4.13 TRANSPORTATION

4.13.1 INTRODUCTION

The Transportation chapter of the EIR discusses the existing transportation facilities within the vicinity of the project site/Biological Resources Preservation Alternative (BRPA) site, focusing on pedestrian, bicycle, and transit facilities, as well as applicable policies and guidelines used to evaluate operation of such facilities. Where development of the Proposed Project or the BRPA would conflict with applicable policies or guidelines, mitigation measures are identified. The information contained within this chapter is primarily based on the Transportation Impact Study (TIS) prepared for the Proposed Project by Fehr & Peers (see Appendix R),[1] as well as the City of Davis General Plan[2] and the City of Davis General Plan EIR.[3]

Pursuant to the CEQA Guidelines Section 15064.3, environmental documents must use vehicle miles traveled (VMT) rather than level of service (LOS) as the metric to analyze transportation impacts. Therefore, the analysis included in this chapter focuses on VMT. The State's requirement to transition from LOS to VMT is aimed at promoting infill development, public health through active transportation, and a reduction in greenhouse gas (GHG) emissions. However, an analysis of LOS is available separately in the project-specific Traffic Operations Analysis prepared by Fehr & Peers, and will be used by the City in the project review process for determining consistency with General Plan goals and policies.

4.13.2 EXISTING ENVIRONMENTAL SETTING

The sections below describe the physical and operational characteristics of the existing transportation system within the project site/BRPA site vicinity, including the surrounding roadway network, transit, bicycle, and pedestrian facilities. It is noted that the TIS includes terminology such as "study area," which includes the site and the vicinity, and was determined based on the project's expected travel characteristics (trip generation and distribution), primary travel routes to and from the site, and travel mode split. A larger study area extending throughout Yolo County is also used for the analysis of potential VMT impacts.

Existing Roadways

The following sections provide a summary of the existing roadways in the project site/BRPA site vicinity, as shown in Figure 4.13-1:

East Covell Boulevard

East Covell Boulevard is a four-lane east-west major arterial that traverses the City of Davis. To the west, East Covell Boulevard connects to Pole Line Road, F Street, Anderson Road, State Route 113 (SR 113), and points west; East Covell Boulevard transitions into West Covell Boulevard at the intersection with F Street. To the east, East Covell Boulevard transitions into Mace Boulevard at the Mace Curve.

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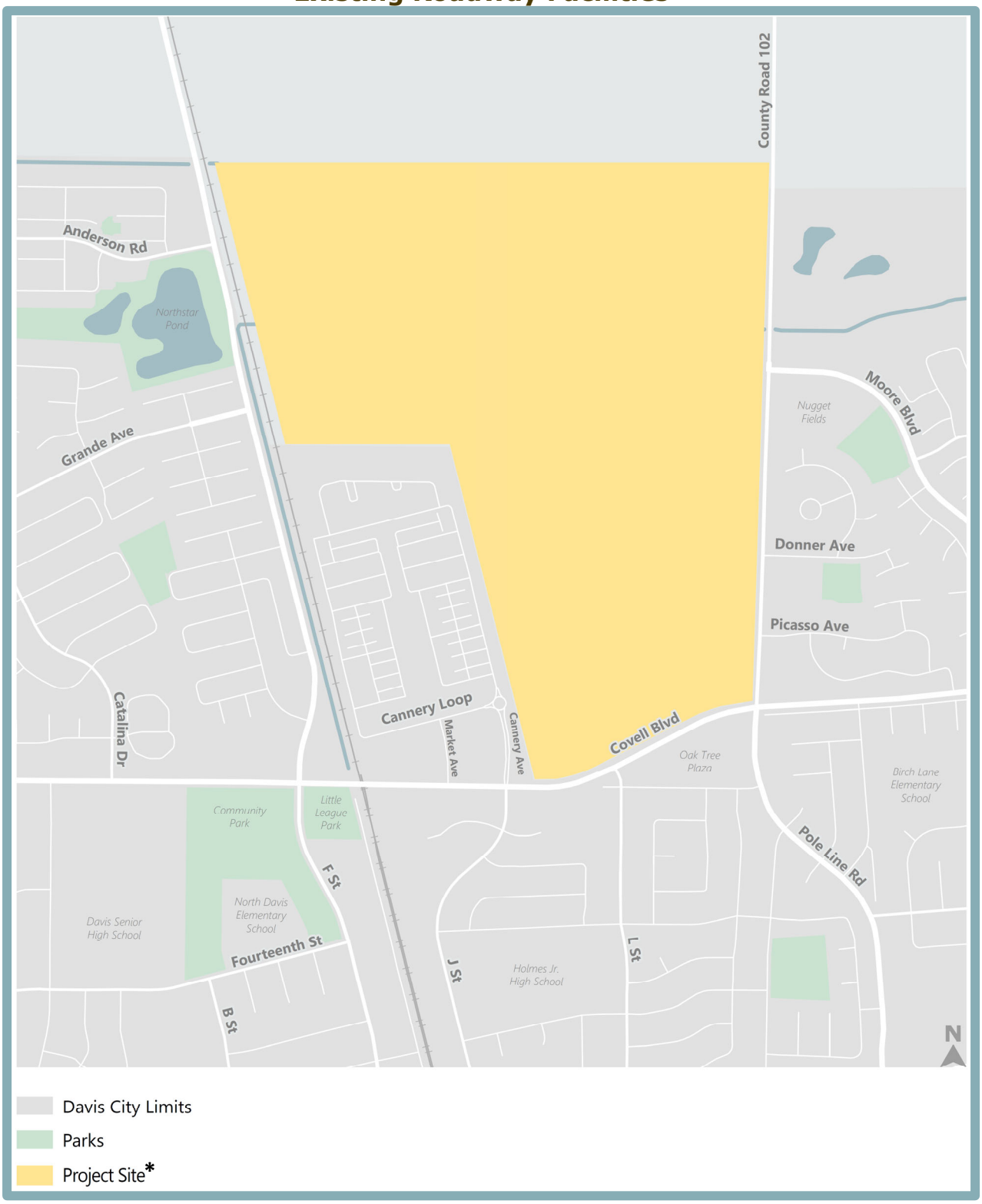
1 Fehr & Peers. *Village Farms Davis Transportation Impact Study*. November 2024.
2 City of Davis. *City of Davis General Plan*. Adopted May 2001, Amended January 2007.
3 City of Davis. *Final Program EIR for the City of Davis General Plan Update and Final Project EIR for Establishment of a New Junior High School*. Certified May 2001.

Figure 4.13-1
Existing Roadway Facilities



Source: Fehr & Peers, 2024.
** Not including the approximately 118-acre Urban Agricultural Transition Area.*

East Covell Boulevard borders the south edge of the project site/BRPA site.

Vehicular access to and from the site is provided by the existing East Covell Boulevard/L Street signalized intersection. Within the vicinity of the site, East Covell Boulevard has a posted speed limit of 35 miles per hour (mph).

Pole Line Road

Pole Line Road is a two-lane north-south road that connects East Davis and South Davis across Interstate 80 (I-80). Pole Line Road is a major arterial north of East Covell Boulevard and a minor arterial south of East Covell Boulevard. Pole Line Road transitions into Lillard Drive south of I-80 and into County Road (CR) 102 north of the city limits. CR 102 continues north to the City of Woodland and I-5. Pole Line Road has a posted speed limit of 45 mph north of Moore Boulevard, 40 mph between Moore Boulevard and East Covell Boulevard, and 25 mph between East Covell Boulevard and Eighth Street.

Cannery Avenue

Cannery Avenue is a two-lane local road located adjacent to the project site/BRPA site's western boundary that serves the residential community at the Cannery. Cannery Avenue is planned to provide access to the western part of the site at the Cannery Avenue/Cannery Loop roundabout. The roadway has a posted speed limit of 25 mph. South of East Covell Boulevard, Cannery Avenue transitions to J Street.

F Street

F Street is a two-lane north-south minor arterial with a speed limit of 25 mph south of East Covell Boulevard and 35 mph north of East Covell Boulevard. F Street provides access between North Davis, Community Park, Little League Park, and Downtown Davis. North of the city limits, F Street transitions into CR 101A.

J Street

J Street is a two-lane north-south collector that extends between East Covell Boulevard and Second Street. Near the project site/BRPA site, the posted speed limit is 30 mph. J Street transitions into Cannery Avenue north of East Covell Boulevard.

L Street

L Street is a two-lane north-south collector that extends between East Covell Boulevard to Second Street. Within the vicinity of the project site/BRPA site, L Street has a posted speed limit of 25 mph.

Moore Boulevard

Moore Boulevard is a two-lane minor arterial that extends east-west between Pole Line Road and Rockwell Street in the Wildhorse neighborhood. Moore Boulevard has a posted speed limit of 25 mph.

Donner Avenue

Donner Avenue is a two-lane collector that extends east-west between Pole Line Road and Cassatt Street in the Green Meadows neighborhood. Donner Avenue has a posted speed limit of 25 mph.

Picasso Avenue

Picasso Avenue is a two-lane local road that runs east-west between Pole Line Road and Renoir Avenue in the Green Meadows neighborhood. Picasso Avenue has a posted speed limit of 25 mph.

Mace Boulevard

Mace Boulevard is a two- to four-lane north-south major arterial. Mace Boulevard transitions from East Covell Boulevard at the Mace Curve and extends south with connections to I-80, South Davis, and points south. Mace Boulevard is four lanes on the segment between Alhambra Drive and Cowell Boulevard and two lanes north and south of this segment. Mace Boulevard has a posted speed limit of 40 mph.

State Route 113

SR 113 is a four-lane, north-south freeway that extends from I-80 at the Yolo/Solano County line north to I-5 in Woodland. SR 113 serves Davis via interchanges at Covell Boulevard and Russell Boulevard. Additional SR 113 interchanges within the vicinity of Davis include the Hutchison Drive interchange at the UC Davis campus and the CR 29 interchange in Yolo County. SR 113 and its interchanges are owned and operated by Caltrans.

Interstate 80

I-80 is an east-west interstate freeway south of the project site/BRPA site. From Davis, I-80 connects with the San Francisco Bay Area to the west and Sacramento and the Lake Tahoe Basin to the east. I-80 provides three travel lanes per direction in the vicinity of the site. I-80 serves Davis via interchanges at Mace Boulevard and Richards Boulevard. Additional I-80 interchanges within the vicinity of Davis include the Old Davis Road interchange at the UC Davis campus and the CR 32A interchange in Yolo County. I-80 and its interchanges are owned and operated by Caltrans.

Existing Pedestrian Facilities

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access the destinations such as institutions, businesses, public transportation, and recreation facilities. The City of Davis has an extensive system of off-street shared-use paths and sidewalks available for use by pedestrians, including the following existing facilities within the project site/BRPA site vicinity:

- North-south shared-use path situated on the east side of Pole Line Road, north of East Covell Boulevard. In the site vicinity, the shared-use path provides connections to paths into the Wildhorse and Green Meadows neighborhoods at Moore Boulevard, Nugget Fields, and Donner Avenue.
- North-south shared-use path situated on the west side of Pole Line Road along the Oak Tree Plaza shopping center frontage.
- East-west shared-use path situated on the north side of East Covell Boulevard along the following segments:
    - Between Pole Line Road and the easterly limits of the Wildhorse neighborhood. At its easterly terminus, the shared-use path segment connects to a grade-separated bicycle/pedestrian crossing underneath East Covell Boulevard, where the path continues south into the Mace Ranch greenbelt system.
    - Along the Cannery neighborhood frontage. At its westerly terminus, the path segment connects to a grade-separated bicycle/pedestrian crossing underneath

East Covell Boulevard, where the path continues south along H Street and then west through Little League Park towards Community Park and Davis Senior High School.
    - Between F Street and Risling Place. At the North Davis Greenbelt, the path segment connects with paths north into North Davis and to a grade-separated bicycle/pedestrian crossing over West Covell Boulevard south towards Community Park and Davis Senior High School.
- East-west shared-use path situated on the south side of East Covell Boulevard along the following segments:
    - Between Oak Avenue and Pole Line Road. The path segment diverts off of Covell Boulevard to cross F Street at a midblock crossing near the Davis Art Center and Little League Park. The path segment also connects to the grade-separated bicycle/pedestrian crossings across Covell Boulevard at the North Davis Greenbelt and at the Cannery; and
    - Between Poplar Lane and Harper Junior High School. The path segment connects to the grade-separated bicycle/pedestrian crossing under East Covell Boulevard located east of the Wildhorse neighborhood.
- North-south shared-use path situated on the east side of F Street between Faro Avenue and Little League Park. The path traverses underneath the East Covell Boulevard overcrossing over the Union Pacific Railroad (UPRR) tracks.
- Shared-use paths on the following roadways within the Cannery neighborhood:
    - Both sides of Cannery Avenue between Cannery Loop and East Covell Boulevard;
    - North side of the southerly east-west segment of Cannery Loop;
    - Around the periphery of the Cannery neighborhood; and
    - South side of Sparks Lane and Bringhurst Lane.
- Sidewalks on both sides of nearby collectors and arterials, including Pole Line Road (south of Oak Tree Plaza), Moore Boulevard, F Street, J Street, L Street, Grande Avenue, Anderson Road, and Picasso Avenue.
- Sidewalks on residential streets and several off-street paths within the Cannery, Wildhorse and other surrounding neighborhoods.

Pedestrian crossings of existing roadways serving the project site/BRPA site are accommodated as follows:

- At the Cannery Avenue/Cannery Loop intersection, marked crosswalks are present on all four intersection legs. The intersection is controlled by a roundabout.
- At the East Covell Boulevard/J Street intersection, marked crosswalks are present on all four intersection legs. The intersection is controlled by a traffic signal with pedestrian crossing signals.
- At the East Covell Boulevard/L Street intersection, marked crosswalks are present on the east, west and south legs of the intersection. The intersection is controlled by a traffic signal with pedestrian crossing signals.
- At the East Covell Boulevard/Pole Line Road intersection, marked crosswalks are present on the east and south legs of the intersection. The intersection is controlled by a traffic signal with pedestrian crossing signals.
- Marked crosswalks are not present across Pole Line Road at any intersections north of East Covell Boulevard, including Moore Boulevard, Donner Avenue, and Picasso Avenue. The Moore Boulevard intersection is all-way stop-controlled and the Donner Avenue and Picasso Avenue intersections are side-street stop-controlled.

Existing Bicycle Facilities

The project site/BRPA site is situated on the edge of the City of Davis bicycle network, which is comprised of an extensive network of on- and off-street bicycle facilities. Bicycle facilities are classified into four types, as described below:

- **Class I Multi-Use Off-Street Paths** (also known as shared-use paths) are paved trails that are separated from roadways, and allow for shared use by both cyclists and pedestrians;
- **Class II On-Street Bike Lanes** are designated for use by bicycles by striping, pavement legends, and signs;
- **Class III On-Street Bike Routes** are designated by signage for shared bicycle use with vehicles but do not necessarily include any additional pavement width for bicyclists.
- **Class IV Separated Bikeways** (also known as protected bikeways or cycle tracks) are separated bikeways designed to improve upon buffered bike lanes by providing vertical separation between bike lanes and the adjacent travel lanes. Vertical separation can be provided with concrete curb and gutter, bollards, or on-street parking.

Figure 4.13-2 displays existing bicycle facilities in the project site/BRPA site vicinity. In addition to the previously discussed shared-use paths, bicycle facilities are provided on the following roadways near the site:

- Class II bike lanes are provided in both directions on Pole Line Road, East Covell Boulevard, Moore Boulevard, F Street, J Street, L Street, Grande Avenue, Anderson Road, and Picasso Avenue; and
- Class III bike routes are provided on the southerly east-west and easterly north-south segments of Cannery Loop.

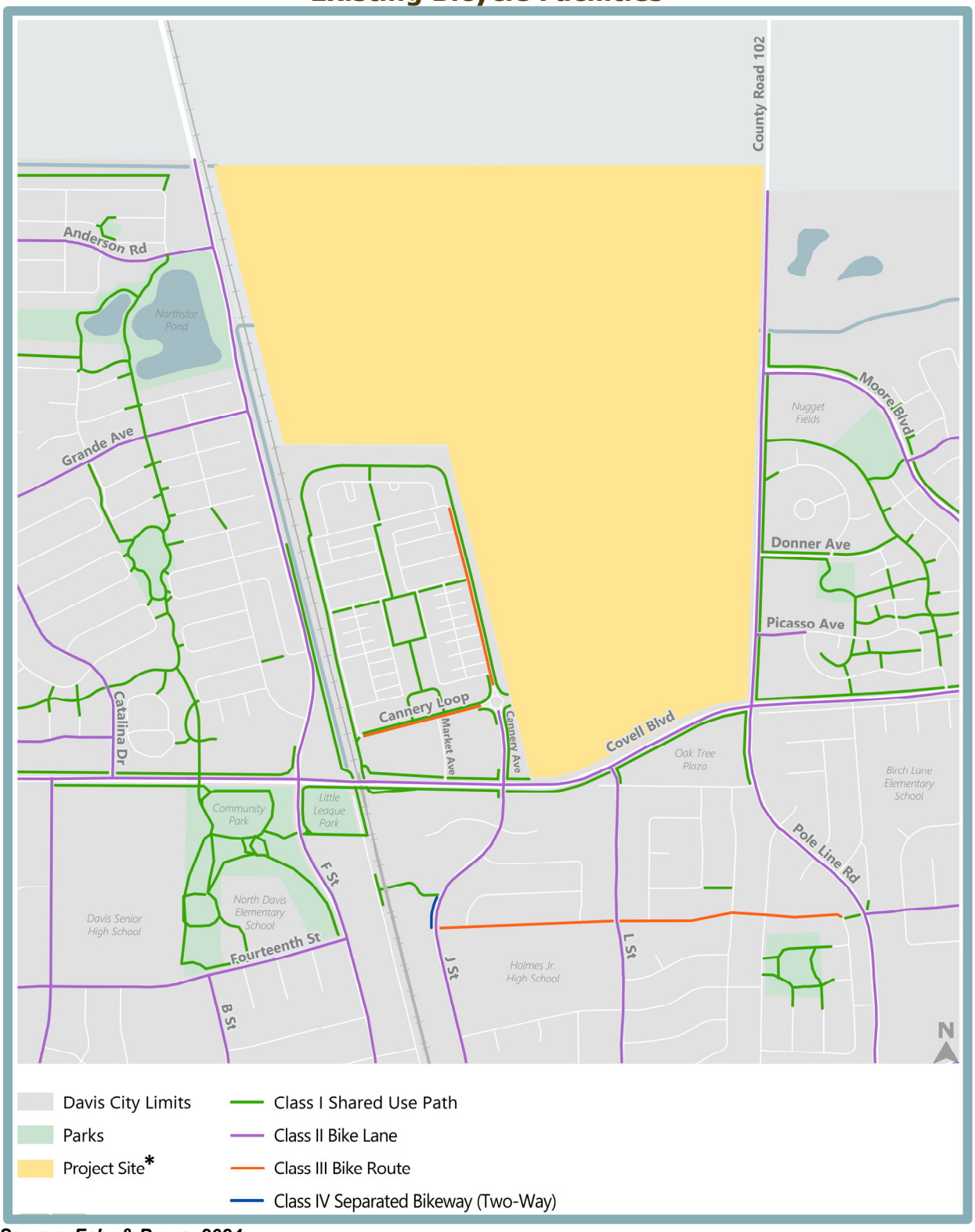
The East Covell Boulevard/J Street and East Covell Boulevard/L Street intersections are signalized protected intersections that provide physical separation for crossing bicyclists to minimize physical mixing with conflicting vehicular movements. The East Covell Boulevard/L Street intersection additionally provides exclusive bicycle crossing phases to separate bicyclists and vehicles in time.

East Covell Boulevard, which traverses the southerly project site/BRPA site boundary, is the only continuous east-west arterial that traverses the entire City of Davis. To facilitate bicycle and pedestrian travel across this roadway, the City of Davis has required the construction of bicycle/pedestrian grade separations for new developments located on the north side of Covell Boulevard. Existing grade separations on Covell Boulevard are located west of F Street, east of F Street (to/from The Cannery), and east of Monarch Lane. According to the City's General Plan, a future facility is planned on West Covell Boulevard east of Denali Drive.

Transit Service and Facilities

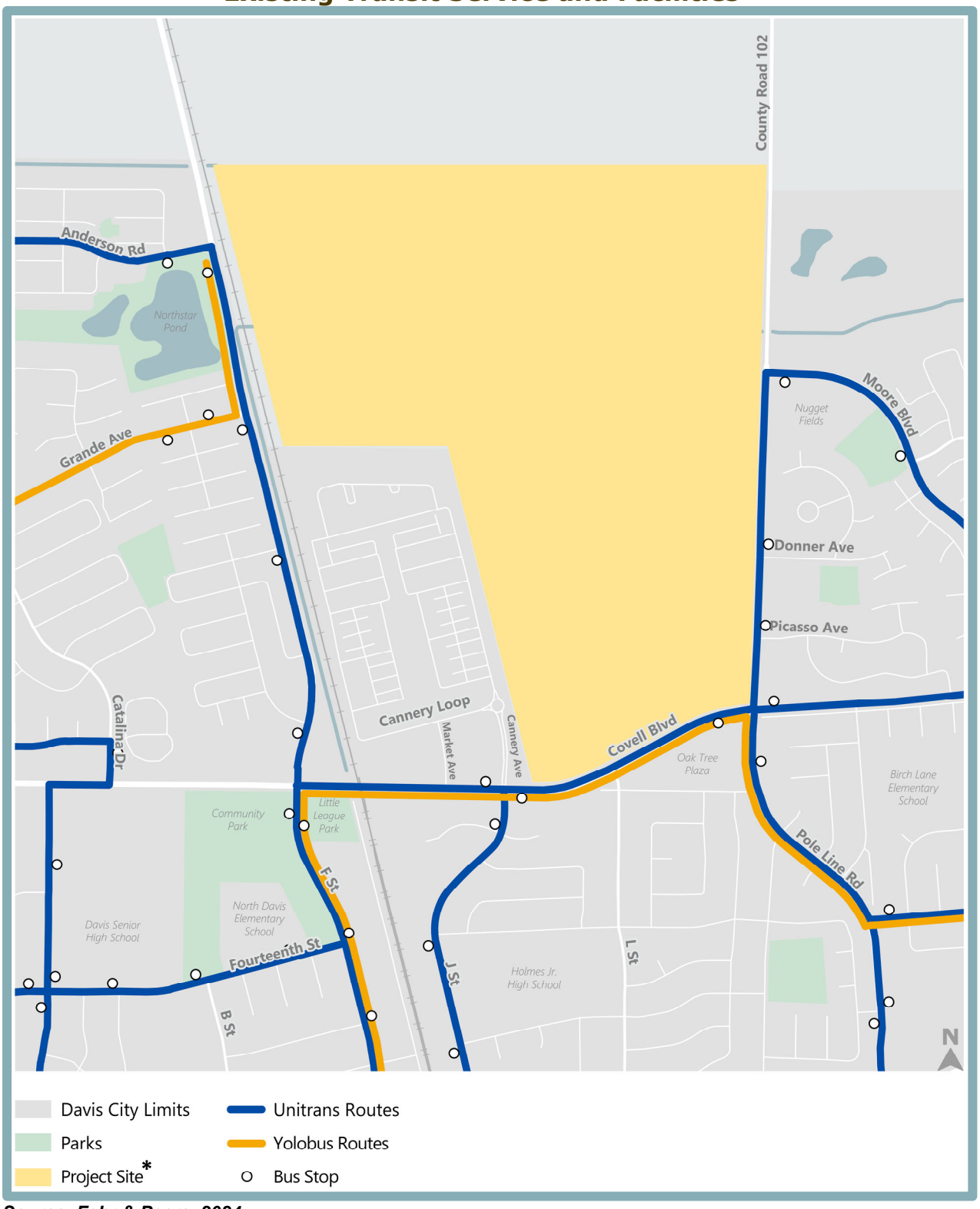
Transit serving the project site/BRPA site includes local bus service connecting the site to destinations throughout the City of Davis (e.g., Downtown Davis, the Davis Train Depot, etc.) and the UC Davis campus. Additionally, the site is served by an intercity bus service that is primarily oriented towards serving Davis residents commuting to and from work in Downtown Sacramento. Transit service in the City of Davis is provided by Unitrans (local bus), Yolobus (intercity bus), Amtrak (intercity rail), and Davis Community Transit (local paratransit) (see Figure 4.13-3).

Figure 4.13-2
Existing Bicycle Facilities



Source: Fehr & Peers, 2024.
** Not including the approximately 118-acre Urban Agricultural Transition Area.*

Figure 4.13-3
Existing Transit Service and Facilities



Source: Fehr & Peers, 2024.
** Not including the approximately 118-acre Urban Agricultural Transition Area.*

Unitrans

Unitrans provides local fixed route bus service to the project site/BRPA site. Jointly operated between the Associated Students, UC Davis (ASUCD) and the City of Davis, Unitrans offers 21 lines serving the UC Davis campus and City of Davis neighborhoods, shopping centers, schools, and medical centers. Unitrans operates as a radial bus system with the UC Davis campus serving as the central hub. The main terminals on the UC Davis campus are at the Memorial Union on Howard Way and at the Silo on Hutchison Drive.

Specific service spans and frequencies vary by route. Generally, Unitrans operates from 6:30 AM to 11:00 PM, Monday through Thursday, and until 9:00 PM on Fridays. Weekend service is available from 8:00 AM to 7:00 PM. Unitrans routes operate every 15 to 60 minutes during weekdays and every 60 minutes during weekends and evenings. Table 4.13-1 summarizes the weekday and weekend frequency and span for Unitrans bus routes serving the project site.

Table 4.13-1
Unitrans Route Summary – Project Site Vicinity

Route	Weekday		Friday		Weekend	
	Peak Frequency (min)	Span	Peak Frequency (min)	Span	Peak Frequency (min)	Span
E – Downtown/F Street/J Street	30	7 AM to 10 PM	30	7 AM to 8:30 PM	--	--
F – Oak/Anderson/F Street	30	7 AM to 8:30 PM	30	7 AM to 8:30 PM	--	--
L – East 8th/Pole Line/Moore/ Loyola	60	7 AM to 11 PM	60	7 AM to 9 PM	--	--
P – MU/Davis Perimeter CCW	30	6 AM to 11 PM	30	6 AM to 9 PM	60	8 AM to 7 PM
Q – MU/Davis Perimeter CW	30	6 AM to 11 PM	30	6 AM to 9 PM	60	8 AM to 7 PM
T – Davis High/Holmes & Harper Junior High	School Tripper – One Round Trip per Day				--	--

Notes: CCW = counterclockwise; CW = clockwise.

Source: Fehr & Peers, 2024.

The current Unitrans one-way fare is $1.25, with monthly, quarterly, and annual passes available at a discounted price. Free rides are available to UC Davis undergraduate students (fee assessed quarterly with registration), seniors, disabled passengers, City of Davis employees, and transferring Sacramento Regional Transit (SacRT), Yolobus, Capitol Corridor, and Fairfield Transit passengers.

The City of Davis Short Range Transit Plan indicates that 91 to 95 percent of all Unitrans riders are UC Davis undergraduate students, three to six percent of riders are UC Davis graduate students, and just over five percent of riders are not UC Davis affiliates.

Yolobus

Yolobus provides fixed route bus and paratransit service throughout Yolo County, as well as commuter bus service to downtown Sacramento. Single rides are available for $2.00, $2.25, and

$3.25 for local, intercity, and express services, respectively. Discounted daily and monthly passes are also available.

The project site/BRPA site is served by Yolobus express bus Route 43, which is oriented towards serving Davis residents working in Downtown Sacramento (i.e., morning service is eastbound-only, and afternoon/evening service is westbound-only).

Amtrak

Amtrak serves the Davis Transit Depot near Second and G Streets in downtown Davis, approximately 1.5 miles south of the project site/BRPA site. Amtrak Capitol Corridor service is available at the depot, connecting passengers to Sacramento and Roseville to the east and the Bay Area to the west. Currently, 12 daily Capitol Corridor roundtrips are available at the station during regular weekday service. In addition to regular Capitol Corridor service, Amtrak serves the Davis Transit Depot with daily Coast Starlight service (to Los Angeles and Seattle) and intercity bus connections to other Amtrak rail lines (e.g., the Amtrak San Joaquin lines at Sacramento Valley Station).

Figure 4.13-3 displays the bus stops and routes serving the project site/BRPA site vicinity. The primary bus stops serving the site are located on East Covell Boulevard (served by Unitrans Route P, Q, T and Yolobus Route 43) and on Pole Line Road (served by Unitrans Routes L and T).

Emerging Transportation Technology and Travel Options

Transportation and mobility are being transformed through a number of forces ranging from new technologies, different personal preferences, and the unique effects of the COVID-19 pandemic, the combination of which could alter traditional travel demand relationships in the near- and long-term. These disruptive trends increase uncertainty in forecasting future travel conditions, especially considering that new technologies such as automated vehicles (AVs) may be operating on future transportation networks once the project would be complete and operational. Information about how technology is affecting and will affect travel is accumulating over time.

- **COVID-19 pandemic**. The COVID-19 pandemic and subsequent actions by federal, State, and local governments to curtail mobility and encourage physical distancing (i.e., limit in-person economic and social interactions) temporarily but profoundly changed travel conditions. While travel activity has returned to some form of normality as the pandemic has subsided, it is possible that some of these temporary changes will influence people's travel choices into the future, including either accelerating or diminishing some of the emerging trends in transportation that were already underway prior to the pandemic. Some of the emergent changes already influencing travel behavior that could accelerate in the future include the following:

    - Substituting telework for in-office work/commute travel.
    - Substituting internet shopping and home delivery for some shopping or meal-related travel.
    - Substituting participating on social media platforms for social/recreational travel.
    - Substituting telemedicine appointments for eligible in-person medical appointments.

- **Using new travel modes and choices.** Transportation network companies such as Uber and Lyft, car sharing, bicycle/scooter sharing, and on-demand microtransit services have

increased the options available to travelers in the Sacramento area and have contributed to changes in traditional travel demand relationships. For example, combined bus and rail ridership on SacRT declined by approximately 19 percent between 2016 and 2019 (prior to the COVID-19 pandemic) and by approximately 54 percent between 2016 and 2022 (after the COVID-19 pandemic).The travel demand model used for the TIS, known as SACSIM19 and discussed in further detail below, was calibrated to 2016 conditions and may not fully capture all the factors influencing transit ridership declines today or in the future.

- **Automation of vehicles**. Both passenger vehicles and commercial vehicles and trucks are evolving to include more automation. Research, development, and deployment testing is proceeding on AVs; AVs do not require an operator and navigate roadways autonomously. Forecasts of how quickly research, development, and deployment testing will transition to full deployment and marketing of AVs vary widely both on the pace of the transition and the market acceptance of fully automated operation. More uncertainty exists around the behavioral response to AVs. In terms of VMT impacts on the transportation system and the environment, the worst-case scenario would be one in which AVs are privately owned, as they are now, but the automated function of AVs would cause them to be used more, as described below.

  AVs could be repositioned to serve different members of a household (e.g., have an AV drop a worker at their workplace, then drive back home empty to serve another trip such as taking a student to school). The repositioning of AVs could add significantly to traffic volumes and VMT.

  AVs could reduce the value travelers place on time spent in a vehicle, resulting in an increase in willingness to make longer trips. For example, if a person could read or do work in an AV instead of focusing on driving, they might be willing to commute longer distances to work. Conversely, a worker who would prefer to live in a rural area but is unwilling to drive far enough to act on that preference in a conventional vehicle may be willing to do so using an AV.

  AVs could increase willingness to drive more to avoid parking costs or tolls. For example, a person going to a sporting event in an area that charges for parking might use an AV to be dropped off at the venue, and then re-position and park the AV in an area that does not charge for parking.

- **Connected vehicles.** Connected vehicles (CVs) can communicate wirelessly with its surroundings, including other vehicles, bicyclists, pedestrians, roadway infrastructure (i.e., traffic signals, toll facilities, and traffic management facilities), and the internet. The influence that CVs may have is still speculative but includes potential for reductions in collisions and congestion and greater overall network performance optimization.

- **Navigation apps.** The increased prevalence and use of navigation apps (e.g., Google Maps, WAZE, etc.) in recent years provides motorists with real-time and predictive travel time information that can influence route selection. The use of navigation apps can result in changes to travel patterns and traffic volumes during different times of the day and days of the week, particularly during recurrent congested time periods or when incidents occur that affect travel times (e.g., a crash on the freeway that requires lane closures). Diverted

local and regional traffic can occur on roadways near the project site during extended periods of very low travel speeds on eastbound I-80 from the causeway, through Davis, and into Solano County. During congested conditions, low mainline travel speeds substantially increase travel times for motorists on eastbound I-80. Hence, diverting off of I-80 onto local roadways such as Covell Boulevard and Mace Boulevard often provides a faster alternative to remaining on the freeway through Davis. Similarly, locally generated traffic utilizing eastbound I-80 can experience faster travel times by accessing I-80 as far east as possible (e.g., motorists departing Downtown Davis for Sacramento accessing I-80 at Mace Boulevard or CR 32A instead of Richards Boulevard).

While the SACSIM19 model represents state of the practice or advance practice, travel behavior and the transportation systems are changing quickly in response to emerging trends, new technologies, and different preferences. The trajectory of deployment, market acceptance, and government regulation of the new travel options and technologies is difficult to predict, and such elements directly influence the inputs and algorithms for the SACSIM19 model. As such, SACSIM19 as a travel forecasting model has limitations in the ability to capture the full range of potential travel effects from emerging travel options and technologies.

The SACSIM19 model does include some scenario testing capabilities that can begin to test different hypotheses of aforementioned impacts, but until more research is done about the likely behavioral responses to new modes and technologies is completed, travel models cannot fully capture such changes in a reliable way. Initial testing of AVs effects using SACSIM19, such as lowering costs to use vehicles and making them more convenient by eliminating parking at trip ends, does generate increases in overall vehicle travel and reductions in transit ridership with all else being equal. The information suggests the model is sensitive to how cost and convenience influence travel behavior but within the limits of the observed data used to develop the model.

Vehicle Miles Traveled

VMT is a measure of the total amount of vehicle travel occurring on a given roadway system. VMT is a metric that accounts for the number of vehicle trips generated and the length or distance of those trips. For analysis purposes, VMT refers to automobile VMT, specifically passenger vehicles and light trucks; heavy truck traffic is typically excluded. VMT does not directly measure traffic operations; instead, VMT is a measure of transportation network use and efficiency, especially when expressed as a function of population (i.e., VMT per capita). The key VMT metric used for the following analysis is residential VMT per capita, which is defined as all automobile (i.e., passenger cars and light-duty trucks) vehicle-trips that start or end at the home, but non-home-based trips made by residents elsewhere on the network are excluded.

As a result of Senate Bill (SB) 743, passed in 2013, local jurisdictions may not rely on vehicle LOS and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA. Thus, consistent with the CEQA Guidelines, VMT is the primary metric used to identify transportation impacts to roadway systems within this chapter. The City of Davis has not yet adopted VMT procedures or standards.

The VMT estimates and forecasts contained in this analysis were obtained from the SACOG travel demand model, known as SACSIM19. According to SACSIM19, existing residential VMT per capita for the City of Davis and the Sacramento Area Council of Governments (SACOG) region is 30.1 and 21.7 VMT per capita, respectively. Residential VMT per capita generated by existing residential uses within the project site vicinity (e.g., the Cannery, North Davis, etc.) is

approximately 31 VMT per capita, three percent above the existing City average and 43 percent above the existing SACOG average. For reference, existing residential VMT per capita in more centrally located Davis neighborhoods such as Central Davis and Old East Davis measures in the range of 25 to 27 VMT per capita, while existing residential VMT per capita in more outlying areas such as Mace Ranch or South Davis measures in the range of 33 to 36 VMT per capita.

4.13.3 REGULATORY CONTEXT

The following is a description of the regulatory context under which transportation issues are managed at the State and local levels.

State Regulations

The following are the State environmental laws and policies relevant to transportation.

Assembly Bill 32

Assembly Bill (AB) 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that "(a) the statewide GHG emissions limit shall remain in effect unless otherwise amended or repealed; (b) it is the intent of the Legislature that the statewide GHG emissions limit continues in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020; and (c) the CARB shall make recommendations to the Governor and the Legislature on how to continue reductions of GHG emissions beyond 2020."

While AB 32 does not contain specific expectations related to individual land use projects, it does set statewide expectations for GHG reduction that have influenced VMT reduction expectations from land development projects as part of SB 375 and SB 743.

Senate Bill 375

SB 375 requires metropolitan planning organizations (MPO) to prepare a sustainable communities strategy (SCS) as part of their regional transportation plans (RTP). The SCS demonstrates how the region could meet its GHG reduction targets through integrated land use, housing, and transportation planning. Specifically, the SCS must identify land use and transportation strategies that combined with the RTP project list will reduce GHG emissions from automobiles and light trucks in accordance with targets set by the California Air Resources Board (CARB).

Senate Bill 743

SB 743 creates or encourages several statewide changes to the evaluation of transportation and traffic impacts under the CEQA. First, SB 743 directs the Governor's Office of Planning and Research (OPR), which has since been renamed to the Governor's Office of Land Use and Climate Innovation (LCI) to amend the CEQA Guidelines to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPA) and allows LCI to extend use of the new metrics beyond TPAs. In the amended CEQA Guidelines, LCI selected automobile VMT as the preferred transportation impact metric and applied their discretion to recommend its use statewide. The California Natural Resources Agency certified and adopted the amended CEQA Guidelines in December 2018. The amended CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts" and the provisions requiring the use of VMT apply statewide as of July 1, 2020. The amended CEQA Guidelines further state that land use "projects within 0.5 mile of either an existing major transit

stop or a stop along an existing high quality transit corridor should be presumed to cause a less-than-significant transportation impact."

SB 743 establishes that aesthetic and parking impacts of residential, mixed-use residential, or employment center projects on an infill site within a TPA are not considered significant impacts on the environment. SB 743 added Section 21099 to the California Public Resources Code (PRC), which states that automobile delay, as described by LOS or similar measures of vehicular capacity or traffic congestion, is not considered a significant impact on the environment upon certification of the CEQA Guidelines by the California Natural Resources Agency. Following certification of the amended CEQA Guidelines in December 2018, LOS or similar measures of vehicular capacity or traffic congestion are not considered a significant impact on the environment.

Finally, SB 743 establishes a CEQA exemption for residential, mixed-use, and employment center projects a) within transit priority areas, b) consistent with a specific plan for which an EIR has been certified, and c) consistent with a SCS. The exemption requires further review if the project or circumstances changes significantly.

Technical Advisory on Evaluating Transportation Impacts in CEQA

In December of 2018, the OPR (now LCI) published the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory), which is a guidance document to provide advice and recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. The Technical Advisory is intended to be a resource for the public to use at their discretion, and the LCI does not enforce any part of the recommendations contained therein. The Technical Advisory includes recommendations regarding methodology, screening thresholds, and recommended thresholds per land use type. Lead agencies may consider and use these recommendations at their discretion.

The Technical Advisory identifies screening thresholds to quickly identify when a project is expected to cause a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests that projects meeting one or more of the following criteria should be expected to have a less-than-significant impact on VMT:

- Small projects – Projects consistent with an SCS and local general plan that generate or attract fewer than 110 trips per day;
- Projects near major transit stops – Certain projects (residential, retail, office, or a mix of these uses) proposed within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor;
- Affordable residential development – A project consisting of a high percentage of affordable housing may be a basis to find a less-than-significant impact on VMT;
- Local-serving retail – Local-serving retail development tends to shorten trips and reduce VMT. The Technical Advisory encourages lead agencies to decide when a project will likely be local-serving, but generally acknowledges that retail development including stores larger than 50,000 square feet might be considered regional-serving. The Technical Advisory suggests lead agencies analyze whether regional-serving retail would increase or decrease VMT (i.e., not presume a less-than-significant impact); and
- Projects in low-VMT areas – Residential and office projects that incorporate similar features (i.e., density, mix of uses, transit accessibility) as existing development in areas with low VMT will tend to exhibit similarly low VMT.

The Technical Advisory also identifies recommended numeric VMT thresholds for residential, office, and retail projects, as described below:

- Residential development that would generate vehicle travel exceeding 15 percent below existing residential VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as a regional VMT per capita or as city VMT per capita;
- Office projects that would generate vehicle travel exceeding 15 percent below existing regional VMT per employee may indicate a significant transportation impact; and
- Retail projects that result in a net increase in total VMT may indicate a significant transportation impact.

For mixed-use projects, the Technical Advisory suggests either evaluating each component independently and applying the significance threshold for each project type included (e.g., residential and retail), or evaluating VMT associated only with the project's dominant use.

The Technical Advisory also provides guidance on impacts on transit. Specifically, the Technical Advisory suggests that lead agencies generally should not treat the addition of new transit users as an adverse impact. As an example, the Technical Advisory suggests that "an infill development may add riders to transit systems and the additional boarding and alighting may slow transit vehicles, but it also adds destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network."

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining the State Highway System (SHS), including in Yolo County. As part of these responsibilities, Caltrans reviews local development projects subject to CEQA to assess potential impacts on the SHS based on the following technical guidance.

Vehicle Miles Traveled-Focused Transportation Impact Study Guide

The VMT Focused Transportation Impact Study Guide (TISG) outlines how Caltrans will review land use projects with a focus on supporting State land use goals, State planning priorities, and GHG emissions reduction goals. The VMT TISG endorses OPR's (now LCI) Technical Advisory as the basis for transportation impact analysis methodology and thresholds, including the use of screening to streamline qualified projects because they help achieve the State's VMT reduction and mode shift goals.

Caltrans Safety Impact Guidance

The Caltrans Safety Impact Guidance provides technical instructions on how to evaluate potential safety impacts on the SHS. The guidance largely focuses on the actions of Caltrans district staff in performing the analysis and providing relevant impact information to lead agencies. The interim guidance recommends that safety analyses include a review of three primary elements related to transportation safety: design standard compliance, collision history, and collision risk (consistent with the Federal Highway Administration's Systemic Approach to Safety). The interim guidance does not establish specific analysis methods or significance thresholds for determining safety impacts under CEQA. Additionally, Caltrans notes that local agencies may use the interim guidance at their own discretion as a guide for review of local facilities.

Local Regulations and Policies

The following are applicable local regulations and policies relevant to transportation.

Sacramento Area Council of Governments

SACOG is an association of local governments from six counties and 22 cities within the Sacramento Region. The counties include El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba. SACOG is responsible for the preparation of, and updates to, the Metropolitan Transportation Plan (MTP)/SCS for the region. The MTP/SCS provides a 20-year transportation vision and corresponding list of projects. The 2020 MTP/SCS was adopted by the SACOG board in November 18, 2019.

The SACOG 2020 MTP/SCS provides the basis for air quality conformity findings related to the federal Clean Air Act and determinations of whether the region is complying with GHG reduction targets for automobiles and light trucks established under SB 375. Major projects that are inconsistent with the plan could jeopardize the plan's effectiveness for air pollution and GHG reduction. Consequently, consistency with the MTP/SCS is a potential basis for determining adverse impacts related to these environmental topics.

City of Davis General Plan

The City of Davis General Plan Transportation Element was updated in 2013. The following goals, performance objectives, policies, and actions related to transportation and circulation are applicable to the project:

Transportation Element

Goal #1 Davis will provide a comprehensive, integrated, connected transportation system that provides choices between different modes of transportation.

Performance Objective #1.1 Achieve at least the following mode share distribution for all trips by 2035:

- 10 percent of trips by walking;
- 10 percent of trips by public transportation; and
- 30 percent of trips by bicycle.

Performance Objective #1.2 Increase use of walking, bicycling, and public transportation to and from the following places:

- Work;
- Schools (elementary, junior high, and senior high);
- UC Davis; and
- Downtown.

Goal #2 The Davis transportation system will evolve to improve air quality, reduce carbon emissions, and improve public health by encouraging usage of clean, energy-efficient, active (i.e. human powered), and economically sustainable means of travel.

Policy TRANS 1.6	Reduce carbon emissions from the transportation system in Davis by encouraging the use of non-motorized and low carbon transportation modes.
Policy TRANS 2.1	Provide Complete Streets to meet the needs of drivers, public transportation vehicles and riders, bicyclists, and pedestrians of all ages and abilities in all transportation planning, programming, design, construction, reconstruction, retrofit, operations, and maintenance activities and products. The City shall view all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in Davis, and recognizes bicycle, pedestrian, fixed-route transit, and demand-response para-transit modes as integral elements of the transportation system along with motor vehicles.
Policy TRANS 2.2	Implement state-of-the-art street design solutions to improve bicycle/pedestrian access, comfort, and safety that may include: • Bicycle boxes at intersections; • Cycletracks; • Shared lane markings (sharrows); • Contraflow bicycle lanes; • Improved bicycle detection at intersections; • Two-stage turn queue boxes; • Colored bicycle lanes; and • Bicycle route wayfinding.
Policy TRANS 2.3	Apply best practices in sustainability to new streets and redesigns of existing streets/corridors.
Policy TRANS 2.4	As part of the initial project review for any new project, a project-specific traffic study may be required. Studies shall identify impacted transportation modes and recommend mitigation measures designed to reduce these impacts to acceptable levels.
Policy TRANS 2.5	Create a network of street and bicycle facilities that provides for multiple routes between various origins and destinations.
Policy TRANS 2.6	Maintain existing bicycle facilities in good repair.
Policy TRANS 2.7	Minimize impacts of vehicle traffic on local streets to maintain or enhance livability of the neighborhoods. Consider traffic calming measures along collector

		and minor arterial streets, where appropriate and feasible, to slow speeds.
	Policy TRANS 2.8	Improve the function, safety, and appearance of selected corridors as illustrated.
	Policy TRANS 2.10	Prohibit through truck traffic on streets other than identified truck routes shown in the Transportation Element.
	Policy TRANS 3.1	Facilitate the provision of convenient, reliable, safe, and attractive fixed route, commuter, and demand responsive public transportation that meets the needs of the Davis community, including exploring innovative methods to meet specialized transportation needs.
	Policy TRANS 3.3	Require new development to be designed to maximize transit potential.
Goal #4	Davis will strengthen its status as a premier bicycling community in the nation by continuing to encourage bicycling as a healthy, affordable, efficient, and low-impact mode of transportation accessible to riders of all abilities, and by continuously improving the bicycling infrastructure.	
	Policy TRANS 4.2	Develop a continuous trails and bikeway network for both recreation and transportation that serves the Core, neighborhoods, neighborhood shopping centers, employment centers, schools and other institutions; minimize conflicts between pedestrians, bicyclists, equestrians, and automobiles; and minimize impacts on wildlife. Greenbelts and separated bike paths on arterials should serve as the backbone of much of this network.
	Policy TRANS 4.5	Establish and implement bicycle parking standards for new developments and significant redevelopment.
	Policy TRANS 4.7	Develop a system of trails around the edge of the City and within the City for recreational use and to allow pedestrians and bicyclists to reach open space and natural areas.
	Policy TRANS 4.10	Maintain existing bicycle paths in good repair.
	Policy TRANS 5.1	Use parking management techniques to efficiently manage motor vehicle parking supply and promote sustainability.

Policy TRANS 5.2	Existing and future off-street parking lots in development should contribute to the quality of the urban environment and support the goals of this chapter to the greatest extent possible.

Beyond Platinum Bicycle Action Plan

The City of Davis Beyond Platinum Bicycle Action Plan (Bicycle Action Plan), adopted in 2014, includes discussions regarding goals and objectives, bicycle facility guidelines, engineering standards, and implementation and funding.[4] Appendix C of the Bicycle Action Plan includes a variety of proposed bicycle facilities throughout the City, including the following proposed bicycle facility enhancements within the vicinity of the project site/BRPA site:

- Buffered bike lanes on East Covell Boulevard between F Street and Birch Lane (now completed in the westbound direction between Pole Line Road and J Street/Cannery Avenue) and on J Street between East Covell Boulevard and Eighth Street.
- Bike lanes on L Street between East Covell Boulevard and Eighth Street (now completed).
- Bike lane conflict markings (green) at the East Covell Boulevard/F Street (now completed) and at the East Covell Boulevard/Pole Line Road intersections.
- Bike/ped crossing markings on East Covell Boulevard at the Oak Tree Plaza driveways.
- Bike intersection crossing markings at East Covell Boulevard/Birch Lane intersection.
- Shared lane markings (green) on Birch Lane between East Covell Boulevard and Pole Line Road.

East Covell Corridor Plan

The East Covell Corridor Plan (ECCP)[5], completed in 2014, identifies multimodal transportation improvements that enhance safety, circulation, and access on East Covell Boulevard between F Street and Birch Lane. Specific improvements identified in the ECCP relevant to the Proposed Project and the BRPA include the following:

- At the East Covell Boulevard/F Street intersection, eliminate channelized right-turn lanes and construct right-turn pockets for the northbound, eastbound, and westbound approaches;
- Construct a new grade-separated crossing within the vicinity of J Street or L Street (now completed);
- At the East Covell Boulevard/J Street intersection, eliminate channelized right-turn lanes and construct a new north leg to provide access to the future development to the north (now completed);
- At the East Covell Boulevard/L Street intersection, eliminate channelized right-turn lanes, construct right-turn pockets for the eastbound and northbound approaches, and install a new traffic signal (now completed);
- At the East Covell Boulevard/Pole Line Road intersection, eliminate channelized right-turn lanes and construct a right-turn pocket for the westbound approach;
- At the East Covell Boulevard/Birch Lane intersection, install new high visibility bicycle and pedestrian crossing markings to facilitate north-south movements across East Covell Boulevard and Denison Drive;

[4] City of Davis. *Beyond Platinum Bicycle Action Plan*. February 2014.
[5] City of Davis. *East Covell Corridor Plan*. March 27, 2014.

- Construct a new shared-use path on the north side of East Covell Boulevard between J Street and Pole Line Road. This project is included in the City's Capital Improvement Program as project ET8289; and
- Install bicycle conflict markings where the existing shared-use path on the south side of East Covell Boulevard intersects with Oak Tree Plaza shopping center driveways.

4.13.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology utilized to analyze and determine the Proposed Project and the BRPA's potential impacts related to transportation and circulation.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the Proposed Project and the BRPA would be considered to result in a significant adverse impact on the environment in relation to transportation and circulation if they would result in any of the following:

- Conflict with a program, plan, ordinance, or policy, addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards to vehicle safety due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

VMT Standards of Significance

As of November 2024, the City of Davis has not adopted VMT procedures standards. Therefore, the VMT analysis within this chapter relies on guidance from the OPR (now LCI) Technical Advisory. Pursuant to the Technical Advisory, the Proposed Project and the BRPA would result in a significant VMT impact if it would cause the following:

- The residential component would generate residential VMT per capita exceeding 15 percent below baseline local or regional residential VMT per capita for residential uses.

The Proposed Project and the BRPA's residential uses represent the dominant uses and would be responsible for the vast majority of external vehicle trips (over 85 percent of daily trips) and VMT that would be generated by the Proposed Project or the BRPA. Therefore, consistent with the Technical Advisory, Fehr & Peers determined that it is appropriate to evaluate project VMT impacts associated with the proposed residential component only. As discussed above, according to the TIS, the existing residential VMT per capita for the City of Davis and the SACOG region is 30.1 and 21.7 VMT per capita, respectively. Therefore, the Proposed Project and the BRPA would result in a significant impact if it would generate residential VMT per capita exceeding 15 percent below either the baseline City average or regional average VMT per capita for residential uses (i.e., 25.6 and 18.5 VMT per capita, respectively).

Method of Analysis

The analysis methodology provided in the TIS prepared for the Proposed Project and the BRPA by Fehr & Peers is discussed below.

Project Trip Generation

The TIS used the MXD+ mixed-use trip generation tool to estimate vehicle trip generation, including internal trip capture that would result from complementary land uses within the project site/BRPA site. In addition, the TIS trip generation analysis accounts for pass-by trip reductions associated with the Neighborhood Mixed-Use components of the Proposed Project and the BRPA. Pass-by trips represent existing vehicle trips on the roadway network that would travel to and from a new trip generator. For the purposes of this analysis, a pass-by trip percentage of 40 percent is applied to external vehicle trips generated by the Neighborhood Mixed-Use project component.

Prior to 2007, conventional methods available to transportation engineers systematically overestimated the trips generated by and impacts of mixed-use development because they did not accurately reflect the amount of internal trip linking or the level of external trips made by transit, biking, and/or walking. This resulted in increased development costs due to oversized infrastructure, skewed public perception, and resistance to approving smart growth. While the Institute of Transportation Engineers (ITE) Trip Generation Handbook does include a methodology for estimating internal trips, it only applies to AM and PM peak hour conditions and has been shown to be less accurate than more academically-oriented efforts.

In the early 2000's, two significant research studies provided the opportunity to improve the state of practice. One study sponsored by the U.S. Environmental Protection Agency (EPA) (MXD) and another by the Transportation Research Board (NCHRP 684) have developed means to improve trip generation estimation for mixed-use development (MXD). The two studies examined over 240 mixed-use development sites throughout the U.S. and, using different approaches, developed new quantification methods. Fehr & Peers has reviewed the two methods, including the basis, capabilities, and appropriate uses of each, to produce a new method, MXD+, that combines the strengths of the two individual tools to establish a new best practice. MXD+ recognizes that traffic generation by mixed-use and other forms of sustainable development relate closely to the density, diversity, design, destination accessibility, transit proximity, and scale of development.

The MXD+ method explains 97 percent of the variation in trip generation among mixed-use developments, compared to 65 percent for the methods previously recommended by ITE. While remaining slightly (two to four percent) conservative to avoid systematically understating impacts, it substantially reduces the 35 to 37 percent average overestimate of traffic generation produced by conventional ITE methods.

MXD+ improves the accuracy of impact estimation and gives planners a tool to rationally balance land use mix and to incorporate urban design, context compatibility, and transit orientation to create lower impact development. Inputs for the MXD+ tool include the types and quantities of project land uses, in accordance with land use categories included in the ITE Trip Generation Manual, 11th Edition. Table 4.13-2 summarizes the individual land uses of the Proposed Project consistent with Table 3-1 and Table 3-2 in Chapter 3, Project Description, of this EIR, as well as their corresponding ITE land use type, code, and quantity used in this analysis; Table 4.13-3 provides the same information for the BRPA land uses, consistent with Table 3-3 and Table 3-4 in Chapter 3 of this EIR. Information needed to identify the appropriate ITE residential land use categories was verified by City of Davis staff and the project applicant team, including the anticipated number of floors for the project's multifamily units and the number of single-family units that would be attached or detached.

Table 4.13-2
Proposed Project Land Uses

Proposed Land Uses				Transportation Analysis Land Use Inputs	
Neighborhood/Land Use Designation		**Land Use Type**	**Quantity[1]**	**ITE Land Use Category (Type and Code)**	**Quantity[1]**
North, East, and South Villages	Residential Low Density	Market-Rate Single-Family Units and Duplexes	680 DU	Single Family Detached Housing (210)	640 DU
				Single Family Attached Housing (215)	40 DU
Central Village and Parkside Village East	Residential Medium Density	Starter Single-Family Units	310 DU	Single Family Detached Housing (210)[2]	310 DU
		Townhomes and Cottages	160 DU	Single Family Attached Housing (215)	160 DU
Parkside Village West	Residential Medium Density	Condominiums and Stacked Flats	150 DU	Multifamily Housing Low Rise (220)	150 DU
West Park Village North	Residential Medium Density	Affordable Multifamily Units	60 DU	Affordable Housing Income Limits (223)	60 DU
North Park Apartments	Residential Medium High Density	Market Rate Apartments	200 DU	Multifamily Housing Low Rise (220)	200 DU
West Park Village South	Residential High Density	Affordable Multifamily Units	240 DU	Affordable Housing Income Limits (223)	240 DU
Neighborhood Mixed-Use		Neighborhood Services	2.8 Acres	Strip Retail Plaza (822)	30.5 KSF[3]
Public/Semi Public		Fire Station	2.5 Acres	Fire and Rescue Station (575)[4]	32.1 KSF[5]
		Pre-K Early Learning Center	2.4 Acres	Day Care Center (565)	17.7 KSF[6]
Parks/Recreation		Heritage Oak Park	20.3 Acres	Public Park (411)	20.3 Acres
		Village Trails Park	7.5 Acres	Public Park (411)	7.5 Acres

[1] DU = Dwelling Unit. KSF = 1,000 square feet.
[2] Starter single family units would be affordable-by-design, detached homes developed and sold through a Developer Contribution Program (DCP). The ITE Trip Generation Manual does not include a land use category for affordable single family detached homes. Therefore, this analysis adjusts the trip rates for ITE land use category Single Family Detached Housing (210) based on the ratios of daily, AM peak hour, and PM peak hour trip rates for ITE land use categories Multifamily Housing Low Rise (220) and Affordable Housing Income Limits (223), applied to trip rates for ITE land use category Single Family Detached Housing (210).
[3] Estimated using a floor area ratio (FAR) of 0.25 applied to the 2.8-acre site.
[4] The ITE Trip Generation Manual does not include daily or AM peak hour trip rates for land use category Fire and Rescue Station (575). Therefore, this analysis estimates daily and AM peak hour trip generation for this land use using the daily-to-PM peak hour and AM peak hour-to-PM peak hour ratio of trip rates for ITE land use category Free Standing Emergency Room (650), applied to the PM peak hour trip rate for Fire and Rescue Station (575).
[5] Estimated using an FAR of 0.30 applied to the 2.5-acre site. FAR derived from weighted average FAR for existing City of Davis Fire Stations 31, 32, and 33.
[6] Estimated using an FAR of 0.17 applied to the 2.4-acre site. FAR derived from weighted average FAR for existing preschool and day care facilities in Davis, including Peregrine School on Lillard Drive, Merryhill Preschool on La Vida Way, and Redbud Montessori on Patwin Road.

Source: Fehr & Peers, 2024.

Table 4.13-3
BRPA Land Uses

BRPA Project Description			Transportation Analysis Land Use Inputs	
Land Use Type		**Quantity[1]**	**ITE Land Use Category (Type and Code)**	**Quantity[1]**
Residential Dwelling Units		1,800 DU	Single Family Detached Housing (210)	1,230 DU
			Single Family Detached Housing (210)[2]	90 DU
			Single Family Attached Housing (215)	120 DU
			Multifamily Housing Low Rise (220)	90 DU
			Affordable Housing Income Limits (223)	270 DU
Neighborhood Mixed-Use	Neighborhood Services	2.8 Acres	Strip Retail Plaza (822)	30.5 KSF[3]
Public/Semi Public	Fire Station	2.5 Acres	Fire and Rescue Station (575)[4]	32.1 KSF[5]
	Pre-K Early Learning Center	2.4 Acres	Day Care Center (565)	17.7 KSF[6]
Parks/Recreation	Heritage Oak Park	20.3 Acres	Public Park (411)	20.3 Acres
	Village Trails Park	7.5 Acres	Public Park (411)	7.5 Acres

1 DU = Dwelling Unit. KSF = 1,000 square feet.
2 Starter single family units would be affordable-by-design, detached homes developed and sold through a Developer Contribution Program (DCP). The ITE Trip Generation Manual does not include a land use category for affordable single family detached homes. Therefore, this analysis adjusts the trip rates for ITE land use category Single Family Detached Housing (210) based on the ratios of daily, AM peak hour, and PM peak hour trip rates for ITE land use categories Multifamily Housing Low Rise (220) and Affordable Housing Income Limits (223), applied to trip rates for ITE land use category Single Family Detached Housing (210).
3 Estimated using a floor area ratio (FAR) of 0.25 applied to the 2.8-acre site.
4 The ITE Trip Generation Manual does not include daily or AM peak hour trip rates for land use category Fire and Rescue Station (575). Therefore, this analysis estimates daily and AM peak hour trip generation for this land use using the daily-to-PM peak hour and AM peak hour-to-PM peak hour ratio of trip rates for ITE land use category Free Standing Emergency Room (650), applied to the PM peak hour trip rate for Fire and Rescue Station (575).
5 Estimated using an FAR of 0.30 applied to the 2.5-acre site. FAR derived from weighted average FAR for existing City of Davis Fire Stations 31, 32, and 33.
6 Estimated using an FAR of 0.17 applied to the 2.4-acre site. FAR derived from weighted average FAR for existing preschool and day care facilities in Davis, including Peregrine School on Lillard Drive, Merryhill Preschool on La Vida Way, and Redbud Montessori on Patwin Road.

Source: Fehr & Peers, 2024.

Using the methods described above, Table 4.13-4 summarizes the estimated weekday and peak hour trip generation for the Proposed Project. As shown therein, the Proposed Project would generate an estimated 13,885 net new daily trips, 1,089 net new AM peak hour trips, and 1,471 net new PM peak hour trips during a typical weekday. Similarly, Table 4.13-5 summarizes the estimated weekday and peak hour trip generation for the BRPA. As shown therein, the BRPA would generate an estimated 15,415 net new daily trips, 1,199 net new AM peak hour trips, and 1,631 net new PM peak hour trips during a typical weekday.

Bicycle, Walking, and Transit Trip Reductions

The TIS used the U.S. Census Bureau American Community Survey (ACS) for journey to work mode share data to estimate external peak hour commute vehicle trip reductions attributable to bicycle, pedestrian, and transit (i.e., non-auto) trips associated with the Proposed Project and BRPA. Because trip rates from the ITE Trip Generation Handbook are derived from survey sites nationwide, the process of calculating mode share requires accounting for local and national commute mode share patterns, as follows:

1. Calculate non-auto journey to work mode share for existing residential neighborhoods near the project site/BRPA site with similar land use and transportation system characteristics.
2. Calculate non-auto journey to work mode share for the United States.
3. Calculate the difference between local and national non-auto journey to work mode share.
4. Apply the local/national non-auto mode share difference to the raw external peak hour vehicle trip estimates attributable to home-based-work trips generated by the proposed residential uses.

Table 4.13-6 summarizes the non-auto journey to work mode share used in the TIS analysis.

VMT Analysis

As discussed above, the VMT impact analysis relies on guidance provided in the OPR (now LCI) Technical Advisory. Fehr & Peers determined that because neither the Proposed Project nor the BRPA qualify for any of the screening criteria, a quantitative VMT analysis is necessary.

The SACOG SASCIM19 travel demand model was utilized to derive VMT estimates for the Proposed Project and the BRPA. The SACSIM19 model is a sophisticated activity-based model that predicts the travel demand and travel patterns for residents, workers, students, visitors, and commercial vehicles throughout the SACOG region. The model requires inputs such as population and employment to represent the land use and transportation network associated with each scenario. For the purposes of this analysis, the base year SACSIM19 model was refined to include traffic analysis zone (TAZ) splits, land use inputs, and centroid connectors that align with the various land use components and access locations of the project. Proposed Project and BRPA land uses were incorporated by updating the parcel, household, and synthetic population inputs in the SACSIM19 model.

For the residential component VMT analysis, the SACSIM19 model was utilized to estimate residential VMT per capita that would be generated by the residential component of the Proposed Project and the BRPA. Residential VMT includes all automobile (i.e., passenger cars and light-duty trucks) vehicle-trips that are traced back to the residence of the trip-maker. Residential VMT includes all vehicle “tours” (both work/commute vehicle tours and non-work vehicle tours) that start and end at residential units. VMT from these tours are summed to the home location.

Table 4.13-4
Proposed Project Vehicle Trip Generation

Land Use	ITE Code	Units	Quantity	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Net New Uses										
Single-Family Detached (Market Rate)	210[1]	Dwelling Units	640	6,035	116	332	448	379	223	602
Single-Family Detached (Starter Home)	210[2]	Dwelling Units	310	2,086	61	135	196	155	108	263
Single-Family Attached	215[3]	Dwelling Units	200	1,440	30	66	96	65	49	114
Multifamily Housing Low Rise	220[4]	Dwelling Units	350	2,359	34	106	140	113	66	179
Affordable Housing	223[5]	Dwelling Units	300	1,443	31	77	108	81	57	138
Public Park	411[6]	Acres	27.8	22	1	0	1	2	1	3
Day Care Center	565[7]	1,000 sf	17.7	843	103	92	195	93	104	197
Fire and Rescue Station	575[8]	1,000 sf	32.1	252	6	5	11	4	11	15
Strip Retail Plaza	822[9]	1,000 sf	30.5	1,517	43	29	72	101	101	202
			Raw External Vehicle Trips	*15,997*	*425*	*842*	*1,267*	*993*	*720*	*1,713*
Reductions										
			Internal Capture[10]	-1,268	-40	-80	-120	-74	-54	-128
			External Walk, Bike, and Transit[11]	-285	-5	-27	-32	-25	-15	-40
			Retail Pass-By[12]	-559	-16	-10	-26	-37	-37	-74
			Total Reductions	*-2,112*	*-61*	*-117*	*-178*	*-136*	*-106*	*-242*
			Net New External Vehicle Trips	**13,885**	**364**	**725**	**1,089**	**857**	**614**	**1,471**

1 ITE Trip Generation land use category (210) Single-Family Detached Housing (Adj Streets, 7-9A, 4-6P).
Daily: T = 9.43(X)
AM Peak Hour: T = 0.70(X) (25% in, 75% out)
PM Peak Hour: T = 0.94(X) (63% in, 37% out)

2 ITE Trip Generation land use category (210) Single-Family Detached Housing (Adj Streets, 7-9A, 4-6P), with adjustments for affordability. This analysis adjusts the trip rates for ITE land use category Single Family Detached Housing (210) based on the ratios of daily, AM peak hour, and PM peak hour trip rates for ITE land use categories Multifamily Housing Low Rise (220) and Affordable Housing Income Limits (223), applied to trip rates for ITE land use category Single Family Detached Housing (210).
Daily: T = 6.73(X)
AM Peak Hour: T = 0.63(X) (31% in, 69% out)
PM Peak Hour: T = 0.85(X) (59% in, 41% out)

3 ITE Trip Generation land use category (215) Single-Family Attached Housing (Adj Streets, 7-9A, 4-6P)
Daily: T = 7.20(X)
AM Peak Hour: T = 0.48(X) (31% in, 69% out)
PM Peak Hour: T = 0.57(X) (57% in, 43% out)

4 ITE Trip Generation land use category (220) Multifamily Housing (Low-Rise) Not Close to Rail Transit (Adj Streets, 7-9A, 4-6P)

Table 4.13-4
Proposed Project Vehicle Trip Generation

Daily: T = 6.74(X)
AM Peak Hour: T = 0.40(X) (20% in, 80% out)
PM Peak Hour: T = 0.51(X) (65% in, 35% out)

[5] ITE Trip Generation land use category (223) Affordable Housing - Income Limits (Adj Streets, 7-9A, 4-6P)
Daily: T = 4.81(X)
AM Peak Hour: T = 0.36(X) (29% in, 71% out)
PM Peak Hour: T = 0.46(X) (59% in, 41% out)

[6] ITE Trip Generation land use category (411) - Public Park (Adj Streets, 7-9A, 4-6P)
Daily: T = 0.78(X)
AM Peak Hour: T = 0.02(X) (56% in, 44% out)
PM Peak Hour: T = 0.11(X) (57% in, 43% out)

[7] ITE Trip Generation land use category (565) Day Care Center (Adj Streets, 7-9A, 4-6P)
Daily: T = 47.62(X)
AM Peak Hour: T = 11.00(X) (53% in, 47% out)
PM Peak Hour: T = 11.12(X) (47% in, 53% out)

[8] ITE Trip Generation land use category (575) Fire and Rescue Station (Adj Streets, 7-9A, 4-6P), with adjustments for daily and AM peak hour trip rates. This analysis estimates daily and AM peak hour trip generation for this land use using the daily-to-PM peak hour and AM peak hour-to-PM peak hour ratio of trip rates for ITE land use category Free Standing Emergency Room (650), applied to the PM peak hour trip rate for Fire and Rescue Station (575).
Daily: T = 7.85(X)
AM Peak Hour: T = 0.34(X) (55% in, 45% out)
PM Peak Hour: T = 0.47(X) (29% in, 71% out)

[9] ITE Trip Generation land use category (822) Strip Retail Plaza (<40k) (Adj Streets, 7-9A, 4-6P)
Daily: T = 42.20(X) + 229.68
AM Peak Hour: T = 2.36(X) (60% in, 40% out)
PM Peak Hour: T = 6.59(X) (50% in, 50% out)

[10] Internal capture reductions based on application of MXD+ model: Daily = 7.9%, AM Peak Hour = 9.5%, PM Peak Hour = 7.5%.

[11] External walk, bike, and transit trip reductions based on MXD+ model for daily trips and US Census Bureau ACS journey to work data for AM and PM peak hour trips: Daily = 1.8%, AM Peak Hour = 2.5%, PM Peak Hour = 2.3%.

[12] External retail pass-by trip reductions (40%) derived from *2021 Pass-By Tables for ITE Trip Generation Appendices* for ITE land use category Shopping Plaza (821).

Source: Fehr & Peers, 2024.

Table 4.13-5
BRPA Vehicle Trip Generation

Land Use	ITE Code	Units	Quantity	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Net New Uses										
Single-Family Detached (Market Rate)	210[1]	Dwelling Units	1,230	11,599	224	637	861	728	428	1,156
Single-Family Detached (Starter Home)	210[2]	Dwelling Units	90	606	18	40	58	45	32	77
Single-Family Attached	215[3]	Dwelling Units	120	864	18	40	58	39	29	68
Multifamily Housing Low Rise	220[4]	Dwelling Units	90	607	9	27	36	29	17	46
Affordable Housing	223[5]	Dwelling Units	270	1,299	28	69	97	73	51	124
Public Park	411[6]	Acres	27.8	22	1	0	1	2	1	3
Day Care Center	565[7]	1,000 Sq. Ft. GLA	17.7	843	103	92	195	93	104	197
Fire and Rescue Station	575[8]	1,000 Sq. Ft. GLA	32.1	252	6	5	11	4	11	15
Strip Retail Plaza	822[9]	1,000 Sq. Ft. GLA	30.5	1,517	43	29	72	101	101	202
			Raw External Vehicle Trips	*17,609*	*450*	*939*	*1,389*	*1,114*	*774*	*1,888*
Reductions										
			Internal Capture[10]	-1,370	-41	-87	-128	-81	-57	-138
			External Walk, Bike, and Transit[11]	-264	-5	-31	-36	-28	-15	-43
			Retail Pass-By[12]	-560	-16	-10	-26	-38	-38	-76
			Total Reductions	*-2,194*	*-62*	*-128*	*-190*	*-147*	*-110*	*-257*
			Net New External Vehicle Trips	**15,415**	**388**	**811**	**1,199**	**967**	**664**	**1,631**

1 ITE Trip Generation land use category (210) Single-Family Detached Housing (Adj Streets, 7-9A, 4-6P).
Daily: T = 9.43(X)
AM Peak Hour: T = 0.70(X) (25% in, 75% out)
PM Peak Hour: T = 0.94(X) (63% in, 37% out)

2 ITE Trip Generation land use category (210) Single-Family Detached Housing (Adj Streets, 7-9A, 4-6P), with adjustments for affordability. This analysis adjusts the trip rates for ITE land use category Single Family Detached Housing (210) based on the ratios of daily, AM peak hour, and PM peak hour trip rates for ITE land use categories Multifamily Housing Low Rise (220) and Affordable Housing Income Limits (223), applied to trip rates for ITE land use category Single Family Detached Housing (210).
Daily: T = 6.73(X)
AM Peak Hour: T = 0.63(X) (31% in, 69% out)
PM Peak Hour: T = 0.85(X) (59% in, 41% out)

3 ITE Trip Generation land use category (215) Single-Family Attached Housing (Adj Streets, 7-9A, 4-6P)
Daily: T = 7.20(X)
AM Peak Hour: T = 0.48(X) (31% in, 69% out)
PM Peak Hour: T = 0.57(X) (57% in, 43% out)

4 ITE Trip Generation land use category (220) Multifamily Housing (Low-Rise) Not Close to Rail Transit (Adj Streets, 7-9A, 4-6P)

Table 4.13-5
BRPA Vehicle Trip Generation

Daily: T = 6.74(X)
AM Peak Hour: T = 0.40(X) (20% in, 80% out)
PM Peak Hour: T = 0.51(X) (65% in, 35% out)

[5] ITE Trip Generation land use category (223) Affordable Housing - Income Limits (Adj Streets, 7-9A, 4-6P)
Daily: T = 4.81(X)
AM Peak Hour: T = 0.36(X) (29% in, 71% out)
PM Peak Hour: T = 0.46(X) (59% in, 41% out)

[6] ITE Trip Generation land use category (411) - Public Park (Adj Streets, 7-9A, 4-6P)
Daily: T = 0.78(X)
AM Peak Hour: T = 0.02(X) (56% in, 44% out)
PM Peak Hour: T = 0.11(X) (57% in, 43% out)

[7] ITE Trip Generation land use category (565) Day Care Center (Adj Streets, 7-9A, 4-6P)
Daily: T = 47.62(X)
AM Peak Hour: T = 11.00(X) (53% in, 47% out)
PM Peak Hour: T = 11.12(X) (47% in, 53% out)

[8] ITE Trip Generation land use category (575) Fire and Rescue Station (Adj Streets, 7-9A, 4-6P), with adjustments for daily and AM peak hour trip rates. This analysis estimates daily and AM peak hour trip generation for this land use using the daily-to-PM peak hour and AM peak hour-to-PM peak hour ratio of trip rates for ITE land use category Free Standing Emergency Room (650), applied to the PM peak hour trip rate for Fire and Rescue Station (575).
Daily: T = 7.85(X)
AM Peak Hour: T = 0.34(X) (55% in, 45% out)
PM Peak Hour: T = 0.47(X) (29% in, 71% out)

[9] ITE Trip Generation land use category (822) Strip Retail Plaza (<40k) (Adj Streets, 7-9A, 4-6P)
Daily: T = 42.20(X) + 229.68
AM Peak Hour: T = 2.36(X) (60% in, 40% out)
PM Peak Hour: T = 6.59(X) (50% in, 50% out)

[10] Internal capture reductions based on application of MXD+ model: Daily = 7.9%, AM Peak Hour = 9.5%, PM Peak Hour = 7.5%.

[11] External walk, bike, and transit trip reductions based on MXD+ model for daily trips and US Census Bureau ACS journey to work data for AM and PM peak hour trips: Daily = 1.8%, AM Peak Hour = 2.5%, PM Peak Hour = 2.3%.

[12] External retail pass-by trip reductions (40%) derived from *2021 Pass-By Tables for ITE Trip Generation Appendices* for ITE land use category Shopping Plaza (821).

Source: Fehr & Peers, 2024.

Table 4.13-6
Non-Auto Journey to Work Mode Share

Mode	Journey to Work Mode Share		
	Local[1]	National	Difference (Local – National)
Public Transportation	2.2%	4.2%	-2.0%
Walked	1.0%	2.5%	-1.5%
Bicycle	10.6%	0.5%	10.1%
Non-Auto Total	**13.9%**	**7.2%**	**6.7%**

Notes:

[1] Local non-auto mode share estimates represent the weighted averages for Census Tracts 105.05, 106.09, and 106.11, which include The Cannery, Wildhorse, and East Davis neighborhoods immediately adjacent to the project site/BRPA site.

Source: Fehr & Peers, 2024.

VMT for each home is then summed by TAZ and divided by the total population in that TAZ to arrive at residential VMT per capita. Project-generated residential VMT per capita was estimated using the latest SACOG-recommended methodology, which accounts for the full amount of VMT generated by trips with a trip end located outside of the SACOG region.

A select zone analysis was performed for the TAZ containing the project site/BRPA site to determine the number of project-generated residential vehicle trips estimated by the SACSIM19 model. The resulting project-generated residential VMT per capita was then compared to the baseline local and regional residential VMT per capita averages to determine whether the residential component of the Proposed Project and/or the BRPA would exceed the applicable VMT threshold of significance (i.e., whether the residential component of the Proposed Project and/or the BRPA would generate residential VMT per capita exceeding 15 percent below baseline local or regional residential VMT per capita for residential uses).

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Proposed Project and BRPA in comparison with the standards of significance identified above.

4.13-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Because the components of the Proposed Project and the BRPA would be developed within the same overall site boundaries and would require similar construction activities, the following evaluation applies to both the Proposed Project and the BRPA.

Proposed Project, Biological Resources Preservation Alternative

Construction activities associated with the Proposed Project and the BRPA would include use of construction equipment, including on-site earth-moving vehicles, bulldozers, and other heavy machinery, as well as building materials delivery, and construction worker commutes. The transport of heavy construction equipment to the

site, haul truck trips, and construction worker commutes could affect the local roadway network.

Construction workers typically arrive before the morning peak hour and leave before the evening peak hours of the traditional commute time periods. Deliveries of building material (lumber, concrete, asphalt, etc.) would also normally occur outside of the traditional commute time periods. In addition, any truck traffic to the project site/BRPA site would follow designated truck routes, and construction would likely stage any large vehicles (i.e., earth- moving equipment, cranes, etc.) on the site prior to beginning site work and remove such vehicles at project completion. However, detailed information related to the construction routes and equipment staging, or a construction management plan, is not available. As a result, construction activities could include disruptions to the transportation network near the site.

As noted in Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, of this EIR, substantial earthwork would be required to elevate the project site/BRPA site. Approximately 1,000,000 cubic yards of soil would be hauled from the Urban Agricultural Transition Area (UATA) portion of the site to the development footprint. However, the project applicant has stated that the haul trucks shall stay within the site, and will not need to access F Street or Pole Line Road to transfer the hauled soil.

Based on the above, without proper planning of construction activities, construction traffic and potential street closures could interfere with existing roadway operations, including pedestrian, bicycle, and transit facilities, during the construction phase. Therefore, the Proposed Project and the BRPA have the potential to conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Proposed Project, Biological Resources Preservation Alternative

4.13-1 *Prior to any construction activities for the project site/BRPA site, the project applicant shall prepare a detailed Construction Traffic Control Plan (CTCP) and submit it for review and approval by the City Department of Public Works Engineering and Transportation. The applicant and the City shall consult with Yolo County, Caltrans, Unitrans, Yolobus, and local emergency service providers for their input prior to approving the CTCP. The CTCP shall ensure that acceptable operating conditions on local roadways and freeway facilities are maintained during construction. A copy of the CTCP shall be submitted to local emergency response agencies and the agencies shall be notified at least 14 days prior to the commencement of construction that would partially or fully obstruct roadways. At a minimum, the CTCP shall include:*

- *The number of truck trips, time, and day of street closures;*
- *Time of day of arrival and departure of trucks;*

- *Limitations on the size and type of trucks, provision of a staging area with a limitation on the number of trucks that can be waiting;*
- *Provision of a truck circulation pattern that minimizes effects on existing vehicle traffic during peak travel periods and maintains safe bicycle circulation;*
- *Prohibition on use of public roads by haul trucks transporting soil from the Urban Agricultural Transition Area (UATA) to the development portion of the project site;*
- *Resurface and/or repair any damage to roadways that occurs as a result of construction traffic;*
- *Provision of driveway access plan so that safe vehicular, pedestrian, and bicycle movements are maintained (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas);*
- *Maintain safe and efficient access routes for emergency vehicles;*
- *Manual traffic control when necessary;*
- *Proper advance warning and posted signage concerning street closures; and*
- *Provisions for pedestrian safety.*

4.13-2 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian and bicycle facilities. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed throughout this chapter, LOS is no longer the applicable metric when evaluating transportation impacts of a project. The evaluation of VMT is discussed in Impact 4.13-4 of this chapter. Therefore, the following discussion focuses on whether the Proposed Project or the BRPA would result in impacts to existing or planned pedestrian and bicycle facilities and services within the project area.

Proposed Project, Biological Resources Preservation Alternative

The Proposed Project and the BRPA would not include any modifications to the existing pedestrian and bicycle facilities described in the Existing Setting section of this chapter; thus, neither the Proposed Project or the BRPA would physically disrupt existing pedestrian or bicycle facilities. However, as shown in Figure 3-8, Mobility, Bicycle, and Trail Circulation, and in Figure 3-18, Biological Resources Preservation Alternative Mobility, Bicycle, and Trail Circulation, in Chapter 3, Project Description, of this EIR, the Proposed Project and the BRPA would construct new pedestrian and bicycle facilities and expand the local network as follows:

- Construction of new Class I shared-use paths along the Pole Line Road (west side) and East Covell Boulevard (north side) project site/BRPA site frontages;
- Construction of new Class I shared-use path connections at the existing Cannery Avenue/Cannery Loop, East Covell Boulevard/L Street, Pole Line

Road/Picasso Avenue, Pole Line Road/Donner Avenue, and Pole Line Road/Moore Boulevard intersections;

- Construction of new Class I shared-use path connection between the project site/BRPA site and the existing Cannery Loop shared-use path at the northeast corner of the Cannery neighborhood;
- Construction of new Class I shared-use paths along the Cannery Loop, L Street, Picasso Avenue, and Donner Avenue roadway extensions into the project site/BRPA site;
- Construction of new Class I shared-use paths along greenbelts and drainage channels and within Heritage Oak Park located internal to the project site/BRPA site;
- Construction of new sidewalks on both sides of roadways internal to the project site/BRPA site;
- If feasible, construction of one pedestrian/bicycle crossing through an undercrossing near the Pole Line Road/Moore Boulevard intersection and one future grade-separated crossing at F Street. These crossings would be constructed in Phases 2, 3, or 4 of project implementation. Due to uncertainties regarding the timing and feasibility of the foregoing crossings, the TIS did not consider either as project components for the purpose of the analysis; and
- Construction of the following modifications at existing intersections:

    - East Covell Boulevard/L Street – New north leg and accompanying signal modifications;
    - Pole Line Road/Picasso Avenue – New west leg and traffic signal;
    - Pole Line Road/Donner Avenue – New west leg and traffic signal; and
    - Pole Line Road/Moore Boulevard – New west leg and roundabout.

The forgoing improvements would support the implementation of planned pedestrian and bicycle improvements, including the construction of new Class I shared-use paths on the north side of East Covell Boulevard between J Street and Pole Line Road and on the west side of Pole Line Road, as identified in the ECCP. As such, neither the Proposed Project nor the BRPA would interfere with the implementation of planned future pedestrian or bicycle facilities.

Considering the proposed land uses and location, the Proposed Project and the BRPA would create new pedestrian and bicycle desire lines, which refers to the preferred route a person will take to travel from one location to another, and would generate new demand for pedestrian and bicycle travel within the project site/BRPA site and between the site and other local neighborhoods and activity centers (e.g., Oak Tree Plaza shopping center, Community Park, Davis Senior High School, Holmes Junior High School, and Birch Lane Elementary School). New pedestrian and bicycle travel demand would be served by the proposed pedestrian and bicycle facilities improvements, as well as by existing pedestrian and bicycle facilities in the surrounding local active transportation system.

While most pedestrian and bicycle desire lines would be adequately accommodated by the existing and proposed active transportation network within and surrounding the project site/BRPA site, active transportation network gaps would impede pedestrian and bicycle access to and from the site at several locations. Additionally, at several

locations, inadequate bicycle and pedestrian facilities and/or crossing amenities, coupled with project-related increases to vehicle traffic, would exacerbate bicyclist and pedestrian exposure to conflicting vehicular traffic in a manner that could increase the potential for collisions. These locations are as follows:

- East Covell Boulevard/Pole Line Road intersection, due to a lack of marked crosswalks and accompanying pedestrian crossing signals on the north and west legs, and due to channelized right-turn lanes on the eastbound and westbound approaches;
- Pole Line Road/Moore Boulevard, Pole Line Road/Donner Avenue, and East Pole Line Road/Picasso Avenue intersections, due to a lack of marked bicycle and pedestrian crossings of Pole Line Road. While a roundabout at the Pole Line Road/Moore Boulevard intersection and traffic signals at the Pole Line Road/Donner Avenue and Pole Line Road/Picasso Avenue intersections are proposed, design details regarding bicycle and pedestrian crossing amenities have not yet been determined;
- East Covell Boulevard/Birch Lane intersection, due to a lack of bicycle crossing markings to facilitate north-south bicycle movements across East Covell Boulevard and Denison Drive;
- Cannery Loop elbow adjacent to Cannery Dog Park, due to impeded sight distance at the diagonal crossing between the existing Class I shared-use path on the north side of Cannery Loop and the Class I shared-use path that extends south underneath the East Covell Boulevard overcrossing;
- Oak Tree Plaza driveways along East Covell Boulevard, due to a lack of marked pedestrian and bicycle crossings at the driveway intersections with the existing Class I shared-use path; and
- Birch Lane between East Covell Boulevard and Pole Line Road, due to a lack of designated bicycle facilities.

Project-related traffic on the network would result in the above-noted adverse effects or, in the case of bullets three and six, exacerbate existing deficiencies. The adverse effects on pedestrian and bicycle travel and safety would be inconsistent with City plans and policies that promote pedestrian and bicycle travel, including City of Davis General Plan Goals #1, #2, and #4 and Policies TRANS 1.6, 2.1, 2.2, and 2.5, and the City of Davis Beyond Platinum Bicycle Action Plan. The BRPA is anticipated to have the same effects as the Proposed Project. Therefore, the Proposed Project and/or the BRPA could conflict with a program, plan, ordinance, or policy addressing pedestrian facilities or bicycle facilities, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Proposed Project, Biological Resources Preservation Alternative

4.13-2(a) *In conjunction with submittal of a tentative map, the Project applicant shall submit a focused traffic impact study to determine if any of the intersection and roadway mitigations are required based on the additional traffic generated by the subject development phase. The*

focused traffic study shall address the impact of adding the individual phase of development to existing plus other approved/pending development projects. The project applicant shall construct physical improvements as identified in the focused traffic study.

4.13-2(b) *Prior to occupancy of the first residential unit during Phase 1 of the Proposed Project/BRPA, the project applicant shall implement modifications to improve the East Covell Boulevard/Pole Line Road intersection as follows, to the satisfaction of the City of Davis City Engineer:*

- *Install marked crosswalks and accompanying pedestrian crossing signals on the north and west legs to provide temporal separation between pedestrians and conflicting vehicular movements.*
- *Eliminate the eastbound and westbound channelized right-turn lanes and replace them with standard right-turn pockets. Alternatively, modify the eastbound and westbound channelized right-turn lanes to reduce the speed of turning vehicles and to reduce pedestrian/bicycles exposure to conflicting vehicular traffic.*
- *Install high visibility bike lane conflict markings at the intersection approaches.*

Implementation of the foregoing improvements, or a set of improvements of equal effectiveness as determined by the City Engineer, would reduce the potential for conflicts involving bicyclists and pedestrians that would otherwise be caused by the project and promote bicycle and pedestrian travel to and from the project site. Improvements that would further enhance safety for people walking and biking would include the conversion of the intersection into a protected intersection (similar to East Covell Boulevard/L Street) or a roundabout.

4.13-2(c) *The project applicant shall construct a roundabout with pedestrian and bicycle crossings on all legs at the Pole Line Road/Moore Boulevard intersection. Bicycle and pedestrian crossings shall be placed through the splitter islands for each roundabout approach to minimize the number of multi-lane crossings, and shall be designed to the satisfaction of the City Engineer. In addition, the project applicant shall install traffic signals and pedestrian crossings on all legs at the Pole Line Road/Donner Avenue and Pole Line Road/Picasso Avenue intersections.*

Implementation of the foregoing improvements, or a set of improvements of equal effectiveness as determined by the City Engineer, would reduce the potential for conflicts involving bicyclists or pedestrians that would otherwise be caused by the project and promote bicycle and pedestrian travel to and from the project site/BRPA site.

4.13-2(d) *Prior to occupancy of the first residential unit during Phase 1 of the Proposed Project/BRPA, the project applicant shall install bicycle and pedestrian crossing improvements at the East Covell Boulevard/Birch Lane intersection, consistent with the planned improvements identified in the East Covell Corridor Plan (ECCP), to the satisfaction of the City Engineer. The improvements shall include: installation of high visibility bike lane conflict markings in the northbound and southbound direction across both East Covell Boulevard and Denison Drive; high visibility marked crosswalks across the east leg of the East Covell Boulevard/Birch Lane intersection and across the east and south legs of the Birch Lane/Denison Drive intersection; and installation of a bike lane with conflict markings at the northbound approach of the East Covell Boulevard/Birch Lane intersection.*

Implementation of the foregoing improvements, or a set of improvements of equal effectiveness as determined by the City Engineer, would reduce the potential for conflicts involving bicyclists or pedestrians that would otherwise be exacerbated by the project and promote bicycle and pedestrian travel to and from the project site/BRPA site.

4.13-2(e) *Prior to occupancy of the first residential unit during Phase 1 of the Proposed Project/BRPA, the project applicant shall install bicycle and pedestrian crossing improvements at the Cannery Loop elbow adjacent to Cannery Dog Park, to the satisfaction of the City Engineer. Improvements shall include the installation of high visibility crosswalk markings and the installation of a rapid-rectangular flashing beacon (RRFB) at the existing diagonal crossing.*

Implementation of the foregoing improvements, or a set of improvements of equal effectiveness as determined by the City Engineer, would reduce the potential for conflicts involving bicyclists or pedestrians that would otherwise be caused by the project and promote bicycle and pedestrian travel to and from the project site/BRPA site.

4.13-2(f) *Prior to occupancy of the first residential unit during Phase 1 of the Proposed Project/BRPA, the project applicant shall install high visibility bicycle and pedestrian crossing markings and accompanying signage at the three Oak Tree Plaza driveway intersections with the East Covell Boulevard shared-use path, consistent with the ECCP, to the satisfaction of the City Engineer.*

Implementation of the foregoing improvements, or a set of improvements of equal effectiveness as determined by the City Engineer, would reduce the potential for conflicts involving bicyclists or pedestrians that would otherwise be exacerbated by the project and promote bicycle and pedestrian travel to and from the project site/BRPA site.

4.13-2(g) Prior to occupancy of the first residential unit during Phase I of the Proposed Project/BRPA, to the satisfaction of the City Engineer, the project applicant shall install Class III bike route pavement markings (e.g., green-backed sharrows) and accompanying signage on Birch Lane between East Covell Boulevard and Pole Line Road.

Implementation of the foregoing improvements, or a set of improvements of equal effectiveness as determined by the City Engineer, would reduce the potential for conflicts involving bicyclists or pedestrians that would otherwise be exacerbated by the project and promote bicycle and pedestrian travel to and from the project site.

4.13-3 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit facilities and services. Based on the analysis below, even with mitigation, the impact is *significant and unavoidable*.

Because the components of the Proposed Project and the BRPA would be developed within the same overall site boundaries and would result in similar effects related to transit facilities, the following evaluation applies to both the Proposed Project and the BRPA.

Proposed Project, Biological Resources Preservation Alternative

As discussed in the Existing Setting section of this chapter, the project site/BRPA site would be served by the following existing bus stops:

- Eastbound and westbound East Covell Boulevard at J Street and Pole Line Road;
- Northbound Pole Line Road at Picasso Avenue and Donner Avenue;
- Eastbound Moore Road at Pole Line Road; and
- Southbound J Street at Cranbrook Court.

The Proposed Project and the BRPA also include the construction of a new bus stop on East Covell Boulevard at L Street. The Proposed Project and the BRPA do not include any improvements that would have the potential to physically disrupt existing transit facilities or interfere with the implementation of planned future transit facilities.

The Proposed Project and the BRPA would introduce new land uses that would be situated within walking distance of existing bus stops. As discussed above, the project site/BRPA site vicinity is served by Unitrans Routes E, F, L, P, Q, and T, which serve a variety of retail, employment, medical, institutional, and recreational destinations throughout the City and on the UC Davis campus, as well as Yolobus Route 43, which provides commute bus service for Davis residents who work in Downtown Sacramento.

Table 4.13-7 summarizes route-level ridership, productivity (passengers per revenue hour), and on-time performance for Unitrans routes serving the project site/BRPA site.

Unitrans policy is to increase daily headways from 30 minutes to 15 minutes on routes with more than 60 passengers per hour. The Unitrans routes that serve the project site/BRPA site have ridership levels that are well under the 60 passenger per hour threshold. As shown in Table 4.13-4 and Table 4.13-5, both the Proposed Project and the BRPA would generate fewer than 50 pedestrian/bicycle/transit trips during AM and PM peak hours. According to the TIS, transit trips represent approximately 16 percent of commute pedestrian/bicycle/transit trips in nearby residential areas; as such, the Proposed Project and the BRPA are conservatively estimated to generate approximately eight new transit passenger boardings during the AM and PM peak hours (50 pedestrian/bicycle/transit trips X 16 percent transit commute mode share among pedestrian/bicycle/transit trips). Such trips would be distributed across various Unitrans and Yolobus routes that would serve the project site/BRPA site. Therefore, although the Proposed Project and the BRPA would increase ridership, according to the TIS, neither the Proposed Project nor the BRPA would result in an increase above the 60 passengers per hour threshold.

Table 4.13-7
Unitrans Route Performance Summary in the Project Site/BRPA Site Vicinity

Route	Annual Ridership	Passengers per Revenue Hour	On-Time Performance
E – Downtown/F Street/J Street	72,260	30	86%
F – Oak/Anderson/F Street	58,965	26	89%
L – East 8th/Pole Line/Moore/Loyola	85,698	18	96%
P – MU/Davis Perimeter Counter Clockwise	209,774	27	75%
Q – MU/Davis Perimeter Clockwise	219,980	28	71%
T – Davis High/Holmes & Harper Junior High	9,286	27	--

Source: Fehr & Peers, 2024.

On-time performance is defined by Unitrans as a bus arriving at the terminal before the scheduled time or within five minutes of the scheduled time. Arriving more than five minutes late is defined as “late.” Unitrans has a systemwide on-time performance target of 90 percent. Systemwide, Unitrans on-time performance was 87 percent during the 2022-23 fiscal year, and, thus, failed to meet their on-time performance target. The Unitrans General Manager’s Report for Fiscal Year 2022-23 notes that the P and Q lines, both of which would serve the Proposed Project and the BRPA, experience the lowest on-time performance systemwide.

According to the TIS, the Proposed Project and the BRPA would increase vehicle travel demand and cause increases to peak hour delay on roadways within the project site vicinity, including East Covell Boulevard, Pole Line Road, Mace Boulevard, F Street, J Street, and L Street. Unitrans routes that operate in mixed-flow traffic on these roadways would similarly experience increased delays due to increased vehicle demand generated by project buildout. The P and Q lines, which currently experience on-time performance of 75 percent and 71 percent, respectively, would be impacted

due to existing peak hour delays on segments of their alignments including Mace Boulevard, East Covell Boulevard, F Street, and Fourteenth Street. Thus, the Proposed Project/BRPA would exacerbate currently deficient Unitrans performance with respect to on-time performance targets. Therefore, the Proposed Project and the BRPA could conflict with a program, plan, ordinance, or policy addressing transit facilities and services, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the Mitigation Measure 4.13-3(a) refers to the Transportation Demand Management (TDM) mitigation measure (Mitigation Measure 4.13-4) to address the VMT impact associated with the Proposed Project/BRPA. However, because the effectiveness of the TDM strategies identified in Mitigation Measure 4.13-3(a) are not known, subsequent vehicle trip reduction effects and, in turn, reductions to delays to transit, cannot be guaranteed. Additionally, the improvements that are necessary to improve transit service and facilities identified in Mitigation Measure 4.13-3(b) would require additional actions and implementation by Unitrans and Yolobus, and the specific improvements identified in the transit service and facilities plan and their efficacy are not known at this time. Therefore, due to the uncertainties regarding the ability for the following mitigation to reduce the impact to a less-than-significant level, impacts related to transit facilities and services would be considered *significant and unavoidable*.

Proposed Project, Biological Resources Preservation Alternative

4.13-3(a) *Implement Mitigation Measure 4.13-4.*

4.13-3(b) *Prior to occupancy of the first residential unit during Phase 1 of the Proposed Project/BRPA, the project applicant shall fund a Transit Service and Facilities Plan for the area encompassing the project site and other development along the north side of the Covell Boulevard and Mace Boulevard corridor between the westerly city limits and the I-80 interchange. The plan shall be led either by Unitrans and Yolobus, or by the City with Unitrans and Yolobus participating as active project partners. The plan shall be guided by the Unitrans and Yolobus service development processes, and shall be subject to approval by the City of Davis Public Works (Engineering and Transportation) Department. The Transit Service and Facilities Plan shall identify transit service and facility improvements required in accordance with Unitrans and Yolobus policies related to unmet transit needs, timing for improvements, transit service warrants, and performance standards.*

The applicant shall fund the implementation of transit service and facilities improvements to the extent that they are identified in the aforementioned Transit Service and Facilities Plan with the explicitly focus of implementing improvements that would address Proposed Project/BRPA-related contributions to unmet transit needs and project-related deficiencies with respect to transit service warrants and performance standards. The Proposed Project/BRPA shall not be responsible for funding improvements that address existing deficiencies. Potential transit improvements include the following:

1) *Modifying existing transit routes or adding new routes to serve the project site, adding service capacity (through increased headways and/or larger vehicles) to prevent overcrowding and maintain productivity standards.*
2) *Constructing transit priority treatments to improve on-time performance (i.e., transit signal priority and/or Intelligent Transportation Systems (ITS) upgrades at East Covell Boulevard traffic signals, transit queue jumps at East Covell Boulevard intersections, etc.).*
3) *Improving terminal facilities (i.e., stops) to accommodate additional passengers and transit vehicles.*
4) *Implementing transit pass/fare subsidies for residents and employees.*

Improvements shall be selected based on relevant performance data and targeted to address those areas not meeting established Unitrans performance standards. Transit facility improvements shall be designed and constructed pursuant to applicable City of Davis, Unitrans, and Yolobus standards.

To implement this mitigation measure, the Proposed Project/BRPA shall establish an appropriate funding mechanism (e.g., Community Facilities District or other mechanism determined acceptable by the City), to fund transit service and facilities improvements to adhere to Unitrans and Yolobus policies related to unmet transit needs, transit service warrants, and performance standards. The funding mechanism shall provide funding for capital costs and on-going operation of transit services. On-going annual fees would be identified and paid by the applicant to fund necessary transit service and facility improvements. Fees would be assessed on all future project land uses that generate an increased demand for transit services, including residential, commercial, civic, and recreation land uses. The project's funding contributions allocated through the funding mechanism shall be limited to improvements and/or portions of improvements that are attributable to the project's contributions to deficient transit service and/or operations. The project shall not contribute funding towards improvements needed to address existing deficiencies and/or improvements needed to address deficiencies attributable to other future land use projects.

Prior to establishing the funding mechanism, the applicant shall submit to the City for review and approval a complete and adequate report supporting the level of assessments/fees necessary for the establishment and continuation of the funding mechanism. The report shall be prepared by a registered engineer, in consultation with a qualified financial consultant. The report shall identify the transit services intended to be funded by the mechanism, the cost to establish and operate these services, the portion of the overall costs to be funded by the applicant, and the assessment/fees to obtain the necessary

funding, including a methodology for calculating fee increases over time. A transit service to be explicitly funded by the mechanism and included in the report would be the implementation of transit service and facilities improvements necessary to adhere to Unitrans and Yolobus policies related to unmet transit needs, transit service warrants, and performance standards. Project contributions towards on-going operating costs shall consider other regular established transit funding sources, such as the State of California Local Transportation Fund (LTF) and State Transit Assistance (STA) fund, as well as potential contributions from other future development that would benefit from these transit improvements.

4.13-4 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below, even with mitigation, the impact is *significant and unavoidable*.

Impacts related to VMT associated with the Proposed Project and the BRPA are addressed separately below.

Proposed Project

According to the TIS, the residential component of the Proposed Project would generate 31.5 residential VMT per capita. Table 4.13-8 compares project-generated, baseline local (City of Davis), and baseline regional (SACOG region) residential VMT per capita.

Table 4.13-8
Proposed Project Residential Component Weekday Residential VMT per Capita

Scenario	Residential VMT per Capita	Proposed Project Residential Component Compared to Baseline Average
Proposed Project Residential Component	31.5	--
Baseline City of Davis Average	30.1	+4.5%
Baseline SACOG Region Average	21.7	+45.4%

As shown in Table 4.13-8, residential VMT per capita generated by the residential component of the Proposed Project would be 4.5 percent and 45.4 percent above baseline local and regional residential VMT per capita averages, respectively. As such, the residential component of the Proposed Project would generate residential VMT per capita exceeding 15 percent below baseline local and regional residential VMT per capita averages.

Biological Resources Preservation Alternative

According to the TIS, the residential component of the BRPA would generate 32.8 residential VMT per capita. Table 4.13-9 compares Project-generated, baseline local (City of Davis), and baseline regional (SACOG region) residential VMT per capita.

Table 4.13-9
BRPA Residential Component Weekday Residential VMT per Capita

Scenario	Residential VMT per Capita	BRPA Residential Component Compared to Baseline Average
BRPA Residential Component	32.8	--
Baseline City of Davis Average	30.1	+8.9%
Baseline SACOG Region Average	21.7	+51.2%

As shown in Table 4.13-9Table 4.13-8, residential VMT per capita generated by the residential component of the BRPA would be 8.9 percent and 51.2 percent above baseline local and regional residential VMT per capita averages, respectively. As such, the residential component of the BRPA would generate residential VMT per capita exceeding 15 percent below baseline local and regional residential VMT per capita averages.

Conclusion

Based on the above, both the Proposed Project and the BRPA would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of TDM strategies can result in reductions to a project's vehicle trip generation based on certain types of project site modifications, programming, and operational changes. The California Air Pollution Control Officers Association (CAPCOA) *Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity* (December 2021) identifies numerous TDM strategies and quantifies their potential vehicle trip reduction effects. While each strategy provides standalone VMT reduction potential, multiplicative dampening limits the VMT reduction potential in instances where multiple strategies are implemented together.

The TIS identifies the following potential TDM strategies, including the associated VMT reduction potential, which represents raw VMT reduction percentages without adjustments for multiplicative dampening and/or category maximums:

1. **Unbundle residential parking costs from property costs (CAPCOA Handbook Strategy T-16)**: This measure would unbundle, or separate, a residential project's parking costs from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost. The measure would result in decreased vehicle ownership and, therefore, a reduction in VMT. The strategy would be relevant to any rental dwelling units that comprise the residential component of the proposed project. The revenue generated can also be used for supporting public transportation system operations and management.

According to CAPCOA, assuming an annual parking cost per space of $3,000 ($250 per month), the strategy would reduce residential VMT by 2.61 percent.

2. **Implement carshare program (CAPCOA Handbook Strategy T-20-A)**: This measure would increase carshare access in the project site by deploying conventional carshare vehicles. Examples include programs like Zipcar and GIG Car Share. Carsharing offers people convenient access to a vehicle for personal or commuting purposes, which helps encourage transportation alternatives and reduces vehicle ownership, thereby avoiding VMT. The project applicant shall partner with a carshare service provider and ensure that carshare vehicles are available to project residents prior to occupancy of the first phase of the project residential component.

   According to CAPCOA, this strategy would have a maximum reduction potential of 0.15 percent of residential VMT.

Incorporating one or more of the foregoing TDM strategies, the proposed project shall be subject to the following mitigation:

Proposed Project, Biological Resources Preservation Alternative

4.13-4 *Prior to occupancy of the first residential unit, the project applicant shall implement TDM strategies to reduce the number of vehicle trips that would be generated by the residential component of the Proposed Project/BRPA, subject to review and approval by the City Engineer. The TDM strategies may include, but not necessarily be limited to, CAPCOA Handbook Strategy T-16 and T-20-A.*

Implementation of Mitigation Measure 4.13-4 would reduce residential VMT per capita associated with the residential component of the Proposed Project or BRPA by implementing TDM strategies to reduce external vehicle trips generated by residents of the Proposed Project/BRPA.

However, the effectiveness of the TDM strategies cannot be quantified at this time and subsequent vehicle trip reduction effects cannot be guaranteed. Existing evidence indicates that the effectiveness of TDM strategies with regards to vehicle trip reduction can vary based on a variety of factors, including the context of the surrounding built environment (e.g., urban versus suburban) and the aggregate effect of multiple TDM strategies deployed together. Moreover, many TDM strategies are not just site specific, but also rely on implementation and/or adoption by private entities (e.g., elective use of carpool program by residents) and other agencies (e.g., transit service operators). Finally, even if implemented, it is uncertain if TDM strategies would be able to sufficiently reduce VMT generated by the project to levels below the thresholds of significance. For example, residential VMT per capita generated by the residential component of the Proposed Project would need to decrease by 42 percent in order to fall below the threshold of significance (15 percent or more below the baseline local or regional residential VMT per capita averages), and residential VMT per capita generated by the residential component of the BRPA would need to decrease by 44 percent. Available evidence suggests that conventional TDM strategies are not capable of achieving such trip reduction outcomes in suburban settings such as that

of the project site. Due to uncertainties regarding the ability for the aforementioned mitigation measure to reduce VMT impacts to less-than-significant levels, VMT impacts of both the Proposed Project and the BRPA would be considered *significant and unavoidable*.

4.13-5 Result in inadequate emergency access. Based on the analysis below, the impact is *less than significant*.

Because the components of the Proposed Project and the BRPA would be developed within the same overall site boundaries and would include the development of similar transportation infrastructure, the following evaluation applies to both the Proposed Project and the BRPA.

Proposed Project, Biological Resources Preservation Alternative

The Proposed Project and the BRPA would include six full vehicular access points, including two on East Covell Boulevard and four on Pole Line Road. Altogether, these connections would provide multiple opportunities and routes for emergency vehicles to access the project site/BRPA site from multiple directions.

Additionally, the Proposed Project and the BRPA would include the construction of a fire station which would consist of a joint-use facility for emergency services such as fire protection, emergency medical, and police personnel. Currently, fire access to the project site/BRPA site from the South Davis, West Davis, and Downtown Davis fire stations requires travel distances of approximately three miles, 3.6 miles, and 1.3 miles, respectively. Construction of the fire station would reduce emergency response times to the site and surrounding neighborhoods relative to existing conditions.

Medical emergency service access to and from Sutter Davis Hospital, located approximately 1.9 miles west of the project site/BRPA site, would be available from East Covell Boulevard and Pole Line Road. East Covell Boulevard has traffic signals equipped with emergency vehicle pre-emption, providing signal priority to emergency vehicles in the event of an emergency. The Proposed Project/BRPA would install new traffic signals at the Pole Line Road/Picasso Avenue and Pole Line Road/Donner Avenue intersections, which would also provide signal priority to emergency vehicles in the event of an emergency.

Regarding the Proposed Project/BRPA's effects on emergency vehicle access to the existing La Buena Vida and Green Meadows neighborhoods located east of the project site/BRPA site, the Pole Line Road/Donner Avenue intersection provides the lone vehicle access point to the La Buena Vida neighborhood and the northerly portion of the Green Meadows neighborhood. The Pole Line Road/Picasso Avenue and East Covell Boulevard/Matisse Street intersections provide vehicle access to the southerly portion of the Green Meadows neighborhood. The Proposed Project and the BRPA would increase peak hour traffic volumes and delay on Pole Line Road at Donner Avenue and Picasso Avenue. However, the Proposed Project and the BRPA would include the installation of new traffic signals at the Pole Line Road/Donner Avenue and Pole Line Road/Picasso Avenue, which would be equipped with emergency vehicle preemption to provide priority to emergency vehicles accessing the La Buena Vida and Green Meadows neighborhoods in the event of an emergency.

Moreover, the construction of the on-site fire station would reduce emergency response times to the La Buena Vida and Green Meadows neighborhoods relative to existing conditions. Despite project-related increases to peak hour vehicle traffic volume and delay, the installation of new traffic signals at Donner Avenue and Picasso Avenue and the construction of the fire station would maintain adequate emergency vehicle access to the La Buena Vida and Green Meadows neighborhoods with the implementation of the Proposed Project and the BRPA.

The design of the on-site roadways and intersections will be subject to City of Davis code and Public Works Department staff review and approval. Overall, by providing multiple access and egress points, the Proposed Project and the BRPA would meet City of Davis standards for providing emergency vehicle access to the site. Therefore, the Proposed Project and the BRPA would provide adequate emergency access and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.13-6 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Based on the analysis below, the impact is *less than significant*.

Because the components of the Proposed Project and the BRPA would be developed within the same overall site boundaries and would include the development of similar transportation infrastructure, the following evaluation applies to both the Proposed Project and the BRPA.

Proposed Project, Biological Resources Preservation Alternative

The Proposed Project and the BRPA would include the construction of new on-site multi-modal transportation facilities and access intersections/driveways, as well as the modification of existing transportation facilities on Pole Line Road, East Covell Boulevard, and Cannery Avenue. All new roadway, bicycle, and pedestrian infrastructure improvements constructed as part of the project would be subject to, and designed in accordance with, applicable City of Davis design and safety standards to avoid creating a geometric design hazard.

The Proposed Project and the BRPA would consist of mixed-use development consistent with the existing land use character of the surrounding area, which is comprised of single-family residential, multi-family residential, office, retail, and recreational uses. As such, the Proposed Project and the BRPA would generate a mix of traffic that would generally be similar to existing conditions, and, thus would not increase hazards due to incompatible uses.

However, as discussed under Impact 4.13-2, the Proposed Project and the BRPA would result in increases to walking and bicycling activity in the project site vicinity and between the project site/BRPA site and nearby destinations and activity centers. With more people traveling to and from the site, the volume of traffic across modes would

increase and this may result in slower travel speeds for some modes and additional physical mixing between transportation modes. Additional physical mixing between bicyclists, pedestrians, and vehicles at the specific locations described in Impact 4.13-2 would increase the potential for conflicts involving people walking and biking that are attributable to the Proposed Project/BRPA.

In addition, Fehr & Peers analyzed peak hour traffic operations to determine the extent to which the Proposed Project and the BRPA could cause off-ramp queues to spill back to the I-80 and SR 113 mainline. To the extent possible, Caltrans strives to prevent off-ramp queues from extending to the freeway mainline in order to minimize the potential for associated adverse operational and safety effects (e.g., speed differentials between vehicle traffic on the freeway mainline and stopped/queued off-ramp vehicle traffic that could increase the potential for conflicts).

Table 4.13-10 displays the maximum freeway off-ramp queues at the SR 113/West Covell Boulevard, I-80/Mace Boulevard/Chiles Road, and I-80/CR 32A/CR 32B interchanges under Existing and Existing Plus Project conditions. Under Existing Plus Project conditions, all maximum queues would be accommodated within the available off-ramp storage.

Based on the above, changes associated with the Proposed Project/BRPA would not cause conditions that warrant modification of the existing roadway or transit facilities. However, as discussed under Impact 4.13-2, the Proposed Project and the BRPA could be inconsistent with City plans and policies that promote pedestrian and bicycle travel; implementation of Mitigation Measures 4.13-2(a) through 4.13-2(f) would reduce such impacts to a less-than-significant level. Therefore, the project would not result in hazards due to a geometric design feature or incompatible uses, and a ***less than significant*** impact would occur.

Mitigation Measure(s)

None required.

Table 4.13-10
Freeway Off-Ramp Queuing – Existing and Existing Plus Project Conditions

Off-Ramp	Off-Ramp Distance[1]	Maximum Queue Length[2]			
		Existing Conditions		Existing Plus Project Conditions	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
West Covell Boulevard/SR 113 SB Ramps	1,375 feet	475 feet	250 feet	500 feet	325 feet
West Covell Boulevard/SR 113 NB Ramps	1,275 feet	300 feet	375 feet	350 feet	625 feet
Mace Boulevard/I-80 WB Off-Ramp	1,200 feet	200 feet	175 feet	200 feet	225 feet
Chiles Road/I-80 EB Off-Ramp	1,100 feet	125 feet	175 feet	150 feet	125 feet
CR 32A/I-80 WB Ramps	1,020 feet	100 feet	100 feet	125 feet	100 feet
Chiles Road/CR 32B/I-80 EB Ramps	875 feet	50 feet	50 feet	50 feet	50 feet

[1] Measured from the intersection stop bar to the gore point of the freeway off-ramp. Does not include auxiliary lane on freeway mainline.
[2] Maximum queue estimates are based on results from SimTraffic micro-simulation model. Queues are maximum per lane, rounded up to the nearest 25 feet.

Source: Fehr & Peers, 2024.

Cumulative Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the Proposed Project and the BRPA in combination with other proposed and pending projects in the region. Refer to Chapter 6, Statutorily Required Sections, of this EIR for more detail.

4.13-7 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian and bicycle facilities, associated with cumulative development of the Proposed Project or the BRPA in combination with future buildout of the City of Davis. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The following discussion includes an analysis of potential impacts related to cumulative development which could result in a conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian and bicycle facilities, associated with the Proposed Project and the BRPA. Because the components of the Proposed Project and the BRPA would be developed within the same overall site boundaries, the following evaluation applies to both the Proposed Project and the BRPA.

Proposed Project, Biological Resources Preservation Alternative

With the exception of the improvements to bicycle and pedestrian facilities associated with the Proposed Project and the BRPA described under Impact 4.13-2, reasonably foreseeable new bicycle or pedestrian facilities are not anticipated to be constructed in the immediate vicinity of the project site/BRPA site under cumulative conditions.

Bicycle, pedestrian, and vehicle travel activity would increase in the site vicinity due to development of the Proposed Project/BRPA in combination with other reasonably foreseeable development located on the East Covell Boulevard/Mace Boulevard corridor, such as the Palomino Place, Shriners Property, Bretton Woods projects, and DiSC 2022 projects. However, according to the TIS, growth in background travel activity would not materially change the adverse effects to bicycle and pedestrian facilities that would be attributable to the Proposed Project/BRPA. Therefore, the project-specific bicycle and pedestrian impact analysis provided in under Impact 4.13-2 would similarly apply under cumulative conditions. As discussed therein, the Proposed Project and/or the BRPA could conflict with a program, plan, ordinance, or policy addressing pedestrian facilities or bicycle facilities, and a ***significant*** cumulative impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Proposed Project, Biological Resources Preservation Alternative

4.13-7 Implement Mitigation Measures 4.13-2(a) through (f).

4.13-8 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit facilities and services, associated with cumulative development of the Proposed Project or the BRPA in combination with future buildout of the City of Davis. Based on the analysis below, even with mitigation, the impact is *cumulatively considerable* and *significant and unavoidable*.

Because the components of the Proposed Project and the BRPA would be developed within the same overall site boundaries and would result in similar effects related to transit facilities, the following evaluation applies to both the Proposed Project and the BRPA.

Proposed Project, Biological Resources Preservation Alternative

Under cumulative conditions, substantial increases in background vehicle travel activity would occur on study area roadways due to reasonably foreseeable land use development elsewhere in and around the City of Davis. Together with the increase in vehicle travel activity caused by the Proposed Project/BRPA, increases in vehicle travel activity would cause adverse effects to transit operations by increasing transit service delay and running times in a manner inconsistent with Unitrans performance standards. Because growth in background vehicle travel activity would not materially change the adverse effects to transit services that would be attributable to the

Proposed Project/BRPA, the transit service and facility impact analysis provided under Impact 4.13-3 would similarly apply to cumulative conditions

Therefore, the Proposed Project and the BRPA, in combination with future buildout of the City of Davis, could conflict with a program, plan, ordinance, or policy addressing transit facilities and services, and a ***cumulatively considerable*** and ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would help reduce the incremental contribution towards the cumulative impact related to a conflict with a program, plan, ordinance, or policy addressing transit facilities and services. However, due to the uncertainties regarding the ability for the following mitigation to reduce the impact to a less-than-significant level, the impact would remain *cumulatively considerable* and *significant and unavoidable*.

Proposed Project, Biological Resources Preservation Alternative

4.13-8 Implement Mitigation Measures 4.13-3(a) and (b).

4.13-9 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) associated with cumulative development of the Proposed Project or the BRPA in combination with future buildout of the City of Davis. Based on the analysis below, even with mitigation, the impact is *cumulatively considerable* and *significant and unavoidable*.

Impacts related to VMT associated with both the Proposed Project and the BRPA is addressed below.

Proposed Project, Biological Resources Preservation Alternative

The discussion under Impact 4.13-4 provides an evaluation of potential impacts to VMT associated with the Proposed Project and the BRPA under Existing Plus Project conditions. Under Existing Plus Project conditions, the Proposed Project and the BRPA would cause a significant impact to VMT by virtue of resulting in residential VMT per capita measuring above the applicable significance thresholds relative to existing local and regional residential VMT per capita averages. The VMT impact analysis for Existing Plus Project conditions applies to Cumulative Plus Project conditions for the following reasons:

- The VMT significance threshold compares residential VMT per capita generated by the Proposed Project and the BRPA to that of existing local and regional development. The comparison is useful because it provides information regarding how the Proposed Project/BRPA aligns with long-term environmental goals related to VMT established based on existing development levels. Use of VMT significance thresholds based on existing development levels is recommended in the LCI Technical Advisory on Evaluating Transportation Impacts in CEQA.

- The LCI Technical Advisory on Evaluating Transportation Impacts in CEQA indicates that VMT efficiency metrics, such as residential VMT per capita, are not appropriate for CEQA cumulative analysis. Instead, the Technical Advisory recommends that an impact finding from an efficiency-based project-specific VMT analysis (i.e., Existing Plus Project conditions) would imply an identical impact finding for a cumulative VMT analysis. An example provided by LCI explains that a project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact.

Based on the above, the cumulative VMT impact associated with the Proposed Project and the BRPA would be the same as discussed under Impact 4.13-4. Therefore, both the Proposed Project and the BRPA, in combination with future buildout of the City of Davis, would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), and a ***cumulatively considerable*** and ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would help reduce the incremental contribution towards the cumulative impact related to conflicting or being inconsistent with CEQA Guidelines section 15064.3, subdivision (b). However, the effectiveness of the TDM strategies cannot be quantified at this time and subsequent vehicle trip reduction effects cannot be guaranteed. Existing evidence indicates that the effectiveness of TDM strategies with regards to vehicle trip reduction can vary based on a variety of factors, including the context of the surrounding built environment (e.g., urban versus suburban) and the aggregate effect of multiple TDM strategies deployed together. Moreover, many TDM strategies are not just site specific, but also rely on implementation and/or adoption by private entities (e.g., elective use of carpool program by residents) and other agencies (e.g., transit service operators). Finally, even if implemented, it is uncertain if TDM strategies would be able to sufficiently reduce VMT generated by the project to levels below the thresholds of significance. Therefore, the impact would remain *cumulatively considerable* and *significant and unavoidable*.

Proposed Project, Biological Resources Preservation Alternative

4.13-9 Implement Mitigation Measure 4.13-4.

4.13-10 Result in inadequate emergency access associated with cumulative development of the Proposed Project or the BRPA in combination with future buildout of the City of Davis. Based on the analysis below, the impact is *less than significant*.

Because the components of the Proposed Project and the BRPA would be developed within the same overall site boundaries and would include the development of similar transportation infrastructure, the following evaluation applies to both the Proposed Project and the BRPA.

Proposed Project, Biological Resources Preservation Alternative

As discussed under Impact 4.13-5, the Proposed Project and the BRPA would include six full vehicular access points, including two on East Covell Boulevard and four on Pole Line Road. Altogether, these connections would provide multiple opportunities and routes for emergency vehicles to access the project site/BRPA site from multiple directions. In addition, construction of the proposed fire station would reduce emergency response times to the site and surrounding neighborhoods relative to existing conditions, and the new traffic signals proposed for installation at the Pole Line Road/Picasso Avenue and Pole Line Road/Donner Avenue intersections would also provide signal priority to emergency vehicles in the event of an emergency. Furthermore, despite cumulative increases to peak hour vehicle traffic volume and delay, the installation of new traffic signals at Donner Avenue and Picasso Avenue and the construction of the fire station would maintain adequate emergency vehicle access to the La Buena Vida and Green Meadows neighborhoods with the implementation of the Proposed Project and the BRPA in combination with reasonably foreseeable development.

The design of the on-site roadways and intersections, as well as such development associated with future buildout of the City of Davis, will be subject to City of Davis code and Public Works Department staff review and approval. Therefore, the Proposed Project and the BRPA would provide adequate emergency access and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.13-11 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) associated with cumulative development of the Proposed Project or the BRPA in combination with future buildout of the City of Davis. Based on the analysis below, even with implementation of mitigation, the impact is *cumulatively considerable* and *significant and unavoidable*.

Because the components of the Proposed Project and the BRPA would be developed within the same overall site boundaries and would include the development of similar transportation infrastructure, the following evaluation applies to both the Proposed Project and the BRPA.

Proposed Project, Biological Resources Preservation Alternative

The Proposed Project and the BRPA would include the construction of new on-site multi-modal transportation facilities and access intersections/driveways, as well as the modification of existing transportation facilities on Pole Line Road, East Covell Boulevard, and Cannery Avenue. All new roadway, bicycle, and pedestrian infrastructure improvements constructed as part of the project would be subject to, and designed in accordance with, applicable City of Davis design and safety standards to avoid creating a geometric design hazard.

The Proposed Project and the BRPA would consist of mixed-use development consistent with the existing land use character of the surrounding area, which is comprised of single-family residential, multi-family residential, office, retail, and recreational uses. As such, the Proposed Project and the BRPA would generate a mix of traffic that would generally be similar to existing conditions, and, thus would not increase hazards due to incompatible uses.

However, as discussed under Impact 4.13-2, the Proposed Project and the BRPA would result in increases to walking and bicycling activity in the project site vicinity and between the project site/BRPA site and nearby destinations and activity centers. With more people traveling to and from the site due to new travel demand generated by the Proposed Project/BRPA in combination with other reasonably foreseeable development, the volume of traffic across modes would increase and may result in slower travel speeds for some modes and additional physical mixing between transportation modes. Additional physical mixing between bicyclists, pedestrians, and vehicles at the specific locations described in Impact 4.13-2 would increase the potential for conflicts involving people walking and biking that are attributable to the Proposed Project/BRPA. Moreover, additional physical mixing and increased potential for conflicts involving people walking and biking would occur at the I-80/Mace Boulevard interchange area due to project-related increases to vehicle travel activity and background increases to bicycle and pedestrian travel activity attributable to reasonably foreseeable development such as the DiSC 2022 project.

Fehr & Peers analyzed peak hour traffic operations to determine the extent to which the Proposed Project and the BRPA could cause off-ramp queues to spill back to the I-80 and SR 113 mainline. To the extent possible, Caltrans strives to prevent off-ramp queues from extending to the freeway mainline in order to minimize the potential for associated adverse operational and safety effects (e.g., speed differentials between vehicle traffic on the freeway mainline and stopped/queued off-ramp vehicle traffic that could increase the potential for conflicts).

Table 4.13-11 displays the maximum freeway off-ramp queues at the SR 113/West Covell Boulevard, I-80/Mace Boulevard/Chiles Road, and I-80/CR 32A/CR 32B interchanges under cumulative conditions. Under cumulative conditions, maximum queues would spill back onto the freeway mainline at the West Covell Boulevard/SR 113 Southbound Ramps, West Covell Boulevard/SR 113 Northbound Ramps, Mace Boulevard/I-80 Westbound Off-Ramp, and Chiles Road/I-80 Eastbound Ramp ramp terminal intersections, which would conflict with Caltrans performance expectations related to safety for the State Highway System.

As shown in Table 4.13-11, the changes associated with the Proposed Project/BRPA, in combination with future buildout of the City of Davis, could result in hazards due to a geometric design feature or incompatible uses, and a ***significant*** impact could occur.

Table 4.13-11
Freeway Off-Ramp Queuing – Cumulative Conditions

Off-Ramp	Off-Ramp Distance[1]	Maximum Queue Length[2]	
		Existing Conditions	
		AM Peak Hour	PM Peak Hour
West Covell Boulevard/SR 113 SB Ramps	1,375 feet	1,975 feet	1,175 feet
West Covell Boulevard/SR 113 NB Ramps	1,275 feet	1,350 feet	1,900 feet
Mace Boulevard/I-80 WB Off-Ramp	1,200 feet	2,875 feet	300 feet
Chiles Road/I-80 EB Off-Ramp	1,100 feet	550 feet	1,350 feet
CR 32A/I-80 WB Ramps	1,020 feet	175 feet	200 feet
Chiles Road/CR 32B/I-80 EB Ramps	875 feet	50 feet	50 feet

Notes:

[1] Measured from the intersection stop bar to the gore point of the freeway off-ramp. Does not include auxiliary lane on freeway mainline.
[2] Maximum queue estimates are based on results from SimTraffic micro-simulation model. Queues are maximum per lane, rounded up to the nearest 25 feet.

Source: Fehr & Peers, 2024.

Mitigation Measure(s)

Implementation of Mitigation Measure 4.13-11 would reduce the Proposed Project/BRPA's contribution to cumulative impacts by reducing the potential for conflicts involving pedestrians and bicyclists at the Mace Boulevard/I-80 interchange area. Implementation of Mitigation Measure 4.13-11 would further reduce cumulative impacts by preventing off-ramp queues from spilling back onto the SR 113 and I-80 mainlines. However, elements of Mitigation Measure 4.13-11 would occur within Caltrans rights-of-way and would be subject to final approval and actions by Caltrans. Moreover, because the remaining fair share contributions needed for the construction of the improvements have not been identified by the relevant lead agency, fair share payment by the project applicant would not ensure construction. Therefore, the implementation and effectiveness of Mitigation Measure 4.13-11 cannot be guaranteed and this impact would be considered *significant and unavoidable*.

Elements of Mitigation Measure 4.13-11, particularly the identified roadway capacity increases at the West Covell Boulevard/SR 113 and Mace Boulevard/Chiles Road/I-80 interchanges, have the potential to exacerbate impacts to VMT described in Impact 4.13-9. Generally, roadway capacity increases have the potential to induce additional vehicle travel activity and associated VMT. As such, it is possible that the identified roadway capacity increases could induce additional VMT generated by the project and by other land uses in Davis. Moreover, existing evidence indicates that Covell Boulevard, Mace Boulevard, and connecting roadways such as Chiles Road are utilized as regional cut-through routes when I-80 experiences significant speed reductions and delays during p.m. peak periods. Therefore, increasing roadway capacity and reducing vehicle delays along these local roadways could increase the attractiveness of these routes as alternatives to I-80 and induce additional regional

cut-through travel activity on local roadways. Parallel local routes require longer trip distances than remaining on I-80; therefore, regional travel demand use of local routes would yield more VMT than use of I-80.

Proposed Project, Biological Resources Preservation Alternative

4.13-11 *Prior to occupancy of the first residential unit during Phase 1 of the Proposed Project/BRPA, to the satisfaction of the City of Davis, the project applicant shall enter into an agreement to contribute fair share funding, as determined by the City of Davis Public Works Engineering and Transportation Department, to cover their proportionate cost of the following improvements at the West Covell Boulevard/SR 113 and Mace Boulevard/Chiles Road/I-80 interchanges:*

- *Covell Boulevard between Shasta Drive/Risling Court and Birch Lane: Coordinate traffic signals, optimize signal timings, and operate with a 140 second cycle length during the a.m. peak period and a 150 second cycle length during the p.m. peak period. Note that these improvements may require controller or communications upgrades.*
- *Mace Boulevard between Alhambra Drive and Cowell Boulevard: Coordinate traffic signals, optimize signal timings, and operate with a 150 second cycle length during the a.m. and p.m. peak periods. Note that these improvements may require controller or communications upgrades.*
- *West Covell Boulevard/SR 113 Southbound Ramps: Construct a second westbound left-turn lane and a second receiving lane on the southbound on-ramp.*
- *West Covell Boulevard/SR 113 Northbound Ramps: Modify the northbound off-ramp to consist of three lanes approaching West Covell Boulevard, including one left-turn lane, one shared left/through/right lane, and one right-turn lane. Construct a second eastbound left-turn lane.*
- *Mace Boulevard/Second Street/County Road 32A: Modify the northbound approach to consist of five lanes, including two left-turn pockets, two through lanes, and a right-turn pocket.*
- *Mace Boulevard/I-80 Eastbound Slip On-Ramp: Extend the on-ramp and relocate the ramp meter 500 feet east of its current location. Convert the HOV lane to a general purpose lane and control both lanes with the ramp meter.*
- *Mace Boulevard/Chiles Road: Modify the southbound channelized right-turn lane to a standard right-turn lane.*
- *Chiles Road/I-80 Eastbound Off-Ramp: Modify the westbound approach to consist of a single through lane. Modify the eastbound approach to consist of two through lanes and begin the second through lane at the Hanlees Davis Toyota driveway.*
- *Mace Boulevard between Second Street/County Road 32A and Chiles Road: Construct bicycle and pedestrian facility improvements on this segment of Mace Boulevard. Potential improvement options include a Class I shared-use path, Class*

II bike lanes, or Class IV separated bikeways. Bicycle facility improvements should reduce the potential for conflicts involving bicyclists at intersections, crossings, and other mixing zones, including (but not limited to) appropriate pavement markings, signage, and physical separation. Pedestrian facility improvement options include modifications to pedestrian crossings of free/channelized vehicular movements to reduce the speed of turning vehicles and to reduce pedestrian exposure to conflicting vehicular traffic.