

# Safe Routes to School Plan

**Jefferson Elementary School** 

**April 2024** 







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# Introduction

The City of Carlsbad is committed to helping everyone get around the city in a safe and convenient way, whether by foot, car, bike or public transit.

One way the city is improving traffic safety is through a Safe Routes to School Program, which is an approach that focuses on walking and bicycling to school through infrastructure improvements, enforcement and safety education. Other strategies the city uses focus on safe driving.

Safe routes to school is part of the broader citywide efforts to improve traffic safety through the Safer Streets Together Plan, which the City Council approved in September 2022 and the Sustainable Mobility Plan approved in January 2021.

This document presents the Safe Routes to School Plan for Jefferson Elementary School. The plan outlines specific short- and long-term infrastructure improvements and school programs that will enhance safety and make it more comfortable for families and students to walk and bike to and from school sites. Recommended improvements and programs are informed by industry best practices and reflect Jefferson Elementary School's unique needs, challenges and opportunities for improving travel conditions.

To ensure the Safe Routes to School Plan reflects the community's needs, values and priorities, the project team relied on community outreach, observations and design expertise. The team conducted field observations,

# **Identify** needs

- Walk audit
- Drop-off/pickup observations
- In-person and online opportunities for input

# Techical analysis

- School commute surveys
- Roadway operations
- Crossing guard assessment
- Collisions

# **Solutions**

- Programmatic
- Infrastructure
- Operations and circulation

evaluated circulation patterns, analyzed historical collision data and met with parents to document their concerns.

# **School Context**

#### School characteristics

Jefferson Elementary School is located at 3743 Jefferson Street, just north of Tamarack Avenue and west of Interstate 5. The school is in the northwest portion of Carlsbad near the Carlsbad Village, Agua Hedionda Lagoon and Carlsbad State Beach. The school enrollment boundary for the elementary school is south of Carlsbad Village Drive, West of Interstate 5, and north of Palomar Airport Road. Except for the Terramar Community south of Agua Hedionda Lagoon, the maximum travel distance to the school within the enrollment boundary is approximately 1.2 miles.

Jefferson Elementary additionally has a transitional kindergarten (TK) program which serves students and residents from throughout the city like zones for Buena Vista, Jefferson, Kelly and Magnolia elementary schools. Not every family is close enough to walk or bike, but the more who do, the better traffic will flow and the less time will be spent waiting in school pickup and drop-off lines.

A map of the elementary and transitional kindergarten enrollment boundaries can be found in **Figure 1** below. A brief overview of the school's enrollment data is presented in **Table 1**.

**Table 1: Sage Creek High School Enrollment Data** 

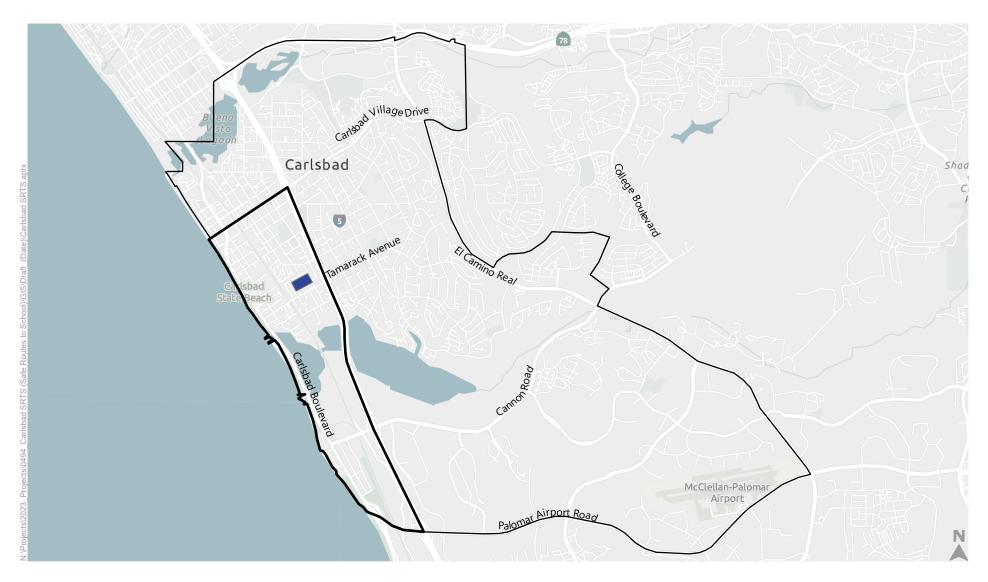
Enrollment Data Type <sup>1</sup>	Total
2022 Cumulative Student Enrollment	448
2022 Number of Faculty	23

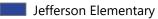
#### **Key transportation facilities and transit services**

Jefferson Street is a north-south two-lane roadway which runs between Chinquapin Avenue to the south and Magnolia Avenue to the north. Other segments of Jefferson Street within the City are disconnected from the segment adjacent to the school. The roadway is classified as a "school street" between Anchor Way and Tamarack Avenue in the city's General Plan Mobility Element, which means that the street should be designed with an emphasis on providing safe bicycle and pedestrian access to and from schools. Between Tamarack Avenue and Chinquapin Avenue, Jefferson Street is classified as a "neighborhood connector street". Sidewalks are provided on both sides of the street except for the east side between Chinquapin Avenue and Tamarack Avenue. A marked crosswalk is provided at Carol Place and a crossing guard is present at that crosswalk during morning drop-off and afternoon pick-up.

Tamarack Avenue is an east-west street which runs between Carlsbad Boulevard to the west and College Boulevard to the east. It is classified as a "neighborhood connector street" near Jefferson Elementary, meaning that it connects residents to other neighborhoods and land uses with a focus on managing vehicle speeds and providing facilities to enhance mobility for bicyclists and pedestrians. Near Jefferson Elementary, it is a four-lane facility and provides access to Interstate 5. Sidewalks are present on both sides of the road.

<sup>&</sup>lt;sup>1</sup> Source: Education Data Partnership





Jefferson TK Enrollment Boundary

☐ Jefferson Elementary Enrollment Boundary



Figure 1

#### **School circulation**

Access for all travel modes to Jefferson Elementary School is provided via Jefferson Street, with vehicle ingress via the northern driveway and vehicle egress via the southern driveway. Common pedestrian and bicycle routes are shown on **Figure 2**.

There are two vehicle drop-off and pick-up lines: the right lane is for general student drop-off and pick-up. The left lane is for disabled students and vehicular access to the parking lot. Drivers do not always follow instructions to pull as far forward in the lane as possible, causing queues to spill back onto Jefferson Street.

Many students walking to and from school are accompanied by parents and use either a sidewalk along the north driveway or a sidewalk/stair immediately across from the Carol Place crosswalk to enter campus. The Carol Place crosswalk is the only marked crosswalk along Jefferson Street between Tamarack Avenue and Magnolia Avenue. Given the age of students, biking to campus is not as common. Students and parents biking to school ride along Jefferson Street to access the campus.

Drivers on the egress driveway can turn left or right onto Jefferson Street, although the school has at times prohibited left turns to manage queues and ensure quicker movement through the school drop-off and pick-up line.

Figure 2: Sage Creek Multimodal Circulation





Common path for bikes and e-bikes



Common path for pedestrians



Crossing guard location



Vehicle drop-off and pick-up route

# **Identifying Needs**

# **Meetings and outreach**

The following meetings, events, and surveys were utilized to establish an understanding of existing conditions and the needs of students traveling to/from school. This information was used to inform opportunities for infrastructure, programmatic, and operational safety improvements.

## **Principal meeting**

A meeting was held with principal Emma Cobb on Thursday, October 5, 2023, to discuss an overview of existing pick-up/drop-off operations and concerns regarding safe access to Jefferson Elementary School.

#### Walk audit

The project team conducted a walk audit on the morning of October 19, 2023 to observe existing travel patterns after school dismissal, existing barriers to walking and biking, and potential near and long-term opportunities for improving pedestrian and bicycle safety. Walk audit participants included the Jefferson Elementary School principal, City of Carlsbad staff and leadership, and the Carlsbad Police Department staff. A detailed summary of observations gathered during the walk audit is provided in **Appendix A**.

#### **Field observations**

Drop-off/pick-up activity was observed on January 26, 2023 and October 19, 2023 to understand the current number of students walking and biking to campus, observe vehicle circulation and queues, existing infrastructure, and locations with a high frequency of interactions between pedestrians, bicyclists, and vehicles.

## Parent listening session and online map survey

A parent listening session was held in the evening of Nov. 13, 2023 for the project team to directly engage with parents and caregivers of students to understand their concerns regarding safety near the campus and their ideas for improvements to make access to campus more comfortable for those walking and biking.

An online interactive mapping survey was created to gather additional input from parents and community members who were not able to attend the parent listening sessions. Notifications about the online map survey were provided through multiple outlets including the Parent Teacher Association, news releases and e-newsletters, media interview and posts on community web platforms such as Nextdoor. Participants added pins to the map to report their concerns with access to and from the school. A summary of feedback gathered through the in-person and online engagement is provided in **Appendix B**.

# **Summary of observations**

Key takeaways and safety concerns are summarized below.

# On-campus circulation and school driveways

- Concentration of activity at the egress driveway creates a hot spot of conflicts between pedestrians and vehicles.
- Some pedestrians cross Jefferson Street outside of the designated Carol Place crosswalk to access the school at the ingress driveway to the north.

- The main crosswalk at Carol Place has a crossing guard; however, it does not provide an accessible route.
- There are two gates along the campus driveway for drop-off, one for TK at the north end and one for K-5 grades further south.
   Parents let students out of the car right at the gates and do not pull forward, even with staff present.

## **Jefferson Street/Tamarack Avenue intersection**

- Southbound traffic on Jefferson backs up from the signal at Tamarack to the outbound driveway and beyond, often blocking the crosswalk at Carol Place and slowing the flow of the school drop-off and pick-up line.
- Congestion at the I-5 interchange spills back to this intersection at times, causing delays to southbound left-turns and creating an uncomfortable environment for pedestrians and bicyclists.
- Right-turning traffic is fast and does not always yield to pedestrians in west leg and north leg crosswalks, especially if they are looking left for oncoming vehicles.



Vehicles exiting the outbound school driveway conflict with pedestrians on Jefferson Street near Carol Place.



Long southbound queues on Jefferson Street at Tamarack Avenue affect driveway operations and pedestrian traffic around the school.

# Jefferson Street north of Jefferson Elementary School

- Right-turning vehicles from Magnolia Avenue to Jefferson Street do not stop fully due to wide corner curb radii. Skewed crossings create longer crossing distances.
- There is a desire for traffic calming along Jefferson, north of the Carol Place crosswalk, to slow vehicle traffic.
- Parents park on Jefferson and Anchor Way to walk their children to campus. Vehicles parking right up to the corners at the Anchor Way/Jefferson Street intersection reduce sight lines for vehicles and pedestrians.
- The housing project at the end of Carol Place has reduced the number of locations available for parking and walking during pickup/drop-off.

#### **Tamarack Avenue**

- Vehicles speeding along Tamarack Avenue is a common concern.
- There is approximately 2,000 feet between the Jefferson Street crosswalk and Garfield Street crosswalk with no marked crossing in between. Noted in the public outreach was a request for a new marked crossing at Hibiscus Circle.
- Students often use the informal dirt trail along the east side of the railroad tracks and south of Tamarack Ave, which creates a challenge for crossing Tamarack since there is no marked crossing.

- Noted in the public outreach was poor lighting and visibility at the marked crosswalks at the Garfield / Tamarack intersection.
- Navigating the I-5 on- and off-ramps is challenging for pedestrians and bicyclists.

#### **South of Tamarack Avenue**

- Vehicles use Chinquapin Avenue to Jefferson Street as an alternative route to Tamarack to avoid congestion at the I-5 interchange and have been observed at high speeds along this route.
- The bridge over I-5 on Chinquapin only has one narrow sidewalk on the north side.
- Larger curb radii allow for higher speed turns at the Chinquapin Avenue / Jefferson Street intersection. There are no marked crosswalks and sidewalk gaps at this intersection, which creates an uncomfortable environment for pedestrians.
- The lack of sidewalks on side streets such as Linmar Lane, Hibiscus Circle, and the east side of Jefferson Street (south of Tamarack Avenue) create a disconnected pedestrian network and limit offcampus drop-off locations. Pedestrians must walk in the street if they wish to remain on a particular side of the road.

# **Technical Analysis**

In addition to field work and community outreach, safety data and mode share survey results were analyzed to provide greater context to field observations and community feedback and to better inform final recommendations.

# **Collision history**

Collision data from 2018 through 2022 was analyzed to assess roadway safety conditions near Jefferson Elementary School. Collisions on state highway facilities (e.g., Interstate 5) were excluded from the dataset, except those located at the intersection of a state highway ramp and a citymaintained roadway.

To better understand the collision trends on school routes involving school-going children, citywide collisions were filtered by the following factors:

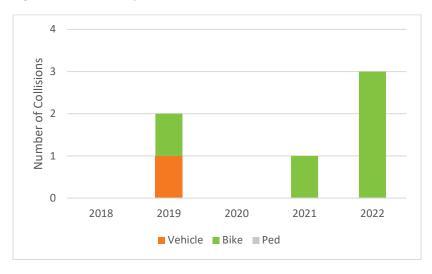
- Within a quarter-mile radius of the school property (school influence area) → 26 collisions
- Involving victim(s) age 18 or under → 11 collisions
- During school drop-off (7am to 9am) or pick-up (1pm to 3pm) period → 6 collisions

Collisions that occurred on Saturdays and Sundays were included to capture weekend school activities.

## Collisions by year and mode

From 2018 to 2022, there were six (6) total injury collisions. Five (5) of these collisions (83 percent) involved a pedestrian or bicyclist, as shown in **Figure 3.** 

Figure 3: Collisions by Year and Mode (2018-2022)



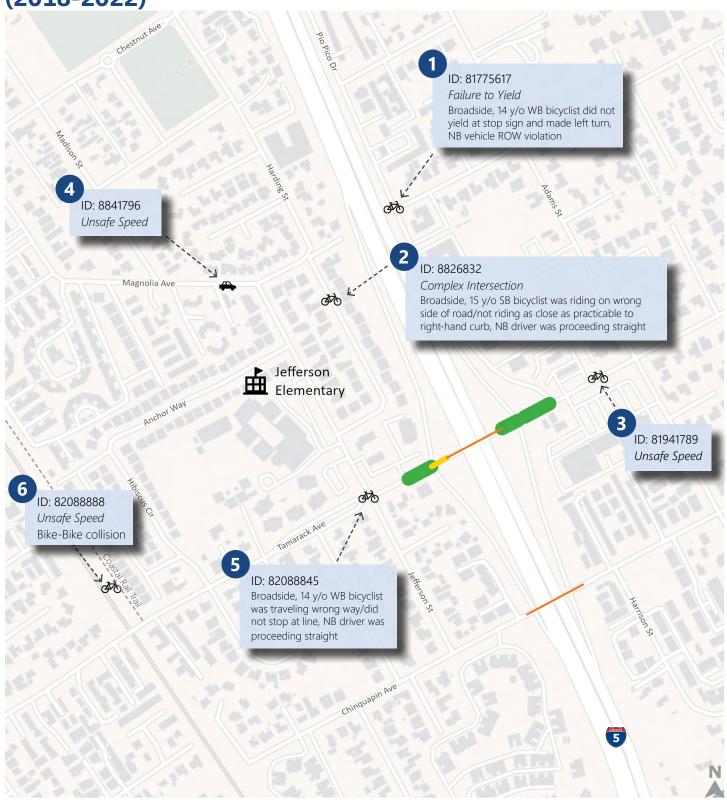
A full breakdown of the collisions by type, severity, time of day, and primary collision factor is provided in **Table 2**.

Table 2: Collisions by Type, Severity, Time of Day, and Primary Collision Factor (2018 – 2022)

	Primary Collision Factor	Time of Day		Collision Type				Severity			
Collision ID		Drop-Off (7- 9am)	Pick-Up (2-4pm)	Head-On	Sideswipe	Rear End	Broadside	Vehicle/ Pedestrian	Fatal or Severe Injury (KSI)	Other Visible Injury	Complaint of Pain
1	Vehicle Right of Way Violation		Х				Х				Х
2	Wrong Side of Road		Х				Х				X
3	Unsafe Speed		Х				Х			Х	
4	Unsafe Speed	Х				х					Х
5	Traffic Signals and Signs		Х				Х			х	
6	Unsafe Speed		Х			Х			х		

Figure 4

Collisions Involving School-Age Victims During School Hours (2018-2022)



Map includes collisions that are: 1) Within 1/4-mile radius of school property (school influence area), 2) Involving victims of age 18 or under, 3) During school dop-off (7am-9am) or pick-up (1pm-3pm) periods.

City of Carlsbad

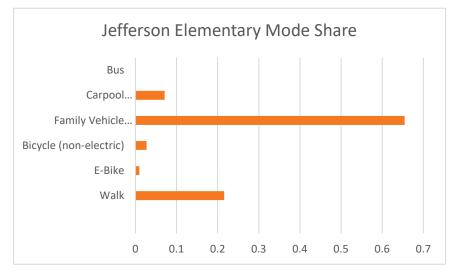


# **Mode share**

Mode share refers to the percentage of travelers who use a particular type of transportation including walking, biking, driving, transit, or other options. A survey was administered by teachers asking students about their current mode share (how they get to and from school on most days). Approximately 45% of kindergarten through 6<sup>th</sup> grade students were captured in the survey results. Results are shown in **Figure 5**. On average, 73% of students who responded traveled to and from school in a vehicle. Of those, 90% were dropped-off or picked-up at the school entrance and 10% were dropped-off or picked-up at or parked and walked from a nearby location. The remaining 27% of students traveled to and from school using active modes (biking, walking, or other), including 22% who walked to and from school.

This is a higher percentage of students who walk to Jefferson Elementary compared to many other elementary schools locally and nationally. Travel

Figure 5: Current Modes of Transportation



mode data to and from school collected for the Oceanside Safe Routes to School Plan (2021) showed no elementary schools in Oceanside with a combined walk and bike mode share of over 20%, and only three of the 13 elementary schools with a combined walk and bike mode share of over 10%.

While Jefferson Elementary parents were not surveyed, parent surveys conducted for the Oceanside Safe Routes to School Plan indicated that unsafe intersections were the biggest concern with allowing their children to walk or bike to school, along with living too far away from school. This aligns with statewide trends, as well as feedback received from Jefferson Elementary parents during outreach events that current vehicle speeds and intersection configurations and operations around the Jefferson Elementary create an uncomfortable environment for walking and biking to school.

Little difference in mode share was observed between transitional kindergarten students and elementary school students. Some variability in mode share was shown in the survey results between the morning drop-off and afternoon pick-up. While only 18% of students walked to school in the morning, 24% of students walked home from school in the afternoon. This 6% increase in walking corresponded with a 6% decrease in students taking vehicles home from school as compared to taking vehicles to school in the morning.

The data illustrates that most students currently use a vehicle to get to and from school and are dropped-off or picked-up at the school entrance. This highlights an opportunity for those trips to be converted to walking trips by using the recommendations in the following sections to improve walking infrastructure, enhance vehicle circulation to reduce potential conflicts with pedestrians, and consider educational programs that promote walking to school.

# Solutions

For a holistic approach to improving bicycling and walking conditions around schools, a Safe Routes to School Program usually relies on a two-pronged approach: physical infrastructure improvements and programmatic improvements. Programmatic recommendations focus on promoting more walking and biking through educational efforts or initiatives that encourage walking and biking. Short and long-term infrastructure recommendations and school programs which will improve and promote walking and biking safety and access are covered in the following sections.

# Infrastructure

Recommended design concepts to improve walking and bicycling conditions around Jefferson Elementary vary in scale and location. Some similar concepts are recommended at multiple locations while other concepts may be recommended in just one location depending on context.

Recommended design concepts, including infrastructure as well as operations and circulation improvements, are presented in **Figure 6**. Most of the recommendations are assumed to be long-term solutions to account for engineering design, funding and construction. A few signing and striping solutions, which could be implemented in the near-term, are called out below and on the maps.

# **Near-term improvements**

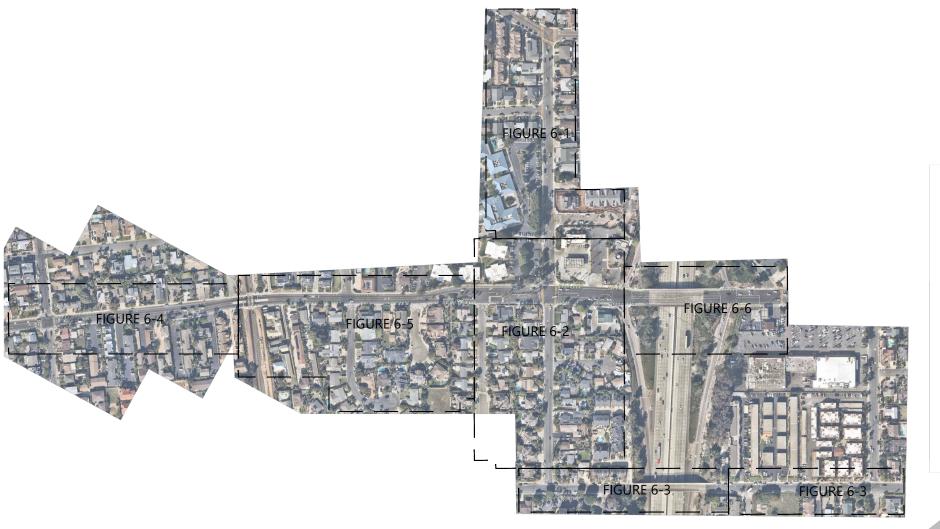
- Keep Clear pavement markings at the school driveway exit
- "Please Pull Forward" signage in the drop-off/pick-up line to create a more efficient queue and reduce spillback onto Jefferson

#### **Long-term improvements**

- Curb extensions at intersections along Jefferson Street at Magnolia Avenue, Anchor Way, and Chinquapin Avenue; and along Tamarack Avenue at Hibiscus Circle and Garfield Street to reduce turning radii, slow vehicle speeds, and shorten crossing distances.
- Sidewalks where none exist and where setbacks allow along Chinquapin Avenue and Linmar Lane.
- Sidewalk widening along the Chinquapin bridge over the I-5.
- Speed tables along Jefferson Street and Chinquapin Avenue to reduce speeding from reported cut-through traffic.
  - The proposed locations of the speed tables are preliminary suggestions. The City will conduct a thorough traffic engineering analysis following the City's Residential Traffic Management Program guidelines. The final placement will consider traffic volume, speed data, road conditions, and community input to ensure effective traffic calming measures.
- High Visibility Crosswalks at Jefferson Street/Chinquapin Avenue and Coastal Rail Trail extension
- New mid-block crossing at Coastal Rail Trail extension along Tamarack Avenue
  - Prior to extension of Coastal Rail Trail, the following interim crossing improvement options are recommended: A) Raised mid-block crosswalk between trail and Hibiscus Circle or B)

Rectangular Rapid Flashing Beacon with high-visibility crosswalk at Tamarack Avenue / Hibiscus Circle

- Median refuge islands at the existing crossing at Tamarack Avenue and Garfield Street and the proposed crossing at the Coastal Rail Trail extension
- Improved lighting for existing crosswalks at Tamarack Avenue / Garfield Street

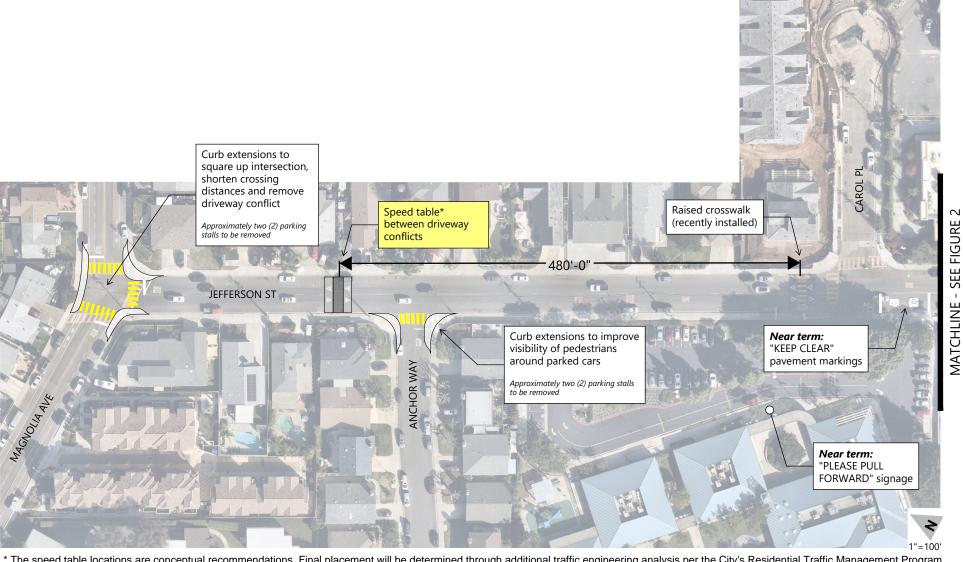






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Jefferson Elementary Safe Routes to School Infrastructure Recommendations



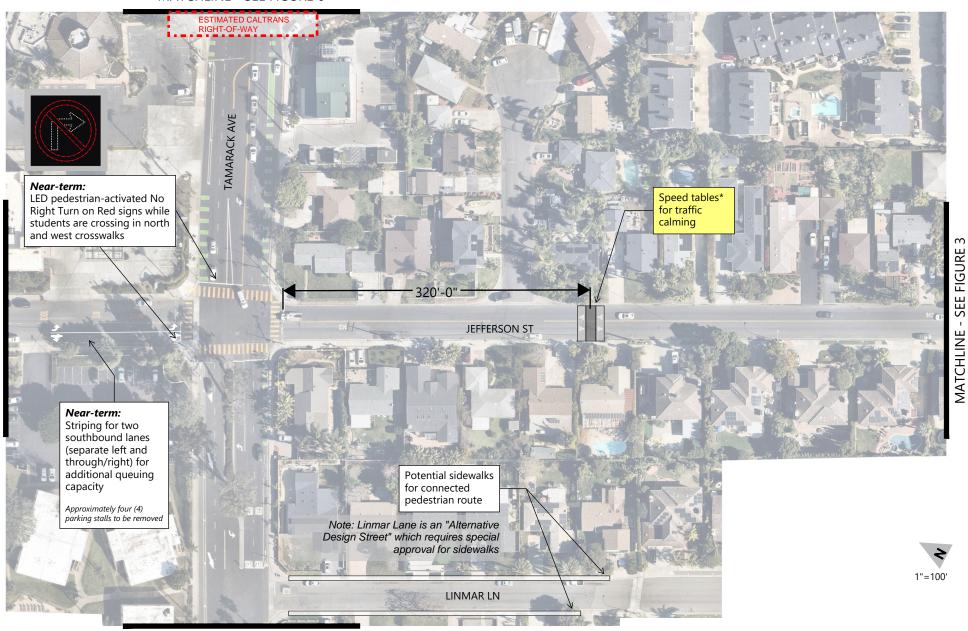
\* The speed table locations are conceptual recommendations. Final placement will be determined through additional traffic engineering analysis per the City's Residential Traffic Management Program.

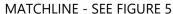


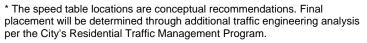
Figure 6-1

- SEE FIGURE 1

MATCHLINE



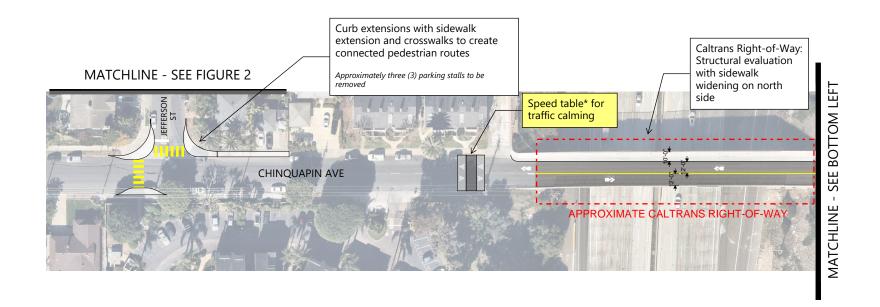


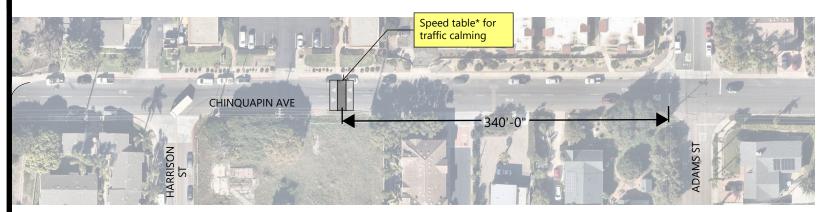


CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

Figure 6-2

Jefferson Elementary Safe Routes to School Infrastructure Recommendations MATCHLINE - SEE TOP RIGHT





\* The speed table locations are conceptual recommendations. Final placement will be determined through additional traffic engineering analysis per the City's Residential Traffic Management Program.



Figure 6-3





Figure 6-4

Jefferson Elementary Safe Routes to School Infrastructure Recommendations

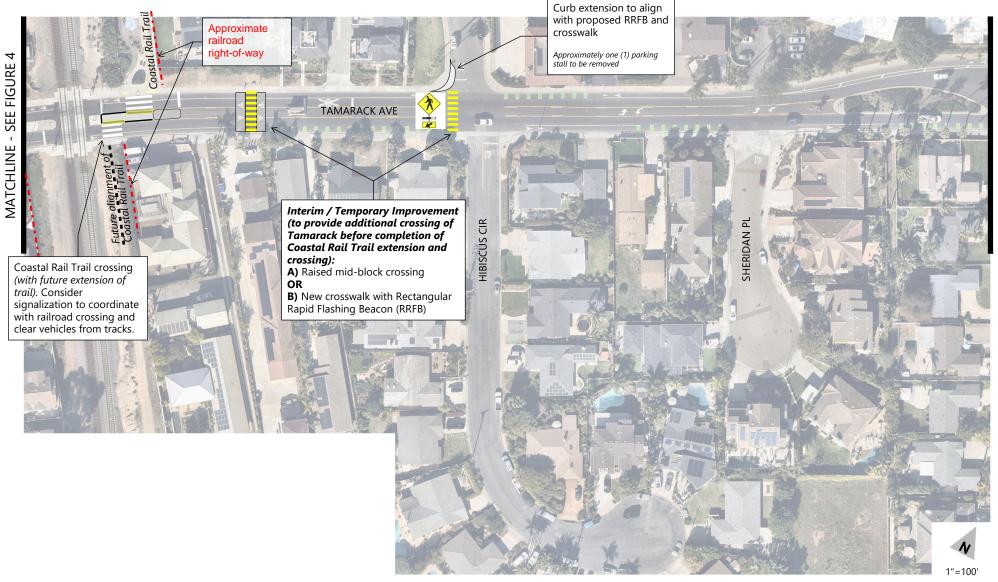
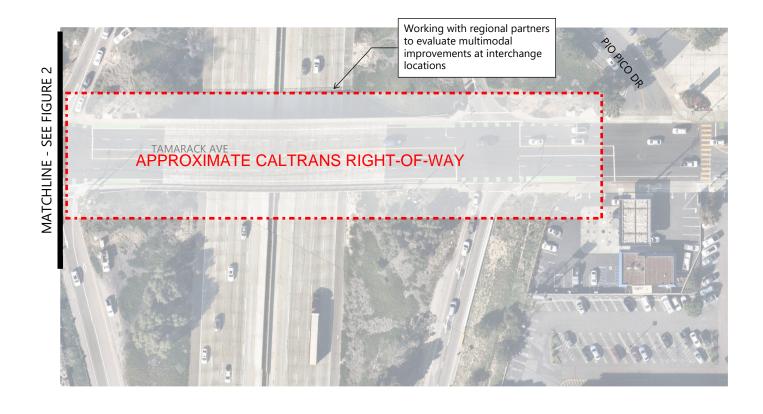


Figure 6-5







# Operations and circulation recommendations

Changes to signal timing, off-campus circulation, and on-campus circulation can improve vehicle flow and enhance pedestrian and bicycle safety by reducing potential conflicts.

## **Near-term improvements**

- A map illustrating preferred pick-up and drop-off routes for pedestrians and drivers within the immediate school vicinity can be used as a handout to parents and made available on the school's website to guide students and parents along the safest existing facilities during pick-up and drop-off. This resource can be implemented in the near-term and is available in Appendix D. Additional "Suggested Route Maps" such as the maps the City created as a part of the 2020 Sustainable Mobility Plan show a wider network of routes which can be referenced for longer trips.
- A valet curbside drop-off program can be offered by older students who complete traffic safety training. Students would wear bright safety vests and direct drivers to pull as far forward as possible, open passenger door for students to exit, close the door, and direct drivers to exit the drop-off area.
- Restripe the southbound approach at the Jefferson Street/Tamarack Avenue signal to remove curbside parking (approximately four spaces on the west side of Jefferson Street, just north of Tamarack Avenue) and include a dedicated left-turn lane and a shared through-right-turn lane to provide additional queueing capacity. Additionally, install LED no-right-turn signs that are activated during pedestrian crossings to prohibit rightturn-on-red across the north and west crosswalks while students are crossing. These concepts were tested in traffic operations software and results are provided in Appendix C. In general,

southbound vehicle queues are expected to decrease such that they do not block the school exit driveway and main school crosswalk on Jefferson as often. Average vehicle delay at the intersection is expected to decrease.

# **Programmatic recommendations**

In addition to infrastructure recommendations, the following policies and programs provide for broader systemwide improvements to help support and enhance active transportation at the school and local level. More details on these recommendations and additional resources can be found in **Appendix E**.

# **Bike/pedestrian education**

Traffic safety instruction during recess, PE, or other appropriate learning times can provide opportunities for students to develop their knowledge and skills regarding bike and pedestrian safety, traffic safety, bike handling, safe riding practices ("street smarts"), helmet fit, and bike prep. This can be in conjunction with or in addition to other programs and resources offered by the City, such as the bike and e-bike safety course offered by the Carlsbad Police Department.

# **Crossing guard program and promotional education**

School staff, city staff, paid contractors or volunteers serving in the role of a crossing guard should receive training on at least a biennial basis to ensure they are performing their duties properly and safely.

Providing education on and promoting the importance of listening to crossing guards' directions through events such as an annual Crossing Guard Appreciation Day helps encourage students, parents, caregivers, and drivers to follow crossing guards' directions, show appreciation, and pay more attention to crossing guards.

# **School board policy**

Carlsbad Unified School District's (CUSD) adoption of California Board of Education Board Policy (BP) 5142.2 Safe Routes to School Program can be leveraged to grow SRTS efforts and secure grant funding for future SRTS initiatives.

#### School champion toolkit

Walking and biking programs can be started or grown by providing educational how-to guides to parents, caregivers, and others who volunteer time and energy to promoting walking and biking to and from school.

#### **School communications**

Jefferson Elementary should utilize regular school communication channels such as newsletters, social media, websites, and in-person events to promote safe walking, bicycling, and driving behavior that supports and encourages active travel.

# Walk to School and/or Bike to School Day

Walk to School and Bike to School days are events that take place before school and encourage students to walk or bike on a particular day, often with incentives for participation.

# **Example costs for recommended improvements**

The following table provides an overview of example costs associated with typical projects by type, to provide additional information that can support Jefferson Elementary School and Carlsbad Unified School District in

prioritizing project ideas, coordinating with city engineering staff, pursuing grant funding or identifying other funding opportunities.

**Table 3: Example Costs for Recommended Improvements** 

Recommended Improvements	Project Type	Cost Estimate	Assumptions
Sidewalk Enhancements	Sidewalks (per mile)	\$2,400,000	One side of the road, 6 foot wide
Pedestrian Crossing Enhancements	High-visibility crosswalk (40 feet long)	\$5,000	40 feet long, striping and signage only
	Concrete curb extensions (varying extents)	\$100,000	One corner of average size, includes curb ramps
	Rapid rectangular flashing beacon	\$50,000	Solar-powered
	Pedestrian hybrid beacon	\$400,000	
	Pedestrian signs (per sign)	\$3,000	
	Existing signal timing adjustments	\$10,000	Reprogramming without any new equipment
	New or upgraded signal	\$400,000-\$1,000,000	Cost of variable depending on size of intersection and equipment needed
Speed Management	Speed Table or Raised Crosswalk	\$20,000	
	Roadway lighting (per mile)	\$1,000,000	120' spacing, includes fixtures, poles, pull boxes, conduits, etc.
Lighting	Pedestrian-scale lighting (per mile)	\$2,000,000	60' spacing, includes fixtures, poles, pull boxes, conduits, etc.
	Intersection lighting	\$100,000	Includes fixtures, poles, pull boxes, conduits, etc.
Bicycle Enhancements	Class I path (per mile)	\$6,340,000	12' path with 3' landscape buffer, assumes relatively simple design context with no rebuilding of curb and gutter
	Class II bicycle lane (per mile)	\$200,000	Signing and striping of bike facility only
bioyete Emidicements	Class III bicycle route (per mile)	\$50,000	Signs and sharrows only
	Class IV bicycle lane (per mile)	\$8,500,000	6' bike facility with 3' landscape buffer in each direction

Note: These costs are order of magnitude costs for planning-level estimates. They include materials and labor, and do not include soft costs such as design, surveying, construction management, etc. Costs for civil improvements were derived from estimates developed for the Carlsbad Sustainable Mobility Implementation Plan.

Source: Fehr & Peers

# **Appendix A: School Site Assessment Summary Report**



To: Fehr and Peers; City of Carlsbad

From: Alta Planning + Design Date: December 18, 2023

Re: School Site Assessment Summary Report for Jefferson Elementary School

# **Jefferson Elementary School**

The Carlsbad Safe Route to School (SRTS) project team conducted one walk audit and one listening session at Jefferson Elementary School in order to understand safety concerns and identity ways to promote active travel for the school commute. This memo summarizes the findings from the walk audit and the listening session.

#### **Walk Audit**

A walk audit was conducted at Jefferson School in the City of Carlsbad on the morning of October 19, 2023. Walk audit participants included the Jefferson Elementary School principal, City of Carlsbad staff and leadership, Carlsbad Police Department staff, Fehr & Peers staff, and Alta Planning + Design staff. Figure 1 shows the main locations that were assessed during the walk audit.

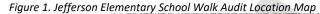
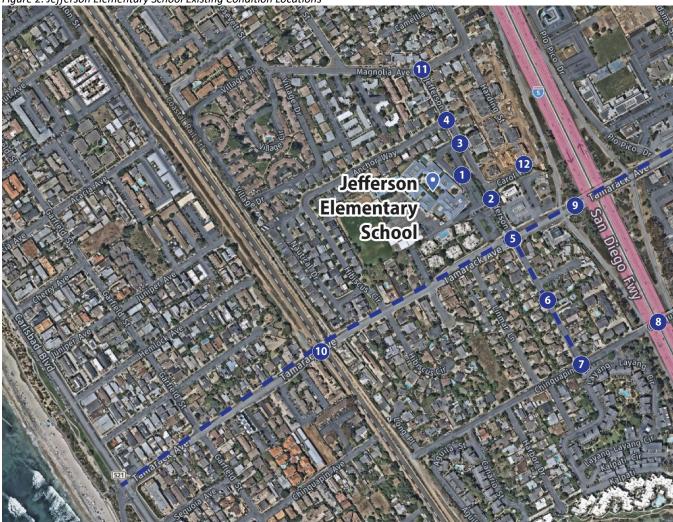






Figure 2 shows existing condition locations as observed or reported by participants during the walk audit. Specific details and potential opportunities for each numbered location are provided in the following sections.

Figure 2. Jefferson Elementary School Existing Condition Locations





# 1. School Driveway – Pick-up/Drop-off Zone

- Two lanes serve the pick-up/drop off zone. Principal Cobb described the following traffic patterns of the pick-up/drop-off period:
  - o E-bikes/Bikes/Scooters pick-up/drop-off is allowed in the school parking lot.
  - Eight (8) staff are present during the pick-up/drop-off hours: 6 staff + 2 staff for Transitional kindergarten (TK)
  - Teachers, per contract, are required/allowed to provide one (1) duty activity/day, which includes monitoring pick-up and drop-off.
  - o TK parents/caregivers usually drop off their kids at the yellow curb at the start of the curbside drop-off because the gate for TK is at the first turning corner of the school driveway.
  - TK drop-off period is around 7:30 am 7:50 am, school staff pull out delineator to create a two-lane flow after 7:50 am.
- The outer lane of the two-lane flow is designated for parents/caregivers who have special education students. These cars have a sticker indicating this on their windshields.
- Parents/caregivers are inclined to let students out of the cars right at the school gate and do not pull forward, even with all the staff present.
  - Possible programmatic recommendation adding "please pull forward" signage and educating parents/caregivers.
- Afternoon pick up duration is about 10 minutes.







Walk audit participants discuss travel concerns around Jefferson Elementary School on the morning of October 19, 2023.

# 2. Jefferson Street/Carol Place - School Driveway Exit at Jefferson Street

- The school driveway exit has one left-turn lane and one right-turn lane.
- The Jefferson Street/Carol Place intersection has high visibility crosswalks.
- The Jefferson Street/Carol Place crossing has a School Crossing Guard during the pick-up/drop-off periods. Some comments about the school crossing guard received during the walk audit:
  - Really great School Crossing Guard!
  - Partially paid for by City (Carlsbad Police Department)
  - Also is a Yard Duty for the school (Carlsbad Unified School District)
- Parents/caregivers feel overwhelmed because too many things happen simultaneously at this location, especially during the pick-up/drop-off periods: people exiting school driveway turning left or right; heavy traffic on Jefferson Street; students crossing Jefferson Street; pedestrians walking on the sidewalk; and ebikes/bikes/scooters on Jefferson Street.
- Some parents/caregivers reported that they could not see pedestrians due to the uphill exit from driveway.
- Left-turn traffic exiting the school driveway onto Jefferson blocks the traffic flow.
- Parents/caregivers do not like the idea of making both exit lanes right-turn only.





Traffic congestion happened at the school driveway exit at Jefferson Street.



Traffic conflicts between different road users.



## 3. School Driveway Entrance at Jefferson Street

- Some parents/caregivers and students cross Jefferson Street at this intersection even though there is no crosswalk here.
  - It is challenging to add a crosswalk crossing Jefferson Street at this location because of the housing driveways on the other side of the street
  - The Principal commented that a crosswalk at this location would help people walking from the north to enter the school grounds sooner and avoid potential vehicle conflicts along the school frontage, where vehicle congestion is higher.
- A parent/caregiver commented that this entrance is the only location that has an accessibility path, so disabled people coming from different directions must detour to enter/exit from this path.

# 4. Jefferson Street/Anchor Way

- Some parents/caregivers and students cross Jefferson Street at this intersection even though there is no crosswalk here.
  - It is challenging to add a crosswalk crossing Jefferson Street at this location because of the housing driveways on the other side of the street.
  - The Principal commented that a crosswalk at this location would help people walking from the north to enter the school grounds sooner and avoid potential vehicle conflicts along the school frontage, where vehicle congestion is higher.
- Anchor Way is also a "park and walk" location. Parents/staff noted that vehicles park near or at curb, reducing sight distances for vehicles exiting Anchor Way onto Jefferson at a very busy intersection for vehicles and pedestrians

## 5. Jefferson Street/Tamarack Avenue

- This intersection is wide and has busy traffic.
- Right turning cars at this intersection are fast and usually do not stop fully.
- Several parents/caregivers have suggested a School Crossing Guard at this intersection.
- Parents / Principal noted that recent signal timing changes have helped with vehicle queues clearing, which was impacting the School exit driveway and adding to the congestion and confusion at that location

Alta Planning + Design, Inc. 6 City of Carlsbad





Faded crosswalks at this wide intersection at Jefferson Street/Tamarack Avenue



 ${\it Cars\ backing\ up\ on\ Tamarack\ Avenue\ at\ Jefferson\ Street/Tamarack\ Avenue,\ blocking\ the\ pedestrian\ crosswalks.}$ 

## 6. Jefferson Street

- According to school staff, speeding along Jefferson Street is an issue, but not during pick-up/drop-off periods.
- Missing sidewalk on the east side of Jefferson Street between Tamarack Avenue and Chinquapin Avenue, and there is no crosswalk along this segment for kids to cross Jefferson Street.
- Parents/caregivers have observed speeding cars fly down from Tamarack Avenue to Chinquapin Avenue.





Missing sidewalk on the east side of Jefferson Street between Tamarack Avenue and Chinquapin Avenue.

# 7. Jefferson Street and Chinquapin Avenue

- No marked crosswalks at this intersection to cross Jefferson Street or Chinquapin Avenue.
- There are no sidewalks along the northeast corner of the intersection. Only the west side of Jefferson Street has sidewalks.
- A wide radius at the northeast corner curb turning right from Chinquapin Avenue to Jefferson Street.





Wide right turn turning radius and absence of crosswalks at the intersection of Jefferson Street and Chinquapin Avenue.

# 8. Chinquapin Avenue and I-5 Overcrossing

- There is no sidewalk on the south side of this overcrossing, and the sidewalk on the north side on Chinquapin Avenue is very narrow and inconsistent.
- Parents/caregivers have observed speeding cars on Chinquapin Avenue because drivers take Chinquapin Avenue as an alternative route to Tamarack Avenue.





Only the north side of this I-5 Overcrossing on Chinquapin Avenue has a sidewalk.



Narrow and inconsistent sidewalk on both sides of Chinquapin Avenue.



#### 9. Tamarack Avenue

- A parent/caregiver representative living on Tamarack Avenue to the east of the I-5 freeway mentioned having issues walking on the "safer routes" suggested by the city because:
  - Speeding cars on Tamarack Avenue.
  - o Limited safe crossing locations along Tamarack Avenue.
- A parent/caregiver representative living on Tamarack Avenue to the west of Jefferson Street reported the absence of a safe crossing location crossing Tamarack Avenue. It's about 2,000 feet between the Garfield Street crosswalks and Jefferson Street crosswalks.
- Some parents/caregivers would love to see more new high visibility crosswalk along Tamarack Avenue.
- Some parents/caregivers suggested to install speed cushions and to lower the speed limit along Tamarack Avenue

#### 10. Tamarack Avenue/Coastal Rail Trail

- This is a location where many pedestrians and bicyclists cross Tamarack to access the Coastal Rail Trail
- There are minimum gaps in the flow of vehicle traffic traveling on Tamarack Avenue, unless there is a train coming at the crossing, making it challenging for families to find opportunities to cross.
- Parents/caregivers suggested a crosswalk with a push button crossing Tamarack Avenue at this location.

#### 11. Jefferson Street/Magnolia Avenue

- Right-turn cars turning from Magnolia Avenue to Jefferson Street usually do not stop fully because of the wide turning radius.
- A parent/caregiver reported that this intersection is chaotic.

#### 12. Cul-de-sac at Carol Place

- Affordable and dense housing projects are being built at Jefferson Street and Carol Place, which will add vehicle and pedestrian trips to the surrounding roadways compared to existing conditions.
  - Removal of the Harding Street connection to Carol Place as a part of this project has reduced locations available for parents/caregivers to park and walk and has increased both pedestrian and vehicle traffic on Jefferson Street by removing a parallel route.
- Some parents/caregivers drop off their students at a nearby abandoned lot (abandoned restaurant) near the cul-de-sac of Carol Place.
- Parents/caregivers cannot currently use the cul-de-sac to park and walk because of blocking from the construction trucks.

#### **Additional Walk Audit Notes**

- Jefferson is a feeder school for TK in Carlsbad, so most TK students come from other areas across the city, increasing the car traffic near the school. About 100 TK students travel to school by car. These students likely have less opportunity to switch from driving to walking since they are traveling from further away.
- Park-and-walk is hard in nearby neighborhoods because parking is limited with red curbs.

#### **Listening Sessions**

One listening session was conducted at Jefferson Elementary School the evening of November 13, 2023. The event was promoted through social media and emails. In total, approximately five parents/caregivers and other school



stakeholders attended the listening sessions. Below is a summary of the key themes shared with the Carlsbad SRTS project team during the listening sessions.

#### E-Bike/Bike Ridership

- Parent/caregivers provided the following feedbacks for the bike safety class:
  - o No speaker system, so some students could not hear the officer talking.
  - Some parents/caregivers still do not feel safe for students to bike to school after the class because of the roadway conditions.

#### **Walking Environment**

- Disconnected sidewalks create barriers for students to walk to/from the school.
- A parent/caregiver commented on the leading pedestrian signal that some drivers start turning right/left when they see the pedestrian lights turn green, even though the traffic lights for car are still red.
  - Drivers are often looking in the direction of opposing traffic (left) before turning right and don't always notice pedestrians in the crosswalk to their right when the light turns green or during the leading pedestrian interval.

#### **Other Feedback**

• Carlsbad Public Works mentioned there is a three-stage traffic study in Carlsbad, which will affect Tamarack Avenue, and some suggestions they are considering include curb extensions and speed cushions.



# **Appendix B: Phase 1 Community Input Summary**

## Safe Routes to School – Jefferson Elementary School Phase 1 Community Input Summary



Traffic safety remains core of the City of Carlsbad's mission. Through the city's local emergency on traffic safety, Aug. 23, 2022 – Sept. 8, 2023, city staff initiated and continue to carry out a wide variety of programs, projects and initiatives to enhance the safe use of city streets. Some could be completed immediately while others are longer term in nature. One of the programs in the Safer Streets Together Plan that the City Council approved is a Safe Routes to School program.

#### **About the project**

The City of Carlsbad is committed to helping everyone get around the city in a safe and convenient way, whether by foot, car, bike or public transit.

One way the city is improving traffic safety is through a Safe Routes to School Program, which is an approach that focuses on walking and bicycling to school through infrastructure improvements, enforcement and safety education. Other strategies the city uses focus on safe driving.

The city is working on several Safe Routes to School plans with Carlsbad schools, including Jefferson Elementary School, to reflect the community's vision, values and priorities. The plan will outline specific short- and long-term infrastructure improvements and school programs that support families and students biking and walking to and from school sites.

Jefferson Elementary has unique programs that draw students from throughout the city, so not every family is close enough to walk or bike. But the more who do, the better traffic will flow and the less time will be spent waiting in school pick-up and drop-off lines.

The city anticipates expanding the program to other schools in Carlsbad in the coming years as budgets allow.

#### **Design considerations**

Over the past few years, the city has gathered community input on various traffic safety projects throughout the city. Through every project, the following considerations are taken into account when seeking feedback:

- Plans must reflect the policy direction already approved by the City Council in various planning documents.
- Improvements must be designed according to state traffic safety standards and traffic laws.
- Designs need to meet the needs of first responders and other emergency services.

## **Community engagement approach**

To ensure the Safe Routes to School plans reflect community needs, values and priorities, the city developed a community engagement approach consisting of three main opportunities for input:

#### Phase 1: Areas for improvements

October 2023 - January 2024

The first phase will gather feedback about areas of opportunity and concern and determine where the community would most like to see enhancements for walking and biking.

#### Phase 2: Feedback on draft plan

Summer 2024

Based on community input and technical studies, the project team will develop a draft Safe Routes to School plan, which outlines recommended short-term and long-term infrastructure improvements in and around each campus. The draft plan will be shared with the school and community for additional feedback and be presented to the Traffic Safety & Mobility Commission and the City Council for approval.

Other opportunities for community input are built into the plan's approval process, including meetings of the Traffic Safety & Mobility Commission and the City Council, when they consider the final designs, funding and timing of improvements.

#### Level of engagement

The International Association of Public Participation's spectrum of public participation illustrates a variety of approaches to involving the public in decision making. The Safe Routes to School process falls in the category of "involve."

## International Association of Public Participation Spectrum of participation

		_	_		
	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Goal	Provide balanced, information so public understands problem, options, opportunities and solutions	Obtain input on the analysis, options or decisions that have already been made	Work directly with the public throughout the process to ensure input is understood and considered	Partner with the public in each aspect of the decision, including the creation of options and identification of the preferred solution	Place final decision making in the hands of the public
Promise	We will keep you informed	We will listen to and acknowledge your concerns and ideas and let you know how your input influenced the decision	We will ensure your concerns and ideas are directly reflected in the options developed and how input influenced the final decision	We will look to you for advice in creating options and incorporate your input into the decisions to the maximum extent possible	We will implement what you decide

#### How to consider the input

The input in this report is qualitative in nature and was obtained through a convenience

sample. This means the city focused on gaining an in-depth understanding of community member perspectives, and the results cannot be generalized to the entire population of the city within a defined margin of error.

The input in this report should be considered with a similar weight as comments made at a City Council meeting or those sent by email.

That's why the input in this report should be considered with a similar weight as other forms of feedback that have always

been part of the city's decision-making process, such as comments made at City Council meetings or emails sent to the city expressing an opinion.

## **Qualitative**

Focuses on understanding the "why" Identifies a range of perspectives Allows for discovery of new ideas Analyzed by themes

## Convenience sample

Only those who knew about the opportunity to provide input were able to do so

#### Quantitative

Focused on facts/absolutes Data focused on measuring Analysis includes numerical comparisons Allows for statistical analysis

## Random sample

All members of the target population had an equal opportunity to participate

## Phase 1: Community needs, values and priorities

Community members were provided in person and a virtual opportunity to provide input that would be used to create the safe routes to school plan.

#### How we engaged



In person community meeting held at Jefferson Elementary School Nov. 13, 2023



Online input map available Jan. 8-22, 2024

The input opportunities were promoted through the following:

- Parent and Parent Teacher Association email from the school
- Emails to those interested in traffic safety and the city's school committee
   sent Jan. 12, Jan. 16
- City Manager's Update Jan. 18
- Post on Nextdoor
- News release
- Media interview with Channel 8 local news – Jan. 14
- Webpage



## Safe walking and biking to school



The City of Carlsbad is working with school communities to promote traffic safety. One way is through safe and convenient biking and walking to and from campus.

#### Parents are invited to:

- Provide feedback on experiences getting to and from school
- · Learn about the safe routes to school program

#### Monday, Nov. 13

Jefferson Elementary School 6 - 7 p.m.

www.carlsbadca.gov/projects



City of

Carlsbad

## **Share your feedback:** Safe Routes to School



The City of Carlsbad is seeking public input on areas around two schools where enhancements could be made for walking and biking routes.

- Jefferson Elementary School
- · Sage Creek High School



Provide input on this mapping tool by Sunday, Jan. 21



www.carlsbadca.gov/residents/projects nathan.schmidt@carlsbadca.gov





( City of Carlsbad

5



News from the City of Carlsbad | Jan. 18, 2024



#### Safe Routes to Schools

As part of the city's collaboration with schools in Carlsbad, we're asking parents and As part of the city's collaboration with schools in Carlsbad, we're asking parents and community members to let us, know how we can make walking and biking to blefferson Elementary and Sage Creek High schools a better experience for students and families. More students walking and biking would be good news for drivers too, because it would help reduce traffic in those areas.

These efforts are part of the city's Safe Routes to School program, which is one of several ways the city is working with school communities to promote safe and convenient travel to and from campus.

Safe Routes to School focuses on walking and biking improvements, while other programs focus on driving.

- Safe Routes to School focuses on walking and biking improvements, while other programs focus on driving.
   Jefferson and Sage Creek both have unique programs that draw students from throughout the city, so not every family is close enough to walk or bike. But the more who do, the better traffic will flow and the less time will be spent waiting in school pick-up and drop-off linos.
   Use this online mapping tool by Jan. 21 to point out areas near the two schools where changes could help make walking or biking easier. Click on the colored icons to see ideas and comments other people have made.
   The city anticipates expanding the program to other schools in Carlsbad in the coming years as budgets allow.

## nextdoor Provide your feedback - Safe Routes to School Jefferson Elementary The City of Carlsbad is seeking public input on areas around Jefferson Elementary School where enhancements could be made for walking and biking routes. 8 Invite Residents These efforts are part of the city's Safe Routes to School program, which is one of several ways the city is working with school communities to promote safe and convenient travel to and from campus. Safe routes to school is an approach that focuses on walking and biking improvements, while other programs focus on driving Public input will be used to create a Safe Routes to School plan for Jefferson Elementary, which includes short- and long-term infrastructure improvements around each school. The dity articipates expanding the program to other schools in Carlsbad in the coming years based on budget. 22 Directory Input on areas specifically around the schools to support walking and biking enhancements can be made on this online mapping tool. Please provide you feedback by Sunday, Jan. 21. https://cityofcarlsbad.mysocialpinpoint.com/saf Resource Hub For questions, please feel free to reach out to nathan.schmidt@carlsbadca.go

#### **Jefferson Elementary Safe Routes to School Public Input Report**

Spring 2024

#### Newsroom



#### Have your say: Safe routes to school

Post Date: 01/08/2024 12:48 PM

#### Where can the City of Carlsbad make walking and biking to Jefferson Elementary and Sage Creek High schools easier?

The City of Carlsbad is asking the community to weigh in on areas around two schools, Jefferson Elementary School and Sage Creek High School, where enhancements could be made for walking and biking routes.

These efforts are part of the city's Safe Routes to School program, which is one of several ways the city is working with school communities to promote safe and convenient travel to and from campus. Safe routes to school is an approach that focuses on walking and biking improvements, while other programs focus on driving.

Public input will be used to create a Safe Routes to School plan for Jefferson Elementary and Sage Creek High School, which includes short-and long-term infrastructure improvements around each school. The city anticipates expanding the program to other schools in Carlsbad in the coming years based on budget.

mapping tool. Provide your feedl



Sign up to get email updates

#### Input on areas specifically aroun Díganos su opinión: Rutas seguras a la escuela

La ciudad de Carlsbad está buscando opiniones del público sobre áreas alrededor de dos escuelas, la escuela primaria Jefferson y la escuela preparatoria Sage Creek, donde se podrían realizar mejoras en las rutas para caminar y andar en bicicleta.

Estos esfuerzos son parte del programa Rutas Seguras a la Escuela de la ciudad, que es una de varias formas en que la ciudad está trabajando con las comunidades escolares para promover viajes seguros y convenientes hacia y desde la escuela. Rutas Seguras a la Escuela es un enfoque que se centra en mejoras para caminar y andar en bicicleta, mientras que otros programas se centran en los automovilistas.

Se utilizarán las opiniones del público para crear un plan de Rutas Seguras a la Escuela para la escuela primaria Jefferson y la escuela preparatoria Sage Creek, que incluye mejoras de infraestructura a corto y largo plazo alrededor de cada escuela. La ciudad prevé ampliar el programa a otras escuelas de Carlsbad en los próximos años dependiendo del presupuesto.

En esta herramienta de mapeo en línea se pueden realizar comentarios sobre áreas específicamente alrededor de las escuelas para apoyar mejoras para caminar y andar en bicicleta. Envíe sus comentarios antes del domingo 21 de enero.



Regístrese para recibir actualizaciones por correo electrónico.

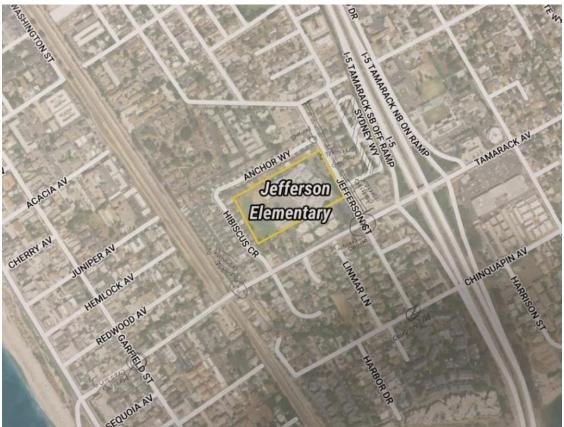
#### Próximos pasos

- Envíe su opinión antes del 21 de enero.
- La ciudad revisará los aportes para hacer recomendaciones sobre mejoras de infraestructura a corto y largo plazo en un plan de Rutas Seguras a la Escuela.
- El plan se presentará en la reunión de la Comisión de Movilidad y Seguridad Vial en la primavera.



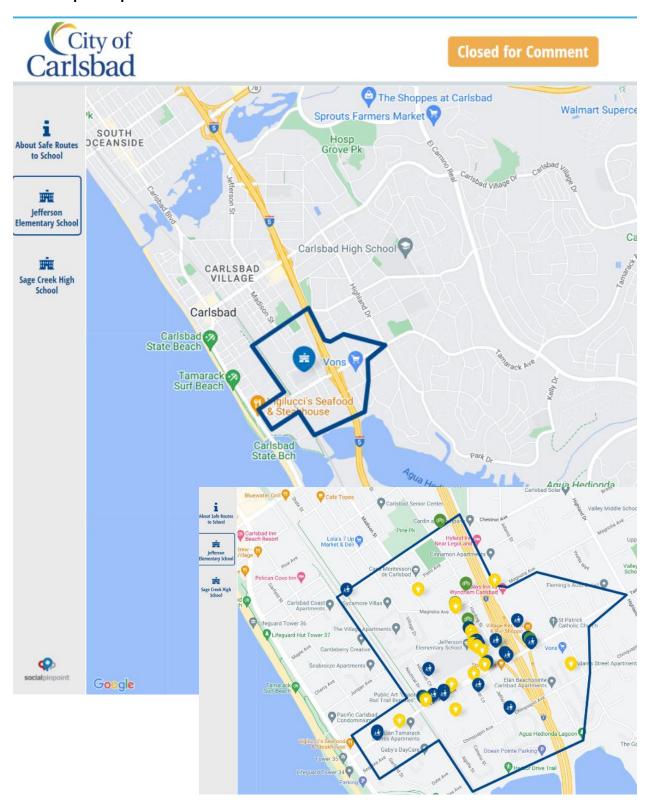
## In person listening session





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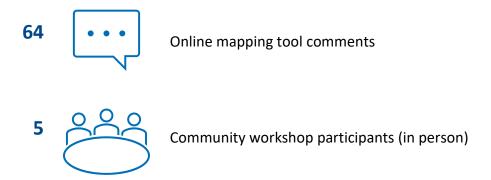
#### Online input map



Jefferson Elementary Safe Routes to School Public Input Report

Spring 2024 —

## Who participated



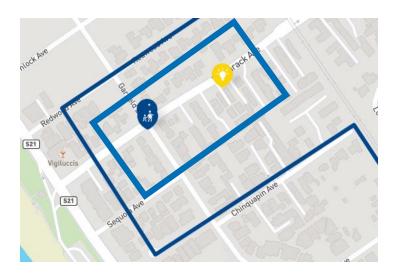
## What we heard

Each engagement opportunity included a mapping experience to identify specific locations and types of improvements to be made.

Comments and survey responses have been categorized into overall themes and topics. Readers are strongly encouraged to review the verbatim comments in Appendix A to get a better understanding of specific ideas, priorities and concerns expressed.

## **Areas for improvements**

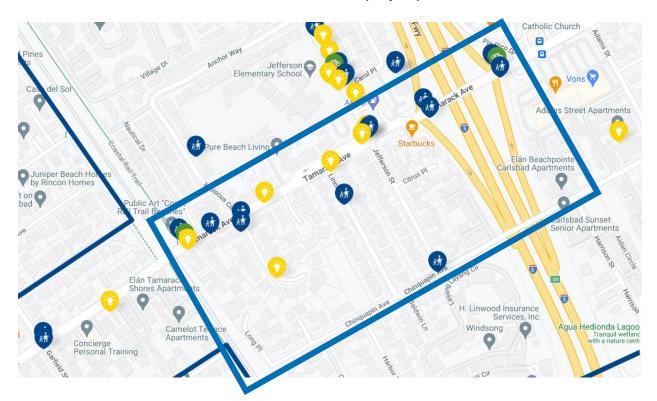
Tamarack Avenue – Between Garfield Street and the railroad tracks – 3 pins



#### DRAFT

Pedestrian improvement	<ul> <li>Improve lighting and visibility of existing crosswalks across Tamarack Avenue at Garfield St</li> </ul>
Traffic calming	<ul> <li>Install traffic calming measures to slow down cars</li> </ul>

#### Tamarack Avenue – Between railroad tracks and I-5 (21 pins)



### Pedestrian improvements

- Improve connection across the north and south entrances of the Coastal Rail Trail
- Add high visibility crosswalks across
   Tamarack Avenue at Hibiscus Circle
- Add lighting and sidewalks to south end of Hibiscus Circle
- Add sidewalks on Linmar Lane
- Enhance visibility, add crossing guards at Jefferson and Tamarack
- Improve crossing across freeway entrances and exits
- Add crosswalk at Jefferson and Chinquapin

#### Bicycle improvements

- Improve connection across the north and south entrances of the Coastal Rail Trail
- Improve crossing across freeway entrances and exits

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Traffic calming

- Install traffic calming measures on Tamarack and Chinquapin to slow down cars
- Install school zone signs

Traffic congestion

 Evaluate signal time of light at Tamarack and Pio Pico to alleviate congestion at Tamarack and Jefferson



#### Pedestrian improvements

- Improve visibility of crosswalk, add crossing guards at Jefferson and Magnolia
- Add additional crosswalk near entrance of school parking lot
- Improve visibility of crosswalk to the school, prevent cars from blocking it during congested times
- Add sidewalks all along Jefferson

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Bicycle improvement	<ul> <li>Add bike lanes to the school</li> </ul>
Traffic calming	<ul> <li>Install traffic calming measures to slow down cars</li> <li>Limit right turns from Jefferson onto Tamarack during school times</li> <li>Address blind spot of exiting the gas station onto Jefferson</li> </ul>
Traffic congestion	<ul> <li>Improve traffic flow of drop-off and pick-up in the parking lot</li> <li>Improve visibility and congestion for cars exiting the parking lot to turn left on Jefferson</li> <li>Evaluate signal time of light at Tamarack and Jefferson</li> <li>Consider one-way traffic between Magnolia and Tamarack</li> <li>Lack of parking near school is an issue</li> </ul>

#### Other comments for other areas

- Bike lanes on Harding Street are blocked by trash cans
- Potholes and repaving needed at Jefferson and Magnolia
- Enhanced biking conditions on Chestnut between Harding and Pio Pico
- Improve visibility for cars turning onto Pio Pico from Magnolia, install traffic calming on Pio Pico
- Enhance pedestrian and bike safety along Pio Pico at St. Patrick's school parking lot exit
- Install traffic calming improvements at Chinquapin and Adams St

#### **Topics**

Appendix A includes all of the verbatim comments related to these themes as well as comments categorized by the following topics:

Biking improvement
Pedestrian improvement
Traffic calming
Traffic congestion

## Next steps

The Transportation planning team will use community input and other technical evaluations including a walking audit to draft a Safe Routes to School plan, which will include short-term and long-term infrastructure improvements. A draft plan will be shared with the community for additional feedback in summer 2024.

The Safe Routes to School plan will be presented to the Traffic Safety & Mobility Commission for recommendation of approval, then to the City Council to determine next steps for design and funding of the improvements.

## **Appendices**

Online mapping comments In person workshop feedback Other online comments

## **Online mapping comments**

Theme	Comment	Street (where the pin is)	Cross street (nearest cross street)
Traffic calming	I live at the 4-way intersection if Adams and Chinquapin. Cars coming west down Chinquapin from Highland and Hillside do so at high speeds and rarely stop fully at the intersection. Many bicyclists also come racing down the hill and fly right through the intersection without stopping. I have personally observed many near collisions both vehicular and bike. The speed bumps on Tamarack have pushed traffic down Chinquapin as drivers seek to avoid the lights and speed bumps on Tamarack.	Adams St	Chinquapin Ave
Bicycle improvement	We need sharrows on Chestnut between Harding and Pio Pico.	Chestnut Ave	Harding St
Bicycle improvement	Chestnut ave is the most unsafe street, especially near Carlsbad high school. People aren't willing to wait for someone turning left so they veer around into the bike lane. We need left turn lights and extra lanes for turning from chestnut to Monroe.	Chestnut Ave	
Walking improvement	Agree! At least connect the pedestrian/ bike access via an underpass or train overpass.waiting to trench the trains is going to take too long and we need an immediate solution	Chestnut Ave	Railroad tracks
Walking improvement	Figure out how to make chestnut go through so there is a direct route to school this way.	Chestnut Ave	Railroad tracks
Walking improvement	I've also observed this and noticed cars using this stretch of road at a high rate of speed.	Chinquapin Ave	Jefferson St
Walking improvement	Need stop sign at Chinquapin and Jefferson. Drivers coming south on Chinquapin are often driving fast	Chinquapin Ave	Jefferson St
Bicycle improvement	Residents on the west side of this street block the bike lane with their trash cans every week.	Harding St	Camellia Pl
Bicycle improvement	All parallel parking on Jefferson between Magnolia and Tamarack should be removed and replaced with a bike lane.	Jefferson St	Anchor Way

Bicycle improvement	No bike lane near school while I ride this road daily for child drop off.	Jefferson St	Carol Pl
Bicycle improvement	This intersection needs to be repaved. Especially after heavy rains, pot holes occur and are dangerous for bicyclists and pedestrians.	Jefferson St	Magnolia Ave
Traffic calming	Drivers turning onto Jefferson from Magnolia routinely run the stop sign, even with children around.	Jefferson St	Magnolia Ave
Traffic calming	Cars need slowed on this street via cross walks and speed bumps like done on the east side of tamarack. Cars speed at terrible speeds here, an area that should be a way to connect the south and north end of tamarack.	Jefferson St	Carol Pl
Traffic calming	Can we PLEASE get speed bumps along this stretch of Jefferson?? I've seen people speed (40+mph) and even PASS other cars DURING school pickup or drop off while little kids and families are everywhere.	Jefferson St	Carol Pl
Traffic calming	We need speed bumps ASAP. It's impossible to get out of driveways on Jefferson street by the elementary school. There's been multiple crashes now of residents pulling out of driveways & Defferson street. Also hard to see pedestrians when you're backing out as the parked trucks block your view. We need mirrors on lampposts for pedestrians safety. With the new apartments, parking is going to be impossible and there will be more bad accidents.	Jefferson St	Carol Pl
	People use Linmar heavily as an alternate route. We frequently see people coming from Linmar and turning (in either direction) onto Tamarack without looking for pedestrians crossing in front of their cars. Lots of near misses here.		
Traffic calming	Please step up patrols on the western stretch of Tamarack if you want more people walking/biking to school. Please take measures to reduce the flow of traffic and increase safe crossing opportunities.	Jefferson St	Carol Pl

Traffic congestion	Jefferson between Magnolia and Tamarack should be a one-way street for vehicles, and two-way for bikes. A study should be done to determine best flow for vehicles either north or south.	Jefferson St	Magnolia Ave
Traffic congestion	Every day, we see people on Jefferson who are not dropping off/picking up kids at school get angry about the backup of traffic, honk, yell, and illegally and dangerously go around cars that are waiting in the line of backed up cars to get into the Jefferson parking lot. This is extremely dangerous and if it continues, someone will inevitably be hurt or killed.	Jefferson St	Magnolia Ave
Traffic congestion	I've seen this many times too. Illegal passing around cars waiting to get into and out of the Jefferson parking lot. It happens daily.	Jefferson St	Tamarack Ave
Traffic congestion	Agreed. We have also noticed people driving this stretch of road during school pickup who are NOT dropping children at school and theybecome impatient, honking and yelling at drivers who are in the midst of school pickup and dropoff. When Jefferson is backed up during drop off/pick up, we regularly see non-school drivers dangerously go around the line of cars waiting to drop kids off at school. If people keep doing this, it will result in someone being struck and injured/killed.	Jefferson St	Tamarack Ave
Traffic congestion	Agreed. We regularly see non-school drivers on this road during pick up/drop off become frustrated, yelling, honking, and unsafely and illegally going around the cars waiting on Jefferson to drop off/pick up their kids. If this continues, someone will eventually be injured or killed.	Jefferson St	Carol Pl
Traffic congestion	This should include the lights at Tamarack and I-5/Pio Pico too. I frequently see the light green at Tamarack/Jefferson but nobody can turn left onto Tamarack because Tamarack itself is backed up.	Jefferson St	Anchor Way

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Traffic congestion	It is not safe for kids to walk to school via Tamarack (west of 5). It is also not safe nor pleasant for people to drive to school via Tamarack/Jefferson. There is extremely limited parking on Jefferson near school due to the new housing. The school parking lot gets clogged up, creating backup on Jefferson. Parents are in an impossible situationdrive their kids to school in the chaos of the traffic? Or take the risk of walking on a road where people are driving far too fast?	Jefferson St	Magnolia Ave
Traffic congestion	A traffic study is needed to better time the light at Jefferson to Tamarack. This causes a backup for the parents leaving the school drop off and creates a dangerous situation for people turning left (blindly) from the school onto Jefferson.	Jefferson St	Anchor Way
Traffic congestion	The timing on this light causes massive traffic congestion during school drop off and pick up. If Jefferson's parking lot could flow better, more parents would be willing to drop off and pick up in the parking lot rather than find street parking and walk in.	Jefferson St	Carol Pl
Walking improvement	Extremely dark street with blind turn and no sidewalks. Just last night we were on a walk home from an evening Jefferson event and a car couldn't see us and the street is the only place to walk on.	Jefferson St	Carol Pl
Walking improvement	Is the new crosswalk going to be lighted like the ones on Carlsbad Blvd?	Jefferson St	Carol Pl
Walking improvement	Why is the new crosswalk not elevated like the new crosswalks on Tamarack?	Jefferson St	Carol Pl
Walking improvement	Many families that live inside the Windsong gate, or around chinqupin cross here at chinquapin to Jefferson on the side of Jefferson that has the sidewalk. We've all been saying for years how helpful i5 would be to have a crosswalk so it would be easier for cars to see the pedestrians and kids tryibg to cross here. It would also possibly help the speeding of cars down this road making it safer for all of the walking families on this side going to Jefferson.	Jefferson St	Chinquapin Ave

Walking improvement	It is a travesty that there are no protected crosswalks, of the kind we now see on the Coast Highway and Tamarack, anywhere on Jefferson, the very street that the elementary school is on. We don't need a monstrosity like the one at Valley and Jefferson, just a nice sign with a button to push for warning lights.	Jefferson St	Carol Pl
Walking improvement	The exit driveway at the school constantly gets blocked due to the light at Jefferson, which causes backups in the parking lot and a dangerous situation for the crosswalk. If there were striping to "keep clear", it could help traffic leave the parking lot for those parents needing to turn left.	Jefferson St	Tamarack Ave
Walking improvement	There is no sidewalk on north end of Linmar making it difficult for pedestrians who have to walk on a narrow street. Intersection for eastbound Tamarack to Linmar Lane is a blind turn.	Linmar Ln	Tamarack Ave
Bicycle improvement	Dangerous gravel pot hole areas of bike lane all along magnoia.	Madison St	Magnolia Ave
Traffic calming	intersection of Magnolia and Pio Pico Dr. in re: often poor visibility due to large trucks parked along Pio Pico Dr. There is a combination of that along with speeding that makes this are dangerous when trying to travel from Magnolia to turn onto Pio Pico Dr.	Magnolia St	Pio Pico Dr
Walking improvement	This area becomes very dangerous when parents are parked to pickup children from St. Patrick's School as often traffic traveling South is made to move over for on-coming NB traffic that is unable to utilize their lane to do cars stopped along the sidewalk. Bicyclists and pedestrians on the West side of Pio Pico are put at risk of a collision when this happens.	Pio Pico Dr	Tamarack Ave
Bicycle improvement	The entrance to the Rail Trail needs a more obvious crosswalk and better entrance for bikes heading west on Tamarack.	Tamarack Ave	Railroad tracks

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Bicycle improvement	Crossing the Freeway entrance and exits is a complete nightmare for pedestrians and cyclists. Please come up with ways to fix these for the Jefferson children, as well as the kids who head from to Valley Middle School and CHS.	Tamarack Ave	Freeway entrance/exit
Bicycle improvement	This whole intersection and area would benefit from pedestrian and bike improvements. This would also help the St Patrick's students.	Tamarack Ave	Freeway entrance/exit
Bicycle improvement	Please provide a permanent crossing guard since this intersection is extremely busy in the mornings and after school.	Tamarack Ave	Jefferson St
Bicycle improvement	Please fix and connect the rail trail here to the Southside of Tamarack. without a crossing here, kids and adults are crossing to the north side of Tamrack Avenue at their own risk in multiple spots and then are often riding in the wrong direction (against Traffic) in order to get to the rail trail. It's dangerous and shouldn't happen.	Tamarack Ave	Railroad tracks
Traffic calming	I live on the south side of Tamarack and find that cars are often going well in excess of the speed limit as they come from Garfield going eastbound on Tamarack between Garfield and the train tracks. The downhill slope coupled with lack of slowing measures and very little patrolling results in speeding. It is difficult to pull out of our driveway due to the excessive speed of traffic here. The high speed of traffic creates a safety issue for my children walking to school.	Tamarack Ave	Railroad tracks
Traffic congestion	We look forward to traffic studies during school drop and pick up hours. Please conduct the study at the hours of 7:45-8:10 M-F and 2:10 to 2:35 M-F (with the exception of Thursday afternoon, with pickup being at 1:25 on Thursdays).	Tamarack Ave	Jefferson St

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Walking improvement	Absolutely!!! This is long overdue. We are encouraged to bike and walk on the rail trail but when it hits the street at Tamarack, it's incredibly unsafe to cross the street to the south due to consistent oncoming vehicle traffic and impaired visibility. A big crosswalk with street signs would be a very simple first step.	Tamarack Ave	Railroad tracks
Walking improvement	Agreed. As an adult, I am nearly hit on a regular basis while crossing this cross walk on foot. Walking with my toddler, I've been nearly hit several times by cars who go into the intersection while I am midway through the cross walk. I do not feel it is safe for my children (even my 11-year-old) to safely cross this intersection.	Tamarack Ave	Garfield St
Walking improvement	Crossing the Freeway entrance and exits is a complete nightmare for pedestrians and cyclists. Please come up with ways to fix these for the Jefferson children, as well as the kids who head from the Beach up to Valley Middle School and CHS.	Tamarack Ave	Freeway entrance/exit
Walking improvement	Crossing the Freeway entrance and exits is a complete nightmare for pedestrians and cyclists. Please come up with ways to fix these for the Jefferson children, as well as the kids who head from the Beach up to Valley Middle School and CHS.	Tamarack Ave	Freeway entrance/exit
Walking improvement	Crossing the Freeway entrance and exits is a complete nightmare for pedestrians and cyclists. Please come up with ways to fix these for the Jefferson children, as well as the kids who head from the Beach up to Valley Middle School and CHS.	Tamarack Ave	Freeway entrance/exit
Walking improvement Walking	Crossing the Freeway entrance and exits is a complete nightmare for pedestrians and cyclists. Please come up with ways to fix these for the Jefferson children, as well as the kids who head from the Beach up to Valley Middle School and CHS.	Tamarack Ave	Freeway entrance/exit
improvement	We need crossing guards here!	Tamarack Ave	Magnolia Ave

Walking			
improvement	We need crossing guards!!	Tamarack Ave	Jefferson St
Walking improvement	Please give us a crossing guard here for children to cross safely. I know other schools in the area have more than one crossing guard (Kelly, for example). Because Jefferson is directly adjacent to the freeway, and because people regularly use the roads near the school for non-school, high-speed freeway diversions, it is very surprising that we have not been allotted additional crossing guards so that our kids can get safely to school. We also need more patrolling of the roads near Jefferson.	Tamarack Ave	Jefferson St
Walking improvement	Please provide a permanent traffic crossing guard at this major intersection for both pedestrians and bikes.	Tamarack Ave	Jefferson St
Walking improvement	We need a safe and high vis crosswalk somewhere between Garfield and Jefferson on Tamarack for kids to cross from the south side of Tamarack to the north and vice versa. Placement could be just east of the train tracks or at the intersection of Hibiscus and Tamarack. The cars on this segment routinely travel at such a high rate of speed that it's very difficult to cross Tamarack, even when we attempt to use the corner to corner cross (no cross walk) at Hibiscus. More speed reduction please.	Tamarack Ave	Hibiscus Cir
Walking improvement	The school could really use another crosswalk at this location	Tamarack Ave	Hibiscus Cir
Walking improvement	A raised pedestrian crossing with lights (like at tamarack/valley) would help with visibility and slow traffic down. The crossing guard does their best, but it's not a safe situation.	Tamarack Ave	Hibiscus Cir
Walking improvement	Can we consider 2 things1. better lighting/illumination for this crosswalk at night and in the early morning? 2. making the crosswalk high vis (maybe a push-button illuminator? Please also note that drivers seem to have a difficult time seeing pedestrians as the sun is setting over this intersection. Glare is a factor. We have near misses with cars here almost daily while crossing on foot.	Tamarack Ave	Garfield St

Spring 2024 **24** 

	Rail trail needs a Lighted Crosswalk!!!		
Walking improvement	Please make it simple for kids to cross the road with a lighted flashing crosswalk to connect the rail trail to the south side of Tamarack	Tamarack Ave	Railroad tracks
Walking improvement	Hibiscus circle should be connected via a cross walk to the north end of tamarack. Currently the south side of tamarack has limited places to cross tamarack. And more importantly, there is a significant distance between Garfield and Jefferson that allows cars to pick up significant speeds and stop signs and or raised cross walks like done on the east side of tamarack would lend the south end of Carlsbad to have safe walking paths and feel more included in what should be a neighborhood.	Tamarack Ave	Hibiscus Cir
Walking improvement	100% agree with this. There is too great a distance between Garfield and Jefferson St on Tamarack for kids crossing from the south side of Tamarack to the north side. We need a high visibility cross walk btwn these two points and more speed patrolling. My kids can't safely walk this route at present with the high rate of speed of the car traffic and the issues with safety crossing even at the Tamarack/Jefferson and Tamarack/Garfield intersections for pedestrians.	Tamarack Ave	Hibiscus Cir
Walking improvement	Agreed. This is not a safe crosswalk for kids to cross on their own. The speeding issues on the stretch of Tamarack west of 5 coupled with lack of safe places to cross make it prohibitive for older kids to walk to school without adult supervision. We frequently see cars turning right from Jefferson onto westbound Tamarack without checking for pedestrians in the crosswalk.	Tamarack Ave	Jefferson St
Walking improvement	This intersection is incredibly busy with vehicles, pedestrians, and bikes. Safer more controlled. Crossing system is definitely needed Please add crossing signs, flashers, buttons for the pedestrians, and ADA curb ramps as the street to sidewalk transitions are noncompliant and very dangerous.	Tamarack Ave	Garfield St

Spring 2024 **25** 

Walking improvement	Might consider using Hibiscus as a safe route to school instead of Tamarack if better speed reduction and crosswalks cannot be implemented on Tamarack. Cars tend to travel more slowly on Hibiscus (and there's a sidewalk) making it a potentially safer route for kids coming from the western stretch of Tamarack to Jefferson.	Tamarack Ave	Hibiscus Cir
Walking improvement	Visibility for drivers turning left is made even worse by vehicles frequently parked illegally along the red curbs.	Tamarack Ave	Jefferson St
Walking improvement	Extremely dangerous street where cars go well above speed limit a majority of the time. Limited stops or speed bumps slowing cars down. Makes south end of tamarack stuck with dead ends and no ability to connect with its school community on the north end.	Tamarack Ave	Jefferson St

## In person workshop feedback

#### Pedestrian improvements

- Need for safe crossings across Tamarack Ave
- Not as many opportunities to cross Tamarack to get to and from school
- Trouble crossing at Hibiscus no crosswalk.
- People walk down Anchor Way
- Need ADA crossing
- Need to watch for driveway at gas station
- Move crosswalk more toward entrance of parking lot

#### Traffic safety

- At the top of Garfield, crest of hill, people come from the stop sign and fly down
- Speeding cars. No stop sign between Garfield and Jefferson
- Cars turn right out of Jefferson to Tamarack struggle. Don't look for pedestrians
- Lack of parking near school is an issue
- Need traffic calming on Tamarack let it be known it's a speed trap
- Need traffic calming at Chinquapin and Jefferson
- Need school zone signs and speed feedback signs
- Visibility is poor coming out of the school parking lot, especially if ppl there.

#### Biking improvements

Bikers frequently cross at rail trail – need crossing

#### Other comments

From: Emily Kuhnel < emilyakuhnel@gmail.com > Sent: Tuesday, November 14, 2023 8:32 AM To: Nathan Schmidt < Nathan.Schmidt@carlsbadca.gov > Subject: Jefferson Elementary traffic

Hi, Mr. Schmidt. I was unable to make the traffic meeting last night at Jefferson Elementary, but the other parents who went said they were so thankful for your listening ear.

I walk my two kids to Jefferson Elementary School every day. As they get older, they ask if they can soon walk on their own. I tell them a resounding NO WAY as the traffic stands right now.

We live at the end of Chinquapin on the east side of the tracks. I think we get forgotten in the Jefferson Elementary traffic plans since we are on the other side of Tamarack.

Chinquapin is becoming a major thoroughfare. Why? It is high density living. I'd estimate 1,000 residents back here, including more young families than 10 years ago since we are all priced out of homes. Also, tons of biker groups are avoiding the Tamarack intersection.

What does the Chinquapin area need? You are the pros, but here are our TOP thoughts:

- Crosswalk at the end of Jefferson to the other side of Chinquapin. People are darting from in between cars every which way. Offer some direction. (Maybe a crosswalk off Linmar, too!)
- A crossing guard at Tamarack and Jefferson

#### Other ideas:

- If not a crossing guard at Tamarack/Jefferson, maybe limit right turns during school zone times? Those people turning right are NOT looking out for our kids.
- Possibly a speed bump or speed table on Chinquapin? A digital "your speed" sign? Sidewalks down both sides of Jefferson all the way to the end.
- They have time the Tamarack/Jefferson lights better in recent months so the crossing light is a few seconds BEFORE the green light, which has helped a ton. Thank you!

We appreciate your attention to our area and look forward to your plans. THANK YOU!

Emily Kuhnel Jefferson mom 915-319-4997

Spring 2024

From: Marie Moreland <marietmccarthy@yahoo.ie>
Sent: Wednesday, January 10, 2024 8:43 AM
To: Nathan Schmidt <nathan.schmidt@carlsbadca.gov>
Subject: Jefferson Elementary safety on the Street

#### Nathan

Theres been numerous crashes now on this street. I reside at 3715 Jefferson street. I've seen vehicles blow through every stop sign at the T junction with magnolia and one house at the T has had numerous trucks crash into & through their house. Theres safety bollards there now.

We are finding it impossible to back out of our driveways safely. Trucks parked in street block the view. We are about to install a mirror on our lamppost outside, as I'd a child on a scooter that nearly hit my car as I was driving out of my driveway and my Tesla was forward facing I guess they didn't see or hear the car. Luckily I drive at a snails pace as I know how dangerous our street is. Also I've almost been hit and missed from backing out and cars not seeing me if there's large trucks parked on my street.

There's been a wreck just recently up the street with someone trying to back out of their driveway. We need speed bumps ASAP. Cars speed up and down this street and don't stop at signs. They side swiped the truck trying to back out of their driveway.

IMHO if you put a cycle lane in, without speed bumps, there will be fatalities. It's one of the most dangerous & busy streets in Carlsbad. And the only artery into the barrio.

People pull out of Arco gas stations so fast too. It's a bit of a blind spot. Traffic and parking will inevitably get worse with the new sea breeze apartments.

We should probably have traffic lights on magnolia. Speed bumps, traffic lights, safety mirrors on lampposts are a start before you think of cycle lanes.

Also the principle of Jefferson elementary has made it more congested due to the fact they now only allow one of the two drop off lanes.

Feel free to contact me and I can also put you in touch with neighbors who have witnessed all these accidents. It's only a matter of time that there will be a fatality.

Marie Moreland 949 371 1849 Sent from my iPhone

----Original Message---From: THE TEAM FAMILY <peacelovesunshine@gmail.com>
Sent: Wednesday, January 10, 2024 10:22 AM
To: Nathan Schmidt <nathan.schmidt@carlsbadca.gov>
Subject: Safety near schools

Hi,

The online map was not working on my phone. We need lighted crosswalks and crossing guards near Jefferson Elementary. Specifically at the three way stop sign on magnolia and Jefferson. Cars run that stop sign all day every day and every morning walking my kids to school we almost get hit.

Also, the system for school drop off and pick up that the new principal at Jefferson implemented, has made walking to school extremely dangerous. Cars are piled up. Cars get impatient and cross into the wrong lane to bypass school drop off. Kids and adults j walk and I have seen multiple people almost get hit. It's not safe. It's not functional.

Thank you. Marion Team Sent from my iPhone

#### DRAFT



Pam D. • Carlsbad Village Beach • 15h

I have been concerned about the Tamarack/Jefferson intersection for years.

People run the red light going East to get on the I-5 southbound a few seconds faster.

Like Reply Share

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# **Appendix C: Tamarack Avenue/Jefferson Street Intersection Operations Test Results**

Delay and Queue Results at Jefferson St/Tamarack Ave

	AM		PM	
Scenario	SB Queue	Delay	SB Queue	Delay
	(ft)	(sec/veh)	(ft)	(sec/veh)
Existing	317	15.8	237	14.8
Proposed	215	14.9	146	12.9
Change	-102	-0.9	-91	-1.9

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	65	355	43	464	319	457
v/c Ratio	0.37	0.42	0.28	0.62	0.36	0.77
Control Delay	46.7	30.5	46.3	30.3	8.8	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.7	30.5	46.3	30.3	8.8	26.6
Queue Length 50th (ft)	34	90	23	101	53	170
Queue Length 95th (ft)	75	133	56	150	112	317
Internal Link Dist (ft)		218		234	200	246
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	371	1426	371	1399	1085	749
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.25	0.12	0.33	0.29	0.61
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	<b>†</b>		7	<b>↑</b> ↑			4			4	
Traffic Volume (veh/h)	53	275	16	35	245	135	36	54	171	261	21	93
Future Volume (veh/h)	53	275	16	35	245	135	36	54	171	261	21	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	335	16	43	299	92	44	66	150	318	26	103
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	767	36	79	557	167	160	237	432	532	47	138
Arrive On Green	0.06	0.22	0.22	0.04	0.21	0.21	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1781	3446	164	1781	2668	802	175	519	947	909	103	303
Grp Volume(v), veh/h	65	172	179	43	197	194	260	0	0	447	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1833	1781	1777	1694	1641	0	0	1316	0	0
Q Serve(g_s), s	1.9	4.4	4.4	1.2	5.2	5.4	0.0	0.0	0.0	8.6	0.0	0.0
Cycle Q Clear(g_c), s	1.9	4.4	4.4	1.2	5.2	5.4	5.3	0.0	0.0	13.9	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.47	0.17		0.58	0.71		0.23
Lane Grp Cap(c), veh/h	104	396	408	79	371	353	829	0	0	718	0	0
V/C Ratio(X)	0.63	0.43	0.44	0.54	0.53	0.55	0.31	0.00	0.00	0.62	0.00	0.00
Avail Cap(c_a), veh/h	527	1018	1050	527	1018	970	1067	0	0	1459	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.1	17.5	17.5	24.5	18.4	18.5	9.2	0.0	0.0	11.2	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.8	0.7	2.2	1.2	1.3	0.1	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.7	1.8	0.5	2.0	2.0	1.6	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh		40.0	40.0	00 =	40.0	40.0	0.0	0.0	0.0	44.5	0.0	0.0
LnGrp Delay(d),s/veh	26.4	18.3	18.3	26.7	19.6	19.9	9.3	0.0	0.0	11.5	0.0	0.0
LnGrp LOS	С	В	В	С	В	В	A	A	Α	В	Α	A
Approach Vol, veh/h		416			434			260			447	
Approach Delay, s/veh		19.5			20.4			9.3			11.5	
Approach LOS		В			С			Α			В	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.9	6.8	16.7		28.9	7.6	15.9				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		32.0	15.5	30.0		55.0	15.5	30.0				
Max Q Clear Time (g_c+l1), s		7.3	3.2	6.4		15.9	3.9	7.4				
Green Ext Time (p_c), s		1.2	0.0	2.0		2.7	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			В									

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	77	352	37	530	168	354
v/c Ratio	0.32	0.27	0.19	0.56	0.26	0.69
Control Delay	34.2	17.3	34.9	21.2	8.8	23.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	17.3	34.9	21.2	8.8	23.8
Queue Length 50th (ft)	25	36	12	72	19	98
Queue Length 95th (ft)	84	118	50	168	67	237
Internal Link Dist (ft)		218		234	200	246
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	524	2001	524	1929	1346	1129
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.18	0.07	0.27	0.12	0.31
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	<b>†</b>		*	<b>†</b>			4			4	
Traffic Volume (veh/h)	71	304	20	34	320	167	23	41	90	207	45	74
Future Volume (veh/h)	71	304	20	34	320	167	23	41	90	207	45	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	330	22	37	348	182	25	45	98	225	49	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	973	65	73	588	301	130	202	343	430	100	118
Arrive On Green	0.07	0.29	0.29	0.04	0.26	0.26	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	3373	224	1781	2247	1149	117	559	946	842	275	326
Grp Volume(v), veh/h	77	173	179	37	274	256	168	0	0	354	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1820	1781	1777	1619	1622	0	0	1443	0	0
Q Serve(g_s), s	2.0	3.6	3.6	1.0	6.3	6.5	0.0	0.0	0.0	5.7	0.0	0.0
Cycle Q Clear(g_c), s	2.0	3.6	3.6	1.0	6.3	6.5	3.4	0.0	0.0	9.1	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.71	0.15		0.58	0.64		0.23
Lane Grp Cap(c), veh/h	120	513	525	73	465	424	676	0	0	648	0	0
V/C Ratio(X)	0.64	0.34	0.34	0.51	0.59	0.60	0.25	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	587	1134	1162	587	1134	1033	1172	0	0	1743	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.4	13.2	13.2	22.1	15.1	15.2	10.6	0.0	0.0	12.2	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.4	0.4	2.0	1.2	1.4	0.1	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	1.3	1.3	0.4	2.3	2.2	1.1	0.0	0.0	2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	13.6	13.6	24.1	16.3	16.6	10.7	0.0	0.0	12.5	0.0	0.0
LnGrp LOS	С	В	В	С	В	В	В	Α	Α	В	Α	A
Approach Vol, veh/h		429			567			168			354	
Approach Delay, s/veh		15.4			17.0			10.7			12.5	
Approach LOS		В			В			В			В	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.0	6.4	18.6		22.0	7.7	17.3				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		32.0	15.5	30.0		55.0	15.5	30.0				
Max Q Clear Time (g_c+I1), s		5.4	3.0	5.6		11.1	4.0	8.5				
Green Ext Time (p_c), s		0.7	0.0	2.1		1.9	0.1	3.3				
Intersection Summary												
HCM 6th Ctrl Delay			14.8									
HCM 6th LOS			В									

## 1: Jefferson St & Tamarack Ave

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	65	355	43	464	319	318	139
v/c Ratio	0.30	0.33	0.22	0.54	0.43	0.76	0.21
Control Delay	38.9	22.9	39.4	27.8	10.9	29.9	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	22.9	39.4	27.8	10.9	29.9	13.9
Queue Length 50th (ft)	24	58	16	83	51	101	33
Queue Length 95th (ft)	76	131	57	178	117	215	76
Internal Link Dist (ft)		218		234	200		246
Turn Bay Length (ft)	100		100				
Base Capacity (vph)	485	1862	485	1759	1311	808	1277
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.19	0.09	0.26	0.24	0.39	0.11
Intersection Summary							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ħβ			ተኈ			4		ሻ	₽	
Traffic Volume (veh/h)	53	275	16	35	245	135	36	54	171	261	21	93
Future Volume (veh/h)	53	275	16	35	245	135	36	54	171	261	21	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	0.98		0.96	0.98		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	335	16	43	299	165	44	66	139	318	26	113
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	870	41	80	526	281	153	220	364	639	121	528
Arrive On Green	0.06	0.25	0.25	0.05	0.24	0.24	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1781	3446	164	1781	2208	1181	165	535	884	1158	295	1283
Grp Volume(v), veh/h	65	172	179	43	239	225	249	0	0	318	0	139
Grp Sat Flow(s),veh/h/ln	1781	1777	1833	1781	1777	1613	1583	0	0	1158	0	1578
Q Serve(g_s), s	1.8	4.0	4.0	1.2	5.9	6.2	0.0	0.0	0.0	4.8	0.0	2.8
Cycle Q Clear(g_c), s	1.8	4.0	4.0	1.2	5.9	6.2	5.2	0.0	0.0	10.0	0.0	2.8
Prop In Lane	1.00		0.09	1.00		0.73	0.18	_	0.56	1.00		0.81
Lane Grp Cap(c), veh/h	106	449	463	80	423	384	736	0	0	639	0	649
V/C Ratio(X)	0.61	0.38	0.39	0.54	0.56	0.59	0.34	0.00	0.00	0.50	0.00	0.21
Avail Cap(c_a), veh/h	554	1070	1104	554	1070	971	1090	0	0	1441	0	1742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	15.4	15.4	23.3	16.7	16.8	10.2	0.0	0.0	11.4	0.0	9.5
Incr Delay (d2), s/veh	2.1	0.5	0.5	2.1	1.2	1.4	0.1	0.0	0.0	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.5	1.5	0.5	2.2	2.2	1.6	0.0	0.0	2.4	0.0	0.8
Unsig. Movement Delay, s/veh		45.0	40.0	05.0	47.0	40.0	40.0	0.0	0.0	44.7	0.0	0.5
LnGrp Delay(d),s/veh	25.0	15.9	16.0	25.3	17.9	18.2	10.3	0.0	0.0	11.7	0.0	9.5
LnGrp LOS	С	B	В	С	В	В	В	A	Α	В	A	A
Approach Vol, veh/h		416			507			249			457	
Approach Delay, s/veh		17.4			18.7			10.3			11.0	
Approach LOS		В			В			В			В	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.5	6.7	17.6		25.5	7.5	16.9				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		32.0	15.5	30.0		55.0	15.5	30.0				
Max Q Clear Time (g_c+l1), s		7.2	3.2	6.0		12.0	3.8	8.2				
Green Ext Time (p_c), s		1.1	0.0	2.0		1.4	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			В									

## 1: Jefferson St & Tamarack Ave

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	77	352	37	530	168	225	129
v/c Ratio	0.31	0.25	0.18	0.54	0.28	0.53	0.23
Control Delay	31.6	15.1	32.3	21.9	9.6	21.4	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	15.1	32.3	21.9	9.6	21.4	16.0
Queue Length 50th (ft)	22	27	11	72	19	58	30
Queue Length 95th (ft)	77	103	46	168	67	146	80
Internal Link Dist (ft)		218		234	200		246
Turn Bay Length (ft)	100		100				
Base Capacity (vph)	565	2105	565	1994	1422	1124	1456
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.17	0.07	0.27	0.12	0.20	0.09
Intersection Summary							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ħβ			<b>∱</b> ∱			4		ሻ	1•	
Traffic Volume (veh/h)	71	304	20	34	320	167	23	41	90	207	45	74
Future Volume (veh/h)	71	304	20	34	320	167	23	41	90	207	45	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	0.99		0.97	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	330	22	37	348	182	25	45	98	225	49	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	1033	68	75	622	318	134	167	281	585	187	305
Arrive On Green	0.07	0.31	0.31	0.04	0.28	0.28	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3374	224	1781	2247	1149	113	558	939	1229	624	1018
Grp Volume(v), veh/h	77	173	179	37	274	256	168	0	0	225	0	129
Grp Sat Flow(s),veh/h/ln	1781	1777	1820	1781	1777	1620	1609	0	0	1229	0	1642
Q Serve(g_s), s	1.7	3.1	3.1	8.0	5.4	5.6	0.0	0.0	0.0	1.5	0.0	2.5
Cycle Q Clear(g_c), s	1.7	3.1	3.1	0.8	5.4	5.6	3.2	0.0	0.0	4.7	0.0	2.5
Prop In Lane	1.00		0.12	1.00		0.71	0.15	_	0.58	1.00		0.62
Lane Grp Cap(c), veh/h	127	544	557	75	492	449	583	0	0	585	0	492
V/C Ratio(X)	0.61	0.32	0.32	0.50	0.56	0.57	0.29	0.00	0.00	0.38	0.00	0.26
Avail Cap(c_a), veh/h	671	1295	1327	671	1295	1181	1327	0	0	1860	0	2195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.6	11.0	11.0	19.3	12.7	12.8	11.2	0.0	0.0	11.6	0.0	11.0
Incr Delay (d2), s/veh	1.7	0.3	0.3	1.9	1.0	1.2	0.1	0.0	0.0	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.0	1.1	0.3	1.9	1.8	1.0	0.0	0.0	1.4	0.0	0.8
Unsig. Movement Delay, s/veh		44.0	44.0	04.0	40.7	40.0	44.0	0.0	0.0	44.0	0.0	44.4
LnGrp Delay(d),s/veh	20.3	11.3	11.3	21.2	13.7	13.9	11.3	0.0	0.0	11.8	0.0	11.1
LnGrp LOS	С	В	В	С	В	В	В	A	A	В	A	<u>B</u>
Approach Vol, veh/h		429			567			168			354	
Approach Delay, s/veh		12.9			14.3			11.3			11.5	
Approach LOS		В			В			В			В	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.3	6.2	17.6		17.3	7.4	16.4				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		32.0	15.5	30.0		55.0	15.5	30.0				
Max Q Clear Time (g_c+l1), s		5.2	2.8	5.1		6.7	3.7	7.6				
Green Ext Time (p_c), s		0.7	0.0	2.1		1.0	0.1	3.4				
Intersection Summary												
HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			В									

# **Appendix D: Pick-Up and Drop-Off Access Routes for Jefferson Elementary School**





# **Appendix E: Non-Infrastructure Strategies**



To: Fehr and Peers; City of Carlsbad

From: Alta Planning + Design

Date: April 22, 2023

Re: Non-infrastructure Strategies for Jefferson Elementary School

#### **Encouraging Safe Routes to School at Jefferson Elementary School**

Non-infrastructure strategies are an important part of the comprehensive Carlsbad Safe Route to School (SRTS) program. While infrastructure improvements create safer and more comfortable routes, non-infrastructure (also called encouragement and education) SRTS activities like traffic safety education and walking and biking promotional activities encourage students and their families to choose active modes to get to and from school. In addition, SRTS projects with non-infrastructure components build enthusiasm and support for active transportation and can be an important first step toward implementing more costly infrastructure improvements.

This memo outlines SRTS non-infrastructure recommendations for Jefferson Elementary School. The Carlsbad SRTS project team compiled these recommendations based on school and community needs and priorities, available resources, and SRTS best practices. These recommendations present ways that the City of Carlsbad (City), Carlsbad Unified School District (CUSD), Jefferson Elementary School staff, parents/caregivers, and students, and others can participate in SRTS activities.

#### **Bike/Pedestrian Education**

School-based skills and traffic safety instruction during recess, PE, or other appropriate learning time would provide opportunities for the development of pedestrian and bicycle traffic safety skills, bike handling skills, safe riding practices ("street smarts"), helmet fit, and bike prep for Jefferson Elementary School students. There are various local resources available, such as the Carlsbad Safer Streets Together Resources, which include free bike and e-bike safety courses for students and their families offered by Carlsbad Police Department. Moreover, the San Diego County Bicycle Coalition provides bicycle laws and safety tips on its website resources page and holds school-based pedestrian and bike safety classes.

#### **Resources:**

- Carlsbad Safer Streets Together Resources
- Carlsbad Bike and E-bike Safety Class
- Bike and e-bike laws and safety tips are available through the San Diego County Bicycle Coalition
- City of Oceanside SRTS <u>e-bike safety educational video</u>

#### **Crossing Guard Training**

Jefferson Elementary School currently has one Crossing Guard located at Jefferson Street and Carol Place right in front of the school. Regardless of who is serving the role of a Crossing Guard—school staff performing this role as a part of their duties, city staff, paid contractors, or volunteers—it is important that they receive training on at least a biennial basis to ensure they are performing their duties properly and safely.

#### Resources

California Crossing Guard Training Program



#### **Crossing Guard Promotional Education**

Crossing Guards play a vital role in ensuring the safety of students, families, and residents while crossing the street near schools. They help to alert drivers that people are crossing the roadway. Disregarding the direction of a Crossing Guard is a violation of the law (California Vehicle Code Section 2815). Educating and promoting the importance of listening to Crossing Guards' directions may encourage more people to follow their directions. Hosting an annual Crossing Guard Appreciation Day at Jefferson Elementary School would help students, parents, caregivers, and drivers show their appreciation to Crossing Guards.

The City could leverage their "Safer Together" campaign branding to create and post promotional materials on social media to encourage students, parents, caregivers, and drivers to pay more attention to Crossing Guards and follow their direction.

#### Resource:

Westminster Safe Route to School Plan Appendix A

#### **Please Pull Forward Signage**

On-campus, "Please Pull Forward" signage can remind drivers to use the entire drop-off/pick-up space when unloading and loading their students. This has the benefit of getting vehicles off the streets, which reduces traffic congestion and reduces vehicle and pedestrian conflicts.

The City could leverage their "Safer Together" campaign branding to create school drop-off/pick-up signage that reminds drivers to pull forward, stay off mobile phones, and pay attention to other students and vehicles.

#### Resource:

Westminster Safe Routes to School Plan Appendix E

#### **School Board Policy**

School board policies, like California Board of Education Board Policy (BP) 5142.2 Safe Routes to School Program, help solidify a school district's commitment to promoting active transportation as a safe and healthy way to get to and from school. CUSD adopted BP 5142.2 along with Administrative Regulation (AR) 5142.2 in October 2021. CUSD support for SRTS can be leveraged to grow SRTS efforts and even secure grant funding for future SRTS initiatives.

#### **Resources:**

- CUSD BP 5142.2: Safe Routes to School Program
- CUSD AR 5142.2: Safe Routes to School Program

#### **School Champion Toolkit**

Resources for SRTS school champions (parent/caregivers or others who volunteer time and energy towards promoting walking and biking for the school commute) help start and/or grow walking/biking programs at school sites. "How to" guides provide a variety of SRTS activities and describe how to implement them.

#### **Resources:**

- Parent and Community Empowerment Toolkit, San Mateo County Safe Routes to School
- Volunteer Toolkit, Safe Routes to School National Partnership



#### **School Communications**

Schools, including Jefferson Elementary School, are critical to promoting safe walking, bicycling, and driving behavior and encouraging families to walk and bike. They can share walking and biking promotional messages through school communication channels such as newsletters, social media, websites, and in-person events to create a school culture that supports active travel.

The City could leverage their "Safer Together" campaign branding to create resources for schools like Jefferson Elementary School to promote safe and frequent walking and biking to school.

#### **Resource:**

• Safe Routes National Partnership Back to School Messaging Guide

#### **Suggested Route Map**

The City created suggested route maps as a part of their 2020 Sustainable Mobility Plan. A suggested route map shows walking (and biking for older students) routes to school along with key information including existing infrastructure, approximate route times, key landmarks, and more. Suggested route maps are a great tool for communicating walking and biking opportunities and help channelize routes, which can lead to safer conditions for all road users.

#### Resource:

City of Carlsbad Suggested Routes to School Maps

#### **Valet Curbside Drop-off**

A valet curbside drop-off program could alleviate traffic concerns on the Jefferson Elementary School campus by speeding up the drop-off process and providing a more fluid motion of vehicular traffic in the drop-off area. The service can be offered by older students (e.g., fifth and sixth grades) who complete traffic safety training. During a designated time period, valets are stationed along the drop-off area and wearing bright safety vests. When drivers pull into the drop-off area, the valets direct them to drive as far forward as possible, making use of the entire length of the available curb. Then, valets open the passenger door for students to exit the vehicle, close the door, and direct drivers to pull forward and exit the drop-off area.

#### Resource:

AAA School Safety Patrol

#### Walk to School Day or Bike to School Day

Walk to School Days or Bike to School Days are before school walking or biking event involving all students. Students are encouraged to walk to school on a particular day (chosen by the school) and receive incentives for participation. Other events, such as Cocoa for Carpools, can be incorporated into Walk and Bike to School Days for older students.

#### Resource:

• Walk, Bike, & Roll to School, National Center for Safe Routes to School