

## 4. Project Evaluation & Implementation

A key function of the **Highway 9/San Lorenzo Valley Complete Streets Corridor Transportation Plan** is to create an actionable short-term and longer-term multimodal plan that addresses transportation challenges along Highway 9 through the San Lorenzo Valley (generally Felton to Boulder Creek) and within the town centers, as well as provide a vision for the corridor in the future. Since there is insufficient funding to implement all the projects and priorities identified in this plan, this chapter provides the results of the project evaluation and recommendations for implementation, including a discussion of potential funding sources. See Chapter 3 *Priority Projects by Location* and Appendix B *Identified Projects List* for more information about all of the projects and priorities.

### 4.1. Evaluation Criteria

As described in Chapter 1 *Introduction*, performance criteria were identified to evaluate potential transportation projects and concepts. The criteria were developed based on public input received during Phase 1 of plan development and criteria used in regional, state, and federal grant programs and plans. These criteria are not intended to result in a formal, weighted scoring to determine which projects will be funded from specific grants or revenues. Rather, they are used to compare and contrast a range of investment options in this transportation corridor and identify priorities for implementation.

The criteria listed below were used in the evaluation of priority projects. More detail on these criteria is provided in Chapter 1.

- **Safety:** ability of projects to potentially reduce collisions; eliminate perceived safety issues; eliminate hazards; improve drainage; reduce speeding; improve access to/for emergency services.
- **Pedestrian Access and Connectivity:** likelihood of project to increase walking; fill gaps in pedestrian network; increase pedestrian access and safety along the corridor and address physical conditions that place pedestrians in close proximity to traffic, especially areas with higher speeds and volumes.
- **Bike Access and Connectivity:** likelihood of project to increase bicycle trips; increase bicyclist access and safety along the corridor and address physical conditions that place bicyclists in close proximity to traffic, especially areas with higher speeds and volumes.
- **Transit Connectivity:** increase access to and number of trips taken by transit.
- **Sustainability/Reduce emissions and vehicle miles traveled (VMT):** shift trips or miles traveled in single occupancy vehicles to carpool, walk, bike, transit; reduce trip distances; reduce idling.
- **Improve Traffic Flow for Vehicles:** maintain traffic flow, reduce congestion at intersections, reduce travel times through intersections.

- **System Preservation:** maintain and improve condition of transportation infrastructure; extend useful life of facilities and maintain state of good repair.
- **Anticipated Use:** number of people anticipated to benefit from or use a facility or project.
- **Economic Vitality:** support access to town centers; increase access to jobs; support goods movement.
- **Town Character Compatibility:** ensure consistency with rural mountain character and aesthetics; minimize removal of trees or vegetation.
- **Public Support:** support for projects; frequency of comments and interest in projects.
- **Ease of Implementation:** consider potential right-of-way, environmental impacts, earthwork, design standards, and financing options.

Information used to assess criteria included:




- Collision data from Caltrans, CHP, and the Statewide Integrated Traffic Records System (SWITRS)
- Traffic and speed limit data
- Transit ridership information
- Physical conditions, land use information, data from GIS maps, maps of key destinations, gaps in pedestrian facilities
- County Parcel Maps and Caltrans right-of-way maps (right-of-way assessment)
- Observations and site visits
- California Air Resources Board data on emissions and project type
- Proposed project benefit characteristics
- Design standards and guidelines
- Public and stakeholder input

## 4.2. Evaluation of Priority Projects

**Figure 4.2** on the next page shows how well the priority projects (described in more detail in Chapter 3 *Priority Projects by Location*) address objectives for the corridor, relative to other priority projects. A set of symbols are used to illustrate the level to which potential projects meet each criterion. Results of the performance evaluation were used to also develop phased project implementation recommendations described in Section 4.3.

Projects with higher performance scores receive an “A” for Implementation Priority, projects with medium scores receive a “B” and projects with a lower score receive a “C” on the Implementation Priority. Generally, “A” projects have higher public support, achieve more of the objectives for the corridor and/or can be more easily implemented. “B” and “C” projects are not necessarily less likely to be implemented than “A” projects, they simply may become longer-term investments.

Figure 4.1: Project Scoring Symbols

Symbol	Associated Scoring Level
	High performance/score
	Medium performance/score
	Lower performance/score
N/A	Not applicable/no score

**Figure 4.2 - Priority Project Evaluation**

Comparative Score: ● = High Performance, ◐ = Medium Performance, and ○ = Lower Performance

**Corridor-wide Priorities (see Chapter 2 for more information)**

Project #	Projects / Concepts to be explored for possible implementation	Location	Improve Safety	Pedestrian Access & Connectivity	Bicycle Access & Connectivity	Sustainability, Emission, & VMT Reduction	Improve Traffic Flow for Vehicles	Preservation of Existing Facilities	Anticipated Use	Transit Connectivity	Economic Vitality	Town Character Compatibility	Public Support	Ease of Implementation	Implementation Priority	
A	SLV Corridor Reduce Speeding and other Safety Measures	Corridor Wide	●	◐	◐	○	◐	◐	●	○	◐	◐	●	◐	A	
B	SLV Corridor Transit and Travel Demand Management		◐	○	◐	●	◐	◐	●	●	●	◐	◐	◐	◐	B
C	SLV Corridor Bicycle facilities or Separated Paths		◐	◐	●	●	◐	◐	●	●	○	◐	◐	●	◐	B
D	SLV Corridor Increase Turnouts		◐	○	○	●	●	◐	●	●	○	◐	◐	◐	◐	C
E	SLV Corridor Pedestrian Crossing Safety, Lighting, and other Visibility		◐	◐	●	◐	◐	◐	●	●	●	○	●	●	◐	A
F	Roadway Maintenance		◐	◐	◐	◐	◐	◐	●	●	◐	◐	●	●	●	A
G	Emergency Preparedness and Resiliency		●	◐	◐	◐	◐	◐	●	●	◐	◐	●	●	●	B

**Location-Based Priorities** (See Chapter 3 for more information on projects)

Project #	Projects / Concepts to be explored for possible implementation	Location	Improve Safety	Pedestrian Access & Connectivity	Bicycle Access & Connectivity	Sustainability, Emission, & VMT Reduction	Improve Traffic Flow for Vehicles	Preservation of Existing Facilities	Anticipated Use	Transit Connectivity	Economic Vitality	Town Character Compatibility	Public Support	Ease of Implementation	Implementation Priority
1	Henry Cowell State Park Access and Parking	Felton	◐	○	○	●	◐	◐	○	○	◐	◐	◐	◐	C
2	Southern Felton Neighborhood Bicycle and Walking paths		◐	○	○	●	◐	◐	○	○	◐	○	●	○	B
3	Henry Cowell State Park to Downtown Felton Pedestrian and Bicycle Connection		◐	○	○	●	◐	◐	◐	○	◐	◐	●	○	C
4	Downtown Felton Crosswalks		●	●	●	●	◐	◐	●	●	◐	●	◐	◐	A
5	Downtown Felton Bicycle and Walking Connections near Library		◐	●	●	●	◐	◐	◐	●	◐	◐	◐	●	B
6	Downtown Felton Pedestrian Walking Facilities		◐	●	●	●	◐	◐	◐	●	◐	◐	●	◐	A
7	Downtown Felton Roadway, Bicycle, and Parking Improvements		●	●	●	●	◐	◐	●	●	◐	●	●	◐	B
8	Highway 9 and Graham Hill Rd Intersection Redesign		●	●	●	●	●	●	●	●	◐	●	◐	○	A
9	Bike/Pedestrian Connection to SLV Schools Campus from Felton		●	●	●	●	◐	◐	◐	●	○	◐	◐	◐	A
10	SLV Schools Campus Site Access		●	●	●	●	●	●	◐	●	●	◐	●	◐	A
11	North SLV Schools Pedestrian and Bicycle Connections		●	●	●	●	◐	◐	◐	◐	○	◐	◐	●	B

Note: ● = High Performance Score, ◐ = Medium Performance Score, and ○ = Lower Performance Score

Highway 9/San Lorenzo Valley Complete Streets Corridor Plan

Project #	Projects / Concepts to be explored for possible implementation	Location	Improve Safety	Pedestrian Access & Connectivity	Bicycle Access & Connectivity	Sustainability, Emission, & VMT Reduction	Improve Traffic Flow for Vehicles	Preservation of Existing Facilities	Anticipated Use	Transit Connectivity	Economic Vitality	Town Character Compatibility	Public Support	Ease of Implementation	Implementation Priority
12	Willowbrook Dr Commercial Area Improvements and Glen Arbor Bike/Pedestrian Connection	Ben Lomond	●	●	●	●	●	●	●	●	●	●	●	●	B
13	Bike/Pedestrian Connections from Ben Lomond to Highlands Park		●	●	●	●	●	●	●	○	●	●	●	○	B
14	Ben Lomond Crosswalks and Transit Improvements		●	●	●	●	●	●	●	●	●	●	●	●	A
15	Mill St and Glen Arbor Rd Pedestrian Improvements		●	●	●	●	●	●	●	●	○	●	●	●	B
16	Ben Lomond Downtown Core Multiuse Improvements		●	●	●	●	●	●	●	●	○	●	●	●	B
17	Pedestrian and Bicycle Connections from Mill St to Alba Rd		●	●	○	●	●	●	●	●	○	●	●	●	C
18	Hubbard Gulch/Alba Rd Operational Improvements		●	○	●	●	●	●	●	●	○	●	●	●	C
19	Brookdale Sidewalks		Brookdale	●	●	○	●	●	●	●	●	●	●	●	○
20	Brookdale Crosswalk Improvements	●		●	●	●	●	●	●	●	●	●	●	●	A
21	Irwin Way/Highway 9 Intersection Improvements	●		○	○	●	●	●	●	●	○	●	●	○	C

Note: ● = High Performance Score, ● = Medium Performance Score, and ○ = Lower Performance Score

Highway 9/San Lorenzo Valley Complete Streets Corridor Plan

Project #	Projects / Concepts to be explored for possible implementation	Location	Improve Safety	Pedestrian Access & Connectivity	Bicycle Access & Connectivity	Sustainability, Emission, & VMT Reduction	Improve Traffic Flow for Vehicles	Preservation of Existing Facilities	Anticipated Use	Transit Connectivity	Economic Vitality	Town Character Compatibility	Public Support	Ease of Implementation	Implementation Priority	
22	Boulder Creek Elementary Neighborhood Multimodal Improvements	Boulder Creek	●	●	●	●	●	●	●	●	●	●	●	●	B	
23	Boulder Creek Crosswalk Improvements		●	●	●	●	●	●	●	●	●	●	●	●	●	A
24	Parking or Bicycle Facilities in downtown Boulder Creek		●	○	●	●	●	●	●	●	○	●	●	●	●	A
25	Sidewalk and Storefront improvements downtown Boulder Creek		○	○	○	○	○	○	○	○	○	○	○	○	○	C
26	Pedestrian & Bicycle Connections to Boulder Creek Library & Bear Creek Rd, Traffic Calming Hwy 236		○	●	●	●	●	●	●	●	○	○	○	○	○	B
27	Highway 9/Bear Creek Rd Intersection Improvements		○	○	○	○	○	○	○	○	○	○	○	○	○	B
28	Pedestrian & Improvements at Garrahan Park and Mt Store		○	○	○	○	○	○	○	○	○	○	○	○	○	C

Note: ● = High Performance Score, ○ = Medium Performance Score, and ○ = Lower Performance Score

### 4.3. Implementation

This Complete Streets Corridor Plan will be used to guide and coordinate transportation investments along the Highway 9 corridor through the SLV. It will serve as a toolkit for Caltrans, Santa Cruz County Public Works, Santa Cruz County Planning, the Santa Cruz County Regional Transportation Commission (RTC), SLV Unified Schools District (SLVUSD), residents, and businesses to use to improve this transportation corridor.

Implementation of this plan and the concepts that have been identified as priorities will occur incrementally, in a variety of ways, over several decades, as funding becomes available. While some projects or components of projects could be implemented fairly quickly, some high-priority projects will be longer-term, especially since implementing transportation projects can be challenging. Significant obstacles can include securing construction and maintenance funding, project area topography, right-of-way property acquisition, encroachment permits or easements, providing access for all roadway users, and meeting environmental and design standards. Implementing this plan will require partnerships between Caltrans and multiple county agencies, as well as ongoing support from the community. Partners will also need to work together to find common ground on project designs, locations, and funding mechanisms.

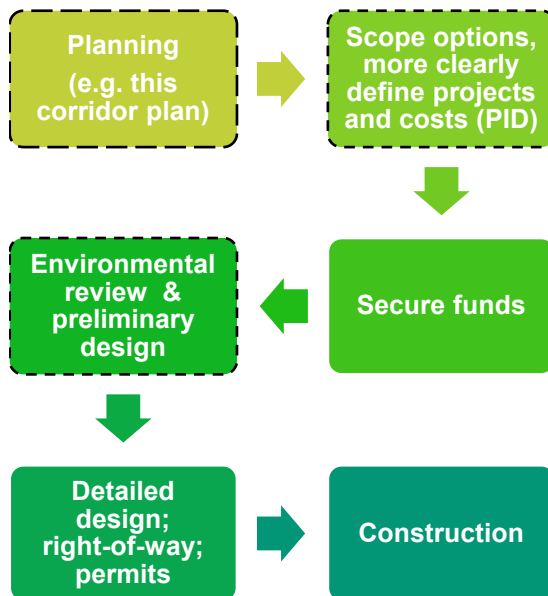
It is anticipated that many projects or components of projects identified in this plan will be implemented independently as stand-alone projects or may be “repackaged” to include elements of several projects. However, some projects or components of projects will instead be incorporated into other transportation or non-transportation projects in the San Lorenzo Valley, which may be implemented by public or private entities. This may include projects under the Caltrans State Highway Operation and Protection Program (SHOPP), Santa Cruz County maintenance, operational, and preservation projects, land use developments, or major infrastructure modifications.

New developments and storm damage repair work provide opportunities to implement portions of some of the recommendations, especially bicycle and pedestrian improvements. However, contiguous facilities are preferable, where possible. Finally, outside funding (such as grants) may be available to finance the design and construction of other projects and programs that fit the criteria of those funding programs. This could result in some lower priority projects moving forward more quickly than others.

For larger projects on Highway 9, the first step is development of a Caltrans Project Initiation Document (or PID), which includes more detailed project scoping – including development of cost estimates and identification of varying design options. The County of Santa Cruz, Caltrans, and the RTC are also expected to continue to apply for eligible grant funding opportunities and may utilize Measure D sales tax revenues to serve as match to leverage other funds. Transportation agencies (Caltrans, County, RTC, METRO, etc.) should consider partnering with

Figure 4.3 - Next Steps: Implementation Process

Public input is usually provided during planning, scoping, environmental review, and preliminary design phases.



one another, as well as SLVUSD, non-profits, and private sector partners to better compete for Federal and State funding opportunities.

## Phased Implementation Priorities

As noted above, implementing this plan and projects identified as priorities will be incremental and the timing of project implementation may vary based on other projects planned in an area, funding availability, community support, and other factors. **While the following list serves as a guide to be utilized when partners decide where to focus staff time and funding in the short and medium term, all of the potential projects and concepts described in Chapter 3 *Priority Projects by Location* and listed in Figure 4.2 above have been identified as priorities.** Chapter 3 provides additional information on potential phased implementation options for Projects 1 through 28. As funds become available, other projects identified as needs in the corridor may also be implemented, even if they are not called out below. This includes many projects listed in Appendix B *Identified Projects List*.

Projects may be combined or repackaged during project development and implementation. Escalating the cost estimates that were developed for the 2006 SLV Trail Feasibility Study, the average cost to construct new bicycle and pedestrian facilities is \$4.3 million per mile.

### Corridor-wide

Overall, slowing traffic, improving pedestrian access and reducing crashes (auto, pedestrian, and bicycle) were the highest priorities identified by community members.

See Chapter 2 *Corridor Vision* for descriptions of Corridor-Wide Priorities A-G, as well as the Preferred Roadway Cross Sections.

### Ongoing and Near-Term Actions

- **Maintenance:** Ongoing, regular maintenance and winterization of roadways throughout the SLV (Priority F). When feasible, complete street components should also be incorporated as maintenance projects are implemented, consistent with preferred cross sections (Chapter 2 *Corridor Vision*) and project lists (Chapter 3 *Priority Projects by Location*).
- **Safety:** Reduce speeding through town centers (Priority A) and support state legislative and administrative actions to modify the California Vehicle Code to allow for lower prima facie speed limits on state highways. (see Priority A in Chapter 2 for list of potential methods).
- **Widen shoulders (Priority C):** Overall restriping to provide wider shoulders and shift lines away from vegetation and roadway edge. May include shifting or narrowing traffic lanes in order to maximize early implementation of bike lanes and/or wider shoulders, especially in areas regularly used by pedestrians and bicyclists and locations where trees have been struck by vehicles. Shoulders should also be widened to meet current standards as other projects, such as emergency repairs, are implemented. Where wider shoulders are not feasible, stripe bicycle sharrows, especially at curves.
- **Crosswalks:** Upgrade and increase visibility of existing crosswalks and add new crosswalks, especially in village cores and areas with history of pedestrian injury and fatal collisions (multiple locations, see Chapter 3 *Priority Projects by Location* and *Priority E*). This includes the installation of pedestrian activated flashing safety beacons at major crossing points. It may also include interim measures such as painting curbs red to increase visibility of pedestrians at intersections. Several locations identified in this plan were already approved for funding through a successful HSIP grant and will start



design in 2019. These include the Henry Cowell State Park Entrance (Redwood Dr), the Felton midblock crossing at Wild Roots Market, Clear Creek/Pacific St in Brookdale, Forest St in Boulder Creek, and Pool Dr (Mountain Store).

### Short-Term Actions

- Lighting: Improve lighting at intersections with incidents of collisions (Priority E).

### Medium Term

- Emergency Preparedness & Resiliency: Update emergency response, evacuation, and resiliency plans and implement warning systems (Priority G).
- Transit: Evaluate microtransit as potential supplement or alternative to some fixed-route service; upgrade bus stops (Priority B).
- Transit: Secure funding for ongoing operation of existing service and increase service (Priority B).

### Long Term

- Turnouts: Increase number of turnouts (Priority D).
- Parking: Complete parking assessment for village business districts.
- Corridor-wide upgrades consistent with varying cross sections for rural, suburban and urban sections (see Chapter 2, *Section 2.3 Preferred Roadway Cross Sections*).

## SLV Schools Access

### Short-Term Actions

- SLV Schools Campus Circulation (See Chapter 3 *Projects 9-11*): Prepare a Project Initiation Document (PID) or other scoping document to provide more detailed evaluation of options for improving traffic flow, safety and access to the SLV Schools Campus in Felton and secure funding for implementation.
- Implement interim measures between Graham Hill Rd and the high school entrance until larger projects can be completed. While the feasibility of the following requires additional analysis, options might include:
  - Signage, which may include speed limit signs with flashing beacons, radar speed feedback signs, temporary radar feedback trailers; signs alerting drivers to watch for pedestrians, and "Bikes May Use Full Lane," "Pass 3 ft Min," and school bus stop ahead signs; and signage to encourage pedestrians to use alternate routes (e.g. Clearview Place to Cooper St)
  - Flashing beacons at crosswalks (e.g. RRFBs)
  - Bike sharrow markings, where shoulder very constrained
  - Ongoing maintenance: Trim bushes to improve visibility
  - Education - ongoing/regular public education and reminders about distracted and impaired driving, share the road, watch for pedestrians, driving mountainous roads
  - Targeted, increased CHP enforcement
  - Restriping to narrow lanes, widen shoulders, and possibly buffer shoulder, where feasible
  - Temporary barriers or demonstration projects along westside (southbound) shoulders
- If phased construction is necessary, prioritize pedestrian access between Graham Hill Rd and high school entrance (Project 9).

- Traffic flow/restriping modifications within existing right-of-way to lengthen turn/merge lanes along the school entrances and other identified short-term restriping options identified in Project 10.
- Restriping roadway to add bike lanes from southerly terminus of Glen Arbor Rd/Highway 9 past the SLV Schools Campus, then to Fall Creek Rd (bicycle component of Projects 9, 10, and 11).

### Medium Term

- Minor grading, paving, tree removal and other construction to further improve circulation on the campuses (Project 10).
- Bicycle facilities from Graham Hill Rd to school entrances (Project 9).
- Pedestrian pathway connecting Highway 9/Brackney to Hillview Dr/Hacienda and ultimately the middle school campus (Project 11).
- Other bike and pedestrian access improvements north of the elementary school to Willowbrook (first) and Glen Arbor Dr (Projects 11 and 12).
- SLV Schools Campus Circulation Redesign: Reconstruction of campus entrances (Project 10). While this is one of the highest ranked projects, this is a more complex concept due to grading, other major modifications, and cost.

### Longer Term

- Protected bike and pedestrian multiuse path from campus to Graham Hill Rd/Felton-Empire Rd via Highway 9 (in Project 9).
- Safe Route to Schools education and Transportation Demand Management (TDM) programs, including carpools and walking school buses. (Part of Corridor-wide Priority B).
- Roadway and transit improvements to El Solyo Heights (Project 11).

## Felton

### Short-Term Actions

- Downtown Felton pedestrian crosswalk improvements and new or improved sidewalks along Highway 9 (Projects 4 and 6).
- Highway 9/Graham Hill Rd Intersection: Make multimodal modifications to intersection, including bus turnouts (Project 8 - Tier 1).
- Downtown Felton bike lanes (part of Project 7).

### Medium Term

- Downtown Felton roadway and parking modifications (Project 7).
- Pedestrian and bicycle pedestrian connections from the village core south to southern neighborhoods and Henry Cowell State Park (Projects 2 and 3).
- Bicycle and walking connections for Gushee, Hihn and other County roads to provide Felton Library access (Project 5).

### Longer Term

- Highway 9/Graham Hill Rd Intersection: Extend vehicle lanes on all legs to maximum extent possible (Project 8 - Tier 2).
- Highway 9/Graham Hill Rd Intersection: Complete intersection redesign to improve circulation, pedestrian, and bicycle access through the intersection (Project 8). While this is one of the highest ranked projects, an extensive redesign of the intersection is considered a long-term project due to cost and significant modifications required.

- Parking and access improvements for Henry Cowell State Park (Project 1).

### **Ben Lomond and Brookdale**

#### **Short-Term Actions**

- Pedestrian safety projects in Ben Lomond and Brookdale (components of Projects 14 and 16, as well as Projects 19 and 20), including new or improved sidewalks along Highway 9 and increasing visibility of crosswalks.
- Stripe bicycle lanes on Highway 9 through Ben Lomond town center (Project 16).
- Southbound Highway 9 between San Lorenzo River/Quality Inn and Mill St in Ben Lomond: Restripe to shift lanes east or narrow lanes in order to widen western shoulder; potential redwood tree removal (part of Project 17).
- Pedestrian Facilities from the town center north to hotel (part of Project 17).
- Projects that reduce speeding (part of Corridor-wide priorities).

#### **Medium Term**

- Irwin Way intersection modifications (Project 21). Add left turn lane from Highway 9 to Highlands Park (Project 13).
- Pedestrian improvements on Main St and formalizing additional parking in Ben Lomond (Project 16).
- Pedestrian and bicycle improvement for the Willowbrook Dr commercial area, with connection to Glen Arbor Rd S (Project 12).
- Hillside Ave transit stop improvements (component of Project 14).

#### **Longer Term**

- Pedestrian and Bicycle Facilities from the town center to Alba Rd (rest of Project 17).
- Add paths from Ben Lomond town center to Highlands Park (Project 13).
- Pedestrian Improvements on Glen Arbor Rd and Mill St (Project 15).
- Hubbard Gulch/Alba Rd operational improvements (Project 18).

### **Boulder Creek**

#### **Short-Term Actions**

- Boulder Creek sidewalk and crosswalk improvements (Projects 23 and 25). Includes shade trees on eastside of Highway 9 and intersection extensions (bulb-outs) to increase pedestrian visibility.
- Bicycle sharrows through downtown (Project 24).
- Slow speeds through town center. May include traffic calming design strategies to slow down cars on Highway 236 and Highway 9, such as narrowing automobile lane widths, raised medians, gateway treatments, speed feedback, and other signage (Priority A).

#### **Medium Term**

- Analysis of options to increase parking supply in downtown, which may include back-in diagonal parking (Project 24).
- Highway 9/Bear Creek Rd intersection: Analysis of options and implementation of modifications to improve safety and traffic flow (Project 27).
- Pedestrian crosswalks at Lomond St/ Highway 9 (Project 22).

### Longer Term

- Bike and pedestrian facilities north to library and Bear Creek Rd (Project 26).
- Boulder Creek Elementary Safe Routes to Schools connections (Project 22).
- Pedestrian and Bicycle Improvements at Garrahan Park and Mountain Store (Project 28).

### Implementation Considerations

Because Highway 9 and Highway 236 are Caltrans facilities, any projects on these corridors are subject to Caltrans policies and procedures. Insufficient state or local funds to maintain new infrastructure poses a significant challenge in implementation of any project. Even if projects are initiated by the RTC, County of Santa Cruz, or other local agencies, subsequent phases of project development, construction, and maintenance will also rely on continued partnerships with Caltrans. For maximum flexibility in implementing projects, Caltrans has stated that full local control could be achieved through relinquishment of roadways to the County of Santa Cruz. While Caltrans District 5 considers Highway 9 as a potential candidate for relinquishment, the County of Santa Cruz has indicated it is not interested in this option since there is insufficient local funding available to maintain all the county's existing roadways.

### Implementation Tasks

As noted above, timing of project implementation may vary based on other projects planned in an area, funding availability, community support, and other factors. The following serves as a general guide of some of things that entities should consider when implementing any type of project in the SLV – including projects or components of projects in this plan, maintenance, new or remodeled residential or commercial developments, utility work (e.g. cable, power, water, sewage), mitigations, major infrastructure projects:

- ✓ Identify and review projects identified in this plan that are **in the vicinity** of the other construction projects and integrate wherever feasible. This includes:
  - Chapter 2 corridor-wide priorities and cross sections: maintenance, shoulder widening, turnouts, pedestrian crossings, etc.
  - Chapter 3 area specific projects
  - More comprehensive list of community ideas, including those in Appendix B
  - Every Caltrans project is now reviewed for complete streets through its project development teams. If there is an opportunity to add elements

## TRANSPORTATION PROJECT IMPLEMENTATION PROCESS

Steps involved in construction of transportation projects include the following. The timing for each of these steps can take months to years depending on the complexity of the projects:

- ✓ Determine lead agency for project implementation
- ✓ Project scoping and cost estimating (Project initiation document, project applications, etc.)
- ✓ Secure funds
- ✓ Environmental review and preliminary design with outreach to stakeholders, including public outreach in accordance with CEQA
- ✓ Final design engineering and specifications
- ✓ Securing permits (include encroachment permits if non-Caltrans entity is the lead and impacting highway right-of-way); establish maintenance agreements, if needed
- ✓ Utility and other right-of-way
- ✓ Advertise for bids
- ✓ Review and award of construction contract
- ✓ Traffic management plan during construction – notify residents of construction schedule
- ✓ Construction
- ✓ Project closeout
- ✓ Ongoing maintenance

- that improve conditions for bicycles, to add pedestrian facilities, or to partner and coordinate with other entities on implementation, including via funding, Caltrans has indicated that they will do so.
- ✓ Determine lead agency and conduct more detailed analysis of high-priority projects to determine feasibility of project and design options.
  - ✓ Interagency coordination and consultation – Contact each of the following agencies early in project development process:
    - Caltrans as the owner-operator
    - County Public Works and Planning Departments
    - City of Santa Cruz Water Department. The Water Department is going to need to maintain and replace its water transmission lines and may consider realigning the main pipeline along Glen Arbor and Highway 9 to Henry Cowell entrance, which may provide the opportunity to add a multiuse path alongside the roadway.
    - Santa Cruz METRO – to discuss bus stop and bus pad locations, potential new bus service or stops, as well as bus stop lighting and shelters and walkways to bus stops that could be integrated with new developments and construction projects.
    - Fire departments
    - SLV Unified School District
    - Santa Cruz County Office of Emergency Services
    - RTC – Bicycle Committee and/or Elderly-Disabled Transportation Advisory Committee when projects may impact bicyclists, pedestrians, or transit users
    - Other stakeholders
  - ✓ Public outreach and review of more detailed design/alternatives prior to final design.
  - ✓ Determine who will maintain a project.
  - ✓ Dig once: Both the County of Santa Cruz and Caltrans have “dig once” ordinances or policies. Installation of telecommunications cable, conduit and other related equipment should be installed wherever practical and feasible.

#### 4.4. Funding Opportunities Overview

Implementation of all the roadway, bicycle, pedestrian, transit, and other priority projects identified in this plan will require a range of federal, state, and local funds. For some projects it will be necessary to cobble together several funding sources and partnerships for construction and maintenance responsibilities.

In general, the public and businesses contribute to transportation funding programs through taxes and fees, primarily collected at the gas pump and at cash registers. A small portion of automobile registration fees also help fund California Highway Patrol, call boxes, and some air quality projects. Caltrans, the California Transportation Commission (CTC), local jurisdictions, the Santa Cruz County Regional Transportation Commission (RTC), and Santa Cruz Metropolitan Transit District (METRO) are responsible for evaluating and selecting projects to receive most of these funds.

The majority of revenues available for transportation projects are highly restricted (or “dedicated”) by federal, state, or local regulations for use by specific jurisdictions, agencies and/or types of projects. These are specifically limited to certain types of projects, such as state highway safety, ongoing maintenance, transit operations, freight, rail, and/or bicycle and pedestrian projects. Local and state measures approved since 2016, including Measure D sales tax and the Senate Bill 1 fuel taxes and fees, provide for increased transportation investments. However, revenues available for transportation projects and programs are still insufficient to address all of the priorities that have been identified by the community. In identifying projects

that can be reasonably implemented along the Highway 9 corridor, this study considers which projects could reasonably compete for funding from available funding programs.

The following programs stand out as the best opportunities to secure funds for projects along the Highway 9 corridor through the SLV. Appendix C *Funding Opportunities* contains additional information on these and other federal, state, regional, and local grants and project programming process.

### **Measure D**

The Measure D sales tax, approved by over two-thirds of Santa Cruz County voters in 2016, will provide \$10 million for transportation projects in the San Lorenzo Valley-Highway 9 corridor over 30 years. This funding will be valuable for initiating more detailed planning and design, constructing some high-priority projects, and providing matching funds to leverage additional grant funding. An important objective of the study and plan is to leverage this money with other funding sources to be able to accomplish more significant improvements in the corridor. Additionally, the County of Santa Cruz receives a portion of Measure D funds for county road projects. Recently, the County has focused those funds on addressing the backlog of roadway repairs on county roads.

### **State Highway Operation and Protection Program (SHOPP)**

The Caltrans' State Highway Operation and Protection Program (SHOPP) is focused on reducing collisions and maintaining the state highway system. Adding Complete Streets elements to state highway projects may be one of the best ways to tap into traditional sources such as the State Highway Operations and Protection Program (SHOPP) which has recently been significantly augmented by SB 1. The Caltrans 10-year SHOPP plan includes several projects on Highway 9, including pavement rehabilitation and storm damage repairs. Ongoing maintenance (Priority F) of state highways, including tree trimming, pothole repairs, sign replacements, and restriping are typically funded through Caltrans maintenance budget. Caltrans District 5 has indicated that local funding participation may be necessary for incorporation of some concepts within SHOPP projects, especially storm damage projects which are heavily restricted.

### **Active Transportation Program (ATP) Grants**

This statewide program consolidates funding from federal transportation sources and state funding (approximately \$220 million statewide each year) for projects that improve facilities for walking and bicycling.

Key criteria: Projects must address existing walking and biking safety issues evidenced by collisions; show potential to increase the number of people walking and bicycling and reduce driving trips to key destinations, such as schools; show benefits to economically disadvantaged areas; be part of a comprehensive, coordinated multi-agency plan with strong public support.

The ATP is probably the best opportunity for bicycle and pedestrian projects in the SLV, in terms of funding available and projects envisioned. Santa Cruz County Public Works has identified access to the SLV schools as a priority for these funds and successfully received funding for speed-feedback signs to slow traffic near schools. Showing a larger-scale phased project with demonstrated benefits may increase chances to win one of these highly-competitive grants.

### **Highway Safety Improvement Program (HSIP)**

HSIP funds are federal funds used to reduce traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving safety, with a focus on the ability of projects to reduce collisions. In 2018, the RTC successfully applied for funds to install new crosswalks and increase visibility at several locations prioritized through this Highway 9/SLV Corridor planning effort. See Section 4.3, *Corridor-wide* for locations funded by the grant.

### **Urban Greening Grant Program**

The Urban Greening Grant Program is a statewide program that focuses on urban greening through conversion of pavement to green space. This is typically done by incorporating more natural drainage and stormwater treatment features and is combined with elements to reduce vehicle miles travelled by improving bicycle, pedestrian, and transit access. Approximately \$26 million was available in 2018.

### **Better Utilizing Investments to Leverage Development (BUILD) Transportation Grants**

This U.S. Department of Transportation program (formerly called TIGER) invests in road, rail, transit, and port projects that enhance economic development and improve access to reliable and safe transportation. Over \$350 million was awarded for 30 bicycle and pedestrian projects between 2009 and 2018. This highly-competitive program is oriented to large scale visionary projects and in 2018 awards focused on rural areas. Comparable recent examples include \$10 million in 2016 to the City of Live Oak, CA, near Chico, for a \$17.3 million project to reconstruct Highway 99 through downtown with complete streets elements; and a planning grant of \$236,000 to the City of Goleta, CA in 2014 toward the \$700,000 design of a complete streets corridor in the 0.8 mile Old Town neighborhood corridor along Hollister Avenue.

### **Surface Transportation Block Grant program (STBG) and State Transportation Improvement Program (STIP)**

The Surface Transportation Block Grant Program (STBG) and State Transportation Improvement Program (STIP) are federal and state funding programs which are distributed to regional agencies statewide based on formulas that consider population and lane miles. The Regional Transportation Commission (RTC) is responsible for selecting projects throughout Santa Cruz County to receive these funds, based on evaluation criteria set forth in the Regional Transportation Plan (RTP). In recent years, the RTC has prioritized projects that serve the greatest number of users, preserve existing transportation infrastructure, improve safety, reduce the number of miles driven, and reduce associated air pollution and greenhouse gas emissions.

### **Transit Programs**

Bus transit service in Santa Cruz County is funded by a combination of local sales taxes, federal and state formula and/or grant funds, and rider fares. Sales tax sources include a half-cent tax dedicated to METRO and 16% of Measure D and Transportation Development Act (TDA) funds. Available transit funding is primarily used to maintain existing transit services provided by Santa Cruz METRO. This includes operation of bus routes in the SLV, replacement of buses every ten to fifteen years, and maintenance of bus stops. Lift Line Paratransit services are funded in part by Measure D and Transportation Development Act (TDA) sales taxes. Grants to permanently expand service are very limited. However, some Cap and Trade, air quality, and other grant programs that are typically focused on reducing vehicle emissions by increasing the number of

people riding the bus may be available to test out new models for transit in the SLV. These funds may also be available to improve bus stops.

### **California Highway Patrol (CHP) and Office of Traffic Safety (OTS) Programs**

CHP is responsible for traffic patrol on state highways and roadways in the unincorporated areas of Santa Cruz County. OTS has grant programs aimed at increasing awareness of traffic rules, rights, and responsibilities, with an emphasis on bicycle and pedestrian safety skills for students and impaired driver education. OTS Selective Traffic Enforcement Program (STEP) grants focus on traffic enforcement and education, including impaired driving enforcement, DUI checkpoints enforcement operations focusing on distracted driving, motorcycle safety, and pedestrian and bicycle safety.

### **Other Local Funds**

Developer fees and the establishment of new benefit assessment subzones (or County Service Areas) are another option to address priority projects and roadway repairs in the SLV. These subzones are typically small neighborhood benefit assessment areas. They raise funds for pavement maintenance and other projects at the local level. These subzones are typically self-initiated and citizen-driven through a petition process through the County Board of Supervisors. The funding generated can only be utilized in the neighborhoods where the residential subzones were created.

## **4.5. Summary**

This plan identifies options to improve transportation in the San Lorenzo Valley, with a focus on the Highway 9 corridor. It was developed based on review of existing conditions and evaluation of projects and concepts that were identified as priorities by the community. While funding is insufficient to address all of the priority projects and concepts identified in this plan, it provides a vision and blueprint for the corridor in the future which can be implemented incrementally as opportunities arise.