Aggie Research Campus

Transportation Demand Management Plan

TRANSPORTATION CONSULTANTS, INC.

Aggie Research Campus
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Prepared for

Ramco Enterprises, Buzz Oates, and Reynolds & Brown

Prepared by

LSC Transportation Consultants, Inc.
PO Box 5875
2690 Lake Forest Road, Suite C
Tahoe City, California, 96145
530 583-4053

April 7, 2020

TABLE OF CONTENTS

LIST OF TABLES

TABLE *PAGE*

LIST OF FIGURES

FIGURE *PAGE*

Chapter 1

Introduction

The Aggie Research Campus (ARC) is proposed to consist of commercial and advanced manufacturing employers, multifamily housing, and open space. The site consists of 187 acres immediately east of Mace Boulevard and north of 2nd Street, adjacent to the City of Davis (Davis) within unincorporated Yolo County.

The proponent of the project, Ramco Enterprises, Buzz Oates, and Reynolds & Brown, aware of the importance of reducing transportation and associated environmental effects of new development, has commissioned this Transportation Demand Management Study. Using the services of LSC Transportation Consultants, Inc., this study assesses existing alternative transportation modes serving the study area, analyzes current plans for improvements to these auto alternative modes, and provides strategies that the landowner can implement to expand alternative access.

The following chapter presents a summary of existing transit services and planning documents. This is then followed by a discussion of bicycle, pedestrian and microtransit conditions. An overall analysis of alternative transportation conditions is then provided. Finally, recommendations are provided for action items that can expand non-auto access and help meet local and regional goals for expansion in transit, pedestrian and bicycle travel.

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Chapter 2

Existing Transit Services

This chapter provides an overview of various transit systems serving the site as well as current plans for improvements. The site is currently directly served by two public transit programs, Yolobus and UNITRANS, as shown in Figure 1. In addition, the Capital Corridor Amtrak provides rail service to Davis and expands non-auto options to the site through local connections.

EXISTING SERVICE TO THE PROJECT SITE

Yolobus

Yolobus currently runs 14 regular fixed route services, 5 commuter services, and 8 express bus services throughout Yolo County. Of these 27 services, 4 routes serve the proposed project area within the eastern Davis. The following provides a brief description of each route and their service hours:

- Routes 42A and 42B both provide hourly service, seven days a week. Route 42A is an intercity loop going clockwise, starting in downtown Sacramento, moving through West Sacramento, Davis, Woodland, the Sacramento Airport, and ending in downtown Sacramento. Route 42B is an intercity loop going counter-clockwise, opposite the 42A. Service along these routes are provided between 4:30 AM and 11:45 PM Monday through Friday, and 6:30 AM to 10:45 PM Saturdays, Sundays and holidays.

  Popular destinations and major transfer points for connections to other routes include: Woodland County Fair Mall Transit Center, UC Davis Memorial Union Terminal (connections with Unitrans & Solano), West Sacramento Transit Center, and downtown Sacramento (connections with Sacramento Regional Transit and other regional agencies).

- Route 232 is an express bus providing one morning and one afternoon trip during weekdays only between central and east Davis and downtown Sacramento. Service on this route is provided between 6:30 AM and 7:30 AM and between 5:30 PM and 7:00 PM.

FIGURE 1
Existing Transit Services

- Route 44 is an express bus providing three morning and three afternoon trips during weekdays only between central and south Davis and downtown Sacramento. Service is provided between 6:00 AM and 8:30 AM and between 4:15 PM and 6:15 PM.

- Route 138 - The "Causeway Connection" was planned to begin service April 6th, 2020 but due to recent Covid-19 precautions, has been postponed to April 30th. This service will be run by Yolobus in partnership with Sacramento Regional Transit to connect Davis with the UC Davis Medical Center in Sacramento. This service will also serve the Mace Boulevard Park and Ride as one of its stops in Davis between the hours of 6 AM and 8 AM with return drop off between 4 PM and 8 PM. The Causeway Connection is fully electric and will operate Monday through Friday between the hours of 6:15 AM and 8:50 PM. It will provide service between the site and downtown Sacramento / UC Davis Med Center within roughly 30 minutes.

UNITRANS

The UNITRANS program, operated by the Associated Students of UC Davis (ASUCD), provides 19 fixed routes within Davis. Of these services, four routes currently serve the proposed project area on a half-hourly basis. The following provides a brief description of each route and their service hours:

- The A Line provides service every 30 minutes Monday through Thursday between 6:50 AM and 11:00 PM and Friday from 6:53 AM to 9:00 PM. The service runs between the UC Davis Silo east towards the Amtrak station with stops located along 5th street near the Post Office, DMV, and Police Department. The route continues down Mace Boulevard to the Park and Ride lots located along El Cemonte Avenue before returning along the same route west towards the Silo.

- The P and Q Lines provide service seven days a week. Regular service is provided every 30 minutes Monday through Thursday from 6:30 AM to 11:00 PM, Friday from 6:30 AM to 9:00 PM, and hourly service on weekends from 8:20 AM to 7:00 PM. These services are described as being the Davis "perimeter" lines as they travel along Covell and 14th Street on the north side of Davis and along Cowell and Russell on the south s ide of Davis.

- The Z Line runs Monday through Friday from 7:00 AM to 6:50 PM with 30-minute headways. This route begins at the Memorial Union stop, heads east on Russell before turning south on B Street. Its route is similar to the A Line but rather than continuing

down Mace Boulevard towards the Park and Ride lot, it turns west on 2nd Street and loops back up the 5th Street before returning back towards Memorial Union.

Major Bus Stop Average Daily Boarding and Alightings

As shown in Figure 1, there are nine bus stops within ½ mile walking distance to the proposed project site. The stops average daily usage is summarized in Table 1. As shown, the transit stop located at 2nd Street and Target has the most average daily use (100 passengers a day), followed by Alhambra Drive and Mace Boulevard (97.6 passengers a day).

TABLE 1: UNITRANS Boarding and Alightings within 1/2 Mile of ARC

Bus Stop	Total Daily Boarding & Alightings	Amenities
2nd St. & Target Drive (WB)	100.0	Shelter & Bench
Alhambra Dr & Mace Blvd (EB)	97.6	Bus Stop Sign Only
Mace Blvd & Cowell Blvd (NB)	74.2	Bus Stop Sign Only
Mace Blvd & Chiles Rd (SB)	73.9	Bus Stop Sign Only
Cowell & Mace Blvd (WB)	66.3	Bus Stop Sign Only
Alhambra Dr & Mace Blvd (WB)	65.7	Bus Stop Sign Only
Mace Blvd & 2nd St (SB)	52.6	Bus Stop Sign Only
Mace Blvd & 2nd St (NB)	45.8	Bus Stop Sign Only
Covell & Mace Blvd (EB)	33.1	Bus Stop Sign Only
Total	**609.1**	

Source: UNITRANS Ridership FY 2018-19

Transit systems serving small to mid-sized cities typically strive to provide seating (such as a bench) for stops that average 5 or more boardings per day, and shelter for stops that average 10 or more boardings per day. Currently, the only bus stop with a shelter and bench is located at the 2nd Street Target bus stop. None of the other transit stops located in the proximity of the project site have large enough sidewalk pads, shelters, benches, wayfinding signage, or bicycle racks to facilitate high rates of average daily ridership.

Amtrak Capitol Corridor

The Capitol Corridor is an intercity passenger train system that provides service along the congested Interstate (I-) 80, I-680 and I-880 freeways through 18 stations in 8 Northern California counties: Placer, Sacramento, Yolo, Solano, Contra Costa, Alameda, San Francisco,

and Santa Clara. The service is a partnership between Amtrak, Caltrans, and the Union Pacific Railyard with 11 trains running east- and westbound through the Davis station between 4:50 AM and 12:12 AM Monday through Friday and between 6:25 AM and 11:40 PM Saturdays and Sundays. There are future planned expansions between Roseville and the Capital Corridor outlined in the *Capital Corridor Vision Plan,* which include expansion to up to 40 trains per day in each direction. The timeline of these improvements is currently unknown.

PLANNED EXPANSION OF SERVICE TO THE PROJECT SITE

The most recent Yolo County Transportation District (YCTD) Short Range Transit Plan (SRTP) was prepared by the Sacramento Area County of Governments (SACOG). The SRTP analyzed issues specific to Yolobus's service to Davis and presented recommendations to accommodate increased student ridership between Woodland and UC Davis through route and schedule alternatives to Routes 42 and 242 (which both currently serve the proposed project's location). Alternatives to ease over-crowding on Route 42 included the addition of one bus throughout the entire day of service or the use of an additional bus only during peak capacity times (commuting AM and PM hours).

Most recently, YCTD completed a 2020 Comprehensive Operational Analysis (COA) focusing on current conditions, cost allocation methodology, administrative policies, and operational performance. A thorough review of both their Yolo County fixed route and ADA paratransit services was presented for public input through a series of outreach meetings and stakeholder interviews. The analysis concluded with the following recommendations affecting service to the project site:

- Increase weekday frequency on Routes 42A/42B to every 30 minutes.

- Streamline Routes 42A/42B in downtown Sacramento and consider streamlining Routes 42A/42B in Davis. The streamlining of 42A/42B maintains its current Mace Boulevard services.

- Discontinue unproductive service to reduce the financial impact of 30-minute service on Routes 42A/42B. Single-trip express/commute routes, local Route 35 in West Sacramento, and other express/commute routes are proposed for discontinuation depending on the financial scenario.

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Chapter 3

Bicycle, Pedestrian and Micromobility Conditions

Davis has over 70 miles of pathways and 50 miles of bicycle lanes. A total of 75 percent of all roads have a speed limit of 25 miles per hour and with 25 at-grade separated crossings 4 overpasses and 21 underpass crossings, the city is one of the most bicycle friendly areas in the Sacramento-Bay Area region. The following provides an overview of existing bicycle and pedestrian facilities serving the project site as well as planned improvements.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES SERVING THE SITE

As shown in Figure 2, there are two protected shared bicycle and pedestrian paths and six major bicycle lanes serving the project site. As part of the greater Davis mobility network, there is a protected shared pedestrian and bicycle path along both sides of Alhambra Drive from Covell Boulevard to Mace Boulevard. These paths link to the neighborhoods both north and south of Alhambra Drive. On this same corridor there is a Class II separated bicycle lane on both sides of the street as well. The other two sets of Class II bicycle lanes run north and south along Mace Boulevard/Covell Boulevard as well as east and west along 2nd Street.

PLANNED IMPROVEMENTS NEAR THE PROJECT SITE

Planned bicycle improvements are also shown in Figure 2. Davis plans to initiate design for safety-related improvements on 2nd Street between Mace Boulevard and L Street over the next year. There are also design revisions currently occurring to the recently constructed improvements on Mace Boulevard just south of the I-80, between Cowell Boulevard and Red Bud Drive. Lastly there are road realignments and safety improvements in conceptual design for County Road 32A at County Road 105 in Yolo County.

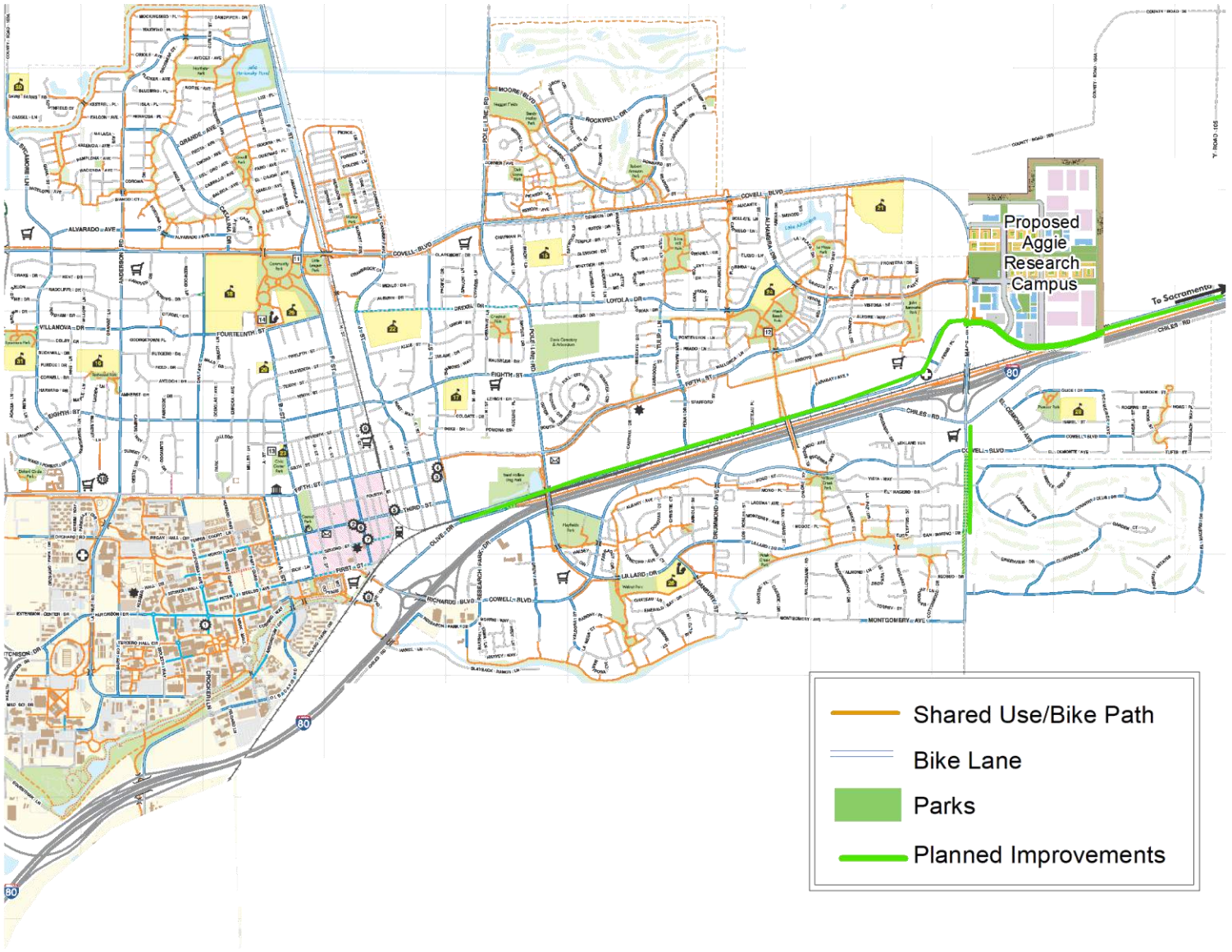
In addition to the city-planned bicycle infrastructure improvements, the ARC proposes the addition of a 2 ¼ mile long bike path and adjacent pedestrian trail encircling the site. This bike path would connect to the existing Class II bike lane located along CR 32A at the project's southeastern corner. The Class II bike lane on CR 32A provides connectivity to the following:

- Old Lincoln Highway Class I (separated) bike path along I-80 via the Union Pacific Railroad (UPRR) train tracks at-grade crossing.

- Class II (striped) bicycle lanes on CR 32A east of CR 105 and the UPRR crossing.

FIGURE 2

Existing Bicycle Facilities



- Class I bicycle path on the Yolo Causeway.

- Class II (striped) bicycle lanes on CR 32A east of CR 105 and the UPRR crossing.

- Class I bicycle path on the Yolo Causeway.

EXISTING MICROMOBILITY SERVICES

JUMP provides on-demand bicycle rental through an app-based program throughout Davis. JUMP currently has approximately 150 electric-assist bicycles operating in the area. However, during the COVID-19 outbreak, they have reclaimed their bicycles and will redeploy once it is safe to do so. While JUMP also offers electric scooter rental in other regions, electric scooter-share is prohibited by City of Davis Ordinance 22.18.020.

Current JUMP electric bicycle charging stations are located at The Spoke Apartment complex at 8th Street and J Street. There are also plans to install two additional charging stations at Davis City Hall (Between A and B Street along Russell Boulevard) and within ¼ mile of the project site at the Residence Inn on Fermi Place and Mace Boulevard.

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Chapter 4

Transportation and Mobility Analysis

This chapter provides a summary of the proposed project followed by an analysis of existing transit and mobility services as they relate directly to the project.

Project Description

The proposed ARC project is located on a 187-acre site northeast of Mace Boulevard and 2nd Street. ARC is approximately 2.5 miles east of downtown Davis, 3 miles from UC Davis, and 10 miles west of downtown Sacramento and the State Capitol. Once completed, the development will include a total of 2,654,000 square feet of commercial uses such as office, research, laboratory, prototyping, and advanced manufacturing (Table 2).

TABLE 2: ARC Project Land Uses by Type

Land Use	Size
Office, Research, and Development/Laboratory	1,510,000 sf
Advanced Manufacturing/Prototyping	884,000 sf
Residential (avg. density 30 units per acre)	850 Units
Ancillary Retail	100,000 sf
Hotel/Conference	160,000 sf
Green Space	49.1 acres
Transit Plaza	0.6 acres
Total Acres	**187**
Total Square Footage	**2,654,000**

Source: Project Description, October 23, 2019

At completion, there will also be 850 residential units of varying size and affordability in addition to supportive uses such as hotel, conference, and retail space. The project is estimated to provide approximately 5,882 jobs[1] and 2,119 project residents according to Appendix F:

[1] ARC employment estimates taken from the *City of Davis Economic Evaluation of Innovation Park Proposals* (BAE, 2015)

Transportation Impact Analysis of the Aggie Research Campus Subsequent Environmental Impact Report Draft (March 2020).

Existing Commute Patterns

Table 3 summarizes commute patterns gathered by the US Census 2017 Longitudinal Employer Household Dynamics (LEHD). It is important to consider that this data does not include the commute patterns of UC Davis faculty and residents which, though distinct and unique, are undeniably tied to the City of Davis. It also includes information for employees that do not necessarily report to work on a daily or consistent basis and can include persons who have a permanent residence in one location but stay elsewhere during their work week. Nevertheless, despite these omissions, the LEHD provides the best available picture of commuting patterns associated with the City of Davis.

TABLE 3: City of Davis Commute Patterns

Where Davis Residents Work			Where Employees Working in Davis Commute From		
City/Town	**# of Persons**	**% of Total**	**City/Town**	**# of Persons**	**% of Total**
Sacramento	4,619	18.8%	City of Davis	4,197	27.7%
City of Davis	4,197	17.1%	Sacramento	1,570	10.3%
City of Woodland	949	3.9%	City of Woodland	1,285	8.5%
City of Vacaville	540	2.2%	West Sacramento	465	3.1%
Fairfield	457	1.9%	City of Vacaville	402	2.6%
Roseville	443	1.8%	City of Dixon	343	2.3%
San Francisco	421	1.7%	City Elk Grove	329	2.2%
West Sacramento	406	1.7%	San Jose	164	1.1%
Arden-Arcade CDP	329	1.3%	Arden-Arcade	163	1.1%
Rancho Cordova	275	1.1%	San Francisco	163	1.1%
All Other Locations	11,921	48.5%	All Other Locations	6,097	40.2%
Total	***24,557***	-	***Total***	***15,178***	-

Source: LEHD Census Data, 2017

As shown in Table 3, nearly 19 percent of working residents living in Davis work in Sacramento. Another 15 percent of all working-aged residents commute to other neighboring communities such as Woodland, Vacaville, Fairfield, and Roseville. Only about 17 percent of Davis residents work in Davis (though it can be assumed that a portion of those captured within "All Other Locations" work at UC Davis). Of the 48.5 percent of Davis residents working at All Other Locations, those not working at UCD are either physically commuting to, or remotely working from, areas such as Stockton, Pleasanton, San Jose and Oakland. Even without the exact UC Davis data, it is safe to surmise that the majority of working Davis residents commute out of town for employment.

On the other side of Table 3, amongst those currently working within Davis, 27.7 percent of them are also residents of Davis, followed by 10.3 percent commuting from Sacramento and 8.5 percent commuting from the City of Woodland. Another 13.4 percent of those working in Davis commute from the neighboring communities of West Sacramento, Vacaville, Dixon, and Elk Grove. The remaining 40.2 percent of those working to Davis include those coming from areas such as Stockton, Yuba City, Roseville, and Fairfield. In sum, Davis imports a considerable percentage of its workforce but primarily from Sacramento and the immediately adjacent jurisdictions.

Fixed Route Transit Access

The average walking distance to be considered "accessible" to a pedestrian is between ¼ and ½ mile. Figure 3 indicates the various transit stops within these distances. As shown in Figures 1 and 3, the following transit stops and transit services are within ¼ mile of the project site:

- Alhambra Drive and Mace Boulevard (westbound/eastbound)
    - Served by UNITRANS Lines A and Z and Yolobus Routes 42 A/B and 232.

- Mace Boulevard and 2nd Street (northbound/southbound)
    - Served by UNITRANS Lines A, Z, P, Q and Yolobus Routes 42 A/B, 43, 232 and Yolobus/SACRT Route 138 Causeway Connection

The following transit stops and transit services are within ½ mile of the project site:

- 2nd Street and Target (westbound)
    - Served by UNITRANS O and Yolobus/SACRT Route 138 Causeway Connection

- Chiles Road and Mace Boulevard (southbound/northbound)
    - Served by UNITRANS A, P, Q and Yolobus Routes 44, 232

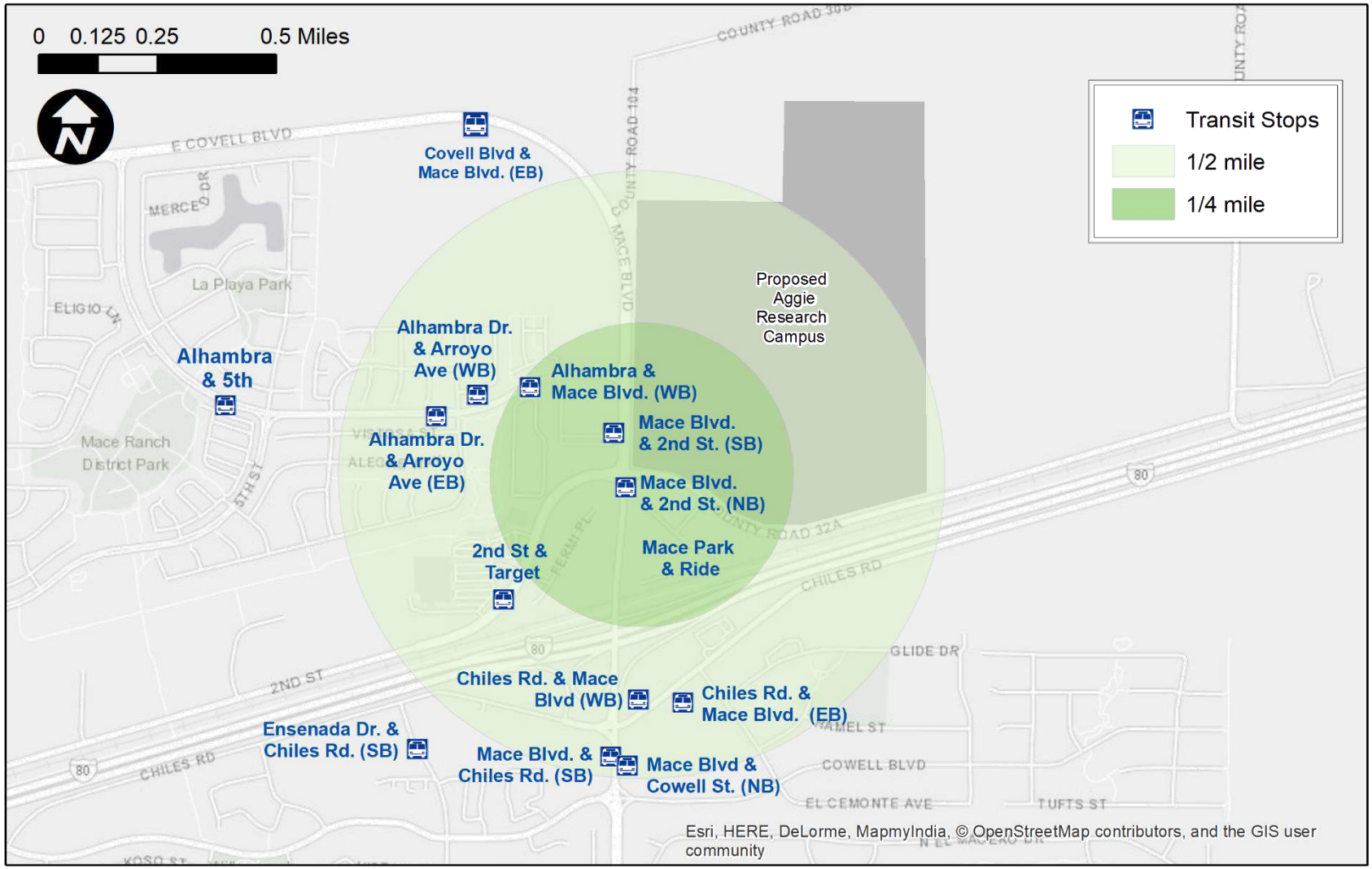
- Chiles Road and Mace Boulevard (eastbound)
    - Served by UNITRANS A and Yolobus Route 42 A/B, 44, 232, 232

Summary of Existing Transit Accessibility to the Site

Considered as a whole, the existing transit services provide the ability for ARC employees and residents to travel to and from the following communities with the identified travel times:

FIGURE 3

Existing Transit Stops within ½ and ¼ Mile



15-Minute Travel Time

- Davis Neighborhoods of Wildhorse, Green Meadows, Covell Farms, Slide Hill Park, Lake Alhambra, Kaufman and Broad, Mace Ranch, Rancho Yolo, Ranch Macero, Willowcreek, and El Macero Estates.

30-Minute Travel Time

- Davis Neighborhoods of Rose Creek, Willowbank, South Cape, Wagner Ranch, Arbors at Oakshade, Arrowhead, Covell Park, Central Davis, Evergreen Meadows, Aspen, Stonegate, and UC Davis.

- West Sacramento

60-Minute Travel Time

- One may take a 20 minute bus ride to and from the Amtrak Capitol Corridor station in Davis, followed by a 33-minute train ride to and from the Sacramento Valley station for a total of 53-55 minutes.

- The 42 A/B provides 45 minute service between Mace Boulevard and downtown Sacramento.

Future Transit Accessibility

Planned expansion of transit services will expand the areas that can be reached by public transit within various travel times. In particular, Route 138 (the Causeway Connection) will provide 30-minute service from the Mace Boulevard Park and Ride to the UC Davis Medical Center. The inter-regional commuter will pick passengers up from the Mace Park and Ride at 6:23 AM, 7:10 AM, 8:10 AM, and 9:10 AM with return service to the Park and Ride at 4:16 PM, 5:16 PM and 6:10 PM.

Discussion of Transit Demand

The key generators of demand for transit services will be the employment on site and residents.

Employment Transit Demand

At buildout, ARC will be a major employment center. The most recent available data (2017) indicates 15,178 jobs in the City of Davis (per the *American Community Survey*), while ARC is forecast to add 5,882 new jobs. Setting aside job growth in other areas of Davis, if built today ARC would constitute 28 percent of all employment in Davis.

Persons employed within ARC will have a substantial number of convenient transit options to commute to and from the site:

- UNITRANS provides a total of 82 arrivals to ARC (and an equal number of departures) each weekday over the 4 routes serving the site, from 6:30 AM to 10:00 PM, providing service within 30 minutes to all of Davis.

- Yolobus currently provides a total of 40 arrivals from Woodland (an increasingly important location of relatively affordable housing) and 6 arrivals from West Sacramento and Sacramento each weekday, from 6:30 AM to 10:30 PM. The new Causeway Connection will add 3 new daily arrivals and will reduce travel times to downtown and mid-town Sacramento to roughly a half-hour.

- The *Capital Corridor* rail service provides 11 trains per day that provide regional access from the Bay Area and Sacramento Region. As I-80 congestion increases, this is an increasingly attractive commute mode, and is now the third-busiest passenger rail route in the nation. Of note, existing UNITRANS routes already provide a total of 52 daily trips from the Amtrak train station to the ARC site (typically a 20 minute trip), from roughly 7:00 AM to 10:00 PM and up to 4 trips per hour per direction.

Travel Mode Share

City of Davis

As shown in Table 4, 7.2 percent of Davis residents commute by public transit. To a degree, this figure reflects the unique travel characteristics of the UC Davis campus. A more realistic "transit mode split" is 3.5 percent, consistent with the average proportion of commuting by transit for the Sacramento Region as a whole. Applying this figure to the 5,882 jobs indicates a daily transit ridership generation of approximately 410 one-way passenger-trips. Over the course of a year, this is equal to roughly 103,000 additional passenger boardings.

TABLE 4: Davis Commuter Mode of Travel

Mode	Population #	Population %
Car Truck or Van	19,257	60.3%
Drove Alone	17,469	54.7%
Bicycled	6,004	18.8%
Public Transportation	2,299	7.2%
Carpooled	1,820	5.7%
Walked	958	3.0%
Taxi	479	1.5%
Worked at Home	2,938	9.2%
Total Workforce	*31,936*	-

Source: 2018 American Community Survey Census Data

UC Davis Campus

The most recently completed UC Davis Campus Travel Survey (2018-19) found that about 45,000 people physically travel to and from the UC Davis campus on an average weekday. Of those surveyed, 37 percent bicycled, 31 percent drove alone, 16 percent rode the bus, 9 percent walk or skate, 6 percent carpool or get a ride, 1 percent ride the train, and 0.4 percent use ride hailing services such as Lyft and Uber. This survey indicated that nearly 62 percent of those travelling to and from campus do not use a personal vehicle to do so.

Resident Transit Demand

ARC residents will also benefit from the high level of existing (and higher level of future) transit accessibility of the site. In particular, the high frequency of UNITRANS service providing connections to shopping, downtown, UC Davis and the train station will make transit a convenient mode for many travel needs. A reasonably conservative transit mode split for ARC residents is 5 percent. As identified in the ARC Transportation Impact Study, there will be 5,179 total vehicle-trips generated (prior to the non-auto reduction). This value multiplied by the 5 percent transit mode split indicates that transit service reduces the total residential trip generation by 259 daily vehicle-trips. At a typical average vehicle occupancy of 1.7 persons per vehicle, this equates to 440 passenger-trips per weekday. As weekend daily transit ridership is

typically on the order of half that of weekday ridership, over the course of the year this equates to 132,000 transit passenger-trips.

Total Transit Demand

In total, at buildout the ARC will generate approximately 860 new transit boardings per weekday, or 237,000 boardings over the course of a year. At buildout, this level of transit ridership will warrant routes that deviate off of Mace Boulevard to serve an internal transit hub (and avoids the need for half of the passengers to cross Mace Boulevard). However, during the initial phases of development when demand is relatively low, it is good transit route planning to keep the routes on Mace Boulevard, serving improved bus stops on either side of the street.

Summary of Bicycle and Pedestrian Accessibility to the Site

The project site currently has good bicycle/pedestrian accessibility, particularly provided by the Class I shared use paths along Alhambra Drive and the 5th Street Corridor. Planned improvements (including a grade separated path across Mace Boulevard and connections to the eastern end of the existing Class I facility at Frances Harper Junior High School, and improved connections to the Yolo Causeway Class I facility) will further enhance bicycling and walking as viable options for travel to/from the site.

Figure 4 depicts the areas of Davis that are accessible by bicycle within a 10-minute, 20-minute and 30-minute travel time. As shown, virtually all of the city as well as the UC Davis campus is within a 30-minute travel time by bicycle. Downtown Davis as well as the Davis Senior High School is within a 20-minute ride. A 10-minute ride from the site allows access to supermarkets, parks and the junior high school. Along with the bicycle-supportive TDM policies proposed for the development, bicycling and (to a lesser degree) walking are viable travel modes for ARC employees and residents.

Micromobility

As discussed in the previous chapter, bicycle and pedestrian infrastructure is robust with most of its infrastructure occurring nearest the University and downtown. According to the 2018 American Community Survey, approximately 19 percent of those commuting within Davis (Table 4)

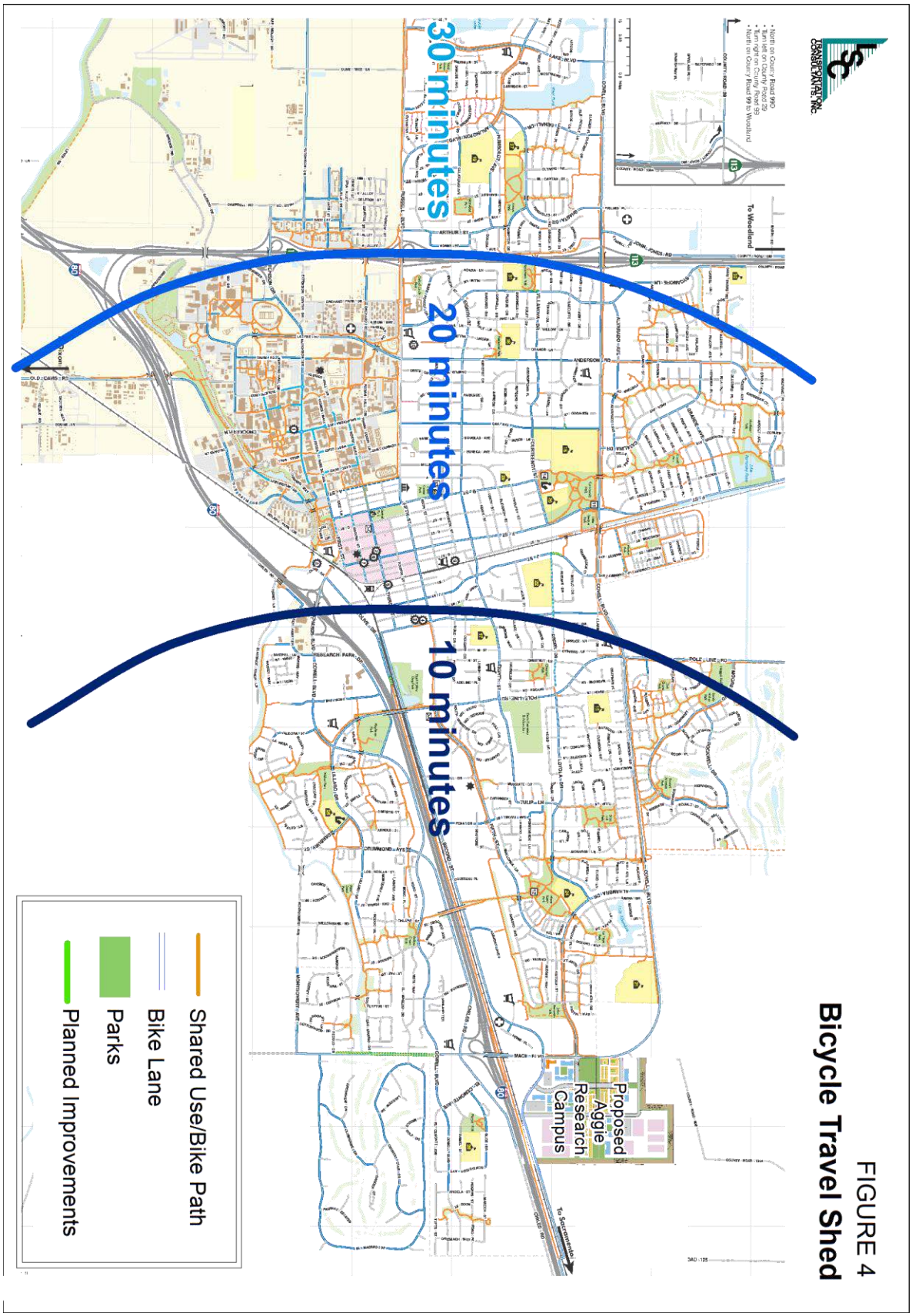


FIGURE 4
Bicycle Travel Shed

Those who typically travel by bicycle do so for approximately 10 minutes or 2 miles. As shown in Figure 4, there are two major commercial centers located within a 2 mile bicycle ride from the site: the Target shopping center along 2nd Street and the Nugget Market shopping center south of I-80 at Chiles Road and Mace Boulevard. In addition to accessibility to nearby activity centers, the southeast corner of the project site connects to the Yolo Causeway via CR 32A. To support the existing JUMP bicycle infrastructure within Davis, a charging station is currently being designed within ¼ mile of the project site on Fermi Place and Mace Boulevard (Residence Inn).

Chapter 5

Transportation Demand Management Program

This chapter outlines potential transit and micromobility improvements to better serve ARC. The following transportation demand management (TDM) program recommendations have the most potential to reduce vehicle trips, vehicle miles travelled (VMT), and greenhouse gas emissions.

1. Transit Incentives and Improvements

Action 1.1: Improve Existing Bus Stop Infrastructure

Increasing concrete sidewalk pads, shelters, seating and bicycle racks at the major bus stops near the project site would greatly improve existing facilities that are lacking. These added amenities have the capacity to increase ridership by 5 to 10 percent and are vital in attracting discretionary riders.

Action 1.2: Provide Transit Subsidies

Offering free transit passes to those working and living on the project site encourages transit use. Subsidies may be provided by either employers or property managers depending on agreements with local transit providers. Providing “free rides” typically generates a 40 to 50 percent increase in ridership.

Action 1.3: Improve Amtrak Station Connections

Coordinating with the City of Davis to provide fair-share funding for improved bus connections with the Davis Amtrak Station would encourage increased ridership. These improved connections could include a shuttle bus or other similar efforts. Providing convenient access to the Capital Corridor railway system can expand the ability for people living throughout the I-80 corridor (from Roseville to the Bay Area) to access ARC employment opportunities, while allowing ARC residents to access jobs throughout the corridor as well.

Action 1.4: Research Campus Transportation Coordinator

Requiring residential property managers and future employer tenants to join the Yolo TMA and designate a Transportation Coordinator would better assist residents and employees with

transit trip planning. Designating a single contact person responsible for alternative transportation helps to ensure long-term focus on alternative modes of travel and reduced auto use overall.

2. Bicycle, Pedestrian and Micromobility Infrastructure Improvements

Action 2.1: Encourage Bicycle Share Programs

Incentives and subsidies for employees and residents to use local bicycle share programs, such as JUMP, may be provided by either employers or property managers. This would encourage bicycle use throughout Davis while providing first and last mile connections between transit stops and ARC employment and housing.

Action 2.2: Provide Micromobility Infrastructure throughout ARC

Constructing multiple bicycle facilities for those using their own or shared micromobility alternatives would further promote cycling to, from, and within the project site. Providing bicycle lanes, protected bicycle paths, racks, and proper lighting is important for supporting cycling safety. The project may also provide a charging station on-site for bicycle share programs such as JUMP. Providing convenient locations for bicycle parking, bicycle share, and connecting facilities near transit stops support first and last mile connections for cycling commuters as well.

Action 2.3: Bicycle Route Enhancements

Contributing funding towards bicycle route enhancements will better connect the project to existing and proposed infrastructure. These improvements would include those described in the project description and project EIR. The following bicycle route enhancements are currently planned to support the ARC project:

- Construction of a 2 ¼ mile bicycle and pedestrian path surrounding the northern and eastern boundaries of the project site.

- Installation of a grade-separated bicycle and pedestrian crossing at Mace Boulevard.

- Extension of existing bicycle lanes up around the Mace Boulevard curve towards Covell Boulevard.

- Construction of a connection to the existing Class II bicycle lane on CR 32A at the project's southeastern corner. The Class II bike lane on CR 32A provides connectivity to the following: 1) Old Lincoln Highway Class I (separated) bike path along Interstate 80 (I-80) via the Union Pacific Railroad (UPRR) train tracks at-grade crossing; 2) Class II (striped) bicycle lanes on CR 32A east of CR 105 and the UPRR crossing; and 3) Class I bicycle path on the Yolo Causeway.

Action 2.4: Bicycle Repair Facilities

Providing bicycle repair stations throughout site (to include air compressor, allen wrenches, and tire levers) encourages bicycle ridership and ensures a sense of safety in the case of bicycle mechanical issues for cycling commuters.

Action 2.5: End-of-Trip Bicycle Support Facilities

Supplying end-of-trip facilities for major on-site employers such as showers, lockers, and changing rooms is most important to those making longer bicycle commute trips by bicycle, such as causeway cyclists from Sacramento and West Sacramento

Action 2.6: Bicycle Storage Rooms

Requiring internal and secure bicycle storage rooms and/or bicycle lockers of sufficient capacity to accommodate minimum required long-term bicycle parking spaces near each residential building and employer entrances encourages people to ride their bikes as a primary means of transportation. These rooms and/or lockers should be located on the ground floor so they can provide easy access to and from bicycle infrastructure on site such as bicycle lanes and multi-use paths.

3. Parking Pricing and Supply Management

Action 3.1: Rent or Lease Residential Parking Spaces

"Unbundled parking" is the act of providing on-site parking separate from residential units. The project could implement unbundled parking from their multifamily-residential in an effort to discourage auto-use to and from ARC. Recent research has suggested that unbundled parking methods can reduce VMT by 3 to 13 percent.[2]

[2] Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association, 2010.

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