



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: March 7, 2025

To: Ms. Amy Wang, David J. Powers & Associates, Inc.

From: Katie Riutta, Trisha Dudala

Subject: Transportation Study for the Proposed Residential Development at 500 Railroad Avenue in South San Francisco, California

Hexagon Transportation Consultants, Inc. has completed a focused transportation study for the proposed residential development at 500 Railroad Avenue in South San Francisco, California (see Figure 1). The project proposes a total of 70 single-family townhouses within five urban residential blocks along Railroad Avenue between South Linden Avenue and South Spruce Avenue. Individual entry to the proposed units and access to the individual garages would be provided directly on Railroad Avenue. The project site plan is shown on Figure 2.

The project site is located in the T4L zoning district of the Lindenville Specific Plan Area, which establishes a mixed-use urban area. The district supports medium- to high- intensity mixed-use development with buildings that transition in scale to surrounding residential neighborhoods. The project is proposing an amendment to the Specific Plan to rezone the site from T4L to PD to allow the proposed density of 35.8 dwelling units per acre.

This report describes the project vehicle miles traveled (VMT), trip generation, a review of the project site plan to determine the overall adequacy of the site access and circulation, the proposed transportation demand management (TDM) strategy and its compliance with the City's TDM Policy, and enforcement/monitoring actions required by the South San Francisco Municipal Code.

CEQA VMT Analysis

The *South San Francisco Transportation Analysis Guidelines*, dated October 2022, outlines policies, guidelines, and screening criteria for VMT impact evaluation generally consistent with SB 743 and the State of California's Office of Planning and Research (OPR) recommendations.

In determining potential impacts due to VMT, the City has established seven screening criteria that are applied to quickly identify when a project should be expected to cause a less-than-significant VMT impact without conducting a detailed VMT assessment for CEQA transportation assessment purposes. Land use projects that meet at least one of the seven screening criteria are presumed to not require CEQA VMT analysis.

The proposed project meets the following VMT screening criterion:

- Residential Projects in Low VMT Areas: Based on information from the South San Francisco Travel Demand Model, certain areas of the city have lower rates of VMT generation than others. In existing locations where VMT per capita is below the thresholds, projects may be screened from further VMT analysis.

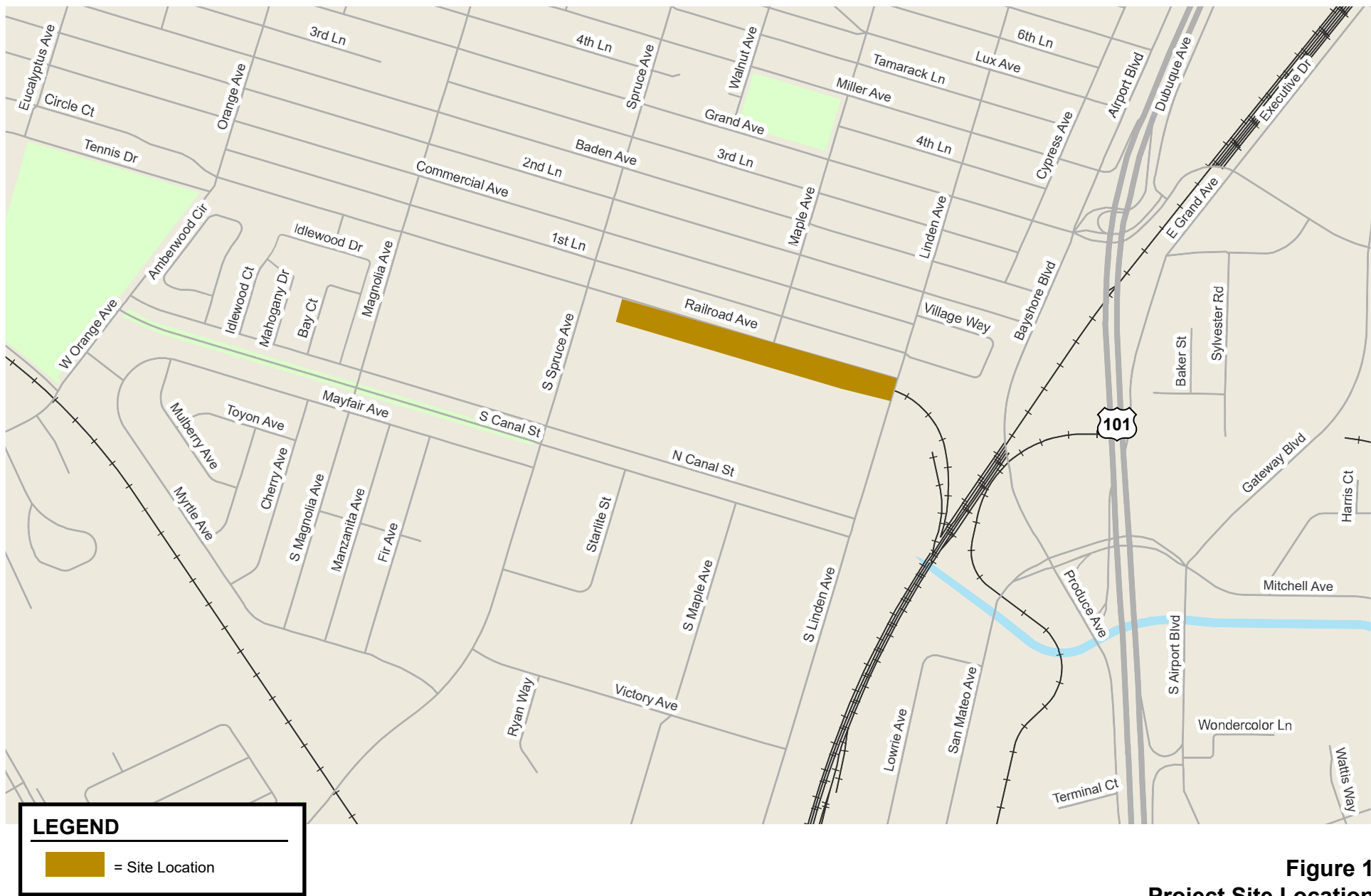


Figure 1
Project Site Location

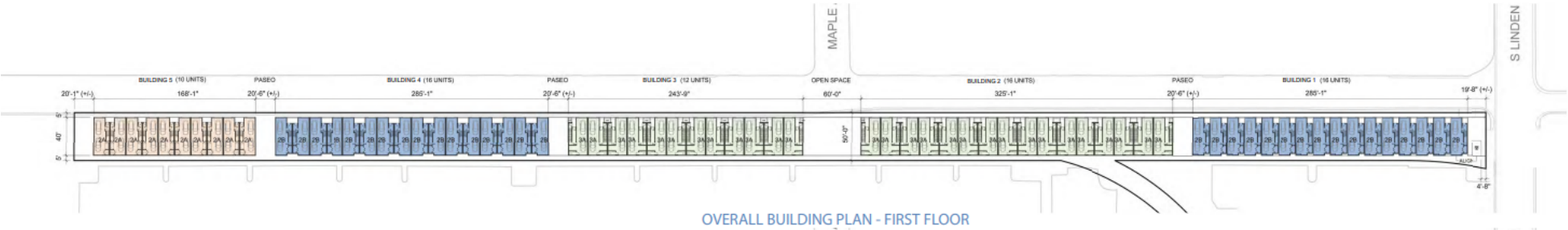


Figure 2
Project Site Plan

The proposed project would meet the screening criterion for “Residential Projects in Low VMT Areas”. The project site is located in an existing residential low-VMT zone (see Figure 3). Thus, the project is expected to have a less-than-significant impact on VMT based on the adopted City Policy. Therefore, a detailed VMT analysis is not required.

Project Trip Generation

Trip generation estimates for the proposed project were based on trip rates published in the Institute of Transportation Engineers’ (ITE) *Trip Generation Manual*, 11th Edition for “Single-Family Attached Housing” (Land Use 215) located in a general Urban/Suburban area. Based on the ITE rates, the proposed project would generate 504 daily trips including 34 AM peak-hour trips (11 inbound and 23 outbound) and 40 PM peak-hour trips (23 inbound and 17 outbound) (see Table 1).

Table 1
Project Trip Generation Estimates

Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trip	Rate	Trip			Rate	Trip		
					In	Out	Total		In	Out	Total
<u>Proposed Land Uses</u>											
#215 - Single-Family Attached Housing	70 Dwelling Units	7.20	504	0.48	11	23	34	0.57	23	17	40
Source: <i>ITE Trip Generation Manual</i> , 11 th Edition 2021.											

Site Access and Circulation

The site access and circulation evaluation is based on the July 16, 2024 site plan prepared by Sim Architects Inc. (see Figure 2). Vehicular access to the individual garages on the site would be provided directly on Railroad Avenue. Site access was evaluated to determine the adequacy of the site’s driveways with regard to the following: traffic volume, delays, geometric design, and safety.

Vehicle Site Access

Parking would be provided within individual garages accessible directly on Railroad Avenue. To reduce the number of curb-cuts along Railroad Avenue, the project would provide shared driveways where possible for adjacent units.

Project Driveway Operations

The project is estimated to generate 11 inbound trips and 23 outbound trips during the AM peak hour and 23 inbound trips and 17 outbound trips during the PM peak hour. Due to the low project trips at the driveways and low/moderate volumes on Railroad Avenue, vehicles would easily be able to enter and exit the project driveways. Vehicles turning into the project site on Railroad Avenue could block the travel lane momentarily due to vehicles slowing down to turn into the driveway. This would not have a noticeable effect on traffic operations.

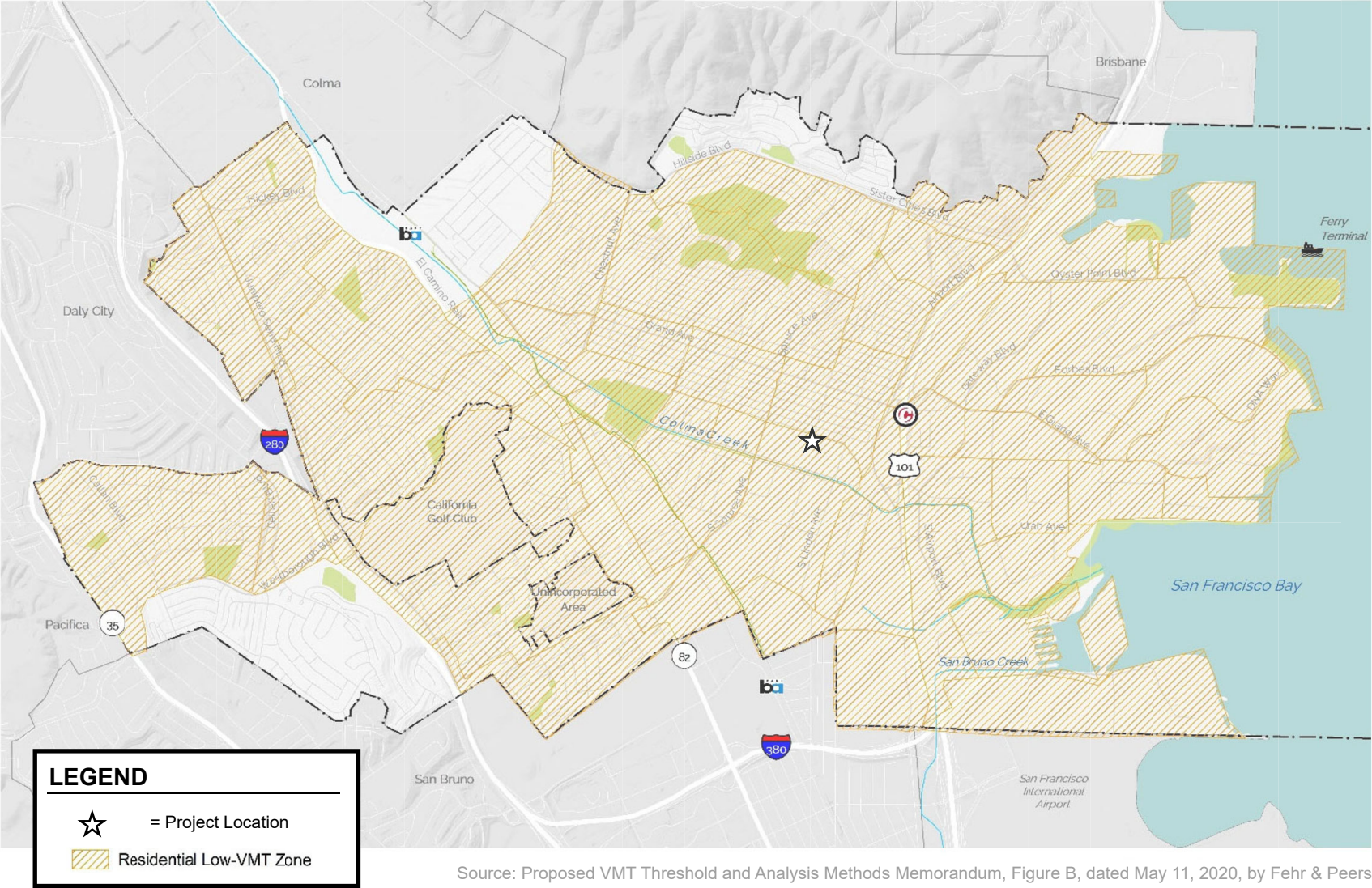


Figure 3
Low VMT Screening Map

Emergency Vehicles, Truck Access and Circulation

Emergency response vehicles would be able to access the project site via the project frontage on Railroad Avenue. For loading and unloading, rideshare vehicles and large delivery/service trucks would park in front of the driveways, which would block the eastbound bike lane and part of the eastbound vehicle lane on Railroad Avenue. As a result, eastbound bikes and vehicles would need to travel around the parked trucks by partially encroaching into the opposite lane. These would be infrequent events and the traffic volume on Railroad Avenue is relatively low, so it is not expected to be a major disruption to traffic flow. Trash bins would be located inside each unit's garage. The trash bins would be rolled out to the curb by the homeowners on trash collection days.

Pedestrian, Bicycle and Transit Access and Circulation

Pedestrian facilities near the project site consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. The proposed project would provide an outdoor open space/pedestrian paseo between two of the buildings across from Maple Avenue and new five-foot-wide sidewalk along the project frontage on the south side of Railroad Avenue. Sidewalk is missing on the south side of Railroad Avenue west of the project site, which would prevent residents from safely accessing the transit stops on South Spruce Avenue. East of the project site, the existing networks of sidewalks and crosswalks provide good connectivity and safe routes to nearby points of interest in the project vicinity. The nearby streets of South Linden Avenue and South Spruce Avenue are classified as pedestrian priority streets in the Lindenville Specific Plan, which are envisioned to have wider sidewalks, landscaping, parklets, curb extensions, and other traffic calming features to create walkable environments. The project would not remove any pedestrian facilities, nor would it conflict with any adopted plans or policies for new pedestrian facilities. Accordingly, the project would have no significant impact on pedestrian facilities.

Railroad Avenue is designated as a Class III bike route along its entirety, except in the eastbound direction between South Spruce Avenue and Maple Avenue, where it is designated as a Class II bike lane. The nearby streets of South Linden Avenue, Canal Street, and South Spruce Avenue are classified as backbone routes in the Lindenville Specific Plan, which are envisioned to include Class IV separated bikeways and protected intersection crossings. The project would not encroach into the existing bike lane on Railroad Avenue, except at the project driveways during deliveries or pick-ups. The project would provide long-term bicycle racks within each individual garage to meet the requirements of the South San Francisco Municipal Code. The project would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities. Thus, the project would have no significant impact on bicycle facilities.

There are several bus routes along South Spruce Avenue and Grand Avenue that have stops within ¼-mile walking distance of the project site, including SamTrans Routes 37, 130, and 141 and a Free South City Shuttle. South Linden Avenue and South Spruce Avenue are classified as transit priority streets in the Lindenville Specific Plan, which are envisioned to incorporate bus and shuttle service and high-quality shelters. According to the Specific Plan, first/last mile shuttles are planned to connect the Southline and Terminal Court employment centers with Caltrain and BART and one of the shuttles would likely operate along South Linden Avenue. The project is expected to add new transit riders. However, the new riders are expected to be accommodated by the existing and planned services. The project would not produce a detrimental impact to local transit or shuttle service. The project would therefore have no significant impact on transit service.

Parking Analysis

The parking analysis for the proposed project is based on the City's Lindenville Specific Plan parking requirements and the City's Municipal Code requirements.

Vehicle Parking

The project would be a group of attached single-unit residential uses that are less than 2,500 square feet with four or fewer bedrooms. The project site is located within ½-mile of the South San Francisco Caltrain Station, which means it is in a Transit Station Area (see Figure 4). Based on Table 20.330.004 of the City's Municipal Code, these uses are required to provide a maximum of two vehicle parking spaces per unit and at least one required space must be in a carport or garage.

Based on the proposed 70 townhouse units, the project would be required to provide a maximum of 140 residential parking spaces. The project proposes 140 residential parking spaces, including 2 spaces within the individual garages of each unit, which would meet the parking requirement. Every garage would be 11 feet wide and 40 feet long, containing 2 tandem parking spaces each 8.5 feet wide and 18 feet long. The garage and parking space widths would meet the City's minimum requirements in Section 20.330.010.E.8 of the City Code.

Bicycle Parking

Based on Section 20.330.007.B of the City's Municipal Code, the proposed group residential project would be required to provide a minimum of one long-term bicycle parking space for every four units. The long-term bike parking must be located on the same lot as the use it serves in a covered, lockable space. The City Code does not provide any requirements for short-term bike parking for single-unit residential uses.

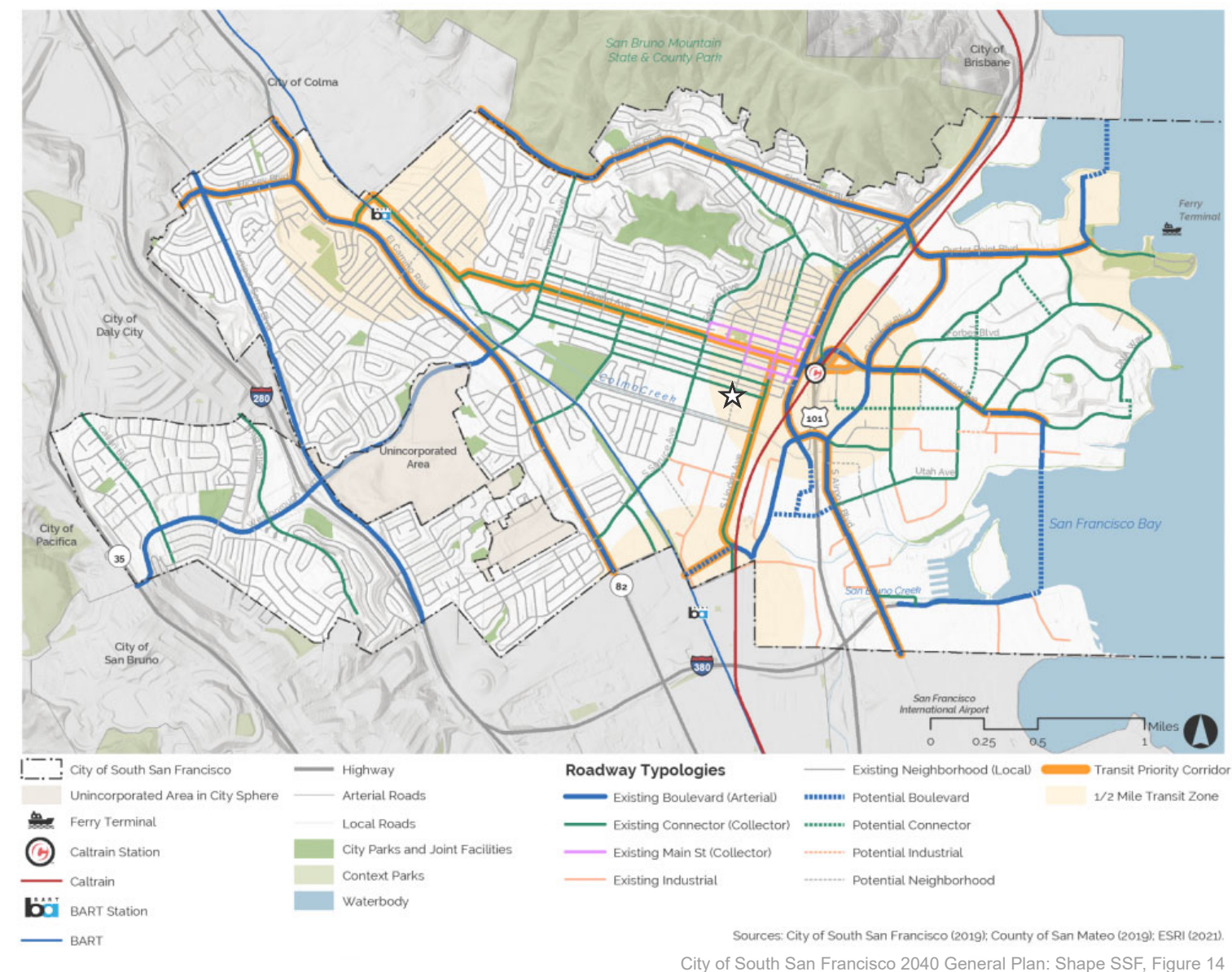
Based on the proposed 70 units, the project would be required to provide a minimum of 18 bicycle parking spaces for the residents. The project proposes 70 long-term bicycle parking spaces, with 1 secured bicycle rack within the individual garages of each unit. Therefore, the project would meet the requirement.

TDM Strategy

TDM is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, greenhouse gas emissions, and air pollution problems. The purpose of the TDM plan is to promote more efficient utilization of existing transportation facilities, and to ensure that new developments are designed to maximize the potential for sustainable transportation usage.

City of South San Francisco TDM Requirement

Based on the South San Francisco Municipal Code Chapter 20.400 and the Transportation Analysis Guidelines Chapter 6, the project falls under Tier 1 land use projects. Tier 1 projects are subject to implementing a list of TDM measures selected from those identified by the City in its TDM ordinance (see Table 2) to encourage residents to use alternative modes of transportation. Each individual measure is worth a set number of points. Residential projects must achieve at least 20 points if located within either a low-VMT area or ½-mile of a high-quality transit corridor. Otherwise, projects must achieve 30 points. Since the project is in a low-VMT and transit station area (see Figures 3 and 4), the minimum total required points are 20.



LEGEND



= Project Location

Figure 4
South San Francisco Roadway Network

City of South San Francisco TDM Checklist

As shown in Table 2, the project would commit to implementing TDM measures as described below that will add up to a total of 21 points based on the Tier 1 TDM Checklist in the City's Transportation Analysis Guidelines.

Table 2
Residential Tier 1 TDM Checklist for 500 Railroad Avenue

TDM Measure	Points	Included
Unbundled parking	10	X
Free transit passes to residents for first year of tenant's residency	10	10
Affordable Housing (Beyond Minimum Requirements)	6	X
Active Transportation Gap Closure/Improvement ¹	Up to 6	4
Transit facility improvement ²	Up to 6	X
TDM coordinator/point of contact for commute assistance	5	X
Reduced Parking ³	Up to 5	X
Increased Bicycle Parking ⁴	Up to 4	4
Onsite Carshare	4	X
Sidewalk-oriented pedestrian entrance	2	2
Mixed-use development with ground-floor retail	2	X
Bicycle repair station	1	X
Pedestrian-oriented street lighting	1	1
Promotional programs & materials	1	X
Total Requirement if Located within ½-Mile of a High-Quality Transit Corridor, Low-VMT Residential Area, or consistent with General Plan	20	21

Notes:

¹ Active Transportation Gap Closure: 2 points for addressing missing sidewalks or signage/stripping changes for crosswalk or bike lane gaps; 6 points for major gap closure near transit station; 4 points for dedicating additional space for pedestrian or bicycle facilities (as proposed by the project).

² Transit Capital Improvements: 2 points for bus shelter at existing stop; 4 points for new bus bulb with shelter (or equivalent bus improvements); 6 points for bus-only lane. The project does not include transit capital improvements.

³ Reduced Parking: 1 point for every 6 percent reduction in parking supply, up to 30 percent reduction. Parking reduction may require parking management plan depending on land use type. The project does not include reduced parking.

⁴ Increased bicycle parking: 1 point for every 25 percent increase above City requirements, points are counted for up to a 100 percent increase (i.e., up to 4 points can be achieved). The number of bicycle parking spaces proposed by the project would be more than 100 percent above the City's requirements.

Free Transit Passes/Subsidies

The developer will provide transit subsidies for every unit for the first year after purchasing. The transit subsidies would be provided on a Clipper Card that can be used on SamTrans, BART, and Caltrain. This measure is worth 10 points in the City's TDM Checklist.

The nearest transit facility to the project site is a bus stop located at Maple Avenue and Grand Avenue, which is served by SamTrans Routes 37, 130, and 141 and Free South City Shuttles (Blue and Green). Route 37 is a school-oriented route that runs between Alta Loma School and Hillside Boulevard/Grove Avenue, with one run during the AM peak hour and one run during the PM peak hour on weekdays. Route 130 runs between Airport Boulevard/Linden Avenue and the Daly City BART station, with connections at the Colma and South San Francisco BART stations. This route operates between 5:00 AM and midnight with 30- to 35-minute headways on weekdays. Route 141 runs between Skyline College and Airport Boulevard/Linden Avenue, with connections at South San Francisco City Hall and the San Bruno BART station. This route operates between 5:30 AM and 11:30 PM with 30-minute headways on weekdays. The Blue and Green Free South City Shuttles offer free transportation service looping the eastern side of El Camino Real, with connections at the South San Francisco BART station and City Hall. This route operates between 7:10 AM and 7:30 PM with 40-minute headways on weekdays.

Active Transportation Gap Closure/Improvement

The project would construct new 5-foot-wide sidewalk along the project frontage on Railroad Avenue consistent with the current South San Francisco Design standards. The sidewalk is currently missing along the south side of Railroad Avenue between South Linden Avenue and about 400 feet west of South Spruce Avenue. The proposed sidewalk along the project frontage would improve the pedestrian connection between the project site and South Linden Avenue. This measure is worth four points for addressing missing sidewalk and dedicating additional space for pedestrian facilities in the City's TDM Checklist.

Increased Bicycle Parking

The project would provide more than the required amount of long-term bicycle parking. Based on the City's Transportation Analysis Guidelines Table 3, 1 point is given for every 25 percent increase above City requirements. The City requirement for the project is 18 long-term bicycle parking spaces. Long-term bicycle parking meeting the City's standards would be provided in individual garages for all 70 of the proposed dwelling units. Therefore, this measure is worth four points in the City's TDM Checklist.

Sidewalk-Oriented Pedestrian Entrance

The main pedestrian entrances to each proposed dwelling unit would be situated directly along the new sidewalk on Railroad Avenue. To reduce the number of curb-cuts along Railroad Avenue, the project would provide shared driveways where possible for adjacent units. This measure is worth two points in the City's TDM Checklist.

Pedestrian-Oriented Street Lighting

The project would include pedestrian-scale lighting along the project frontage and throughout the pedestrian paseo across from Maple Avenue. This measure will encourage residents to walk to nearby destinations and ensure safe and well-lit paths to nearby transit stops. This measure is worth one point in the City's TDM Checklist.

TDM Monitoring and Reporting

The purpose of this TDM strategy is to reduce the single-occupant vehicle trips generated by the proposed residential buildings and meet the requirements of the City of South San Francisco. The property manager/HOA Representative will be required to submit to the City an annual TDM monitoring report. As per the City's Municipal Code Section 20.400.006, for all Tier 1 projects, compliance shall be achieved through self-certification of implementation of the proposed measures identified in the City's TDM Checklist (see Table 2). The initial TDM compliance form will be submitted to the Planning Department when applying for a certificate of occupancy documenting that the TDM program will be implemented before the site reaches 50 percent occupancy. Subsequent compliance forms will be prepared annually for the first five years after occupancy. The property manager/HOA Representative will coordinate with City staff for any additional reporting requirements.