

DEVELOPMENT GUIDELINES



7. DEVELOPMENT GUIDELINES

7.1 SUMMARY OF IMPROVEMENTS

The following is a summary of the proposed trail improvement requirements for each reach.

GENERAL TRAIL ALIGNMENT

- Class I Trail as defined by Caltrans* with required horizontal and vertical sight distance
- Asphalt trail, 12' wide (approximately 4825 LF)
- Portland Cement trail in limited applications (Delmas Plaza and along Falcon Court)
- Hard packed gravel rock shoulders, 2 foot wide one side and 5 foot other side (approximately 4700 LF)
- Thermo-plastic retro-reflective trail striping (approximately 4825 LF)
- Private fence setback minimum of 10 feet
- Orchard-like landscape with shade trees, shrubs, ground cover, and grasses with a preference for California natives and drought tolerant plants
- Trail mileage markers
- No motorized vehicles other than maintenance vehicle access
- Custom gateways

APPROVALS

- City of San José – Environmental Clearance, Parks and Recreation Commission, Department of Transportation, and City Council
- RWQCB - General Permit, Waste Discharge Requirement
- SCVWD - Joint Use Agreement, Construction Permit, Encroachment Permit

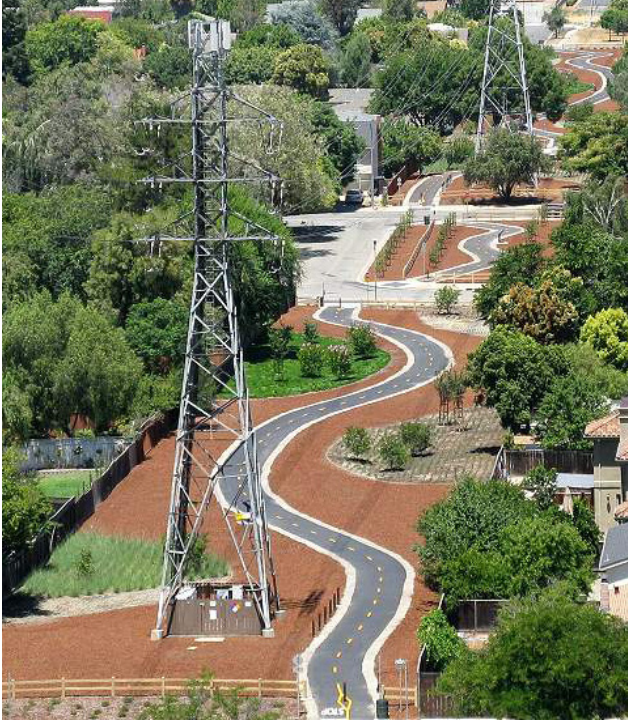


Del Monte water tower and trail gateway

IN THIS SECTION:

- 7.1 Summary of Improvements
- 7.2 Site Preparation
- 7.3 Tree Protection
- 7.4 Grading
- 7.5 Street Crossings
- 7.6 Planting
- 7.7 Miscellaneous Amenities

**Per Caltrans Highway Design Manual, a Class I bikeway provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow by motorized vehicles minimized.*



Example of San José paved trail with base rock shoulders and striping

IMPROVEMENTS BY REACH:

REACH 1

- Asphalt trail, 12' wide
- Base rock shoulder, 2' wide
- Base rock shoulder, 5' wide
- Trail striping
- Decorative concrete paving
- Concrete paving, accent color
- Awareness strips
- River rock pilaster gateway feature
- Directional signage
- Trail map
- Rules and regulation signage
- Mileage markers
- Trash receptacle
- Planting

REACH 2

- Asphalt trail, 12' wide
- Base rock shoulder, 2' wide
- Base rock shoulder, 5' wide
- Trail striping
- Decorative concrete paving
- Concrete paving, accent color

- Awareness strips
- Fruit crate gateway feature
- Directional signage
- Trail map
- Rules and regulation signage
- Mileage markers
- Interpretive signage
- Trash receptacle
- Planting
- Children's play area

REACH 3

- Asphalt trail, 12' wide
- Base rock shoulder, 2' wide
- Base rock shoulder, 5' wide
- Trail striping
- Decorative concrete paving
- Concrete paving, accent color
- Awareness strips
- Fruit crate gateway feature
- Directional signage
- Trail map
- Rules and regulation signage
- Mileage markers
- Interpretive signage
- Trash receptacle
- Planting
- Children's play area
- Garden with seating area
- Adult fitness station
- Truss fence gateway feature

REACH 4

- Asphalt trail, 12' wide
- Base rock shoulder, 2' wide
- Base rock shoulder, 5' wide
- Trail striping
- Decorative concrete paving
- Concrete paving, accent color
- Truss fence gateway feature
- Directional signage
- Trail map
- Rules and regulation signage
- Mileage markers
- Interpretive signage
- Trash receptacle
- Planting
- Children's play area
- Garden
- Garden with seating area

- Adult fitness station
- Water tower gateway feature

REACH 5

- Directional Signage

REACH 6

- Asphalt trail, 12' wide
- PCC trail, 12' wide
- Base rock shoulder, 2' wide
- Base rock shoulder, 5' wide
- Trail striping
- Decorative concrete paving
- Concrete paving, accent color
- Awareness strips
- Water tower gateway feature
- Directional signage
- Trail map
- Rules and regulation signage
- Mileage markers
- Interpretive signage
- Trash receptacle
- Planting
- Children's playground with resilient matting
- Garden
- Garden with seating area
- Adult fitness station
- Plaza gateway feature
- Fruit crate gateway feature

REACH 7

- Asphalt trail, 12' wide
- PCC trail, 6' - 8' wide
- Base rock shoulder, 2' wide
- Trail striping
- Decorative concrete paving
- Concrete paving, accent color
- Awareness strips
- Fruit crate gateway feature
- Directional signage
- Trail map
- Rules and regulation signage
- Mileage markers
- Trash receptacle
- Planting



Example of San José trail with decorative paving with accent color, signage, and post-mounted waste receptacle.

7.2 SITE PREPARATION

Best Management Practices (BMPs) are a set of practices used to successfully plan an effective water quality monitoring program specific to runoff from construction sites. Nonpoint Source BMPs are specific practices or activities used to reduce or control impacts to water bodies from nonpoint sources, most commonly by reducing the loading of pollutants from such sources into storm water and waterways. Most BMPs address one specific stage of construction, although they may be applied in different situations and to different sources:

- Preventive practices: preventing or reducing the contact of pollutants with storm water.
- Cleanup practices: recapturing pollutants that have spilled onto or contaminated a location.
- Erosion control practices: protecting material at the soil surface from entering storm water runoff.
- Sediment control practices: preventing materials already suspended in storm water from leaving a site.
- Runoff Control BMPs: reduce the volume, velocity, and erosive force of stormwater through diversion, infiltration, or absorption of stormwater.

Prior to construction, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared that addresses specific strategies to be employed.

Selection of BMPs is based on site conditions as specified in the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook Portal: Construction. The likely best management practices for the Three Creeks Trail include:

- Erosion control: Protect surface soils and prevent erosion of particles that occur by wind, rainfall, and flowing water; address areas of inactive, disturbed, and active soil areas on the project site prior to the onset of rainfall to prevent distribution of loose particles. Measures include:
 - EC-2, Preservation of Existing Vegetation
 - EC-4, Erosion Control Seeding
- Sediment control: Trap soil particles that may have been detached or eroded as a result of water flow, wind elements, and rainfall. This works as a supporting element of erosion control and is a passive system that relies on filtering and capturing sediment from the means of transportation, whether it be water or wind. Measures include:
 - SE-1, Silt Fence
 - SE-5, Fiber Rolls

7.3 TREE PROTECTION

The protection of mature trees within the corridor will be critical during construction. Protection measures should include temporary fencing of trees including drip zones to prevent compaction of root zones by equipment storage or construction activities. Root zones should also be protected by requiring hand excavation of any required digging or trenching.

If tree pruning is required for trail installation, the pruning should be done by an ISA certified arborist. The pruning should be used to improve the health of trees, but also, in the case of the palm trees, to reduce future maintenance by removal of dead fronds.

Consultation should occur with the community (through Save Our Trails and Willow Glen Neighborhood Association) if removal of invasive or non-invasive species that were saved during site clean-up is proposed.

7.4 GRADING

GRADING AND STABILIZATION

The trail alignment is relatively flat and property drains towards the street crossings. Inlet protection will be required during construction to minimize the potential for sediment entering the storm drain system.

Temporary erosion control blankets should be provided to stabilize stock piles of materials and minimize the effects of movement of sediment during wet weather events.

In areas adjacent to Los Gatos Creek and the Guadalupe River, areas draining towards the creek will be stabilized using a SCVWD pre-approved hydroseed mix consisting of watershed native plants.

Along the project alignment, areas outside the trail footprint will be vegetated with orchard-like landscaping including trees, shrubs, bushes, and grasses or covered with bark mulch to minimize dust and potential for movement of sediment.

7.5 STREET CROSSINGS

GENERAL STREET CROSSINGS

- Horizontal sight distance clearance
- Gateway plaza at street interface 19' wide
- Decorative concrete paving
- Unique gateway elements at each street interface
- Seating and benches
- Awareness strips
- Directional signage
- Trail map
- Rules and regulations signage
- Trash receptacle

SPECIFIC STREET CROSSINGS

Coe Avenue

- Enhanced crosswalk offset from gateway plazas
- Connect crosswalk to Leona Court
- Decorative paving crosswalk
- Advanced street signage for pedestrian crossing
- Curb and gutter along Leona Court frontage

Broadway Avenue

- Enhanced crosswalk offset from gateway plazas
- Decorative paving crosswalk
- Advanced street signage for pedestrian crossing

Bird Avenue and Willow Street Intersection

- Offset from intersection
- Trail signage to intersection crossing
- Use of existing signalized intersection crosswalks

Minnesota Avenue

- Mid block crossing perpendicular to street
- High Intensity Activated crosswalk beacon (HAWK)
- Consider center island refuge
- Decorative paving crosswalk
- Advanced street signage and flashing beacon for pedestrian crossing

Falcon Place

- Mid block crossing perpendicular to street
- Enhanced crosswalk offset from gateway plazas
- Decorative paving crosswalk
- Advanced street signage for pedestrian crossing

7.6 PLANTING

The proposed plant palette for the trail is intended to be drought tolerant and low maintenance with a preference for California native plants. Additional adapted Mediterranean and drought-tolerant plants are also included in the palette to provide a variety of plants that provide habitat and seasonal interest throughout the year.

The planting strategy highlights single species of plants using organically shaped areas. The diagram in Figure 42 provides an example of the typical layout of a garden area along the trail. The scale of the drifts are such that it can be enjoyed by pedestrians and cyclists alike. The minimum size of the drifts is recommended to be at least 40 feet in length. The overall goal is for planted areas to occupy approximately 50% of the trail surface area.

Gateway areas use an orchard style planting of trees in a grid to evoke the landscape of the city’s agricultural heritage. Outside of the gateway, trees are placed informally where needed for shade or as an accent.

The recommended plant list is based on the City of San José plant list that is limited to plants that have been part of screening trials and/or successfully used in public landscapes. The list was then refined with support from the City of San José arborist, The California Native Plant Society - Santa Clara County Chapter, and community members.



Example of drift planting strategy



Planting drifts on the High Line in New York, NY

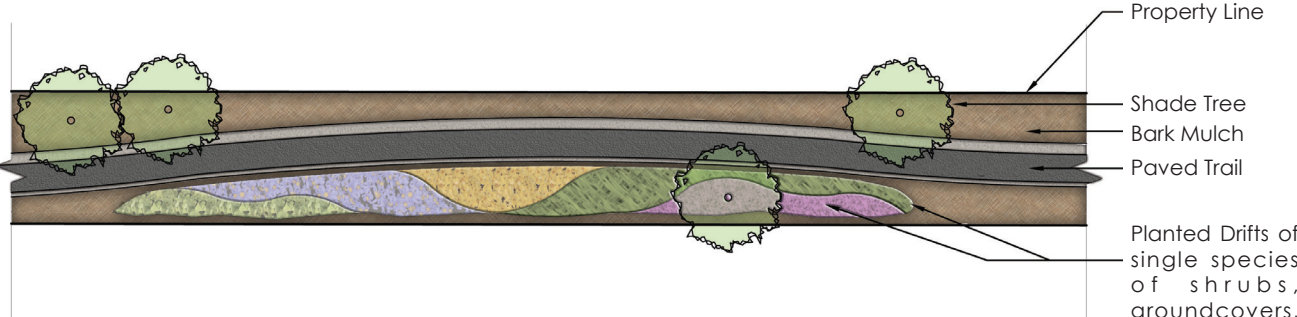


FIGURE 42: Typical Planting Strategy along the trail



Selection of plants from the recommended plant list

The following plant list uses the WUCOLS system of plant classification. WUCOLS is the acronym for Water Use Classifications of Landscape Species.

WUCOL Category of Water Use:

- H - High
- M - Moderate
- L - Low
- VL - Very Low

These classifications are used in calculating water use by zone for irrigation purposes and determining water use budgets under CA ordinance AB 1881.

ORCHARD TREES						
Botanical Name	Common Name	Comments	WUCOL	Native	Birds	Butterflies
<i>Cercis canadensis</i> 'Forest Pansy'	Forest Pansy redbud		M		X	
<i>Cercis occidentalis</i>	Western redbud	Would need to be pruned up	VL	X	X	
<i>Fraxinus americana</i> 'Autumn Purple'	Autumn Purple ash		M			
<i>Laegerstromia indica</i>	crepe myrtle		L			
<i>Malus</i> 'Prairie Fire'	Prairie Fire Flowering Crabapple	red flower, persistent fruit	M		X	
<i>Malus</i> × <i>zumi</i> 'Calocarpa'	Calocarpa Flowering Crabapple	white flower, persistent fruit	M		X	
<i>Prunus cerasifera</i> 'Newport'	Newport Flowering Plum	purple leaf, little or no fruit	M		X	
<i>Prunus</i> s. 'Kwanzan'	Kwanzan Flowering Cherry	pink flower	M		X	
<i>Prunus</i> × <i>yedoensis</i> 'Akebono'	Akebono Flowering Cherry	pink flower	M		X	

SHADE TREES						
Botanical Name	Common Name	Comments	WUCOL	Native	Birds	Butterflies
<i>Acer macrophyllum</i>	big leaf maple		M	X		
<i>Acer miyabei</i> 'Morton'	Morton maple		M			
<i>Acer negundo</i> var. <i>californicum</i>	California Box Elder		M	X		
<i>Acer rubrum</i>	red maple		M			
<i>Aesculus californica</i>	California Buckeye	keep distance from trail	VL	X	X	X
<i>Arbutus</i> 'Marina'	Marina Strawberry Tree		L	X	X	
<i>Arbutus unedo</i>	Strawberry Tree		L			
<i>Celtis occidentalis</i>	European hackberry		L		X	
<i>Heteromeles arbutifolia</i>	Toyon	Would need to be pruned up	L	X	X	
<i>Laurus nobilis</i> 'Saratoga'	Saratoga Laurel		L			
<i>Maytenus boaria</i>	Mayten tree		M			
<i>Nyssa sylvatica</i>	sour gum, tupelo		M			
<i>Quercus agrifolia</i>	coast live oak		VL	X	X	
<i>Quercus lobata</i>	valley oak		L	X	X	
<i>Tilia tomentosa</i> 'Sterling'	Sterling Silver Linden		M			
<i>Ulmus japonica</i> × <i>wilsoniana</i> 'Morton'	Morton Accolade Elm		M			
<i>Ulmus propinqua</i> 'JFS-Bieberich'	JFS Bieberich Emerald Sunshine Elm		M			
<i>Ulmus</i> × 'Frontier'	Frontier Elm		M			
<i>Umbellularia californica</i>	California Bay Laurel	Do not plant next to Oak trees	M	X		
<i>Zelkova serrata</i>	sawleaf zelkova		M			

SHRUBS							
Botanical Name	Common Name	Comments	WUCOL	Native	Birds	Butterflies	
<i>Arctostaphylos bakeri</i> 'Louis Edmunds'	Louis Edmunds Manzanita	7' x 6'	L	X	X	X	
<i>Arctostaphylos densiflora</i> 'Howard McMinn'	Howard McMinn Manzanita	6' x 6'	L	X	X	X	
<i>Arctostaphylos hookeri</i> 'Ken Taylor'	Ken Taylor Manzanita	2' x 6'	L	X	X	X	
<i>Arctostaphylos</i> 'Sunset'	Sunset manzanita	4' x 4' - keep below 3'	L	X	X	X	
<i>Baccharis pilularis consanguinea</i> 'Twin Peak'	dwarf coyote bush	2' x 8'	L	X			
<i>Buddleja</i> 'Lo & Behold'	Blue Chip dwarf lilac	2' - 3'h x 2' to 3'w	L				X
<i>Ceanothus griseus</i> var. <i>horizontalis</i> , 'Yankee Point'	wild lilac	2' x 8'	VL	X	X	X	
<i>Cistus salviifolius</i> 'Prostratus	sageleaf rockrose	2' x 6'	L				
<i>Correa pulchella</i> 'Pink Eye'	pink Australian fuchsia	2' x 3'	L		X		
<i>Epilobium canum</i> 'Everett's Choice'	Everett's Choice California Fuschia	1' x 3'	L	X		X	
<i>Epilobium septentrionale</i> 'Select Mattole'	Select Mattole California Fuschia	1' x 2'	L	X		X	
<i>Eriogonum crocatum</i>	Conejo buckwheat	1' x 2'	L	X	X	X	
<i>Eriogonum fasciculatum</i> 'Theodore Payne'	California buckwheat	1' x 2'	L	X		X	
<i>Eriogonum grande rubescens</i>	Red Buckwheat	1' x 2'	L	X	X	X	
<i>Eriogonum umbellatum</i>	Sulphur Flower	1' x 2'	L	X	X	X	
<i>Erodium chrysanthum</i>	cranesbill	<1' x 2'	L				
<i>Erysimum</i> 'bowles mauve'	Bowles Mauve Wallflower	2' x 2'	L				
<i>Galvezia speciosa</i>	island bush snapdragon	3' x 4'	L	X			
<i>Lavandula stoechas</i> 'Otto Quast'	Spanish lavender	2' x 3'	L	X	X	X	
<i>Penstemon centranthifolius</i>	scarlet bugler	1' x 2'	L	X	X	X	
<i>Penstemon heterophyllus</i> 'Margarita BOP'	beard tongue	2' x 2'	L	X	X	X	
<i>Phlomis viscosa</i>	Jerusalem sage	2' x 3'	L				
<i>Phormium tenax</i> 'Fleming'	New Zealand flax	2' x 3'	L				
<i>Phormium tenax</i> 'Jack Sprat'	New Zealand flax	2' x 3'	L				
<i>Phormium tenax</i> 'Tony Tiger'	New Zealand flax	2' x 3'	L				
<i>Ribes viburnifolium</i>	evergreen Currant	3' x 5'	L	X	X	X	
<i>Rosmarinus officinalis</i> 'Irene'	trailing blue rosemary	2' x 6'	L		X	X	
<i>Salvia</i> 'Dara's Choice'	Dara's Choice Salvia	3' x 3'	L	X	X	X	
<i>Salvia greggii</i> 'Salmon'	autumn sage	2' x 3'	L	X	X	X	
<i>Salvia leucophylla</i> 'Bee's Bliss'	Bee's Bliss Purple Sage	2' x 5'	L	X	X	X	
<i>Salvia leucophylla</i> 'Pt. Sal'	Purple Sage	2' x 8'	L	X	X	X	
<i>Salvia officinalis</i>	sage	2' x 3'	L		X	X	
<i>Verbena lilacina</i> 'De La Mina'	De La Mina Lilac Verbena		L	X	X	X	
<i>Trichostema lanatum</i>	wooly blue curls	3' x 4'	VL	X			

LOW SHRUBS/GROUNDCOVERS							
Botanical Name	Common Name	Comments (Height x width)	WUCOL	Native	Birds	Butterflies	
<i>Acacia redolens</i> 'Desert Carpet'	Creeping Wattle	2' x spreading	VL				
<i>Arctostaphylos</i> 'Emerald Carpet'	Emerald Carpet bearberry	1' x 4' spreading	L	X	X	X	
<i>Arctostaphylos hookeri</i>	Monterey manzanita	1' x 4'	L	X	X	X	
<i>Ceanothus gloriosus</i> 'Emily Brown'	Wild Lilac	2' x 6'	VL	X	X	X	
<i>Coprosma petriei</i> 'Verde vista'	verde vista coprosma	2' x 8'	L				
<i>Coprosma x kirkii</i> 'variegata'	creeping coprosma	<1' x spreading	L				
<i>Dymondia margaritae</i>	dymondia	6" x spreading	L				
<i>Grevillea lanigera</i> 'Prostrate Form'	prostrate wooly grevillea	2' x 4'	L		X	X	
<i>Iris douglasiana</i>	Douglas Iris	1' x 2'	M	X			
<i>Iris</i> spp. (bearded)	bearded iris cultivars	2' x spreading	M		X	X	
<i>Lantana montevidensis</i>	purple trailing lantana	2' x 8'	L	X	X	X	
<i>Monardella villosa</i>	Coyote Mint	2' x 2'	VL	X	X	X	
<i>Myrtus communis</i> 'Compacta'	compact myrtle	2' x 3'	L				
<i>Nepeta x faassenii</i>	catmint	1' x 4'	L			X	
<i>Sarcococca hookerana humilis</i>	sweet Sarcococca	2' x 8'	L				
<i>Verbena tenuisecta</i>	moss verbena	1' x 2'	L			X	

GRASSES							
Botanical Name	Common Name	Comments	WUCOL	Native	Birds	Butterflies	
<i>Elymus triticoides</i>	Creeping Wild Rye	2' x 6'	VL	X			
<i>Festuca idahoensis</i>	Idaho Fescue	1' x 1'	VL	X			
<i>Festuca</i> 'Siskiyou Blue'	Siskiyou Blue Fescue	2' x 2'	VL				
<i>Helictotrichon sempervirens</i>	Blue Oat Grass	2' x 2'	L	X			
<i>Juncus patens</i>	California gray rush	2' x 2'	M	X			
<i>Leymus condensatus</i>	Giant Wild Rye	4' x spreading	VL	X			
<i>Muhlenbergia rigens</i>	Deer Grass	4' x 5' (includes flower height)	L	X			
<i>Stipa pulchra</i>	purple Needle Grass	2' x 2'	VL	X			

7.7 MISCELLANEOUS SITE AMENITIES

The Three Creeks Trail design seeks to provide a consistent trail experience for pedestrians and cyclists through the use of design elements, materials, and site amenities. Repeating signage, images, and themes help provide a unique identity to the trail. One of the most visually significant trail amenities, the trail gateway feature, has already been described in detail in section 6.3. Other site amenities include:

DIRECTIONAL AND TRAIL SIGNAGE

The San José Trail Signage Guidelines state that the City supports efforts to incorporate design elements that provide a safer trail experience. Trail signage gives users a visual understanding of the trail rules and regulations and any potential hazards. Trail signage is deployed sparingly and all posted signs are consistent with similar trails in the San José trail network. Trail rules and regulations are posted regularly along the trail.

Directional signage is an essential feature on any trail. These signs direct people to things such as transportation, trail connections, and local points of interest. As the yellow boxes in Figure 43 show, there are multiple directional signs at each gateway.

All signage used on the trail is standard City of San José Trail signage. The sizes, placement, language, and symbols will be consistent with those used on the San José Trail Network.



Typical San José Trails directional signs.

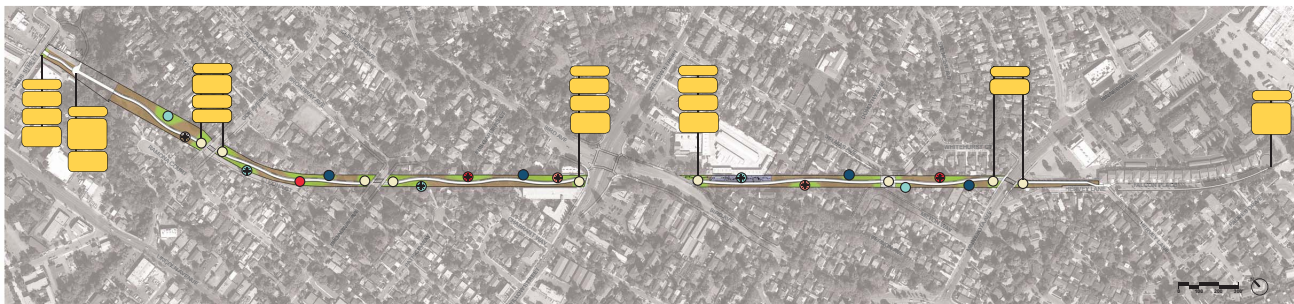


FIGURE 43: Placement of directional signs along the trail

INTERPRETIVE SIGNAGE

The trail has 8 interpretive stations distributed along the length of the trail which explore the layers of history of the Willow Glen area (Figure 44). The chosen locations reference places along the trail or are relevant to another interpretive feature. The content of the signs will be developed with support from local historians. All interpretive signage used on the trail is standard City of San José Trail signage. The size, placement, language, and symbols are consistent with those used on the San José Trail Network.

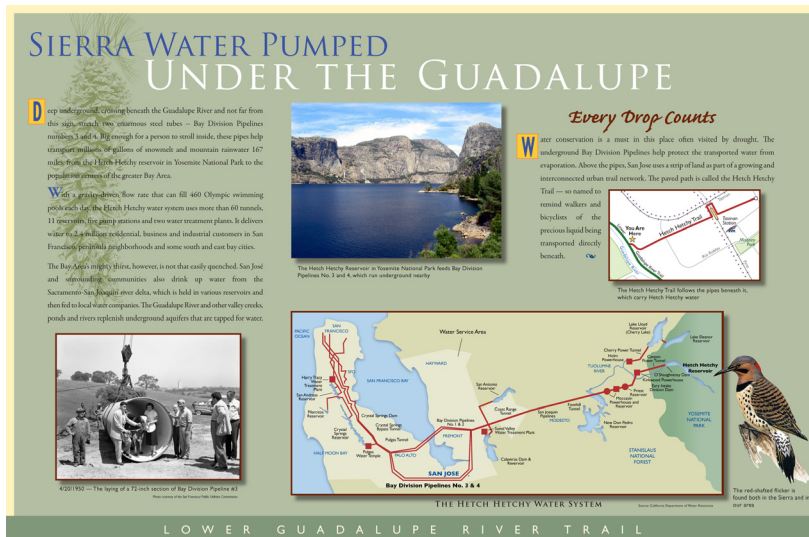


Typical San José Trails interpretive sign display mount

Preliminary research and proposed text was provided by community members.

Proposed interpretive signs from north to south include:

- History of Willow Glen
- Natural History
- Jumble Word Game - Fruit from San José orchards
- Local Canneries and Dairies
- Railroad Alignment
- Fruit Processing in San José
- Railroad Impact and Legacy
- Agricultural History



Typical San José Trails interpretive sign

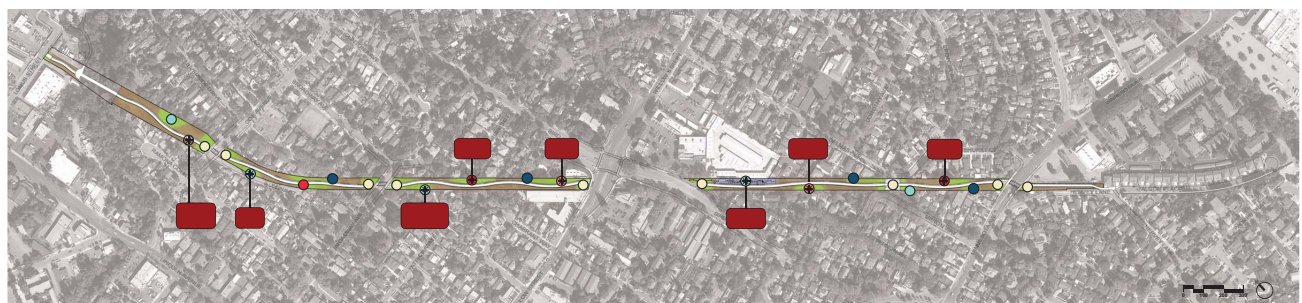


FIGURE 44: Placement of interpretive signs along the trail



Typical San José trail mileage marker (along Guadalupe River Trail)

MILEAGE MARKERS

The City of San José is committed to providing safer and enjoyable trail systems. In order to provide accurate trail location information, there are mileage markers generally installed at every gateway and at 1/4 mile intervals. The posted mileage allows trail users to track distances traveled and are georeferenced to the city's emergency dispatch system (911 center) for a more efficient response effort and incident tracking.

AWARENESS STRIP

In order to visually signify the beginning and end of each segment of trail, in-pavement signage is included as part of the way-finding system on the trail. These ground level signs identify upcoming transitions such as cross streets or a creek name. They occur with stamped letters in the pavement at gateway plazas.

WASTE RECEPTACLES

Waste receptacles are provided periodically along the length of the trail for disposal of small items. Use of the pole mounted style waste receptacles used throughout the San José Trail system are recommended to discourage dumping of household waste.



Standard waste receptacle

IMPLEMENTATION



Photo taken during site clean-up

8. IMPLEMENTATION

8.1 PROJECTED COSTS

An estimate of the costs associated with construction of the Three Creeks Trail is provided on the following pages. The cost estimate presented here is based on the proposed trail project as described in this document. This estimate was generated using fourth quarter 2013 dollars. Subsequent years will have to include an escalation factor, and that these estimates are preliminary and subject to change upon preparation of construction documents.

The estimate was prepared in accordance with the guidelines of AACE International, the Association for the Advancement of Cost Engineering. According to the definitions of AACE International, the Class 4 Estimate is defined as the following:

Class 4 Estimate. This estimate is prepared based on limited information, where the preliminary engineering is from 1% to 15% complete. Detailed strategic planning, business development, project screening, alternative scheme analysis, confirmation of economic and/or technical feasibility, and preliminary budget approval are needed to proceed. Examples of estimating methods used would be equipment and/or system process factors, scale-up factors, and parametric and modeling techniques. The development of this type of estimate requires more time expended in its development. The expected accuracy ranges for this class of estimate are -15% to -30% on the low range side and +20% to +50% on the high range side.

The cost estimates shown, which include any resulting conclusions on project financial or economic feasibility or funding requirements, have been prepared for guidance in project evaluation and implementation from the information available at the time of the estimate. The final costs of the project and resulting feasibility will depend on actual labor and material costs, competitive market conditions, actual site conditions, final project scope, implementation schedule, continuity of personnel and engineering, and other variable factors. Therefore, the final project costs will vary from the estimate presented here. Because of these factors, project feasibility, benefit/cost ratios, risks, and funding needs must be carefully reviewed prior to making specific financial decisions or establishing project budgets to help ensure proper project evaluation and adequate funding.

IN THIS SECTION:

- 8.1 Projected Costs
- 8.2 Priorities and Phasing
- 8.3 Funding

PROJECTED COSTS

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A PROJECT START-UP*						
1)	Mobilization	Allow	10%	\$2,432,994.50	\$243,300.00	
2)	Traffic Control	1	LS	\$10,000.00	\$10,000.00	
3)	Construction Staking	1	LS	\$15,000.00	\$15,000.00	
4)	Temporary Construction Fencing	960	LF	\$3.50	\$3,360.00	
						\$271,660.00
B DEMOLITION						
1)	Clear and Grub	259,000	SF	\$0.50	\$129,500.00	
2)	Chainlink Fence Removal	800	LF	\$5.00	\$4,000.00	
3)	AC Paving Removal	4,635	SF	\$4.00	\$18,540.00	
4)	Sidewalk Removal	4,050	SF	\$4.00	\$16,200.00	
5)	Export Demolished Debris Off-Site	300	CY	\$65.00	\$19,500.00	
						\$133,500.00
C SITE CONSTRUCTION						
1)	SWPPP; Reporting, Measures, and Maintenance	Allow	LS	\$100,000.00	\$100,000.00	
2)	Rough Grading	3,000	CY	\$50.00	\$150,000.00	
3)	Soil Preparation and Fine Grading	98,425	SF	\$2.00	\$196,850.00	
4)	Mulch	160,575	SF	\$0.50	\$80,287.50	
						\$527,137.50
D TRAIL (Lonus Street to Falcon Court Cul-De-Sac)						
1)	AC Paving - Hot Mix Asphalt (Type A) (4")	1,355	TON	\$90.00	\$121,950.00	
2)	AC Paving - Class 2 Aggregate Base (HMA) (8")	1,355	CY	\$40.00	\$54,200.00	
3)	Base Rock Shoulders (6")	616	CY	\$40.00	\$24,640.00	
4)	Striping	4,825	LF	\$2.00	\$9,650.00	
						\$210,440.00
E ROAD CROSSINGS						
1)	Crosswalk Paving, decorative	2,400	SF	\$20.00	\$48,000.00	
2)	Detectable Warning Strip	8	EA	\$2,000.00	\$16,000.00	
3)	Signal Devices, HAWK	1	EA	\$95,000.00	\$95,000.00	
4)	Signal Devices, other	2	EA	\$25,000.00	\$50,000.00	
						\$209,000.00
F SITE FURNISHINGS						
1)	Directional Signage	10	EA	\$350.00	\$3,500.00	
2)	Trail Map	10	EA	\$2,000.00	\$20,000.00	
3)	Rules and Regulations Signage	10	EA	\$350.00	\$3,500.00	
4)	Mileage Marker	5	EA	\$350.00	\$1,750.00	
5)	Interpretive Signage	7	EA	\$3,000.00	\$21,000.00	
7)	Trash Receptacles	6	EA	\$2,000.00	\$12,000.00	
8)	Drinking Fountain	1	EA	\$3,000.00	\$3,000.00	
						\$64,750.00
G GATEWAYS AND FEATURES						
1)	Water Tower Structure	2	EA	\$15,000.00	\$30,000.00	
2)	Corten Crate Structure	4	EA	\$2,000.00	\$8,000.00	
3)	Truss Fence	2	EA	\$4,000.00	\$8,000.00	
4)	Concrete Paving, decorative	5,760	SF	\$20.00	\$115,200.00	
5)	Delmas Plaza Paving, concrete	3,540	SF	\$20.00	\$70,800.00	
6)	Delmas Plaza Label Mosaic	1	EA	\$20,000.00	\$20,000.00	
7)	Benches, custom	10	EA	\$2,500.00	\$25,000.00	
8)	Single Seats, custom	20	EA	\$1,000.00	\$20,000.00	
9)	Individual Corten Crates	8	EA	\$250.00	\$2,000.00	
10)	River Cobble Pilaster	1	EA	\$5,000.00	\$5,000.00	
						\$252,000.00

*This estimate assumes that construction staging will occur on the footprint of the project.

PROJECTED COSTS

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
H	PLAY AREAS					
1)	Hearts Delight Playground, Tot Age structures	Allow	LS	\$210,312.00	\$210,312.00	
1)	Hearts Delight Playground, School Age structures	Allow	LS	\$77,000.00	\$77,000.00	
2)	Heart's Delight Playground, resilient matting	8,670	SF	\$35.00	\$303,450.00	
3)	Heart's Delight Playground, decorative truss fence	350	LF	\$250.00	\$87,500.00	
4)	Sculptural Play, structures	Allow	LS	\$12,025.00	\$12,025.00	
5)	Sculptural Play, engineered wood fiber	840	SF	\$25.00	\$21,000.00	
6)	Pavement Play, concrete slab	800	SF	\$15.00	\$12,000.00	
7)	Maze, concrete slab	960	SF	\$15.00	\$14,400.00	
8)	Benches (in Heart's Delight playground)	4	EA	\$2,000.00	\$8,000.00	
9)	Adult Fitness Stations, structures	Allow	LS	\$16,850.00	\$16,850.00	
						\$762,537.00
I	PLANTING & IRRIGATION					
1)	Orchard Trees (15 gallon)	130	EA	\$200.00	\$26,000.00	
2)	Shade Trees	75	EA	\$200.00	\$15,000.00	
3)	Shrubs and Ground Cover	4,640	SF	\$10.00	\$46,400.00	
4)	Tree Pruning	10	EA	\$250.00	\$2,500.00	
5)	Irrigation for shrubs (with solar controllers)	4,640	SF	\$4.50	\$20,880.00	
6)	Irrigation for trees (with solar controllers)	205	EA	\$50.00	\$10,250.00	
						\$121,030.00
J	LANDSCAPE MAINTENANCE					
1)	Plant Establishment Period	12	MO	\$1,500.00	\$18,000.00	
						\$18,000.00
K	SUBTOTAL OF CONSTRUCTION					\$2,570,054.50
L	CONTINGENCIES					
1)	Allowance for probable design period changes	Allow	10%	\$2,570,054.50	\$257,005.45	
2)	Estimating Contingency	Allow	30%	\$2,827,059.95	\$848,117.99	
						\$1,105,123.44
M	TOTAL OF CONSTRUCTION					\$3,676,000.00
N	ALLOWANCE FOR PROBABLE CONSTRUCTION PERIOD	Allow	0.1	\$3,676,000.00	\$367,600.00	\$367,600.00
O	CITY DESIGN MANAGEMENT AND CONSTRUCTION IN	Allow	0.3	\$3,676,000.00	\$1,102,800.00	\$1,102,800.00
P	PUBLIC ART PROGRAM**					
1)	Public Art	Allow	1%	\$3,676,000.00	\$36,760.00	
						\$36,760.00
Q	PROFESSIONAL SERVICES					
1)	Design Development	Allow	5%	\$3,676,000.00	\$183,800.00	
2)	Construction Documents (without permits)	Allow	10%	\$3,676,000.00	\$367,600.00	
3)	Bidding and Construction Administration	Allow	5%	\$3,676,000.00	\$183,800.00	
						\$735,200.00
R	TOTAL PROJECT ESTIMATED COSTS					\$5,919,000.00

**Per City policy, 1% of the project's total cost (based on land acquisition, design, and construction costs) will be allocated to public art. During the master planning process, the community provided input for a mural, tiles "label," decorative surfaces, and other visually-enhanced features. The public art funds will be designated to a preferred project element after careful consultation with the Public Arts staff and Public Art Commission.

8.2 PRIORITIES AND PHASING

It is anticipated that the entire trail will be constructed in one phase. Staging areas for construction of the trail are not known at this time, but could be located at one or two locations along the trail, possibly on the north side of the Coe Avenue gateway and on the south side of Bird Avenue gateway.

If funding cannot be found for all improvements, the focus should be on trail construction, signage, and safe street crossings. Site amenities such as gateways, play areas, adult exercise equipment, seating and enhanced planting could follow as funds become available.

8.3 FUNDING

Implementation of the proposed trail design will require the identification and procurement of funding for the design development and construction. Typical funding is received from the City's budget through construction and conveyance tax funds and park trust funds. Grant programs at the local, state, and federal levels can also support development.



The intersection of the trail at Minnesota Avenue - providing a well-defined crossing is a priority.

FUNDING SOURCES

The following table shows a list of potential funding sources that may be used to secure funding for this project.

Grant Source	Potential Award (max.)	Contact Info	Website	Match
FOCUS – Technical Assistance Program	\$60,000	FOCUS Program 101 8th Street Oakland, CA 94607 Attn: Therese Trivedi ttrivedi@mtc.ca.gov or 510-817-5767	www.bayareavisio.org/technicalassistance	None
HCF (Habitat Conservation Fund)	\$2,000,000 (Program budget)	John Mason, Lead Project Officer (916) 651-3143 or jmason@parks.ca.gov California State Parks Office of Grants & Local Services PO Box 942896 Sacramento, CA 94296-0001 TEL 916-653-7423 FAX 916-653-6511	http://www.parks.ca.gov/?page_id=21361 Next Deadline: Oct 3, 2011	Non-state Dollar-for-Dollar Match
RTP (Recreational Trails Program)	\$1,000,000	California State Parks Office of Grants and Local Services P O Box 942896 Sacramento, CA 94296-0001 Richard Rendon (916) 651-8579 rrend@parks.ca.gov	http://www.fhwa.dot.gov/environment/recreational/index.htm	30%
Proposition 50 (California River Parkways)	>\$1,000,000	California River Parkways Grant Program The Resources Agency Attn: Bonds and Grants Unit 1416 Ninth Street, Suite 1311 Sacramento, CA 95814 Phone: (916) 654-9923 or 916-653-2812 Email: riverparkways@resources.ca.gov	Old: http://resources.ca.gov/bonds_prop50riverparkway.html New: http://resources.ca.gov/grant_programs.html	None
Proposition 84 (California River Parkways)				
HSIP	\$900,000 max	Highway Safety Improvement Program (HSIP) Caltrans	http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm	10%
Proposition 40 (California Clean Water, Clean Air, Safe Neighborhood Parks, Coastal)	Various	California River Parkways Grant Program The Resources Agency Attn: Bonds and Grants Unit 1416 Ninth Street, Suite 1311 Sacramento, CA 95814 Phone: (916) 654-9923 Email: rp50@resources.ca.gov	http://resources.ca.gov/bonds_prop40.html	Yes
TLC (Transportation for Livable Communities)	\$2,200,000	MTC Evelyn Baker (510) 817-5753 ebaker@mtc.ca.gov	http://www.mtc.ca.gov/planning/smart_growth/tlc/	Yes
Bicycle Transportation Account (BTA)	\$500,000	Ann Mahaney Bicycle Facilities Unit 154, MS-1 Division of Local Assistance California Department of Transportation PO Box 942874 Sacramento, CA 94274-0001 ann_mahaney@dot.ca.gov Phone: (916) 653-0036 Fax: (916) 653-1905	http://www.dot.ca.gov/hq/LocalPrograms/bta/btawebpage.htm	10% Local (non-BTA source)

TDA Article 3 Funds (Transportation Development ACT)	\$100,000	MTC Marc Roddin (510) 817-5827 TDA Program Manager Bob Bates 510-817-5733 bbates@mtc.ca.gov	http://www.mtc.ca.gov/funding/STA-TDA	\$0
Land and Water Conservation Fund	\$300,000	Project Officer (Name) California Dept. of Parks and Recreation Office of Grants and Local Services P.O. Box 942896 Sacramento, CA 94296-0001	http://www.parks.ca.gov/page_id=21360	50%
TFCA (Transportation Funds for Clean Air)	\$115,000 per mile	Juan Ortellado Grant Programs Manager Bay Area Air Quality Management District 939 Ellis Street, 7th Floor San Francisco, California 94109	http://www.sfcta.org/content/view/269/88/	\$0
RTCA (Rivers, Trails and Conservation Assistance Program)		Pacific West Regional Office National Park Service, Rivers, Trails, and Conservation 1111 Jackson St., Suite 700 Oakland, CA 94607 Barbara Rice, Program Manager barbara_rice@nps.gov (510) 817-1449	www.nps.gov/nrcr/programs/rtca	
Bay Trail Grant –ABAG		San Francisco Bay Trail Project c/o ABAG P.O. Box 2050, Oakland, CA 94604-2050 Laura Thompson, Project Manager 510-464-7935; laurat@abag.ca.gov	http://baytrail.abag.ca.gov/grants.html	
Bay Area Ridge Trail	\$300,000 ~	Bay Area Ridge Trail Council	http://ridgetrail.org	
California Coastal Conservancy	Open	State of California Central Coast: coast side San Mateo County to Santa Barbara County Trish Chapman: tchapman@scc.ca.gov 510-286-0749	http://scc.ca.gov/	
CDT – Community Design & Transportation	\$500,000 (min.)	VTA	http://www.vta.org/call_for_projects/cdt_capital_program.html http://www.vta.org/call_for_projects/cdt_planning_program.html	50%
Proposition 84 – Park Development and Community Revitalization Program	Up to \$5,000,000	Grants and Local Services Teri Crawford tcrawford@parks.ca.gov (916) 653-9037	http://www.parks.ca.gov/?page_id=1008	
Community-Based Transportation Planning (CBTP)	Up to \$300,000 (over \$250,000 requires pre-award audit)	C. Edward Philpot, Jr. EJ and CBTP Grants Branch Chief, Grants & Public Engagement Office of Community Planning (916) 653-8817 c_edward_philpot@dot.ca.gov	http://www.dot.ca.gov/hq/tpg/grants.html	20%
Safe Routes to Transit (SR2T) Program	\$200,000 Planning \$750,000 Capital	TransForm, East Bay Bicycle Coalition, and MTC SR2T Project Application Transform, Attn: Sandra Padilla 436 14 th Street, Suite 600 Oakland, CA 94612 510-740-3150 x304 Sandra@TransFormCA.org	http://transformca.org/campaign/sr2t	None

TCSP (Source: SAFETEA-Lu)		Transportation, Community, and System Preservation (TCSP)	http://www.fhwa.dot.gov/tcsp/index.html	
FLH (Source: SAFETEA-Lu)		Federal Lands Highway (FLH) U.S. Department of Transportation Federal Highway Administration	http://flh.fhwa.dot.gov/	
BYW (Source: SAFETEA-Lu)		National Scenic Byways Program	http://www.fhwa.dot.gov/environment/bikeped/index.htm http://www.fhwa.dot.gov/hep/byways/index.htm	20%
National Scenic Byways Program Grant	\$40,000 - \$1,000,000	Caltrans - Office of State Landscape Architecture Dennis Cadd State Scenic Byway Coordinator 1120 N Street, MS-28 Sacramento, CA 95814 Phone: 916-654-5370 Fax: 916-654-3770 dennis_cadd@dot.ca.gov	http://www.bywaysonline.org/grants Site has great grant samples, useful tips, and list of awardees.	20%
Santa Clara County Vehicle Emissions Reductions Based at Schools (VERBS) Grant Program	Up to \$1,000,000 (minimum \$500,000)	Celeste Fiore Transportation Planner Santa Clara VTA Programming & Grants, Bldg B2 3331 N. First St. San Jose CA 95134-1927 408.321.5693	http://www.sccgov.org	11.47%
POST (Peninsula Open Space Trust)	?	Marc Landgraf Conservation Director Peninsula Open Space Trust (POST) 222 High Street Palo Alto, CA 94301 Phone: (650) 854-7696 x340 Fax: (650) 854-7703	www.openspacetrust.org	
TPL		Trust for Public Land	http://tpl.org/	
Bicycle Facility Program (BFP)	\$210,000 (40% of program total)	Patrick Wenzinger, Environmental Planner (415) 749-5093 Bay Area Air Quality Management District 939 Ellis Street, 7th Floor San Francisco, California 94109	http://www.baaqmd.gov/Divisions/Strategic-Incentives/Alternative-Transportation/Bicycle-Facility.aspx	None
EEMP	\$350,000	Laurie Heller Grants Administrator Bonds & Grants Natural Resources Agency of California 1416 Ninth Street, Suite 1310 Sacramento CA 95814 Voice: (916) 651-7593 Fax: (916) 653-8102 laurie.heller@resources.ca.gov	http://resources.ca.gov/eem/	None

Historical Heritage Grant Program (HHGP)	Total of \$225,739 is available for Fiscal Year 2011-2012.	Christian Elliott, Management Analyst County of Santa Clara, Parks and Recreation Department Telephone: (408) 355-2291 E-mail: Christian.Elliott@prk.sccgov.org	http://www.santaclarada.org/portal/site/parks/parksarticle?path=%2Fv7%2FParks%20and%20Recreation%2C%20Department%20of%20(DEP)%2Fmain_menu%2FHistory%20Here&contentid=c168c89e08478210VgnVCM1000048dc4a92____	
Urban Greening for Sustainable Communities Program	No Max; No Min	Prop 84 State of Calif Natural Resources Agency Attn: Bonds and Grants Unit 1416 Ninth Street, Suite 1311 Sacramento, CA 95814 Phone: (916) 653-2812, OR Email: UrbanGreening@resources.ca.gov Lori Heller (916) 653-2812	http://resources.ca.gov/bonds_prop84_urbangreening.html Concept Proposal Deadline 6/17/11	Not required
Kodak American Greenways Awards Program.	\$2,500	Erik Meyers, Vice President - Sustainable Programs Email: emeyers@conservationfund.org The Conservation Fund's main line: (703) 525-6300	http://grants.conservationfund.org/tcf/public/viewAwards.action	
Regional Planning: Building Sustainable Land Use and Transportation Plans to Secure the Future of Silicon Valley and its Residents	Successful applicants will receive grants in the range of \$50,000-\$100,000 for a minimum of one year.	Silicon Valley Community Foundation 2440 West El Camino Real, Suite 300 Mountain View, CA 94040 grants@siliconvalleycf.org 650.450.5542	http://www.siliconvalleycf.org/grants/pdf/11_RPLandTransRFP.pdf	
Open Spaces / Sacred Places	\$50,000~	TKF Foundation http://www.opensacred.org/about/contact-us	http://www.tkfdn.org/	
California Landscape Conservation Cooperative	\$25k - \$100k		http://fs22.formsite.com/CLCC/form3/index.html	
Art Place	\$150k - \$1M		http://dirt.asla.org/2011/10/26/artplace-offers-14m-in-creative-placemaking-grants/ http://www.artplaceamerica.org/grants/	
California CAP and TRADE	Unknown		http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm	
CDBG	~\$100,000	Daniel Murillo City of San Jose Housing Department		?
VERBS	\$500,000 min	MTC Due February 22, 2013 Celeste Fiore, Programming & Grants Santa Clara Valley Transportation Authority 3331 North First Street, Bldg B2 San Jose, CA 95134	http://www.vta.org/callforprojects/#verbs	11.47%

