

4.13 Transportation

4.13.1 Introduction

This section provides a discussion of the methodologies and findings of the traffic analysis, which is based on the Bayview Estates Transportation Impact Analysis (TIA) Report prepared by Fehr & Peers and provided in **Appendix E** to this Draft EIR. The policies and objectives of the County of Contra Costa General Plan Transportation and Circulation Element and the 2017 Update to the Contra Costa Countywide Comprehensive Transportation Plan of the Contra Costa Transportation Authority (CCTA) were reviewed. This section describes: (1) the existing and planned transportation system in the vicinity of the Project site, including roadway, bicycle, pedestrian, and transit facilities; (2) the anticipated impacts of the Project on vehicle-miles of travel (VMT) and these facilities; and (3) associated mitigation measures.

This analysis addresses topics required pursuant to CEQA Guidelines. For informational purposes, the non-CEQA assessment and recommendations for intersection operations and parking recommendations for the proposed Project are included in the TIA Report in Appendix E.

4.13.2 Environmental Setting

Figure 4.13-1 shows the location of the Project site in relation to the nearby roadway system and the associated key roadways.

Baseline VMT

The CCTA travel demand model covers the entire nine-county Metropolitan Transportation Commission (MTC) region and provides information regarding the characteristics of home-based trips made by residents throughout the Bay Area. Per guidance from the Contra Costa County Transportation Analysis Guidelines, the CCTA travel demand model was chosen to assess baseline home-based trip lengths and average home-based trip VMT per resident in Contra Costa County.

All home-based trips were analyzed for this VMT analysis. Data from the CCTA travel demand model indicates that the average Contra Costa County home-based VMT per resident is 19.4. This average takes into account all residents, including those who travel by automobile, as well as residents who travel (either in full or in part) by modes that do not generate automobile VMT, such as transit, walking, bicycling, or working from home.

Regional Roadways

Interstate 680 (I-680) is a major north-south freeway that connects Fairfield to San Jose via Concord, Walnut Creek, and Pleasanton. I-680 is located west of the Project site. Project traffic



would access I-680 to and from the north using the unsignalized ramp terminal intersections at Arthur Road. Project traffic would access I-680 to and from the south using the signalized intersection at Pacheco Boulevard/Arthur Road. Within the study area, I-680 has three general purpose travel lanes and one High-Occupancy Vehicle (HOV) lane in each direction for vehicles with two or more people during the morning and evening commute hours.¹ The speed limit of the facility is 65 miles-per-hour. **Pacheco Boulevard** is a northwest-southeast oriented arterial with one travel lane in each direction in the study area. Pacheco Boulevard connects downtown Martinez to Pacheco, and the roadway provides access to residential and commercial uses west of the Project site. The posted speed limit in the study area is 35 miles-per-hour.

Local Roadways

Arthur Road is a southwest-northeast oriented collector and extends from Pacheco Boulevard to a residential area north of the Project site. West of the Project site, the roadway has one travel lane in each direction. The I-680/Arthur Road interchanges provides access to/from points north along I-680. The posted speed limit is 25 miles-per-hour.

Central Avenue is a local road with one travel lane in each direction north of the Project site. This roadway is maintained by the County between Arthur Road and Darcie Way, and becomes an unpaved private road as it extends to the Project site and CCCSD Maltby pump station. This road would be widened and paved as part of the Project, serving as the main access roadway to the Project site. The posted speed limit between Arthur Road and Darcie Way is 25 miles-per-hour and has a suggested speed limit of 5 miles-per-hour on the privately owned segment. Central Avenue currently is not a through street and would serve as a main access roadway to the Project site.

Palms Drive is a local road with one travel lane in each direction north of the Project site. The surface pavement conditions are poor with uneven and missing pavement. The road is not a through street and would be extended to the Project site as a secondary access. The speed limit is not posted.

Pedestrian Facilities

Pedestrian facilities include sidewalks, shared-use pathways, crosswalks, and pedestrian signals. A continuous sidewalk of about six feet wide is provided on the north side of Pacheco Boulevard west of Arthur Road. Narrow sidewalks of about five feet in width are present along either side of Arthur Road from Pacheco Boulevard to Central Avenue and along Central Avenue between Arthur Road and Darcie Way. Sidewalks are not provided on the privately owned portion of Central Avenue, and on Palms Drive. At the signalized intersection of Pacheco Boulevard/Arthur Road, crosswalks, pedestrian push buttons, and pedestrian signals are provided. Crosswalks at unsignalized intersections in the study area are limited. There are four unsignalized intersections

¹ A project currently under construction will convert the southbound I-680 HOV lanes to an HOV2+/Express Lane, whereby single-occupant vehicles can use the lane by paying a toll that varies by time of day. HOVs with two or more occupants may use the lane without paying a toll.

with marked crosswalks along Arthur Road: Karen Lane, I-680 southbound off-ramp, I-680 northbound on-ramp, and Central Avenue. All other unsignalized intersections do not provide marked crosswalks within the study area.

Bicycle Facilities

The CCTA Countywide Bicycle and Pedestrian Plan identifies the following four bikeway classifications from Chapter 1000 of the Caltrans Highway Design Manual:

- Class I Bikeway (Bicycle Path) provides a completely separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized.
- Class II Bikeway (Bicycle Lane) provides a restricted right-of-way and is designated for the use of bicycles with a striped lane on a street or highway. Bicycle lanes are generally four to six feet wide. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted.
- Class III Bikeway (Bicycle Route) provides for a right-of-way designated by signs or pavement markings (sharrows) for shared use with pedestrians or motor vehicles. Sharrows are a type of pavement marking (bike and arrow stencil) placed to guide bicyclists to the best place to ride on the road, avoid car doors, and remind drivers to share the road with cyclists.
- Class IV Bikeway, also known as “cycle tracks” or “protected bike lanes,” provide a right-of-way designated exclusively for bicycle travel within a roadway and which are protected from other vehicle traffic with devices, including, but not limited to, grade separation, flexible posts, inflexible physical barriers, or parked cars.

Pacheco Boulevard provides a Class III bike facility south of Arthur Road and a Class II bike facility west of Arthur Road. The 2018 Contra Costa Countywide Bicycle and Pedestrian Plan (CBPP) identified a proposed Class III bicycle facility along Arthur Road north of Pacheco Boulevard. The CBPP also identified Pacheco Boulevard as a “Proposed Low Stress Bikeway”, which means future roadway improvements are planned to create a more comfortable and safe bicycling environment. Central Avenue and Palms Drive directly connected to the Project site do not provide any bicycle facilities and do not have planned bikeways.

Public Transit

The Vine Hill area is primarily served by County Connection, operated by the Central Contra Costa Transit Authority (CCCTA), and its connections to Bay Area Rapid Transit (BART) and Amtrak.

County Connection provides fixed-route and paratransit bus service for communities in Central Contra Costa County. The Project site is closest in proximity to Route 19, which extends from the Martinez Amtrak station to Concord BART. The closest bus stop for this route is at the Pacheco Boulevard and Arthur Road intersection, approximately 0.6 miles west of the Project site.

BART operates commuter passenger rail service throughout the Contra Costa, Alameda, San Francisco, San Mateo, and Santa Clara counties. The Project site is located approximately 5.5

miles from the North Concord/Martinez BART station and 6.2 miles from the Concord BART station. The Vine Hill area is connected to the Concord BART station via County Connection Route 19 and to the North Concord BART station via personal vehicle.

Amtrak is rail passenger service that serves various locations throughout the United States. The Martinez Amtrak station is served by the San Joaquins and Capitol Corridor routes.

4.13.3 Regulatory Setting

Agencies with Jurisdiction Over Transportation in the Project Area

Contra Costa County has jurisdiction over all County streets and County-operated traffic signals. In addition, several regional agencies, including TRANSPAC Regional Transportation Planning Committee and the Metropolitan Transportation Commission (MTC), oversee and coordinate funding for regional transportation improvement programs affecting the County.

Contra Costa Transportation Authority (CCTA). In 2004, Contra Costa voters approved Measure J, a law to extend a sales tax under Measure C for an additional 25 years beyond Measure C's 2009 expiration. Measure C was a 0.5-percent transportation sales tax in Contra Costa County passed in 1988, and Measure J continues the half-cent transportation sales tax to fund voter-approved transportation programs and projects and is managed by CCTA. The measure is expected to provide \$2.5 billion for countywide and local transportation projects.

Caltrans has authority over the state highway system, including mainline facilities and interchanges. Caltrans must be involved in and approve the planning and design of all improvements involving state highway facilities. State highway facilities in the Project area include I-680 and its interchanges at Pacheco Boulevard and Arthur Road. The California Department of Transportation (Caltrans) has jurisdiction of all freeways, freeway ramps, and other state routes, such as I-680 and SR 4.

Local and Regional Plans and Policies

Contra Costa County Transportation Analysis Guidelines

Senate Bill 743 (Steinberg, 2013), which enacted Public Resources Code section 21099, required changes to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts. CEQA impacts are now identified based on a project's effect on VMT and its effects on the pedestrian, bicycle, and transit modes of travel. In June 2020, Contra Costa County adopted the Contra Costa County Transportation Analysis Guidelines, which provide guidance on the performance of CEQA transportation impact analysis and informational congestion-based analyses. Specifically, the guidelines provide technical guidance regarding assessment of VMT, thresholds of significance, and mitigation measures for land development and transportation projects in the unincorporated area.

Contra Costa County General Plan

The current Transportation and Circulation Element of the *Contra Costa County General Plan* includes the following policies pertinent to consideration of proposed development projects in the County (Contra Costa County, 2005).

Circulation and Access

- *Policy 5-2*: Appropriately planned circulation system components shall be provided to accommodate development compatible with policies identified in the Land Use Element.
- *Policy 5-9*: Existing circulation facilities shall be improved and maintained by eliminating structural and geometric design deficiencies.
- *Policy 5-15*: Curbs and sidewalks shall be provided in appropriate areas.
- *Policy 5-16*: Emergency response vehicles shall be accommodated in development project design.
- *Policy 5-43*: Provide special protection for natural topographic features, aesthetic views, vistas, hills and prominent ridgelines at "gateway" sections of scenic routes. Such "gateways" are located at unique transition points in topography or land use, and serve as entrances to regions of the County.

4.15.4 Significance Criteria

Consistent with Appendix G of the CEQA *Guidelines*, the Project would have a significant effect on transportation and traffic if it would:

- a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d) Result in inadequate emergency access?

Analysis Methodology

Project Trip Generation

Trip generation for the Project was based on data published by the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition), land use code 210 (single-family detached housing). As shown in **Table 4.13-1**, the Project is estimated to generate 1,360 daily vehicle trip ends (680 inbound and outbound daily vehicle trips), with about 107 trips during the a.m. peak hour and 143 trips during the p.m. peak hour.

**TABLE 4.13-1
 PROJECT VEHICLE TRIP GENERATION**

	Unit/Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
ITE Trip Rates	Per House	9.44	25%	75%	0.74	63%	37%	0.99
Single-Family Housing (ITE Code 210)	144	1,360	27	80	107	90	53	143

SOURCE: Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition.

Project Trip Distribution and Assignment

Project-generated peak-hour trips were distributed to the roadway network and assigned to intersection turning movements based on Project site access, and existing traffic count data and travel patterns. All Project traffic would use Arthur Road for access to and from the site.

Figures 4.13-4A and **4.13-4B** illustrate the distribution percentages of the Project peak-hour inbound and outbound traffic volumes respectively.

Vehicle Miles Traveled (VMT)

CEQA impacts are identified based on a project’s effect on VMT and its effects on the pedestrian, bicycle, and transit modes of travel. CEQA Guidelines §15064.3(a) notes that, for the purposes of §15064.3 and CEQA Transportation analysis, VMT “refers to the amount and distance of automobile travel attributable to a project.” This statement has been interpreted by the State Office of Planning and Research (OPR) to mean automobile and light-duty truck travel (e.g., pickup trucks). The Contra Costa County Transportation Analysis Guidelines prescribe the following analysis parameters for the VMT analysis of residential projects in the unincorporated areas of Contra Costa County:

- Metric: Total weekday home-based VMT per resident
- Method: Contra Costa Transportation Authority (CCTA) countywide travel demand model
- Threshold: 15 percent below baseline County-wide average home-based VMT per resident
- Analysis Scenario: Impacts evaluated against the near-term and far-term baseline

As previously described under *Baseline VMT*, the Existing Conditions average home-based trip VMT per resident in Contra Costa County is 19.4. Therefore, the threshold for home-based trip VMT per resident is 16.5 for the Existing plus Project Conditions.

In addition to the Existing plus Project Conditions analysis, a Cumulative (Year 2040) analysis has been prepared to evaluate the Project’s consistency with the General Plan and associated VMT estimates. The threshold for a Cumulative plus Project Conditions VMT impact is if the Project increases total VMT compared to the County General Plan (Envision 2040) assumptions.

Vehicle System

The Project would create a significant impact related to the vehicle system if any of the following criteria are met:

- The project design would not provide or would eliminate vehicle facilities to connect to the area circulation system, or
- The project design would create hazardous conditions for vehicle drivers, or
- The project conflicts with existing or planned vehicle facilities.

Pedestrian System

The Project would create a significant impact related to the pedestrian system if any of the following criteria are met:

- The project design would not provide or would eliminate pedestrian facilities to connect to the area circulation system, or
- The project design would create hazardous conditions for pedestrians, or
- The project conflicts with existing or planned pedestrian facilities.

Bicycle System

The Project would create a significant impact related to the bicycle system if any of the following criteria are met:

- The project design would not provide or would eliminate bicycle facilities that connect to the area circulation system; or
- The project design would create hazardous conditions for bicyclists; or
- The project conflicts with existing or planned bicycle facilities.

Transit System

The Project would create a significant impact related to transit service if either of the following criteria are met:

- The project generates a substantial increase in transit riders that cannot be adequately served by existing transit services; or,
- The project conflicts with existing or planned transit facilities.

Emergency Access

The Project would create a significant impact related to emergency vehicle access if the following criterion is met:

- The project incorporates design features that limit or result in inadequate emergency vehicle access.

Topics with No Impact or Otherwise Not Addressed in this EIR

Each of the topics and significance thresholds for transportation and traffic are addressed in this section.

4.15.5 Impacts Analysis

Project Construction

Impact TRF-1: Project construction would result in temporary increases in truck traffic and construction worker traffic. (Criterion a) (*Potentially Significant prior to Mitigation*)

Construction activities for the Project would generate off-site traffic that would include the initial delivery of construction vehicles and equipment to the Project site, the daily arrival and departure of construction workers, the delivery of materials throughout the construction period and removal of construction debris. During site grading, there would be a balance of cut and fill (i.e., excavation and fill materials would be equal to one another in volume, and no off-site hauling of excavated or fill materials would be required. Deliveries would include shipments of concrete, lumber, and other building materials for on-site structures, utilities (e.g., plumbing equipment and electrical supplies) and paving and landscaping materials.

Construction-generated traffic would be temporary, and therefore, would not result in any long-term degradation in operating conditions on roadways in the Project area. The impact of construction-related traffic would be a temporary and intermittent lessening of the capacities of affected streets because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. However, given the proximity of the Project site to regional roadways (i.e., I-680), construction trucks would have relatively direct routes. Most construction traffic would be dispersed throughout the day. Thus, the temporary increase would not significantly disrupt daily traffic flow on roadways in the vicinity of the Project site.

However, truck movements potentially would have an adverse effect on traffic flow in the vicinity of the Project site, and in order to reduce/avoid those adverse effects, the impact is considered to be significant, requiring mitigation measures. Mitigation Measure TRF-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRF-1: The Project applicant and construction contractor(s) shall develop and submit a Construction Management and Traffic Control Plan for the review and approval of the County's Public Works Department. The Construction Management and Traffic Control Plan shall be submitted to the Public Works Department a minimum of 60 days prior to the initiation of construction activities:

- A set of comprehensive traffic control measures, including scheduling of major truck trips to avoid peak traffic hours, types of vehicles and maximum speed limits for each type of vehicle, expected daily truck trips, staging areas, emergency routes and access, detour signs if required, lane closure procedures, flag person requirements, signs, cones for drivers, a street sweeping plan and designated construction access routes.

- Identification of roadways to be used for the movement of construction vehicles to minimize impacts on motor vehicle, bicycle and pedestrian traffic, circulation and safety, and specifically to minimize impacts to the greatest extent possible on streets in the Project area.
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur.

Significance after Mitigation: Less than Significant.

Impact TRF-2: Project-generated increases in heavy truck traffic on area roadways during Project construction could result in substantial damage to or wear of public roadways. (Criterion a) (*Potentially Significant prior to Mitigation*)

The use of large trucks to transport equipment and material to and from the Project site could affect road conditions on the designated construction route by increasing the rate of road wear. The degree to which this impact would occur depends on the roadway design (pavement type and thickness) and the existing condition of the road. Freeways, such as I-680, and Arterials, such as Pacheco Boulevard, are designed to handle a mix of vehicle types, including heavy trucks. The Project's impacts are expected to be negligible on those roads. Residential neighborhood roads (Arthur Road, Central Avenue and Palms Drive) are more susceptible to increased wear and damage due to heavy truck operations. Mitigation Measure TRF-2 would mitigate the potential for excessive road wear due to Project construction trucks to a less- than-significant level.

Mitigation Measure TRF-2: Prior to commencement of Project construction activities, which would include any construction-related deliveries to the site, the Project applicant shall document to the satisfaction of the Contra Costa County Public Works Department, the road conditions of the construction route that would be used by Project construction-related vehicles. The Project applicant shall also document the construction route road conditions after Project construction has been completed. The Project applicant shall repair roads that are damaged by construction related activities to County standards and to a structural condition equal to that which existed prior to construction activity. As a security to ensure that damaged roads are adequately repaired, the Project applicant shall make an initial monetary deposit, in an amount to be determined by the Department of Public Works, to an account to be used for roadway rehabilitation or reconstruction. If the County must ultimately undertake the road repairs, and repair costs exceed the initial payment, then the Project applicant shall pay the additional amount necessary to fully repair the roads to pre-construction conditions.

Significance after Mitigation: Less than Significant.

Project Operations

Impact TRF-3: Total Home-Based VMT per resident generated by the Project would be greater than 15 percent below the regional VMT for similar uses in Contra Costa County, resulting in a significant impact for the Project. (Criterion b) (*Significant and Unavoidable*)

Consistent with County requirements, the CCTA travel demand model was used in the analysis of the Project’s effect on VMT. As the Project site is located on an undeveloped parcel of land, and the Project will generate new trips, it is anticipated that the Project’s near-term effect on VMT would be nearly identical to the VMT generated by the Project. Based on the CCTA model runs, the Project is expected to generate 8,164 VMT per weekday. As noted in the Setting section above, the CEQA VMT analysis metric is total home-based VMT per resident. **Table 4.13-2** presents the total home-based VMT per resident for Existing with Project Conditions.

As noted in the *Setting* section above, the Project would result in a significant CEQA transportation impact if the Project’s home-based trip VMT per resident is greater than 16.5 VMT per resident (15 percent below the Contra Costa County average for residential uses). The Project’s total home-based VMT per resident is 20.6, which is 4.1 VMT per resident greater than 15 percent below the Contra Costa County average for residential uses. Therefore, the Project’s effect on VMT would result in a significant impact.

**TABLE 4.13-2
 EXISTING WITH PROJECT CONDITIONS GENERATED VEHICLE-MILES TRAVELED**

Scenario	Project TAZ ¹ Total Home- Based VMT per Resident	VMT Threshold Value ²	Impact?
Existing with Project	20.6	16.5	Yes

NOTES:

- The Project is located in transportation analysis zone (TAZ) 20030. The model output showed about 18 total home-based VMT per resident in TAZ 20030 with the Project. As an act of due diligence to check the quality of model outputs, the Project TAZ VMT value was compared to the adjacent TAZ 20029 with the same single family residential land use (neighborhood north of the Project site). Access to both the Project TAZ 20030 and the adjacent TAZ 20029 are provided by Central Avenue, and the distance from Central Avenue to the Project TAZ is greater than the distance to the adjacent residential TAZ. Conceptually, the Project TAZ would have the same or higher lower home-based VMT per resident compared to the adjacent residential TAZ. However, the model calculated a lower VMT per resident value in the Project TAZ than the adjacent residential TAZ. Therefore, the adjacent residential TAZ total home-based VMT per resident value of 20.6 was used as the Existing with Project VMT value in this study.
- The VMT threshold represents 15 percent below the Countywide average VMT per resident of 19.4.

SOURCE: Fehr & Peers, 2020 (Appendix E)

VMT forecasts presented in this assessment do not consider some foreseeable travel changes, including increased use of transportation network companies, such as Uber and Lyft, nor the potential for autonomous vehicles. Although the technology for autonomous vehicles is expected to be available over the planning horizon, the federal and State legal and policy frameworks are uncertain. Initial modeling of an autonomous future indicates that with automated and connected vehicles, the capacity of the existing transportation system would increase as vehicles can travel

closer together; however, these efficiencies are only realized when a high percentage of vehicles on the roadway are automated and connected. There is also the potential for vehicle travel to increase with zero-occupancy vehicles on the roadway. Additionally, the VMT forecasts are based on a model that was developed using data reflecting travel conditions before COVID-19; the effects of COVID-19 may be a near-term suppression in travel activity on the basis of reduced economic output and permanently modified travel habits.

The following Mitigation Measure TRF-3 is recommended to address the potential impact to the greatest extent feasible:

Mitigation Measure TRF-3: Transportation and Parking Demand Management (TDM) Plan. Prior to issuance of building permits, the Project applicant shall develop a TDM program for the proposed Project, including any anticipated phasing, and shall submit the TDM Program to the County Department of Conservation and Development for review and approval. The TDM Program shall identify trip reduction strategies as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. The TDM Program shall be designed to achieve the trip reduction, as required to reduce the VMT per resident from 20.6 to 16.5 consistent with a 20 percent reduction in the near-term.

Trip reduction strategies may include, but are not limited to, the following:

- 1) Pedestrian improvements, on-site or off-site, to connect to existing and planned pedestrian facilities, nearby transit stops, services, schools, shops, etc.
- 2) Bicycle network improvements, on-site or off-site, to connect to existing and planned bicycle facilities, nearby transit stops, services, schools, shops, etc.
- 3) Enhancements to bus service during peak commute times
- 4) Compliance with a future County VMT/TDM ordinance
- 5) Participation in a future County VMT fee program

Significance after Mitigation: Significant and Unavoidable.

Transportation Demand Management (TDM) strategies work best when they are applied at a city or regional scale and when the travel characteristics of the users or tenants of a site are known. The effectiveness of TDM measures for land use projects in unincorporated areas of Contra Costa County is difficult to quantify as the literature documenting the effectiveness of land use project-level TDM strategies are generally related to suburban and urban areas, not unincorporated areas. If the Project site is ultimately considered to be part of a suburban setting, studies show the maximum VMT reduction associated with the implementation of TDM strategies that can be expected for this Project is 10 percent.² Even this reduction is likely difficult to achieve given the greenfield nature of the Project and its proximate location to available transit services. The requirement to reduce daily VMT by 20 percent in the near-term exceeds the expected level of

² Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association, August, 2010, page 55.

VMT reduction supported by the research. However, while the level of VMT reduction associated with TDM measures are unlikely to mitigate the Project's impact to a less-than-significant level, CEQA requires that feasible mitigation measures be implemented to reduce a project level of impact.

Impact TRF-4a: The Project would increase traffic volumes on residential roadway segments near the Project site resulting in obstacles (or hazards) for Project vehicle traffic. (Criterion c) (Potentially Significant prior to Mitigation)

Vehicular access to the Project site is proposed on Central Avenue and Palms Drive. Palms Drive has poor pavement conditions and narrow travel-way widths on Palms Drive and the private ownership and unpaved condition on Central Avenue represent obstacles (or hazards) for Project vehicle traffic using Palms Drive and Central Avenue.

Palms Drive is a right-of-way and would provide access to the site. The paved travel-way on Palms Drive is less than 20 feet in some locations, restricting concurrent two-way vehicle movements, and does not meet County requirements and design standards. Palms Drive could carry an additional 1,360 daily vehicles generated by the Project if Central Avenue between Darcie Way and the Project site were to remain privately owned. The County design standards with this level of traffic, combined with the existing traffic loads, would require a 34-foot paved cross-section (two 12-foot lanes, two 5-foot shoulders) to meet rural road standards according to County Standard Plans, Two Lane Rural Road Guidelines (Plan Number CA53). The poor pavement conditions and narrow travel-way width represent obstacles for Project vehicle traffic using Palms Drive. Therefore, the Project's effect on vehicle drivers using Palms Drive would result in a significant impact.

Central Avenue between Darcie Way and the Project site is privately-owned. The Project site cannot be publicly accessed using Central Avenue until the County acquires the right-of-way and improves the portion of Central Avenue to meet County design standards. If Central Avenue remains private, a single public access point on Palms Drive would still operate well for general traffic use if it were improved to accommodate two-way traffic movements. The unpaved and privately-owned road presents obstacles for Project traffic using Central Avenue. Therefore, the Project's effect on vehicles using Central Avenue would result in a significant impact.

Mitigation Measure TRF 4: In accordance with County requirements and design standards provide even surface pavement, appropriate signage, delineation, and other features on Palms Drive (and Central Avenue if it becomes a public street) to improve vehicle transportation conditions and eliminate obstacles (or hazards).

Significant after Mitigation: Less than Significant.

Impact TRF-4b: The Project would not have adverse impacts to the Project site's vehicle system. (Criterion c) (*Less than Significant, No Mitigation Required*)

Proposed internal vehicular circulation provides through streets, except for the 'A' Court cul-de-sac which includes a turnaround at the cul-de-sac end. The proposed on-site streets generally meet the private road standards required in the County Ordinance Code. If the on-site streets are planned to be public, then right-of-way and construction to meet public road standards would be required. Whether the streets are private or public, the proposed right-of-way — 50 feet for housing fronting both sides and 44 feet for housing fronting one side of the street — would be sufficient to provide two 10-foot travel lanes which accommodates concurrent two-way vehicle movements. The Project's internal road system is expected to be consistent with County requirements and design standards. Therefore, impacts to vehicles using the internal road system are less than significant.

Mitigation: None required.

Impact TRF-5: The Project could increase ridership on public transit serving the Project area. (Criterion a) (*Less than Significant, No Mitigation Required*)

Fixed-route bus service operates west of the Project site with stops located beyond the typical transit access trip walking distance (about one-half mile) from the proposed development. It is unlikely that the Project would generate large amounts of new demand for the transit services and facilities that serve the area. Most residents would drive to the BART or Amtrak stations, so local commute transit vehicle capacities are not expected to be exceeded. The Project is not expected to conflict with existing or planned transit facilities. Therefore, impacts to transit are less than significant.

Mitigation: None required.

Impact TRF-6: The Project would increase the pedestrian and bicycle activity that would be incompatible with the existing infrastructure by exposing users to hazards and safety conflicts. (Criterion a) (*Potentially Significant prior to Mitigation*)

Direct pedestrian and bicycle access to the Project site would be provided on Palms Drive and potentially Central Avenue (if it becomes a public street) from Arthur Road. The nearest elementary school is located about 0.75 miles from the Project site and could attract students walking or biking between the Project site and the school. These students would probably use Palms Drive since it provides the most direct walking and biking route to Arthur Road. The Project would include a park which would attract people walking and biking from the surrounding neighborhoods. As a result, the Project would increase pedestrian and bike activity along Arthur Road, Palms Drive, and Central Avenue as well as within the Project site.

Arthur Road currently provides sidewalks and has a planned Class III bike facility. However, Palms Drive and the privately owned portion of Central Avenue currently do not provide pedestrian or bicycle facilities. Central Avenue generally provides sidewalks on one side of the street but there are sidewalk gaps between Arthur Road and the Project site, and these gaps pose hazards to pedestrians. The current maintenance state of Palms Drive and Central Avenue is poor: Palms Drive has poor pavement conditions as well as a narrow travel-way that may restrict concurrent two-way vehicle movements, and Central Avenue at the Project frontage is not paved and these conditions pose hazards to bicycle riders. Off-site improvements at Palms Drive and Central Avenue are needed to create a better-connected circulation system without hazards for pedestrian and bicycle riders.

The right-of-way within the Project site is 50 feet when housing fronts both sides and 44 feet when housing fronts one side of the right-of-way. This width accommodates County requirements for private street standards; 52 feet would be required to meet public street standards. It is unclear whether the Project's streets would provide sidewalks on both sides of the street. If sidewalks are not provided on both sides of the street, pedestrians would be required to share the street with vehicle traffic.

The Project design would not eliminate pedestrian facilities that connect to the area circulation system and would not conflict with existing or planned pedestrian and bicycle facilities, but would increase pedestrian and bicycle activity and the increased activity would be incompatible with the existing transportation infrastructure by exposing users to hazards. Therefore, the Project's effect on pedestrians and bicyclists would result in a significant impact.

Mitigation Measure TRF-6: In accordance with County requirements and design standards, the Project applicant shall provide:

- Continuous sidewalks on at least one side of Palms Drive and Central Avenue to connect the Project site to the existing pedestrian facilities on Arthur Road to improve pedestrian transportation conditions.
- Even surface pavement, appropriate signage, delineation, and other features on Palms Drive and Central Avenue to improve bicycle transportation conditions.
- Sidewalks for all streets within the Project site including facilities on both sides of each street and curb ramps at each street intersection.

Implementing the County requirements and design standards would ensure that the street(s) used by the Project's pedestrians and bicyclists are in good condition, provide space to accommodate walking and biking, and provide appropriate signing, marking, and other features to facilitate the safe movement of pedestrians and bicyclists. This would be less than significant related to hazards.

Significance after Mitigation: Less than Significant.

Impact TRF-7a: Emergency access to the Project site would be through existing streets that would be incompatible with the existing transportation infrastructure by exposing emergency vehicles to hazards. (Criterion d) (*Potentially Significant prior to Mitigation*)

Emergency vehicles would access the site on Palms Drive and Central Avenue. However, the current maintenance condition of Palms Drive would present obstacles (roadway width and uneven surface) to access and maneuverability of emergency vehicles. Under current conditions, the privately owned portion of Central Avenue at the Project frontage would present similar obstacles to emergency vehicle access to the site. Emergency services would be required to access the Project site via Palms Drive and Central Avenue and the increased activity would be incompatible with the existing transportation infrastructure by exposing emergency service vehicles to hazards. Therefore, the Project's effect on emergency access would result in a significant impact.

Mitigation Measure TRF-7a: In accordance with County requirements and design standards, the Project applicant shall provide even surface pavement, appropriate signage, delineation, and other features on Palms Drive and Central Avenue to accommodate emergency vehicles.

Implementing the County requirements and design standards would ensure that the street(s) used by emergency vehicles to access the Project site are in good condition and include other features to facilitate the safe movement of emergency vehicles. This would be less than significant related to hazards.

Significant after Mitigation: Less than Significant.

Impact TRF-7b: The Project would not have adverse impacts to the Project site's emergency vehicle system. (Criterion d) (*Less than Significant, No Mitigation Required*)

The proposed on-site roadway design would provide adequate emergency vehicle circulation, and planned right-of-way lane widths would accommodate truck turning movements. Central Avenue and Palms Drive would be connected via two intersecting streets ("B" Street and "C" Drive). "C" Drive would be built within a 44-foot-wide right-of-way (two 12-foot-wide travel lanes, 8-foot-wide parking lane on one side only, and 5-foot-wide sidewalks on both sides), running along the proposed on-site park area. "B" Street, as well as the other internal streets ("A" Court, "D" Drive, and "E", "F", and "G" streets), would be built within a 50-foot-wide right-of-way (two 18-foot wide travel lanes, 5-foot-wide sidewalks on both sides, and on-street parking could be accommodated within each 18-foot travel lane). The "A" Court would serve 8 homes and incorporate a turnaround for emergency vehicles. The Project is not expected to result in impacts to emergency access within the Project site and is therefore less-than-significant.

Mitigation: None required.

Cumulative Impacts

Impact C-TRF-8: The Project with a General Plan amendment would increase the Countywide VMT, resulting in a significant impact for the Project. (*Significant and Unavoidable*)

The Project is anticipated to require a General Plan amendment to update the current zoning from Heavy Industrial to Single Family Residential (High Density), thus indicating that the Project is not consistent with the current General Plan. Therefore, a Cumulative scenario VMT analysis was required, whereby the CCTA model is used to assess whether the Project would increase Countywide VMT versus the General Plan land use designation for the site. **Table 4.13-3** presents the comparative VMT analysis.

**TABLE 4.13-3
CUMULATIVE COUNTYWIDE VEHICLE-MILES TRAVELED**

Scenario	Cumulative with General Plan Designation (Heavy Industrial) ¹ Total VMT	Cumulative with Project (Single Family Residential) Total VMT	Change in Total VMT	Impact?
Cumulative Conditions	29,432,734	29,435,465	+2,731	Yes

NOTES:

1 The General Plan allows a floor-to-area ratio (FAR) range of 0.1 to 0.4 for Heavy Industrial uses. For a conservative approach, this cumulative VMT analysis assumes the minimum allowable Heavy Industrial FAR of 0.1.

SOURCE: Fehr & Peers, 2020 (Appendix E)

As shown in Table 4.13-3, the Project would result in a net increase of 2,731 VMT Countywide versus current General Plan zoning conditions. Thus, the Project would result in a significant impact.

Mitigation Measure TRF-3: Transportation and Parking Demand Management (TDM) Plan. (*See Impact TRF-3*)

Significance after Mitigation: Significant and Unavoidable.

References – Transportation

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