# HEXAGON TRANSPORTATION CONSULTANTS, INC.

# **Embedded Way Industrial Development**

**Draft Transportation Demand Management (TDM) Plan** 

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# 1. Introduction

Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single–occupant vehicle (SOV) trips and resulting vehicle miles traveled (VMT) to help relieve traffic congestion and air pollution problems. The purpose of TDM is to (1) reduce the amount of trips and resulting VMT generated by new development; (2) promote more efficient utilization of existing transportation facilities and ensure that new developments are designed to maximize the potential for sustainable transportation usage; and (3) establish an ongoing monitoring and enforcement program to guarantee the desired trip reductions are achieved.

This TDM plan has been prepared for the proposed development at on the north side of Embedded Way between Coyote Creek and Hellyer Avenue. The Transportation Analysis dated April 3, 2023 completed for the proposed project indicates that the project would result in an impact on the transportation system based on the City's VMT impact criteria. Per the completed Transportation Analysis, the project will be required to implement the following multi-modal facility improvements to reduce the identified significant VMT impact:

- <u>Provide Pedestrian Network Improvements for Active Transportation (Tier 2 Pedestrian Access Improvements)</u>: Implement pedestrian improvements both on-site and in the surrounding area. Improving pedestrian connections encourages people to walk instead of driving and reduces VMT. The project will be required to remove the pork-chop islands on the southwest and northwest corners at the Embedded Way and Hellyer Avenue intersection to improve pedestrian safety and access. This improvement will require a signal modification at this intersection that will include the relocation of signal poles, heads, and crosswalks. and
- Provide Traffic Calming Measures (Tier 2 Traffic Calming Measures): Implement
  pedestrian/bicycle safety and traffic calming measures both on-site and in the surrounding
  neighborhood. Providing traffic calming measures promotes walking and biking as an alternative
  to driving. The project will be required to install raised median islands along Embedded Way
  consisting of a 120-foot segment at its western terminus and a 190-foot segment near the
  Embedded Way and Hellyer Avenue intersection.

In addition, the project must implement Travel Demand Management (TDM) measures that may include the following:

• <u>Commute Trip Reduction Marketing/Education</u>: Implement marketing/educational campaigns that promote the use of transit, shared rides, and travel through active modes for 25% of the project



employees. Strategies may include the incorporation of alternative commute options into new employee orientations, event promotions, and publications.

• <u>Subsidize Vanpool</u>: Provide subsidies for individuals forming new vanpools for their commute. This encourages the use of vanpools, reducing drive-alone trips, and thereby reducing VMT. The project would be required to subsidize 100% of the cost of the vanpool cost with at least 25% employee participation.

This TDM plan must be submitted to the City for approval. The applicant will need to work with the City to ensure the TDM measures are implemented by the building tenants or identify other TDM measures deemed appropriate for the building uses. Therefore, the ultimate TDM measures may differ from those identified above so long as the measures meet the required VMT reduction and are approved by City staff.

### **Project Description**

The proposed project consists of a 121,850-square-foot (s.f.) industrial building on an approximately ten-acre vacant site. Since a tenant and use of the proposed building have yet to be identified, the applicant for the Transportation Analysis was completed for two tenant use alternatives to allow for the flexibility to utilize the building with either warehouse, industrial, or research & development (R&D) uses. The TA study included the evaluation of the proposed 121,850 s.f. of building space as both R&D and industrial space.

Direct access to the project site would be provided via an existing full-access driveway located at the western terminus of Embedded Way. However, the project's surface lots, and drive aisles, would connect to the adjoining property along its eastern frontage (5325 Hellyer Avenue). Therefore, there would also be additional access points at existing driveways along Hellyer Avenue (right-in/right-out only) and Embedded Way (full-access). A total of 299 vehicular parking spaces are proposed on-site. The on-site parking will consist of 179 new parking spaces as well as 120 existing spaces that will be dedicated for project use per a development agreement with adjacent properties (*Declaration of Covenants, Conditions, Restrictions and Easements for Edenvale Technology Park, Article 2 Project Easements, July 2018*).

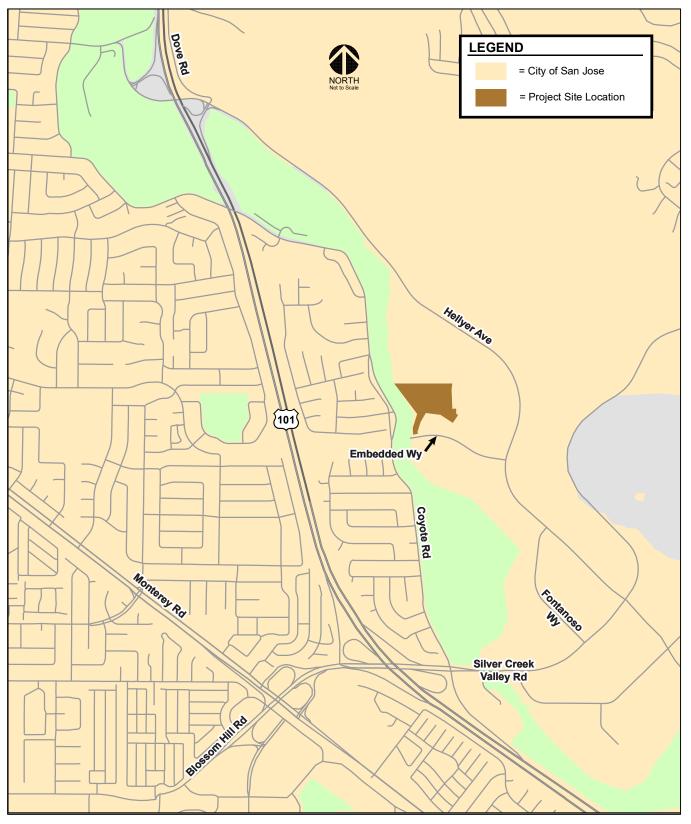
The project site location and the surrounding study area are shown in Figure 1. The project site plan is shown in Figure 2.

# **Report Organization**

The remainder of this report is divided into two chapters. Chapter 2 describes the existing transportation facilities and services in the vicinity of the project site. Chapter 3 describes the TDM measures that would be implemented for the proposed project, including the program for implementing and monitoring the TDM plan.

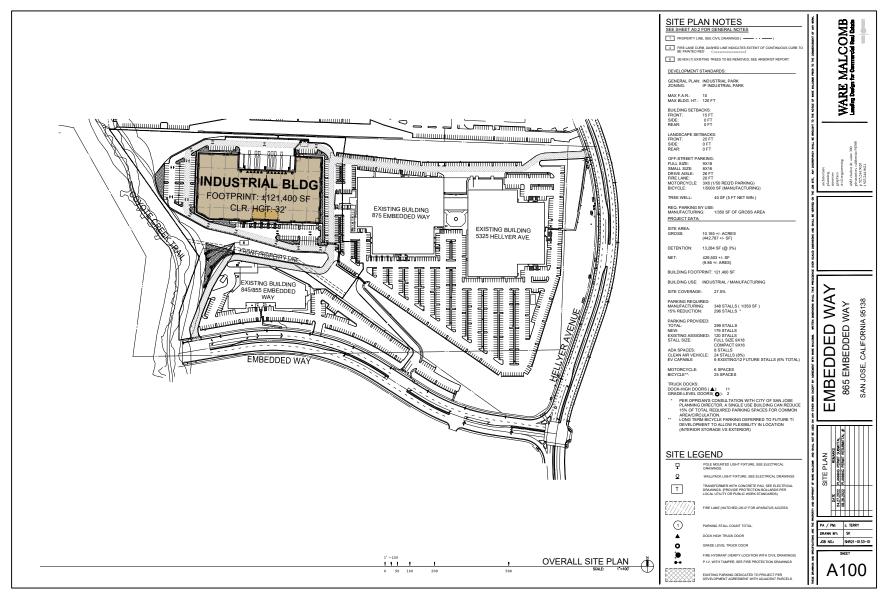


Figure 1 Project Site Location





#### Figure 2 Project Site Plan





# 2. Existing Transportation Facilities and Services

Transportation facilities and services that support sustainable modes of transportation include commuter rail, buses and shuttle buses, bicycle facilities, and pedestrian facilities. This chapter describes the existing and future transit services, as well as bicycle and pedestrian facilities, in the vicinity of the project site.

# **Existing Bicycle and Pedestrian Facilities**

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies, and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along many City streets, including designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

Note that the City's General Plan identifies both walk and bicycle commute mode split targets as 15 percent or more for the year 2040. This level of pedestrian and bicycle mode share is a reasonable goal for the project, particularly if LRT and bus services are utilized in combination with bicycle commuting. The existing bicycle, pedestrian, and transit facilities in the study area are described below.

#### **Existing Pedestrian Facilities**

Pedestrian facilities consist of sidewalks and crosswalks in the project vicinity, as well as the Coyote Creek Trail. Crosswalks with pedestrian signal heads and push buttons are located at all the signalized intersections in the study area. In the project vicinity, there are sidewalks along both sides of Hellyer Avenue, Embedded Way, and Fontanoso Way. There are existing crosswalks and accessible ramps at the signalized intersections of Hellyer Avenue/Embedded Way and Hellyer Avenue/Fontanoso Way.

#### **Existing Bicycle Facilities**

The existing bicycle facilities in the project vicinity include Class II bike lanes and Class III bike routes (see Figure 3).



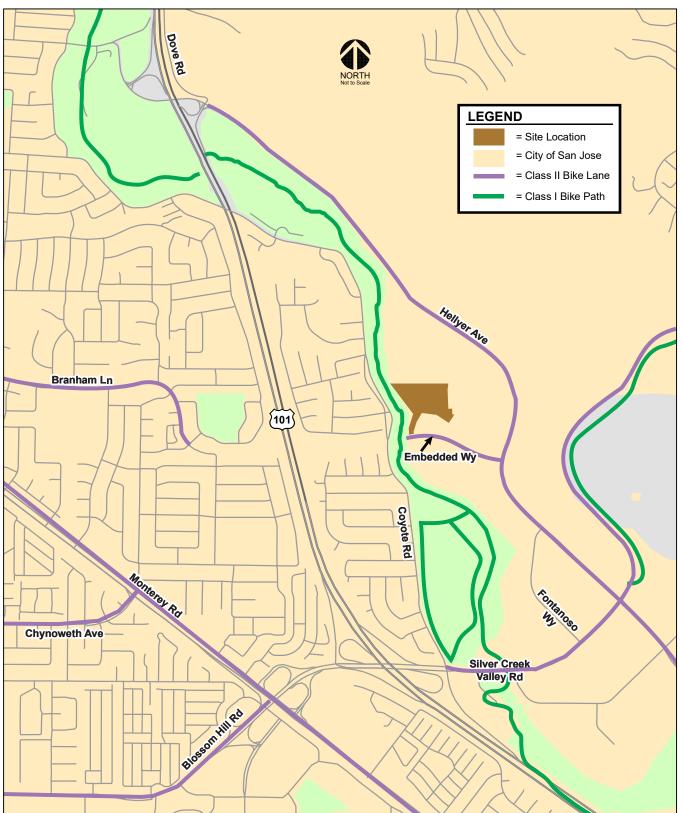


Figure 3 Existing Bicycle Facilities

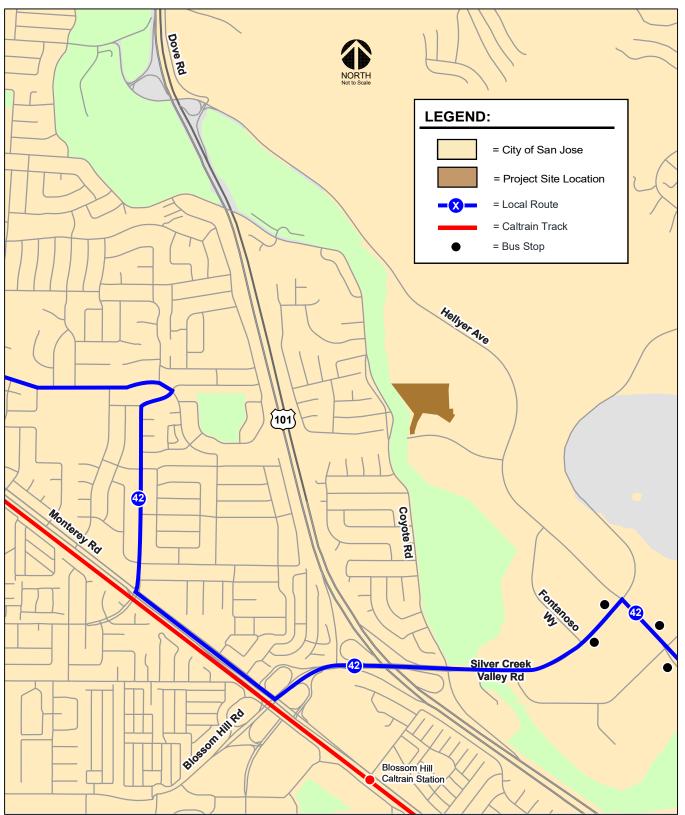


Figure 4 Existing Transit Facilities

**Class I Bikeway (Trail or Path).** Class I bikeways are off-street trails or paths with exclusive right-ofway for nonmotorized transportation used for commuting as well as recreation. The Coyote Creek Trail is one of the longest trail systems extending from the Bay to the City's southern boundary. The northern portion of the trail system runs from SR 237 to Montague Expressway. A short downtown portion travels through Selma Olinder Park. The southern portion begins at Tully Road and extends southward through county jurisdiction and reaches Morgan Hill. The closest trail access is provided at the west end of Embedded Way, approximately 900 feet from the project site. The trail actually borders the site on the west side, but there's a steep slope between the site and the trail that presently prevents direct access along that border.

**Class II Bikeway (Bike Lane)**. Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Within the vicinity of the project site, striped bike lanes are present on the following roadway segments:

- Hellyer Avenue, between the US 101 northbound ramps and Silicon Valley Road
- Silver Creek Valley Road, between the US 101 northbound ramps and Yerba Buena Road
- Embedded Way, along its entire length

### **Existing Transit Service**

Existing transit services to the study area are provided by the Santa Clara Valley Transportation Authority (VTA) and Caltrain. The transit stations and VTA bus routes within walking distance of the project site are shown in Figure 4.

#### VTA Bus Services

The project site is served by VTA Local Bus Route 42. Route 42 travels along Silver Creek Valley Road, Hellyer Avenue, and Silicon Valley Boulevard in the project vicinity and provides service between Evergreen Valley College and Kaiser San Jose. Route 42 runs on 60-minute headways between 6:00 AM and 7:00 PM and provides service to the Blossom Hill Caltrain station. Local Route 42 has stops just west of the intersection of Silver Creek Valley Road and Hellyer Avenue, about 0.9 miles from the project site.

#### **Caltrain Services**

Commuter rail service between San Francisco and Gilroy is provided by Caltrain. The Blossom Hill Caltrain Station is located at the Monterey Road/Ford Road intersection, approximately 1.15 miles southwest of the project site. A pedestrian bridge to access the station is provided between Great Oaks Boulevard and Monterey Road. The associated Park-and-Ride lot is located on the southeast corner of the intersection of Monterey Road and Ford Road. The Blossom Hill Caltrain Station is served by two northbound trains in the morning commute period with 30-minute headway and two southbound trains in the evening commute period with 90-minute headway.



# 3. VMT Impacts and Mitigation Measures

Per the VMT analysis completed for the project, the mitigation of the project's impacts to VMT will include both physical multi-modal improvements to the transportation system and implementation of TDM measures. Therefore, the project also will be required to complete annual TDM monitoring to ensure that its peak hour trip cap as established by the City is not exceeded. The project's impacts on VMT and required mitigation are discussed below.

# **Project VMT Impacts and Mitigation Measures**

Per Council Policy 5-1, the effects of the proposed project on VMT were evaluated in the Transportation Analysis dated April 3, 2023 using the methodology outlined in the City's *Transportation Analysis Handbook*. The results of the VMT evaluation, using the City's VMT Evaluation Tool, indicate that the project is located within a high-VMT area for industrial employment, and it is projected to generate VMT per industrial employee which would exceed the City's established VMT impact threshold. Therefore, the project would result in an impact on the transportation system based on the City's VMT impact criteria.

**Project Impact:** The use of the proposed building for warehouse/industrial uses is projected to generate 15.12 VMT per employee, which would exceed the established impact threshold of 14.37 VMT per employee for industrial employment uses. The use of the proposed building for R&D uses is projected to generate 14.95 VMT per employee, which would exceed the established impact threshold of 12.21 VMT per employee for office employment uses. Therefore, the project would result in an impact on the transportation system based on the City's VMT impact criteria with the use of the proposed building as warehouse/industrial and R&D uses, and mitigation measures are required to reduce the VMT impact.

<u>Mitigation Measures</u>: Per the completed Transportation Analysis, the project will be required to implement the following multi-modal facility improvements to reduce the project's VMT impact to less than significant levels for the use of the proposed building as either warehouse/industrial or office uses:

 Provide Pedestrian Network Improvements for Active Transportation (Tier 2 – Pedestrian Access Improvements): Implement pedestrian improvements both on-site and in the surrounding area. Improving pedestrian connections encourages people to walk instead of driving and reduces VMT. The project will be required to remove the pork-chop islands on the southwest and northwest corners at the Embedded Way and Hellyer Avenue intersection to improve pedestrian



safety and access. This improvement will require a signal modification at this intersection that will include the relocation of signal poles, heads, and crosswalks. **<u>and</u>** 

<u>Provide Traffic Calming Measures (Tier 2 – Traffic Calming Measures)</u>: Implement
pedestrian/bicycle safety and traffic calming measures both on-site and in the surrounding
neighborhood. Providing traffic calming measures promotes walking and biking as an alternative
to driving. The project will be required to install raised median islands along Embedded Way
consisting of a 120-foot segment at its western terminus and a 190-foot segment near the
Embedded Way and Hellyer Avenue intersection.

The implementation of the Tier 2 mitigation measures described above would reduce the VMT generated by the warehouse/industrial uses to 14.52 per employee and 14.36 per office employee which would both still be greater than the established impact thresholds. The project's VMT could be reduced further with the implementation of Travel Demand Management (TDM) measures that may include the following:

- <u>Commute Trip Reduction Marketing/Education</u>: Implement marketing/educational campaigns that promote the use of transit, shared rides, and travel through active modes for 25% of the project employees. Strategies may include the incorporation of alternative commute options into new employee orientations, event promotions, and publications.
- <u>Subsidize Vanpool</u>: Provide subsidies for individuals forming new vanpools for their commute. This encourages the use of vanpools, reducing drive-alone trips, and thereby reducing VMT. The project would be required to subsidize 100% of the cost of the vanpool cost with at least 25% employee participation.

The implementation of Tier 2 mitigation measures and TDM plan would reduce the projected VMT to 12.34 VMT per employee for warehouse uses and 12.20 VMT per employee for office uses, which would reduce the project impact to less than significant for both uses of the proposed building.

The applicant will need to work with the City to ensure the TDM measures are implemented by the building tenants or identify other TDM measures deemed appropriate for the building uses. Therefore, the ultimate TDM measures may differ from those identified above so long as the measures meet the required VMT reduction of 5.4 percent for warehouse uses and 19.6 percent for R&D uses and are approved by City staff.

# 4. TDM Implementation and Monitoring

The primary purpose of the TDM plan is to reduce the VMT generated by the project by 5.4 percent for warehouse uses and 19.6 percent for R&D uses. Per Section 20.90.220 of the San Jose Code of Ordinances, monitoring will be necessary to ensure that the TDM measures are effective and continue to be successfully implemented.

### Implementation

The project applicant must submit this TDM Plan to the City of San Jose and will be responsible for ensuring that the TDM elements are incorporated into the project. After the development is constructed and occupied, the project applicant needs to identify a TDM coordinator. It is assumed that the property manager for the project would be responsible for implementing the ongoing TDM measures. If the TDM coordinator changes for any reason, the City and tenants should be notified of the name and contact information of the new designated TDM coordinator.

# **Monitoring and Reporting**

The TDM plan will need to be re-evaluated annually for the life of the project. The designated TDM coordinator will consult with City staff to ensure the monitoring and reporting meets the City's expectations. Monitoring will include the following components:

- Annual Vehicle Trip Generation Counts
- Annual Mode Share Survey
- Annual Monitoring Report

#### **Annual Vehicle Trip Generation Counts**

Annual trip generation counts must demonstrate the vehicle trips generated by the project are within 10% of an established peak hour trip cap and must be prepared by a traffic engineer. The peak hour trip cap will be based on the project's estimated gross project trips for its potential R&D uses consisting of 118 gross AM peak-hour trips and 111 gross PM peak-hour trips or 20 gross AM peak-hour trips and 21 gross PM peak-hour trips for warehouse/industrial uses. The gross project trips are identified in the project's Transportation Analysis dated April 3, 2023. If the counts show the project trip generation is higher than expected, then the TDM Plan may need to be altered or enhanced. If the project is not in conformance with the peak hour trip cap, the project may add additional TDM measures to lower the project's trip generation and meet the trip cap.



#### Annual Mode Share Survey

The annual survey would provide qualitative data regarding employee perceptions of the alternative transportation programs and perceptions of the obstacles to using an alternative mode of transportation. The annual survey would also provide quantitative data regarding the number of employees who utilize alternative modes of transportation (e.g., bike-to-work) to commute to work, including the frequency of use. The mode share survey results would measure the relative effectiveness of individual program components and facilitate the design of possible program enhancements.

#### Annual Monitoring Report

The property manager should submit annual reports to the City of San Jose for three years, and then upon request of the Zoning Administrator for the life of the project with the following information:

- Findings of the trip generation counts and mode share surveys.
- Effectiveness of individual program components from the annual mode share survey.
- A description of the TDM programs and services that were offered to tenants in the preceding year, with an explanation of any changes or new programs offered or planned.