

Complete Streets



2. COMPLETE STREETS

Policy TRANS 2.1 (Goals: 1,2,3,4). 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.

Standards

- a. The City of Davis shall have a network of vehicle circulation routes consisting of major arterials, minor arterials, collectors, local streets and cul-de-sacs (See Figure 2). The major street classifications are shown in Map 3. Definitions and widths of each type of street are shown in Table 1. Lane widths are shown in Table 2. Planned lane configurations for selected streets are shown in Map 4.

Note: The vision, goals and policies in the Transportation element reflect a long-term perspective of the transportation system to 2035. The roadway configurations assumed through 2015 (as shown in standards, tables and maps) are based on existing and anticipated land uses through 2015. The Transportation element does not determine the roadway configurations needed in 2035 because the Land Use element would need to be updated with a consistent long-term time frame.

- b. Where limited street space exists, priority should be given to non-motorized modes to protect the safety and comfort of these more vulnerable users. Deviations from street widths in Table 2 to favor motor vehicles should be location-specific and result from either constrained right-of-way and/or safety considerations.
- c. Streets, bike paths, bike lanes and trails should conform to the City guidelines, as shown in Tables 1 and 2.



Figure 1: Complete Street Concepts



Existing Conditions



Improvement Concept

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Table 1: Street Classifications and Guidelines

Street Type	Description	# of Lanes	Median	Bike Lanes	ROW Width ¹	Typical Street Width
Major Arterial	A continuous street located to serve large traffic volumes and designed to minimize access to abutting property via driveways, alleys and business entrances. Streets feeding into major arterials should be spaced at one-quarter-mile intervals. Major arterials should not penetrate neighborhoods and should be planned so as to eliminate through traffic in residential neighborhoods and adjacent to schools.	4	✓	✓	102'-146'	78'
Minor Arterial	A continuous street located to provide a direct route between, but not through, separate neighborhoods. Minor arterials should be planned to eliminate through traffic in residential neighborhoods and adjacent to schools.	2	Varies	✓	75'	51-56'
Collector Street	A noncontinuous street located to collect traffic from local streets and distribute it to minor and major arterials. The difference, other than size, between a collector and an arterial is that a collector penetrates a neighborhood, while an arterial does not.	2		✓	62'	52'
Modified Local Street	Same as a local street, but with additional right-of-way. Typically used for higher volume local streets, particularly with high bicycle volumes.	2			50'	40'
Local Street	A street, other than a collector or arterial, providing access to abutting property and designed not to accommodate or encourage through trips.	2			44'	34'
Cul-de-sac	A local street terminating in a turning area and generally not exceeding 400 feet in length.	2			38'	28'

¹Includes sidewalks, landscape strips, bike paths, any buffers, and/or utility corridors, where applicable



Table 2: Geometric Cross Section Guidelines

Item	Typical Width	Street Classification
Moving Lane	Arterials: 12'. May be reduced to 11' to accommodate up to 7' each for parking and for a bike lane.	
Moving Lane	11'	Collector with bike lanes
Two-Way Left-Turn Lane	10'	Minor Arterials
Parking	7'	All Streets
Center Median	14'	Major Arterials and some Minor Arterials
Bike Lane	7'	Arterial and Collectors (add 1 foot next to curb lane). Negotiable with application of buffered bike lane
Bike Path	10'	Arterial and Collector
Curb Lane	Add 2' to minimum lane width ("shy distance")	

- d. The following Levels of Service (LOS) are acceptable for automobiles for major intersections (see Glossary for definition of “Major Intersections”):
- ‘D’ during non-peak traffic hours.
 - ‘E’ during peak traffic hours.
 - ‘F’ during peak traffic hours in the Core Area and Richards Boulevard/Olive Drive area.
 - ‘F’ during peak traffic hours in other areas if approved by City Council.
- e. In each direction, Davis streets shall have no more than two through automobile lanes plus a single left-hand turning lane, even if this requirement reduces level of service. Additional turning lanes may be added for safety or design considerations.
- f. Existing bike lanes shall not be removed to add through traffic lanes.
- g. Class I bike paths and II bicycle lanes shall be provided along all collector and arterial streets except where physically infeasible.
- h. The City shall require right-of-way necessary for the number of lanes projected for each existing and planned arterial street shown in Table 3 (Planned Lane Configurations of



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Selected Street Segments) as a condition of development approval for new developments and substantial changes to existing structures.

Prior to implementing the planned street widenings shown in Table 3 and Map 1 in response to a development proposal, the City shall first consider the feasibility and effectiveness of other measures to improve the Level of Service (LOS) to City standards. Such measures could include but would not be limited to Transportation Demand Management (TDM) measures such as requiring businesses to: stagger their hours of operation or employees to a non-peak time; charge for parking; and encourage carpools.

The City would implement the street widening only when the aforementioned measures are determined by City Council to be infeasible and ineffective to improve the LOS to City standards.

Table 3: Planned Lane Configurations of Selected Street Segments

Roadway	Segment	Existing Lanes in 2011	Planned Lanes in 2015
1. Covell Blvd	Baywood to Alhambra	4+	4+
2. Mace Blvd	Alhambra to Chiles	4+	4+
3. F Street	First to Seventh	2	2
4. Pole Line Rd	Overcrossing	2+	2+
5. Pole Line Rd	Covell to N City Limits	2+	4+ ^{3,6}
6. B Street	First to Fifth	2+	2+
7. Cowell Blvd	I-80 eastbound ramp to Drummond	2+	4+
8. Cowell Blvd	Pole Line to Drummond	2	2+
9. Second Street	L to Fermi	2	2
10. Covell Blvd	Sycamore to Shasta	2 ¹	4+
11. Covell Blvd	Shasta to West City Limits	4+	4+
12. Pole Line Rd	Fifth to Covell	2+	2+ ^{3,4,6}
13. Chiles Rd	Ensenada to Mace	2+	4
14. Fifth Street	Cantrill to Pena	2+	2+
15. Eighth Street	F Street to J Street	2	2
16. Second Street	Fermi to Mace	4	4+
17. Covell/Mace	Alhambra to Alhambra	3+	3+
18. Fifth Street	B Street to L Street	4	2+ ⁷
19. Anderson Rd	Villanova to Covell	4	2+ ⁸

Notes in table (see 2001 General Plan for original footnotes):

1. With short turn lanes only at selected intersections.
2. Corridor plan and mitigations apply. It is the clear intent of this plan not to re-stripe Pole Line Road to four-lanes although re-striping could be evaluated in the future.



3. With Corridor Plan and mitigations.
4. Four lanes north of Claremont acceptable for intersection capacity and operations.
5. With traffic control at 2nd and B Streets
6. Use Corridor Plan process to identify location of turn lanes for increased capacity at intersections. The final configurations for the segment of Pole Line Road from Covell Boulevard to North City Limits shown in this table as segment #5 and in Map 4, 2015 Land Configuration, shall be influenced by planning decisions regarding the 386-acre land site northwest of the Covell Boulevard / Pole Line Road intersection (known as the “Covell Center” project site) and by County Road 102 configurations. The lane configuration of 4+ shown in this table and in Map 4 may need to be only 2+ lanes.
7. Subject to Fifth Street reconfiguration plan and improvements.
8. Four lanes south of Covell Boulevard acceptable for intersection capacity and operations.

General notes:

- “2” and “4” indicate the planned number of through lanes and “+” indicates additional turn lanes at intersections.
- The City shall give strong consideration to the factors of existing trees and bicycle / pedestrian access prior to street widenings.

Actions

- i. Establish a multi-modal Level of Service (LOS) standard to address the needs of all users of the street, including bicyclists and pedestrians, at intersections.
- j. Consistent with the Core Area Specific Plan (CASP), provide pedestrian amenities in the downtown such as but not limited to signage/wayfinding, street furniture, outdoor dining, crosswalks, drinking fountains, street lighting, street trees, and gathering areas.
- k. Work with citizens and technical experts to review the street width and “Greenstreet” standards to reflect pedestrian and bicycle friendly policies in this chapter, including but not limited to the following:
 - Design/redesign residential and collector streets to slow vehicular traffic to 25 mph or less.
 - Design travel lanes to prioritize pedestrians and bicycles, including provisions for a marked “buffer space” to further separate bicycles from both moving and parked motor vehicles, where right-of-way allows.
 - Eliminate intersection standards that allow high speed right turns for motor vehicles.
 - Adjust intersection signal operations to smooth traffic flow, reduce automobile idle time, and to adequately service bicycles and pedestrians by giving priority and to maintain momentum.
- l. Preserve rights-of-way for future transportation use.



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m. Ensure transit stops have adequate curb space for loading and unloading passengers.

Policy TRANS 2.2 (Goals: 1,2,3,4). 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
- Bicycle route wayfinding

Policy TRANS 2.3 (Goals: 2,3). Apply best practices in sustainability to new streets and redesigns of existing streets/corridors.

Standards

a. New and redesigned streets shall consider space for street trees and best practices for sustainable street design. This may include design concepts such as low impact design (LID) for stormwater management, shade trees, and energy efficient lighting.

Policy TRANS 2.4 (Goal: 3). 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 (Goals: 1,2,3,4). Create a network of street and bicycle facilities that provides for multiple routes between various origins and destinations.



Standards

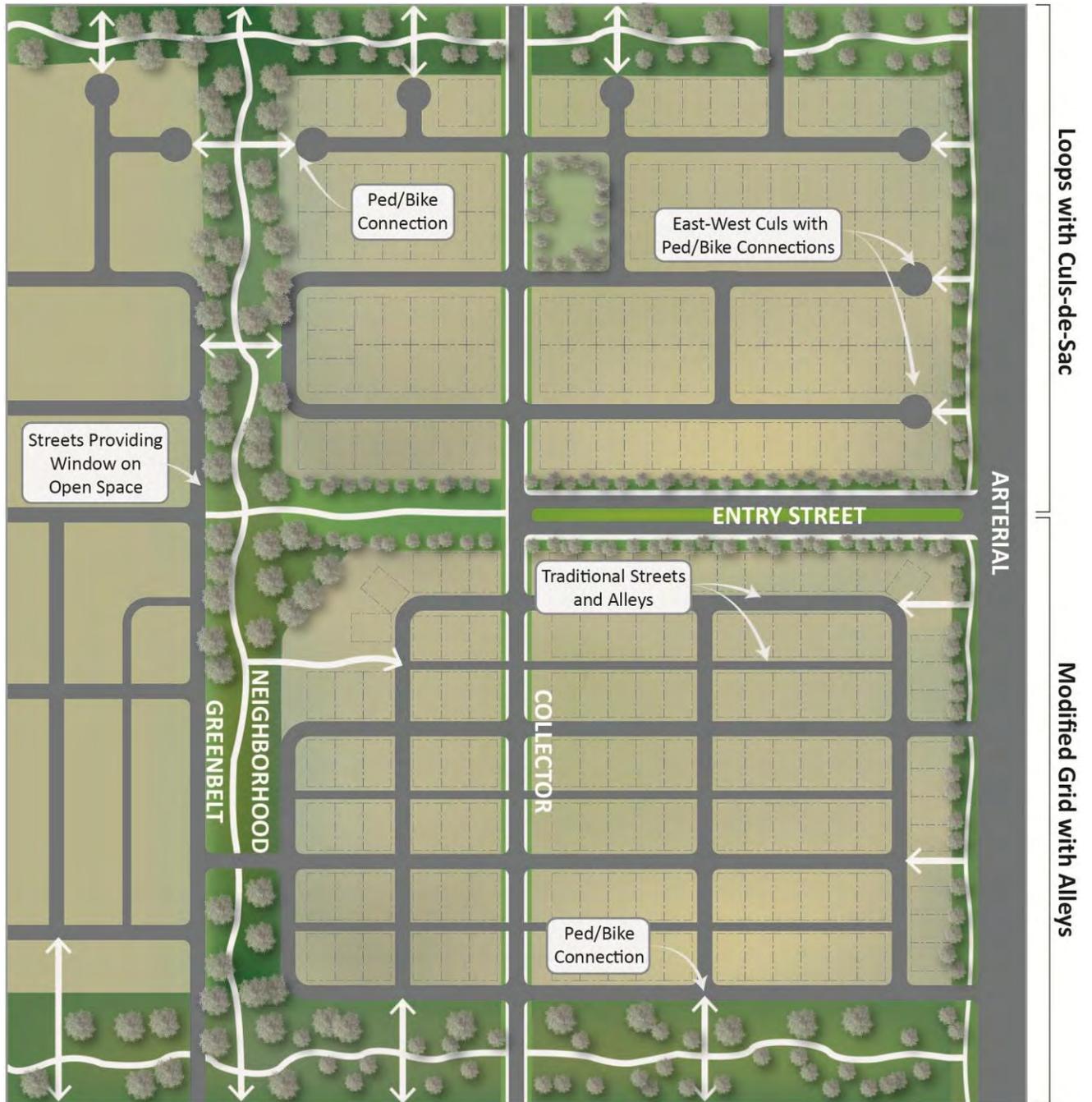
- a. Davis streets shall be connected with multiple route options for bike and pedestrian travel in new and developed areas. Cul-de-sacs are allowed provided they connect to bicycle/pedestrian corridors. Figure 2 depicts a conceptual diagram of desired street connectivity concepts.

Actions

- b. Develop a network of bicycle boulevards (see glossary) on relatively low-volume and low-speed “shared” streets that are attractive, convenient, comfortable, and welcoming to cyclists of all ages and skill levels. Facility improvements on such bicycle boulevards may include but are not limited to traffic calming, diversion or discouragement of non-local vehicle traffic, signage, pavement markings, and intersection crossing improvements. An example of a potential bicycle boulevard is the east-west route connecting Loyola Drive, Drexel Drive, Fourteenth Street, and Villanova Drive.
- c. Develop a network of secondary bicycle connectors (see glossary) through low-speed neighborhood streets. Such routes could include signage, striping, and traffic calming measures as necessary.
- d. Provide convenient bike, pedestrian, and public transportation access through areas where cars are or may be prohibited, where applicable.

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Figure 2: Street Connectivity Concepts



Policy TRANS 2.6 (Goals: 1,3,4). Maintain existing bicycle facilities in good repair.

Actions

- a. Consider measures to minimize debris and yard waste interfering with bicycle lanes. Measures could include an ordinance and increased education.
- b. To promote safety and convenience, consider measures that balance the delivery needs in the downtown with the safety concerns of bicycles and pedestrians.

Policy TRANS 2.7 (Goal: 2). 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. Examples of assorted traffic calming measures are shown in Figure 3.

Actions

- a. Develop a comprehensive traffic calming plan and program which are oriented toward residential streets and which are not necessarily part of the City's corridor plan program.
 - Develop guidelines for traffic calming strategies that include, but are not limited to, modified intersection designs, narrow streets, tight turning radii, sidewalk bulb outs, parking bays, textured paving, and parkways between sidewalks and streets.
 - Review and update the City's existing protocols for considering and prioritizing traffic calming measures, including requests from citizens.
 - Implement traffic calming measures where feasible to minimize the impact of the use of residential streets by vehicular traffic. Conceptual diagrams of various traffic calming measures are shown in Figure 3. Roundabouts, which are traffic control devices, are encouraged at intersections where vehicle volumes permit.

Policy TRANS 2.8 (Goal: 2). Improve the function, safety, and appearance of selected corridors as illustrated. Corridor plan improvement concepts are shown in Figure 4.

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Figure 3: Traffic Calming Measures

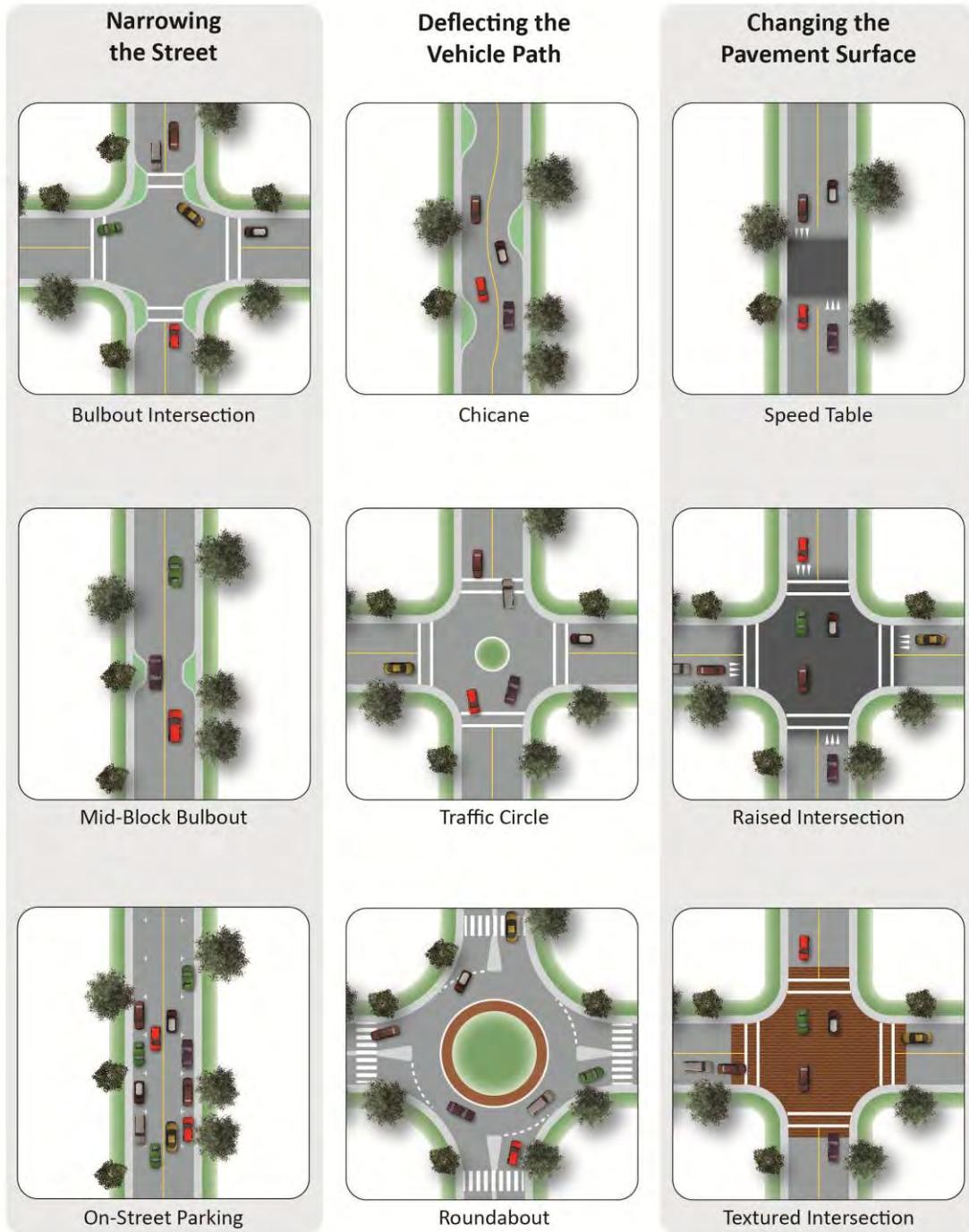
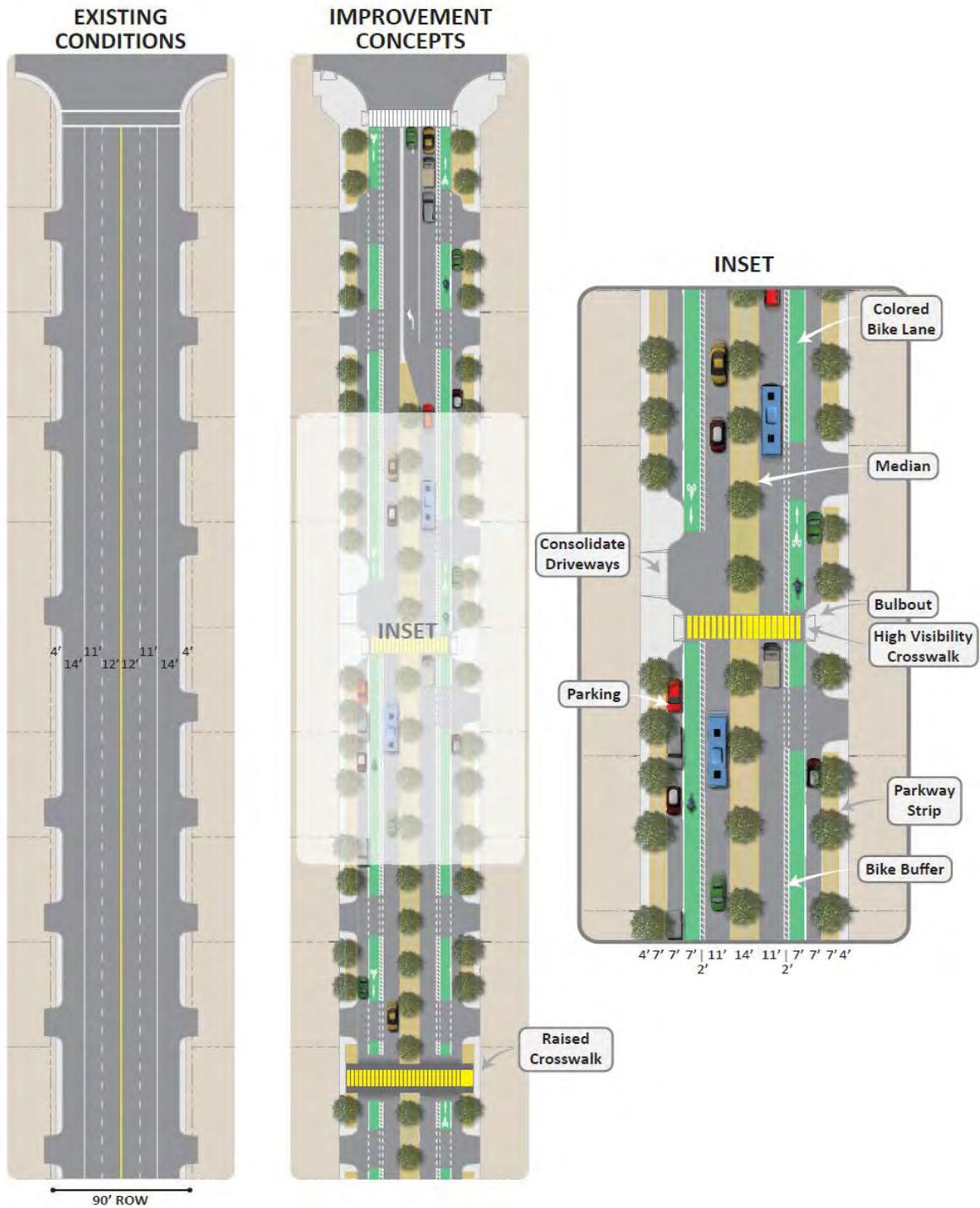


Figure 4: Corridor Plan Improvement Concepts



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Actions

- a. Develop "corridor plans" for selected streets which warrant special treatment because of existing impact problems or operational issues. Corridor plans should take into consideration adjacent land uses and result in streets that are both functional and aesthetic. The plans should utilize innovative means of slowing traffic, where appropriate, and provide safe access for pedestrians and bicyclists. Mitigation shall be incorporated to protect residences and sensitive receptors from noise, air pollution and other traffic related impacts. The corridor plans may deviate from the standards established in the General Plan, if deviations improve the livability of the area.

The streets to consider for participation in this program are listed below. The identification and prioritization of corridors and/or segments will be established through the DTP.

1. Anderson Road – Russell Boulevard to Covell Boulevard
2. Chiles Road – Drummond Avenue to east city limit
3. Covell Boulevard – Pole Line Road to F Street
4. Covell Boulevard – F Street to State Route 113
5. Covell Boulevard – State Route 113 to west city limit
6. Cowell Boulevard – I-80 to Drummond Avenue
7. Eighth Street – B Street to Pole Line Road
8. E Street – First Street to Third Street
9. F Street – Fifth Street to Covell Boulevard
10. Fifth Street - B Street to L Street and
Russell Boulevard – A Street to B Street
11. Fifth Street – L Street to Cantrill Drive
12. First Street and B Street – Richards Boulevard to Russell Boulevard
13. L Street – Second Street to Covell Boulevard
14. Lillard Drive – Cowell Boulevard to Drummond Avenue
15. Loyola Drive – Pole Line Road to Mace Ranch
16. Mace Boulevard – Harper Junior High to I-80
17. Mace Boulevard – I-80 to south city limit
18. Olive Drive – West end to east end
19. Pole Line Road – Covell Boulevard to north city limit
20. Pole Line Road – I-80 to Covell Boulevard (upgrades)
21. Richards Boulevard – First Street to I-80
22. Russell Boulevard – A Street to State Route 113
23. Russell Boulevard – State Route 113 to west city limit

*The above list was derived from the 2001 General Plan and supplemented with corridors considered in need of design enhancements. Such needs may be defined as improving bicycle & pedestrian circulation, redesigning unnecessarily wide travelways,



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reducing vehicular speeding, safety concerns, noise impacts on residences, and improving parcel/street interface conflicts.

- b. Beautify the entrances to the City, in addition to Interstate 80 and Highway 113 corridor plan improvements. Such entrances include Covell Boulevard, Mace Boulevard, Olive Drive, Pole Line Road, Richards Boulevard and Russell Boulevard.
- c. Work with Caltrans, other affected agencies and developers to implement the Interstate 80/Highway 113 Corridor Plan through public and private projects in these corridors. The following policies in the plan shall be considered to achieve a high level of aesthetic quality and to develop amenities within the corridors, including a green backdrop with views to businesses adjacent to the freeway corridors.
 - Locate public art in areas of high visibility and works of art in new freeway structures and corridor buildings.
 - Develop freeway structures and overpass landscaping as aesthetic focal points.
 - Design architectural elements to complement the corridor experience, define edges, and enhance vistas. Signage shall be of high aesthetic quality and shall avoid visual clutter.
 - Require buildings and streets outside of the highway rights-of-way to have generous landscaped areas.
 - Maintain view sheds to important regional views.
 - Develop new landmarks and vistas within the corridors.
 - Preserve historic tree stands as well as individual trees to the greatest extent possible.
 - Maintain cultural resources when making improvements along the corridors (e.g. historically significant structures, landmark trees, orchards, water towers, etc.).
 - Utilize drought tolerant vegetation.

Policy TRANS 2.9 (Goals: 1,2,4). Enhance access to downtown, including from south Davis and I-80 by improving circulation and connectivity for all modes through and across the Richards Boulevard/First Street corridor.

Actions

- a. Conduct a study to improve access for residents and visitors to the downtown in a safe, efficient, and equitable manner.
- b. Create and implement a vehicular wayfinding program to direct those who work and visit in Davis to downtown from the major entrances from I-80 and Highway 113.



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- c. Implement various Transportation Demand Management measures to reduce demand at the Richards Boulevard underpass to the extent feasible, so that collectively these measures may reduce congestion along the Richards Boulevard/First Street corridor. These measures may include traffic control and diversion components, alternate routes, bicycle safety and circulation components, emergency access and drainage improvement measures, and beautification components (See Action TRANS 2.8b regarding the beautification of City entrances.)
- d. Provide a grade-separated crossing between the Olive Drive neighborhood and the Amtrak station.
- e. Work with Caltrans to determine the feasibility of converting the Richards Boulevard / I-80 interchange to a configuration that improves safety for cars, bicycles, and pedestrians and reduces congestion.

Policy TRANS 2.10 (Goal: 3). Prohibit through truck traffic on streets other than identified truck routes shown in Map 6.

Actions

- a. Direct through truck traffic away from residential areas and other sensitive land uses. Study alternate truck routing to reduce truck traffic on city streets.
- b. Improve signs indicating truck routes.
- c. Provide a means to report truck route violations.
- d. Consider using County roads to divert truck traffic from the intersection of Covell Boulevard and Pole Line Road.

