

Memo

To: Bruce Dorfman, Joanna Julian; Thompson | Dorfman
From: Patrick Golier, Jennifer Shriber; Parisi Transportation Consulting
Date: December 13, 2021
Subject: **FINAL Mallard Pointe Transportation Study; Belvedere, CA**

1. INTRODUCTION

This study has been conducted to determine and report the potential transportation impacts associated with the proposed 'Mallard Pointe' residential development along Mallard Road in Belvedere, California ("Project").

The following transportation topics are addressed in the study:

- A traffic impact study to determine potential project impacts with regard to Vehicle Miles Traveled (VMT)
- A parking study to analyze potential on-street parking impacts for the project site and adjacent streets
- An access study to identify potential multimodal safety issues and recommended improvements to mitigate these issues

As currently defined, the proposed project would replace 11 existing duplex buildings containing 22 residential units along Mallard Road with 42 residential units in a combination of single-family homes (six single-family housing units), duplexes (10 units), accessory dwelling units (three ADUs located above three of the single-family garages), and an apartment complex containing 23 units in a two-story building over a semi-subterranean structure.

Figure 1 shows an overview of the project location. Figure 2 provides the site plan of the proposed project.

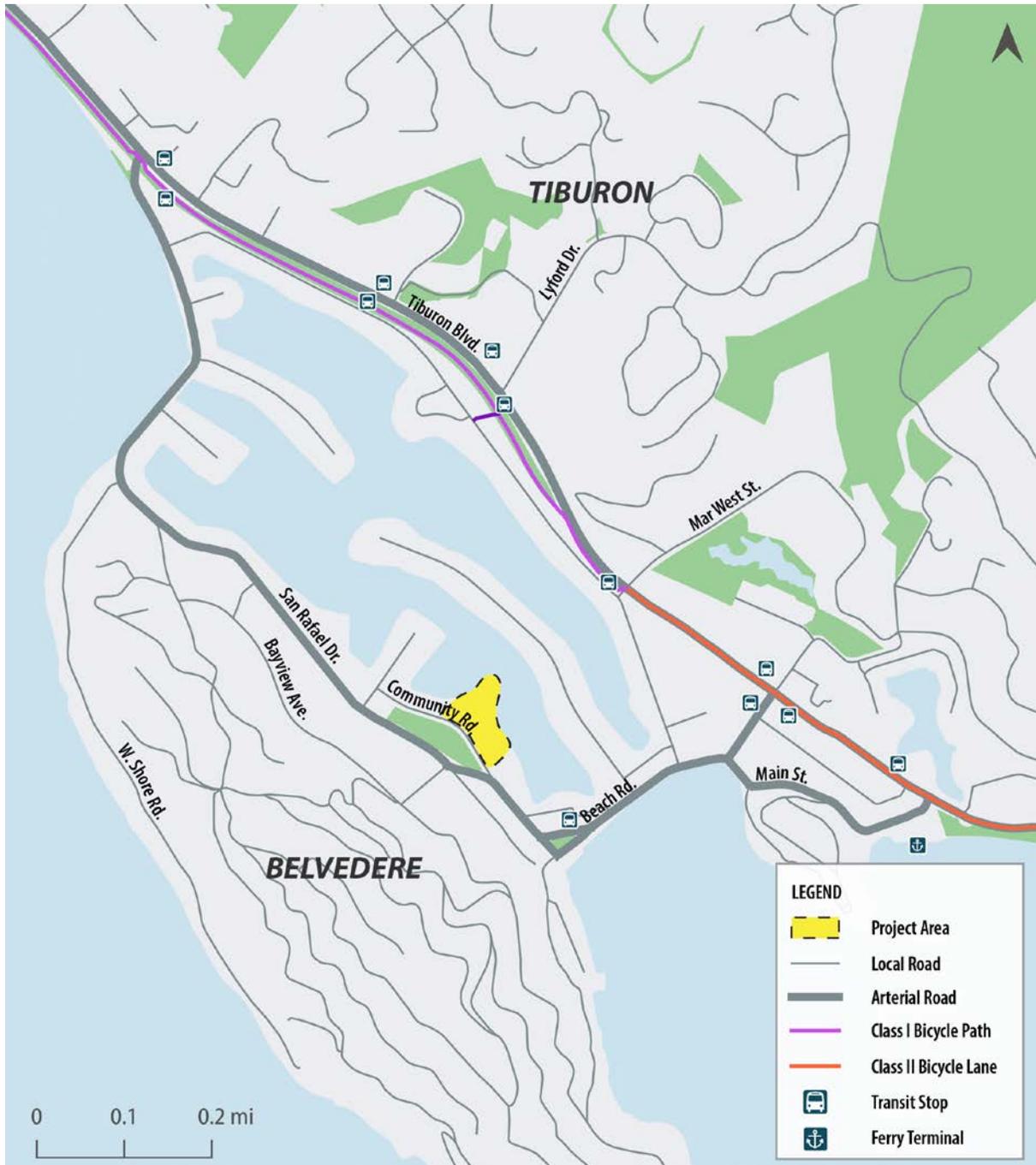


Figure 1. Study Area Vicinity Map



Figure 2. Site Plan

2. ENVIRONMENTAL SETTING

The following section is based on observations from a site visit that took place on Thursday, August 26, 2021, starting at approximately 1:00 PM. Weather during the site visit was sunny and dry. The primary geographic focus of the site visit was Community Road and Mallard Road. Observations were also made along San Rafael Avenue and Beach Road.

2.1 EXISTING ROADWAY NETWORK

The roads that would be primarily affected by this project include Community Road, San Rafael Avenue, Beach Road, and Tiburon Boulevard. The following is a brief description of these roadways.

- Community Road** – Community Road is an east-west running local road between Beach Road and Leeward Road. Community Road includes two lanes of vehicular traffic and on-street parking on both sides of the roadway, the majority of which is unmarked. Belvedere Park, the Belvedere City Hall and the Belvedere Community Center are situated on the south side of Community Road, while the north side includes single-family housing, with driveways providing access to the housing. On-road stencils indicate a 15 MPH speed limit for this road.

- **San Rafael Avenue** – San Rafael Avenue runs between Beach Road and Tiburon Boulevard and is one of two roadways that provides access to/from Belvedere from Tiburon Boulevard. This arterial roadway includes two vehicular lanes and features a northbound left turn lane at West Shore Road. San Rafael Avenue features unmarked on-street parking adjacent to mostly single-family homes as well as some duplexes and low-rise apartment buildings.
- **Beach Road** – Beach Road is a north-south running arterial running from Peninsula Point to Tiburon Boulevard. It is a two-lane road separated by a planted median from San Rafael Avenue to Cove Road and on-street parking. Beach Road serves residential and commercial traffic as well as public transit, and, along with San Rafael Avenue, provides access between the City of Belvedere with Tiburon Boulevard and the Bay Area's transportation network.
- **Tiburon Boulevard** – Tiburon Boulevard is a two- to four-lane arterial road running east-west in the Town of Tiburon. Tiburon Boulevard connects Belvedere residents to commercial uses, the Tiburon Ferry, and Highway 101 and the greater Bay Area. It is also known as State Route 131.

2.2 PARKING

On-street parking is available adjacent to the study area along Community Road (see Figure 3 for on-street parking and regulations). There is availability for parking approximately 78 vehicles along Community Road between Leeward Road and San Rafael Avenue. Almost 75 percent of these parking stalls are unregulated (e.g., no time restrictions or special use designations) and are configured as parallel parking spaces. These parking spaces are unmarked apart from two spaces in front of the community center. In addition, ten perpendicular spaces on the southern side of Community Road at the intersection with San Rafael Avenue are reserved for police station parking, while another ten perpendicular spaces on the opposite side of the road are restricted for vehicles with residential permits only.

There is existing availability for approximately 25 unregulated on-street spaces on Mallard Road within the study area. However, these parking spaces have been excluded from the parking analysis as they will be reconfigured under the project plan. It was observed that a number of vehicles parked on the rolled curb or aprons along Mallard Road, restricting access for pedestrians.



Figure 3. Existing Parking Supply & Regulations

2.3 PEDESTRIAN AND BICYCLE CONDITIONS

Bicycle paths, lanes and routes are typical examples of bicycle transportation facilities, which are defined by Caltrans as being in one of the following four classes:

- **Class I** – completely separated facility designed for the exclusive use of bicyclists and pedestrians. Crossing points are typically minimized.
- **Class II** – restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles. Through travel by motor vehicles is prohibited, but vehicle parking and cross-flows by pedestrians and motorists are permitted.
- **Class III** – a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.
- **Class IV** – an adjacent bicycle lane or bikeway that is physically separated from motor vehicle traffic.

There are no existing bicycle facilities located in or adjacent to the project area. The following bicycle facilities provide access to Belvedere from the Town of Tiburon, under whose jurisdiction they fall.

- **Class I Pathway** – the Richardson Bay Linear Park Multi-Use Path runs alongside Tiburon Boulevard from Blackie’s Pasture to west of Mar West Street. This path is also known as Marin Bicycle Route 10.
- **Class II Bicycle Lanes** – Class II bicycle lanes are located on Tiburon Boulevard from Mar West Street (West) to Mar West Street (East).

Despite the lack of facilities, it was observed that San Rafael Drive and Beach Road are popular routes for cyclists. These cyclists generally bypassed Community Road in favor of San Rafael Drive. Adequate space for Class I, II, or IV bicycle facilities is not available given the widths of the roadways and their use for on-street parking.

The roadway network within and adjacent to the study area generally includes sidewalks on at least one side of each roadway. Sidewalks are approximately four feet wide. Community Road features a discontinuous sidewalk only on the north side of the street. This sidewalk is narrow and pedestrians were observed walking in the roadway along Community Road rather than on the sidewalk. This was especially the case for those in groups, with small children, and with pets. In addition, a sidewalk gap exists east of the eastern intersection with Mallard Road, where pedestrians must walk through a driveway to continue along the sidewalk.

Mallard Road also features a sidewalk on the north side of the road. As mentioned above, the presence of rolled curbs resulted in some vehicles parking partially on the sidewalk and obstructing the path of pedestrians.

Marked crosswalks are present at the intersection of Community Road and San Rafael Avenue and across Community Road at Leeward Road. However, crosswalks are not provided to Belvedere Park, despite the presence of a curb ramp and multi-use path through the park.

Additionally, existing curb ramps on Community Avenue are not ADA-compliant, with the exception of the northern ramp at the San Rafael Avenue intersection.

No marked crosswalks or ramps are present on Mallard Road.



Pedestrians walk in the street on Community Road, which has narrow sidewalks



Belvedere Park lacks a sidewalk and crosswalk access to the north side of Community Road



Intersections lack crosswalks and ADA-compliant ramps



Vehicles park on the rolled shoulder on Mallard Road, restricting pedestrian access

2.4 PUBLIC TRANSIT SERVICE

A public transit stop is located approximately one quarter mile from the study area, at Beach Road and San Rafael Avenue. The stop serves Marin Transit route 219, with service from Tiburon to Strawberry. The stop is served by the westbound route only. There are seven arrivals per day during the weekday with service confined to the AM and PM peak hours.

Other public transit stops serving both the westbound and eastbound Marin Transit route 219 are located on Beach Road and Tiburon Boulevard.

The Tiburon Ferry Terminal is located approximately three quarters of a mile from the study area. Current ferry service runs to San Francisco. As of October 2021 three ferries depart Tiburon each weekday – one during the late morning, one midday, and one in the late evening – with three return trips from San Francisco. In September 2020 the ferry service provider filed an application

with the California Public Utilities Commission for authorization to discontinue ferry service between San Francisco and Tiburon. At the time of this report no official decision had been made regarding service termination.

3. REGULATORY CONTEXT

Existing policies, laws and regulations that apply to the proposed project are summarized below.

3.1 STATE

Tiburon Boulevard, located near the study area, is designated as State Route 131. The California Department of Transportation (Caltrans) has jurisdiction over State highways and any improvements to these roadways would require Caltrans' approval.

3.2 LOCAL

The City of Belvedere General Plan's Transportation and Circulation Element describes the location and extent of existing and planned transportation routes and facilities. The General Plan identifies roadway, transit, and sustainability goals and policies that have been adopted to ensure that the transportation system of the City will have adequate capacity to serve planned growth. These goals and policies are intended to provide a plan and implementation measures for an integrated, multimodal transportation system that will safely, efficiently, and sustainably meet the City's transportation needs. General Plan goals and policies relevant to this project are as follows:

- **Goal TC-2** – Provide adequate parking in all Belvedere neighborhoods.
 - **Policy TC-2.1:** The provision of off-street parking should continue to be mandated through Design Review approval.
- **Goal TC-3** – Improve the bicycle and pedestrian network.
 - **Policy TC-3.1:** Augment existing bike facilities to accommodate more users.
- **Goal TC-4** – Support public transportation, minimize single-occupant vehicles and reduce congestion.
 - **Policy TC-4.1:** Support and promote ride sharing and car sharing programs.
 - **Policy TC-4.4:** Minimize congestion on Tiburon Boulevard.
- **Goal SUST-4** - Reduce greenhouse gas emissions from all activities within the City boundaries to support the State's efforts and to mitigate the impact of climate change and sea level rise.
 - **Policy SUST-4.1:** Nurture a public dialogue on local sustainability efforts and policies and plan to reduce greenhouse gas emissions from four main areas:

vehicular traffic, water usage, energy consumption, and construction activities. Develop measurable steps, track the efforts, and establish a means for assessing their effectiveness.

- **Goal SUST-7** – Reduce automobile emissions.
 - **Policy SUST-7.1:** Reduce vehicle miles traveled by 15 percent.
 - **Policy SUST-7.4:** Minimize single-occupant vehicles and reduce congestion.
- **Goal SUST-8** – Increase transit (ferry and bus) ridership and improve bicycle and pedestrian circulation.
 - **Policy SUST-8.1:** Improve access to and frequency of public transportation that serves Belvedere residents and businesses.
 - **Policy SUST-8.2:** Improve access to bicycle and pedestrian networks.
- **Goal SUST-9** – Support the use of alternative fuel and non-motorized vehicles.
 - **Policy SUST-9.2:** Support and facilitate the use of bicycles for non-recreational uses (i.e., commuting).

4. PROJECT IMPACTS

This section provides estimates of the travel demand (trip generation, mode split, average vehicle occupancy, and trip distribution) that would be generated by the Project.

4.1 PROJECT VEHICLE TRIP GENERATION

The Project's estimated weekday and weekend vehicle trip generation rates for the project is shown in Table 1 and Table 2. The trip generation rates from the Institute of Transportation Engineer's *Trip Generation Manual* were used to estimate vehicle trips associated with the Project's existing and proposed residential land use categories. The following trip generation estimates represent the sum of additional trips that would be generated in excess of the trips generated by the existing residential land uses along Mallard Road.

As shown in the table, the proposed Project, at full occupancy, would be estimated to generate almost 160 new daily weekday vehicle trips over existing conditions, including 12 new AM peak hour trips and 16 new PM peak hour trips.

The Project would be estimated to generate over 170 new daily weekend (Saturday) trips, an increase of almost 50 vehicle trips compared to existing conditions. This includes an estimated 15 new vehicle trips during the weekend peak hour.

Table 1. Existing Site Vehicle Trip Generation

ITE Land Use Classification	ITE Code	Number of Units	Weekday Daily			Weekday AM Peak			Weekday PM Peak			Saturday Daily			Saturday Peak		
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential Condominium/Townhouse	230	22	128	64	64	10	2	8	11	7	4	124	62	62	11	6	5

Source: Parisi Transportation Consulting 2021

Table 2. Proposed Site Vehicle Trip Generation

ITE Land Use Classification	ITE Code	Number of Units	Weekday Daily			Weekday AM Peak			Weekday PM Peak			Saturday Daily			Saturday Peak		
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential Condominium/Townhouse	230	13*	76	38	38	6	1	5	7	4	3	74	37	37	6	3	3
Single Family Detached	210	6	57	29	29	5	1	3	6	4	2	59	30	30	6	3	3
Low-Rise Apartment	221	23	152	76	76	12	2	9	14	9	5	165	82	82	13	7	6
Total		42	267	133	133	21	4	16	26	16	9	281	140	140	24	13	11
Proposed New Trips**			156	78	78	12	3	10	16	10	6	173	87	87	15	8	7

Source: Parisi Transportation Consulting 2021

*Includes the 10 duplexes and 3 ADUs.

**Proposed new trips subtracts existing vehicle trips from the proposed vehicle trip total.

4.2 TRAVEL MODE SPLIT

Table 3 presents the 2019 commute mode split for Census Tract 1230, which incorporates the project site, as provided by the U.S. Census Bureau’s American Community Survey. This data provides an indication of the expected mode split for the commute trips generated by the Project, particularly during the AM and PM peak hours when the majority of trips would be expected to be trips to and from the workplace. Over 60% of trips would be expected to be made in a vehicle, with the majority in single-occupancy vehicles. Almost 20% of trips may be made using public transportation: however, this percentage may be lower as Tiburon ferry service may be reduced or eliminated in the future. Another 20% of commuting trips could be expected to be made by bicycle, walking, motorcycle, or telecommuting.

Thus, the total number of trips estimated to be generated by the Project may be reduced if pre-pandemic commute modes can be expected in the future and/or if telecommuting remains an option for some workers.

Table 3. Existing Belvedere Commute Mode Split

	Census Tract 1230 (Belvedere)	
	Number of People	Percent
Car, Truck, Van (Alone)	399	58%
Car, Truck, Van (Carpool)	23	3%
Public Transportation	131	19%
Other	140	20%
Total	693	100%

Source: American Community Survey Table S0802, 2019 1-year estimate

4.3 PARKING

This section discusses the City of Belvedere’s zoning and estimated parking demand for the Project. As per the City’s Municipal Code, the minimum off-street parking requirement for each type of residential dwelling proposed as part of the Project is as follows:

- Single-family dwellings: spaces for two automobiles;
- Two-family dwellings: spaces for four automobiles;
- Apartment houses or apartment courts: spaces for a number of automobiles equal to 1.25 times the number of apartments having up to two bedrooms, and 2.0 times the number of apartments having three or more bedrooms.

In addition, because 10% of residential units will be reserved for low-income residents the Project would be eligible for the state of California’s Density Bonus Law. As such, it is required to meet the following reduced parking requirements:

- Studio: 1 space
- 1 bedroom: 1 space
- 2 bedroom: 1.5 spaces
- 3 bedroom: 1.5 spaces
- 4 bedroom: 2.5 spaces

Table 4 shows the number of spaces required by the Density Bonus Law and the City of Belvedere’s off-street parking regulations as well as the number of spaces planned for the

development. For this Project, the required parking as detailed in the Density Bonus Law requirements would result in 65 parking spaces.

The Project is proposing to provide 75 assigned off-street parking spaces plus an additional 27 unassigned common and apron parking spaces, for a total of 102 spaces. This exceeds both the Density Bonus Law and the City of Belvedere's off-street parking requirements.

Table 4. Required and Planned Off-Street Parking Spaces

Type	Number of Units	Density Bonus Law – Spaces Required	City of Belvedere - Spaces Required	Project Spaces Planned
Single Family Residence	6	15	12	20
Duplex	5	15	20	25
Apartment (1 BR)*	9	9	12	46
Apartment (2 BR)	12	18	15	
Apartment (3 BR)	5	8	10	
Unassigned Common Parking Spaces	-	-	-	11
Total	42	65	69	102

Source: City of Belvedere Municipal Code Chapter 19.68

*Includes the three ADUs.

4.4.1 Estimated Parking Demand

Future parking demand generated from the project site was estimated using the Institute of Transportation Engineers' *Parking Generation Manual* (3rd Edition). The results of this analysis can be seen in Table 5.

Table 5. Proposed Estimated Parking Demand

Type	Weekday Peak Demand - # of Spaces
	Proposed
Single Family Residence	11
Duplex	15
Apartment	28
ADU	5
Total	59

Source: ITE Parking Generation Manual, 3rd Edition

With full Project occupancy, parking demand at Mallard Pointe is estimated to be for 59 vehicles. This falls below the City's parking requirement and the number of spaces planned for the Project, which exceeds both Density Bonus Law and City requirement.

4.3.2 On-Street Parking Surveys

In order to evaluate the local parking situation, an on-street parking occupancy survey was conducted on the evening of September 16, 2021 starting at approximately 7:00pm. This survey included a detailed inventory of all on-street parking in the survey area, including Community Road from Leeward Road and San Rafael Avenue. The survey resulted in a data collection effort that included the number and types of parking spaces available (e.g., parking supply) and the parking occupancy on a weekday evening after 6pm (e.g., parking demand). The results of the survey are presented in Figure 4, which shows the study area and the number of parked vehicles and occupancy rate along the street.

As shown in Figure 4, approximately 78 on-street parking spaces are located along Community Road. The study found that on a weekday evening there were about 28 total spaces (36%) that were occupied, and about 50 spaces that were available. 31% of unregulated spaces (18 spaces) were occupied during this time, with approximately 50 spaces available.

It would be expected that any parking demand in excess of that associated with the proposed Project could be accommodated with existing on-street parking on Community Road.



Figure 4. Weekday Evening (7 PM) Parking Occupancy

4.3.3 Summary of Findings on Parking

Based on this study, the proposed 102 spaces provided as part of the Project is reasonable and appropriate. The justification is as follows:

- The Project is proposing to exceed the requirements for off-street parking. The Project will provide an additional 37 off-street parking spaces in addition to the 65 spaces required by the City of Belvedere’s off-street parking regulations.
- Additional on-street parking is located adjacent to the Project on Community Road. Space for approximately 78 vehicles is located along Community Road between Leeward Road and San Rafael Avenue. The spaces have a weekday evening occupancy rate of 36%.
- The Project’s parking supply exceeds estimated parking demand based on guidance from the Institute of Transportation Engineer parking demand rates. The Project would provide almost double the number of estimated spaces demanded during the weekday peak period.

4.4 VEHICLE MILES TRAVELED

4.4.1 VMT Background

Vehicle Miles Traveled (VMT) is a measurement of miles traveled by vehicles within a specified region and for a specified time period and refers to the amount and distance of automobile

travel attributable to a project. VMT measures the efficiency of the transportation network and is calculated based on the sum of individual vehicle trips generated and their associated trip lengths. VMT accounts for two-way (round trip) travel and is often estimated for a typical weekday to measure transportation impacts.

The use of VMT as a performance measure allows for the evaluation of traffic impacts associated with Greenhouse Gas (GHG) emissions. It can be measured as a total or on a per-capita basis and can be used to estimate fuel consumption by motor vehicles for distances traveled. Increase in VMT for gasoline-powered vehicles would cause an increase in the GHG emissions from vehicles making these trips.

The State of California gives the lead agency discretion in selecting an appropriate methodology and significance threshold for VMT impacts. A lead agency may conduct either a qualitative or quantitative analysis of VMT impacts, but guidance from the Governor's Office of Planning and Research (OPR) recommends that, if possible, lead agencies should conduct a quantitative analysis based on transportation models. However, where existing models or methods are not available, the lead agency may instead prepare a qualitative analysis.

Further OPR guidance states that the use of a travel forecasting model to estimate VMT is preferred because a travel model would account for both 'project-generated VMT' and the 'project effect on VMT', which would include the effect of the project on operating speeds that would further influence VMT.

The Transportation Authority of Marin (TAM) developed the Transportation Authority of Marin Demand Model (TAMDM), a tour-based assessment of travel behavior that produces VMT estimates for cities through Marin County, including Belvedere. A tour-based assessment counts the entire home-back-to-home tour that includes the project and is a more complete characterization of a project's effect on VMT than a trip-based assessment which counts VMT from individual trips to and from the project. This is because in many cases, a project affects travel behavior beyond the first destination.

While both Caltrans and MTC have also produced VMT estimates for the region, these regional models may not contain a level of accuracy and sensitivity for local area applications and should include a sub-area validation process to calibrate and validate the model within the study area. This process was conducted for Marin County as part of the TAMDM development process.

The lead agency has discretion in determining an appropriate methodology for evaluating a project's VMT, including whether to express the change in absolute terms, per capita, or another measure, as long as assumptions are documented. However, the OPR recommends setting land use project VMT thresholds at 15 percent below existing VMT per capita based on regional VMT per capita. Another approach is for the lead agency to develop its own jurisdiction-specific VMT thresholds. Belvedere has not set significance thresholds for acceptable versus unacceptable

levels of VMT for California Environmental Quality Act (CEQA) analysis. Therefore, this analysis is based on the recommendation by the OPR that a per capita VMT that is 15 percent below that of existing development may be a reasonable threshold. The 15 percent reduction is consistent with the state, which is to select a threshold that will help California achieve its climate goals.

The significance threshold defines what constitutes an acceptable level of VMT and what requires mitigation measures to reduce VMT. Thresholds should be consistent with key transportation planning documents such as Plan Bay Area 2040, which contains regional and local projections of VMT growth associated with expected changes in population, employment, and the regional transportation network. Additional VMT reduction may be achieved at the project level through TDM strategies and active transportation network expansion which that are not fully accounted for in regional level travel forecasting models.

4.4.2 VMT Evaluation

OPR recommends that, “residential development that would generate vehicle travel that is 15 or more percent below the existing residential VMT per capita, measured against the region or city, may indicate a less-than-significant transportation impact¹.” The lead agency has discretion in determining an appropriate methodology for evaluating a project’s VMT, including which VMT – city or regional – to use as a comparison to Project VMT. For the purposes of this study, future VMT inclusive of the Project was compared to VMT for the Bay Area region. The comparison of project VMT to the Bay Area region versus the city represents a more conservative approach given that existing VMT per capita is estimated by the TAMDM to be lower for the region than for the City of Belvedere.

Table 6 provides existing and future VMT for TAZ 800.014, in which the project is located, and the County as a whole. However, for illustrative purposes, Table 6 also provides estimates for existing VMT for the City of Belvedere as well.

Table 6. Existing & Projected Future Residential VMT

	Existing (2015)	2040	% Difference
VMT Per Resident (Year)			
TAZ 800.014	19.0	11.3	--
Bay Area	13.3	--	-18%
City of Belvedere	24.9	--	-120%

Source: TAM Travel Demand Model
 (<https://www.arcgis.com/home/item.html?id=38418dfdfb80466d80d1a24dd6a93989>), December 6, 2021

¹ Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor’s Office of Planning and Research, State of California, December 2018

The Project includes the development of 42 residential units, or an increase of 20 residential units over existing conditions. The TAMDM estimates that the VMT associated with the proposed Project will be approximately 18% percent lower than the regional (Bay Area) VMT in 2040. This exceeds the applicable threshold of significance requiring a 15 percent reduction in residential VMT per capita. Therefore, the proposed Project is estimated to have less than significant impacts.

4.4.3 VMT Impacts Summary

The VMT per capita for the proposed residential land use is assumed to be less than 85 percent of the regional average, therefore resulting in less than significant impacts.

No mitigation measures to reduce the Project's residential VMT pr capita are required per OPR guidance. Nevertheless, it is the analysts' understanding that the Project will provide multimodal treatments to enhance multi-modal transportation and connectivity in accordance with the City's transportation and sustainability goals. The Project plan already includes some of these treatments, notably the widening of the adjacent Community Road sidewalk to five feet, the addition of crosswalks with ADA-compliant ramps across Mallard Road at the project entryways, and the provision of bicycle racks in front of the apartment building.

Section 4.5 includes recommendations to further align the Project with the City's policies and goals.

4.5 TRANSPORTATION NETWORK RECOMMENDATIONS

This section provides recommended measures to ensure Project consistency with the City of Belvedere's goals and policies, summarized in Section 3.2, intended to enhance multi-modal transportation, reduce GHG emissions and increase sustainability. Figure 5 illustrates the recommended multimodal site improvements.

Parking

- Consider unbundling the cost of parking from residential unit rental prices to reduce the demand for parking supply.
- Consider reducing the total parking supply of the proposed development to not exceed requirements by the City of Belvedere.

Transportation Demand Management (TDM)

- Consider instituting a carpooling program for Mallard Pointe residents.
- Consider providing a bicycle or scooter share program for Mallard Pointe residents.

Multimodal Access

- Install high-visibility crosswalks and ADA-compliant curb ramps at all intersections along Community Road, including a high-visibility crosswalk with ADA-compliant curb ramps

across Community Road at the northeast corner of the intersection with the western Mallard Road intersection.

- Additionally, include a sidewalk extension between the curb ramp to the existing park entrance ramp.
- Inquire with the City as to the need for an all-way stop control at the western Community Road / Mallard Road intersection.
- Fill the sidewalk gap on the east side of the Mallard Road (east) intersection.
- Prohibit parking within 20 feet of crosswalks along Mallard Road and Community Road to improve sight lines and safety per guidelines set by the Manual on Uniform Traffic Control Devices (MUTCD).
- Provide long-term bicycle parking and electric bicycle charging stations in the apartment building.
- Implement features along Mallard Road that help reinforce the street the pedestrian-priority nature of the 'shared street.' Some examples may include:
 - Textured pavements;
 - Street furniture, including bollards, benches, planters and bicycle parking
 - Traffic calming that physically restrict higher vehicle speeds
 - Shared street signage at the entrances to Mallard Road



Figure 5. Recommended Multimodal Site Improvements