



Memorandum

Date: June 22, 2023
To: Gloria Sciara, City of Gilroy
From: Gicela Del Rio, T.E.
Subject: VMT Assessment for the Proposed Gilroy Data Center Project

Hexagon Transportation Consultants, Inc. has completed a vehicle-miles traveled (VMT) assessment for the proposed Gilroy Data Center project. The purpose of this memorandum is to provide an assessment of the project's effect on VMT. The VMT assessment methodology and results are discussed below.

Project Understanding

The project site consists of an undeveloped 56-acre parcel located in the area between the north and south ends of Camino Arroyo (APN 841-69-039), east of Arroyo Circle and north and south of Pacheco Pass Highway and Leavesley Road, respectively, in the City of Gilroy, California (see Figure 1). The project as proposed includes the construction of two 218,000 square-foot (s.f.) data center buildings and one 2,500 s.f. security building totaling approximately 438,500 s.f. The project would serve as a data storage center and each building would house computer servers for private clients and electrical and backup battery equipment rooms. The project would be constructed in two phases (one building per phase).

Parking would be provided on-site with primary access via two new driveways at the Camino Arroyo cul-de-sac on the northern project site boundary and an emergency access via a third driveway at Camino Arroyo/Arroyo Circle along the southern project site boundary. Approximately 115 parking spaces are proposed to be provided at project buildout, with 60 of those parking spaces provided during Phase 1 and the remaining spaces during Phase 2.

The project would operate 24 hours a day 7 days a week and employees would be onsite for day and night shifts. During Phase 1 of the project, it is anticipated that up to 25 full-time employees would be needed to operate the data center. With the completion of Phase 2, the number of operations employees may increase to 50 full-time employees. Additionally, it is anticipated that a maximum of 74 contractors would occasionally be onsite to complete maintenance, security, and equipment assembly or other special projects. At project buildout, up to 125 employees and contractors could access the site per day.

The assessment of the project presented in this memo is for the buildout of the project (both Phases 1 and 2), totaling 438,500 s.f. of building space.

CEQA Transportation Analysis Scope

Historically, traffic impact analysis has focused on the identification of traffic impacts based on delay as its metric. However, with the adoption of Senate Bill (SB) 743 legislation, the California Environmental



Quality Act (CEQA) 2019 Update Guidelines Section 15064.3, subdivision (b) states that Vehicle-Miles-Traveled (VMT) will be the metric in analyzing transportation impacts for land use projects for CEQA purposes. The change in measurement is intended to better evaluate the effects on the state's goals for climate change and multi-modal transportation.

VMT Evaluation Methodology and Criteria

VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle trips with one end within the project. Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density of residential developments and no transit service in the project vicinity. Local-serving retail projects also would result in shorter vehicle trips as new local-serving retail development typically diverts/shortens existing shopping trips, rather than generating new retail trips.

VMT Evaluation Methodology

In accordance with CEQA, all proposed projects are required to analyze transportation as a component of environmental review using average trip length per resident and/or per employee as metrics. The daily VMT per resident accounts for trips that start or end at the home. Daily VMT per employee is calculated based on trips made by people driving to and from work. However, commercial projects and other non-residential and non-commercial projects include both trips made by residents and employees. Thus, for commercial projects, total project VMT is evaluated.

The *Valley Transportation Authority (VTA)* has developed a VMT Evaluation Tool to streamline the analysis for development projects in Santa Clara County. Therefore, the evaluation of the effects of the project on VMT was completed using the *VTA's VMT Evaluation Tool*. The VMT tool identifies the existing average VMT per capita and VMT per employee for the project area based on the assessor's parcel number (APN) of a project. Based on the project location, type of development, project description, and proposed trip reduction measures, the VMT tool calculates the project VMT.

VMT Policies and Impact Criteria

A project's VMT is compared to established thresholds of significance based on the project location and type of development. When assessing a residential project, the project's VMT is divided by the number of residents expected to occupy the project to determine the VMT per capita. When assessing an office or industrial project, the project's VMT is divided by the number of employees to determine the VMT per employee/job. Retail uses are assessed based on their effects on total VMT.

To adhere to the state's legislation, the City of Gilroy is currently developing the framework for new transportation policies based on the implementation of VMT as the primary measure of transportation impacts for CEQA purposes. The new policies will replace the City's current transportation policies that are based on levels of service. However, since the City has not formally adopted its own City-specific VMT policies, the City relies on VMT analysis methodology and impact thresholds recommended in the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018. While OPR emphasizes that a lead agency has the discretionary authority to establish thresholds of significance, the *Technical Advisory* suggests criteria that indicate when a project may have a significant, or less than significant, transportation impact on the

environment. Therefore, the assessment of the project's VMT is based on OPR guidelines and impact thresholds.

Employment Uses Impact Thresholds

As stated in the technical advisory, for office projects, OPR recommends an impact threshold of 15% below the existing regional VMT per employee. OPR also states that in cases where the region is substantially larger than the geography over which most workers would be expected to live, it might be appropriate to refer to a smaller geography that includes the area over which most workers would be expected to live.

Currently, the City of Gilroy has limited employment land uses, which results in longer commute trips as a large number of Gilroy residents are required to travel outside of Gilroy for employment. This is reflected in the average VMT per employee for the City of Gilroy (18.79 VMT per employee) compared to the regional VMT (15.33) and the Countywide VMT (16.64) per employee, as reported by the VTA VMT Evaluation Tool. Providing employment opportunities in Gilroy will likely attract a large number of employees from within the City. Therefore, for the purpose of this analysis, the impact threshold for the evaluation of the employment uses was assumed to be 15% below the citywide VMT per employee. The citywide employment VMT threshold is also consistent with the Gilroy 2040 General Plan EIR, which utilized 15% below the citywide VMT as the impact threshold for both residential (per-capita) and employment (per-employee/job) VMT.

The VTA's VMT Evaluation Tool indicates that the existing citywide average VMT per employee is currently 18.79. Therefore, the OPR recommended impact threshold of 15% below the existing average VMT per employee equates to 15.97 VMT per employee.

*Employment Impact Threshold: **15.97 VMT per employee***

Project Buildout VMT Evaluation

The VMT for the proposed project buildout (Phases 1 and 2) was evaluated with the VTA VMT Evaluation Tool. However, the VMT tool is limited to the evaluation of VMT for the general land use categories of residential, office, and industrial. The use of the VMT tool for the evaluation of land uses that are not reflective of one of the three general land uses, such as the proposed data center uses, requires the conversion of the proposed land use to an equivalent amount of residential units, office space, or industrial space. Therefore, the proposed project was converted into an equivalent amount of industrial space using ITE trip generation rates. Converting the trips estimated to be generated by the proposed project to an equivalent amount of industrial space is a reasonable approach since the employees of the data center would be expected to have similar trip-making characteristics (origin/destination and length of trips) as industrial uses within the City.

Based on the ITE daily trip rate for data center (ITE land use code 160), at buildout, the proposed project is estimated to generate approximately 434 daily trips which are equivalent to the trips estimated to be generated by 90,000 s.f. of industrial land use (data center land use generate less trips per square footage compared to industrial land use). Table 1 presents the land use equivalency calculation.

The results of the VMT evaluation using the VTA's VMT Evaluation Tool indicate that the existing average daily VMT for employment uses in the vicinity of the project site is 19.16 VMT per employee. The results also indicate that at project buildout, the proposed development is projected to generate average daily per-employee VMT equal to 19.13, which would exceed the identified impact threshold of 15.97 VMT per employee. Therefore, the proposed project would result in an impact on the transportation system based on OPR's 15% below existing average VMT impact threshold.

Table 1
Equivalent Industrial Land Use Calculations

Site/Land Use	Size	Daily	
		Rate	Trip
#160 - Data Center	438,500 Square Feet	0.99	434
#110 - General Light Industrial	90,000 Square Feet	4.87	434

Source: ITE Trip Generation Manual, 11th Edition 2021.

The VTA VMT Evaluation Tool output sheets for project buildout conditions are shown on Figure 2.

Project Impact and Mitigation Measures

Applying OPR’s 15% below existing average VMT impact threshold, the project would need to implement VMT reduction measures to achieve an approximately 16.5% reduction (from 19.13 to 15.97) in its VMT per employee in order to reduce its impact to less than significant levels. The project’s VMT per employee could be reduced with the implementation of Travel Demand Management (TDM) strategies.

Possible Measures to Reduce Project VMT

Per communication with the project applicant, at full buildout, the project is proposing to implement TDM measures that would help reduce the project’s VMT. Specifically, the project plans to implement a voluntary commute trip reduction (CTR) program that would include the following measures/programs to discourage single occupancy vehicle trips and encourage alternative modes of transportation:

- Ride sharing
- Subsidized transit
- Vanpool
- Guaranteed ride home
- Marketing program

The above programs are identified in the California Air Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, 2021, as T-5 (Voluntary CTR Program), one of the Transportation Measure to reduce greenhouse gas (GHG) emissions/VMT. According to the CAPCOA handbook, implementation of the T-5 Program by a project could achieve up to a 4% reduction in site employee commute VMT.

Since the project would be required to reduce its VMT by approximately 16.5%, implementation of the above CTR program would require an additional 12.5% reduction in the project VMT per employee.

Conclusions

The VMT evaluation for the project shows that:

- At project buildout (Phase 1 and 2), the proposed development is projected to generate average daily per-employee VMT equal to 19.13, which would exceed the identified impact threshold of 15.97 VMT per employee. Therefore, the proposed project would result in an impact on the transportation system based on OPR’s 15% below existing average VMT impact threshold.

- At project buildout, the project would need to implement VMT reduction measures to achieve an approximately 16.5% reduction (from 19.13 to 15.97) in its VMT per employee to reduce its impact to less than significant levels.
- According to the CAPCOA 2021 handbook, implementation of the voluntary commute trip reduction (CTR) program (T-5) proposed by the project could achieve up to a 4% reduction in site employee commute VMT. However, since the project would be required to reduce its VMT by approximately 16.5%, implementation of the above CTR program would require an additional 12.5% reduction in the project VMT.

OPR's recommended 15% below existing VMT impact threshold encourages developments in transit-rich, highly mixed-use areas to implement design features and trip reduction measures to take advantage of existing multi-modal infrastructure and land use mixes in reducing trip making and/or trip lengths. However, many communities such as Gilroy have very limited multi-modal transportation infrastructure and lack a mix of complementary land uses. The minimal existing multi-modal infrastructure reduces the opportunity for non-vehicular trips to the project site. Therefore, it is highly unlikely that developments like the proposed project in cities such as Gilroy can achieve OPR's recommended 15% reduction in VMT. Therefore, absent of the City adopting its own City-specific VMT policies and impact thresholds, the proposed project's VMT impact must be deemed significant and unavoidable.

Figure 1
Site Location



Source: Description of Gilroy Data Center, March 16, 2022, by Amazon Data Service, Inc.

Figure 2
VTA VMT Evaluation Tool Output (Project Phase II – Equivalent 90,000 s.f. of Light Industrial Use)

