Appendix H CEQA Transportation Analysis

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MEMORANDUM

Mare Island Technology Academy Traffic Analysis

Task 2: CEQA Transportation Analysis

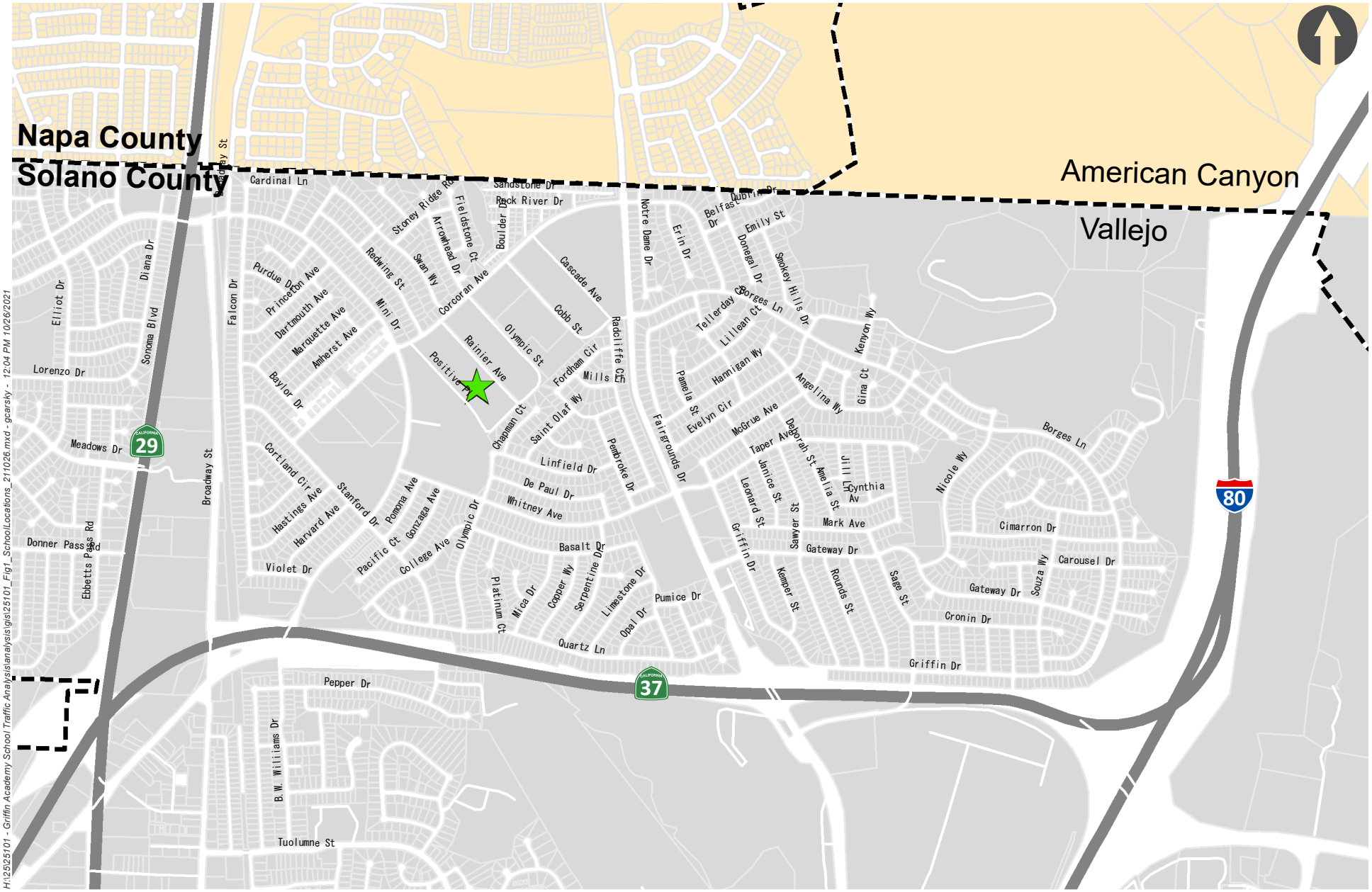
Date:	October 27, 2021	Project #: 25101
To:	Dwayne Mears, AICP – PlaceWorks, Inc.	
From:	Aaron Elias, TE, Andrew McIntyre, and Damian Stefanakis – Kittelson & Associates, Inc.	
Project:	Mare Island Technology Academy	

This memorandum presents the findings of the transportation impact analysis conducted for the proposed renovation and expansion of the Mare Island Technology Academy (MIT) campus in Vallejo, California. By the 2024-2025 school year, MIT is anticipated to reach full build out and will include a middle school (grades 6-8) and high school (9-12). Enrollment for the middle school is estimated to be 420 students and enrollment for the high school is estimated to be 560 students.

MIT is located at 2 Positive Place in Vallejo, California. Figure 1 shows the location of the campus and Figure 2 shows the proposed site plan. The traffic analysis study limits are bordered by the Solano County line to the north, SR-29 to the west, SR-37 to the south, and I-80 to the east.

This memorandum documents the analysis completed to support environmental review for the project as part of the California Environmental Quality Act's (CEQA) requirements. It has been prepared to:

- Summarize the existing transportation conditions surrounding the school facilities, including active transportation networks and transit access;
- Review any federal, regional, or local policies, laws, and regulations and assess the project's potential impacts to the environment under CEQA; and
- Assess the project's impact in relation to CEQA regulations, including impacts to Vehicle Miles Traveled (VMT)



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★ Mare Island Technology Middle School and High School

School Location
Vallejo, California

Figure **1**

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0 0.25 Miles

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Data Source: Solano County, Napa County, CalTrans

MIT Site Plan
Vallejo, California

Figure **2**

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Data Source:Griffin Academies

EXISTING CONDITIONS

The following section provides a description of the existing roadway, transit, bicycle, and pedestrian networks in the study area.

Roadway Network

The existing roadway network in the study area is composed of a street system made up of freeways, principal arterials/state routes, arterials, and collector roads. Roadway functional classifications shown in Figure 3 are from the City of Vallejo General Plan 2040.

Freeways

State Route 37 (SR-37) is a four-lane freeway with a posted speed limit of 65 miles per hour. The freeway runs 21 miles, connecting US-101 in Novato to US-80 in Vallejo, less than 2 miles southeast of the project site. Major interchanges are located at SR-29 and Fairgrounds Boulevard.

Interstate 80 is an eight-lane freeway with a posted speed of 65 miles per hour. The freeway begins at the interchange with US-101 in San Francisco, runs through Oakland, Vallejo, and Sacramento, and eventually makes its way across the United States to New Jersey. It provides Vallejo residents with direct connections to several freeways, including I-780 and SR-37 within the city limits.

Principal Arterials / State Routes

State Route 29 (SR-29) / Sonoma Boulevard is a four-lane principal arterial roadway with a posted speed limit of 50 miles per hour. The corridor has limited access control for its length between SR-37 and the Napa County line, with at-grade intersections at major cross streets, including at Mini Drive. The roadway is divided by an at-grade median that varies between 15 and 25 feet wide. Sidewalks are generally not present and there are no bicycle facilities along the route within the study area.

According to the Vallejo General Plan 2040, daily traffic volumes on SR-29 between Mini Drive and Meadows Drive near the project site were 40,500 in 2014 and are expected to remain static through 2040 (39,700). Both volumes represent a level of service “D” for the roadway segments.

Arterials

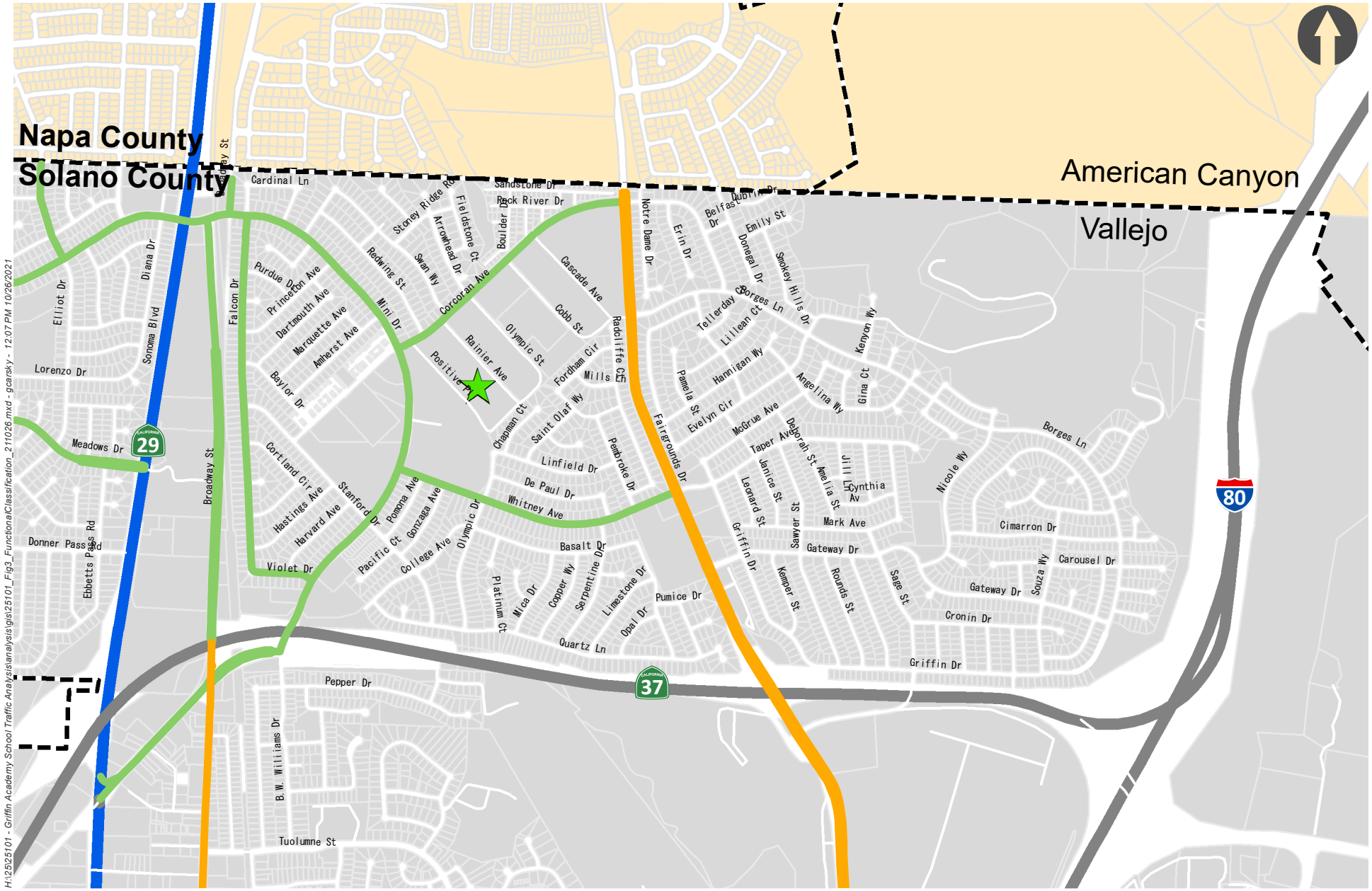
Fairgrounds Drive / Flosden Road is a four-lane north-south roadway with a posted speed limit of 35 to 45 miles per hour near the Project site. The facility extends north from Redwood Street to the county line. The roadway provides access to the Project via Whitney Avenue and Corcoran Avenue. Sidewalks are present on both sides from SR-37 to Taper Avenue and on the west side only from Taper Avenue to Borges Lane; no sidewalks are present between Borges Lane and the county line. The roadway is designated as a Class III bicycle route along its length through the study area.

Collectors

Collectors in the study area include the following:

- Mini Drive
- Corcoran Avenue
- Whitney Avenue
- Broadway
- Falcon Drive

Collectors are generally two-lane roadways with posted speeds of 25 to 35 miles per hour. Sidewalks are generally present along these collectors, with the exception of the east side of Broadway. Mini Drive is currently designated as a Class III bicycle route; bicycle facilities are proposed on Broadway and Whitney Avenue.



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Functional Classification

- Collector
- Arterial
- Principal Arterial / State Route
- Freeway
- Mare Island Technology

Existing Roadway Functional Classification
Vallejo, California

Figure **3**

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0 0.25 Miles

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Data Source: Vallejo General Plan 2040, Solano County, Napa County, CalTrans

Transit Facilities

Vallejo is primarily served by the SolTrans transit system, which provides local fixed-route bus service, as well as complementary paratransit services for south Solano County. SolTrans operates nine fixed routes throughout the service day, three fixed routes provide limited services for schools, and four regional express routes, as well as an ADA paratransit bus service. Five routes directly serve the area surrounding the Project site (1, 2, 5, 7a, and Red Line).

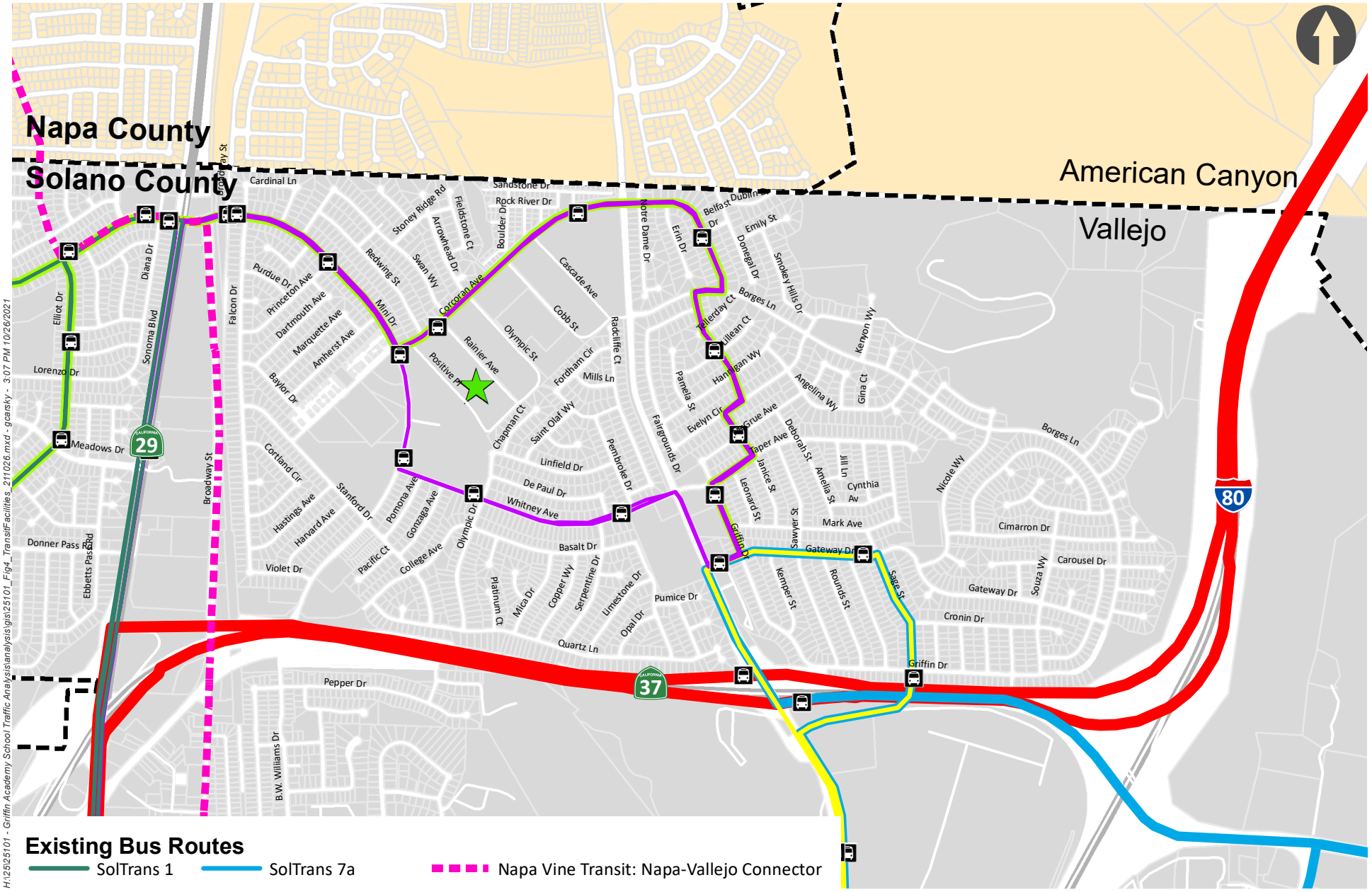
In addition, Napa Valley Transportation Authority operates Vine Transit, which provides a regional connection to neighboring Napa County. Route 11, also known as the Napa-Vallejo Connector, serves the area directly surrounding the schools.

Bus service on these routes is detailed in Table 1 and displayed in Figure 4.

Table 1: Bus Routes Serving the Project

Agency	Route	Serving	Day	Times		Frequency
SolTrans	1	Connects downtown Vallejo to residential areas near project site, via Broadway and SR-29. Key destinations include Vallejo High School.	Weekday	6:42 AM	9:11PM	Hourly
			Weekend	8:30 AM	7:26 PM	Hourly
	2	Connects downtown Vallejo to residential areas near project site, via SR-29. Key destinations include Gateway Plaza, Solano Community College, Jesse Bethel High School, Solano Middle School. Stops at Mini Dr/Corcoran Ave and Corcoran Ave/Rainier Ave directly serve the project.	Weekday	7:00 AM	9:15 PM	Hourly
			Saturday	9:00 AM	6:56 PM	Hourly
	5	Connects downtown Vallejo to Six Flags Discovery Kingdom and residential areas near project site. Key destinations include Six Flags, North Vallejo Park, and medical complexes.	Weekday	6:44 AM	8:24 PM	Hourly
			Saturday	8:30 AM	6:24 PM	Hourly
	7a	Wide loop through Vallejo, via Florida St/Springs Rd, Redwood Pkwy, SR-37, and Broadway St.	Weekday	6:45 AM	9:45 PM	Hourly
			Weekend	8:45 AM	7:17 PM	Hourly
	12	**SUSPENDED**				
	Red Line	Regional route connecting Richmond, Vallejo, and Fairfield. Runs along SR-37 and US-80 near project site.	Weekday	4:30 AM	12:00 AM	0.5 to Hourly
			Saturday	7:00 AM	10:00 PM	Hourly
			Sunday	9:00 AM	10:00 PM	Hourly

Agency	Route	Serving	Day	Times		Frequency
Vine Transit	11 (Napa-Vallejo Connector)	Regional route connecting downtown Vallejo to Napa. Key destinations include Kaiser Hospital, Sutter Hospital, Napa Valley College. Stop near Mini Dr and Broadway St serves the project site.	Weekday	5:30 AM	9:10 PM	Hourly
			Saturday	8:45 AM	9:28 PM	Hourly
			Sunday	8:45 AM	9:03 PM	Hourly
	Source: SolTrans website, https://soltrans.org/getting-around/routes-schedules, and Vine Transit website, https://vinetransit.com/routes, accessed October 26, 2021 *Kittelson & Associates, Inc., 2021*					



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Existing Bus Routes

- SolTrans 1
- SolTrans 2
- SolTrans 5
- SolTrans 7a
- SolTrans 12
- SolTrans Red Line
- Napa Vine Transit: Napa-Vallejo Connector
- Bus Stop
- Mare Island Technology

Existing Transit Facilities
Vallejo, California

Figure **4**

KITTELSON & ASSOCIATES

0 0.25 Miles

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Data Source: Solano County, Napa County, CalTrans, SolTrans, Napa Vine, Griffin Academies

Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities are important components of the transportation network in the area surrounding the school campus. They not only offer non-vehicular opportunities for both commute and recreational trips but also provide connections to the region's transit network.

Existing Bicycle Facilities

Bicycle facilities are defined by the following four classes[1]:

- **Class I** – Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.
- **Class II** – Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted.
- **Class III** – Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.
- **Class IV** – Provides a restricted right-of-way designated lane for the exclusive use of bicyclists that is separated by a vertical element to provide further separation from motor vehicle traffic.

The Solano Transportation Authority (STA) recently completed the Solano County Active Transportation Plan (ATP) in April 2020. This plan identifies existing and future planned bicycle facilities within the Solano County, including within the City of Vallejo.

The following bikeways are currently present within the study area at intermittent locations on major roads. They are shown in Figure 5.

- **Class I Multi-Use Path**
  - McGary Road, north of Auto Mall Parkway
  - Marine World Parkway
- **Class II Bicycle Lanes**
  - Borges Lane, Griffin Drive to Fairgrounds Drive
- **Class III Bicycle Routes**
  - Mini Drive, north of SR-37
  - Fairgrounds Drive, SR-37 to Napa County Line

[1] As detailed in Chapter 1000 of the Highway Design Manual

Proposed Bicycle Facilities

The ATP includes proposed bikeway facilities near the Project site. They are discussed below and shown in Figure 5.

- **Class 1 Multi-Use Paths**
  - Broadway Street, north of Meadows Drive
  - Meadows Drive, Sonoma Boulevard to Broadway Street
  - Sonoma Boulevard, north of SR-37 to Meadows Drive
- **Class II Bicycle Lanes**
  - None
- **Class III Bicycle Boulevards**
  - Whitney Avenue, Mini Drive to Fairgrounds Drive
- **Class IV Separated Bikeway**
  - Broadway Street, SR-37 to Meadows Drive
  - Fairgrounds Drive at SR-37

Existing Pedestrian Facilities

Sidewalks are generally present within the study area. Notable sidewalk gaps are present along Broadway Street, south of Mini Drive, and Fairgrounds Drive, north of Borges Lane. Crosswalks are present at major signalized and unsignalized intersections in the area. Mid-block crossings are provided at several locations within the study area, including on Rainer Avenue, Olympic Street, Corcoran Avenue (west of Fairgrounds Drive), and Mini Drive (north of Whitney Avenue). Figure 6 shows existing pedestrian facilities in the study area.

Existing Bike Facilities

- Class I Multi-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route

Proposed Bike Facilities

- Class I Multi-Use Path
- Class II Bicycle Lane
- Class III Bicycle Boulevard
- Class IV Separated Bikeway

★ Mare Island Technology

Existing & Proposed Bicycle Facilities
Vallejo, California

Figure **5**

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0 0.25 Miles

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Data Source: Solano County, Napa County, CalTrans, Solano Transportation Authority Active Transportation Plan

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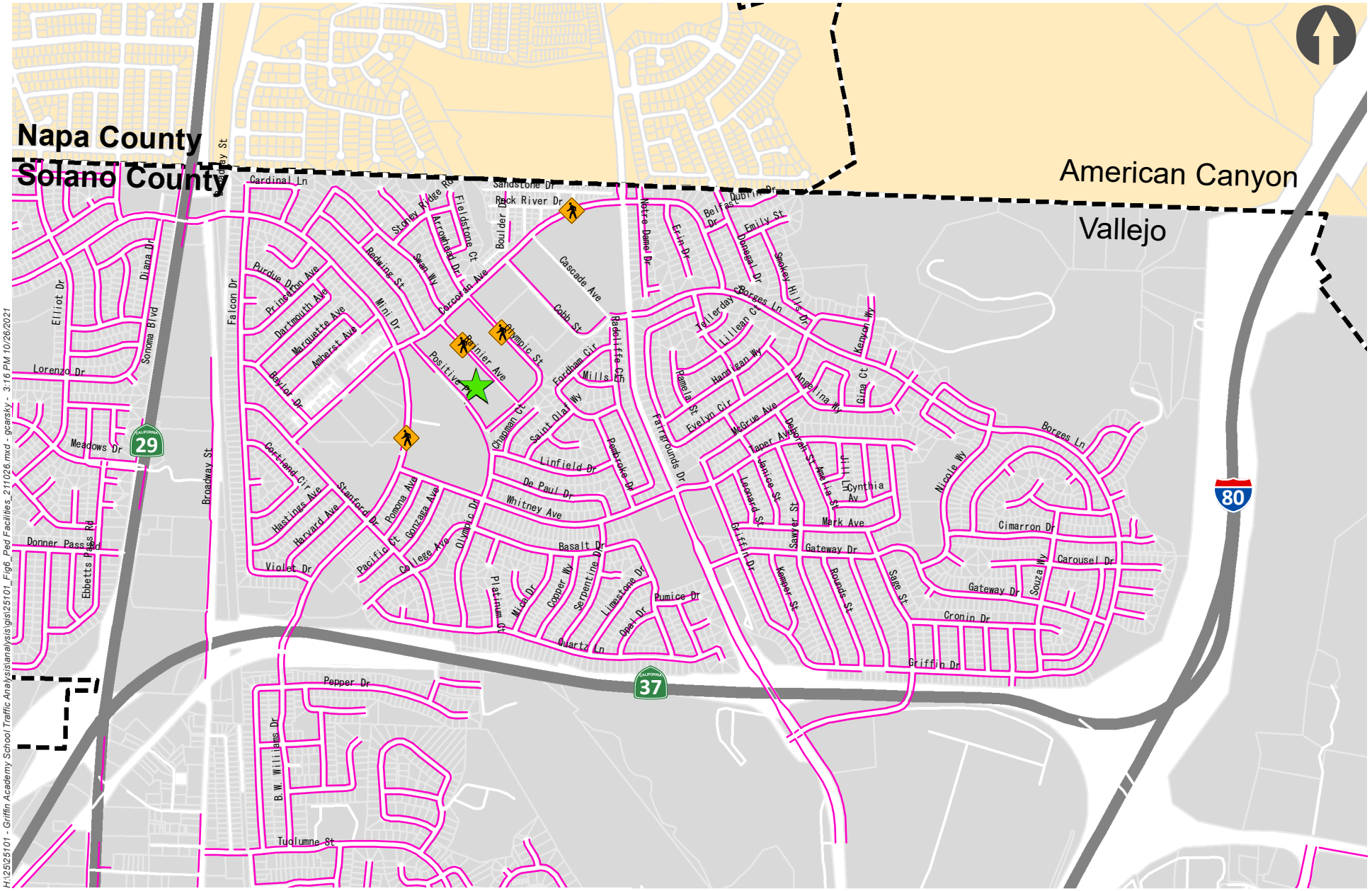

Existing Sidewalks

Midblock Pedestrian Crossings

Mare Island Technology

Existing Pedestrian Facilities
Vallejo, California

Figure **6**

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0 0.25 Miles

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Data Source: Solano County, Napa County, CalTrans, Solano Transportation Authority Active Transportation Plan

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REGULATORY SETTING

This section summarizes applicable federal, state, regional, and local plans, laws, and regulations that are relevant to this analysis. This information provides a context for the discussion related to the Project's consistency with applicable policies, plans, laws, and regulations.

Federal

No federal plans, policies, regulations, or laws pertaining to transportation related to CEQA review have been determined to be applicable to this Project.

State

Senate Bill 743

Senate Bill 743 (SB 743) was signed into law in September 2013. Senate Bill 743 (Steinberg, 2013) required changes to the CEQA Guidelines regarding the analysis of transportation impacts. Historically, CEQA transportation analyses of individual projects determined impacts in the circulation system in terms of roadway delay and/or capacity at specific locations. SB 743 changes include the elimination of auto delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts. Those proposed changes identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. Since the bill has gone into effect, automobile delay, as measured by "level of service" and other similar metrics, no longer constitutes a significant environmental effect under CEQA. Auto-mobility (often expressed as "level of service") may continue to be a measure for planning purposes.[2]

In December 2018, the California Governor's Office of Planning and Research (OPR) and the State Natural Resources Agency submitted updated CEQA Guidelines to the Office of Administrative Law for final approval to implement SB 743. The Office of Administrative Law approved the updated CEQA Guidelines, thus implementing SB 743 and making VMT the primary metric used to analyze transportation impacts. The final text, final statement of reasons, and related materials are posted at http://resources.ca.gov/ceqa. The changes have been approved by the Office of the Administrative Law and are now in effect. For land use and transportation projects, SB 743-compliant CEQA analysis became mandatory on July 1, 2020.

[2] Governor's Office of Planning and Research, 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA, Implementing Senate Bill 743 (Steinberg, 2013)

Regional

Association of Bay Area Governments (ABAG)

The Association of Bay Area Governments (ABAG) is a regional planning agency, council of governments, and local government service provider for the Bay Area region, which includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties. ABAG is responsible for developing an annual work program and budget and helps facilitate projects in the region. ABAG is closely associated with the Metropolitan Transportation Commission – although they remain separate entities, as of July 2017, staff for both agencies are consolidated.

Metropolitan Transportation Commission (MTC)

The Metropolitan Transportation Commission (MTC) is the transportation planning, financing, and coordinating agency for the nine-county San Francisco Bay Area. As the Metropolitan Planning Organization and transportation planning agency for the region, MTC is responsible for the development of the regional transportation plan (RTP). The current RTP, known as *Plan Bay Area 2040*, was adopted in 2017 and forecasts how transportation may change over time and prioritizes funding to focus growth and maintain infrastructure.

Solano Transportation Authority

The Solano Transportation Authority (STA) is responsible for countywide transportation planning, programming transportation funds, managing transportation programs, and delivering transportation projects.

In June 1990, California voters approved legislation that required Congestion Management Plans (CMP) be developed in urbanized counties to address congestion on California's highways and roads. As the Congestion Management Agency (CMA) for Solano County, STA is required to update the county's Congestion Management Program (CMP) every two years. MTC publishes guidelines for CMP development, which help inform the CMP's goals. These goals include:

- To maintain mobility on Solano County's streets and highways;
- To ensure that the Solano County transportation system operates effectively as part of the larger Bay Area and northern California transportation systems;
- To conform with and support implementation of MTC's adopted Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Plan Bay Area 2040;
- To align the CMP with the federal transportation bill, Moving Ahead for Progress in the 21st Century (MAP-21);
- To share information and organization with the Solano County Comprehensive Transportation Plan;

- To provide a basis for the STA to review and comment upon land use proposals that may impact roadways and intersections listed in the CMP

In April 2020, STA completed the Solano County Active Transportation Plan, which consolidates several STA efforts (Bicycle, Pedestrian, Safe Routes to School, and Safe Routes to Transit Plans) into one cohesive plan that establishes countywide priorities and provides project lists and program guidance to make walking and bicycling more comfortable throughout the county. Seven key values and goals were established to guide the ATP's development.

- **Access**: People of all ages and abilities should be able to walk and bike throughout Solano using a comfortable, connected, and well-maintained network to access transit and key destinations.
- **Equity**: All Solano County residents should have equitable access to convenient and safe, low-cost transportation options.
- **Health and Safety**: Solano County's transportation system should be designed to increase our community's health and safety by providing opportunities for increased active transportation, increasing roadway safety, and reducing vehicle emissions.
- **Quality of Life:** Solano communities should be vibrant, active, and promote a good quality of life for all residents.
- **Environmental Stewardship:** Solano County's active transportation system will reduce environmental impacts by promoting the reduction of air pollution, vehicle miles traveled, and greenhouse gas emissions.
- **Collaboration:** Solano should work collaboratively with local and regional partners to realize shared active transportation values.
- **Invest in Our Values:** Solano County and its seven cities take pride in investing in active transportation as an aspect of our community by funding mobility options for residents in their everyday lives.

Local

City of Vallejo 2040 General Plan

The City of Vallejo adopted its 2040 General Plan *Propel Vallejo* in August 2017 as an update to the previous general plan approved in 1999. It serves as the City's "overarching policy document that defines a vision for future change and guides the location and character of development, enhancing the local economy, conserving resources, improving public services and safety, and fostering community well-being". The following policies related to "mobility, transportation, and connectivity" are applicable to the Project:

- **Goal MTC-1** *Regional Transportation Hub*. Make Vallejo a regional transportation hub for people and goods
    - **Policy MTC-1.1** *Regional Transit Connections*. Enhance regional transit service for residents, employees, and visitors.

- **Policy MTC-1.2** *Transit Ridership*. Increase regional transit and ferry ridership to and from Vallejo, particularly by commuters and visitors.
- **Policy MTC-1.3** *First/Last Mile Connections*. Provide enhancements to the local transit network that make it easier and more convenient to use regional transit.
- **Policy MTC-1.4** *Regional Transportation Planning*. Ensure that Vallejo is well connected to road, rail, air, and maritime systems in support of both mobility and local economic development.
- **Policy MTC-1.5** *Regional Trail Network*. Continue to participate in efforts to complete the regional trail network through Vallejo.
- **Policy MTC-1.6** *Public Access*. Promote public access to open space and trails.

- **Goal MTC-2** *Mobile Community*. Enhance local transportation options and maintain a safe, convenient, and sustainable local transportation system.
  - **Policy MTC-2.1** *Safety First*. Prioritize pedestrian, bicycle, and automobile safety over traffic flow.
  - **Policy MTC-2.2** *Education***.** Promote safety programs to educate all road users about risks and responsibilities.
  - **Policy MTC-2.3** *Emergency Response Routes*. Ensure adequate emergency vehicle access in all areas of Vallejo.
  - **Policy MTC-2.4** *Citywide Mobility.* Maintain a transportation network that provides mobility for all ages and abilities and for all areas of the community.
  - **Policy MTC-2.5** *Street Classification System.* Maintain a street classification system that establishes user mode priorities and associated performance standards for each type of street.
  - **Policy MTC-2.6** *Pavement Condition*. Improve street pavement condition in Vallejo, prioritizing neighborhood corridors and arterials.
  - **Policy MTC-2.7** *Complete Streets.* Increase accessibility for and use of streets by pedestrians, bicyclists, and transit riders.
  - **Policy MTC-2.8** *Transportation Demand Management.* Decrease dependence on single-occupant vehicles by increasing the attractiveness of other modes of transportation.
  - **Policy MTC-2.9** *Local Transit.* Encourage increased local transit ridership to work, school, shopping, and recreation.
  - **Policy MTC-2.10** *Senior and Limited Mobility Population.* Encourage provision of a variety of transportation services for seniors and community members with limited mobility.
  - **Policy MTC-2.11** *Sustainable Transportation.* Ensure that circulation improvements can be operated and maintained within existing and future resource limitations.
  - **Policy MTC-2.12** *Resource Efficiency.* Facilitate use of emerging vehicle technology to help reduce vehicle miles travelled and greenhouse gas emissions.
  - **Policy MTC-2.13** *Alternative Fuel Vehicles.* Utilize alternative fuel vehicles as much as feasible.

- **Goal MTC-3** *Interconnected Community.* Improve connections within and between Vallejo's neighborhoods for all travel modes.
    - **Policy MTC-3.1** *Coordinated Transportation Planning*. Ensure that improvements to the transportation network support a land use pattern that connects the community and facilitates travel among Vallejo's neighborhoods.
    - **Policy MTC-3.2** *Local Transit.* Encourage improvements in citywide transit service that directly connect major destinations in Vallejo, including commercial districts, job centers, and projected growth areas.
    - **Policy MTC-3.3** *Corridors.* Attract development to key "main streets" that will catalyze use by the community.
    - **Policy MTC-3.4** *Walking, Biking, and Rolling.* Expand the local bicycle and trail network to provide safe, healthy, attractive options for non-motorized travel among destinations in Vallejo, including for wheelchair users.

The General Plan also has policies related to maintaining acceptable Levels of Service (LOS). However, LOS can no longer be used for CEQA evaluations and is therefore not relevant to this memorandum focusing on CEQA impacts.

City of Vallejo CEQA Transportation Impact Analysis Guidelines

The City of Vallejo revised their transportation impact analysis guidelines in July 2020 to conform with the SB 743 legislation. These guidelines have established three screening criteria to screen projects from a project-level assessment. These three criteria include:

1. Transit Priority Area (TPA) – Projects located within a TPA may be presumed to have a less than significant impact absent substantial evidence to the contrary.
2. Low VMT Area Screening – Residential and office projects located withing a low VMT generating area of the city may be resumed to have a less than significant impact absent substantial evidence to the contrary. Low VMT areas are defined as those areas have an efficiency metric of:
    - Residential: VMT per resident less than 26.0
    - Office/Employment: VMT per employee less than 31.5
3. Project Type Screening – Certain uses can be presumed to have a less than significant impact absent substantial evidence to the contrary as their uses are local serving in nature. Examples include local-serving schools, parks, day care centers, local serving retail, and project generating less than 110 daily vehicle trips.

Projects that do not screen out based on one if these criteria are required to perform a detailed VMT analysis. Four thresholds have been established in the determination of significance for projects undergoing a detailed VMT analysis. These thresholds include:

- **Threshold 1: Project Generated VMT (Residential and Office/Industrial Projects) - Baseline** - Project-generated Residential Tour VMT per resident (for residential projects), Home-Based-Work Tour VMT per employee (for office/industrial projects) or Total VMT per service population (for mixed-use projects) is no higher than the baseline citywide Residential Tour VMT per resident, Home-Based-Work Tour VMT per employee, or Total VMT per service population.
- **Threshold 2: Project Generated VMT (Residential and Office/Industrial Projects) – Cumulative** – Project-generated Residential Tour VMT per resident (for residential projects), Home-Based-Work Tour VMT per employee (for office/industrial projects), or Total VMT per service population (for mixed-use projects) is no higher than the cumulative citywide Residential Tour VMT per resident, Home-Based-Work Tour VMT per employee, or Total VMT per service population. This threshold does not apply if it can be demonstrated that VMT rates are declining at the time of the analysis.
- **Threshold 3: Project's Effect on VMT (Residential and Office/Industrial Projects) – Cumulative** – The Project reduces or has no effect on the citywide total VMT under cumulative conditions.
- **Threshold 4: Project-Generated VMT and Project's Effect on VMT (Other Project Types)** - VMT thresholds for other project types (for example, institutional, destination hotel, or cultural projects) would be developed using considerations unique to the individual project. The thresholds will incorporate the principles of Thresholds 1 – 3, i.e., projects that are not expected to generate VMT above a relevant baseline level and/or are not expected to increase VMT in the cumulative condition would be considered to have a less than significant impact with respect to VMT.

TRANSPORTATION ANALYSIS

The transportation analysis assesses how the proposed Project may affect the operations of the study area's transportation system. This analysis includes effects that would result in significant impacts under CEQA guidelines.

CEQA Significance Criteria

The Project's impact is not considered significant unless it would:

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

b. Conflict or be inconsistent with CEQA Guideline section 15064.3, subdivision (b).

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

d. Result in inadequate emergency access.

Significance criteria "b" is related to the implementation of vehicle miles traveled (VMT) as the primary performance metric. The City of Vallejo CEQA Transportation Impact Analysis Guidelines published in July 2020 (Guidelines) do not have specific guidelines related to charter schools. Additionally, the Office of Planning and Research (OPR) had not developed specific guidelines for analyzing impacts from charter schools. However, the use of VMT efficiency metrics for home based and work-based trips have been recommended by OPR and within the Guidelines for other land use types. For this analysis, a service population metric is used to consider trips for both employees and students combined since these are the two groups primarily accessing the Project. This VMT per service population was then compared to the City of Vallejo VMT/capita. VMT/capita was used as the comparison because there is insufficient data to calculate VMT/service population for all schools in the City. Since most trips to a school are home-based trips as students are transported to/from school, VMT/capita is the most similar comparison available.

Consistent with the City of Vallejo Guidelines, the threshold of significance is set at no increase in VMT which aligns with the City's goal of holding new development VMT generation at or below citywide VMT generation levels. Therefore, a significant impact to VMT would occur if the Project would:

- Result in the VMT per service population (students plus employees) exceeding the VMT per capita within the City of Vallejo which is 26.0 VMT per resident[3].

[3] City of Vallejo CEQA Transportation Impact Analysis Guidelines, July 2020, Table 1

VMT Analysis

An analysis was conducted to quantify the VMT per service population (students and employees) for each school. Student and employee home address data were provided the existing MIT schools. The distribution of existing student enrollment among the middle and high schools is provided in Table 2. The data for school employees did not specify whether the employees were for MIT or the nearby Griffin Academy – for this reason, all 116 employees for both academies were included in the service population for MIT since this provides a larger dataset of trip lengths when calculating VMT[4].

Table 2 Student Enrollment and Total Service Populations

School Name	Grades Served	Student Enrollment	Total Service Population
MIT Middle School	6 – 8	435	551
MIT High School	9 – 12	562	678

* Expected to serve grades 9-12 by 2024-2025 school year

Daily VMT per service population for each school was calculated using the following equation:

$$Daily\ VMT\ per\ service\ population = \frac{Average\ trip\ length\ (miles)\ x\ Daily\ trips}{Student\ enrollment + Number\ of\ employees}$$

- *Average trip length*: Average of one-way driving distances between students' and employees' home addresses and the school sites. Trip lengths were calculated using an ArcGIS Online tool.
- *Daily trips*: Daily trip generation of the project, calculated using ITE trip generation rates for Land Use 536 (Private School K-12). This land use was the most similar to the Project and was more conservative than using the elementary charter school (Land Use 537) land use.

Table 3 provides the daily VMT per service population for the two schools based on the equation.

[4] This should represent a conservative analysis since employees are likely to live further away than students and including more employees in the calculation will likely result in a higher VMT/service population estimate.

Table 3 VMT Per Service Population

School Name	Average Trip Length (miles)	Trip Generation Rate*	Total Service Population	Daily VMT	Daily VMT / Service Population
MIT Middle School	4.73	2.48	551	6,467.6	11.7
MIT High School	5.07	2.48	678	8,530.6	12.6

Source: Kittelson & Associates, Inc. 2021
* Trip generation rate from Institute of Transportation Engineer's (ITE) Trip Generation, Land Use code 536 for private school K-12

Discussion

As shown in Table 3, the daily VMT per service population for each school is below the existing City of Vallejo VMT per capita (26.0). The values determined for the two schools are expected to remain stable as the schools expand to their full capacities so that the VMT per service population under cumulative conditions would be similar or less than the numbers reported in Table 3 for baseline conditions. Therefore, the project is not anticipated to result in a significant impact related as a result of VMT.

CEQA PROJECT IMPACTS AND PROPOSED MITIGATIONS

TRAF-1	**The proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. This would be considered a less than significant impact.**

The proposed project includes an expansion and reconstruction of an existing charter school in Vallejo. Since all improvements would be made within the existing site with no planned changes to the existing circulation system, the Project would not cause conflicts with proposed programs or plans to improve the circulation system for all users including transit passengers, vehicles, bicyclists, and pedestrians. The primary ordinances and policies addressing the circulation system in the area are from the City of Vallejo's General Plan. The three overarching transportation goals and a discussion of whether the Project would conflict with them include:

- **Goal MTC-1** *Regional Transportation Hub*. Make Vallejo a regional transportation hub for people and goods.
    - The proposed Project does not interfere with Vallejo's goal to be a regional transportation hub. The Project location is situated near local and regional transit lines, with first and last-mile bicycle and pedestrian connections on surrounding local streets. The location is easily accessed through the existing regional transportation network, with close proximity to freeways, state routes, and arterial roadways.
- **Goal MTC-2** *Mobile Community*. Enhance local transportation options and maintain a safe, convenient, and sustainable local transportation system.
    - The Project's location near several other schools (Loma Vista Elementary School, Widenmann Elementary School, Solano Middle School, Dan Mini Elementary School) and community facilities (Setterquist Park, North Vallejo Family Resource Center) would encourage trip chaining as parents would be able to drop-off or pick-up students from multiple schools and community facilities located near the Project. Its neighborhood context also allows for a wide range of travel modes to and from school.
- **Goal MTC-3** *Interconnected Community.* Improve connections within and between Vallejo's neighborhoods for all travel modes.
    - There are several proposed changes in the Project area that would provide for a safer and healthier circulation system for non-motorized modes. The Project does not prevent these improvements from being implemented and would increase the usage of these facilities as more students access the Project. Additionally, the Project itself is proposed to make site improvements that include improved vehicle circulation, walkway, and other amenities to facilitate multimodal travel.

Since the Project would not make off-site improvements that would conflict with planned programs and plans and would also not conflict with policies governing the local circulation system, it would not result in a significant impact and no mitigation measures would be required.

TRAF-2	**The proposed project would not conflict with or be inconsistent with CEQA Guideline section 15064.3, subdivision (b). This would be considered a less than significant impact.**

The VMT per service population (employees and students) for Mare Island Technology Academy were calculated to be below the City average with the middle school VMT per service population being 11.7 and the high school VMT per service population being 12.6. Since on both schools are below the City average VMT per capita (26.0), the Project does not result in a significant impact based on VMT and no mitigation measures would be required.

TRAF-3	**The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). This would be considered a less than significant impact.**

Since the Project has already been operating in the area as a school and is surrounded by residential communities and other schools, it does not represent an incompatible use. The Project is not proposing to make off-site improvements to the local transportation network that would result in sharp curves, dangerous intersections, or other hazards.

The design of the proposed internal drive aisles, access driveways, and other circulation improvements would be required to adhere to the California Department of Education (CDE) guidelines for site design and circulation and City of Vallejo Fire Department's design standards which are imposed on project developments by the State and City's Fire Department during the building plan check and development review process. Compliance with CDE's established design standards and implementation or signage and pedestrian circulation features to be implemented by the City would ensure that hazards due to design features would not occur and that the placement of the circulation improvements would not create a conflict for motorists, pedestrians, or bicyclists traveling within or around the project site. A preliminary review of the site plan also showed the Project driveways should provide adequate site distance as long as sight lines are maintained as the Project site plan is developed further.

Since the Project is not incompatible with surrounding land uses, there are no off-site improvements, and all on-site improvements would be made adhering to the latest design standards for both the City of Vallejo and the CDE preventing hazardous conditions, the Project would not result in a significant impact and no mitigation measures would be required.

TRAF-4	**The proposed project would not result in inadequate emergency access. This would be considered a less than significant impact.**

Emergency response requires a balance of emergency response time and evacuation needs with other community concerns, such as Urban Design and traffic calming. To address emergency and fire access needs, the site improvements would be required to be designed in accordance with all applicable CDE and the City of Vallejo Fire Department design standards for emergency access (e.g., minimum lane width and turning radius). For example, the driveways would be designed to meet the minimum width requirements of City of Vallejo Fire Department to allow for the passing of emergency vehicles.

Since adequate emergency access will be required per the local fire code and the site plans reviewed by the local fire officials as part of the design review, the Project is not anticipated to result in inadequate emergency vehicle access. Therefore, the Project has a less than significant impact and no mitigation measures would be required.