MARK THOMAS

MEMORANDUM

To:	Shayne Smith	Project No.:	22-00208
From:	Stephen Patchan, Mark Thomas (A/E)		
Cc:	Jack Moreau, Kyle Kozar		
Date:	August 9, 2023		
RE:	**East Pico Boulevard Existing Conditions Report**		

Introduction

The East Pico Boulevard Safety Enhancement Project (Project) will incorporate a quick build approach to traffic safety enhancements, taking into account various factors, including the current conditions along the Project corridor. The Project's Existing Conditions Report (Report) summarizes current project elements including the physical characteristics of the roadway, traffic operations, community destinations, and neighborhood demographics. As part of the summary, the Report identifies opportunities and restraints along the Project corridor which serve as the framework for City staff and stakeholder recommendations for the Quick Build treatment locations and improvement designs.

The Report incorporates data identified by City staff that was then collected and generated by the Consultant Team. Several key datasets were incorporated to provide insight into various factors critical to the Project's development. The datasets include:

- Traffic Counts
- Collision History
- Transit Routes, Lines, and Ridership
- Existing and Proposed Bikeways
- California Environmental Screen 4.0
- Land Use
- Southern California Association of Governments (SCAG) Regional Data:
    - High-Quality Transit Areas
    - Transit Priority, Environmental Justice
    - Livable Corridors
    - Disadvantaged Communities

Project Study Area

The East Pico Boulevard Quick Build Project study area includes E. Pico Boulevard bookended by Stewart/28th Street to the west and Centinela Avenue to the east. The Project approximately .50 mile long corridor is located entirely within the City of Santa Monica (City), and includes US Interstate 10 overpass. The Project's eastern boundary, Centinela Avenue, is adjacent to the City of Los Angeles. The Project study area is located between the City's Pico and Sunset Park neighborhoods, with Pico on the north side and Sunset Park on the south side of Pico Boulevard.

East Pico Boulevard is approximately 65-feet wide, curb-to-curb, through the study area. Each direction of travel includes two travel lanes and on-street parking. A raised concrete landscaped center median provides physical separation between directions of travel. Traffic control devices exist at each intersection and include the following devices, listed west to east:

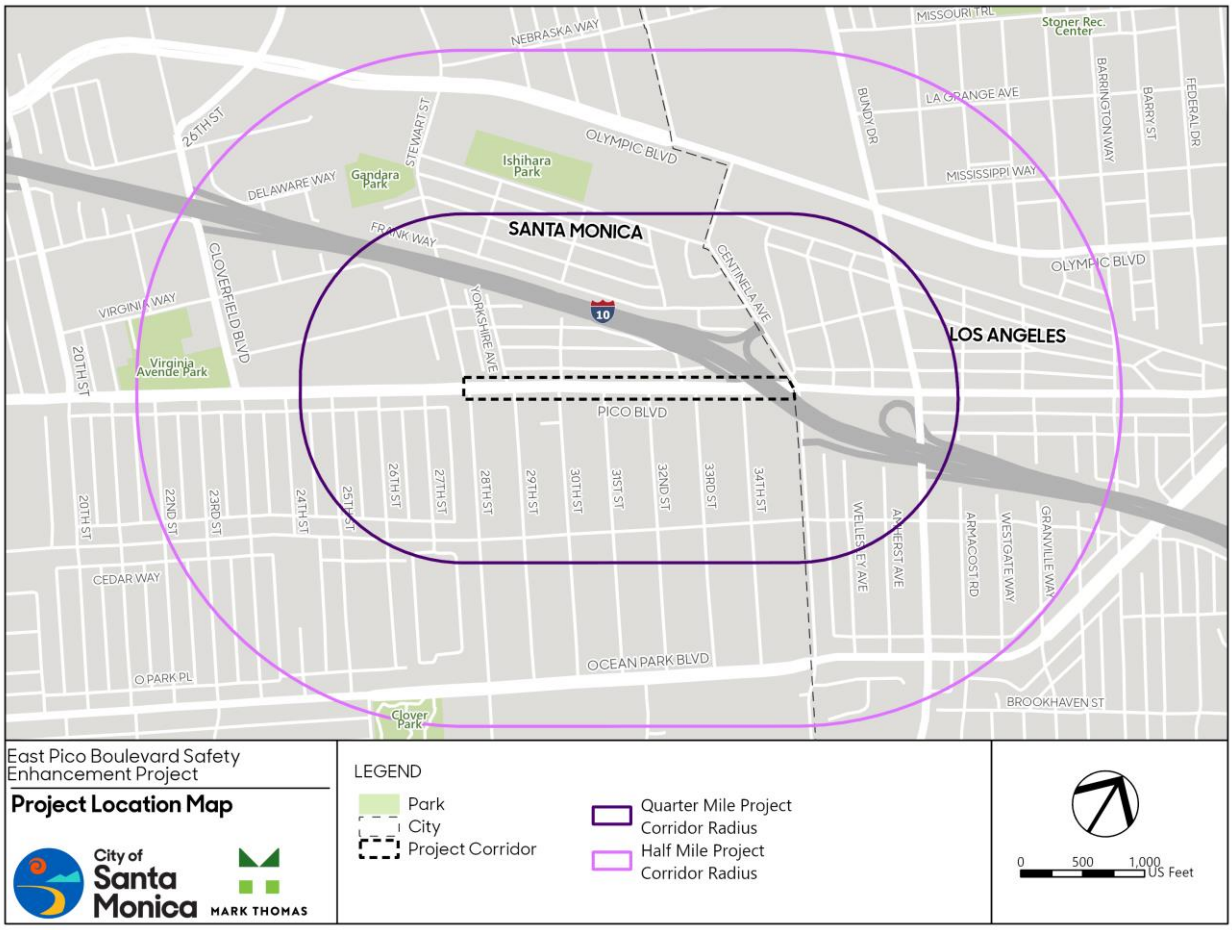
- 28th Street: Traffic Signal
- 29th Street/Yorkshire Avenue: Side-Street Stop-Controlled
- 30th Street/Dorchester Avenue: Side-Street Stop-Controlled
- 31st Street: Side Street Stop Controlled with Rapid Rectangular Flashing Beacons (RRFB) with Curb Extensions crossing Pico Boulevard
- 32nd Street: Side Street Stop Controlled
- Urban Avenue: Side Street Stop Controlled
- 33rd Street: Traffic Signal
- I-10 Westbound Exit: Stop Controlled
- I-10 Eastbound and Southbound Exit: Traffic Signal
- Centinela Avenue: Traffic Signal

<u>Community Based Organizations</u>

Several community-based organizations serve the surrounding area, including the Pico Improvement Organization (PIO), the Pico Neighborhood Association, Friends of Sunset park, Santa Monica College, and Community Corp. These key stakeholders facilitate, coordinate and support economic development, affordable housing, community leadership, education, cultural events, art, and community maintenance and aesthetics within surrounding Project area neighborhoods.

According to Caltrans' functional classification of roadways, East Pico Boulevard is classified as an Other Principal Arterial, which serves major centers of metropolitan areas and provides a high degree of mobility. Traffic Counts collected along Pico Boulevard in 2023 between 28th Street and Centinela Avenue found Average Daily Traffic (ADT) ranging between 22,000 and 31,000 vehicles per day and ranging from 4,000 to 7,000 vehicles during the 4-7PM peak. The 34th Street intersection has the highest ADT of any intersection within the project limits. Bicycle

and pedestrian counts collected at project area intersections during the same time frame show a range of 16 to 112 ADT and 123 to 677 ADT, respectively. The 28th Street intersection was observed as having the highest volume of both bicycle and pedestrian activity anywhere within the project limits.



Map 1 Project Location Map

Collision History

Over the course of six years, between January 1, 2015 and December 31, 2020, a total of fourteen bicyclist-involved and pedestrian-involved vehicle collisions occurred, with two (2) resulting in a fatality or severe injury. Refer to Appendix A for the full Collision Table.

The intersection of Pico Boulevard and 28th Street at the western project limits has experienced the highest density of collisions in the project area by far. This intersection accounts for fifty percent of the fourteen total collisions, including one fatality and one severe injury. The 34th Street intersection has also experienced two collisions during this time frame. The vast majority of these collisions, nearly eighty-six percent, have occurred at project area intersections.

In the vicinity of the study area, pedestrian-involved and bicyclist-involved collisions have occurred on nearby roadways. In addition to Pico Boulevard, the following areas have shown the highest density of collisions: Ocean Park Boulevard, Olympic Boulevard, and Cloverfield Boulevard.

Map 2 Collisions Map

Transit Routes, Lines, and Ridership

Public transit services provide low-cost mobility options for the community, and reduces dependency on personal vehicles. Los Angeles Metro Bus (LA Metro) and Santa Monica Big Blue Bus (Big Blue Bus) provide public bus and rail transportation services within the project area.

The project area is directly served by Big Blue Bus Route 7, with stops at the intersections of 33rd Street, 30th Street, and Dorchester Street. Additional Route 7 stops are located just outside the project area limits at Pico Boulevard intersections with 28th Street and Centinela Avenue.

Big Blue Bus Route 7

Big Blue Bus Route 7 provides connection between Santa Monica 3rd Street Promenade and the LA Metro Rail D Line (formerly Purple Line) stop at Wilshire/Western Transit Hub in Koreatown. Service is provided on weekdays between 5:20 am and 11:00 pm toward Wilshire/Western and between 5:00 am and 10:55 pm toward Santa Monica. Service is provided on weekends between 6:05 am and 11:00 pm toward Wilshire/Western and between 6:00 am and 10:15 pm toward Santa Monica.

Big Blue Bus Rapid 7

Big Blue Bus Rapid 7 (R7) serves the stops located at Pico Boulevard and 28th Street. R7 is the express transit service covering the same route as Route 7. R7 does not provide service to all Route 7 stops or Beverlywood and does not operate on weekends or major holidays. Service is provided between 7:00 am and 6:50 pm toward Wilshire/Western, and between 5:59 am and 6:08 pm toward Santa Monica.

Metro E Line

The LA Metro E Line (Expo) provides at-grade light-rail service between Downtown Los Angeles (DTLA) and Santa Monica. The route serves major destinations including University of Southern California, Exposition Park, Crenshaw District, and Culver City. Two Expo Line stops are located walking and bicycling distance from the East Pico Boulevard Quick Build Project Area, the 26th Street/Bergamot Station is approximately 0.9-miles to the Northeast and the Expo/Bundy Station is approximately 0.6-miles to the Northwest, as measured from the mid-point of the project area. Planned improvements near the Project study area on Stewart Street will soon increase non-motorized access to the Expo line. The Stewart-Pennsylvania Safety Enhancement Project will implement a protected bikeway on Stewart Street, between Kansas Avenue and Colorado Avenue, that will connect with the Exposition Corridor Bike Path and provide access to the 26th Street/Bergamot Station.

Big Blue Bus Route 16

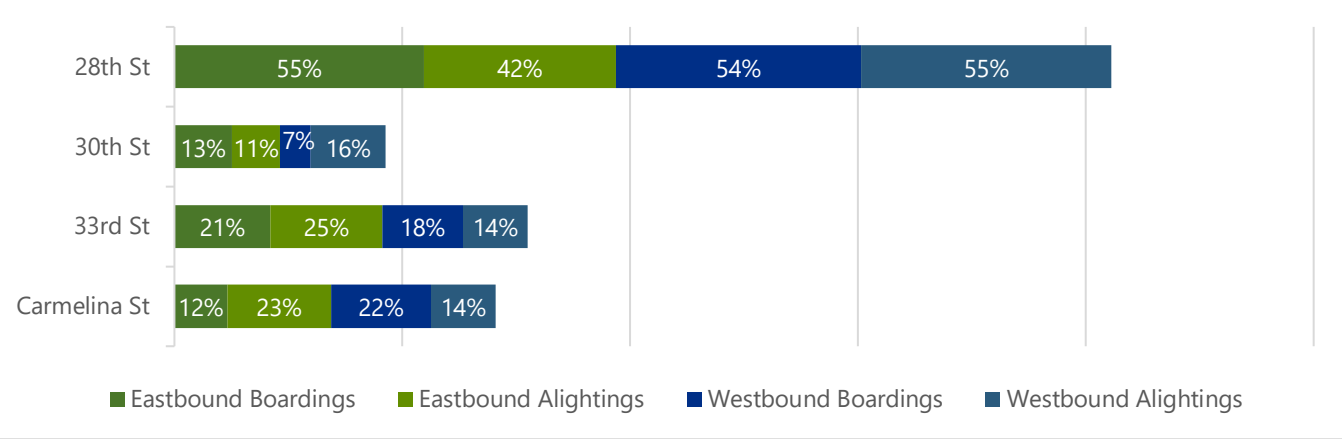
Big Blue Bus Route 16 provides connection between West Los Angeles, Mar Vista, and Marina Del Rey. Service is provided on weekdays between 5:20 am and 6:25 pm toward West Los Angles and between 7:10 am and 6:05 pm toward Marina Del Rey. Route 16 does not operate on weekends or major holidays. Route 16 stops are located near the project area along 20th Street.

Map 3 Transit Map

Route 7 Ridership

Of the four Route 7 stops toward DTLA, the highest volume of vehicle boardings and alightings occur at the Pico Boulevard and 28th Street stop. Figure 1 illustrates the percentage share for direction and action (boarding vs alighting) between each stop for Route 7.

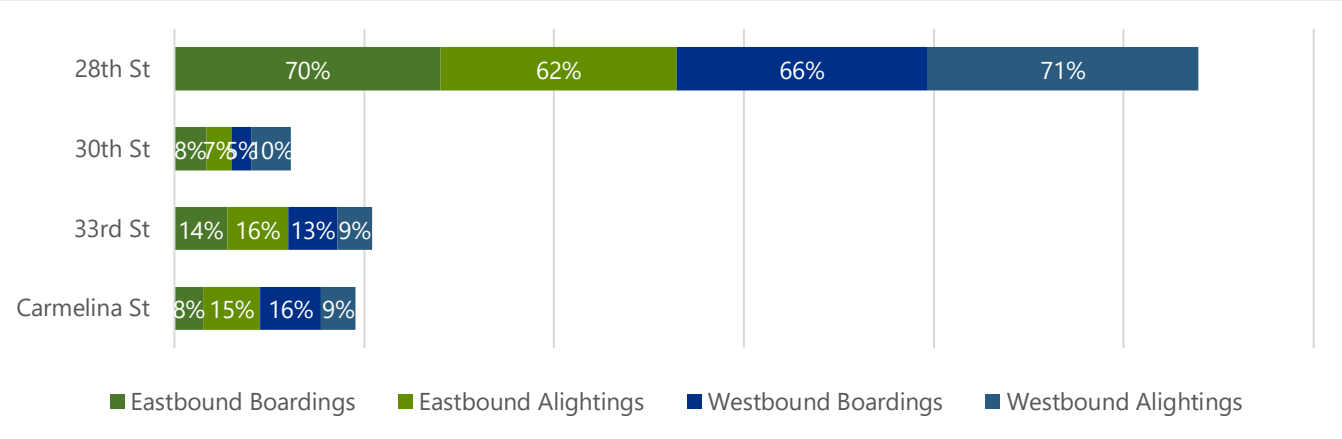
Figure 1 Eastbound and Westbound Boardings and Alightings per Stop Route 7

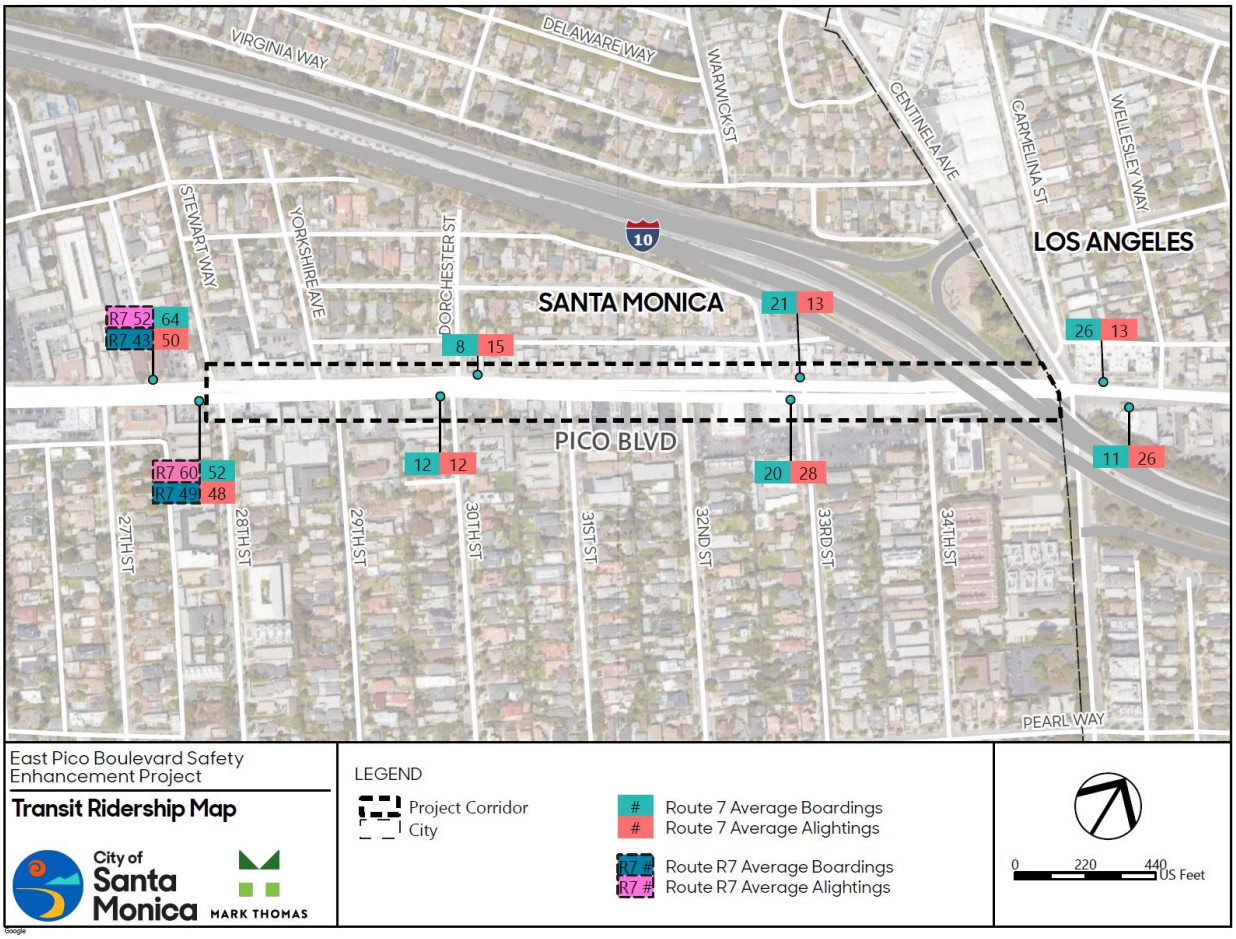


Rapid 7 Ridership

The Rapid 7 stop at Pico Boulevard/28th Street has high ridership volumes, and if combined with Route 7 would nearly double the volume of activity at the eastbound and westbound stop locations, as illustrated in Figure 2.

Figure 2 Eastbound and Westbound Boardings and Alightings per Stop Route 7 and Rapid 7





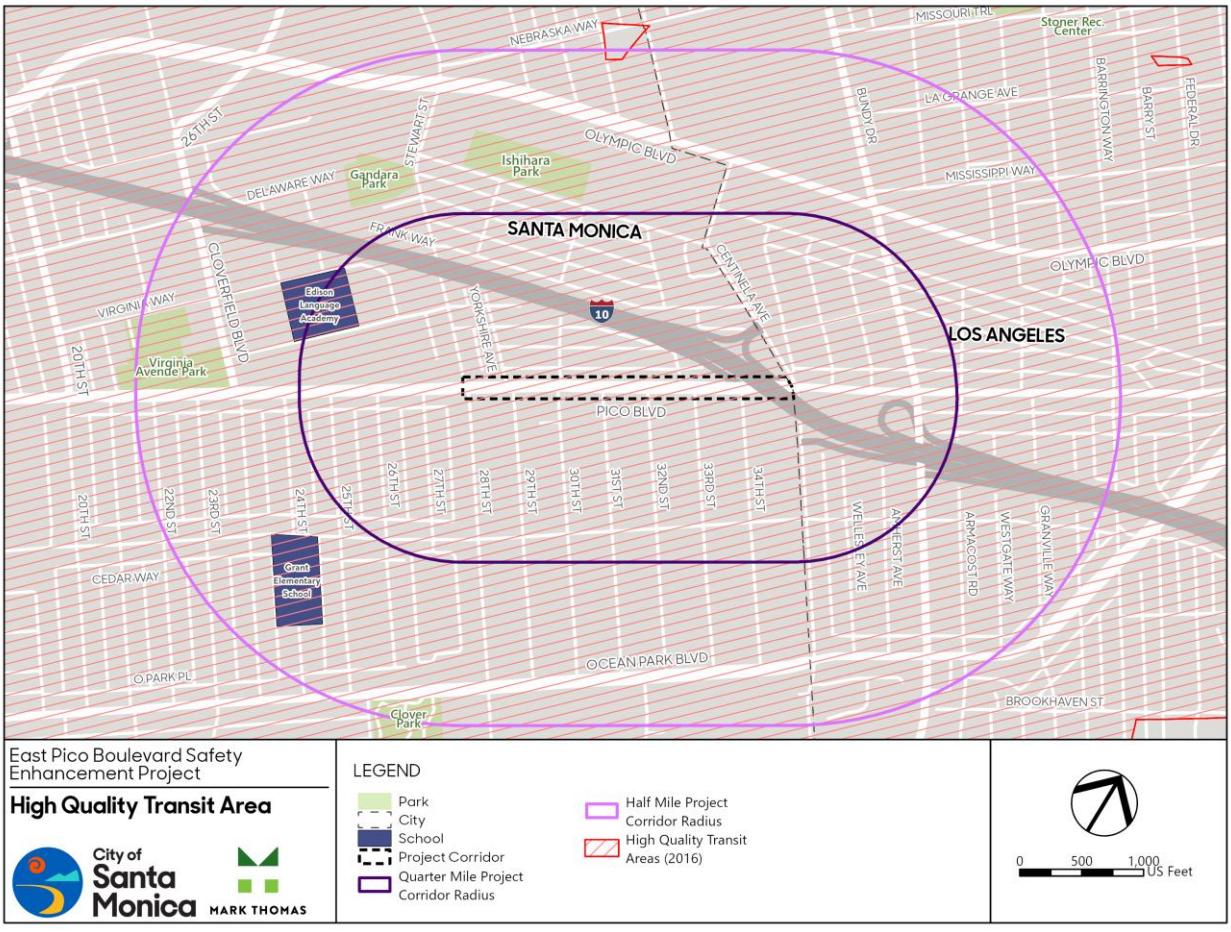
Map 4 Transit Ridership Map

SCAG Transit Planning Metrics

High-Quality Transit Areas

The Southern California Association of Governments (SCAG) has developed a High-Quality Transit Area dataset in support of the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The data identifies High Quality Transit Areas based on the 2045 plan year network which are within a half-mile of a well-served major transit stop or are along a high-quality transit corridor, a corridor with a fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

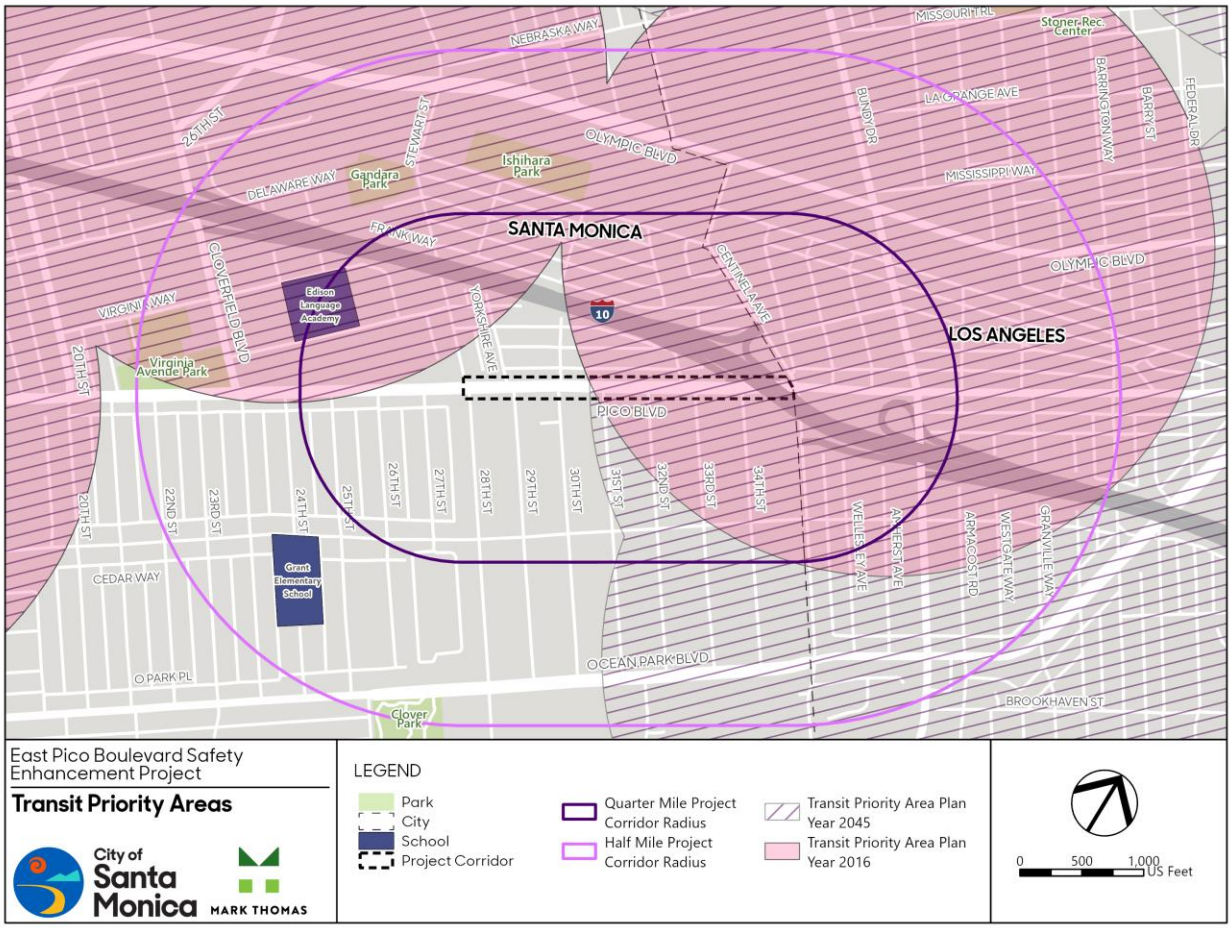
The entirety of the project and its surrounding areas are defined as High Quality Transit Areas per SCAG's 2020-2045 RTP/SCS.



Map 5 High Quality Transit Area

Transit Priority Areas

SCAG's Transit Priority Areas are defined as an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations. A major transit stop can be a site containing a rail or bus rapid transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. The eastern half of the project area from 31st Street onward is identified as a Transit Priority Area in the 202-2045 RTP/SCS.

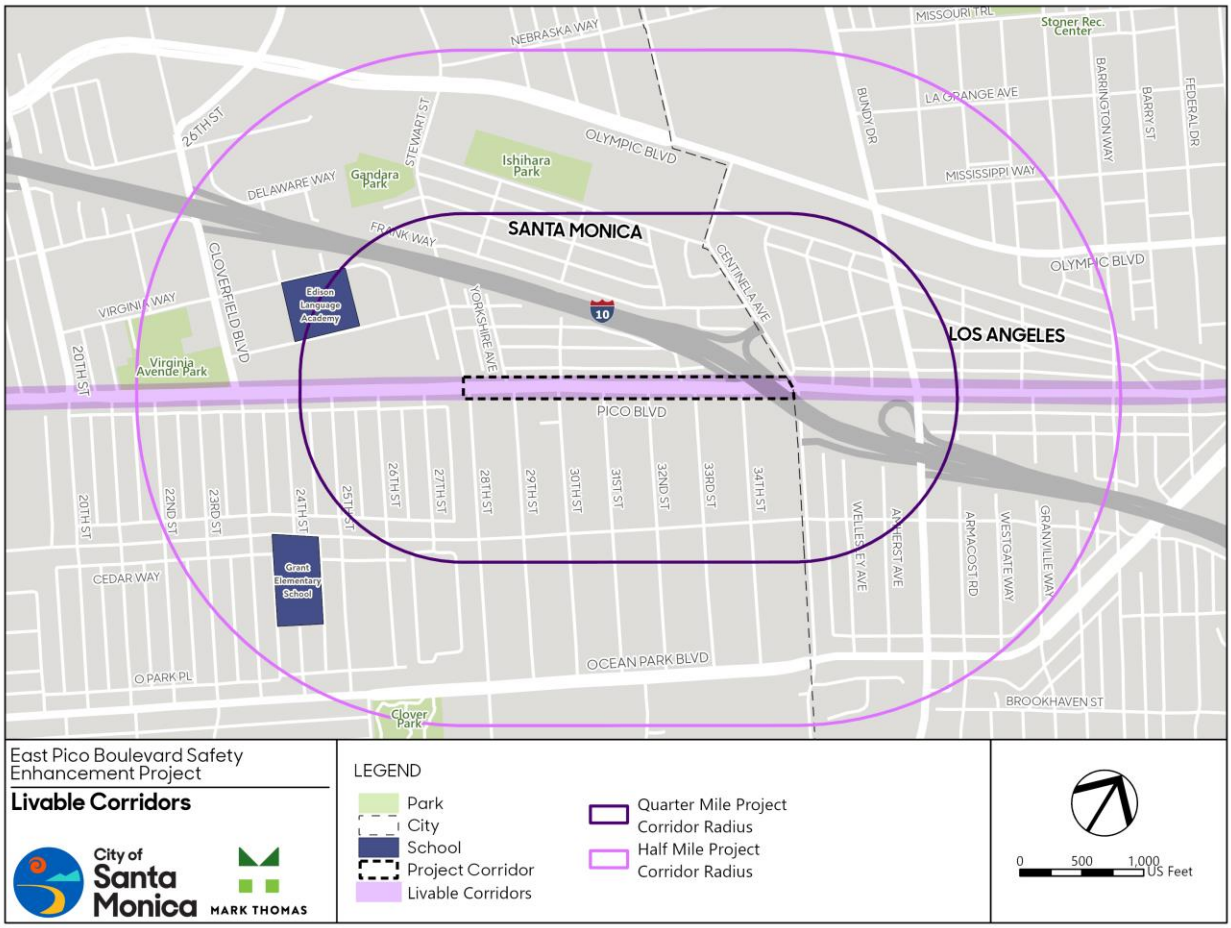


Map 6 Transit Priority Areas

Livable Corridors

SCAG's Livable Corridors data identifies arterial roadways that enhance the connection between transit and land use through three components; high-quality bus frequency for transit improvements, increased active transportation through dedicated bikeways for active transportation improvement, and higher density residential and employment at key intersections as land use policies. The Livable Corridors strategy is part of the Priority Growth Area's in SCAG's 2020-2045 RTP/SCS, which aims to encourage higher density residential and employment land use which will strengthen transit.

Pico Boulevard and the entire project limits are included in the SCAG 2020-2045 RTP/SCS Livable Corridors strategy which plans to encourage more dense land use and strengthened transit services.

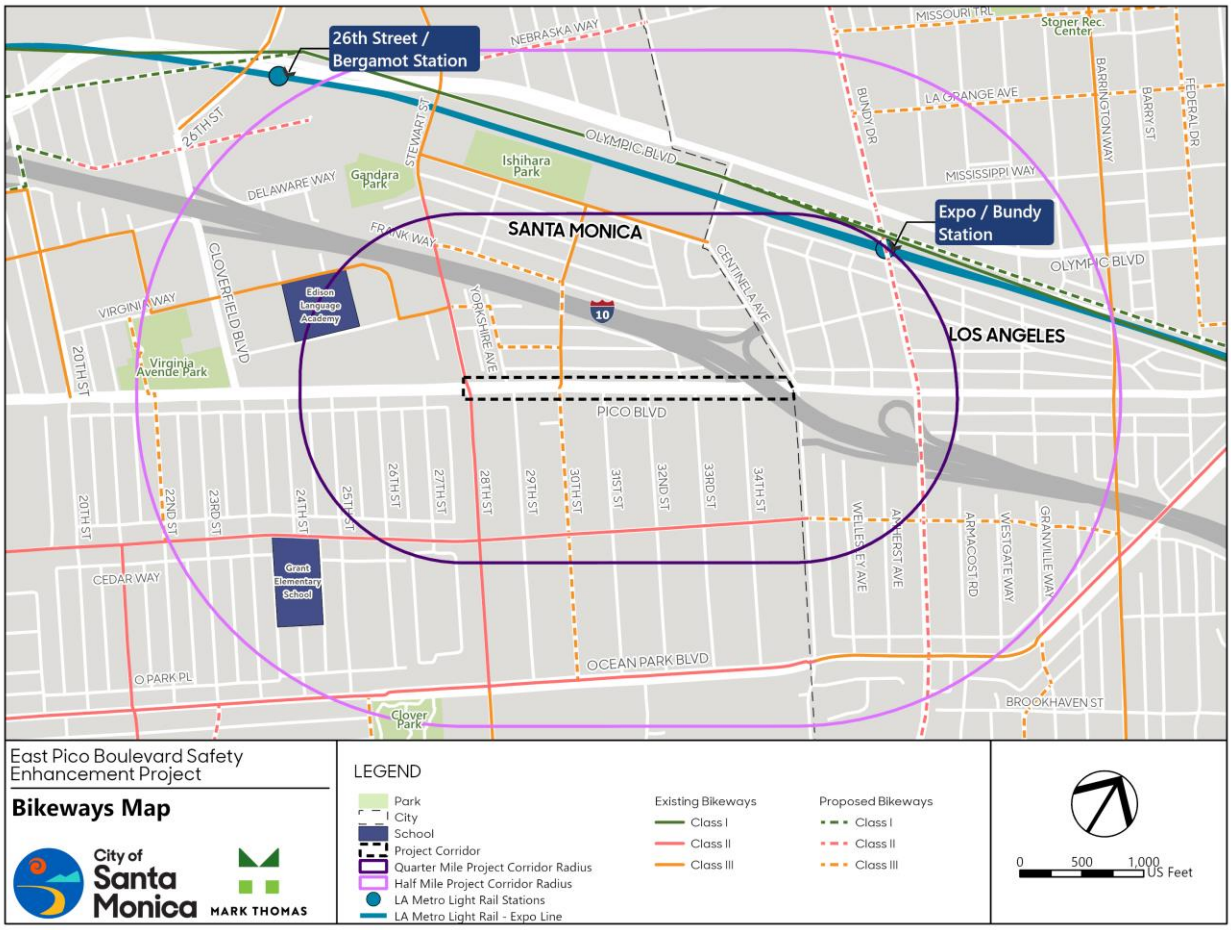


Map 7 Livable Corridors

Existing and Proposed Bikeways

No bikeway facilities exist nor are any planned along the length of Pico Boulevard within the study area. Two bikeway facilities cross Pico Boulevard, perpendicularly, within the study area on 28th Street and 30th Street. 28th Street has a Class II Bike Lanes between Delaware Avenue and Ocean Park Boulevard. 30th Street has a Class III Bikeway between Interstate-10 and Pico Boulevard.

Beyond the study area, multiple bikeways exist near-parallel to East Pico Boulevard. Approximately one-third of a mile to the North of East Pico Boulevard is the Exposition Corridor Bike Path within the Metro Exposition Light Rail right-of-way, adjacent to the tracks. There are Class II bike lanes South of Pico Boulevard on Pearl Street and Ocean Park Boulevard, one and two blocks away, respectively.

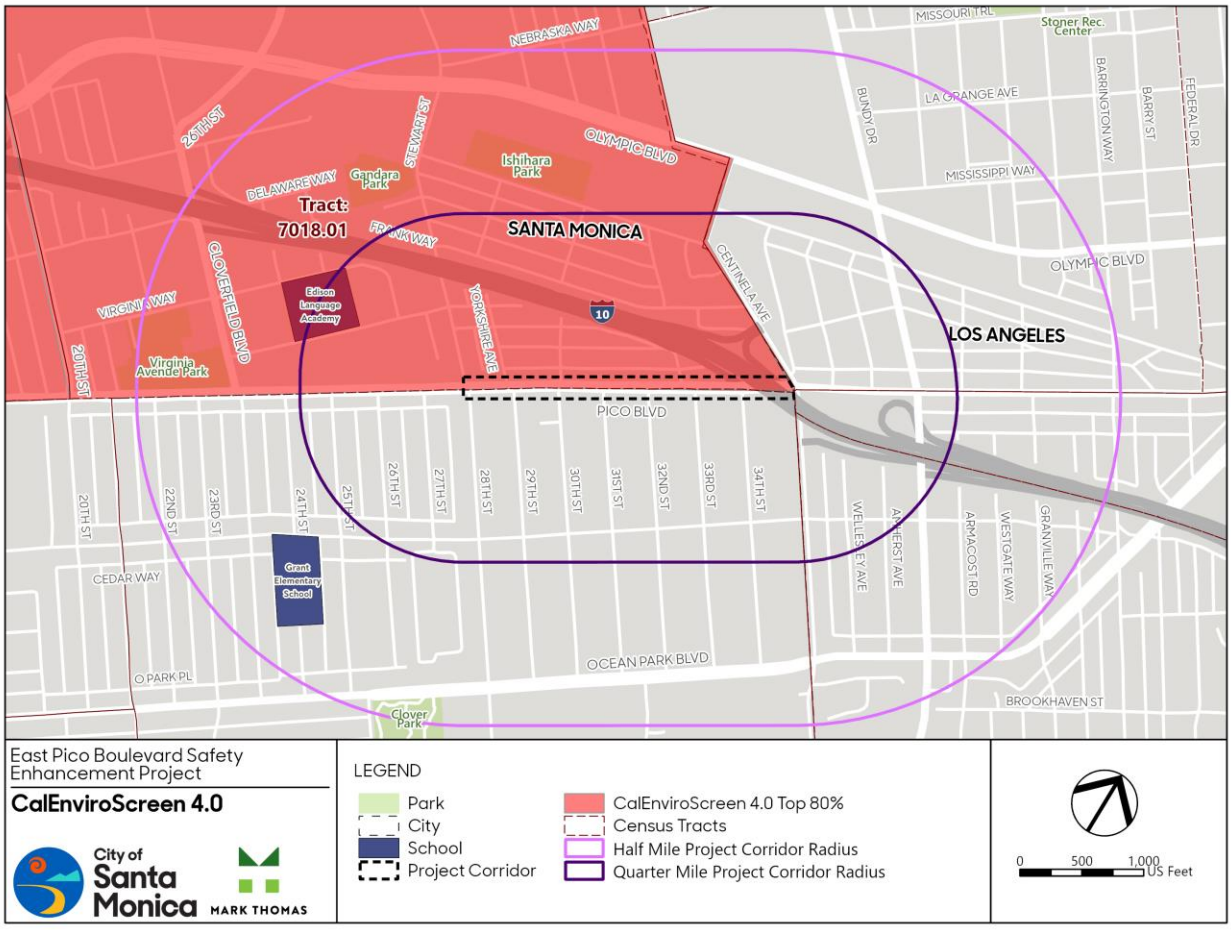


Map 8 Bikeways Map

California Environmental Screen 4.0

The California Environmental Screen (CalEnviroScreen) utilizes 21 publicly available indicators to assess cumulative burdens and vulnerabilities experienced by communities throughout the State of California. The methodology uses percentiles to assign relative scores for each given geographic area, which are averaged into four components (Exposure, Environmental Effects, Sensitive Populations, and Socioeconomic Factors). The CalEnviroScreen Score is a combination of the four components to score a given place relative to all other places in the State of California.

Results of the CalEnviroScreen scored Census Tract 7018.01, located northeast of the project extents, as within the Top 80% percentile. This score indicated that Census Tract 7018.01 experiences worse pollution and population burdens than at least 80% of other census tracts statewide.

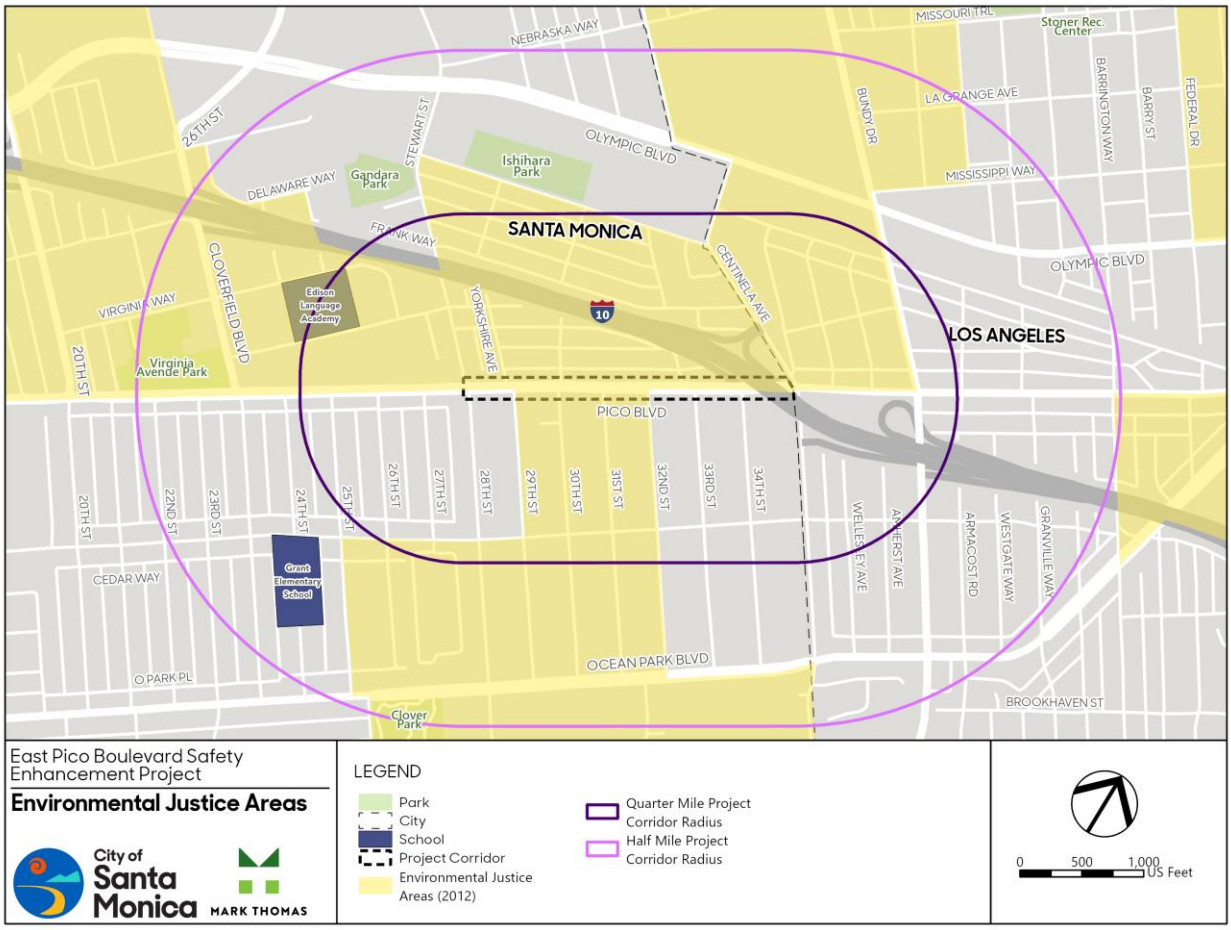


Map 9 CalEnviroScreen 4.0

SCAG Environmental Justice

SCAG defines Environmental Justice areas as areas with a higher concentration of minority population or households in poverty than is seen in the greater SCAG region. The SCAG data for this metric uses 2016 as a base year.

The entire area north of Pico Boulevard around the project limits, as well as the south half of the project area between 29th Street and 32nd Street, are identified as SCAG Environmental Justice areas.



Map 10 Environmental Justice Areas

Land Use

A spectrum of land uses exists within the Project Area (Pico Boulevard from 28th Street/Stewart Street and Centinela Avenue) as well as within both a one quarter and a one-half mile radius of East Pico Boulevard. These land uses include residential, commercial, mixed use, and industrial, as well as parks, open space, schools, facilities, and military uses (see Map 11 Land Use Map). The land use aggregate defines the surrounding neighborhood character and influences traffic volume, foot traffic, and roadway user behavior. The Land Use summary was developed through analysis of the City's current Land Use GIS data, a field visit with City staff, and Google Streetview.

Commercial

Commercial properties composed of retail as well as restaurants and dining establishments are the Project Area's dominant land use. Prominent local retail businesses include the regionally known McCabe's Guitar Shop, Trader Joe's, and the 99 Cent Store. Dining destinations include McDonald's on 29th Street, a Starbucks on Stewart Street, Rae's Diner on Yorkshire Avenue, and the Upper West Restaurant just west of the I-10 eastbound off-ramp.

In addition to the larger retailers and dining destinations, the Project Area hosts gyms, beauty salons, wellness centers, banks, pet groomer and supply shops, a jewelry store, and automotive repair shops. A dentistry office, hotel, and other small businesses are also located within the project area.

Several of the commercial land uses incorporate building designs that can challenge pedestrian access. The Trader Joe's storefront location is oriented to parcel's rear side, with no pedestrian access on the parcel's frontage. The lack of direct sidewalk access limits the potential to encourage pedestrian visits from the surrounding neighborhood. The McDonald's and Starbucks locations are automobile oriented, featuring drive-thru access that often triggers vehicle queuing across the adjacent sidewalks and onto East Pico Boulevard.

Residential/ Mixed Use

Within a half mile radius, the Project Area is in proximity to Single Family, Multi-family, and Mixed-Use parcels. The Project Area corridor hosts two (2) Mixed Use parcels on the north side of Pico Boulevard's 2900 block. Multi-Family Residential parcels are located within the quarter mile radius are primarily located along 28th Street, 34th Street (south) and Centinela Avenue Additional Multi-Family Residential parcels are located along Yorkshire Avenue and surrounding Edison Language Academy as well as along the east side of South Carmelina Avenue The proximity to the Project Area as well as the higher density of Multi-Family would suggest that the majority of locally generated foot traffic originates from these locations.

Residential Single Family Residential Parcels are prominent within the quarter mile radius and half mile radius, with most of these parcels located on the south side of East Pico Boulevard.

Per the California Housing Partnership 2022 Los Angeles County Annual Affordable Housing Report, the Project Area and the neighborhood within a half mile host affordable housing units. The Project Area hosts a location at 2802 Pico Boulevard. The building includes 33 units with 4 at or below 30% area median income. With the Project Area's half mile radius, five (5) affordable housing sites exist, including:

- 2411 Centinela Avenue: 36 homes; 36 affordable
- 2425 Virginia Avenue: 13 homes; 12 affordable
- 1959 High Place: 44 home; 43 affordable
- 2345 Virginia Avenue: 46 homes; 46 affordable
- 2020 Cloverfield Boulevard: 32 homes; 32 affordable

Schools

Several schools are located within the Project Area's half mile radius. Edison Language Academy is located within a quarter mile of the Project Areas western terminus at 2402 Virginia Avene. Grant Elementary School is located just over a quarter mile southwest of the Project Area's western terminus at 2368 Pearl Street. Santa Monica College is less than a mile away from the west end of the corridor and is located on Pico Boulevard, between 16th Street (west) and 18th Court (east).

Parks/ Open Space

Although no parks are within the quarter mile radius of the Project Area, the surrounding community hosts several within the half mile radius. These parks include Gandara Park, Ishihara Park, Clover Park, and Virginia Avenue Park.

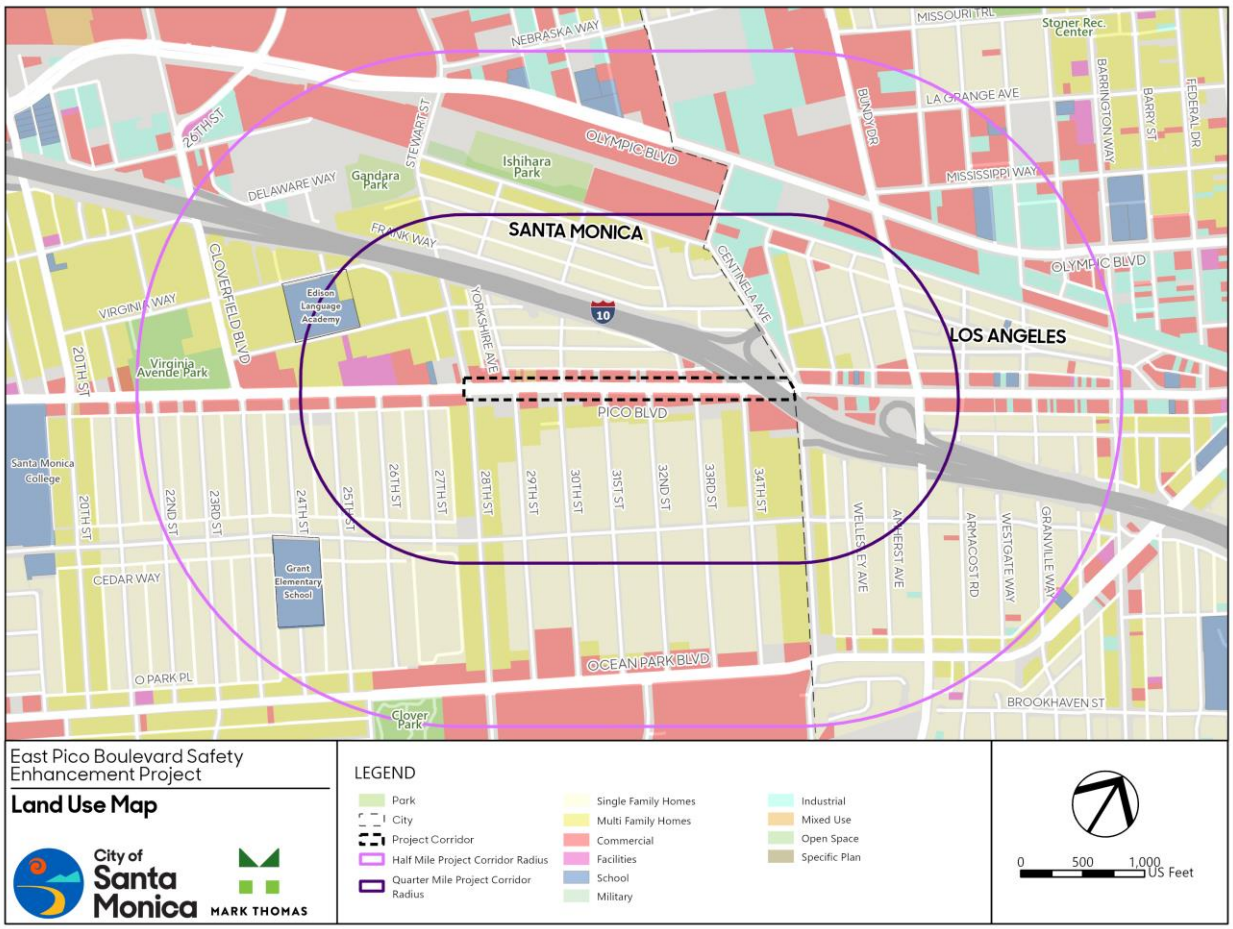
Gandara Park is located north of Intertate 10 at 1819 Stewart Street and serves as a neighborhood park with a playground, baseball and soccer fields, and basketball courts. To the immediate northeast of Gandara Park is Ishihara Park and Learning Garden. The Park, which is located at 2909 Stewart Street operates as a Communal Garden.

Virginia Avenue Park is located at 2200 Pico Boulevard approximately one-half mile from the Project Area's western terminus. The Park is a prominent community destination as it is the site of the Pico Branch Library, weekly Saturday Pico Boulevard Farmer's Market, and a City community center. In addition, the Park hosts picnic areas, a playground, splashpad and basketball courts.

Clover Park is located a half mile south of the Project Area along the 2600 block of Ocean Park Boulevard. The park offers several amenities including picnic areas, playground, baseball and soccer fields, and tennis and volleyball courts.

Facilities

Additional community destinations and services are located within and near the Project Area. One faith and religious center, Emanuel Community Church, is located within the Project Area at 3201 Pico Boulevard. Several religious institutions are located outside the Project Area's half-mile radius and include Soka Gakkai International-US Buddhist Center (2601 Pico Boulevard), Church of Latter Day Saints (1702 Pearl Street), and LA International Church of Christ (2716 Ocean Park), Jehovah's Witness Kingdom Hall (2119 Virginia Avenue), and First Ame Church (1823 Michigan Avenue)



Map 11 Land Use Map

Several other notable facilities include the Morgan-Wixson Theatre (2627 Pico Boulevard), Kigala Preschool (2705 Pico Boulevard), Venice Family Clinic-Simms/Mann Health and Wellness Center and My First Place (2509 Pico Boulevard), and Whole Foods Market (2300 block of Pico Boulevard).

Field Analysis

The Project Team comprised of City staff and the Consultant team conducted a Project Corridor field analysis on Wednesday, June 21 from 10:00 am to 12:00 pm. The Field Analysis provides street-level details of traffic control devices and pedestrian crossing infrastructure at each of the project corridor's intersections. In addition, the Project Team noted Other Features and Considerations that reflect various details and observations such as roadway user behavior. The following summaries are sequenced east to west, starting at the Project's eastern boundary at 34th Street.

34th Street Intersection

- The intersection is a Caltrans-operated signalized intersection.
- North Leg: I-10 Eastbound egress (One Direction) with right turn slip lane and pedestrian refuge area.
- South Leg: 34th Street (Bi Direction)
- East Leg: Pico Boulevard (Bi Direction)
- West Leg: Pico Boulevard (Bi Direction)

Traffic Control

- North Leg: The north leg features an eastbound Interstate 10 egress ramp that includes signalized traffic control for straight and left-turn automobile movements, a pedestrian refuge island, and an unsignalized right-turn automobile slip lane (Figure 3). A push-button activated pedestrian signal exists on the east side of the pedestrian refuge; the crossing to the west of the refuge island is unsignalized for pedestrians.

Figure 3

- South Leg: The south leg is signal-controlled. Permissive left turn phasing directs westbound left-turning traffic. An automated pedestrian signal permits pedestrian crossing.
- East Leg: The east leg is signal-controlled with pedestrian crossing prohibitive.
- West Leg: The west leg is signal-controlled. The pedestrian crossing is signalized and is push-button activated.

Crossing Infrastructure

- North Leg: The north leg incorporates a crosswalk with high-visibility striping, parallel curb ramps with tactile bumps on both east and west sides, and a median refuge between the I-10 egress right-turn slip lane and straight/left-turning traffic.
- South Leg: The south leg incorporates a crosswalk with transverse striping and a textured paver surface with advanced stop lines (Figure 4). Diagonal curb ramps exist on both ends.
- East Leg: Pedestrian crossing is prohibitive; thus, no crossing infrastructure exists.
- West Leg: The west leg incorporates a crosswalk with transverse striping and a textured paver surface with advanced stop lines. A parallel curb ramp with tactile bumps is provided on the north end. The West Leg shares a diagonal curb ramp with the south leg.

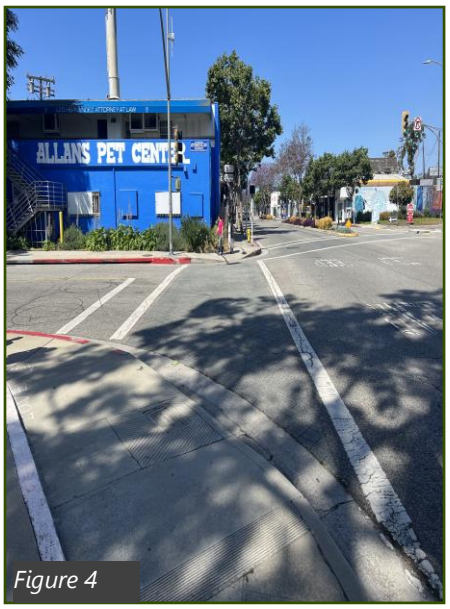


Figure 4

Other Features & Considerations

City of Santa Monica GoSaMo bicycle parking is located just south of Pico Boulevard on the east side of 34th Street which provides bike share mobility options near the project corridor (Figure 5). Additionally, a low clearance signpost located on the south side sidewalk between 34th Street and 33rd Street is awkwardly positioned in the center of the sidewalk (Figure 6). This post serves as a notable obstruction.


Figure 5

Figure 6

33rd Street Intersection

- The intersection of Pico Boulevard and 33rd Street is a City-operated signalized intersection.
- T-intersection without north leg.
- South Leg: 33rd Street (Bi Direction)
- East Leg: Pico Boulevard (Bi Direction)
- West Leg: Pico Boulevard (Bi Direction)

Traffic Control

- South Leg: The south leg is signal controlled with automated pedestrian signals.
- East Leg: The east leg is signal controlled with button activated pedestrian signals. Permissive left turn phasing is used for westbound left-turning traffic.
- West Leg: The west leg is signal controlled with button activated pedestrian signals.

Crossing Infrastructure

- South Leg: The south leg incorporates a crosswalk with transverse striping and textured paver surface with advanced stop lines. Diagonal curb ramps exist on both ends.
- East Leg: The east leg incorporates a crosswalk with transverse striping and textured paver surface with advanced stop lines. Diagonal curb ramps exist on both ends.
- West Leg: The west leg incorporates a crosswalk with transverse striping and textured paver surface with advanced stop lines. Diagonal curb ramps are provided on both ends.

Other Features & Considerations

A Big Blue Bus stop is located on the north side sidewalk on Pico Boulevard near the west leg crosswalk (Figure 7). At this location, Big Blue Bus boarding and alighting is within the intersection. There is also a Big Blue Bus stop on the south side sidewalk west of the 33rd Street intersection (Figure 8).

Figure 7

Figure 8

Urban Avenue Intersection

- T-intersection without south leg.
- North Leg: Urban Avenue (Bi Direction)
- East Leg: Pico Boulevard (Bi Direction)
- West Leg: Pico Boulevard (Bi Direction)

Traffic Control

- North Leg: The north leg is stop controlled.
- East Leg: No traffic control exists at Urban Avenue for eastbound and westbound Pico Boulevard traffic.
- West Leg: No traffic control exists at Urban Avenue for eastbound and westbound Pico Boulevard traffic.

Crossing Infrastructure

- North Leg: The north leg incorporates a crosswalk with high-visibility striping, an advanced stop line, and diagonal curb ramps. The west end curb ramp is not aligned with the crosswalk striping and is slightly north of the crosswalk.
- East Leg: The east leg has no crosswalk. A diagonal curb ramp exists on the north end.
- West Leg: The west leg has no crosswalk. A diagonal curb ramp exists on the north end.

32nd Street Intersection

- T-intersection without North Leg.
- South Leg: 32nd Street (Bi Direction)
- East Leg: Pico Boulevard (Bi Direction)
- West Leg: Pico Boulevard (Bi Direction)

Traffic Control

- South Leg: The south leg northbound is stop-controlled.
- East Leg: No traffic control exists at 32nd Street for eastbound and westbound Pico Boulevard traffic.
- West Leg: No traffic control exists at 32nd Street for eastbound and westbound Pico Boulevard traffic.

Crossing Infrastructure

- South Leg: The south leg incorporates a crosswalk with transverse striping, an advanced stop line, and diagonal curb ramps.
- East Leg: The east leg has no crosswalk. No curb ramp exists on the north side of the east leg, and diagonal curb ramp exists on the south end.
- West Leg: The west leg has no crosswalk. No curb ramp exists on the north side, and a diagonal curb ramp exists on the south end.

Other Features & Considerations

32nd Street decreases in grade as it approaches Pico Boulevard. The absence of a marked crosswalk traversing Pico Boulevard at this intersection results in a notable volume of pedestrian crossings at unmarked crosswalk locations in this segment of the corridor (Figure 9 and 10).

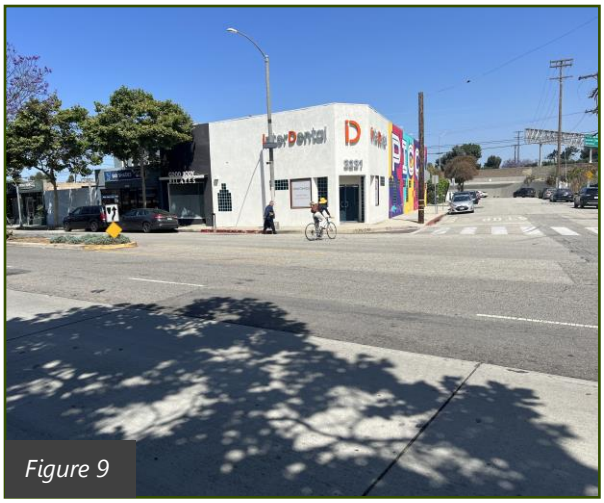


Figure 9

Figure 10

31st Street Intersection

- Unsignalized T-intersection without north leg.
- South Leg: 31st Street (Bi Direction)
- East Leg: Pico Boulevard (Bi Direction)
- West Leg: Pico Boulevard (Bi Direction)

Figure 11

Traffic Control

- South Leg: The south leg is a stop-controlled T-intersection.
- East Leg: The east leg incorporates two Rectangular Rapid Flashing Beacons (RRFBs) placed on both ends of the east leg crosswalk (Figure 11). Yield markings exist on the westbound approach to the crosswalk.
- West Leg: The west leg incorporates Yield markings on the eastbound approach to the crosswalk.

Crossing Infrastructure

- South Leg: The south leg crosswalk incorporates high-visibility striping, an advanced stop line, and diagonal curb ramps with the west side curb ramp featuring tactile truncated domes and the east side curb ramp having no tactile bumps or detectable warning surface for ADA (Figure 12).
- East Leg: The east leg crosswalk incorporates high-visibility striping and perpendicular curb ramps featured on curb extensions. The east leg also incorporates yield markings for westbound traffic.
- West Leg: The west leg has no crosswalk. A diagonal curb ramp exists on the south end, but no curb ramp exists on the north end. The west leg also incorporates yield markings for eastbound traffic.

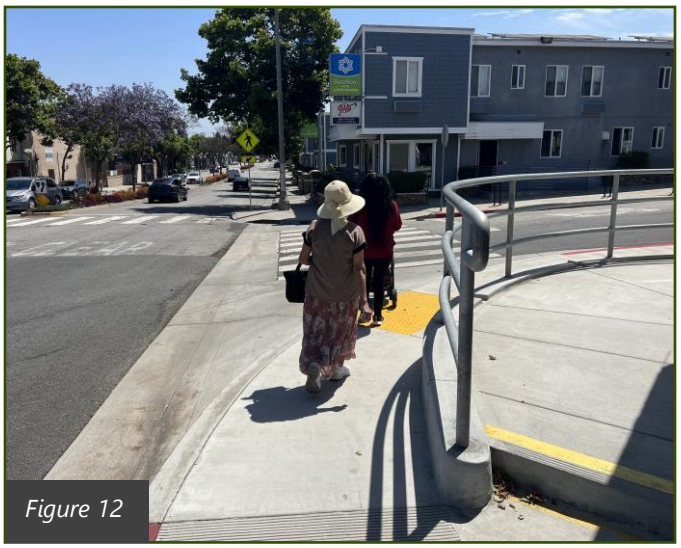


Figure 12

Other Features & Considerations

A designated parking space for bike- or scooter-share devices is located just east of the 31st Street intersection along the north side curb space.

30th Street and Dorchester Avenue Intersection

- Offset intersection north to south, with the North Leg offset to the east and South leg offset to the west.
- North Leg: Dorchester Avenue (Bi Direction)
- South Leg: 30th Street (Bi Direction)
- East Leg: Pico Boulevard (Bi Direction)
- West Leg: Pico Boulevard (Bi Direction)

Traffic Control

- North Leg: The north leg is stop-controlled.
- South Leg: The south leg is stop-controlled.
- East Leg: The east leg has no traffic control.
- West Leg: The west leg is signalized traffic control.

Crossing Infrastructure

- North Leg: The north leg crosswalk incorporates high-visibility striping, an advanced stop line, and diagonal curb ramps.
- South Leg: The south leg has a transverse striped crosswalk with an advanced stop line and diagonal curb ramps (Figure 13 and 14).
- East Leg: The east leg has no existing crosswalk and diagonal curb ramps. A drive curb cut is several feet east of the intersection and most likely serves as an additional pedestrian curb ramp.
- West Leg: The west leg has no existing crosswalk and diagonal curb ramps. A drive curb cut is several feet to the west of the intersection and most likely serves as a pedestrian ramp.

Figure 13

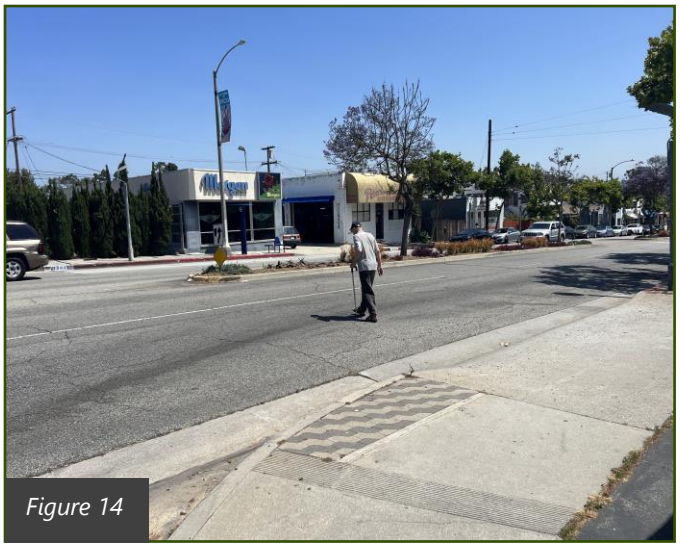


Figure 14

29th Street Intersection

- T-intersection without north leg.
- East Leg: Pico Boulevard (Bi-Direction)
- West Leg: Pico Boulevard (Bi Direction)

Traffic Control

- South Leg: The south leg is stop-controlled.
- East Leg: There are no traffic controls at 29th Street for eastbound and westbound Pico Boulevard traffic.
- West Leg: There are no traffic controls at 29th Street for eastbound and westbound Pico Boulevard traffic.

Crossing Infrastructure

- South Leg: The south leg incorporates a crosswalk with high-visibility striping, an advanced stop line, diagonal curb ramps with current ADA designed ramp on the west side (Figure 15), and a curb extension on the east side.
- East Leg: The east leg has no crosswalk. A diagonal curb ramp exists on the south end. A driveway curb cut for McDonald's exists a few feet to the west that most likely serves as a pedestrian curb ramp. No curb ramp exists on the north end.
- West Leg: The west leg has no existing crosswalk and diagonal curb ramps.

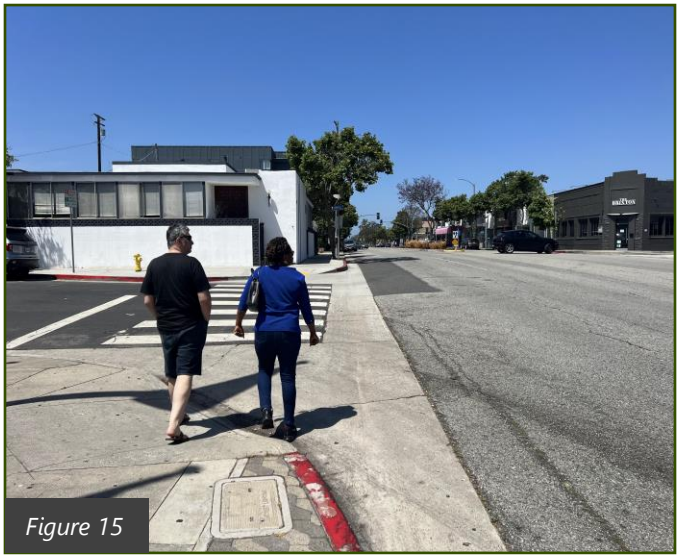


Figure 15

Other Features & Considerations

City of Santa Monica GoSaMo bicycle parking is located just south of Pico Boulevard on the east side of 29th Street which provides bike share mobility options near the project corridor (Figure 16).

Figure 16

Yorkshire Avenue Intersection

- T-intersection without South Leg
- East Leg: Pico Boulevard (Bi Direction)
- West Leg: Pico Boulevard (Bi Direction)

Traffic Control

- North Leg: The north leg is stop-controlled.
- East Leg: There are no traffic controls at Yorkshire Avenue for eastbound and westbound Pico Boulevard traffic.
- West Leg: There are no traffic controls at Yorkshire Avenue for eastbound and westbound Pico Boulevard traffic.

Crossing Infrastructure

- North Leg: The north leg incorporates a high-visibility crosswalk, an advanced stop line, and diagonal curb ramps. A driveway curb cut exists a few feet north on the east side, that most likely serves as a pedestrian curb cut.
- East Leg: The east leg has no existing crosswalk and diagonal curb ramps. Note the south curb ramp is shared with 29th Street.
- West Leg: The west leg has no existing crosswalk, and a diagonal curb ramp on the north end.

Other Features & Considerations

This intersection is offset to the west from the 29th Street intersection, which may impact sight lines and crossing safety.

28th Street Intersection

- North Leg: Stewart Street (Bi Direction)
- South Leg: 28th Street (Bi Direction)
- East Leg: Pico Boulevard (Bi Direction)
- West Leg: Pico Boulevard (Bi Direction)

Traffic Control

- North Leg: The north leg is signal controlled. Permissive left turn phasing directs eastbound left-turning traffic. Automated pedestrian signal permits pedestrian crossing.
- South Leg: The south leg is signal controlled. Permissive left turn phasing directs westbound left-turning traffic. Automated pedestrian signal permits pedestrian crossing.
- East Leg: The east leg is signal controlled. Permissive left turn phasing directs southbound left-turning traffic. Button activated pedestrian signals permit pedestrian crossing.
- West Leg: The west leg is signal controlled. Permissive left turn phasing is used for northbound left-turning traffic. Button activated pedestrian signals permit pedestrian crossing.

Crossing Infrastructure

- North Leg: The north leg incorporates a transverse striped crosswalk with a textured paver surface, an advanced stop line, and diagonal curb ramps. A Class II bike lane with green striping is provided up to the north leg for the northbound direction.
- South Leg: The south leg incorporates a transverse striped crosswalk with textured paver surface an advanced stop line, and curb ramps. The east side incorporates a parallel curb ramp with tactile bumps; the westside incorporates a diagonal curb ramp. A Class II bike lane with green striping is provided up to the south leg for the northbound direction (Figure 17).
- East Leg: The east leg incorporates transverse striped crosswalk with textured paver surface, and an advanced stop line. The south side incorporates a curb extension and parallel curb ramp with tactile bumps (Figure 18). The north end incorporates a diagonal curb ramp.
- West Leg: The west leg incorporates a transverse striped crosswalk with textured paver surface, an advanced stop line, and curb ramps.

Figure 17

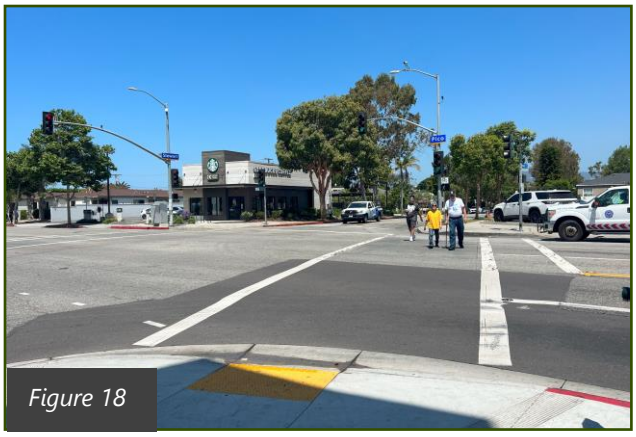


Figure 18

General Observations

Center Median

The project corridor features a landscaped center median for a majority of the project limits (Figure 19). This landscaped median includes shrubs and trees that can impact sightlines at certain locations and encourage pedestrians to cross Pico Boulevard at unmarked crossing locations.

Figure 19

Bicycle Parking

The project corridor includes bicycle racks that are provided consistently spaced throughout the project limits (Figure 20). These bicycle racks are located between the sidewalk and roadway curb where there are pavers supporting a hardscaped surface. They are spaced roughly every 50 feet, with certain locations including a clustering of two or more racks.

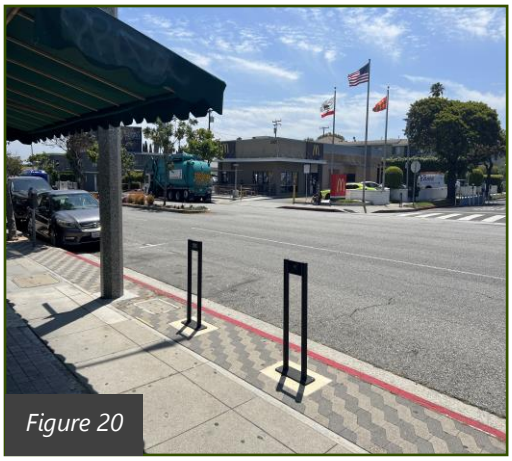


Figure 20

Sidewalks

Although sidewalks are provided consistently along the project corridor, they are rarely more than 5 feet wide. The hardscaped paver surface between the sidewalk and the roadway curb does operate as an extension of the sidewalk and can serve as a passing point, as it may relate to Americans with Disabilities Act (ADA) concerns, when obstructions are not present (Figure 21). The sidewalks are generally surrounded by trees along both sides of Pico Boulevard, bicycle racks, parking meters, roadway signs, and other obstruction features (Figure 22).

Figure 21

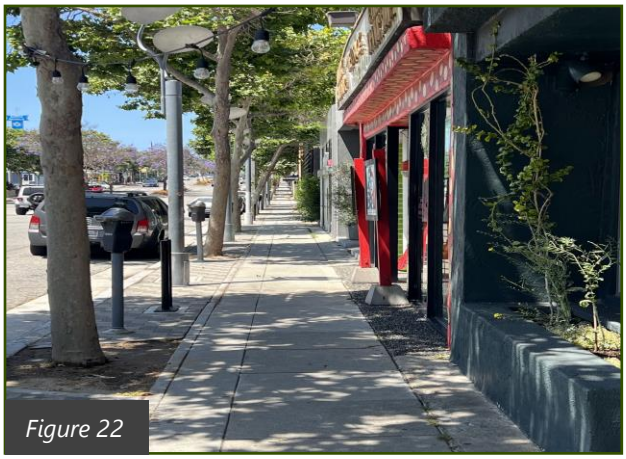


Figure 22

Red curbs

Many of the study intersections include painted red curb at the corner to prohibit on-street parking (Figure 23). The parking prohibition at intersection corners provides improved motorist visibility for pedestrians crossing, for turning movements, and potential project improvements such as curb extensions.

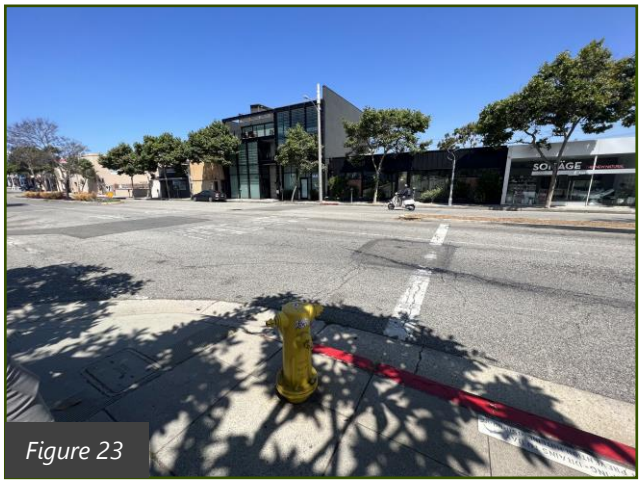


Figure 23

Appendix A – Project Area Collision Table

Project Area Collision Table

Pico Boulevard between Centinela Avenue and 27th Street

Time Period Analyzed: 1/1/2015-12/31/2020

#	CASE ID	DATE	DAY	TIME	LIGHT CONDITIONS	WEATHER	ROAD SURFACE	PCF VIOLATION CATEGORY	PED/ BICYCLIST AGE	PEDESTRIAN OR BICYCLE INVOLVED	COLLISION SEVERITY	PEDESTRIAN ACTION	AT FAULT	INTERSECTION	COMMENTS
1	6816406	2/2/2015	Monday	1343	Daylight	Clear	Dry	Other Than Driver (or Pedestrian)	38	Bicycle	Visible Injury	No Pedestrian Involved	N/A	N/A	P1 (Bicyclist) was slowing or stopping and collided with an object
2	7136006	11/9/2015	Monday	1752	Dark- Street Lights	Clear	Dry	Improper Turning	18	Bicycle	Visible Injury	No Pedestrian Involved	Driver	Pico Blvd. and 31st St.	P1 (Driver) was traveling east, and then making a right turn when collided with P2 (Bicyclist) traveling east
3	8156469	10/14/2016	Friday	1117	Daylight	Clear	Dry	Other Hazardous Violation	30	Pedestrian	Injury (Complaint of Pain)	Crossing in Crosswalk at Intersection	Driver	Pico Blvd. and 28th St.	P1 (Driver) was traveling south and making a left turn when they collided with P2 (Pedestrian) traveling northbound
4	8197049	12/20/2016	Tuesday	1123	Daylight	Clear	Dry	Pedestrian Right of Way	21	Pedestrian	Visible Injury	Crossing in Crosswalk at Intersection	Driver	Pico Blvd. and Stewart St.	P1 (Driver) was traveling south and making a left turn when they collided with P2 (Pedestrian) traveling northbound
15	8331340	3/4/2017	Saturday	2324	Dark- Street Lights	Clear	Dry	Pedestrian Violation	66	Pedestrian	Fatal	Crossing Not at Crosswalk	Pedestrian	Pico Blvd. and 27th St.	P2 (Pedestrian) moved south onto Pico Blvd. where P1 (Driver), eastbound, was proceeding straight.
5	8582927	3/13/2018	Tuesday	1244	Daylight	Cloudy	Wet	Pedestrian Right of Way	30	Pedestrian	Visible Injury	Crossing in Crosswalk at Intersection	Driver	Pico Blvd. and Stewart St.	P1 (Driver) was traveling in southbound direction and making a left turn when they collided with P2 (Pedestrian) traveling north
6	8672866	7/17/2018	Tuesday	1600	Daylight	Clear	Dry	Pedestrian Violation	3	Pedestrian	Visible Injury	In Road, Including Shoulder	Pedestrian	N/A	P2 (Pedestrian) moved south into the roadway where P1 (Driver), westbound, was proceeding straight
7	87389800000000	9/29/2018	Saturday	1815	Daylight	Clear	Dry	Pedestrian Right of Way	16	Pedestrian	Other Visible Injury	Crossing In Crosswalk At Intersection	Driver	Pico Blvd. and 34th St.	P1 (Driver) was traveling north on 34th St. and collided with P2 (Pedestrian) traveling west and crossing in crosswalk
8	8744853	11/8/2018	Thursday	1657	Dusk- Dawn	Clear	Dry	Other Hazardous	21	Bicycle	Visible Injury	No Pedestrian Involved	Driver	N/A	P1 (Bicyclist), was parked and P2 (Driver), eastbound, proceeded straight
9	42656500000000	1/4/2019	Friday	854	Daylight	Clear	Dry	Failure to Yield - Left or U-Turn	31	Bicyclist	Other Visible Injury	No Pedestrian Involved	Driver	Pico Blvd. and 28th St.	P1 (Driver) was traveling south from Stewart St. and making left turn when collided with P2 (Bicyclist) proceeding straight northbound
10	9052359	5/9/2019	Thursday	1029	Daylight	Cloudy	Dry	Pedestrian Right of Way	72	Pedestrian	Injury (Complaint of Pain)	Crossing in Crosswalk at Intersection	Driver	Pico Blvd. and 34th St.	P1 (Driver) was heading northbound and making a right turn when they collided with P2 (Pedestrian) heading west and proceeding straight
11	9052179	7/12/2019	Friday	1815	N/A	N/A	N/A	Unsafe Speed	35	Pedestrian	Visible Injury	In Road, Including Shoulder	Driver	Pico Blvd. and 30th St.	P1 (Driver) was traveling east and proceeding straight when colliding with P2 (Pedestrian) traveling east. The PCF Violation was unsafe speed
12	9060212	8/5/2019	Monday	1825	Daylight	Clear	Dry	Traffic Signals and Signs	30	Bicycle	Injury (Complaint of Pain)	No Pedestrian Involved	Bicyclist	Pico Blvd. and 28th St.	P1 (Bicyclist) was heading southbound and proceeding straight and collided with P2 (Driver) driving eastbound and proceeding straight. The PCF Violation was Traffic Signals and Signs
13	147511000000000	5/15/2020	Friday	952	Daylight	Clear	Dry	Pedestrian Right of Way	N/A	Pedestrian	Severe Injury	Crossing In Crosswalk At Intersection	Driver	Pico Blvd. and Stewart St.	P1 (Driver) was making left turn to travel east when collided with P2 (Pedestrian) traveling north in the crosswalk
14	149031000000000	10/13/2020	Tuesday	755	Daylight	Clear	Dry	Pedestrian Right of Way	N/A	Pedestrian	Fatal	Crossing In Crosswalk At Intersection	Driver	Pico Blvd. and 28th St.	P1 (Driver) was traveling southbound along Stewart Ave. and struck P2 (Pedestrian) when making an eastbound turn onto Pico Blvd.

Source: Transportation Injury Mapping System, City of Santa Monica