

West Davis Active Adult Community Bicycle and Pedestrian Safety Enhancement Program



Prepared For:

West Davis Active Adult Community

Prepared By:

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Executive Summary

The West Davis Active Adult Community (Project) is a proposed residential and mixed use development on approximately 75 acres of land northwest of the City of Davis in unincorporated Yolo County. The southerly boundary of the project is West Covell Boulevard (Covell) which will serve as the primary access point for the proposed project. Project access from Covell is proposed at the existing Risling Court intersection and a new right-in right-out onto Covell west of Risling (see Figure 1).

Currently, the project area is an inactive agricultural field zoned for agriculture and located just west of Sutter Davis Hospital. Upon completion of the project, the site would provide up to 560 dwelling units, an “Activity and Wellness Center” which will include a health club, a restaurant, and clubhouse with meeting spaces. The Project is expected to increase traffic on Covell Boulevard. Particular attention has been paid to these concerns and how to best address them in the preparation of this plan. The Project includes improvements to the Covell Corridor from the Highway 113 interchange to the west edge of the project area to improve traffic flow and bicycle and pedestrian safety and connectivity to the existing City bicycle network.

In general terms, Covell will be widened to accommodate more traffic from all modes. Covell will be widened to four lanes with turn lanes, assisting traffic flow across the project site. Additional bike lanes with buffers and bike signals will encourage and assist cyclists accessing destinations throughout Davis. Multi-use paths will offer a safe alternative for cyclists and a pleasant environment for pedestrians. Collectively, these improvements will result in an increased capacity for vehicular movements and create a safer, more inviting corridor for pedestrians and cyclists.

Existing Conditions

Existing Covell Boulevard serves as a transportation component for circulation within the City of Davis. Covell begins at the northwest corner of the City of Davis as an extension of County Road 31 with two travel lanes. At the west end of the project, Covell is a two lane road with a two way left turn (TWLT) lane in the center. On the south side of the street is a mixed-use Class I trail and there are Class II bike lanes on both sides of the street. Continuing east, Covell widens to a four-lane road at the intersection of Shasta Drive and includes a single left turn lane northbound and two left turn lanes southbound. The four-lane roadway continues east to Highway 113 with Class I bike trails on the north and south sides of the street and Class II on street bike lanes. The southern Class I bike trail turns south at the west side of Highway 113 and connects to the existing City Bike network and bike overcrossing of Highway 113 located approximately 0.3 miles to the south. The Class II on street bike lanes and the northside Class I Bike trail continues across the highway overpass.



Figure 1: Location of West Covell Boulevard in relation to the West Davis Active Adult Community (identified with green shading)

Governing Documents

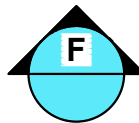
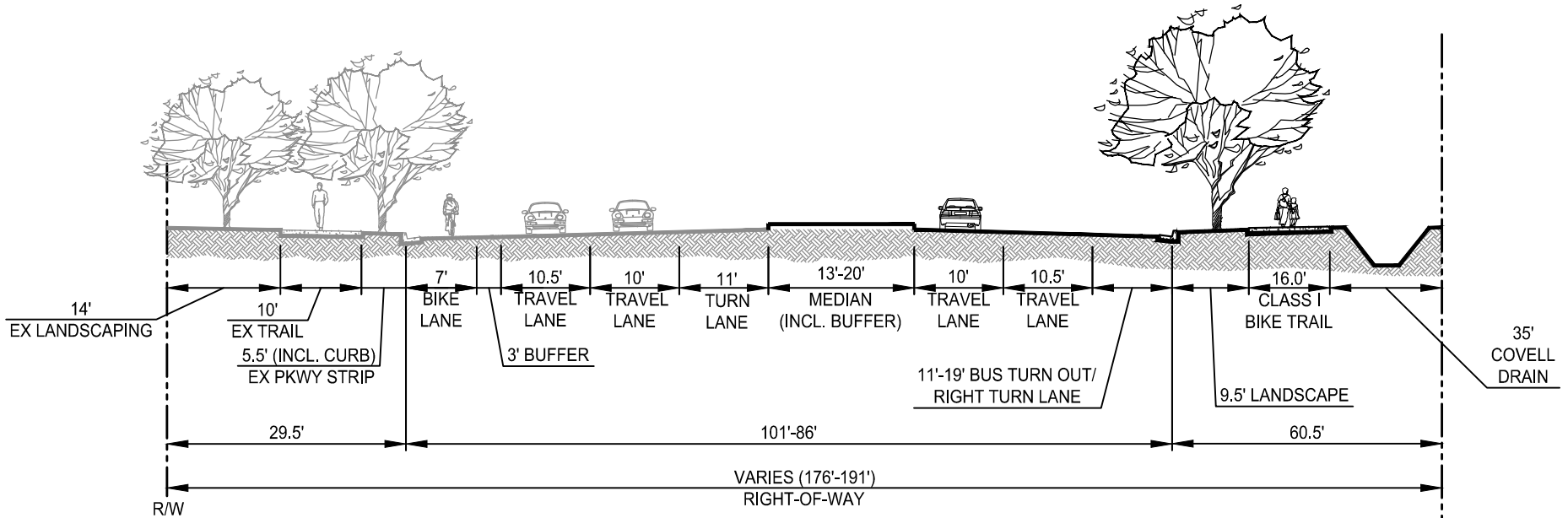
The following documents were used to prepare this Technical Memorandum and conceptual exhibits:

- The Davis General Plan Transportation Element (dated December 2013)
- The City of Davis 2016 Transportation Systems Design Standards Update (dated October 2016)

The General Plan identifies West Covell Boulevard as a major arterial planned to accommodate four-lanes with turn lanes at intersections. As such, proposed improvements account for 4-lanes fronting the project area and the ability to expand the road in the future to 4-lanes west of the proposed project site.

Proposed Covell Improvements

As part of this project, Covell Boulevard is proposed to be widened along the project frontage to a right of way varying from 176 to 191 feet. The existing eastbound travel lanes (including the bicycle lane) will be re-stripped to travel lane widths consistent with the City of Davis Transportation System Design Standards. The eastbound Class II bike lane, left turn lane and Class I bike trail will remain. The existing channelized right turn lane from eastbound Covell to southbound Shasta Drive will be removed. The channelized right from North bound Shasta onto East bound Covell will remain. Options are being looked at to regulate vehicular movement across the crosswalk at the channelized right, such as a new signal head. Westbound Covell will be modified to include two travel lanes in accordance with current city transportation standards, a right turn lane into the proposed project, and a Class I bike lane. The existing bus stop on the north side of Covell will be relocated to align with the new street improvements; the bus turnout will be shared with the new right turn lane into the project. Westbound Covell east of Shasta will be modified to include a right turn pocket for the channelized right turn onto northbound Risling Court. The existing channelized right will remain and may be retrofitted with a signal head to regulate vehicular movement across the crosswalk.



COVELL BLVD STREET SECTION

DETACHED SIDEWALKS AND CLASS I BIKE TRAIL WITH AB SHOULDERS
NOT TO SCALE



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Covell Related Safety Improvements

In order to improve the safety of pedestrian and cyclist movements through and across Covell Boulevard, the following improvements are being included with the Project:

Covell/Shasta Intersection

The basis for the intersection improvements proposed at this intersection is the design criteria set forth with the EIR for the Cannery Project at J Street and Covell (as recommended by The City of Davis), the Cannery traffic study and the Cannery EIR consultant.

1. Remove channelized right turn for eastbound vehicles on Covell onto southbound Shasta Drive
This modification will eliminate a point of conflict between vehicles, cyclists, and pedestrians at the uncontrolled crosswalk across the channelized right turn lane. This will reduce the crossing distance and time from north to south across Covell for pedestrians. It will also reduce vehicle speeds for right turning vehicles.
2. Bike Left Turn Lane from southbound on Risling onto or across Covell Boulevard
This modification will provide a signal controlled crossing of Covell from the proposed project and Sutter Hospital onto the Class I bike trail connecting to the Highway 113 overcrossing.
3. Colored Bike Facilities
In conflict zones, bike lanes would be restriped with high visibility dashed green paint to increase visibility. Additionally, crosswalks would be striped similar to the J street and Covell intersection treatment with large “zebra stripes” for pedestrians and solid green lanes for cyclists.

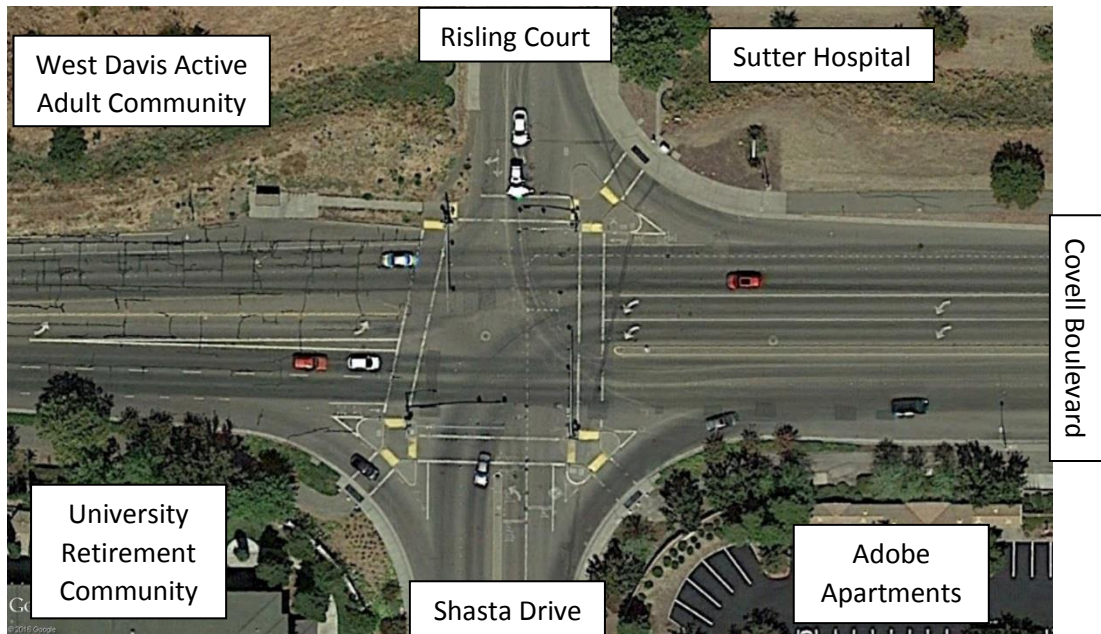


Figure 2: The existing Covell and Shasta/Risling intersection (August, 2016)



Figure 3: The proposed Covell and Shasta/Risling intersection

John Jones/Covell Intersection

1. Colored Bike Facilities

In conflict zones, bike lanes would be restriped with dashed green paint to increase visibility of bicyclists and raise awareness of intersecting travel paths. Additionally, crosswalks would be striped similar to the J street and Covell intersection treatment with large “zebra stripes” for pedestrians and solid green lanes for cyclists. These improvements increase bicycle comfort by clearly delineating the space designated for cyclists.

2. Bike Signal Head

This modification will provide a signal controlled crossing of Covell for cyclists from John Jones southbound onto the Class I bike trail, connecting to the Highway 113 overcrossing. An existing signal with a dedicated phase for northbound cyclists already exists. The proposed bike signal head will use the existing phase and allow cyclists to cross while all vehicles have a red signal.

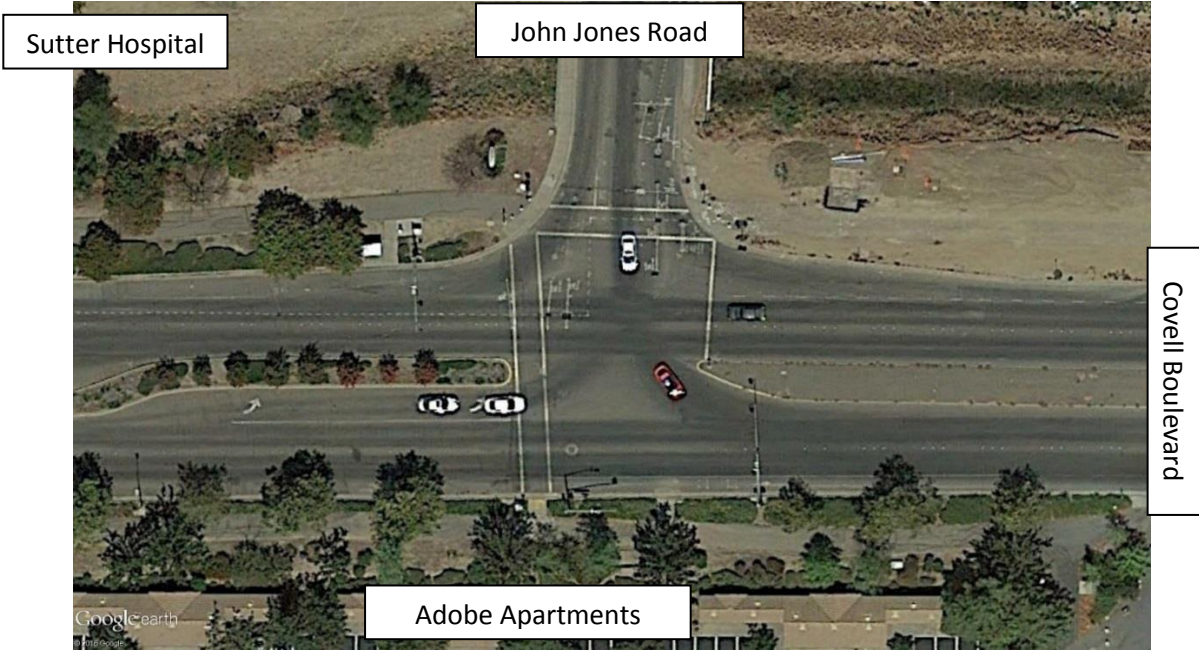


Figure 4: The existing Covell and John Jones intersection (August, 2016)

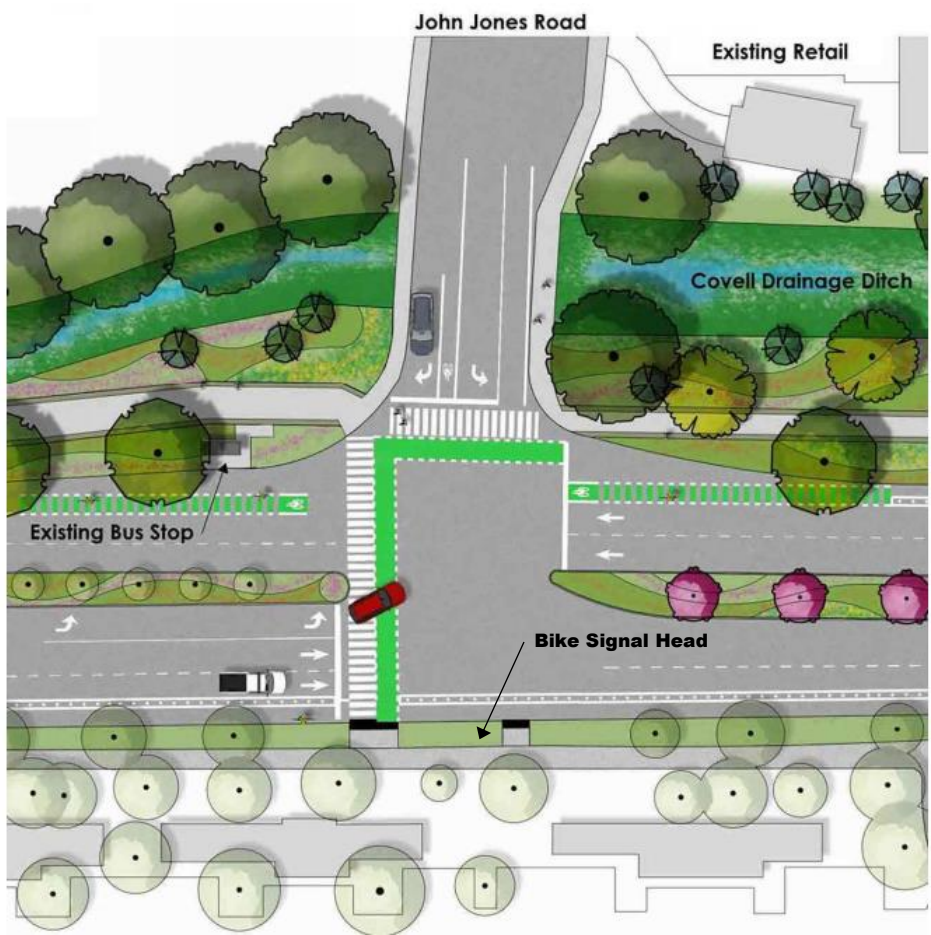


Figure 5: The proposed Covell and John Jones intersection

Covell Project Frontage

1. Separated Bike Lane

To reduce the potential bus/cyclist conflict, an entrance and exit will be located before and after merge lanes westbound. Known as a “bus island”, the bike lane is deviated around the bus shelter with a bike ramp, eliminating the need for the bus to cross a bicycle lane. The bike ramp provides convenient access between bike lanes and shared use paths. The bus island also opens up more space for passengers and pedestrians on the Class I bike trail compared to a traditional shelter.

Between West Project Limits and Highway 113

1. Buffered Bike Lane

Along the Covell corridor, where feasible, a 3’ striped buffer has been added adjacent to the bike lane. This provides additional safety and comfort for cyclists.

Existing Landscape Conditions

Compared to similar corridors in the City of Davis, the existing landscape along Covell Boulevard near the project offers sparse vegetation and in some portions, no vegetation. The south side of Covell Boulevard provides the most vegetation consisting of a row of street trees, shrubs, and groundcovers. Between Shasta Drive and Highway 113, most of Covell contains a center turn median of which only 180' linear feet possess limited vegetation – the remainder of the median consists of asphalt in poor condition. The north side of the boulevard consists of a few trees and various but sparse shrubs and invasive weeds that spread into the Covell Drainage Ditch.

Design Intent - Landscape Planting

The proposed landscape planting will consist of low water use trees, shrubs, and groundcovers. Selected plant species will be low maintenance and hardy, selected to be best suited and appropriate for the site. The landscape design is intended to enhance the visitor experience as they drive, bike, or walk, while also providing an inviting feel with high quality vegetation.

Landscaping will begin at the Hwy 113 on-ramp / off-ramp and extend one half mile west, terminating at the western project limits. While the existing vegetation appears to be in good condition, the proposed landscape improvements will revitalize the corridor through selective thinning of existing vegetation and introducing foundation and ground plane planting that will tie into the overall proposed project. New plantings in this area will be integrated with the existing trees and will add color and interest to the corridor. The existing street trees on the south side of Covell Boulevard will be mirrored onto the north side to create a balanced streetscape feel. The addition of street trees will also provide shade for pedestrians and cyclists at the proposed seating nodes for resting and viewing throughout the corridor.

The intersections will take on a uniform themed appearance by integrating decorative plantings that will highlight all of the corners. Between intersections, pedestrians will notice the large swaths of native flowering shrubs and ground covers.

Medians will be enhanced by removing the existing asphalt and planting them with ornamental trees, shrubs and grasses. This will enhance the aesthetics in the center median while providing traffic calming benefits.

Design Intent - Landscape Irrigation

The proposed landscape irrigation will tie into the existing system via the current point of connection or system mainline, still to be determined. New landscaping will require dedicated valves connected to a new smart irrigation controller to ensure water use for the proposed locations can be adjusted as necessary for maximum water conservation.

Consistent with the proposed landscape planting, the irrigation will be a low maintenance system comprised of low volume point source drip irrigation. The drip system allows for water to be delivered directly to each plant and can be adjusted as per the soil infiltration rate to provide an even distribution of water to each plant without overwatering. This system design will also eliminate any chance of overspray and run-off typically found with rotary heads, while decreasing the amount of maintenance and deterioration on adjacent hardscape surfaces.