

APPENDIX G

Vehicle Miles Traveled Analysis

Memorandum

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Updated June 14, 2021

To: Jonathan Frankel, New Urban West

From: Prepared by Katy Cole and Chris Wahl under supervision/review from Sohrab Rashid, T.E.

Subject: The Trails at Carmel Mountain Ranch CEQA Transportation Vehicle Miles Traveled (VMT) Analysis

SD20-0345

This memorandum presents the California Environmental Quality Act (CEQA) Transportation Vehicle Miles Traveled (VMT) analysis for The Trails at Carmel Mountain Ranch project (the Project) located in San Diego, California. The VMT analysis was conducted consistent with methodologies included in the City's *Draft Transportation Study Manual (TSM) (June 2020)* and in compliance with Senate Bill (SB) 743.

The proposed Project is located within the City of San Diego (City) in the Carmel Mountain Ranch community. The Project site previously functioned as the Carmel Mountain Ranch Country Club and associated noncontiguous 18-hole golf course, which closed permanently in the summer of 2018. The Project would redevelop the site with 1,200 multi-family homes, including 120 affordable units, and a mix of open space and recreational uses. Residential land uses would compose approximately 51.1 acres and would range in density from 12.94 to 37.43 dwelling units per acre. In addition, the Project includes a 12,000-square-foot pad for future development of a community art gallery/studio located near the existing Carmel Mountain Ranch library that would include art space, storage, and a small café/snack facility. The art gallery also includes one caretaker unit. Open space uses would compose approximately 111.44 acres, which includes approximately six (6) miles of trails. Some recreational amenities would include picnic pavilions, playgrounds, and tot-lots; trails for walking and biking; and trail amenities such as benches, signage, and kiosks.

This memo is organized into the following sections:

1. **Summary of Conclusions:** Presents key findings and is followed by detailed technical analysis in the subsequent sections.
2. **SB 743 Background:** Provides background information regarding SB 743 and the related revisions to the California Environmental Quality Act (CEQA) Guidelines, including current status.



3. **Guidelines for Performing SB 743 Analysis:** Provides a summary of the City of San Diego VMT Analysis Guidelines.
4. **Project Impact Analysis:** Provides the analysis of the Project’s impacts relative to VMT pursuant to SB 743.

1. Summary of Conclusions

The City has prepared guidelines for conducting VMT analyses in compliance with SB 743 contained in the Transportation Study Manual (TSM). The TSM was approved by the City Council on November 9, 2020 and is expected to be final and effective in January 2021.

Table 1 summarizes the VMT analysis process.

Table 1: The Trails VMT/Capita Analysis Summary

Analysis Process	Conclusions	Notes
Screening Criteria	The residential portion of the Project is not screened from performing VMT analysis. The art gallery/studio space is screened as a locally serving community facility.	Screening Criteria Considered: <ul style="list-style-type: none"> • VMT Efficient Location – Project is not in a VMT efficient location per the VMT/Capita screening map. • Small Project – Project generates over 300 daily trips; therefore, it does not meet screening criteria. • Affordable Housing – Project does include 120 affordable housing units that may be screened from analysis depending upon final details related to income targets. The affordable units are not screened from the analysis in this memorandum. • Redevelopment Project – Project does not meet screening criteria. • Locally Serving Public (Community) Facility – The 12,000 square foot pad for the art gallery/studio space is a locally serving community facility.
Regional Average VMT/Capita	19.0 VMT/Capita	Based on SANDAG ABM 2 (Series 14, Scenario ID 434) base year 2016
Significance Threshold	16.2 VMT/Capita	15% below the Regional Average VMT/Capita.



Project VMT/Capita	21.4 – 23.2 VMT/Capita	The census tracts containing the Project site have VMT/Capita of 21.7, 21.4, and 23.2, as shown in Exhibit 1; therefore, it is inferred that the Project VMT/Capita, before consideration of Project proposed travel demand management measures, will be similar (112.6% to 122.1% of regional average VMT/Capita).
Significant Impact?	Yes, significant and unavoidable	The expected Project VMT/Capita is 32-43% above the VMT significance threshold of 16.2. Since typical travel demand management measures can reduce VMT at most approximately 10-15%, the Project is expected to have a significant impact even with inclusion of travel demand management measures.

Source: Fehr & Peers.

The Project will mitigate the significant VMT impact to the extent feasible through compliance with the City's *Complete Communities: Mobility Choices Program* (approved by the City Council on November 9, 2020 and expected to be final in January 2021)) and through compliance with the Climate Action Plan consistency checklist measures.

Based on the Complete Communities: Mobility Choices Program, the Project is in Mobility Zone 2 (Transit Priority Area – TPA). This is because a portion of the Project is contained within a TPA. Within Mobility Zone 2, a project is required to identify VMT reducing measures totaling at least 5 points in accordance with *Land Development Manual, Appendix T*, which can be used as mitigation. The following measures are considered mitigation and total a minimum of 5 required points as identified by the Mobility Choices Program (actual total is 6 points):

- Appendix T Measure 12. Providing on-site bicycle repair station: Project will provide on-site bicycle repair stations will be located within Unit 9, Unit 10, and Unit 16.
- Appendix T Measure 16. Providing short-term bicycle parking spaces that are available to the public, at least 10% beyond the minimum requirements: Each project Unit will provide short-term bicycle parking 10% beyond the minimum requirements for public use. For the entire Project, approximately 600 short term bicycle parking spaces are required for residents; therefore, approximately 60 additional bicycle parking spaces will be provided. A total of 660 bicycle parking spaces (with 600 that are for resident use and 60 for resident and/or public use) will be dispersed throughout the Project Units.



Additional VMT reducing measures proposed by the Applicant will be installed as a condition of project approval and include: ~~are to install a pedestrian rest area, to provide an on-site bicycle fleet of 150 bicycles, to provide three on-site bicycle repair stations, to provide at least 60 short-term bicycle parking spaces available to the public, and one on-site multi-modal information kiosk (the Project is not required to install any informational kiosks; therefore, installation of one exceeds the Project requirements as required in Appendix T). The measures (the mitigation plus the measures provided as a condition of approval) provides a total of 12 points (more than double the 5 point requirement).~~

Additionally, for residents of Units 5 and 6, the Project will provide a 25% transit subsidy as an additional mitigation measure. The subsidy value will be limited to the equivalent value of 25% of the cost of an MTS "Regional Adult Monthly/30-Day Pass" (currently \$72, which equates to a subsidy value of \$18 per month). Subsidies will be available on a per unit basis to residential tenants for a period of five years. In no event shall the total subsidy exceed \$129,600.

With mitigation, the Project will continue to have a significant and unavoidable VMT impact as explained in more detail below.



2. SB 743 Background

On September 27, 2013, Governor Jerry Brown signed SB 743 into law changing the way transportation impact analysis is conducted under CEQA. Within the State's CEQA Guidelines, these changes include elimination of auto delay, Level of Service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts. In December 2018, new CEQA Guidelines implementing SB 743 (Section 15064.3), along with the Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts for CEQA*, were finalized and made effective. Guidelines Section 15064.3, and the associated OPR Technical Advisory, provide that use of *automobile* VMT is the preferred CEQA transportation metric, and correspondingly eliminate auto delay/LOS as the metric for assessing significant impacts under CEQA statewide. Under Section 15064.3, statewide application of the new VMT metric is required beginning on July 1, 2020.

The City prepared its own guidelines for VMT analysis in compliance with SB 743 – these guidelines are contained in the TSM. The TSM was approved by the City Council on November 9, 2020 and is expected to be final and effective in January 2021. The City's guidelines are generally consistent with the OPR Technical Advisory.

In addition, the City has developed regulations for requiring land development projects to incorporate VMT reducing measures into projects or pay an in-lieu fee depending upon their location within the City. The regulations are contained in the Complete Communities: Mobility Choices Program and compliance with the regulations can be used as mitigation or partial mitigation for significant transportation VMT impacts. The City also prepared an EIR disclosing that the Complete Communities: Mobility Choices Program would reduce citywide VMT, but since the timing and specific location of improvements is not known the Complete Communities: Mobility Choices Program would have a significant and unavoidable transportation VMT impact. The Complete Communities: Mobility Choices Program was also approved by the City Council on November 9, 2020, and has a final date of passage of December 9, 2020 (Ordinance number O-21274). ~~is expected to be final and effective in January 2021.~~

This memo presents an evaluation of the transportation VMT impacts of the Project based on the City's TSM.



3. Guidelines for Performing VMT Impact Analysis

As referenced above, CEQA Guidelines Section 15064.3, “Determining the Significance of Transportation Impacts,” was added to the State’s CEQA Guidelines in response to SB 743 and implements the law’s requirements. Section 15064.3 states that, “Generally, vehicle miles traveled (VMT) is the most appropriate measure of a project’s potential transportation impacts,” and defines VMT as “the amount and distance of automobile travel attributable to a project.”

Methodology & Significance Criteria

Environmental documents prepared under CEQA are required to include project VMT estimates when addressing analysis of multiple resource areas; including air quality, greenhouse gas emissions, and energy, with varying metrics used for each (e.g., total VMT, average daily VMT, etc.). Thus, VMT is presented in numerous different forms depending on the analysis being conducted. The following definitions describe how VMT is referred to, calculated, and accounted for differently throughout a CEQA document, including how it would be referred to in connection with the SB 743 VMT analysis.

Vehicle Miles of Travel (VMT): Serves as a measure of network use or efficiency. VMT can be calculated by multiplying all vehicle trips generated by their associated trip lengths. VMT is often estimated for a typical weekday.

Resident VMT/Capita: The resident VMT/Capita value reported by the SANDAG model includes all vehicle-based resident trips grouped and summed to the home location of individuals who are drivers or passengers on each trip. VMT/Capita includes home-based and non-home-based trips. The VMT for each home is then summed for all homes in a particular geography and divided by the population of that geography VMT/Capita.

Total Project VMT: Is the sum of the distance for all trips generated by all vehicle types and trip purposes (home-based work, home-based other, non-home-based, etc.) for all uses within a project site. *To be distinguished from VMT/Capita, this is the number used to evaluate a project’s potential GHG and Air Quality Impacts.*

The methodology and significance criteria for determining VMT transportation impacts in the City is contained in the City’s TSM. The TSM outlines the following process for performing analysis:

1. Determine if VMT analysis is necessary by comparing project characteristics to the City’s screening criteria.



2. If the project does not meet any of the screening criteria, perform VMT analysis to determine the project's VMT.
3. Compare the project VMT to the significance criteria to determine if there is VMT transportation impact.
4. If there is an impact, identify mitigation measures to reduce the project impact (through compliance with the City's Complete Communities: Mobility Choices Program, compliance with the Climate Action Plan consistency checklist measures, and/or other measures).

The City has established the following significance threshold for VMT transportation impacts for residential projects:

- For residential projects: 15% below regional average resident VMT/Capita. For purposes of this analysis, the SANDAG ABM 2 model (Series 14, base year 2016) was used to establish the regional average resident VMT/Capita of 19.0. Therefore, the corresponding VMT transportation ***significance threshold is 16.2 VMT/Capita.***

As mentioned above, the City has prepared guidelines for performing VMT analysis per SB 743, and the proposed methodology is generally consistent with the OPR Technical Advisory. The analysis approach and results as applied to The Trails at Carmel Mountain Ranch are summarized in the next section.



4. Project Impact Analysis

Project Screening Analysis

The first step in performing transportation VMT impact analysis is to compare a project's characteristics to the City's screening criteria to determine if VMT analysis is necessary. The following screening criteria are potentially applicable to the Project:

- **Residential Project Located in a VMT Efficient Area:** The project is a residential project located in a VMT efficient area (15% or more below the base year average VMT/Capita based on the location-based screening map produced by SANDAG).
- **Small Project:** The project is a small project defined as generating less than 300 daily unadjusted driveway trips using the City of San Diego trip generation rates/procedures.
- **Affordable Housing:** The project has access to transit and is wholly or has a portion that meets one of the following criteria: is affordable to persons with a household income equal to or less than 50% of the area median income (as defined by California Health and Safety Code Section 50093), housing for senior citizens [as defined in Section 143.0720(e)], housing for transitional foster youth, disabled veterans, or homeless persons [as defined in 143.0720(f)]. The units shall remain deed restricted for a period of at least 55 years. The project shall provide no more than the minimum amount of parking per unit, per San Diego Municipal Code Section 143.0744. Only the portion of the project that meets the above criteria is screened out. For example, if the project is 100 units with 10 deed-restricted affordable housing units, transportation VMT analysis would not be necessary for the 10 affordable units but would be necessary for the remaining 90 units (unless they meet one of the other screening criteria). For purposes of applying the small project screening criteria, the applicant would only include the trip generation for the non-affordable housing portion of the project (since the affordable housing portion is screened out).
- **Redevelopment Project Screening:** The project is a redevelopment project that demonstrates that the proposed project's total VMT is less than the existing land use's total VMT.
- **Locally Serving Public (Community) Facility:** The project is a locally serving public facility, which is defined as a public facility that serves the surrounding community or a public facility that is a passive use. The following are considered locally serving public facilities: transit centers, public schools, libraries, post offices, park-and-ride lots, police and fire facilities, and government offices. Passive public uses include communication and utility buildings, water sanitation, and waste management.



Exhibit 1 displays the Project location on the SANDAG ABM2 Base Year 2016 VMT/Capita location-based screening map. As shown, the Project is in an area where VMT/Capita is between 100 and 125 percent of the regional average. Therefore, the Project is not located in a VMT efficient area.

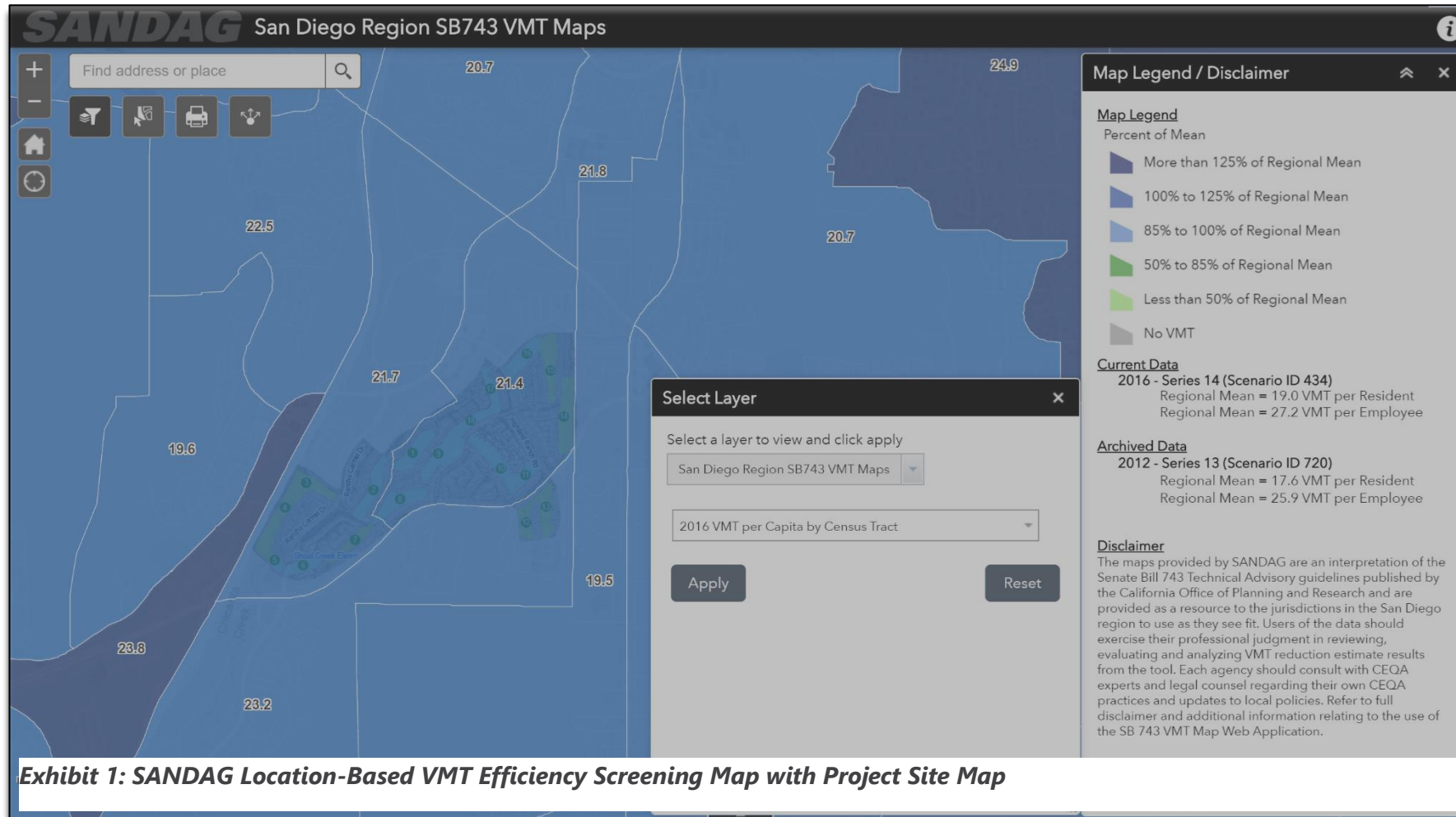




Table 2 provides the screening analysis for the Project.

Table 2: The Trails VMT Screening Analysis

Screening Criteria	Analysis	Is the Project Screened?
VMT Efficient Location	The Project is not located in a VMT efficient location (see Exhibit 1).	No
Small Project	The residential component of the Project generates: <ul style="list-style-type: none"> • 7,928 total daily trips <ul style="list-style-type: none"> ○ 7,208 trips from market rate units ○ 720 trips from affordable units 7,928 daily trips are greater than 300 daily trips; therefore, the Project is not considered a small project.	No
Affordable Housing	The Project includes 120 affordable housing units. The units: <ul style="list-style-type: none"> • Have access to transit. The affordable units are located in Project locations 5 and 6 shown in Exhibit 1 which, at its furthest point is within 2,000 feet (.4 miles) of the Sabre Springs/Penasquitos Transit Station. • Currently, the area median income (AMI) target for the affordable housing component of the Project has not been finalized; therefore, the affordable housing may not meet the requirement that that it will be affordable to persons with a household income equal to or less than 50% of the AMI and deed restricted for 55 years. • Provide parking equal to the minimum requirement per City Municipal Code. 	No (unless the AMI target is defined as 50%)
Redevelopment Project	The Project is redeveloping the Carmel Mountain Ranch Golf Course and Country Club with 1,200 residential units. Given the nature of a golf course as compared to residential units, the residential units will generate more trips and more VMT than the golf course generated. In addition, this CEQA action does not result in the closure of the golf course (it was already closed). Therefore, the Project does not meet the screening criteria.	No



Locally Serving Public Facility	The 12,000-square-foot pad for future development of a community art gallery/studio located near the existing Carmel Mountain Ranch library is intended as a community serving use (like a library or community center). The details of the facility ownership (public vs. private) is not known; however, in either case, the facility would be community use.	Yes
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Source: Fehr & Peers.

As shown in Table 2, the residential component of the Project does not meet the City's VMT screening. Therefore, VMT analysis is necessary for the residential component of the Project to determine if the Project has VMT transportation impacts. The community art gallery/studio component of the Project is screened from VMT analysis as it is considered a locally serving public facility.

Project VMT Analysis

The anticipated daily trip generation of the residential component of the Project was determined per the City's Trip Generation Manual. The Trails at Carmel Mountain Ranch is anticipated to generate 7,928 daily trips. The Project also includes multi-modal features such as an interconnected trail system available to the public and portions of the Project are within 0.4 miles walking distance and biking distance of the Sabre Springs/Penasquitos Transit Station. This multi-modal infrastructure and proximity to transit shows that travel demand management (TDM) measures and site design features that encourage walking, bicycling, and using transit are supported by the infrastructure within the Project.

The census tracts containing the Project (170.56, 170.55, and 170.39) have VMT/Capita of 21.7, 21.4, and 23.2, respectively. These values are between 32-43% above the VMT significance threshold of 16.2. While modeling the Project in the SANDAG model would provide the Project specific estimate of VMT/Capita, it can be inferred from the land use characteristics of the surrounding census tracts and their VMT rates that it is extremely unlikely the Project would generate VMT/Capita of 15% below the regional average, even with TDM reductions. Accordingly, the Project would have a significant impact relative to VMT.

VMT Mitigation

As shown, the residential component of the Project has a significant VMT transportation impact. The City's *Complete Communities: Mobility Choices* Program requires VMT reducing amenities or payment of an in-lieu fee depending on a project's location. Compliance with the Mobility Choices Program can be used as mitigation or partial mitigation for a significant VMT transportation impact. The City prepared an EIR for the Mobility Choices Program and disclosed that even with implementation of the regulations there would still be significant and unavoidable



VMT impacts since the timing and location of specific improvements is not known. Projects that utilize the Mobility Choices Program to provide mitigation for VMT transportation impacts will be able to tier from the City's EIR, which was certified on November 9, 2020 by the City Council.

Upon adoption, the Mobility Choices Program ~~will allow~~allows a project that has a significant impact to use compliance with the regulation and other available mitigations as mitigation "to the extent feasible" for the impact. The requirements of the Mobility Choices Program are based on where a project is located in the City. The City is divided into four mobility zones. If a project is in mobility zones 2 or 3 then the project is required to include VMT reducing measures in or adjacent to the project site. If a project is located in mobility zone 4, the project is required to pay an in-lieu fee that would be used to construct VMT reducing infrastructure in mobility zones 1, 2, or 3. Based on the Mobility Choices Program map, a portion of the Project is located in mobility zone 2 and mobility zone 4. Exhibit 2 shows the location of the Project related to the mobility zones.

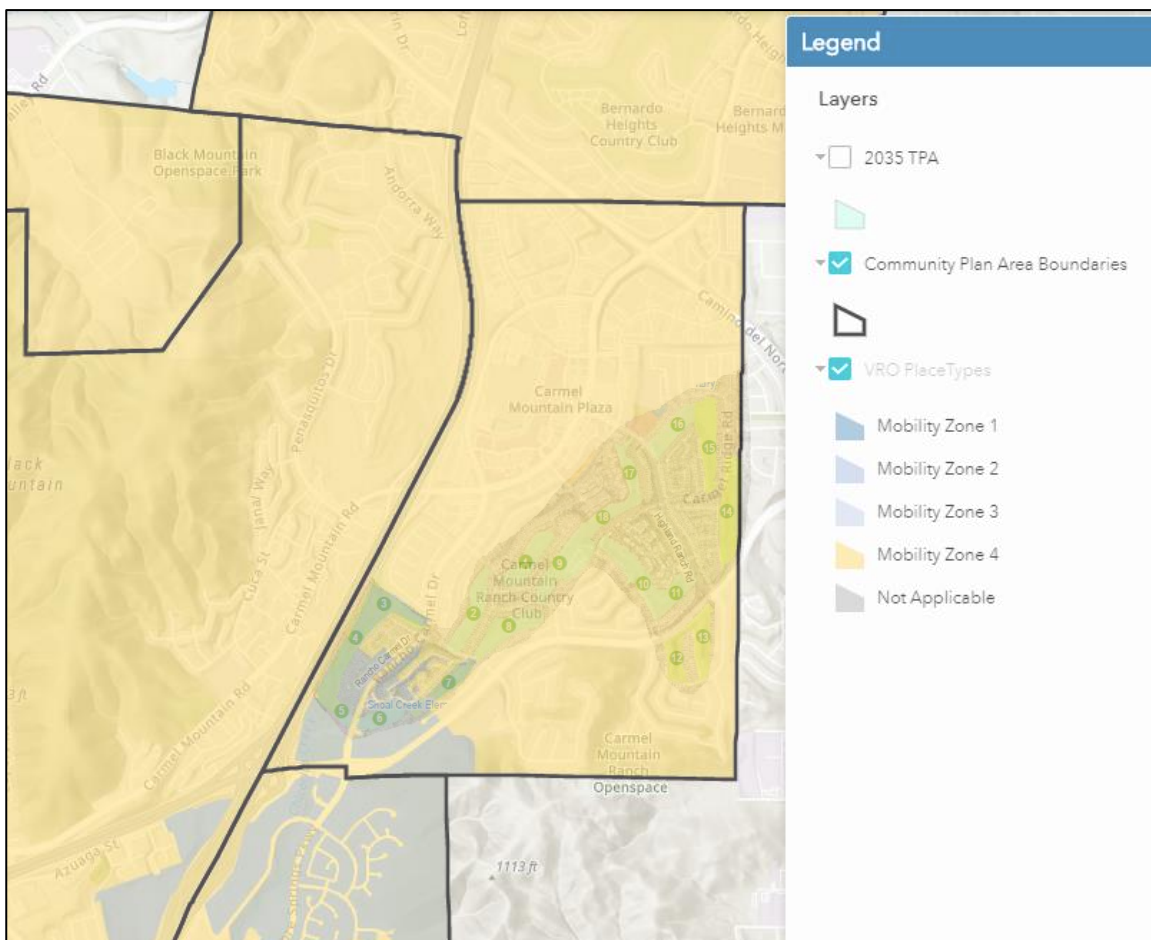


Exhibit 2: Complete Communities Mobility Choices: Mobility Zone Map with Site Plan



Since the regulations define mobility zone 2 as any project located either partially or entirely in a Transit Priority Area, VMT reduction guidelines for mobility zone 2 were applied to the entire Project. Therefore, the Project will include VMT reduction measures totaling at least 5 points in accordance with *Land Development Manual, Appendix T* as mitigation.

The Project includes several features that may qualify for points per Appendix T. Table 3 describes the specific measures and locations that will achieve 12 points, more than double the required 5 points. These VMT reducing measures will be identified on the detailed site plans for each Unit as they move forward after the tentative map process, and will be called out on the overall project site plan for the discretionary process.

Additionally, for residents of Units 5 and 6, the Project will provide a 25% transit subsidy as an additional mitigation measure. The subsidy value will be limited to the equivalent value of 25% of the cost of an MTS “Regional Adult Monthly/30-Day Pass” (currently \$72, which equates to a subsidy value of \$18 per month). Subsidies will be available on a per unit basis to residential tenants for a period of five years. In no event shall the total subsidy exceed \$129,600.

All of these VMT reducing measures will be included in the Project EIR as mitigation, and will be enforced by the City as part of the Mitigation Monitoring and Reporting Plan adopted as part of the Project approval process.

Table 3: The Trails VMT Reduction Measures

VMT Reduction Measures	Location within the Project	Points for Measure
<i>Appendix T Measure 8. Installing pedestrian resting area/recreation node on-site, adjacent to public pedestrian walkway (with signage designating the space as publicly available). The resting area/recreation node shall be maintained by the property owner.</i>	Pedestrian resting area will be located adjacent to the planned public park within Unit 13	2.5
<i>Appendix T Measure 11. Providing on-site shared bicycle fleet. The number of bicycles provided shall be equal to the number of bicycle parking spaces that would otherwise be required by San Diego Municipal Code (SDMC) Table 142-05C, or five bicycles, whichever is greater.</i>	On-site shared bicycle fleet will be provided at Unit 9, which is the densest Unit (300 market rate apartments). The on-site fleet will be a minimum of 150 bicycles based on SDMC Table 142-05C for 300 units at 0.5 bicycle spaces per unit (assumes the units are an average of 2 bedrooms per unit).	1.5
<i>Appendix T Measure 12. Providing on-site bicycle repair station.</i>	On-site bicycle repair stations will be located within Unit 9, Unit 10, and Unit 16.	4.5 (1.5*3 stations)



<p><i>Appendix T Measure 16. Providing short-term bicycle parking spaces that are available to the public, at least 10% beyond the minimum requirements.</i></p>	<p>Each Unit will provide short-term bicycle parking 10% beyond the minimum requirements for public use. For the entire Project, approximately 600 short term bicycle parking spaces are required for residents; therefore, approximately 60 additional bicycle parking spaces will be dispersed throughout the Project for public use.</p>	<p>1.5</p>
<p><i>Appendix T Measure 21. Providing on-site multi-modal information kiosks (above minimum kiosk requirement to serve a larger site).</i></p>	<p>A multi-modal information kiosk will be provided that displays bike facility, pedestrian facility, and transit information for residents and the public. The kiosk will be located within Unit 17 which is adjacent to the Carmel Mountain Ranch library and would also serve the public at that location.</p>	<p>2</p>
<p>Transit Subsidy</p>	<p>For residents of Units 5 and 6, the Project will provide a 25% transit subsidy as an additional mitigation measure. The subsidy value will be limited to the equivalent value of 25% of the cost of an MTS "Regional Adult Monthly/30-Day Pass" (currently \$72, which equates to a subsidy value of \$18 per month). Subsidies will be available on a per unit basis to residential tenants for a period of five years. In no event shall the total subsidy exceed \$129,600.</p>	<p>NA</p>
<p style="text-align: right;">Total Points</p>		<p>12</p>

NA: Not Applicable
 Appendix T is contained within the City's Land Development Manual
 Source: Fehr & Peers.

The measures that provide mitigation for the project's VMT impact are:

- Appendix T Measure 12. Providing on-site bicycle repair station: Project will provide on-site bicycle repair stations will be located within Unit 9, Unit 10, and Unit 16.
- Appendix T Measure 16. Providing short-term bicycle parking spaces that are available to the public, at least 10% beyond the minimum requirements: Each project Unit will provide short-term bicycle parking 10% beyond the minimum requirements for public use. For the entire Project, approximately 600 short term bicycle parking spaces are required for residents; therefore, approximately 60 additional bicycle parking spaces will be provided. A total of 660 bicycle parking spaces (with 600 that are for resident use and 60 for resident and/or public use) will be dispersed throughout the Project Units.



Implementation of the mitigation measures will not reduce the VMT per capita of the project to the threshold of 15% below existing VMT per capita. To achieve the threshold, the project VMT per capita would need to reduce by 32-43%. The research regarding VMT reduction due to site travel demand management measures indicates that in a suburban setting, the maximum VMT reduction possible is 15% (California Air Pollution Control Officers Association Quantifying Greenhouse Gas Mitigation Measures, page 55, August 2010). Therefore, the project will continue to have a significant and unavoidable VMT transportation impact.

The other measures will be provided as a condition of project approval.

~~Since the Project is not able to guarantee specific VMT reductions associated with the above VMT reduction measures, the Project will continue to have a significant and unavoidable VMT transportation impact.~~