queue can form in the left-turn lane on Solana Drive. This generally does not cause issues for through-traffic because the eastbound lane remains clear.

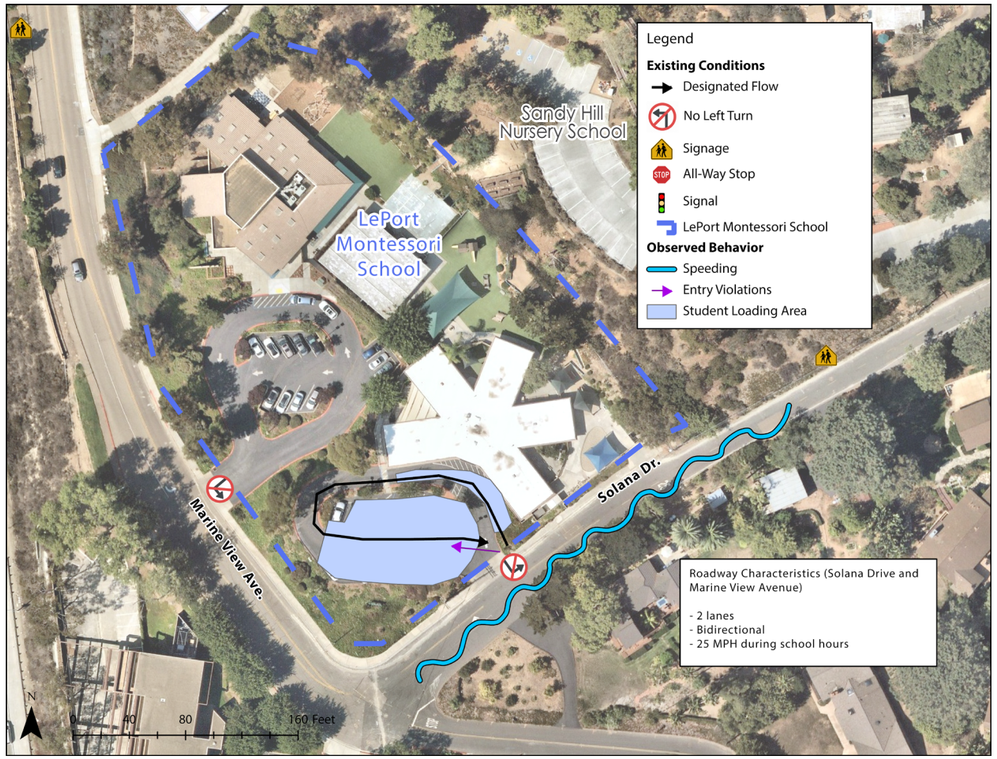


FIGURE 4.8.12. EXISTING ROADWAY NETWORK, OBSERVED VEHICLE BEHAVIOR, AND CONDITIONS.

Vehicles entering LePort Montessori's main parking lot are met with signage instructing them to pull through the lane closest to the school entrance. Upon reaching the school entrance, drivers either continue to loop around to the parking lot, or park in the lane. A "do not enter" sign prohibits drivers from entering the parking area without completing the entire loop, but parents largely seem to ignore this sign, especially when there is a queue in the entry lane (see Figure 4.8.13). Between the hours of 3:45 p.m. and 4:45 p.m., eight of the 27 vehicles that arrived for pick-up entered the parking lot incorrectly.

The City of Solana Beach installed "no left turn" signs at the exits of both LePort Montessori School parking lots (see Figure 4.8.14). During the site assessment 16 vehicles were observed utilizing Solana Drive, and only two of these vehicles entered the LePort Montessori School campus. Of the 14 unaffiliated vehicles, 10 were observed violating the 25 mph speed limit.

FIGURE 4.8.13. DRIVER ENTERING PARKING LOT ILLEGALLY ON SOLANA DRIVE

FIGURE 4.8.14. SIGNAGE PROHIBITING LEFT TURNS ON MARINE VIEW AVENUE

Collision Summary

Between 2014 and 2018, there were four pedestrian and bicycle crashes within a half-mile radius of LePort Montessori School (see Figure 4.8.15). Of these four crashes none caused fatalities or severe injury, though three caused visible injury.

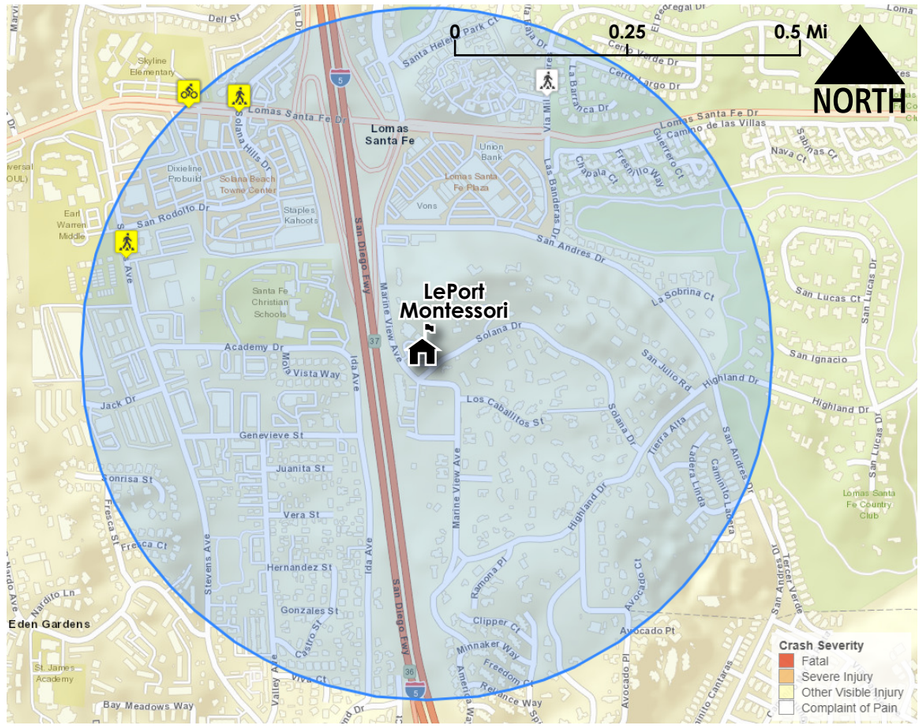
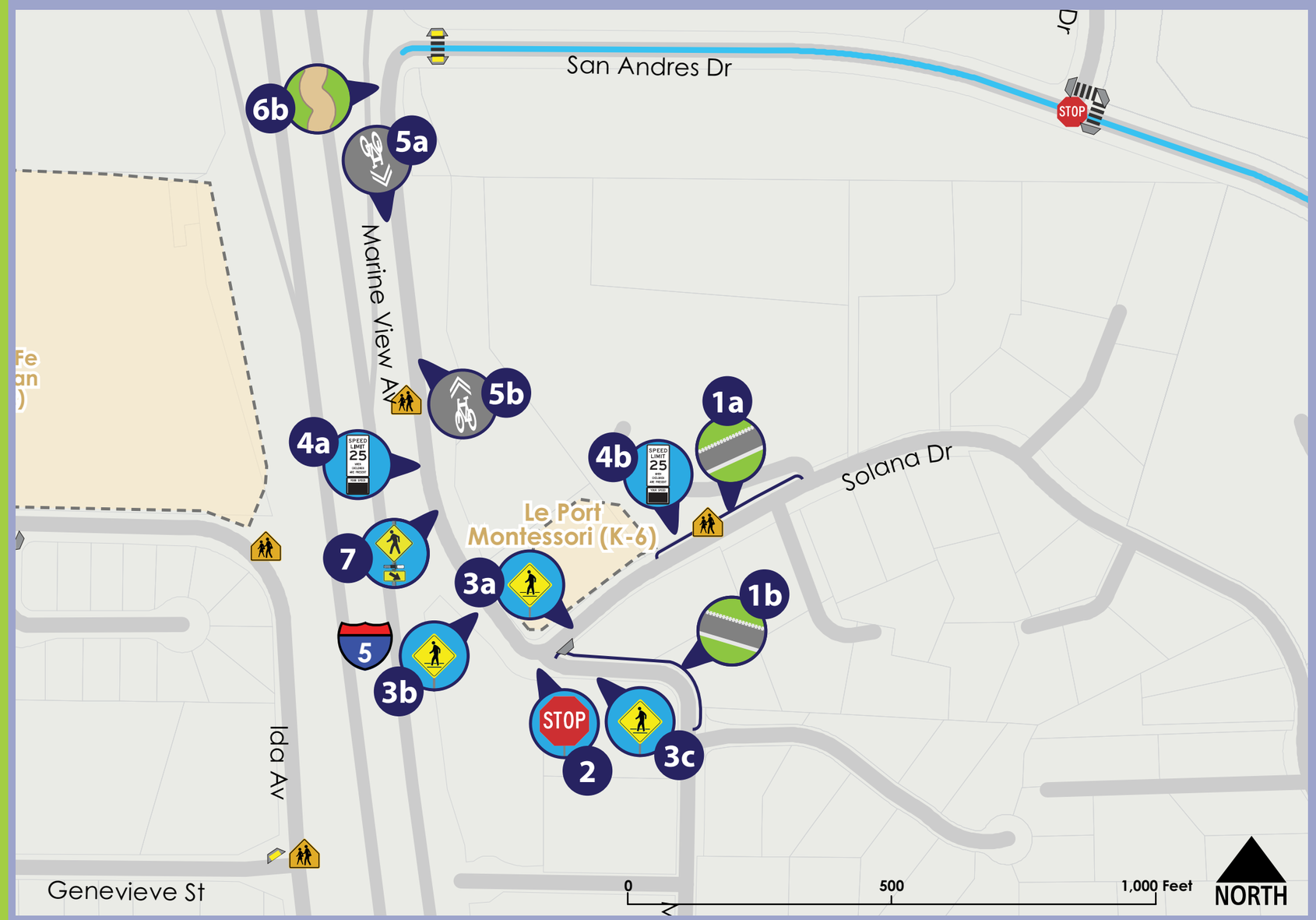


FIGURE 4.8.15. MAP OF BICYCLE AND PEDESTRIAN CRASHES WITHIN A HALF-MILE RADIUS OF LEPORT MONTESSORI SCHOOL OCCURRING BETWEEN JANUARY 2014 AND DECEMBER 2018 (SOURCE: TIMS.BERKELEY.EDU).

4.8 Le Port Montessori School Recommendations

The biking and walking environment around Le Port Montessori School can be improved. Students contend with broken sidewalks on Marine Vie Avenue, missing sidewalks on Marine View Avenue and Solana Drive, a lack of crosswalks, a lack of pedestrian-friendly entrances, and various obstructions. There is no bicycle infrastructure on either of the adjacent roads, and the LTS assessment concluded that cyclists experience low to medium amounts of traffic stress along these roads. Further, drivers on Solana Drive were observed speeding despite the area being a school zone.

Several interventions are recommended. To improve connectivity, it is recommended to construct a sidewalk on the northbound side of Marine View Avenue and the westbound side of Solana Drive closest to the school, as well as 500 feet of decomposed granite pathway along Marine View Avenue. It is recommended to install a rectangular flashing beacon on Marine View Avenue to allow for safe mid-block pedestrian crossings. To contend with speed concerns, it is recommended to install three watch for pedestrian signs and two speed feedback signs on adjacent streets and to create an all-way stop at the corner intersection. To improve motorist awareness of cyclists, it is recommended to install sharrows along Marine View Avenue. These recommendations are highlighted on the graphic at right. A summary list of recommendations is provided in Section 6.3.



Recommended Feature	Qt./Mi.
Sidewalk	675 ft.
All-Way Stop	1
Pedestrian Signage	3
Speed Feedback Signage	2
Shared Lane Marking	12
Decomposed Granite Path	500 ft.
Rectangular Rapid-Flashing Beacon	1

Existing Infrastructure

ADA Compliant Ramp · Ramp · Marked Crosswalk · All-Way Stop · Traffic Signal · Bike Parking

School Site · Park · School Signage · Class II Bike Lane · Class III Bike Route

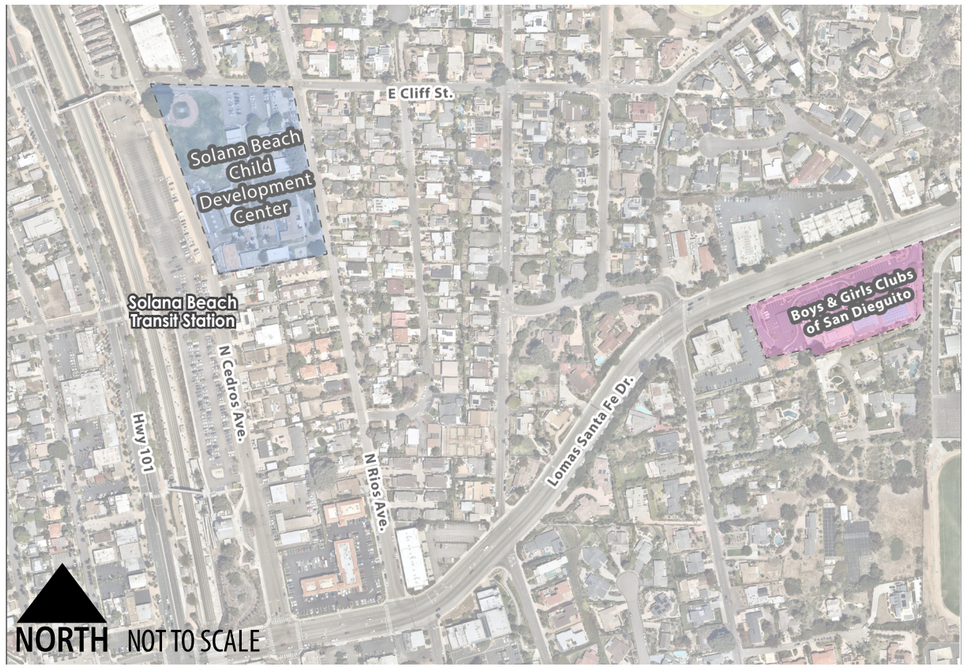
Recommendations

1. Construct Sidewalk
2. Make All-Way Stop* *Subject to engineering analysis
3. Install Watch for Pedestrians Signage
4. Place Speed Feedback Signage
5. Install Shared Lane Marking (Class III)
6. Construct Decomposed Granite Path
7. Install Rectangular Rapid-Flashing Beacons

4.9 Solana Beach Child Development Center

Address: 309 N Rios Avenue, Solana Beach, CA 92075

The Solana Beach Child Development Center is located on N. Rios Avenue, north of Lomas Santa Fe Drive, south of E Cliff Street, and east of N Cedros Avenue. It is located approximately 600 feet east of State Highway 101 and approximately one mile west of Interstate 5. The Child Development Center is surrounded primarily by low to medium density residential uses, though land use to the south of the school is largely commercial. West of the Child Development Center is the Solana Beach Transit Station, with Amtrak, COASTER, bus service and parking. The Boys & Girls Club of San Dieguito's Barbara Harper Branch is located approximately one-half mile southeast of the Child Development Center on the south side of Lomas Santa Fe Drive.



Mobility Assessment

A walk audit and on-site meeting for the Solana Beach Child Development Center (CDC) in the City of Solana Beach was conducted on August 25, 2022. This event included the collection of observations of pick up and drop off, interviews with staff, field assessment/existing conditions confirmation, and a walk audit with staff. The purpose of the event was to identify issues that may make it unsafe or uncomfortable for students to walk, bike, or roll to and from school, to be incorporated into the broader mobility assessment for each school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.

Staff who attended the walk audit and on-site meeting included CDC administrators Kim Pinkerton and Jennifer Orr, and representatives from the City of Solana Beach, Circulate San Diego and CR Associates.

School Profile

The Child Development Center shares a campus with the Solana Beach School District Office and Solana Ranch School, which collectively serve daycare, preschool, and special education students between the ages of 18 months and five years. Administrators estimate an enrollment of approximately 100 students at Solana Ranch School and 24 students in the special education program.

Student Tallies

An online survey was administered to Child Development Center parents via SurveyMonkey during September 2022. Of the 14 recorded responses, three respondents noted that their children live less than one mile from the school's campus while the other 11 respondents live between one and two miles from the school's campus. Driving is the most common mode of transportation used for student arrival and departure, with every respondent indicating they use a vehicle with only children from one household.

Most respondents felt that the Child Development Center was acting neutrally regarding walking and biking to school, and three respondents' children have asked permission to walk or bike to/from school in the past year. The most-often cited concerns relating to pedestrian and bicycle travel were speeding traffic, too much traffic, distance, and stranger danger. In order to address these issues, 3 parents expressed interest in helping organize a Walking School Bus or Bike Train.

CalEnviroScreen and Healthy Places Index

CalEnviroScreen is a tool developed by The California Office of Environmental Health Hazard Assessment (OEHHA) that analyzes exposures, environmental effects, sensitive populations, and socioeconomic factors to determine which California communities have high pollution burdens. The CalEnviroScreen 4.0 results range from 0-100 (with higher scores indicating higher pollution burdens) and represent the overall percentile ranking of the selected census tract relative to the state's other census tracts.

The Solana Beach Child Development Center is located in census tract 173.03, which has an overall score in the 2nd percentile, indicating a relatively low pollution burden compared with other locations across the state (see Figure 4.9.1). When compared to neighboring census tracts within the City of Solana Beach the census tract containing the Child Development Center has an intermediate score, as the others are in the 1st and 15th percentiles.

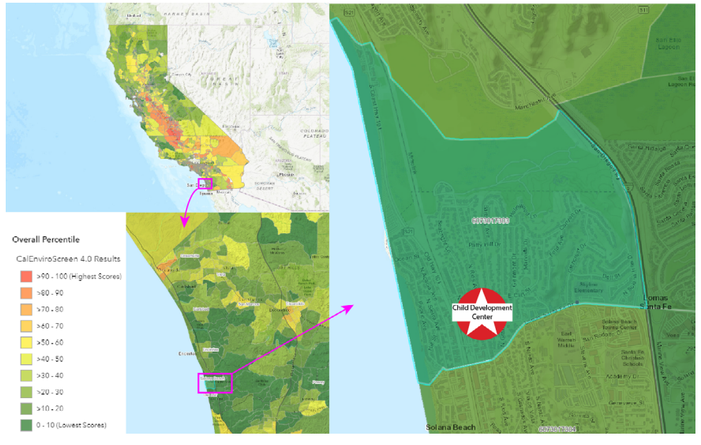


FIGURE 4.9.1. CALENVIROSCREEN 4.0 RESULTS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND CENSUS TRACTS WITHIN SOLANA BEACH (SOURCE: OEHHA.CA.GOV).

One of the indicators CalEnviroScreen reports is traffic density. The census tract in which the Child Development Center is located has a traffic density score in the 90th percentile, indicating a significantly higher number of vehicles on the road compared to other California census tracts (see Figure 4.9.2).

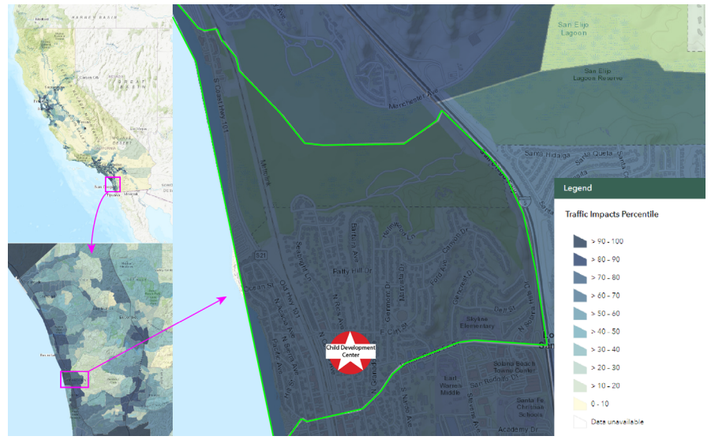


FIGURE 4.9.2. CALENVIROSCREEN 4.0 TRAFFIC DENSITY RESULTS (SOURCE: OEHHA.CA.GOV).

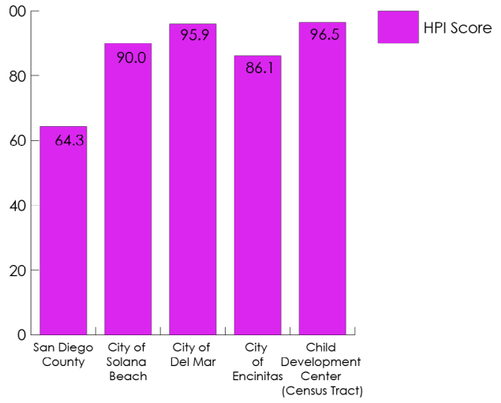


FIGURE 4.9.3. HPI SCORES FOR SAN DIEGO COUNTY, SOLANA BEACH, NEIGHBORING CITIES, AND THE CHILD DEVELOPMENT CENTER (SOURCE: HEALTHYPLACESINDEX.ORG).

The California Healthy Places Index (HPI) is a tool developed by the Public Health Alliance of Southern California that analyzes various policy areas (economics, education, transportation, housing, healthcare, etc.) to display how community conditions affect health outcomes. Results range from 0-100, with higher scores indicating healthier conditions. The census tract containing the Child Development Center has an HPI score higher than the County of San Diego, the City of Solana Beach as a whole, and the cities of Encinitas and Del Mar (see Figures 4.9.3 and 4.9.4).

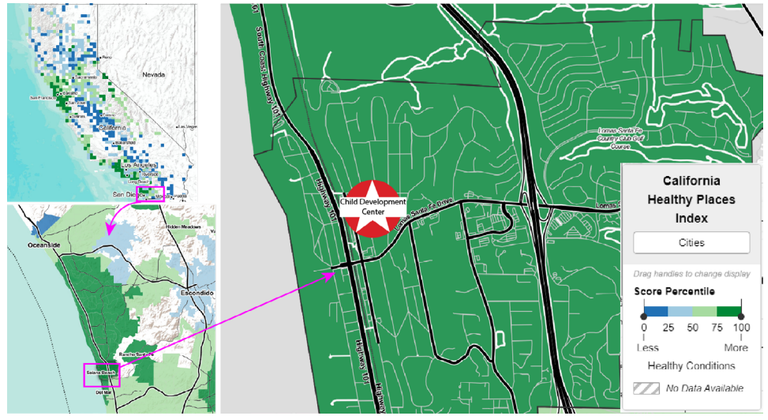


FIGURE 4.9.4. HPI VISUALIZATIONS FOR THE STATE OF CALIFORNIA, THE NORTH COUNTY REGION, AND THE CITY OF SOLANA BEACH (SOURCE: HEALTHYPLACESINDEX.ORG).

Walking

Figure 4.9.5 provides an overview of the existing pedestrian network and challenges observed and analyzed. Challenges to walking are evaluated through a process called Pedestrian Environment Quality Evaluation (PEQE) developed by CR Associates. The evaluation looks at the physical conditions and the quality of the sidewalks and crosswalks. An incomplete sidewalk network with medium and low PEQE scores forces some users, especially the most vulnerable, into the street (see Figure 4.9.6).

FIGURE 4.9.5. EXISTING PEDESTRIAN CONDITIONS AND OBSERVED CHALLENGES AND GAPS IN THE NETWORK.

Generally, the sidewalk network is incomplete with the exception of Lomas Santa Fe Drive, the southwest portion of N Cedros Avenue, and the southern portion of N Rios Avenue. A few pedestrians were observed accessing the Child Development Center from the E Cliff Street entry point, but school administrators clarified that those individuals simply park on the street rather than in the lot. The City of Solana Beach is working on pedestrian improvements along the stretch of E Cliff Street adjacent to the ball fields, but presently there is only a curb and ramp elevated above the existing dirt path (see Figure 4.9.7). Near the pedestrian bridge across the railroad tracks, at the intersection of N Cedros Avenue and E Cliff Street, there is some pedestrian infrastructure, such as a sidewalk and ADA accessible ramps, but they end abruptly at the bottom of the bridge (see Figure 4.9.8). Missing truncated domes and unmarked crosswalks were also observed within proximity to the school. This affects everyone who uses the sidewalk, but especially those with limited mobility as well as people with strollers, a consideration given the young age of students who attend the CDC.

FIGURE 4.9.6. PEDESTRIAN ENVIRONMENT QUALITY EVALUATION (PEQE) RESULTS FOR THE AREA SURROUNDING THE SOLANA BEACH CHILD DEVELOPMENT CENTER.

FIGURE 4.9.7. INCOMPLETE CURB AND RAMP ON CLIFF STREET NEAR SEABRIGHT LANE

FIGURE 4.9.8. ISOLATED PEDESTRIAN INFRASTRUCTURE AT INTERSECTION OF N CEDROS AND E CLIFF

Riding and Rolling

There is a Class 1 Multi-Use path on the east side of Highway 101, as well as a Class II bicycle lane. On the west side of Highway 101 there are sharrow markings in the roadway. Lomas Santa Fe Drive has Class II bicycle lanes on both the north and south side of the roadway (see Figure 4.9.9). There are no designated bike lanes on any of the streets directly bordering the Child Development Center. During the mobility assessment no students were observed arriving to school on bicycles, though there was one bike locked to a post on school grounds that seemingly belonged to a staff member (see Figure 4.9.11).

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute. LTS classifies the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by CR Associates concluded that the roads directly adjacent to the Child Development Center have low-to-medium LTS scores, where a higher score indicates higher stress (see Figure 4.9.10).

FIGURE 4.9.9. THE EXISTING BIKE NETWORK AND OBSERVED CHALLENGES.

FIGURE 4.9.10. BICYCLE LEVEL OF TRAFFIC STRESS (LTS) RESULTS FOR THE AREA SURROUNDING THE BOYS & GIRLS CLUB.

FIGURE 4.9.11. BICYCLE CHAINED TO POST ON CDC CAMPUS

FIGURE 4.9.12. BIKE PARKING OUTSIDE OF A SHOP ON N CEDROS AVE.

Vehicle Movements

The Solana Beach Child Development Center is accessed via E Cliff Street and N Rios Avenue, which are narrow streets with one vehicle lane in either direction. Solana Ranch School students access the campus via street parking along N Rios while CDC students in the special education program utilize the parking lot off of E Cliff. There are multiple parking lots located on and around the Child Development Center campus (see Figure 4.9.14). To avoid queuing, all guardians must park their vehicles in designated spaces before walking students to the school's gate. Only students arriving via district-arranged transport may get dropped off directly in front of the school's entrance. Figure 4.9.13 demonstrates existing conditions on the campus and adjacent roadways.

Bordering the campus on N Rios Avenue, there have been many complaints from residents about speeding drivers and illegal parking. The City of Solana Beach is working with the community to place two speed cushions along this stretch of the street in order to reduce vehicle speeds.

FIGURE 4.9.13. EXISTING ROADWAY NETWORK AND CONDITIONS.

FIGURE 4.9.14. ANGLED STREET PARKING ON N RIOS

FIGURE 4.9.15. SIGN PROHIBITING PARKING FOR DEL MAR RACETRACK PATRONS AT CDC LOT

Collision Summary

Between 2014 and 2020, there were 18 pedestrian and bicycle crashes within a half-mile radius of the Solana Beach Child Development Center (see Figure 4.9.16). Of these 18 crashes there were no fatalities, but five caused severe injury and seven caused visible injury.

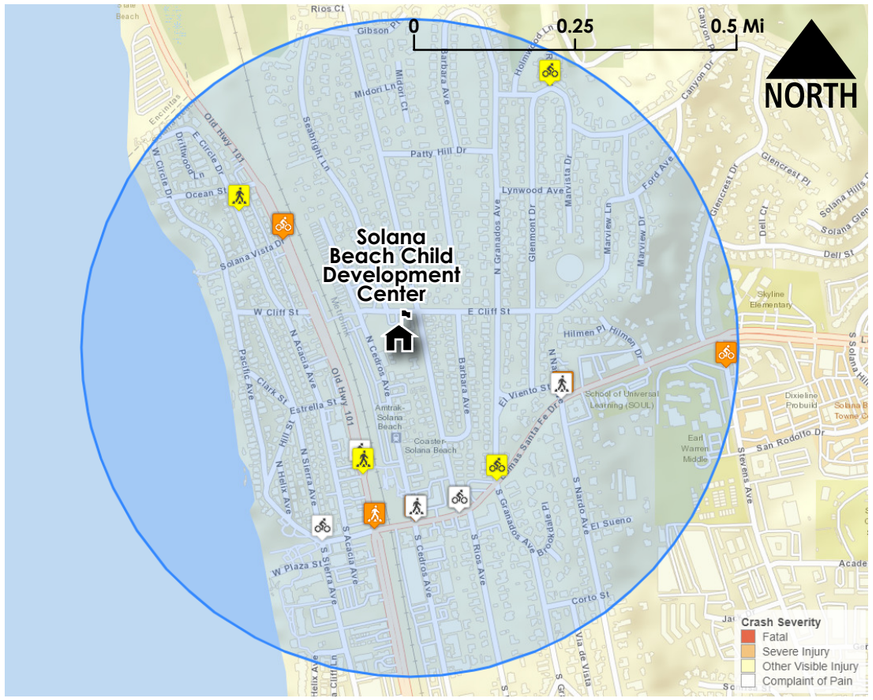
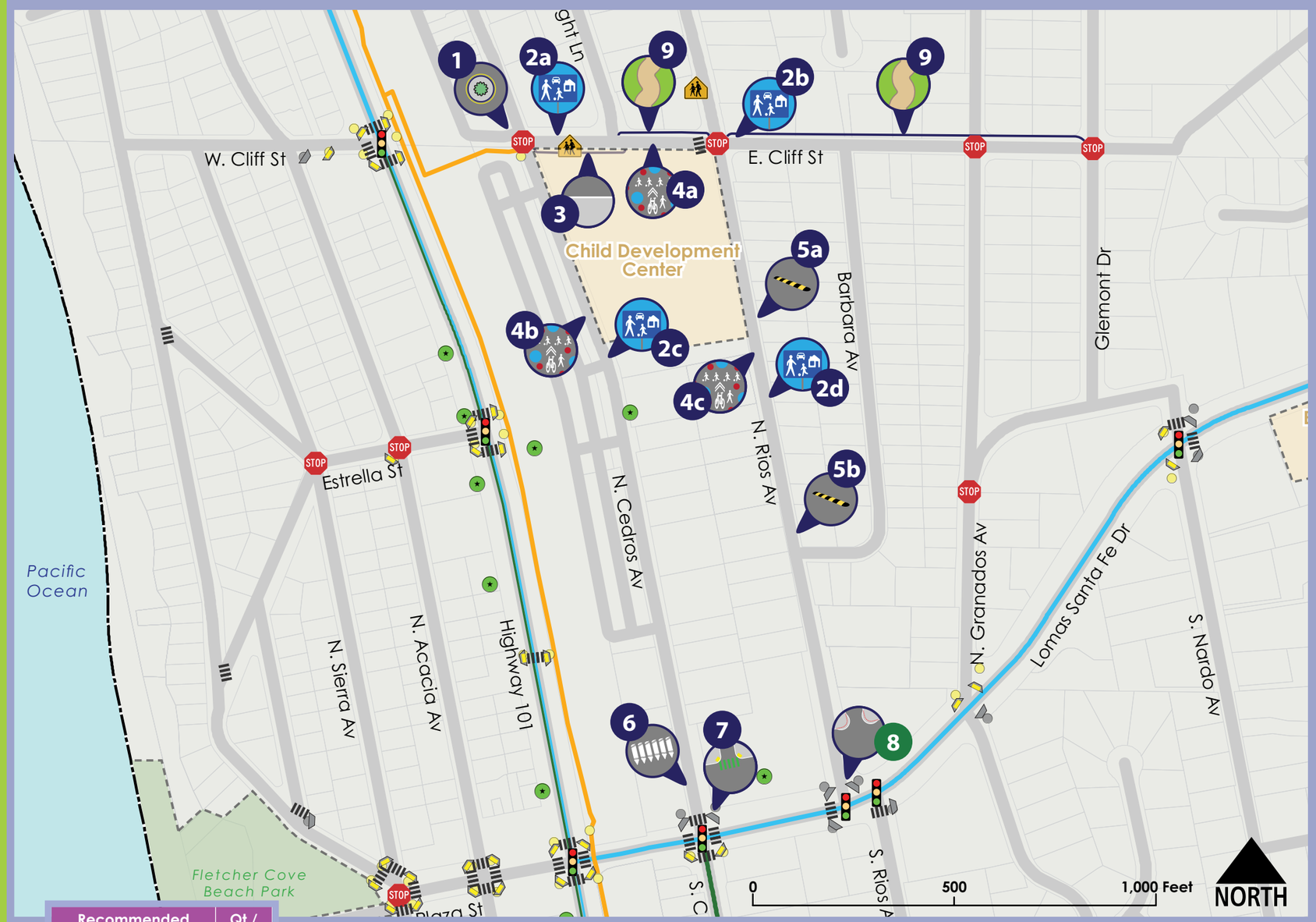


FIGURE 4.9.16. MAP OF BICYCLE AND PEDESTRIAN CRASHES WITHIN A HALF-MILE RADIUS OF THE CHILD DEVELOPMENT CENTER OCCURRING BETWEEN JANUARY 2014 AND DECEMBER 2020 (SOURCE: TIMS.BERKELEY.EDU).

4.9 Solana Beach School District Child Development Center Recommendations

Several walking and bicycling challenges were identified during the Solana Beach Child Development Center mobility assessment. There are no pedestrian facilities on East Cliff Street and incomplete sidewalks on both North Cedros Avenue and North Rios Avenue. Nearby the campus, missing truncated domes and unmarked crosswalks were also observed. Consequently, the results of the Pedestrian Environment Quality Analysis (PEQE) show a low-quality walking environment surrounding the school. There is some bicycle infrastructure on streets adjacent to the school, but no infrastructure exists directly on the block that the campus is on. Based on the Bicycle Level of Stress Analysis, it was found that cyclists generally have a low level of traffic stress navigating this area compared to other areas, except for those using the nearby North Cedros Avenue and Lomas Santa Fe Drive roadway segments, which have a higher level of bicycle stress. Another observed stressor for vulnerable road users is the pattern of vehicles speeding on North Rios Avenue.

Several interventions are recommended to improve the biking and walking experience. At the intersection of East Cliff Street and North Cedros Avenue, it is recommended to replace the all-way stop with a neighborhood traffic circle to improve flow and maintain safety. It is recommended to install slow school street signage and pavement markings should be installed around the school's block, to remind drivers to slow their speeds near the school. On the stretch of North Rios Avenue where speeding is especially common, it is recommended to install speed humps. At North Cedro Avenue and Lomas Santa Fe Drive, conflict paint and a decorative crosswalk is recommended for installation to improve crossing conditions for students who walk or bike. One block east on Lomas Santa Fe Drive, it is recommended to install curb extensions to slow down vehicle turns and visibility for active travelers. Finally, it is recommended to construct a decomposed granite path on East Cliff Street immediately opposite the north entrance of the school, to bolster the pedestrian network. These recommendations are highlighted on the graphic at right. A summary list of recommendations is provided in Section 6.3.



Recommended Feature	Qt./ Mi.
Neighborhood Traffic Circle	1
Slow School Street Signage	3
Sidewalk w/C&G	0.04 miles
Slow School Street Pavement	0.32 miles
Speed Hump	2
Decorative Crosswalk	1
Conflict Paint	1
Curb Extension	2
Decomposed Granite Path	0.04 miles

Existing Infrastructure

ADA Compliant Ramp · Ramp · Marked Crosswalk · All-Way Stop · Traffic Signal · Bike Parking

School Site · Park · School Signage · Class II Bike Lane · Class III Bike Route · Class I Bike Path

Recommendations

1. Install Neighborhood Traffic Circle
2. Install Slow School Street Signage
3. Construct Sidewalk with Curb & Gutter
4. Implement Slow School Street Pavement Markings
5. Construct Speed Hump
6. Design Decorative Crosswalk
7. Install Conflict Paint
8. Construct Curb Extension
9. Construct DG Path

Consistent with Lomas Santa Fe Plan

Chapter

5

Encouraging SRTS in Solana Beach

5.0 Encouraging SRTS in Solana Beach

5.1 Programmatic Recommendations

Improved infrastructure is not sufficient for encouraging walking, rolling, and bicycling to school. Other measures are also needed, including safety awareness, bicycle education, secure bicycle parking, rewards for cycling (such as bike-to-school days), bike-to-school groups led by an adult, and programming to encourage a change in the decision making process for parents and youth. SANDAG's iCommute program provides free classes and events for schools and youth organizations, including safety assemblies, E-bike safety assemblies, bike rodeos, bike and traffic safety for kids online modules, and bike-friendly driver classes.

5.1.1 Equity

A cornerstone of an effective SRTS Program is a commitment to equity in all facets of planning and implementation. In this case, embracing equity can be understood as the practice of ensuring that all students and their families are given equal opportunity to participate in the SRTS program, regardless of "race, creed, color, ethnicity, national origin, gender, gender identity, gender expression, sexual orientation, physical disability, religion, geographic location, English learner, or socioeconomic background," to cite Solana Beach School District's new equity policy. While all facets of the SRTS program should be designed with equity in mind, there are certain recommended practices that schools can also use to improve equitable outcomes.

Equity in Outreach

- Parents may not be able to leave work to participate in additional activities meant to encourage walking and bicycling , such as safety classes, SRTS planning meetings, or other opportunities. Additional avenues to participate in the process should be available asynchronously, such as through online or take-home surveys (see Appendix C).
- As nearly 20% of people aged five or above living in Solana Beach speak a language other than English at home, all materials should be available in several languages (2016-2020 ACS 5-year estimates).
- To encourage participation amongst parents of all education levels and planning understandings, concepts should be explained as thoroughly and as simply as possible before feedback is elicited.
- Special education professionals and parents of students with disabilities should be encouraged to participate in the planning process to ensure that the needs of students with special needs are addressed.
- The prioritization matrix should also be developed with mobility equity in mind, to award points to projects that would increase access for those with disabilities.
- Equity can be further enhanced by awarding additional prioritization points to projects near schools who experience higher crash rates, and those which currently have fewer bicycle and pedestrian investments in place.

Equity in Program Implementation

- Schools should be aware of any children who live farther distances from schools, and whose parents do not currently feel safe allowing their child to commute actively to school because of the distance. In these instances, school administrators should discuss coordinating a Walking School Bus or Bike Train with parents, originating at convenient drop off locations. Similarly, this concept can be applied to less frequent school events, like walk or roll to school days.
- The needs of students with disabilities should be prioritized to allow these students the ability to fully participate in every aspect of the program, including bike or walk to school days and safety trainings. In Saline, Michigan, students with disabilities are empowered to participate in Walk/Bike to School Day, as the schools offer both car and bus drop-off locations from which students can safely commute to school together with adult supervision and assistance. Bike Trains are also conducted for students of different ability levels, by making seats on tandem bikes available for those who cannot ride alone. Similar accommodations

can be considered for Solana Beach programs (source: National Center for Safe Routes to School).

- Students who participate in the breakfast program may arrive earlier than other students, so during bike or walk to school days, efforts to extend activities to these students must be made to encourage this group as much as students who arrive later.
- Should any interested students want to participate despite lacking a bicycle, helmet or bike lock, efforts should be made to make these supplies available and encourage their use.

5.1.2 Encouragement

Walking School Buses and Bike Train

A Walking School Bus and a Bike Train both consist of organized groups of students who walk or bike to school under the supervision of a parent/adult volunteer. Parent champions take turns walking or biking along a set route to and from school, collecting children from designated "bus stops" along the way. Suggested Routes to School maps are a great tool to advertise Walking School Bus and Bike Train routes. Walking School Buses and Bike Trains require more planning than Walk/Roll to School Days because they follow a prescribed route at a predetermined time from a designated meeting point.

These activities could be especially of interest to parents of students that across the freeway on- and off-ramps.

Implementing the activity:

- Recruit parent volunteers to be your walk and bike leaders
- Create fun themes for each walk to motivate students to participate. Themes can be 'Superhero," "Crazy Socks," or "Favorite Color T-shirt" Walk
- Host a kick-off walk to school in October during International Walk to School Day. Invite community partners to be walk leaders

Walk to School Day

Due to the large number of students who can walk or bike to school in Solana Beach, it is recommended that the School District and private schools start every school year off with a Walk to School Day to reinforce the importance of walking safely to school. International Walk to School Day is celebrated on the first Wednesday of October. It generates attention for walking and bicycling and traffic safety in a celebratory way. This event kicks off SRTS activities for the school year and can be continued monthly or weekly. The event focuses on morning festivities as students arrive to school on foot with school staff, volunteers, parents, City/County staff, and elected officials getting involved.

The utilization of pedestrian safety organizations with experience coordinating these events can assist in organizing the structure of this event to sustain the success of the event year after year.

Implementing the activity:

- Register your school on the national website and download free materials
- Host a meeting to recruit volunteers and select a route to school
- Invite the media and elected officials and City/County staff to join students on the walk to school

- Make banners and signs for students to carry on the walk, or invite students to make their own publicizing the event and advocating for safety (these can be utilized in the Safety Messaging Campaign)
- Promote "Park and Walk" locations for families who live too far to walk
- Coordinate with the North Coast Sheriff's Department to control traffic as necessary

Bike to School Day

Due to the large number of students who can bike to school in Solana Beach it is recommended that the School District use this event towards the end of the year to reinforce the importance of bicycle safety before summer. Similar to Walk to School Day, Bike to School Day promotes biking. National Bike to School Day typically takes place on the second Wednesday of May and can involve organized group rides to school. The Walk and Bike to School website (https://www.walkbiketoschool.org/) provides official dates and guides to lead a successful Bike to School Day.

The utilization of bicycle safety organizations with experience of coordinating these events can help to organize a structure to sustain the event through the years ensuring its on-going success. A bicycle safety organization can also provide additional bicycle parking, bicycle maintenance, and assistance with bicycle trains.

Implementing the activity:

- Register online at www.walkbiketoschool.org and download free materials
- Invite the media and elected officials and City/County staff to join students on the walk to school
- Find a meeting location or two, depending on volunteers, for the morning of the event. Prior to Bike to School Day, review the routes to school for safety and adjust as necessary

- Identified routes can be marked with sidewalk chalk or yard signs to
- Make banners and signs to publicizes the event and advocating for safety (These can be utilized in the Safety Messaging Campaign)
- Promote "Bike Train" locations for families who normally would not bike
- Coordinate with the North Coast Sheriff's department to control traffic as necessary

Promotional Competitions and Incentives

Encouraging students to shape SRTS gives them ownership of the program while informing them of its goals. Walking or biking to school competitions can include a mascot, artwork centered around traffic safety principles, or video contests for use in media campaigns.

Tracking the number of students walking to school on a classroom or school-wide basis provides the framework for competition. A range of options exists from creating a walking club or a frequent walk card program to implementing an Active4.me framework. Active4.me collects and organizes student commute data. Data collected from Active4.me can be used in competitions between grade levels, homerooms, or schools to see who can bike or walk to school the most. The data collected is completely anonymous and does not provide any locational information. With enough volunteers, this activity could be done every day if possible and is a method to track physical activity. Competitions can be modified as necessary to include students participating via Park and Walks or carpools. Incentives and prizes can include bike helmets, shoelaces, stickers, or raffles. Contests can take many different forms and can be customized to fit schools' needs. Some examples include:

- Fire Up Your Feet
- Tracking the Distance Contest
- Logo design contest

FIGURE 5.1.2 FREQUENT WALKER CARD (SOURCE: DARYN SLOVER VIA SUN JOURNAL)

- Skateboard contest
- Frequent Walker Card Program on Walking Wednesday (see Figure 5.1.2)
- Walking / Mileage Club
- Poster contest that promotes what students have learned about pedestrian/bike safety

The utilization of a pedestrian safety organization with experience in facilitating these kinds of programs can assist in sustaining the program through the years.

Implementing the activity:

- Establish school or District wide approach to collecting walking and biking data for competitions
- Identify opportunities to incorporate student artwork into educational materials and website
- Secure incentives

SRTS Volunteer/Parent Champion Program

A SRTS volunteer or Parent Champion can act as a liaison between the school and SRTS program. Champions can be parents, guardians, or school volunteers. They can be identified for each school and trained through workshops to conduct SRTS activities. These training workshops provide in-depth knowledge of how to implement SRTS activities and events. SRTS volunteers or Parent Champions can assist SRTS programs by recruiting volunteers, obtaining donations, planning events, coordinating with other parents, or establishing a safety working group.

Champions can use guidebooks and planning resources to organize events and coordinate with other volunteers. Parent Champion retention is a challenge in this type of volunteer program. It is important to support the Champion with assistance planning meetings and gathering resources or incentives.

Schools may opt to utilize grants or city funding to partner with external organizations or utilize knowledgeable school staff to fulfill the role or fill in the gaps of "champion" for the school.

Implementing the activity:

- Recruit a pool of parent volunteers
- Identify consistent parents to become each school's parent champion
- Develop retention strategy
- Train parent volunteers

SRTS Task Force

SRTS Task Forces are vital to successful SRTS programs and increasing safety in school neighborhoods. Starting a SRTS Task Force begins by identifying the right people – SRTS Champions, partnering with existing school groups, engaging teachers and school administrators, and working with City staff – to bring everyone together. Each school within the Solana Beach School District should assign a point staff person to assist the principals in coordinating the SRTS effort at their school. Alternately, a SRTS representative could attend the School Liaison Committee meetings.

Once the right people have been identified hold a kick-off meeting to discuss establish goals for the SRTS program at each school and for the City in general.

Coalitions are critical to sustaining SRTS programs, empowering parents and students to assess their neighborhoods and develop strategies to promote walking and bicycling. These strategies can include implementing programs or activities, or by advocating for infrastructure changes at the school or city level. A regular monthly meeting schedule should be established by the end of the first meeting and a volunteer should circulate agendas and meeting minutes to keep the discussion moving forward throughout the school year.

5.1.3 Education

A key part of education can include a variety of activities including safety assemblies, e-bike classes, demonstrations, and much more. Education and how students navigate streets while walking and bicycling are key parts of safely and successfully making a choice to walk and bike to school. The specific recommendations listed below are highlighted based on other Solana Beach activities and current activities at the different project sites.

Bicycle Rodeo Program

Source: Alameda County Transportation Commission

A bicycle rodeo teaches students how to bike safely while learning about the rules of the road and encountering basic real-world situations. This is a particularly important tool for Solana Beach project sites given the active use of e-bikes. Earl Warren Middle School currently requires an bike permit and safety course in order to bring a bike on campus. This the perfect example of how a bicycle rodeo and bicycle safety can be integrated into schools to actively teach walking and bicycle safety and awareness. Children learn how to control their bike, avoid obstacles, use hand signals, and be predictable. Learning bike skills at a young age instills safe riding habits as children get older. Students are best suited to participate in a bicycle rodeo beginning in second grade and take more advanced bike safety classes as they get older. This event can feature bike and helmet giveaways, bike education, obstacle courses, and lessons on how to maintain and repair bikes.

A bicycle rodeo reviews:

- How to properly wear a helmet
- How to use hand signals
- Riding confidently in a straight line
- Avoiding obstacles
- Scanning and looking over your shoulder
- How to ride in a bike lane
- Rules of the road

Implementing the activity:

- Consider holding the course during PE class, after-school programs, or at a citywide event
- Seek League Certified Instructors (LCIs) from the League of American Bicyclists or San Diego County Bike Coalition
- Seek assistance the from local Sheriff department to assist with teaching the course and/or to provide bike registration on site (to help retrieve stolen bikes)
- Reach out to local businesses, such as sporting goods stores and bike shops, to provide donated attendance incentives such as helmets or bicycle lights

Pedestrian Safety Presentation

A Pedestrian Safety Presentation teaches students pedestrian safety laws, tips and other information relevant to create awareness on pedestrian safety. This presentation not only includes theory but also practical exercises in which students learn through participation. The training covers topics including physical education, health, and other subjects. The interactive presentations include equipment that simulates real-life situations students may face, allowing students to practice how to handle such situations in a safe and controlled environment.

Pedestrian Safety Presentation:

- Encourages walking to school safely
- Identifies safe places to walk, bike, and cross
- Increases pedestrian awareness

- Demonstrates the steps to cross the street safely

Implementing the activity:

- Consider holding the course during PE class, an after-school program, or in conjunction with another event
- Partner with the pedestrian safety experts, such as Circulate San Diego, to provide safety assemblies
- Seek experienced volunteers and staff to help host the event

School Safety Messaging Campaign

A Safety Messaging Campaign is an effective way to build awareness of students walking, bicycling, and skateboarding to school and to encourage safe driving behavior. Campaigns can use media near schools such as posters business window stickers, yard signs, or street banners to remind drivers to slow down and use caution in school zones. This type of campaign can also address other specific hazards or behaviors, such as remembering to wear a helmet, distracted walking, distracted driving, and parent drop-off and pick-up behavior.

Campaigns can be produced with a small budget, using hand-painted signs made by students. With larger budgets, high-quality, professional promotional materials can be produced. Collateral can often be covered through grants. Advertising on bus shelters, benches, and billboards can also be an interesting part of safety campaigns to expand the reach of messaging. A collaborative effort between the North Coastal Sheriff's department and Solana Beach can further the campaign's reach by coordinating it between several schools in an area.

The proximity of three of the sites – Skyline, Earl Warren, and the Boys & Girls Club - provides an opportunity to create a targeted messaging campaign to increase student safety on Lomas Santa Fe and Stevens Avenue. Earl Warren Middle School has both a digital art and video film program allowing for the possibility of synergy between the SRTS program and developing Public Safety Announcements.

5.1.4 Evaluation

Successful SRTS programs include evaluation mechanisms at all stages of the process to track success and adjust the strategies as needed. There are three stages for a successful evaluation process: establishing baseline conditions, checking in after programs and other interventions are initially established, and then again after any adjustments are included to determine their success.

First, schools must develop their Safe Routes to School plans, which include the goals of their program, the programmatic strategies they will employ to reach these goals, the engineering interventions they will prioritize, and how they will measure success. Especially important here is making sure that the strategies that are chosen accurately correspond to the challenges experienced. For example, if a school has a low cycling rate that they want to increase, before they respond by increasing the number of crossing guards at intersections, they should first ensure that the primary reason for this is not a lack of traffic safety knowledge or lack of bicycle parking solutions. By uncovering the drivers behind certain behavior, the school can create informed strategies to improve a condition. This can be accomplished by surveying parents or students as well as by consulting the Mobility Analyses.

The survey is a very important tool which can function in several ways. First, it can help establish the current metrics that a school will be tracking before any interventions are implemented. These metrics can be quantitative, such as asking how many days in a certain week that the student biked, walked, or rolled to school, or qualitative, such as asking the primary reason why they do not walk or ride to school on the average day. Secondly, it can help schools gauge the success of implemented interventions so they can make programmatic adjustments along the way. Finally, if the surveys are tracking the same metrics under similar conditions every time, these qualitative and quantitative data can be leveraged to apply for additional funding or report to entities who have provided funding for implementation. One survey example can be found on the National Center for Safe Routes to School Data Collection System website, found in Appendix C. As a minimum, surveys should be conducted once before the interventions are enacted, and then afterwards at an interval that can be sustained, such as every six months or every year.

Another effective data collection strategy is the student drop-off and pick-up tally. Using

this method, teachers gather information on student travel modes over a period of three consecutive days, using a form available from the National Center for Safe Routes to School Data Collection System, found in Appendix A. Compared to the survey method, which can produce more robust data, the tally only captures travel modes, but it does ensure that the sample is more representative, as all students are asked to participate. The National Center for Safe Routes to School previously offered schools the option to upload completed tallies to a national database to track their data longitudinally and compare it to other schools, but the funding from the Federal Highway Administration has been cut, so this data will now need to be stored locally. In the preparation of this study, surveys were completed for all schools, and tallies were completed for Earl Warren Middle School and Solana Vista Elementary School.

5.1.5 Enforcement

Enforcement is a key aspect of SRTS programming. Once unsafe travel behaviors around schools are identified and strategies are enacted to reduce these behaviors, enforcement refers to how these strategies are encouraged.

The first step of the enforcement process is to identify unsafe travel behaviors. An initial analysis of each school's observed challenges was conducted during the school mobility assessment process, including observation of which unsafe behaviors were observed during the site visits. In some cases, additional observation might be beneficial to uncover other safety concerns. Some unsafe motorist behaviors include speeding in school zones, failing to yield to pedestrians and cyclists, failing to stop at stop signs, and parking in no-parking zones. Some unsafe pedestrian behaviors include crossing outside of marked intersections, failing to look left and right before crossing, and not following traffic signal directions. Some unsafe cyclist behaviors include riding against the traffic flow or on the sidewalk, not wearing a helmet, and turning without signaling.

After each school is aware of their safety challenges, the next step is to identify safety enforcement partners. Partners can include law enforcement officers, parents, adult crossing guards, student safety patrols, or other volunteers. By collaborating with these partners, the schools can produce educational materials for parents and staff, and lessons for students on proper safety in the roadways. These materials, when paired with a media push to alert community members to the additional enforcement efforts around schools, can help increase awareness of proper safety protocols and the consequences of diverting from traffic laws. An effective enforcement effort is not determined by how many tickets are given, but rather, the degree to which community members adopt safe roadway practices that decrease injury and fatalities.

Policing efforts can be either community- or law enforcement-driven. Community enforcement refers to the practice of employing community volunteers to help improve safety practices around the schools. Examples of this include establishing safety patrols, in which students help facilitate safe drop-offs and pick-ups, or utilizing volunteer crossing guards at strategic intersections, as is currently underway at many of the Solana Beach schools. In areas with speeding concerns, neighborhood speed watch programs can also be considered. During these programs, volunteers use radars gun to monitor vehicle speeding around the schools, and work with the police department to send letters to the homes to which the speeding vehicles are registered. These letters are not official warnings, but they can help change behavior by increasing awareness of SRTS efforts and reasons for safety enforcement in school zones.

Given their experience responding to vehicle collisions and knowledge of traffic rules, law enforcement partnerships can also be leveraged to help with enforcement and education. Solana Beach, along with Del Mar and Encinitas, contracts with the San Diego County Sheriff's office for police services. The North Coastal branch is known to conduct safety presentations with schools, including e-bike safety and Start Smart new driver education trainings. Of the nine campuses in this plan, Earl Warren Middle and Santa Fe Christian high school have received presentations during the Fall of 2022. Further, according to the sheriff's department, traffic and patrol units routinely drive by the schools at drop off and pick up times. Should a challenge arise at a specific school, the department will focus more on that school for a short period to try and help remedy the situation. Police partnerships can be leveraged in SRTS efforts by helping identify traffic problems in school zones, loaning radar equipment to volunteers, providing additional trainings to students, parents and volunteer crossing guards, and by engaging with traffic violators as necessary, particularly if no community-driven enforcement procedures are in effect.

5.2 School Crossing Guards

Crossing Guards play an integral role in fostering a safe and comfortable environment for students walking and bicycling to school. In addition to shepherding students across crosswalks, Crossing Guards create safer roadway environments by reminding drivers of the presence of those walking and bicycling, they help reinforce safe walking and bicycling skills in students and their families, and indicate when people driving should yield to those walking and bicycling. The City of Solana Beach and Solana Beach Unified School District in partnership provide crossing guards along Lomas Santa Fe Drive and Stevens Ave.

Many factors contribute to the need for a Crossing Guard at a particular crossing location. The California Manual on Uniform Traffic Control Devices Revision March 29, 2019 (CAMUTCD, Section 7D.02) provides general guidance for their use.

The City, in collaboration with Solana Beach Unified School District, should monitor crossing locations to assess the need for a Crossing Guard on a scheduled basis and investigate if Crossing Guards are still stationed at the optimum locations. Reasons that may require reassessing a Crossing Guard location may include a change in start or end times, schools opening or closing, consolidation of schools, and/or new traffic control improvements. As locations are monitored year after year, the City can enact appropriate changes based on the assessed need.

Review of the factors below can also help the City, Solana Beach Unified School District, and the private schools decide whether existing locations of Crossing Guards are still the best location or if new locations are needed.

- Age of Students. Younger students have more difficulty determining the speed and distance of approaching vehicles making it more difficult for them to judge the safety of an intersection.
- Bicycle and pedestrian volumes. Per guidance from the CAMUTCD, Crossing Guards may be assigned at a crossing where at least 40 students use the crossing daily while going to or from school for each of any two hours (not necessarily consecutive). Regular traffic counts which count walking students and students on bicycles can help identify these locations and can help determine if there are changes in walking routes over time.
- Collision data. A history of collisions may reveal high levels of walking and biking (i.e., greater exposure), as well as indicating less-safe locations. The presence of a Crossing Guard may assist in preventing pedestrian and bicycle collisions. Collisions within a quarter- and half-mile of each site should be revisited on a regular basis since once the recommended infrastructure is implemented, safety at some of the existing collision locations could be addressed. For this study, SWITRS collision data during a five-year period from 2014 to 2018 was analyzed to better understand the history of collisions within a quarter-mile and half-mile of each location.
- Traffic control type. Generally, streets have three traffic control types. A description of each of the traffic control types and how a Crossing Guard can facilitate in each situation

is listed below:

- Uncontrolled crossings have no traffic lights or signs to indicate the right-of-way. Students crossing at uncontrolled crossings, even when there is a high-visibility crosswalk, may be harder for people driving to see, due to on street parking, higher vehicle speeds, and/or the absence of a signal or stop sign. A Crossing Guard at uncontrolled crossing locations can assist in providing adequate gaps in traffic for students wanting to cross.
- Stop sign-controlled crossings feature stops signs to control vehicular traffic, either on one street or all legs of an intersection (all-way stop controlled). With a Crossing Guard stationed at intersections with stop sign-controlled crossings, Crossing Guards reinforce that drivers must stop for students.
- Traffic signal-controlled crossings have power operated traffic control devices by which traffic is warned or directed to take some specific action. Traffic signal-controlled crossings are permissive for all vehicular movements—drivers turning left or right through a crosswalk—but the law still requires vehicles to yield to conflicting pedestrian movements. At signalized crossings, Crossing Guards can reinforce street crossing practices and ensure drivers yield to students.

- Proximity to school. In general, crosswalks that abut a school or are within 1/4-mile of the school entrance are more likely to receive higher volumes of students walking and bicycling to school. Student use of these crosswalks may be increased by the presence of a Crossing Guard, especially if the crosswalk is uncontrolled.
- Vehicular traffic volumes. Per guidance from the CAMUTCD, Crossing Guards may be used at:
    - Uncontrolled crossings in urban areas where the vehicular traffic volume exceeds 350 during each of any two hours (not necessarily consecutive) in which 40 or more school students cross daily while going to or from school.
    - Stop sign-controlled crossings where the vehicular traffic volumes on undivided highways of four or more lanes exceed 500 per hour during any period when the students are walking to or from school.
    - Traffic signal-controlled crossings where the number of vehicular turning movements through the school crosswalk exceeds 300 per hour while students are walking to or from school.

Regardless of who is serving the role of a Crossing Guard—school staff performing this role as a part of their duties, paid contractors, or volunteers—proper training is essential.

California's Active Transportation Resource Center has free resources available, such as California School Crossing Guard Training Guidelines. Additionally, while Caltrans Active Transportation Program funds cannot be used to pay Crossing Guard salaries, they may be used to train new and existing Crossing Guards and pay for Crossing Guard equipment.

Chapter

6

Implementing Safe Routes to School

6.0 Implementing SRTS in Solana Beach

6.1 Funding

A variety of competitive grant sources are available to help the City of Solana Beach and the Solana Beach Unified School District fund elements of this SRTS Program, including programmatic SRTS elements found in this toolkit.

6.1.1 Regional Funding Sources

Regionally SANDAG distributes grant funds for transportation projects.

Funding Program	Relevant Eligible Projects	Notes
Active Transportation Grant Program (ATGP) – SANDAG ATGP funding encourages local jurisdictions to improve connectivity and accessibility to transit, schools, retail centers, parks, work, and other community gathering places. The grant program also supports education and encouragement activities, as well as bicycle and pedestrian improvements.	• Capital Projects • Non-Capital projects: Planning, Education, Encouragement, and Awareness, & Bike Parking	• Originally on a three-year funding cycle • Last funded project cycle was 2018 • Monitor for future funding opportunities
Smart Growth Incentive Program (SGIP) – SANDAG The SGIP provides funding for transportation-related infrastructure improvements that are within Smart Growth Opportunity Areas as shown in SANDAG's Smart Growth Concept Map. The goal is to fund public infrastructure projects and planning activities that facilitate or support compact, mixed-use, transit-oriented development and transportation choices.	• Climate Action Planning • Capital & Planning projects	• Initially on a four-year cycle, recently on a three-year cycle. • The fifth project cycle closed its application period in February 2022 • If there is a sixth cycle, this could be a viable funding source to pursue for some the identified infrastructure improvements around the CDC. • The Smart Growth Concept Map designates an existing Town along the Coastal Highway 101, with some activity abutting Highway 101 to the east.
SANDAG iCommute: iCommute includes many services to facilitate alternative transportation. iCommute offers mini-grants for International Walk to School Day activities in individual schools and offer free classes and guides.	• Educational classes in school • Walk and Bike to School Day event • Walking and biking safety	• Check the iCommute Walk, Ride, and Roll to School dedicated site for more resources: http://icommutesd.com/school/school-default

6.2.2 *State Funding Sources*

On a statewide level there are several agencies that have grant funding available. Listed below amongst the transportation specific grant funding opportunities are grant funding opportunities that have a slightly different focus, but which could be used for some of the recommendations contained in this SRTS Study.

Funding Program	Relevant Eligible Projects	Notes
Active Transportation Program (ATP) – Caltrans Caltrans' ATP was created to encourage increased use of active modes of transportation, increase the safety and mobility of non-motorized users, help achieve greenhouse gas reduction goals, enhance public health, provide a broad spectrum of projects to benefit many types of active transportation users while ensuring disadvantages communities share in the benefits.	• Capital Projects: environmental, design, right-of-way, and construction phases of a capital project. • Plans: Community wide bicycle, pedestrian, SRTS, or active transportation plan. • Non-Infrastructure (NI) Projects: Education, Encouragement, and Enforcement activities	• The application cycle is on a two-year schedule. Cycle 6 Call for Projects closed June 2022. • Minimum request for infrastructure projects is $250,000, however, the minimum does not apply to SRTS projects or Recreational Trail projects
Solutions for Congested Corridors Program – statewide, competitive program that provides funding to achieve a balanced set of transportation, environmental, and community access improvements to reduce congestion throughout the state	• Projects must be in an adopted plan • Project may include improvements to local streets and roads, public transit facilities, bicycle and pedestrian facilities	• Applications were due to the Commission by December 2, 2022 • Annual Program

Funding Program	Relevant Eligible Projects	Notes
Highway Safety Improvement Program (HSIP) – Caltrans Serves to reduce traffic fatalities and serious injuries on all public roads.	• HSIP funds are eligible for work on any public road or publicly owned bicycle or pedestrian pathway or trail that improves the safety for its users	• Cycle 11 applications due September 2022. Project selection results are anticipated to be released in January 2023. • Usually, two calls for projects in a calendar year • While not explicitly a SRTS funding source, could be used for some recommendations on the major thoroughfares
Local Streets and Roads Program (LSRP) – Caltrans Funding dedication for cities and counties to perform basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads systems.	• Safety Projects • Complete Streets Components • Traffic Control Devices • Maintenance and Rehabilitation	• Annual call for projects since 2019 • To be eligible, cities must submit an adopted proposed project list to the California Transportation Commission.
Office of Traffic Safety (OTS) Grant Program – Office of Traffic Safety Funds to prevent serious injury and death resulting from motor vehicle crashes so all roadway users arrive at their destination safely.	• Non-infrastructure programs • Safety education programs • Encouragement programs • SRTS programs	• Grants available annually with applications typically due at the end of January • OTS grants may only be applied to non-infrastructure projects
Public Access Program – California Wildlife Conservation Board Program funding is focused on creating opportunities for meaningful wildlife-oriented recreation experience.	• Planning, preliminary design, environmental review, permitting, final design and construction costs for facilities or the enhancement of existing facilities that will provide for public access to wildlife-oriented activities	• Generally available annually with a call for projects open in the spring • Though not explicitly a SRTS funding source, this could potentially be used for the Santa Helena Trail particularly if a stronger connection to the San Elijo Lagoon Trails was emphasized

Funding Program	Relevant Eligible Projects	Notes
Regional Trails Program (RTP) – California Parks Department Administered by the California Department of Parks and Recreation. Provides funds for recreational trails and trails-related projects.	• Development and Rehabilitation of Trails, Trailside and Trailhead Facilities • Construction of new trails • Acquisition of easements and simple title to property for Recreational Trails	• Annual funding cycle • Applications for the most recent funding cycle were due April 2022 • Though not explicitly a SRTS funding source, this could potentially be used for the Santa Helena Trail particularly if a stronger connection to the San Elijo Lagoon Trails was emphasized
Sustainable Communities Grants – Caltrans Funds intended to further the region's RTP SCS, help achieve the State's GHG reduction targets, and directly benefit the multi-modal transportation system.	• SRTS Plan • Active transportation project feasibility study • First-/Last-Mile Connectivity Plan • Active Transportation Plans	• 11.47% minimum local match required (cash or in-kind) • FY 2023 – 24 Grant Schedule: Applications due March 2023 • Annual funding cycle, kick-off workshops are typically held in the Spring.
Urban Greening Program – California Natural Resources Agency Supports the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits, such as reducing commute VMT by constructing bicycle or pedestrian facilities that provide safe routes for travel.	• Non-motorized urban trails • Projects that expand or improve the usability of existing active transportation routes or create new active transportation routes • Complete Green Streets	• Last set of projects funded in 2019 • Future grant solicitations expected • All projects must expand park or green space or use natural systems - or mimic natural systems - to achieve multiple benefits • This could potentially be used for the Santa Helena Trail

Three other resources are helpful websites for finding or applying for grant opportunities:

California Funding Wizard is a searchable database to locate funding across state and federal agencies. https://fundingwizard.arb.ca.gov/web/

The California Grants Portal, allows one to select the applicant type, the funding category and the amount of time until the application deadline. Based on these inputs funding opportunities will be generated. https://www.grants.ca.gov/

The U.S. Department of Transportation's DOT Navigator provides a toolkit of resources for DOT grant applicants. https://www.transportation.gov/dot-navigator

6.3 Prioritization

The tables below reflects a summary of recommendations by school proximity and ease of implementation.

Skyline Elementary School

Improvement	Intersection	Street Segment	Street between	Street 1	Street 2	Ease of Implementation (1 easiest -5 hardest)
1a: Install ADA Curbs	✘			Glencrest Drive	Dell Street	3
1b: Install ADA Curbs	✘			Dell Street	Dell Court	3
2: Place Crossing Guard	✘			Lomas Sante Fe Drive	Glencrest Drive	1
3: Install Class II (was IV)		✘	Lomas Sante Fe Drive	Stevens Ave	Santa Helena	3
4: Install Walking Path		✘	Glencrest Drive	Lomas Sante Fe Drive	Dell Street	4
5: Install Conflict Paint at Driveway		✘	Lomas Sante Fe Drive	Stevens Ave	Solana Hills Drive	1
6: Construct Curb Extension	✘			Lomas Sante Fe Drive	Solana Hills Drive	4
7: Widen Sidewalk		✘	Lomas Sante Fe Drive	Solana Hills Drive	Interstate 5	4
8: Create Protected Curb Approach	✘			Lomas Sante Fe Drive	Stevens Ave	4
9: Construct Bicycle & Walking Crossing	✘			Lomas Sante Fe Drive	Stevens Ave	1
10: Place Speed Feedback Signage		✘	Stevens Ave	Lomas Sante Fe Drive	San Rodolfo Drive	1
11: Enhanced Lighting	✘			Lomas Sante Fe Drive	Interstate 5	2

Santa Fe Christian Academy

Improvement	Intersection	Street Segment	Street between	Street 1	Street 2	Ease of Implementation (1 easiest -5 hardest)
1: Install Shared Lane Marking (Class III)		✘	Academy Drive	Stevens Avenue	Genevieve Street	1
2: Denote On-Street Parking		✘	Academy Drive	Stevens Avenue	Genevieve Street	1
3a: Install ADA Curb Ramp	✘			Academy Drive	Stevens Avenue	3
3b: Install ADA Curb Ramp	✘			Academy Drive	Mola Vista Avenue	3
4: Construct Sidewalk		✘	Academy Drive	Stevens Avenue	Genevieve Street	4

Le Port Montessori School

Improvement	Intersection	Street Segment	Street between	Street 1	Street 2	Ease of Implementation (1 easiest -5 hardest)
1a: Construct Sidewalk		✘	Solana Drive	Marine View Avenue	Solana Drive	4
1b: Construct Sidewalk		✘	Marine View Avenue	Los Caballitos	Solana Drive	4
2: Make All-Way Stop	✘			Marine View Avenue	Solana Drive	2
3a: Install Watch for Pedestrians Signage		✘	Solana Drive	Marine View Avenue	Solana Drive	1
3b: Install Watch for Pedestrians Signage		✘	Marine View Avenue	Solana Drive	San Andres Drive	1
3c: Install Watch for Pedestrians Signage		✘	Marine View Avenue	Solana Drive	Los Caballitos	1
4a: Place Speed Feedback Signage		✘	Marine View Avenue	Solana Drive	San Andres Drive	1
4b: Place Speed Feedback Signage		✘	Solana Drive	Marine View Avenue	Solana Drive	1
5: Install Shared Lane Marking (Class III)		✘	Marine View Avenue	Solana Drive	San Andres Drive	1
6: Construct Decomposed Granite Path		✘	Marine View Avenue	Solana Drive	Lomas Santa Fe Drive	4
7: Install Rectangular Rapid-Flashing Beacons		✘	Marine View Avenue	Solana Drive	San Andres Drive	2

Fusion Academy

Improvement	Intersection	Street Segment	Street between	Street 1	Street 2	Ease of Implementation (1 easiest -5 hardest)
1: Install Buffered Bike Lane		✘	Via De La Valle	Solana Gate	Stevens Avenue	2
2a: Install Conflict Paint at Driveway & Intersection	✘			Solana Gate	Via De La Valle	1
2b: Install Conflict Paint at Driveway & Intersection	✘			Solana Circle	Via De La Valle	1
2c: Install Conflict Paint at Driveway & Intersection	✘			Del Mar Downs Road	Via De La Valle	1
2d: Install Conflict Paint at Driveway & Intersection	✘			Pimlico Drive	Via De La Valle	1
2e: Install Conflict Paint at Driveway & Intersection	✘			Stevens Avenue	Via De La Valle	1
3: Construct Bulb Out & Crosswalk		✘	Pimlico Drive	Via De La Valle	Hialeah Circle	3
4: Install No Parking Any Time Signage		✘	Pimlico Drive	Via De La Valle	Hialeah Circle	1

Solana Vista Elementary School

Improvement	Intersection	Street Segment	Street between	Street 1	Street 2	Ease of Implementation (1 easiest -5 hardest)
1a: Install High Visibility Crosswalk	✘			Santa Cecilia	Santa Victoria	1
1b: Install High Visibility Crosswalk	✘			Santa Dominga	Santa Victoria	1
1c: Install High Visibility Crosswalk	✘			Santa Helena	Santa Victoria	1
2: Install Shared Lane Marking (Class III)		✘	Santa Victoria	Santa Carina	Santa Alicia	1
3: Install ADA Curb Ramp	✘			Santa Carina	Santa Victoria	3
4: Construct Multi-Use Path		✘	Santa Helena	Santa Helena (North Terminus)	Sun Valley Road	4
5a: Construct Curb Extension	✘			Santa Helena	Santa Victoria	4
5b: Construct Curb Extension	✘			Santa Victoria	Santa Helena	4
5c: Construct Curb Extension	✘			Santa Rosita	Santa Helena	4
6: Install Two-Way Class IV / Bollards		✘	Santa Victoria	Santa Alicia	Santa Bartola	4
7: Construct Bicycle & Walking Crossing	✘			Santa Helena	Santa Victoria	1

St. James Academy

Improvement	Intersection	Street Segment	Street between	Street 1	Street 2	Ease of Implementation (1 easiest -5 hardest)
1a: Install Rectangle Rapid Flash Beacon		✘	Nardo Avenue	Solana Circle	Nardito Lane	2
1a: Install Rectangle Rapid Flash Beacon		✘	Fresca Street	Fresca Court	Nardo Avenue	2
2: Install High Visibility Crosswalk	✘			Nardo Avenue	Solana Circle	1
3: Install ADA Curb Ramp	✘			Nardo Avenue	Fresca Street	3
4a: Construct Decomposed Granite Path		✘	Nardo Avenue	Bell Ranch Road	Nardito Lane	4
4b: Construct Decomposed Granite Path		✘	Nardo Avenue	Nardito Lane	Private Road	4
5: Install Shared Lane Marking (Class III)		✘	Nardo Avenue	Peppertree Lane	Stevens Ave	1
6: Construct Curb Extension	✘			Nardo Avenue	Fresca Street	4
7: Construct Raised Median		✘	Nardo Avenue	Fresca Street	Stevens Ave	4
8a: Make All-Way Stop	✘			Solana Circle	Nardo Avenue	2
8b: Make All-Way Stop	✘			Nardo Avenue	Fresca Street	2

Solana Beach School District Child Development Center

Improvement	Intersection	Street Segment	Street between	Street 1	Street 2	Ease of Implementation (1 easiest -5 hardest)
1: Install Neighborhood Traffic Circle	✘			Cliff Street	Cedros Avenue	4
2a: Install Slow School Street Signage		✘	Cliff Street	Cedros Avenue	Seabright Lane	1
2b: Install Slow School Street Signage	✘			Cliff Street	Rios Avenue	1
2c: Install Slow School Street Signage		✘	Cedros Avenue	Cliff Street	Lomas Santa Fe Drive	1
2d: Install Slow School Street Signage		✘	Rios Avenue	Cliff Street	Barbara Avenue	1
3: Construct Sidewalk with Curb & Gutter		✘	Cliff Street	Cedros Avenue	Rios Avenue	4
4a: Implement Slow School Street Pavement Markings		✘	Cliff Street	Seabright Lane	Rios Avenue	1
4b: Implement Slow School Street Pavement Markings		✘	Cedros Avenue	Cliff Street	Lomas Santa Fe Drive	1
4c: Implement Slow School Street Pavement Markings		✘	Rios Avenue	Cliff Street	Lomas Santa Fe Drive	1
5: Construct Speed Hump		✘	Rios Avenue	Cliff Street	Lomas Santa Fe Drive	2
6: Design Decorative Crosswalk		✘	Cedros Avenue	Cliff Street	Lomas Santa Fe Drive	2
7: Install Conflict Paint	✘			Cedros Avenue	Lomas Santa Fe Drive	1
8: Construct Curb Extension	✘			Rios Avenue	Lomas Santa Fe Drive	4
9: Construct DG Path		✘	Cliff Street	Seabright Lane	Rios Avenue	4

Boys & Girls Clubs of San Dieguito

Improvement	Intersection	Street Segment	Street between	Street 1	Street 2	Ease of Implementation (1 easiest -5 hardest)
1: Narrow Driveway		✘	Lomas Santa Fe Drive	Nardo Avenue	Glencrest Drive	3
2: Construct Bicycle						2
& Walking Crossing	✘			Nardo Avenue	El Viento	2
3: Construct Bulbout & Crosswalk	✘			Nardo Avenue	Granados Avenue	4
4: Install Class IV		✘	Lomas Santa Fe Drive	Nardo Avenue	Glencrest Drive	3
5: Construct DG Path		✘	Lomas Santa Fe Drive	Nardo Avenue	Glencrest Drive	4
6: Install Conflict Paint at Driveway		✘	Lomas Santa Fe Drive	Nardo Avenue	Glencrest Drive	1
7a: Construct Curb Extension	✘			Lomas Santa Fe Drive	Granados Avenue	4
7b: Construct Curb Extension	✘			Lomas Santa Fe Drive	Nardo Avenue	4
8: Install High Visibility Crosswalk		✘	Lomas Santa Fe Drive	Nardo Avenue	Glencrest Drive	1

Earl Warren Middle School

Improvement	Intersection	Street Segment	Street between	Street 1	Street 2	Ease of Implementation (1 easiest -5 hardest)
1: Install No Parking Any Time Signage		✘	Stevens Avenue	Lomas Santa Fe Drive	Rodolfo Drive	1
2: Install Audible Signal	✘			Stevens Avenue	Rodolfo Drive	1
3: Install ADA Curb Ramp	✘			Stevens Avenue	Rodolfo Drive	3
4: Place Crossing Guard	✘			Glencrest Drive	Lomas Santa Fe Drive	1
5: Install Class IV		✘	Stevens Avenue	Lomas Santa Fe Drive	Academy Drive	3
6: Construct DG Path	✘			Stevens Avenue	Lomas Santa Fe Drive	4
7a: Install Conflict Paint at Driveway		✘	Lomas Santa Fe Drive	Glencrest Drive	Rodolfo Drive	1
7b: Install Conflict Paint at Driveway		✘	Stevens Avenue	Lomas Santa Fe Drive	Rodolfo Drive	1
8: Create Protected Curb Approach	✘			Stevens Avenue	Lomas Santa Fe Drive	4
9: Place Speed Feedback Signage		✘	Stevens Avenue	Lomas Santa Fe Drive	Rodolfo Drive	1
10: Construct Bicycle & Walking Crossing	✘			Stevens Avenue	Lomas Santa Fe Drive	1

Appendices

Appendix A: Solana Beach SRTS Student Arrival And Departure Travel Tally Sheet
(Source: National Center for Safe Routes to School Data Collection System)

Appendix B: Solana Beach SRTS Parent Survey

Appendix C: National Center for Safe Routes to School Data Collection System Survey

Appendix D: CR Associates Pedestrian Environment Quality Evaluation (PEQE) Methodology

SAFE ROUTES to SCHOOL Study
Solana Beach

SOLANA BEACH SAFE ROUTES TO SCHOOL STUDENT ARRIVAL AND DEPARTURE TRAVEL TALLY SHEET

Dear Teacher:

The Solana Beach Safe Routes to School (SBSRTS) plan is an effort to provide clear implementable recommendations to create safer, more comfortable mobility for Solana Beach school children, their families, and residents.

We ask that you conduct a brief Student Tally to track how students travel to and from school. This survey is required by our funders and helps us assess the success of the program.

The tally will take no more than 5 minutes of class time.

INSTRUCTIONS

- Using the attached Student Tally Sheet, conduct counts on two of the following three days: Tuesday, Wednesday, or Thursday. (Three days would provide better data if counted.)
- Please do not conduct these counts on Mondays or Fridays as more students tend to be absent on these days.
- Before asking your students to raise their hands, please read through all possible answer choices so they will know their choices. Each student may only answer once.
- Ask your students as a group the question *"How did you arrive at school today?"* Then, reread each answer choice and record the number of students that raised their hands for each. Place just one character or number in each box.
- Follow the same procedure for the question *"How do you plan to leave for home after school?"*
- You can conduct the counts once per day, but during the count please ask students both the school arrival and departure questions.
- Please conduct this count regardless of weather conditions (i.e., ask these questions on rainy days, too).

Please return the Student Tally Sheet to the front office when completed!

Thank you for your participation!

Safe Routes to School Students Arrival and Departure Tally Sheet

CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY

School Name:

Teacher's First Name:

Teacher's Last Name:

Grade: (PK,K,1,2,3...) 0 2

Monday's Date (Week count was conducted) M M D D Y Y Y Y

Number of Students Enrolled in Class: 1 5

- Please conduct these counts **on two of the following three days Tuesday, Wednesday, or Thursday. (Three days would provide better data if counted)**
- **Please do not conduct these counts on Mondays or Fridays.**
- Before asking your students to raise their hands, please read through all possible answer choices so they will know their choices. Each Student may only answer once.
- Ask your students as a group the question "**How did you arrive at school today?**"
- Then, reread each answer choice and record the number of students that raised their hands for each. **Place just one character or number in each box.**
- Follow the same procedure for the question **"How do you plan to leave for home after school?"**
- You can conduct the counts once per day but during the count please ask students both the school arrival and departure questions.
- Please conduct this count regardless of weather conditions (i.e., ask these questions on rainy days, too).

Step 1.
Fill in the weather conditions and number of students in each class

Step 2.
AM – "**How did you arrive at school today?**" Record the number of hands for each answer.
PM – "**How do you plan to leave for home after school?**" Record the number of hands for each answer.

Key	Weather	Student Tally	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
	S= sunny R= rainy O=overcast SN=snow	Number in class when count made	-	-	-	Only with Children from your family	Riding with children from other families	City bus, subway, etc.	Skate-board, scooter, etc.
Sample AM	S N	2 0	2	3	8	3		3	1
Sample PM	R	1 9	3	3	8	1	2	2	
Tues. AM									
Tues. PM									
Wed. AM									
Wed. PM									
Thurs. AM									
Thurs. PM									

Please list any disruptions to these counts or any unusual travel conditions to/from the school on the days of the tally.

Circulate San Diego
233 A Street, Suite 206
San Diego, CA 92101
Tel: (619) 544-9255
Fax: (619) 531-9255
www.circulatesd.org

8/8/21

To: City of Solana Beach

CC: Chen Ryan Associates

From: Circulate San Diego

Subject: Solana Beach SRTS –Parent Survey Questions

Link to online survey: https://www.surveymonkey.com/r/YZRWVS3

Title

Solana Beach SRTS Parent Survey

Survey Description (Spanish Text in Italics in Online Survey)

Your feedback is important to this project, which seeks to improve safety and encourage healthier and more active lifestyles. This survey will take about 10-15 minutes to complete. Your feedback will greatly benefit our effort to improve safety conditions around your schools in Solana Beach.

Su opinión es importante para este proyecto. Buscamos mejorar la seguridad y motivar un estilo de vida más saludable y activa para su familia. Por favor tome esta encuesta que tomará entre 10-15 minutos para completar. Sus respuestas nos hara una gran ayuda para mejorar la ciudad de Solana Beach.

Questions

1. What school does your child attend? | *¿A cuál escuela asiste su hijo(a)?*
    a) Earl Warren Middle School
    b) Skyline Middle School
    c) Santa Fe Christian Schools
    d) St. james Academy
    e) Fusion Academy
    f) Solana Vista Elementary
    g) LePort Montessori
    h) Boys and Girls Club of San Dieguito – Solana Beach
2. What grade is your child in? | ¿En cuál grado esta su hijo(a)?

a) Preschool | *Preescolar*
b) Kindergarten | *Jardín de la infancia*
c) 1
d) 2
e) 3
f) 4
g) 5
h) 6
i) 7
j) 8
k) 9
l) 10
m) 11
n) 12

3. What is your child's gender? | *¿Cúal es el sexo de su hijo(a)?*
    a) Male | *Masculino*
    b) Female | *Femenino*
4. What is the nearest street intersection to your home? (provide the names of two intersecting streets) | *¿Cuál es la intersección más cercana a su hogar? (provee las 2 calles en la intersección)*
    a) [Comment box]
5. How far does your child live from school? | *¿Aproximadamente, que larga es la distancia a la escuela de su casa?*
    a) 1/4 mile or less | *1/4 milla o menos*
    b) 1/4-1/2 mile | *1/4 milla a 1/2 milla*
    c) 1/2-1 mile | *1/2 milla a 1 milla*
    d) 1-2 miles | *1 milla a 2 millas*
    e) 1-2 miles | *1 milla a 2 millas*
6. On most days, how does your child ARRIVE to school? | *¿En la mayoría del tiempo, como LLEGA su hijo(a) de la escuela?*
    a) Walk | *Camina*
    b) Bike | *Anda en Bicicleta*
    c) School Bus | *Usa el autobus escolar*
    d) Vehicle (only children from one household) | *Vehiculo (hijo unico de un domicilio)*
    e) Carpool (children from other families) | *Comparte el viaje (con otros niños)*
    f) City Bus/Transit | *Autobús/Transito*
    g) Skate or Roll (skateboard, scooter, inline skates, wheelchair, etc.) | *Patina o anda en mini llantas (patineta, scooter, patines, silla de ruedas)*
7. On most days, how does your child LEAVE from school? | *¿En la mayoría del tiempo, como REGRESA su hijo(a) de la escuela?*

a) Walk | Camina
b) Bike | Anda en Bicicleta
c) School Bus | Usa el autobus escolar
d) Vehicle (only children from one household) | Vehiculo (hijo unico de un domicilio)
e) Carpool (children from other families) | Comparte el viaje (con otros niños)
f) City Bus/Transit | Autobús/Transito
g) Skate or Roll (skateboard, scooter, inline skates, wheelchair, etc.) | Patina o anda en mini llantas (patineta, scooter, patines, silla de ruedas)

8. How long does it normally take your child to travel to school? | *¿Cuánto tiempo normalmente le toma a su hijo(a) para llegar A la escuela?*
    a) Less than 5 minutes | *Menos de 5 minutos*
    b) 5-10 minutes | *5-10 minutos*
    c) 11-20 minutes | *11-20 minutos*
    d) More than 20 minutes | *Más de 20 minutos*
    e) Don't know / Not sure | *No se/ no estoy segura/o*
9. How long does it normally take your child to travel FROM school | *¿Cuánto tiempo normalmente le toma a su hijo(a) para regresar DE la escuela?*
    a) Less than 5 minutes | *Menos de 5 minutos*
    b) 5-10 minutes | *5-10 minutos*
    c) 11-20 minutes | *11-20 minutos*
    d) More than 20 minutes | *Más de 20 minutos*
    e) Don't know / Not sure | *No se/ no estoy segura/o*
10. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school? | *¿En su opinión, la escuela de su hijo(a) anima o desanima a caminar y andar en bicicleta a/de la escuela?*
    a) Strongly encourages | *Anima vigorosamente*
    b) Encourages | *Anima*
    c) Neither | *Nada*
    d) Discourages | *Desanima*
    e) Strongly discourages | *Desanima vigorosamente*
11. Has the child asked your permission to walk or bike to/from school in the last year? | *¿Su hijo(a) le ha pedido permiso para caminar o ir en bicicleta a la escuela en el último año?*
    a) Yes | *Si*
    b) No | *No*
12. Do you have a second child who attends school in Solana Beach? | *¿Tiene otro hijo(a) que asiste a la escuela primaria, secundaria o preparatoria en la cuidad de Solana Beach?*
    a) Yes | Si
    b) No | No

Note: If survey respondents answer "Yes" to question #12, they proceed to question #13. If survey respondents answer "No", the survey skips to question #29.

13. What is your second child's gender? | *¿Cúal es el sexo de su otro hijo(a)?*
    a) Male | *Masculino*
    b) Female | *Femenino*
14. What school does your second child attend? | *¿A cuál escuela asiste su segundo hijo(a)?*
    a) Earl Warren Middle School
    b) Skyline Middle School
    c) Santa Fe Christian Schools
    d) St. james Academy
    e) Fusion Academy
    f) Solana Vista Elementary
    g) LePort Montessori
    h) Boys and Girls Club of San Dieguito – Solana Beach
15. What grade is you second child in? | *¿En qué grado está su segundo hijo(a)?*
    a) Preschool | Preescolar
    b) Kindergarten | Jardín de la infancia
    c) 1
    d) 2
    e) 3
    f) 4
    g) 5
    h) 6
    i) 7
    j) 8
    k) 9
    l) 10
    m) 11
    n) 12
16. On most days, how does your second child ARRIVE school? | *¿En la mayoría del tiempo, como LLEGA su segundo hijo(a) la escuela?*
    a) Walk | Camina
    b) Bike | Anda en Bicicleta
    c) School Bus | Usa el autobus escolar
    d) Vehicle (only children from one household) | Vehiculo (hijo unico de un domicilio)
    e) Carpool (children from other families) | Comparte el viaje (con otros niños)
    f) City Bus/Transit | Autobús/Transito
    g) Skate or Roll (skateboard, scooter, inline skates, wheelchair, etc.) | Patina o anda en mini llantas (patineta, scooter, patines, silla de ruedas)

17. On most days, how does your second child LEAVE school? | *¿En la mayoría del tiempo, como REGRESA su segundo hijo(a) de la escuela?*
    a) Walk | Camina
    b) Bike | Anda en Bicicleta
    c) School Bus | Usa el autobus escolar
    d) Vehicle (only children from one household) | Vehiculo (hijo unico de un domicilio)
    e) Carpool (children from other families) | Comparte el viaje (con otros niños)
    f) City Bus/Transit | Autobús/Transito
    g) Skate or Roll (skateboard, scooter, inline skates, wheelchair, etc.) | Patina o anda en mini llantas (patineta, scooter, patines, silla de ruedas)
18. How long does it normally take your second child to travel TO school? | *¿Cuánto tiempo normalmente le toma a su segundo hijo(a) para llegar A la escuela?*
    a) Less than 5 minutes | Menos de 5 minutos
    b) 5-10 minutes | 5-10 minutos
    c) 11-20 minutes | 11-20 minutos
    d) More than 20 minutes | Más de 20 minutos
    e) Don't know / Not sure | No se/ no estoy segura/o
19. How long does it normally take your second child to travel FROM school? | *¿Cuánto tiempo normalmente le toma a su segundo hijo(a) para regresar DE la escuela?*
    a) Less than 5 minutes | Menos de 5 minutos
    b) 5-10 minutes | 5-10 minutos
    c) 11-20 minutes | 11-20 minutos
    d) More than 20 minutes | Más de 20 minutos
    e) Don't know / Not sure | No se/ no estoy segura/o
20. In your opinion, how much does your second child's school encourage or discourage walking and biking to/from school? | *¿En su opinión, la escuela de su segundo hijo(a) anima o desanima a caminar y andar en bicicleta a/de la escuela?*
    a) Strongly encourages | Anima vigorosamente
    b) Encourages | Anima
    c) Neither | Nada
    d) Discourages | Desanima
    e) Strongly discourages | Desanima vigorosamente
21. Has this child asked your permission to walk or bike to/from school in the last year? | ¿Su hijo(a) le ha pedido permiso para caminar o ir en bicicleta a la escuela en el último año?
    a) Yes | Si
    b) No | No
22. Do you have a third child who attends school in Solana Beach? | *¿Tiene a un tercer hijo(a) que asiste a la escuela primaria, secundaria o preparatoria en la cuidad de Solana Beach?*

a) Yes | Si
b) No | No

***Note: If survey respondents answer "Yes" to question #22, they proceed to question #23. If survey respondents answer "No", the survey skips to question #29.**

23. What is your third child's gender? | *¿Cúal es el sexo de su tercer hijo?*
    a) Male | Masculino
    b) Female | Femenino
24. What school does your third child attend? | *¿A cuál escuela asiste su tercer hijo(a)?*
    a) Earl Warren Middle School
    b) Skyline Middle School
    c) Santa Fe Christian Schools
    d) St. james Academy
    e) Fusion Academy
    f) Solana Vista Elementary
    g) LePort Montessori
    h) Boys and Girls Club of San Dieguito – Solana Beach
25. What grade is your third child in? | *¿En qué grado está su tercer hijo(a)?*
    a) Preschool | Preescolar
    b) Kindergarten | Jardín de la infancia
    c) 1
    d) 2
    e) 3
    f) 4
    g) 5
    h) 6
    i) 7
    j) 8
    k) 9
    l) 10
    m) 11
    n) 12
26. Does your third child share the same travel habits as one of your other children? (For example, same travel method, same amount of time, etc.) | *¿Su tercer hijo(a) comparte los mismos hábitos de sus otros hijos cuando viaja? (p.ej., usa el mismo método de transporte, le toma el mismo tiempo, etc.)*
    a) Yes, Child 1 | *Si, como el primero/a*
    b) Yes, Child 2 | *Si, como el segundo/a*
    c) No, different than the others | *No, viaja diferente*
27. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school? | *¿En su opinión, la escuela de su tercer hijo(a) anima o desanima a caminar y andar en bicicleta a/de la escuela?*

a) Strongly encourages | Anima vigorosamente
b) Encourages | Anima
c) Neither | Nada
d) Discourages | Desanima
e) Strongly discourages | Desanima vigorosamente

28. Has your third child asked your permission to walk or bike to/from school in the last year? | *¿Su tercer hijo(a) le ha pedido permiso para caminar o ir en bicicleta a la escuela en el último año?*
    a) Yes | Si
    b) No | No
29. Do you currently allow all of your children to walk or bike to/from school? | *¿Actualmente, usted deja a todos sus hijos(as) ir/regresar caminando o en bicicleta a la escuela?*
    a) Yes | Si
    b) No | No
30. At what grade would you allow your child(ren) to walk or bike to/from school without an adult? | *¿En cuál grado le permitiría usted a su(s) hijo(s) caminar o ir en bicicleta a la escuela sin un adulto?*
    a) Preschool | Preescolar
    b) Kindergarten | Jardín de la infancia
    c) 1
    d) 2
    e) 3
    f) 4
    g) 5
    h) 6
    i) 7
    j) 8
    k) 9
    l) 10
    m) 11
    n) 12
31. Which concerns influence your decision to NOT allow your child(ren) to walk or bike to/from school? (Check all that apply) | ¿Cuáles preocupaciones influye su decisión en no dejar a sus hijos ir a la escuela caminado o en bicicleta? (Marque todas las que apliquen)
    a) Too far from school | *La escuela está muy lejos*
    b) Driving is more convenient | *Conducir es más conveniente*
    c) Walking/biking takes too long | *Caminar/ir en bicicleta toma mucho tiempo*
    d) Child(ren)'s before or after school activities | *Actividades antes/después de escuela*

e) Child has too much to carry | *El estudiante tiene mucho que cargar*
f) Speeding traffic along route | *Alta velocidad a lo largo de la ruta*
g) Too much traffic along route | *Bastante tráfico a lo largo de la ruta*
h) No adults to walk or bike with | *No hay adultos con quien caminar o ir en bicicleta*
i) Lack of sidewalks and/or paths | *Insuficiente banquetas y/o caminos*
j) Lack of bikeways | *Insuficiente ciclocarriles*
k) Unsafe intersections | *Intersecciones peligrosas*
l) No crossing guards | *No hay oficiales de tráfico*
m) Lack of bike parking at school | *Insuficiente biciestacionamientos*
n) Stranger danger | *Peligro de extraños*
o) Violence/crime in neighborhood | *Violencia/crimen en la comunidad*
p) Bad weather | *Mal clima*
q) Don't know best route to school | *No se la mejor ruta a la escuela*

32. Select the statement about driving that best applies to you: | *Seleccione la oración sobre sus hábitos de manejo que mejor le aplique:*
    a) I drive for most of my trips and I don't intend on to make any changes. | *Manejo la mayoría de mis viajes y no tengo la intención de hacer ningún cambio.*
    b) I drive for most of my trips. I am considering driving less often but I'm not sure how to do it. | *Manejo la mayoría de mis viajes. Estoy considerando manejar con menos frecuencia pero no estoy seguro/a de cómo hacerlo.*
    c) I drive for most trips but I want to do it less often. I know what I would like to do instead but I haven't done it yet. | *Manejo la mayoría de mis viajes, pero quiero hacerlo con menos frecuencia. Sé lo que me gustaría hacer en vez de manejar, pero no lo he hecho todavía.*
    d) I already use other ways to get around other than driving. | *Ya utilizo otras formas de transporte además de manejar un auto.*
33. Select the statement about bicycling that best applies to you: | *Seleccione la oración sobre andar en bicicleta que mejor aplique para usted:*
    a) I do not bike for most of my trips and I don't intend to make any changes. | *No ando en bicicleta la mayoría de mis viajes y no tengo la intención de hacer ningún cambio.*
    b) I do not bike for most of my trips. I am considering doing it more often but I'm not sure how to get started | *No ando en bicicleta en la mayoría de mis viajes. Estoy considerando hacerlo más, pero no estoy seguro/a de cómo empezar.*
    c) I do not bike for most of my trips but I want to do it more often. I know how to get started but I haven't done it yet. | *No ando en bicicleta en la mayoría de mis viajes, pero quiero hacerlo más. Sé cómo empezar, pero no lo he hecho todavía.*

d) I bike for most trips. | *Yo ando en bicicleta la mayoría de los viajes.*

34. Select the statement about walking that best applies to you: | *Seleccione la oración sobre caminar que mejor le aplique:*
    a) I do not walk for most of my trips and I don't intend to make any changes. | *No camino en la mayoría de mis viajes y no tengo la intención de hacer ningún cambio.*
    b) I do not walk for most of my trips. I am considering doing it more often but I'm not sure how to get started. | *No camino en la mayoría de mis viajes. Estoy considerando hacerlo más, pero no estoy seguro/a de cómo empezar.*
    c) I do not walk for most of my trips but I want to do it more often. I know how to get started but I haven't done it yet. | *No camino en la mayoría de mis viajes, pero quiero hacerlo más. Sé cómo empezar, pero no lo he hecho todavía.*
    d) I walk for most trips. | *Camino en la mayoría de mis viajes.*
35. Are you interested in any of the following Safe Routes to School activities? (Check all that apply) | *¿Está interesado(a) en algunas de las actividades siguientes de Caminos Seguros a la Escuela? (Marque todas las que apliquen)*
    a) Help identify traffic safety issues at schools | *Ayuda en identificar problemas de seguridad de tráfico en las escuelas*
    b) Help with a Walk and Roll to School day or week event | *Ayuda en eventos de "Walk and Roll" que duran un día o toda una semana*
    c) Help organize a neighborhood Walking School Bus or Bike Train | *Ayuda en organizar un Autobús Escolar Caminante o un Tren de Bicis*
36. If you answered "yes" to any of the above questions, please provide your name and phone and/or email. Note: other survey answers will remain anonymous
    a) Name
    b) Email
    c) Phone Number

Parent Survey About Walking and Biking to School

Dear Parent or Caregiver,

Your child's school wants to learn your thoughts about children walking and biking to school. This survey will take about 5 - 10 minutes to complete. We ask that each family complete only one survey per school your children attend. If more than one child from a school brings a survey home, please fill out the survey for the child with the next birthday from today's date.

After you have completed this survey, send it back to the school with your child or give it to the teacher. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results.

Thank you for participating in this survey!

+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY +

School Name:

1. What is the grade of the child who brought home this survey? ☐☐ Grade (PK,K,1,2,3…)

2. Is the child who brought home this survey male or female? ☐ Male ☐ Female

3. How many children do you have in Kindergarten through 8th grade? ☐☐

4. What is the street intersection nearest your home? (Provide the names of two intersecting streets)

and

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

5. How far does your child live from school?

☐ Less than ¼ mile ☐ ½ mile up to 1 mile ☐ More than 2 miles

☐ ¼ mile up to ½ mile ☐ 1 mile up to 2 miles ☐ Don't know

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box. +

6. On most days, how does your child arrive and leave for school? (Select one choice per column, mark box with X)

Arrive at school	Leave from school
☐ Walk	☐ Walk
☐ Bike	☐ Bike
☐ School Bus	☐ School Bus
☐ Family vehicle (only children in your family)	☐ Family vehicle (only children in your family)
☐ Carpool (Children from other families)	☐ Carpool (Children from other families)
☐ Transit (city bus, subway, etc.)	☐ Transit (city bus, subway, etc.)
☐ Other (skateboard, scooter, inline skates, etc.)	☐ Other (skateboard, scooter, inline skates, etc.)

+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box +

7. How long does it normally take your child to get to/from school? (Select one choice per column, mark box with X)

Travel time to school	Travel time from school
☐ Less than 5 minutes	☐ Less than 5 minutes
☐ 5 – 10 minutes	☐ 5 – 10 minutes
☐ 11 – 20 minutes	☐ 11 – 20 minutes
☐ More than 20 minutes	☐ More than 20 minutes
☐ Don't know / Not sure	☐ Don't know / Not sure

+ +

8. Has your child asked you for permission to walk or bike to/from school in the last year? ☐ Yes ☐ No

9. At what grade would you allow your child to walk or bike to/from school without an adult?

(Select a grade between PK,K,1,2,3…) ☐☐ grade **(or)** ☐ I would not feel comfortable at any grade

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

10. What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school? (Select ALL that apply)

11. Would you probably let your child walk or bike to/from school if this problem were changed or improved? (Select one choice per line, mark box with X)

	My child already walks or bikes to/from school		
☐ Distance	☐ Yes	☐ No	☐ Not Sure
☐ Convenience of driving	☐ Yes	☐ No	☐ Not Sure
☐ Time	☐ Yes	☐ No	☐ Not Sure
☐ Child's before or after-school activities	☐ Yes	☐ No	☐ Not Sure
☐ Speed of traffic along route	☐ Yes	☐ No	☐ Not Sure
☐ Amount of traffic along route	☐ Yes	☐ No	☐ Not Sure
☐ Adults to walk or bike with	☐ Yes	☐ No	☐ Not Sure
☐ Sidewalks or pathways	☐ Yes	☐ No	☐ Not Sure
☐ Safety of intersections and crossings	☐ Yes	☐ No	☐ Not Sure
☐ Crossing guards	☐ Yes	☐ No	☐ Not Sure
☐ Violence or crime	☐ Yes	☐ No	☐ Not Sure
☐ Weather or climate	☐ Yes	☐ No	☐ Not Sure

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

12. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?

☐ Strongly Encourages ☐ Encourages ☐ Neither ☐ Discourages ☐ Strongly Discourages

13. How much fun is walking or biking to/from school for your child?

☐ Very Fun ☐ Fun ☐ Neutral ☐ Boring ☐ Very Boring

14. How healthy is walking or biking to/from school for your child?

☐ Very Healthy ☐ Healthy ☐ Neutral ☐ Unhealthy ☐ Very Unhealthy

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

15. What is the highest grade or year of school you completed?

☐ Grades 1 through 8 (Elementary)
☐ Grades 9 through 11 (Some high school)
☐ Grade 12 or GED (High school graduate)
☐ College 1 to 3 years (Some college or technical school)
☐ College 4 years or more (College graduate)
☐ Prefer not to answer

16. Please provide any additional comments below.

PEDESTRIAN ENVIRONMENTAL QUALITY EVALUATION

Pedestrian Environment Quality Evaluation (PEQE), developed by CR Associates, provides an assessment of pedestrian facilities within the study area, measuring the quality of pedestrian conditions along roadway (midblock) segments and at select intersection crossings.

PEQE scoring criteria is presented in the following table. As shown, PEQE segment evaluation and crossing evaluation each consider different inputs that are specific to those realms. Segment analysis criteria includes horizontal and vertical separation between the pedestrian and vehicular traffic, presence and type of street lighting, walkway accessibility, and the posted speed limit of the adjacent roadway. Intersection analysis criteria includes types of traffic control, physical features that serve as safety mechanisms (e.g. crosswalk features, curb extensions, advanced stop bars), types of operational features at the intersection (e.g. pedestrian countdown signals, pedestrian lead intervals, right turn on red restrictions, additional pedestrian signage), and presence of ADA standard curb ramps.

PEQE Scoring Criteria

Facility Type	Measure	Description/Feature	Scoring
Segment between two intersections	**Horizontal Buffer**	**Between the edge of auto travel way and the edge of clear pedestrian zone**	**0 point: < 6 feet** **1 point: 6 - 14 feet** **2 points: > 14 feet or vertical buffer**
	Lighting		**0 point: below standard/requirement** **1 point: meet standard/requirement** **2 points: exceed standard/requirement**
	Clear Pedestrian Zone	**5' minimum**	**0 point: has obstructions** **2 points: no obstruction**
	Posted Speed Limit		**0 point: > 40 mph** **1 point: 30 - 40 mph** **2 points: < 30 mph**
Maximum			**8 points**
Intersection by Leg	**Physical & Operational Features**	**High Visibility Crosswalk** **Raised Crosswalk/Speed Table** **Advanced Stop Bar** **Curb Extension** **Additional Pedestrian Signage** **No-Turn On Red Sign/Signal** **Pedestrian Countdown Signal** **Pedestrian Lead Interval**	**0 point: 0 features** **1 point: 1 feature** **2 points: 2 features** **3 points: 3 features** **4 points: ≥ 4 features**
	ADA Curb Ramp		**0 point: no ramps and no truncated tomes** **1 point: ramps only, no truncated domes** **2 points: meet standard/requirement**

PEQE Scoring Criteria

Facility Type	Measure	Description/Feature	Scoring
	Traffic Control		**0 point: no control** **1 point: signalized (permissive left-turn for receiving leg) / side-street stop controlled** **2 points: signalized (protected left-turn for receiving leg) / all-way stop controlled / roundabout**
Maximum			**8 points**
Mid-Block Crossing	**Visibility**		**0 point: w/o high visibility crosswalk** **2 points: with high visibility crosswalk**
	Crossing Distance		**0 point: no treatment** **2 points: with bulb out or median pedestrian refuge**
	ADA		**0 point: no ramps and no truncated tomes** **1 point: ramps only, no truncated domes** **2 points: meet standard/requirement**
	Traffic Control		**0 point: no control** **1 point: flashing beacon (In-pavement, RRFB, etc.)** **2 points: signal/pedestrian hybrid beacon (HAWK)**
Maximum			**8 points**

Source: Chen Ryan Associates (2020)