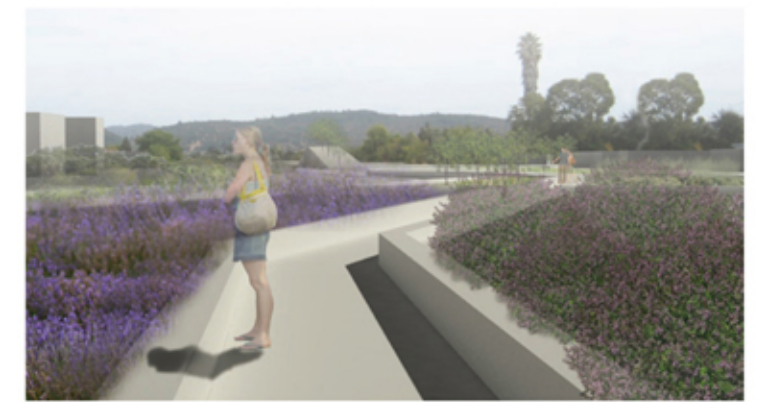
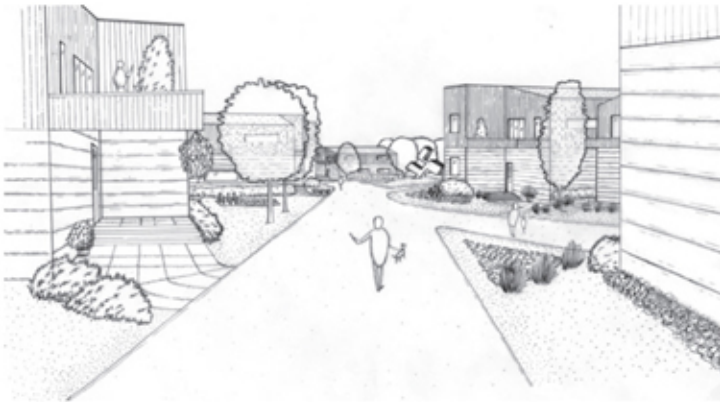


BEYOND THE FREEWAY:
ALTERNATIVE FUTURES FOR SANTA ROSA'S

SOUTHEAST GREENWAY



UC BERKELEY FALL 2010

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PREFACE

The Southeast Greenway Campaign is a community-based project to create a vital urban greenway on the 2-mile stretch of open space that runs from Spring Lake Park to Highway 12 at Farmers Lane in Santa Rosa, California. The campaign is committed to shaping the Southeast Greenway based on principles of sustainability—respect for the environment, economic vitality, and social equity—and on community input, needs and desires.

The campaign wishes to express its deep appreciation to Professor Michael Southworth and the ten talented graduate students from UC Berkeley's Urban Design Studio who adopted the Southeast Greenway as their focus of study in the fall of 2010. The students' assessment of current site conditions adds to our community's understanding of this unique property. Their creative project ideas challenge us to think "outside the box" and consider a range of options that have the potential to improve our quality of life.

The campaign hopes that the design ideas represented here will spark creative thinking and contributions to our community conversations in the coming year. They offer us a rich variety of concepts and visual ideas that will add value to our community-based visioning and planning efforts.

For more information about the Southeast Greenway Campaign, visit www.southeastgreenway.org

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INTRODUCTION

PROJECT OVERVIEW

In Fall 2010 UC Berkeley graduate students in urban design, city planning, landscape architecture, and transportation engineering participated in an interdisciplinary studio, “Shaping the Public Realm.” The studio explored possibilities for the Santa Rosa “Southeast Greenway,” an unused strip of land that cuts through the city from the eastern edge to the center. An energetic and informed group of residents, the Southeast Greenway Campaign Committee, organized to do something about it and asked the studio for assistance in analyzing the problem and envisioning possible futures.

Students began by studying site conditions in depth: natural factors, history, culture, demographics, activity patterns, built form, perceptual character, and access. They then explored many design alternatives for the community to consider.

Dating from the 1950s, the “greenway” is a right-of-way for an unbuilt and most likely never-to-be-built highway that was planned by CalTrans to connect Route 12 with US Highway 101. The corridor is about 300 feet wide and nearly two miles long. An open grassland, it is crossed by four streets and three creeks and includes a 60-year-old walnut orchard. Its edges are defined by residential neighborhoods and some commercial uses, and several schools are in close proximity.

The problem is challenging for several reasons. It is a very large area with diverse conditions as one moves through it, but it is only weakly connected to the surrounding city. Few streets connect with it and the adjacent neighborhoods generally turn their backs on it. Some of its natural features have been compromised: parts of the streams that run through it are buried, and one is diverted through a large overflow pipe.

At the same time, the site presents several opportunities. It could become a major green space with restored streams that connects with regional parks and bicycle networks. It could also accommodate a variety of social, cultural, educational, recreational, commercial, residential, and transportation activities to serve city needs.

The plans and designs from the studio illustrate that it is possible to have both connected open space and appropriate development. They explore what “green” might mean in an urban context including compact living, energy efficient access systems, urban agriculture, as well as restorative green space. It is hoped that the studio work will provide a framework for community discussion and a public design charrette in Santa Rosa in 2011.

ACKNOWLEDGMENTS

Many thanks to the Southeast Greenway Campaign for making this project possible. We are particularly grateful to the members of the Southeast Greenway Campaign Committee for their assistance and feedback along the way.

Thanks also to Wayne Goldberg, interim city manager, who connected UC Berkeley and the Southeast Greenway Campaign, and to Mike Hargreaves at City of Santa Rosa for his assistance with obtaining data and planning information.

Report design and layout by Meghan Sharp with assistance from Taylor Reiss and Anisha Gade.

THE STUDIO

Professor Michael Southworth

John M. Francis, MCP	Andrew Kosinski, MCP/MS
Omari Fuller, MCP (UCLA)	Erin Machell, MCP
Anisha Gade, MCP	Taylor Reiss, MCP/MS
Seungyen Hong, MCP	Meghan Sharp, MLA
Kenya Huezo, MLA	Xiao Wu, MCP



SITE & CONTEXT ANALYSIS

an in-depth look at factors impacting planning and design of the southeast greenway

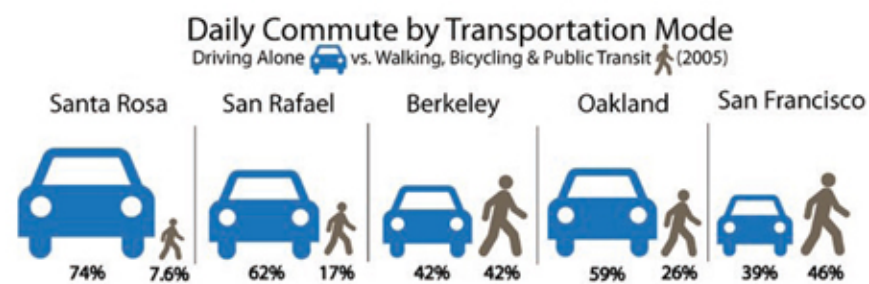
SANTA ROSA 2010

"I firmly believe, from what I have seen, that this is the chosen spot of all this earth as far as Nature is concerned."
Luther Burbank, famed horticulturalist, 1875



Santa Rosa is...

...a regional hub for technology and manufacturing, retail, banking and employment
...the gateway to Sonoma Wine Country, a popular tourist destination
...the largest city between San Francisco and Portland, OR, with 150,000 residents



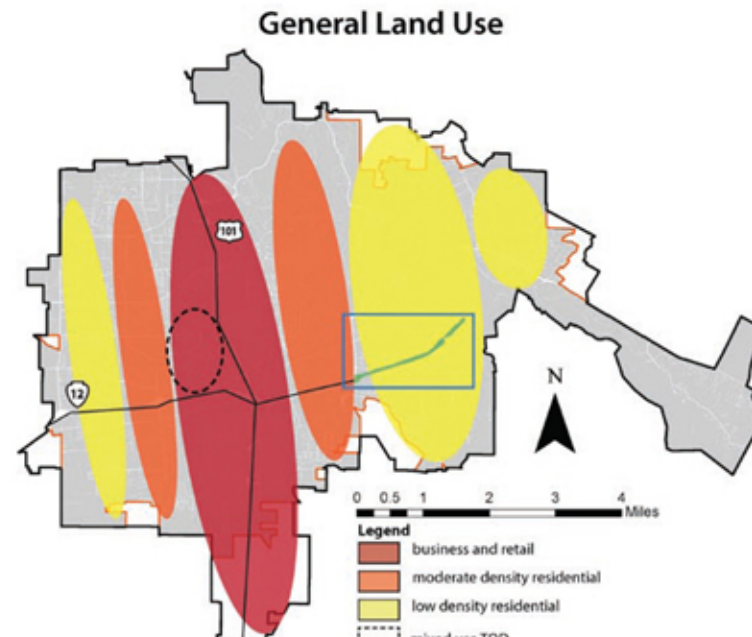
Transportation was the source of nearly half of Santa Rosa's greenhouse gas emissions in 2005

SANTA ROSA 2035: A VISION FOR THE FUTURE

The Santa Rosa General Plan identifies several priorities for its vision of the city. Santa Rosa 2035 will be...

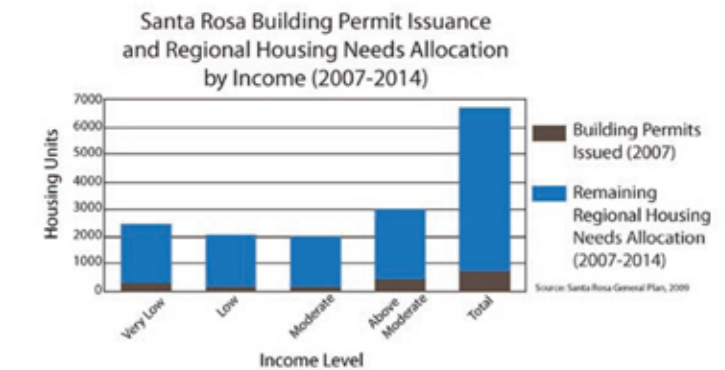
1. Compact

Retail and mixed use occupy the city's central axis, with lower density residential to the east and west.



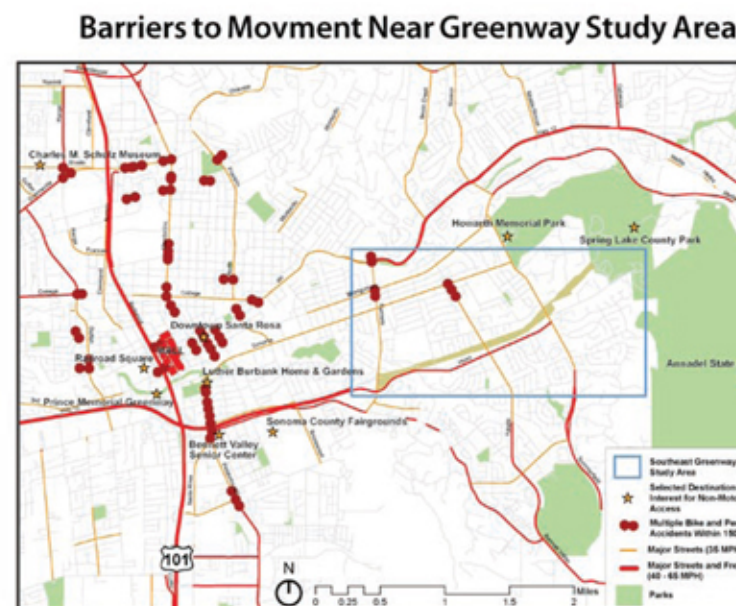
2. Affordable

Currently only households earning more than \$90,000 annually can afford a median priced home in Santa Rosa.



3. Internally Connected

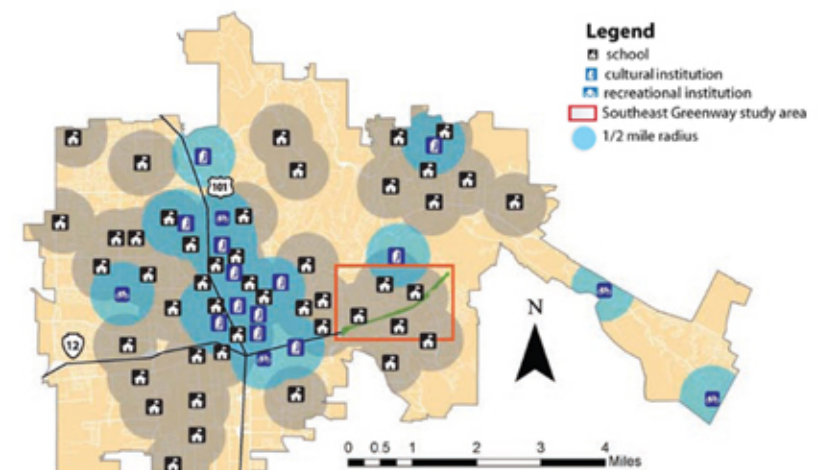
Current road infrastructure discourages non-motorized transportation across the city.



4. A Center for Education, Culture & Art

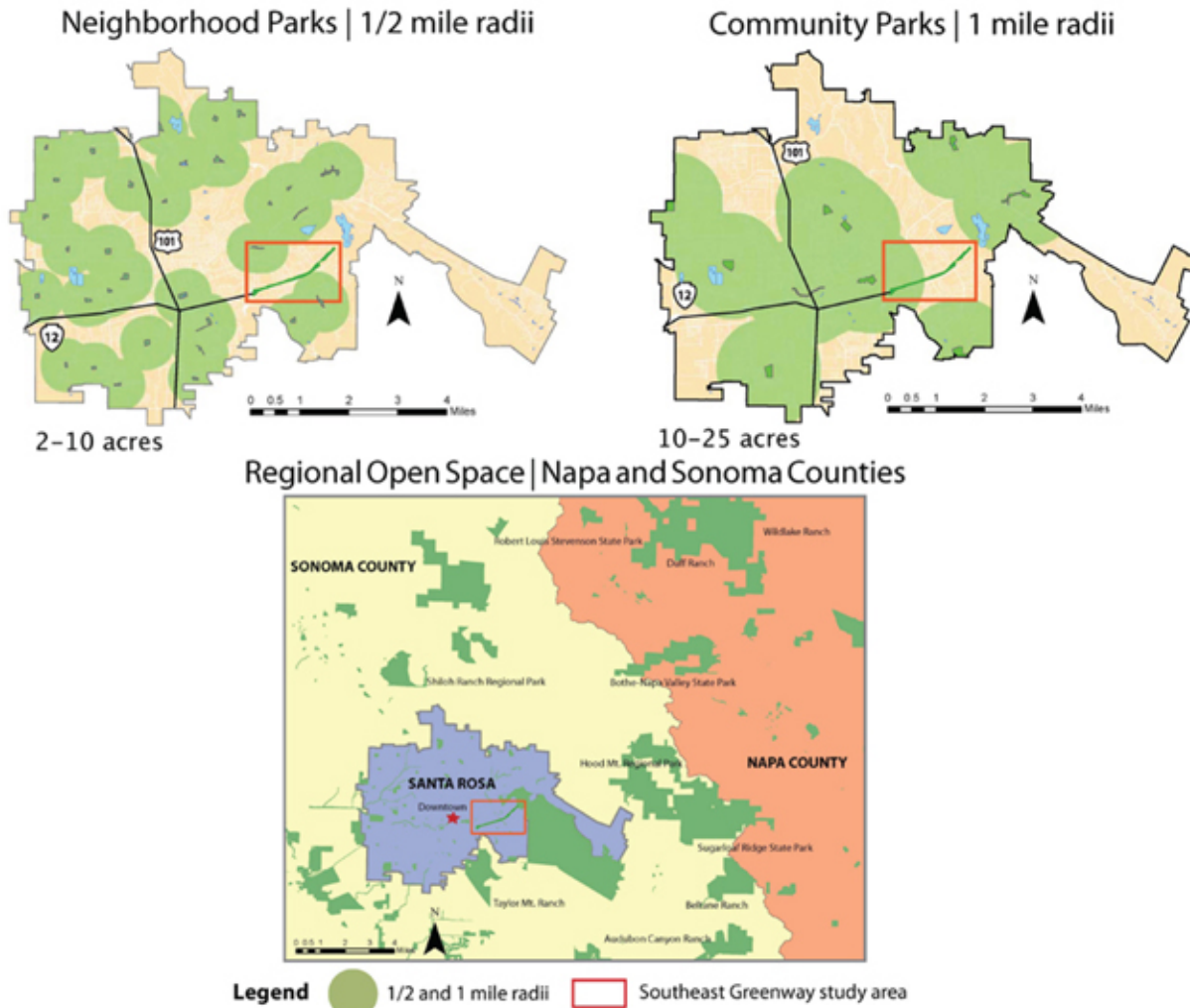
Cultural institutions are concentrated on Santa Rosa's central business axis.

Educational, Cultural, and Recreational Institutions



4. A Center for Parks and Open Space

Local and regional open space are abundant, yet some Santa Rosa neighborhoods enjoy better access than others.



PROBLEMS

- Currently, Santa Rosa is generally a low-density, auto-oriented city
- There is a consistent shortage of affordable housing
- Current road infrastructure discourages non-motorized transportation across the city
- There are a number of development opportunities that could include affordable housing
- Many people do not know of Santa Rosa's long cultural and artistic heritage
- Many neighborhoods, particularly those surrounding the Southeast Greenway, lack access to parks and open space

POSSIBILITIES

- Current zoning includes zones for higher density
- There are a number of development sites city-wide that could include affordable housing
- Identify ways to calm traffic, and increase bike and pedestrian transportation across the city
- Utilize Santa Rosa's cultural heritage to bolster its physical image
- Improve connectivity to local and regional parks and open spaces

SOUTHEAST GREENWAY IN COMPARISON



National Mall, Washington DC | 1.8 miles long, 700 feet wide



Southeast Greenway, Santa Rosa, CA | 1.9 miles long, ~97-485 feet wide



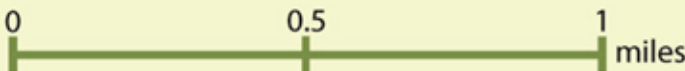
Commonwealth Avenue, Boston, MA | 0.9 miles long, 165 feet wide

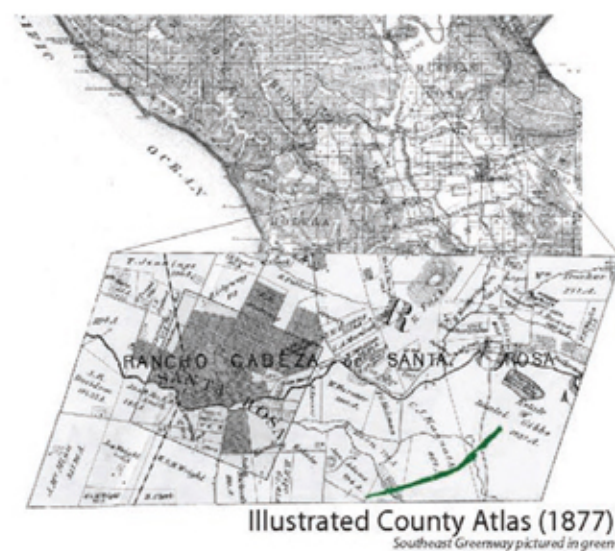
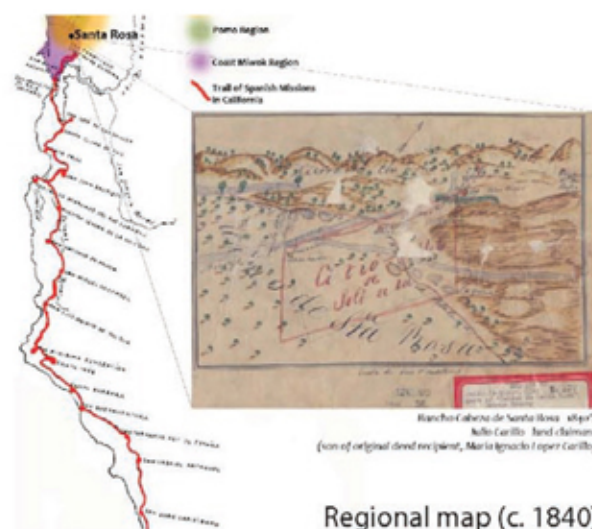
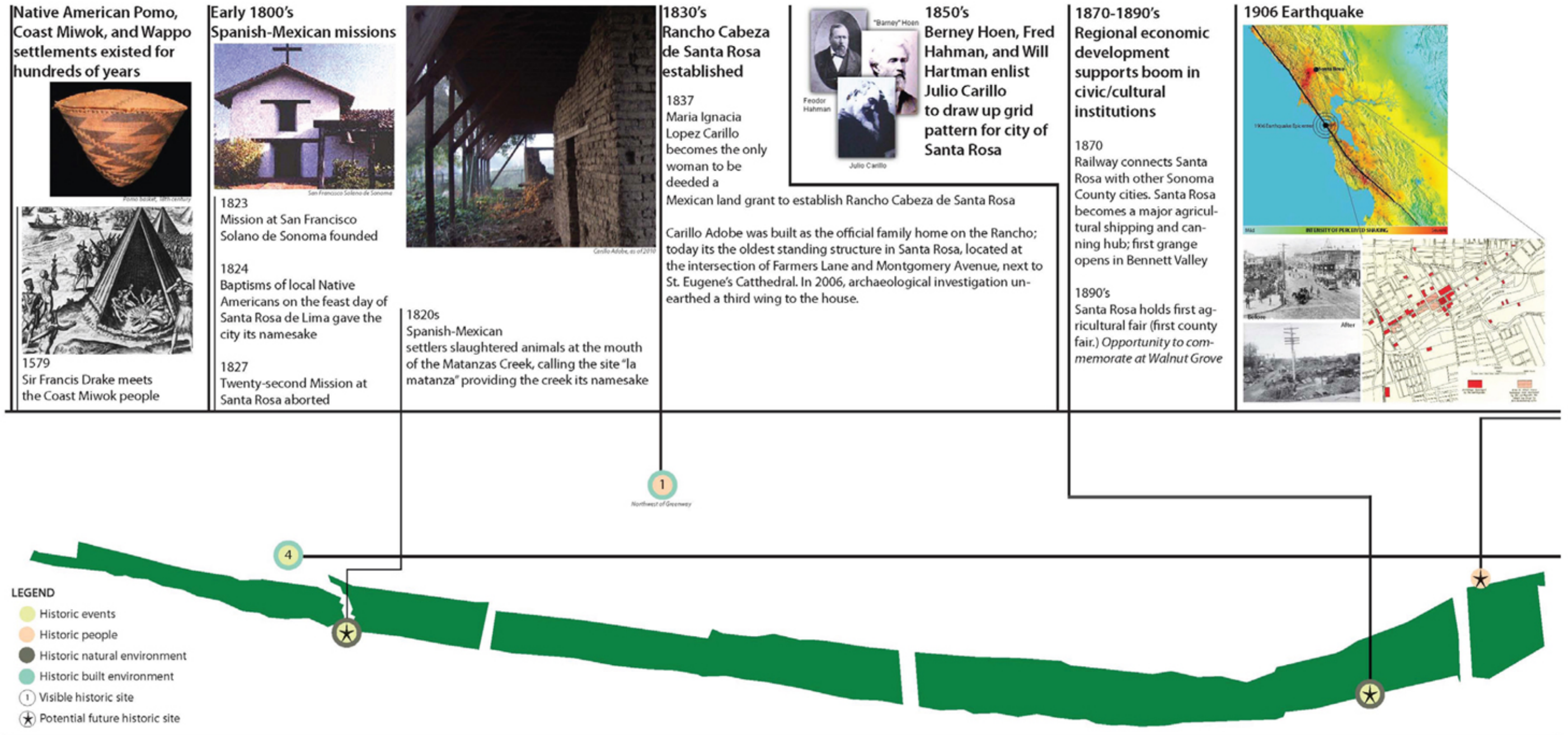


Panhandle, San Francisco, CA | 0.75 miles long, 415 feet wide



Doyle Park, Santa Rosa, CA | 0.4 miles long, 500-950 feet wide





1917

Military companies from Santa Rosa and Petaluma called to serve in first World War

1910s

Advances in transportation systems

First-ever air mail flight by Fred Wiseman between Petaluma

Santa Rosa roads completed connecting S.R. with Healdsburg and Petaluma



Plane originally built by Fred Wiseman

Economic boost from large-scale government purchasing of dried fruit, especially prunes



Plum-drying kiln at Grosse Farm in north Santa Rosa

1920s

Santa Rosa High School gains national reputation for its agricultural program

Opportunity for urban farming at Montgomery High School



Santa Rosa High School

1950

Hugh Coddington builds Montgomery Village, Santa Rosa's first large-scale shopping center, encompassed by a residential community of Coddington's conception



Coddington's 3000 unit housing development

1960's

Charles Schulz and his family move to Santa Rosa; Peanuts comic strip has 350 Million circulation.

Opportunity for elementary public art or arts education along Greenway neighboring schools



Charles Schulz

1970's

Spring Lake/Annadel Parks east of Santa Rosa expand recreation activities in Santa Rosa

County pop. 205,000; Santa Rosa pop. 48,000



Santa Rosa Railroad Depot

1997

Santa Rosa Railroad Depot, built of stone quarried near Annadel reopened as visitor's center in Railroad Square

2005

Yulupa Cohousing Community built

2009

The Gallup-Healthways Well-Being Index ranks Sonoma County first in California and fifth nationwide on factors such as mental and physical health, job satisfaction and healthy behavior. Opportunity to highlight outdoor exercise and fitness along Greenway.

TRENDS AND OPPORTUNITIES

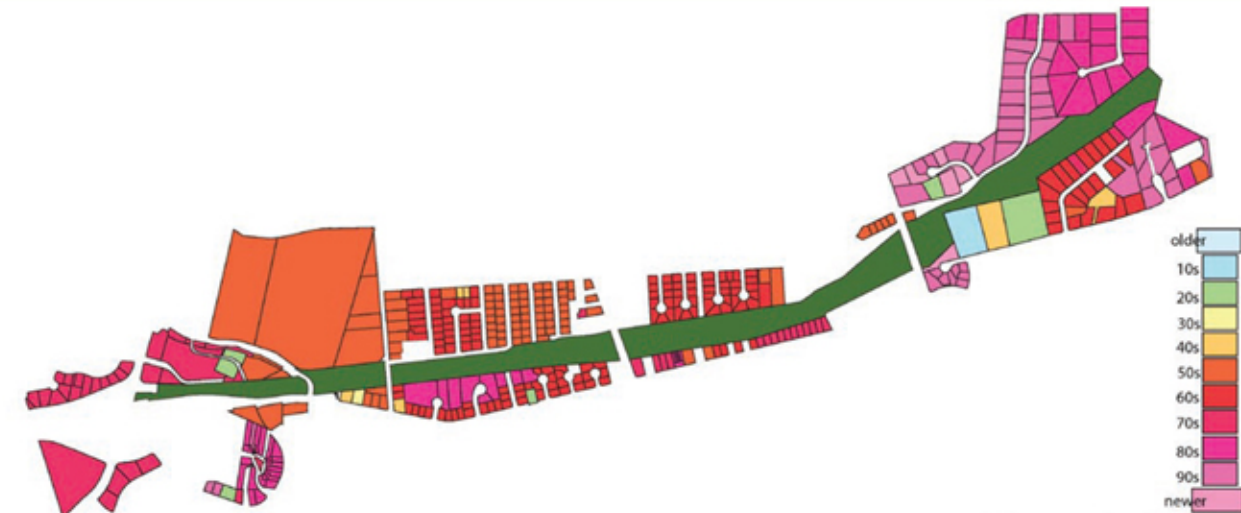
- Connectivity has been integral for Santa Rosa's development despite its rural character.
- Ambitious, creative and innovative citizens have greatly influenced the city's profile.
- Post-war decade of expansion was the greatest period of growth, creating a corridor of uncoordinated development.
- A public arts and educational corridor along the Southeast Greenway could help preserve the city's historic narrative while extending the downtown aesthetic to the outer edges of the urban fabric.
- The greenway presents opportunities for housing and circulation that could redress remnants of post-war expansion.



City limits (1956)
Southeast Greenway pictured in green



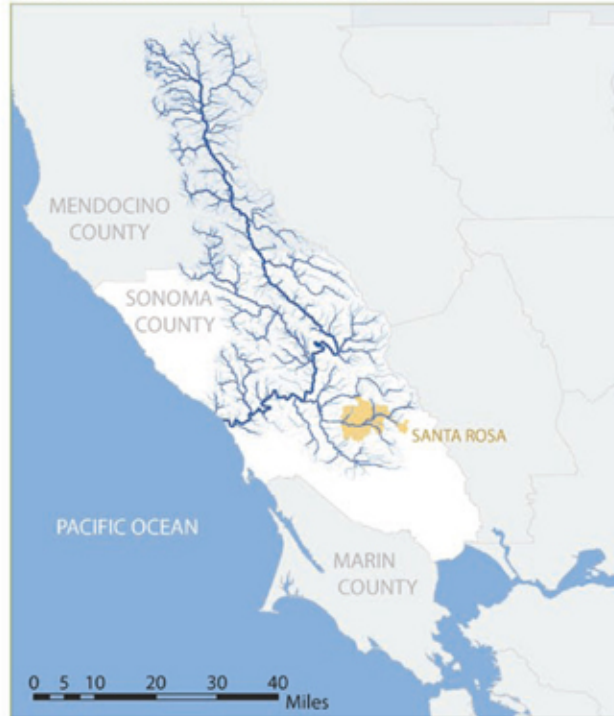
Proposal for highway 12 extension (1969)
Southeast Greenway pictured in green



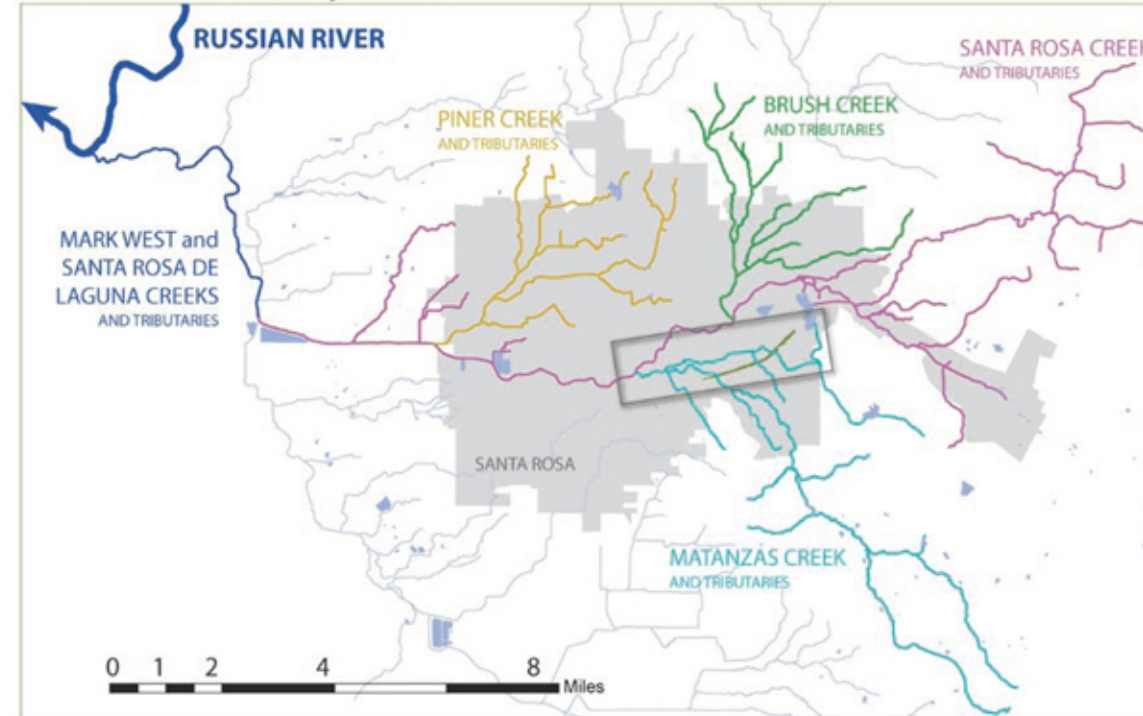
Parcels by year built (2010)
Southeast Greenway pictured in green

CREEKS AND WATERSHEDS

Russian River watershed



Santa Rosa creek system



Hydrology of the greenway site



Spring Creek Bypass >>>>>>>

- Built in 1988-89 in response to flooding along Spring Creek
- Maintained by Sonoma County Water Agency
- "Barrier to fish migration" (2007 Creek Master Plan)



Santa Rosa Creek Plan (2007) - Recommendations

- **Spring & Matanzas Creeks:** preserve, due to habitat value for fish and wildlife. Remove invasive species and replace with native vegetation.
- **Spring Creek Bypass:** restore natural stream meanders and native vegetation
- **Arroyo Sierra Creek:** preserve creek upstream of Hoen Avenue due to habitat value for wildlife. Remove invasive species. Fish passage barriers should be addressed, but only after passage is secured through the concrete diversion structure N. of Hoen Ave. that is part of the Spring Creek Bypass.

HYDROLOGICAL RISK

Flood zone areas



Floods naturally occurred before the Sonoma County Water Agency built flood control infrastructure in the mid-20th century.

Sonoma County Water Agency

The Agency manages flood control, water provision and quality, and owns many parcels of land that the creeks run through, including Spring Lake Park.

The Agency hopes to build a new east-west pipeline under the greenway as seismic redundancy for the Santa Rosa Aqueduct.

SALMON RESTORATION

- Chinook and steelhead salmon are federally endangered.
- RR watershed Chinook count in 2009: 1,125; in 2003: 6,103
- Fish are blocked from Matanzas Creek watershed by a major underground culvert at its mouth.

Chinook salmon

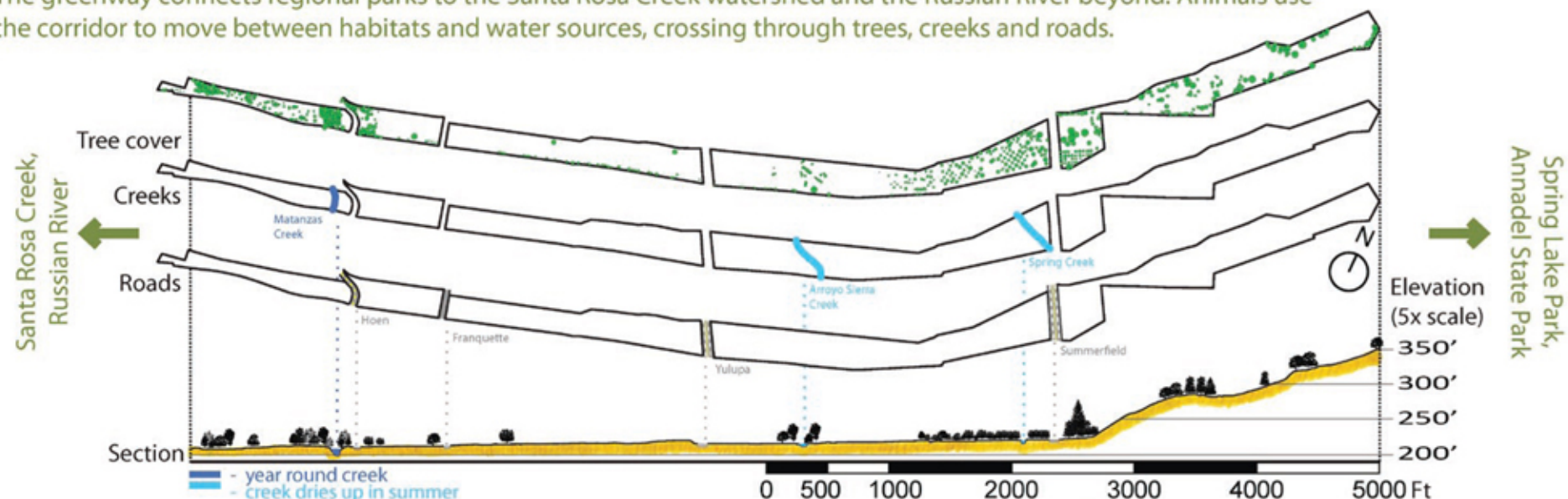


Current salmon range in the Russian River watershed



Habitat corridor

The greenway connects regional parks to the Santa Rosa Creek watershed and the Russian River beyond. Animals use the corridor to move between habitats and water sources, crossing through trees, creeks and roads.



Deer

move through the corridor between water sources



Wild turkeys

wander through the corridor and surrounding neighborhoods



Historic walnut orchard
on either side of Summerfield



Frogs

croak in the evening



Rainbow trout

the only major migratory fish currently in the site area



Stellers jay

Many birds spend time near Arroyo Sierra Creek



Redwood tree

anchors a pleasant grove near Summerfield

Other observed wildlife

Animals & birds

Red-shouldered hawk
California towhee
Mourning dove
American crow
Black phoebe
Mocking bird
Dragonflies
Raccoons
Foxes
Squirrels
Owls

Plants & trees

Black walnut
Cottonwood
Oregon oak
Oregon ash
Douglas fir
Elderberry
Live oak
Buckeye
Willow
Maple
Alder
Various grasses
Monterey pine
Sycamore
Pear
Bay

Invasive plants

Himalayan blackberry
Pampas grass
Periwinkle
Plane tree
Sycamore
Cork oak
Silk tree
Fennel
Thistle
Privet
Vinca
Ivy

Blue = native species
Black = non-native species
Grey = status unknown

Conditions

Grasslands

Caltrans **disks the site** annually, turning over the top layer of soil. This disrupts habitat leaving mostly **grasses and weeds**.



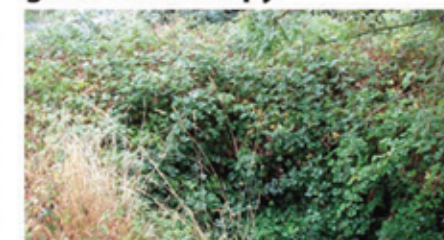
Hillside

The hillside is mostly cleared of trees. **Non-native grasses** predominate alongside a few **native and non-native trees**.



Creeks

Creek beds are overgrown with **invasive plants** but have **good tree canopy**.



Valley oak savannah

Cessation of yearly disking would invite opportunities to reintroduce native grassland species.



Mixed oak woodland

Ten of the 21 species of California Oaks are found in Sonoma County. Valley Oak used to dominate here.



Riparian woodland

All three creeks are identified as key habitat restoration sites in the SR Creek Plan.



Potential inhabitants

Native species that could be reintroduced



Valley oak



Native perennial wildflowers



Native perennial fescues



Egrets



River otters



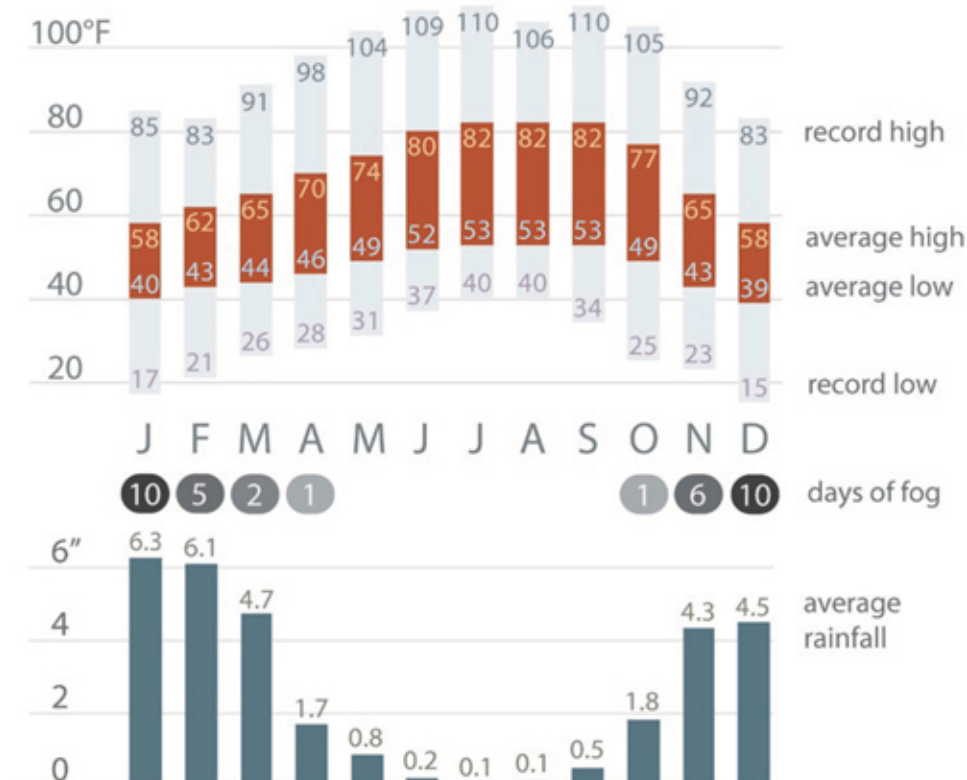
Turtles

CLIMATE AND WEATHER

Seasonal snapshots

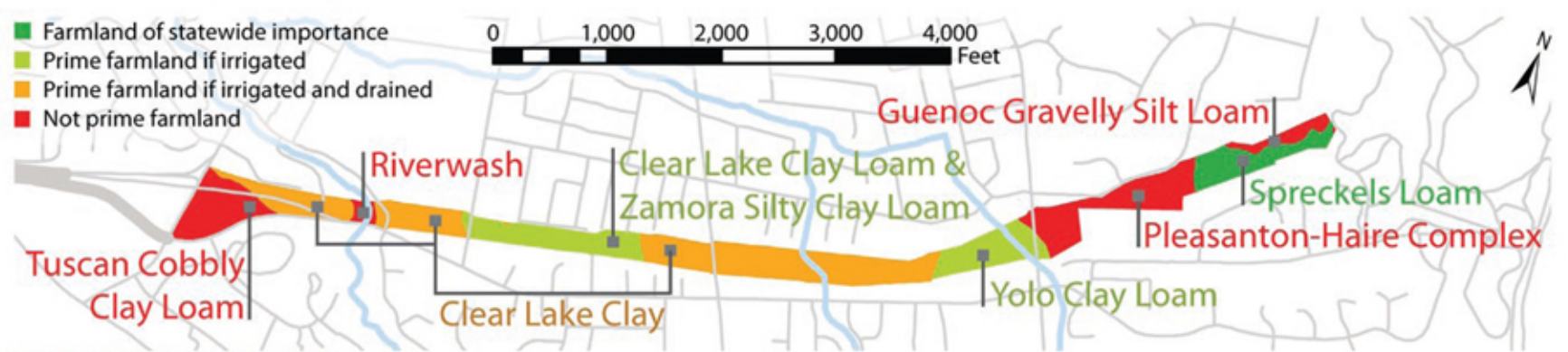


Temperature and precipitation



AGRICULTURE

Soils in the greenway

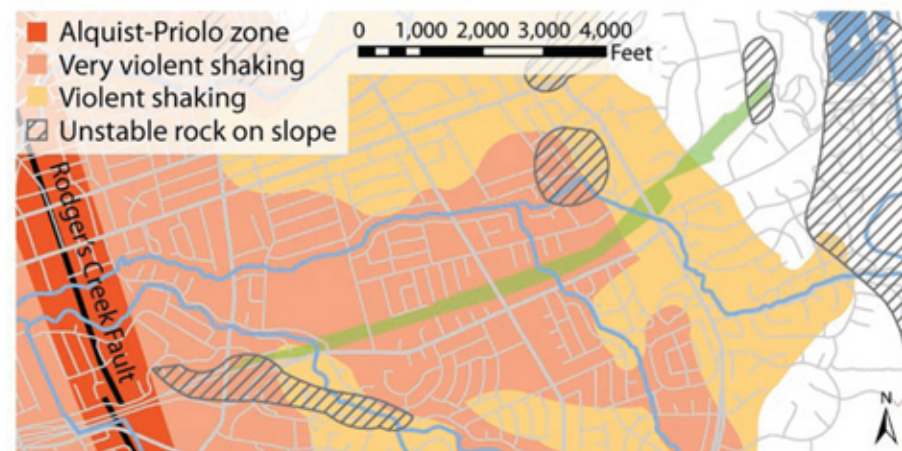


Urban agriculture

- USDA cold-hardiness zone: 9B (ave min temp = 30°F to 25°F)
- Mediterranean crops are well-suited (tomatoes, eggplant, etc)
- Site was a large walnut orchard historically

- Santa Rosa is historically known for its orchards
- Famous cultivars were developed in the region, such as plumcots and santa rosa plums

SEISMIC HAZARDS



Santa Rosa suffered heavy damage from the 1906 San Francisco earthquake, despite being 20 miles inland from the San Andreas fault. Fifty people were killed and the entire downtown was effectively destroyed.

FIRE HAZARDS



PROBLEMS AND POSSIBILITIES

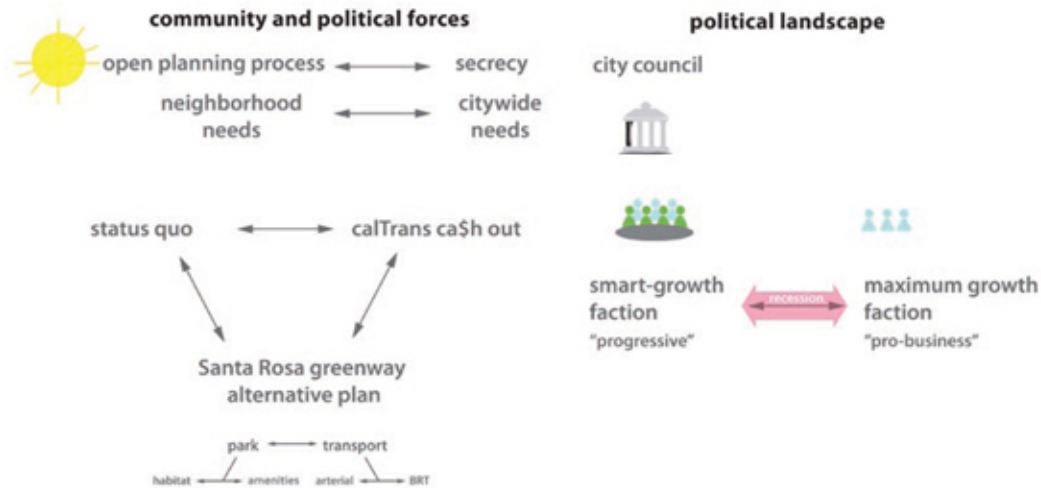
Problems

- Altered condition of the creek system
- Poor habitat condition; many invasive species
- Private ownership of creeks up- and downstream
- Surrounded on three sides by urban development
- High earthquake risk
- Substantial fire risk
- Flood risk after heavy rainfall

Possibilities

- Creek restoration in neglected areas
- Creek daylighting along the greenway
- Salmon restoration
- Reintroduce native species; eradicate invasive species
- Connect to the regional park system at east end
- Urban farming cultivating a wide variety of produce
- Collaboration with nearby schools for nature and agricultural education

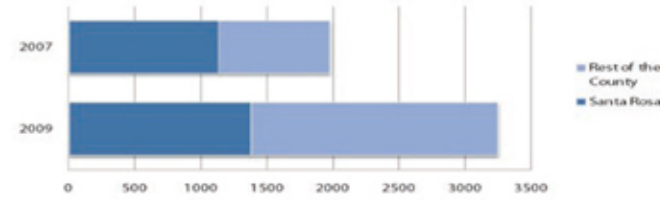
COMMUNITY ISSUES



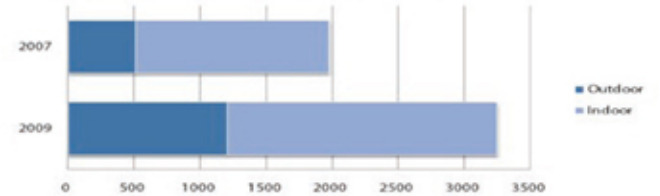
- City revenues down 14%
- City pension obligations to police and firefighters has increased drastically
- New dwelling unit permits in 2009: 94
- Significant decrease from 10-year annual average of 820
- 75% parks maintenance jobs eliminated (37 people total)
- Community facilities, senior centers, firehouses threatened with closure
- New taxes and fees under consideration to make up for loss in revenue

HOMELESSNESS

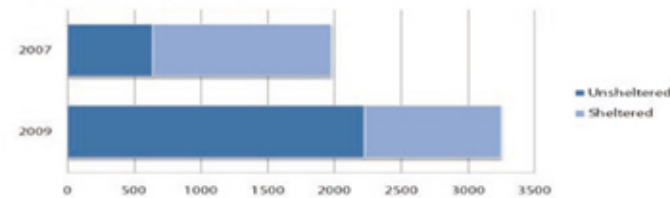
Santa Rosa vs. Rest of the County



Living Outdoor vs. Living Indoor



Unshelter vs. Shelter



PROBLEMS AND POSSIBILITIES

- City government is facing a financial downturn, which may affect assistance to development of greenway
- Potentially long and arduous planning process that requires the cooperation of external government agencies
- Potential discrepancy between needs and desires of the neighborhood and that of the city
- Residential land use is the majority around the greenway, presenting an opportunity to introduce new amenities
- High density of key demographic groups (youth and senior citizens) in proximity to greenway
- Dense population near greenway

LAND USE



Source: City of Santa Rosa GIS

Residential

- rural
- single family
- multi-family (less than 10 units)
- multi-family (over 10 units)
- condominium
- planned development (PUD)

Institution

- city facility
- municipal utility
- flood control
- school
- religious

Commercial

- hospital / care facility
- medical / dental office
- shop
- office
- restaurant

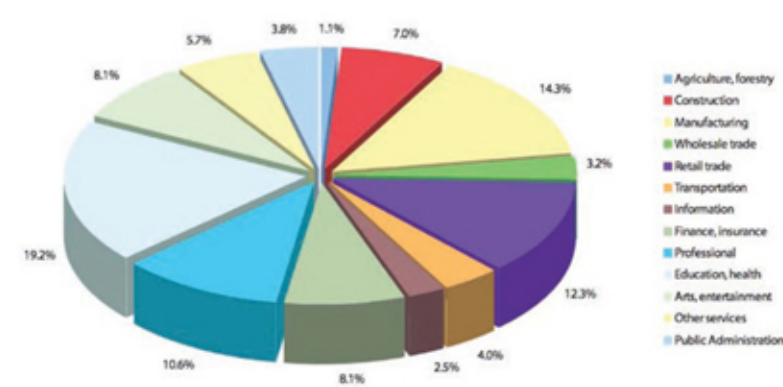
Private / Other

- shopping center
- hotel and motel
- auto service

- vacant
- private common area
- unknown use
- private use
- alternate use

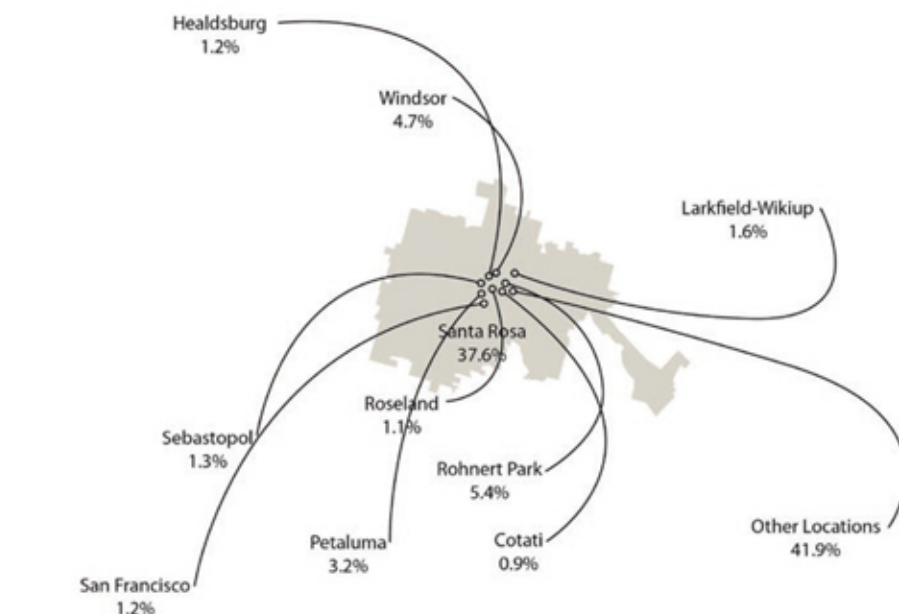
CITY OF SANTA ROSA ECONOMIC PROFILE

Employment by industry



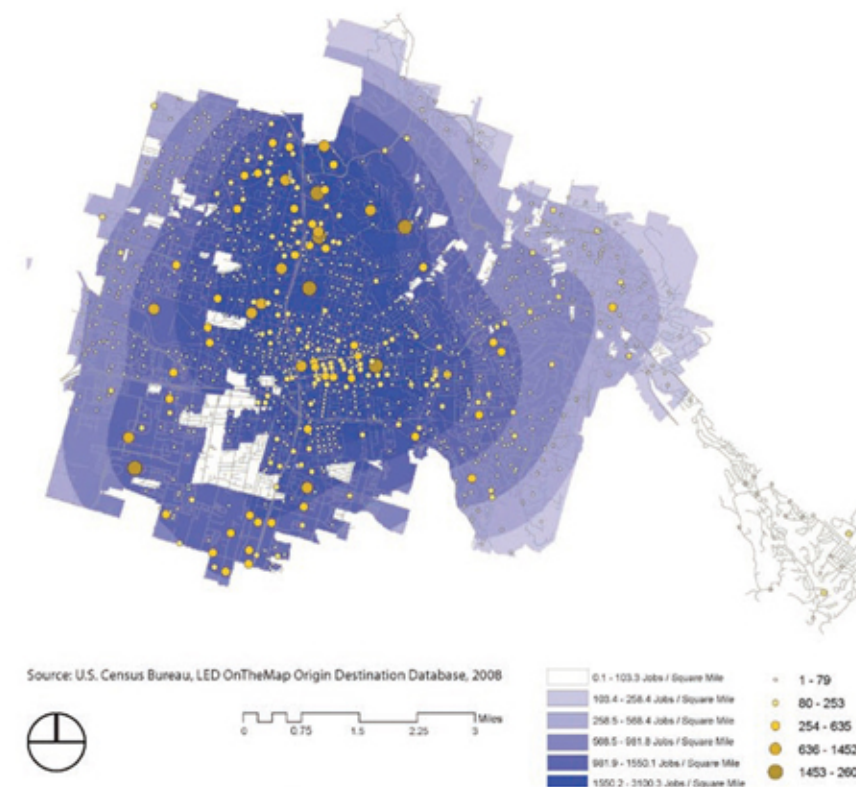
Source: City of Santa Rosa General Plan

Worker origins



Source: U.S. Census Bureau, LED OnTheMap Origin Destination Database, 2008

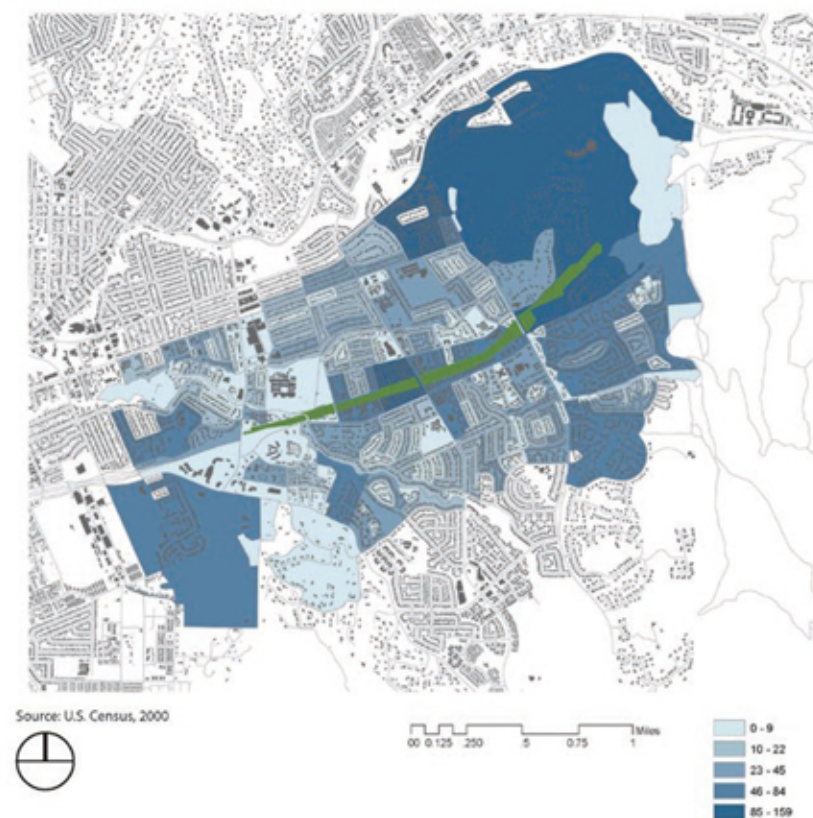
Employment density



POPULATION DEMOGRAPHICS

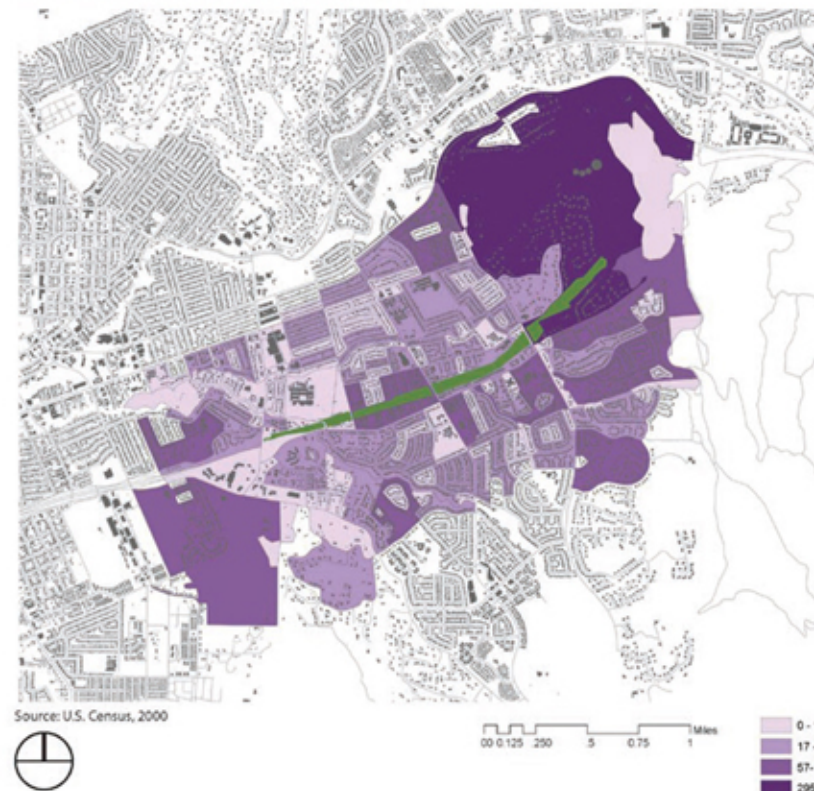
Youth population

Under 18 years old by Census block group

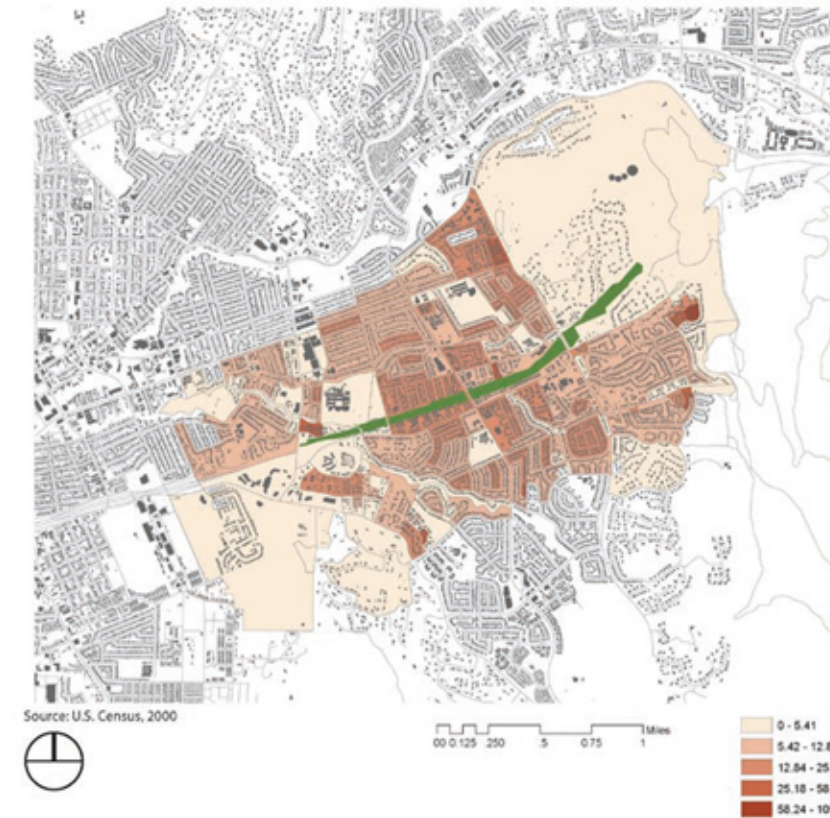


Senior citizens

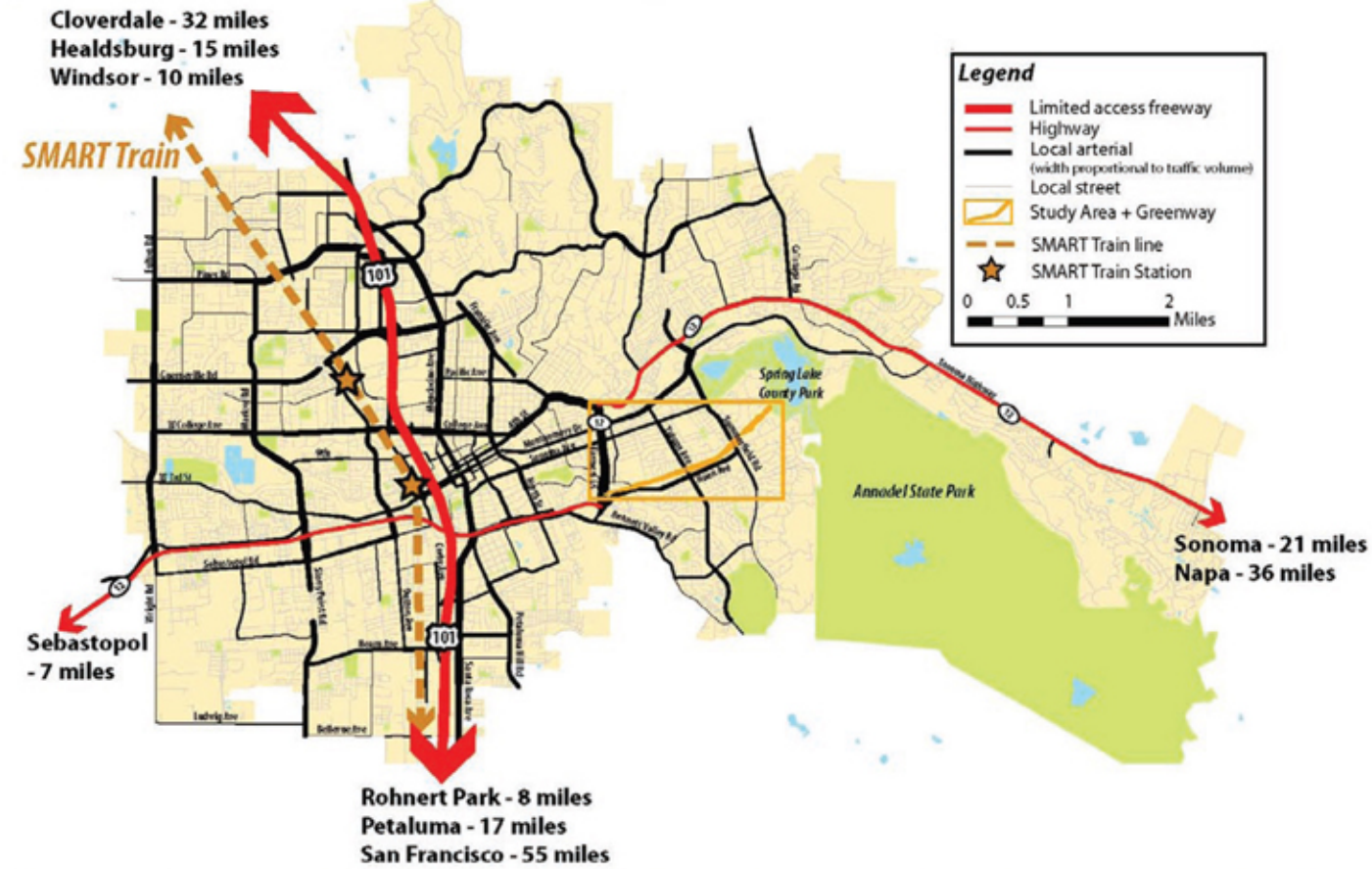
Over 55 years old by Census block group



Population per acre



SANTA ROSA IN CONTEXT



COMMUTE SHED ANALYSIS

Of those greenway neighborhood residents that live within one mile of the greenway, many are within walking or bicycling distance of their place of work.

Regional commute density



Neighborhood commute density



Summary

Greenway residents that work within:	count	percent
1 mile of the greenway	425	6%
2 miles of the greenway	1,138	16%
5 miles of the greenway	2,577	38%
Santa Rosa	3,000	44%
Sonoma County	4,819	72%

BICYCLING IN SANTA ROSA

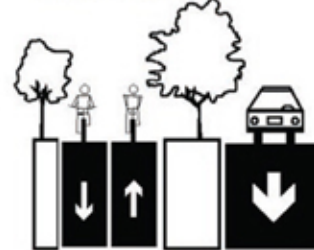
With mostly flat topography, a mild climate, and connections to regional bicycling facilities, Santa Rosa is well situated for bicycle travel. The greenway presents a potential opportunity to close the east-west gap in the existing class I bike path network and to encourage bicycling within the community.

Existing bicycle network

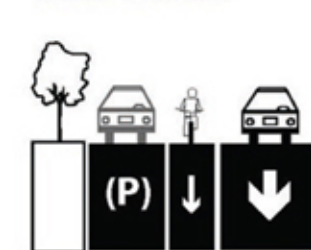


Types of bicycle facilities

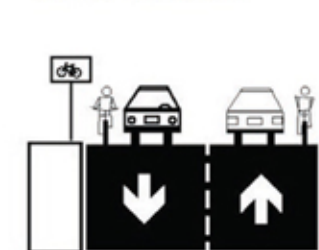
Class I - Bike Path



Class II - Bike Lane



Class III - Bike Route



PHYSICAL CHARACTERISTICS

Street class



- Highway/Freeway
- Major Arterial
- Minor Arterial
- Local/Residential
- Unimproved/Trail
- Path

There is a dispersed network of arterials that run through the neighborhood.

Signals and crosswalks



- Signalized Crosswalk
- School Crosswalk
- Crosswalk

There are many intersections missing signalized crosswalks.

Street connectivity

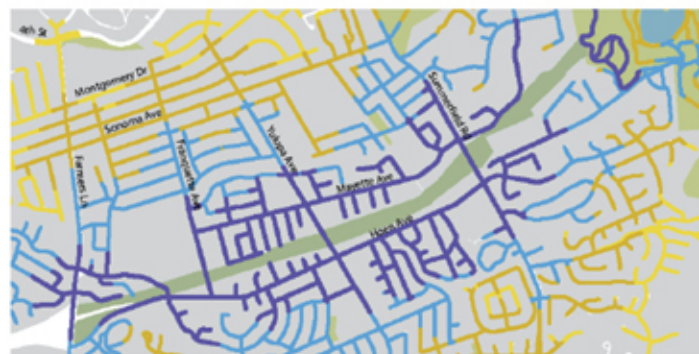


- Intersections

Only major arterial roads are straight and well-connected; there are many 'T' intersections and cul-de-sacs.

NETWORK ANALYSIS

Walk shed from the greenway



- 1/4 mile
- 1/2 mile
- 3/4 mile
- 1 mile

Approximately 1,400 households live within 1/4 mile, and 5,000 households are within 1 mile of the greenway.

Bike network



- Proposed Off-Road Path
- Proposed On-Street Lane
- Proposed Signed Route
- Existing Off-Road Path
- Existing On-Street Lane
- Existing Signed Route

The bike network is scarce in general; connections to Downtown (west) and to the County Park (east) are weak.

Transit network (Santa Rosa City Bus)



- Transfer Center
- City Bus Number
- City Bus Route and Direction

All bus routes depart and terminate at the downtown Santa Rosa Transit Mall; weekday headways are 30 minutes on all routes except the 7 and 18.

ACTIVITIES

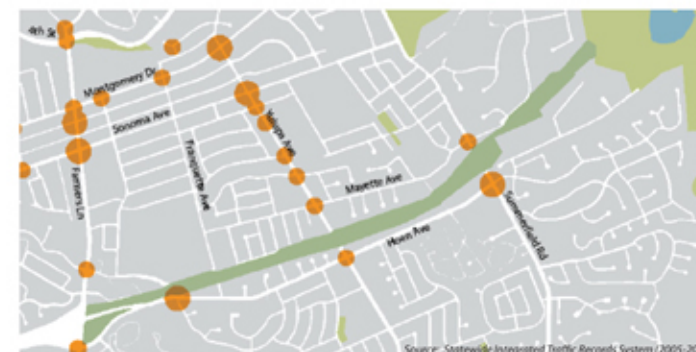
Destinations



- Elementary School
- Middle School
- High School
- Shopping Center
- Medical Facilities
- Institutional Facilities
- Church
- Barriers/Fences

Many destinations are within walkable/bikable distance from the greenway.

Ped/bike collisions



- 1
- 2-3

Almost every intersection on major arterials has had a ped/bike collision in the last 5 years

Vehicle collisions



- 1 Fatal Crash
- 1 Collision
- 10
- 30

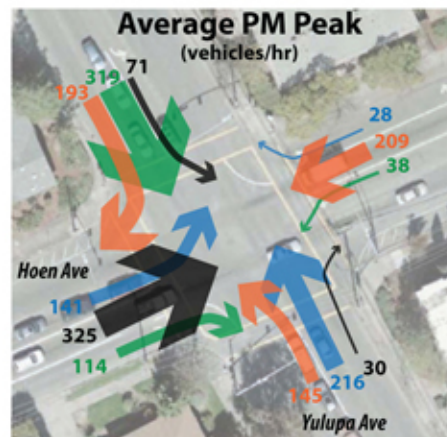
Vehicle collisions are concentrated on the larger arterial roads; ADT on Hoen and Summerfield are similar, but Hoen has significantly more vehicle collisions.

TRAFFIC ANALYSIS

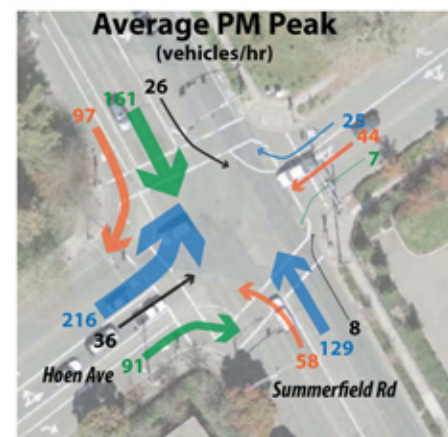
Average Daily Traffic



Hoen Ave + Yulupa Ave



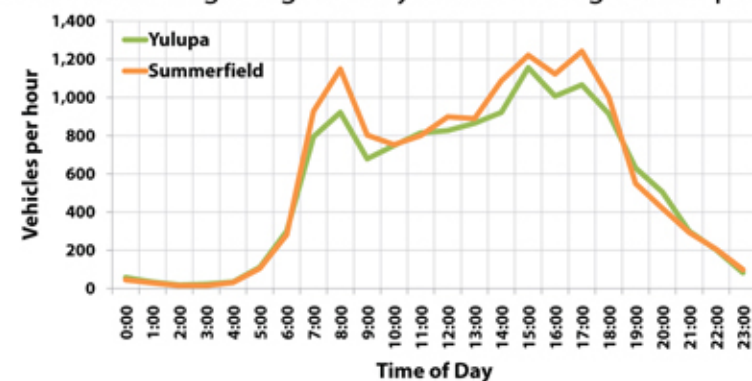
Hoen Ave + Summerfield Rd



— Northbound
— Southbound
— Eastbound
— Westbound

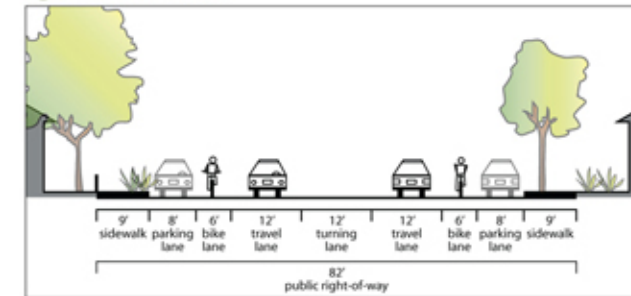
Temporal analysis

The highest level of traffic crossing the greenway occurs during the PM peak



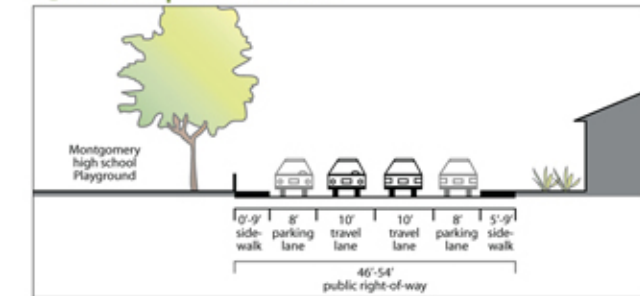
PROBLEMS AND POSSIBILITIES

① Hoen Ave



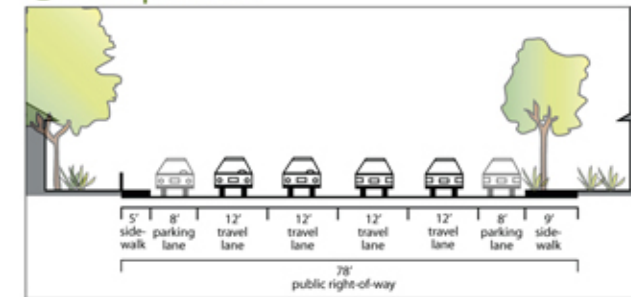
- No buffer zones for peds/cyclists
- No proper sidewalks
- No plantings on sidewalks
- A bus stop without a shelter and transit information
- No crosswalks or traffic signals

② Franquette Ave



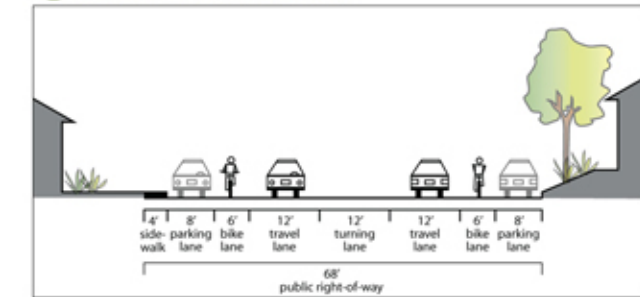
- No proper sidewalks on the greenway
- No proper sidewalks or buffers for the pedestrian
- Narrow sidewalks and lack of plantings near Montgomery high school

③ Yulupa Ave



- Narrow sidewalks and no plantings
- No buffer zones for the pedestrian
- Disconnected bike lanes

④ Summerfield Rd



- No sidewalk on one side but a parking lane
- No plantings
- A conflict zone between right-turning cars and cyclists

PROBLEMS AND POSSIBILITIES

Problems

- Lack of an east-west bicycle connection between Spring Lake Park and the Prince Memorial Greenway
- Residents perceive traffic problem
- Disconnection of north-south ped/bike network around the greenway
- Lack of signalized crosswalks for peds/cyclists
- Disconnected or narrow sidewalks on major arterials

Possibilities

- Encourage greenway area residents to commute to work via walking and cycling
- Use greenway to close gap in bicycle network
- Improve connections to the SMART train
- Maintain vehicle capacity while traffic calming primary arterials
- Increase north-south connection along the greenway for peds/cyclists
- Widen sidewalks with buffer zones
- Install signalized crosswalks and bike signals for ped/bike safety

EDUCATION

Existing problems

- Fenced grounds, no community involvement
- Facing backwards, no activities related to the greenway
- Public libraries insufficient

Montgomery High School



Spring Creek Elementary School



Fenced grounds



Existing opportunities

Greenway as an educational space with after school programs

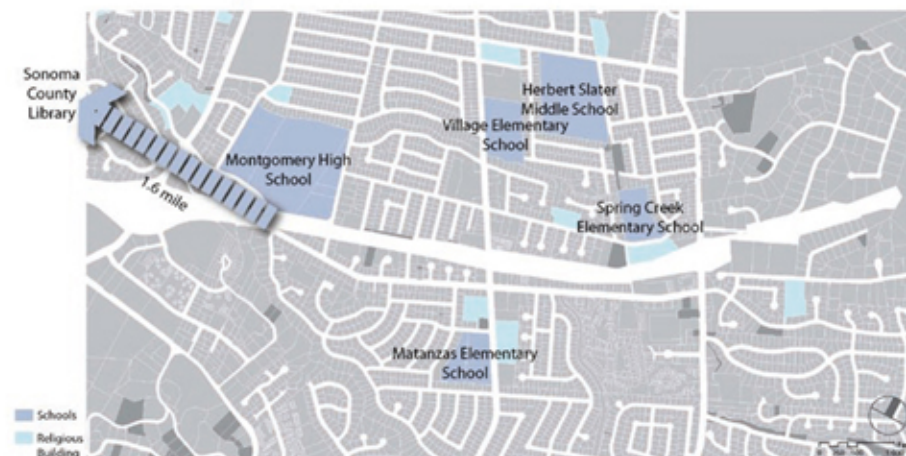
- The Science of Gardening
- Young at Art Presents: Animals in Art
- Beginning Acoustic Guitar/Smiling Tree



Greenway as a safe walking and bicycling route to school sites

The possibility of providing branch library on greenway for nearby neighborhoods

Location maps



HEALTH

Existing problems

- No entrance to medical center along greenway
- Community-based medical center hard to serve neighborhoods to the north of the greenway
- View from the healthcare centers to the greenway neglected

Sutter Medical Center



Fruit tree in greenway



Existing opportunities

Greenway as view for the hospital and other medical centers

The healthcare centers could use the greenway as a natural view for the patients and seniors.

Greenway as place for urban agriculture

iGROW - easy access to healthy food and healthy living



Source: www.igrowsonoma.org

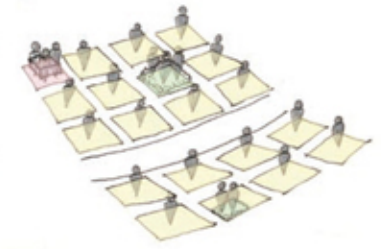
Location maps



PROBLEMS AND POSSIBILITIES

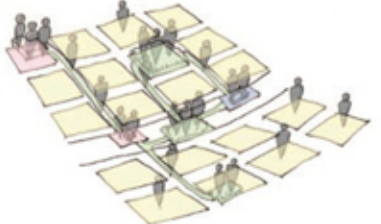
Lack of gathering spaces for neighborhood

paces in the neighborhood. People will be staying in their own homes instead of gathering together and engaging in community activities.



Possibility of serving as a civic place for communities

By designing the greenway, a civic place for the neighborhood will be formed, attracting people going out of their homes into public spaces.



Lack of activities in daily life in surrounding areas

As a result of the lack of gathering spaces, the range of activities in residents' daily life is confined.



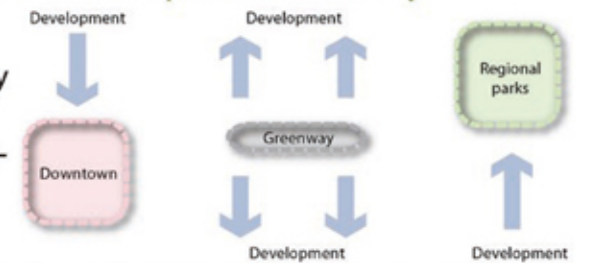
Possibility of providing a variety of activities on site

By designing the greenway, a variety of activities may be provided on site, enriching the daily life.



Lack of connections to other parts of the city

The greenway is currently a linear empty land with no connections to it and no development facing it.



Possibility of connecting downtown to regional parks

By designing the greenway, there is an opportunity to connect the west and the east part of the city as well as attracting developments.



SHOPPING AREAS

Existing problems

- Shopping centers close to greenway not walkable
- Most people prefer to drive, parking space more than half occupied
- Little gathering space in shopping areas

Mayette Shopping Center Montgomery Village Shopping



No sidewalks along the Montgomery Village Shopping



Existing opportunities

- The possibility of connecting the greenway to Mayette Shopping Center
- The possibility of building sidewalks for Montgomery Village Shopping, and encourage local residents walk or bike there through most part of the greenway

Location maps



PARKS AND OPEN SPACES

Existing problems

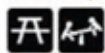
- Few neighborhood parks, few activity choices
- Peter Springs Park - Vacant land in city GIS parcel layer
- Matanzas Park - linear buffer between residential and school
- No connection to city and county parks

Matanzas Park Peter Springs Park



Source: Google Street View

Source: City of Santa Rosa



Existing opportunities
Forming an open space network



Possible activities on greenway

Walking, Biking, Skateboards, Dog walking, Horse riding, Picnic, Music performing, Group sports, etc.

Location maps



UNDERUTILIZED SPACES

Existing problems

- Cul-de-sacs may be of better use
- Bertha lane between greenway and northern neighborhood not sufficiently used
- Surface parking along greenway blocks corridor

Surface parking Wasted land



Surface parking separates school from greenway



Existing opportunities

- The possibility of infilling in the parking lots
- The possibility of making advantage of the Bertha lane, the one to the north of the greenway
- The possibility of making use of the vacant space into part of the park and open space system

Vacancy map



PATTERNS OF BUILT FORM

Block/Street pattern
Study area



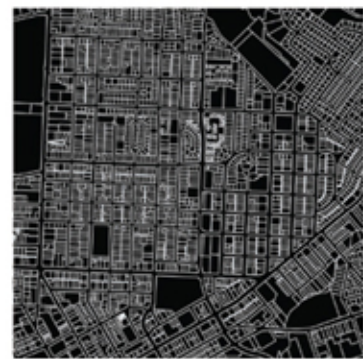
Junior College area



Parcel size and distribution
Study area



Junior College area



Building footprint
Study area



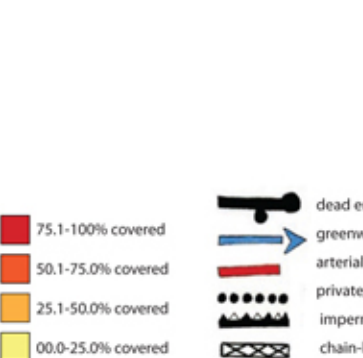
Junior College area



Lot coverage
Study area



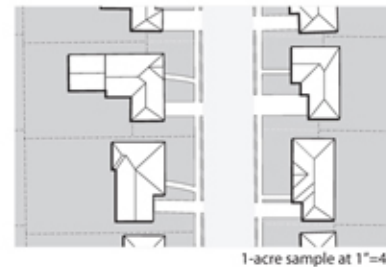
Junior College area



- 75.1-100% covered
- 50.1-75.0% covered
- 25.1-50.0% covered
- 00.0-25.0% covered
- dead end streets
- greenway access point
- arterial roads
- private, permeable edge
- impermeable edge
- chain-link fence

DOMINANT TYPOLOGIES OF BUILT FORM

1950-65 ranch-style single family residence
Plan

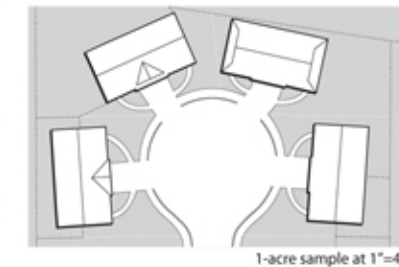


Elevation



- 1/5-acre lots, average
- building occupies 30-40% of lot
- 25-foot building setback average
- sidewalks with 2-foot buffer
- garage is typically even with or set behind front of house

Ranch-style duplex residence
Plan

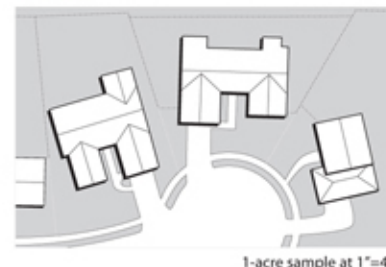


Elevation



- 1/5-acre lots, average
- building occupies 30-40% of lot
- 15- to 20-foot building setback
- sidewalks with no planting strip
- garage is typically even with or set slightly in front of house

1965-80 ranch-style single family residence
Plan

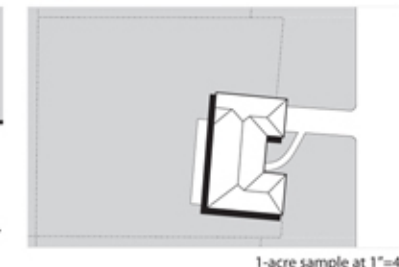


Elevation



- 1/4-acre lots, average
- building occupies 40-50% of lot
- 25- to 30-foot setback, average
- sidewalks with 5- to 6-foot buffer
- house is typically even with or set behind the garage

New hillside single family residence
Plan



Elevation



- one-acre lots, average
- building occupies 10-15% of lot
- widely variable setback
- very few sidewalks
- house is typically set behind the garage

BARRIERS CREATED BY BUILT FORM



DOMINANT TYPOLOGIES OF HOUSING

Single family residences Modern ranch, 1950-1980



Single family residences Other modern styles, 1980-2000's



Apartment buildings



Duplexes



PROBLEMS & POSSIBILITIES

The corridor acts more as a barrier than a connector. There are few public access points and adjacent development faces away from the corridor.

- Improve physical conditions of current access points.
- Work with community to expand points of access to the greenway and between subdevelopments.
- Implement traffic calming on nearby arterials, particularly those that cross the greenway.

The ranch style dominates the majority of the western/flat portion of the study area. This style is characterized by long, low, often asymmetrical building profiles with deep overhangs.

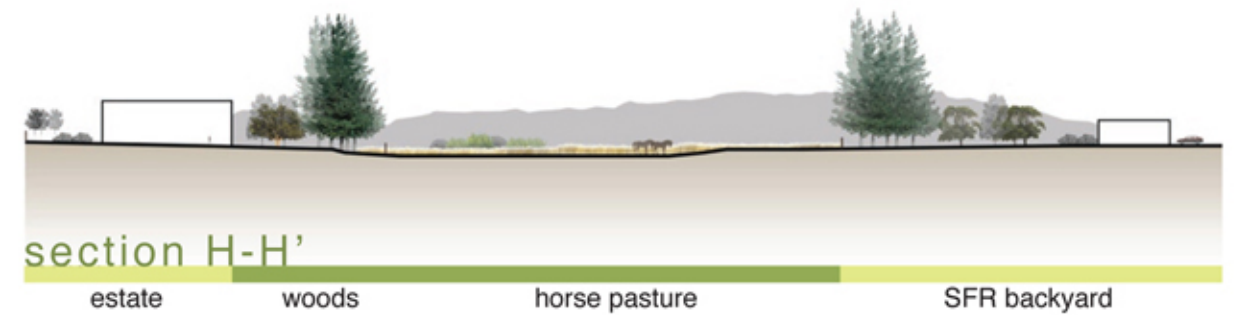
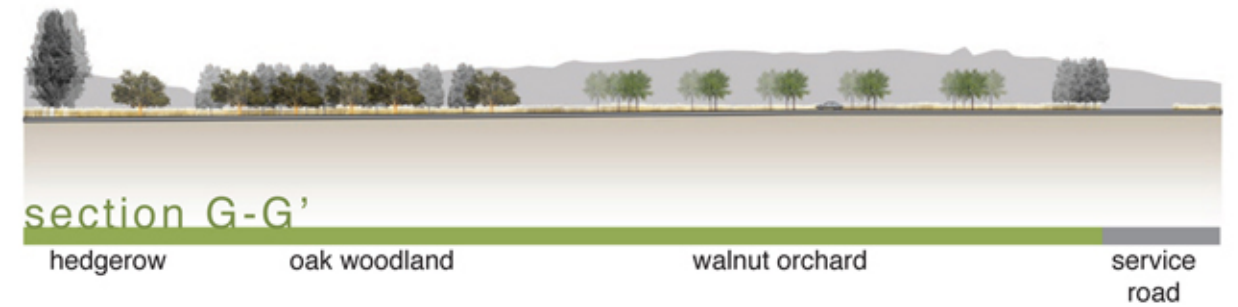
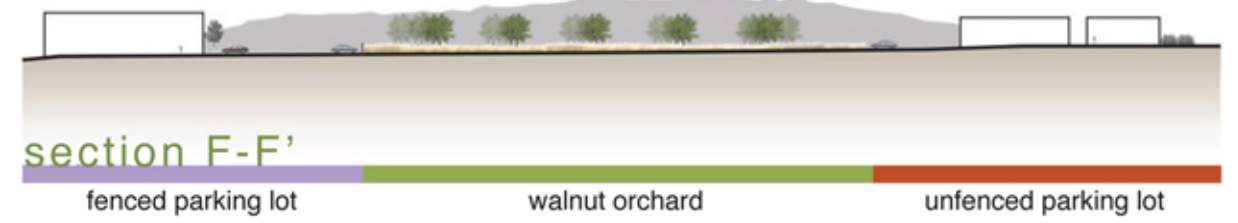
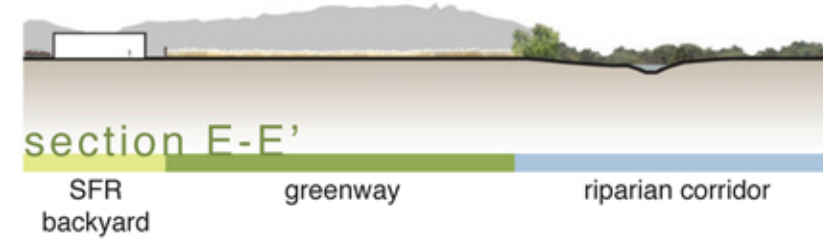
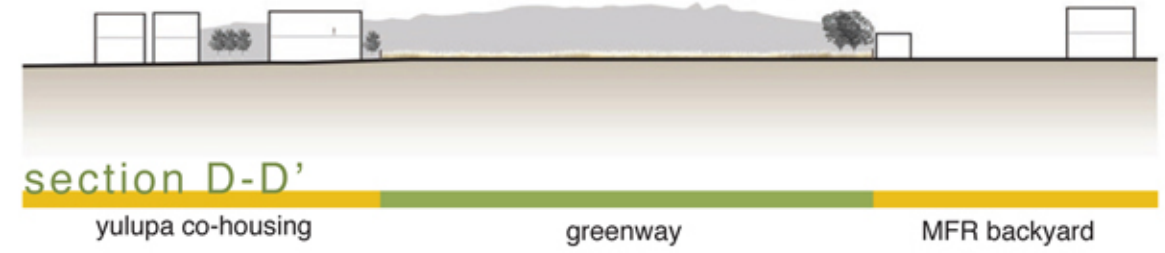
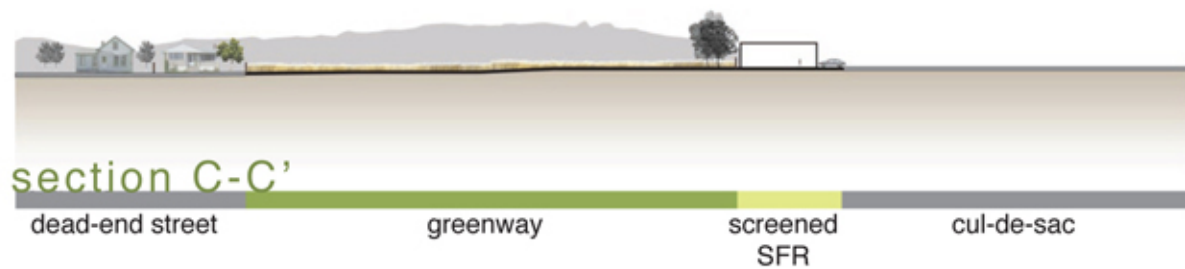
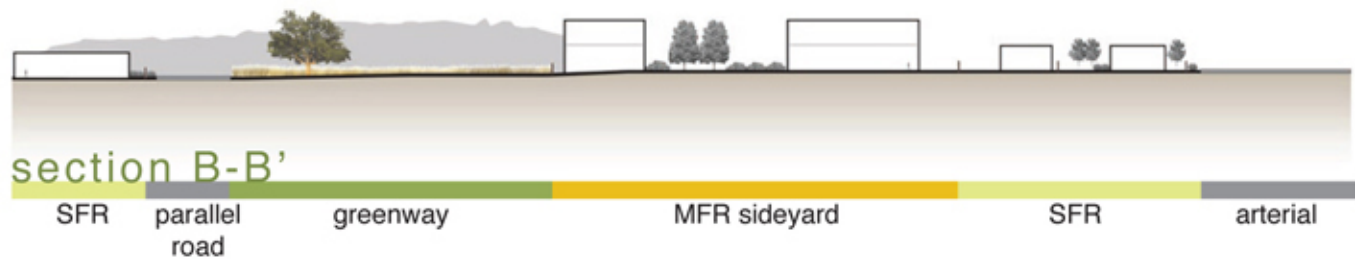
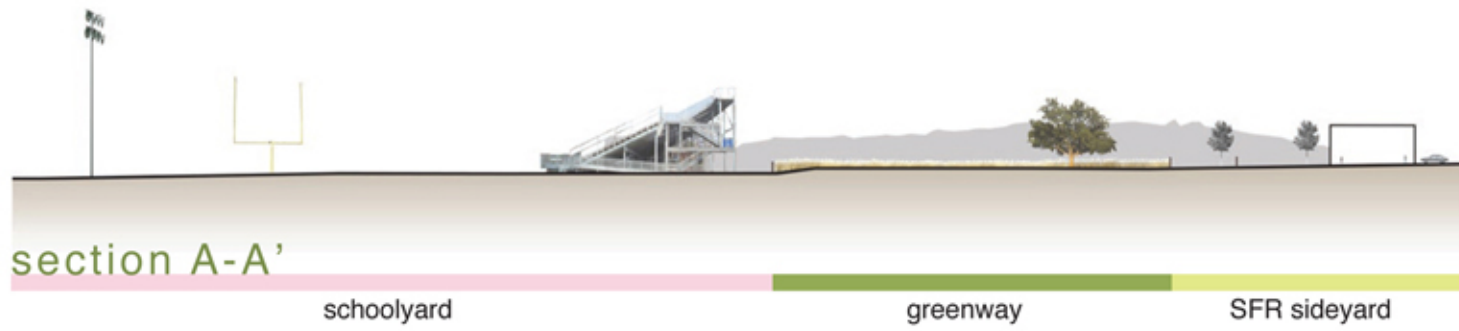
- This character should be considered in planning any new buildings in the corridor, particularly those aimed to stitch together the north and south neighborhoods.

Multi-family residences—particularly those on access routes to the corridor—are oriented away from the street. These are dominated by parking lots and other paved surfaces.

- Streetscape improvements such as sidewalk widening and street trees would improve walkability and increase visual interest.

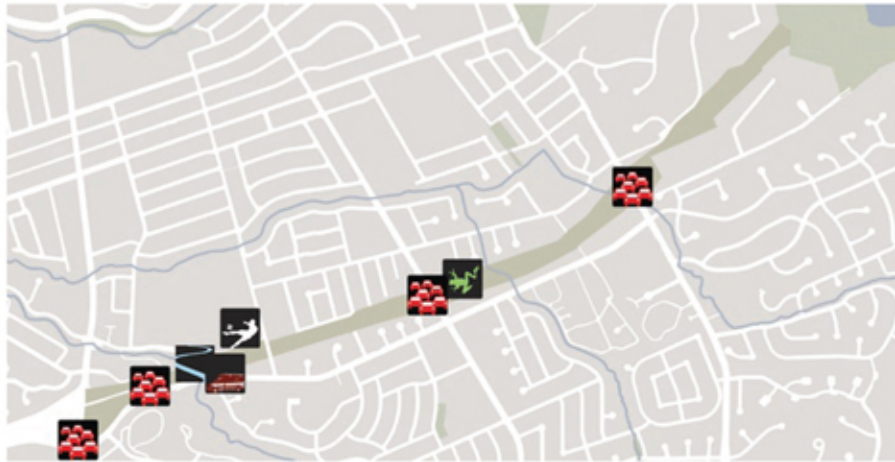


TYPICAL GREENWAY SECTIONS



SENSUOUS PROPERTIES

Sound



Smell



Touch



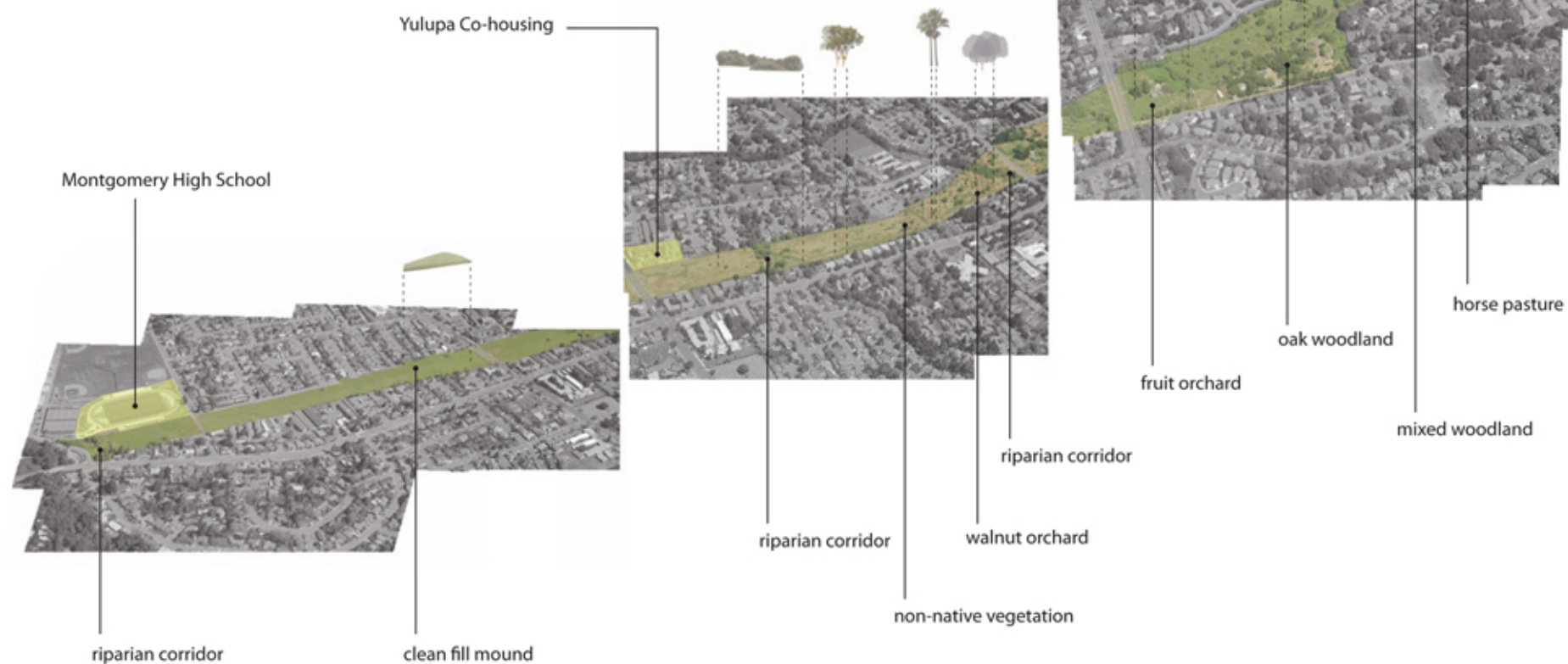
PROBLEMS AND POSSIBILITIES

- Visual fragmentation by impermeable edges, with the majority of properties fenced and facing away from the site
- Arterial corridors are visual barriers, but serve as an opportunity for exposure and access
- Lack of way-finding or visually-orienting landmarks
- Lack of openness
- Area west of Matanzas Creek cut off from the rest of the site
- Scenic corridor with optimal views to mountain range
- Scenic creek beds traverse the site
- Diversity of landscape on site

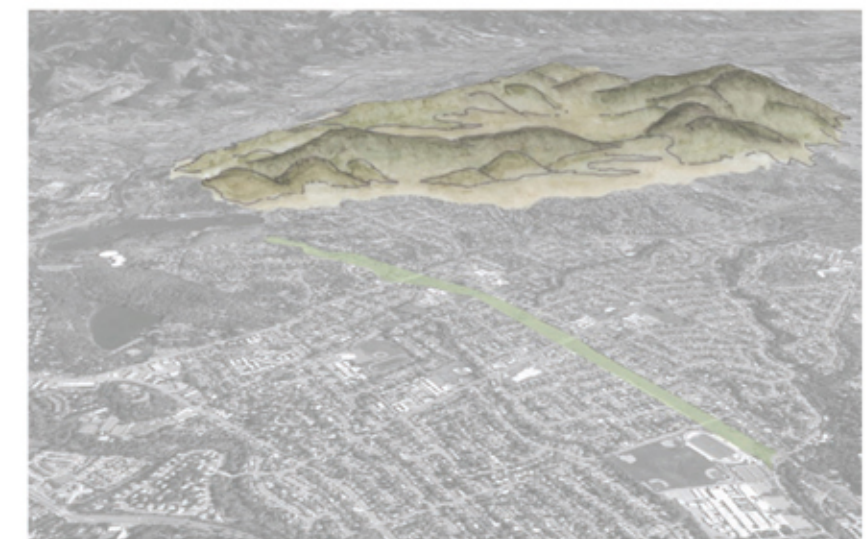
VISUAL CHARACTER

Onsite landscape character and off-site landmarks

New hillside single family residence



SCENIC RESOURCES



GOAL



good idea



good place

The goal is to go from a good idea to a good place to live, work and play.

KEY PHASES

Legal



- CalTrans: No gifts of public property
- MTC Plan determines site status

Legal requirements for what land buyers & sellers can and can't do are most prominent in the acquisition phase. CalTrans has a legal requirement to seek the highest price for excess property.

Political



Political factors influence what gets developed but also who acquires the land and how it's developed.

- Zoning / general and specific plans
- City council: pro-development vs. pro-environment
- Community involvement & preferences

Key phases in reaching the goal need money to move forward. Legal and political factors shape their progress.

State legislature can provide legal exception to Caltrans rules.

acquisition ► development ► operation and management

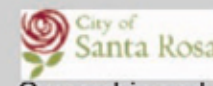


WHO COULD BE INVOLVED? WHAT MIGHT THEIR ROLES BE?

Public



Seller or owner and developer



Ownership and management



2035 Plan identifies \$38mil for Bus Rapid Transit in S.R.



Legal and financial guidance for conservation

State of CA

Joint conveyance: state and local governments share costs

Sonoma County Open Space District

Agricultural set asides and open space purchases with 1/4 cent sales tax

Santa Rosa Southeast Greenway Campaign
Stakeholders organizing community and resources

Adjacent Landowners
CalTrans could approach with offers for bigger backyards

Private Developers
Could purchase parcels from CalTrans in a public sale and favorable market conditions

P3: Public Private Partnership

City and developers share costs, risks and revenues under contract

Private

Scenario A

Direct fee sale to government agency

- fair market value: land survey assessment based on adjacent land values minus needed space for access roads
- discount: acquisition price can be lowered if affordable housing is part of the development plan

Scenario B

CalTrans multi-modal demonstration project

- CalTrans maintains ownership and pays for development

Scenario C

Public sale

- land survey (1-2 years with current backlog)
- open bidding

DESIGN PROJECTS

students present their visions for the future southeast greenway

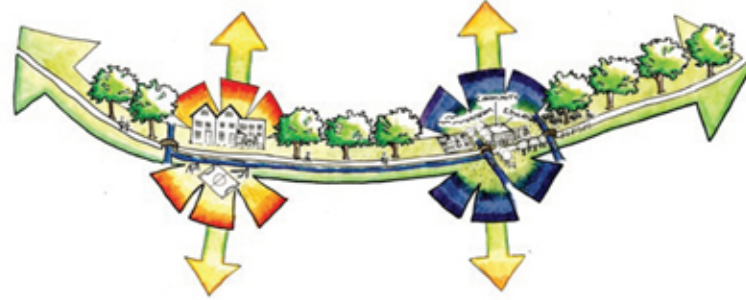
MINGLE, LEARN & EXPLORE: A BICYCLE GREENWAY IN SOUTHEAST SANTA ROSA

ERIN MACHELL

VISION

The Southeast Santa Rosa Greenway will be a place of vibrant spaces, new housing, and educational activities, while still preserving nature and open space.

The greenway will complete the regional cycling trail connection with downtown.



GOALS



community

- Create a lively neighborhood center with higher density, mixed-income housing and a variety of housing types to create a diverse neighborhood.
- Create a neighborhood center with shops, cafés and a library around Yulupa.
- Provide recreational opportunities.



connection

- Complete the bicycle connection to downtown, the SMART train and the region
- Draw bicycle tourism to Santa Rosa
- Calm neighborhood traffic so that heavy traffic volumes can be accommodated along with safe, enjoyable walking and cycling.



ecology

- Create a distinct series of parks, gardens, agriculture, and picnic areas throughout the greenway.
- Reserve large park areas for habitat restoration and nature education.



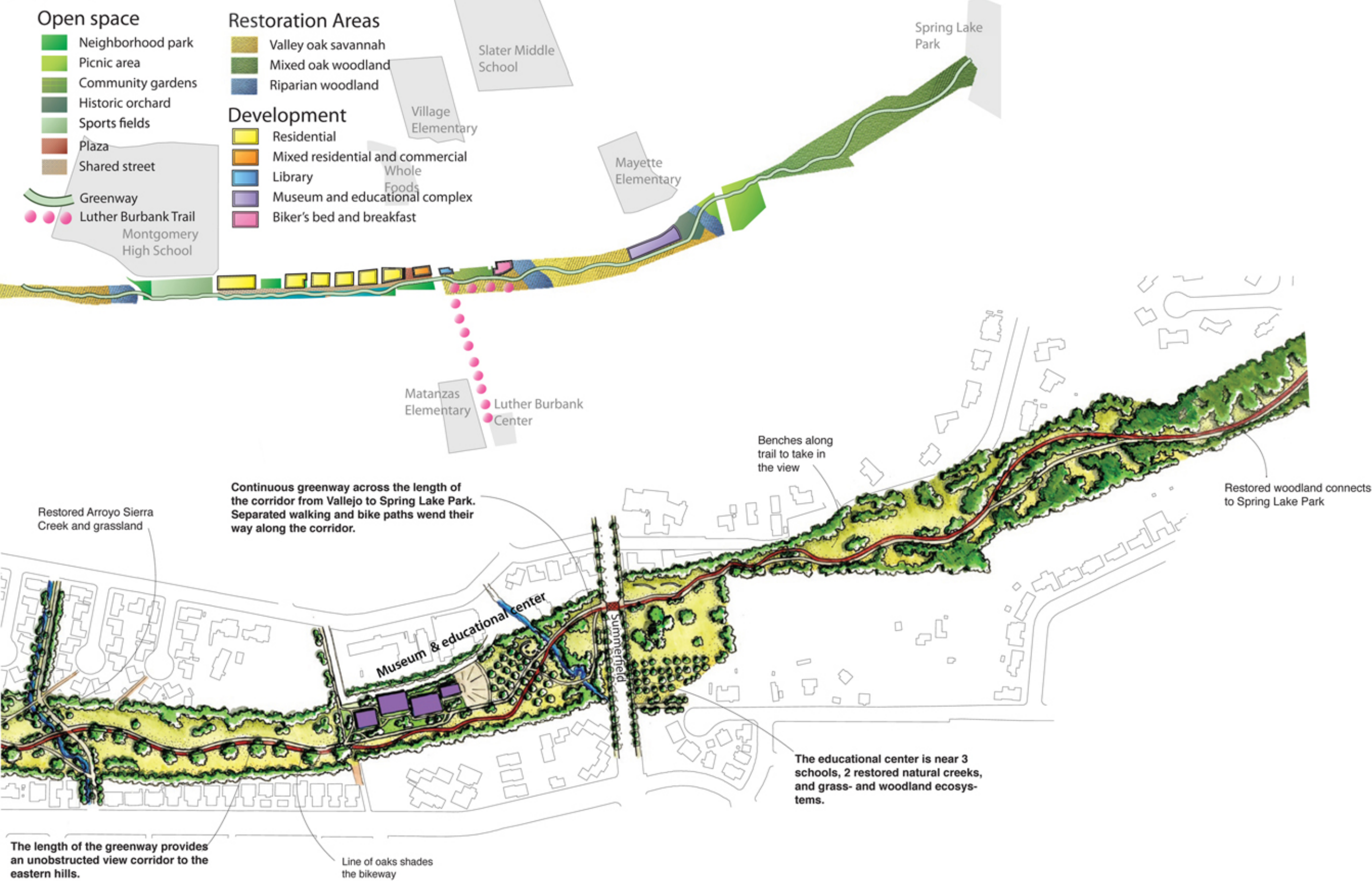
education

- Leverage the greenway's natural features, history of agriculture, and proximity to schools to create a museum and classroom space and educational installations.
- Work with nearby schools to develop educational programs in the greenway.

MASTER PLAN



CONCEPT PLAN



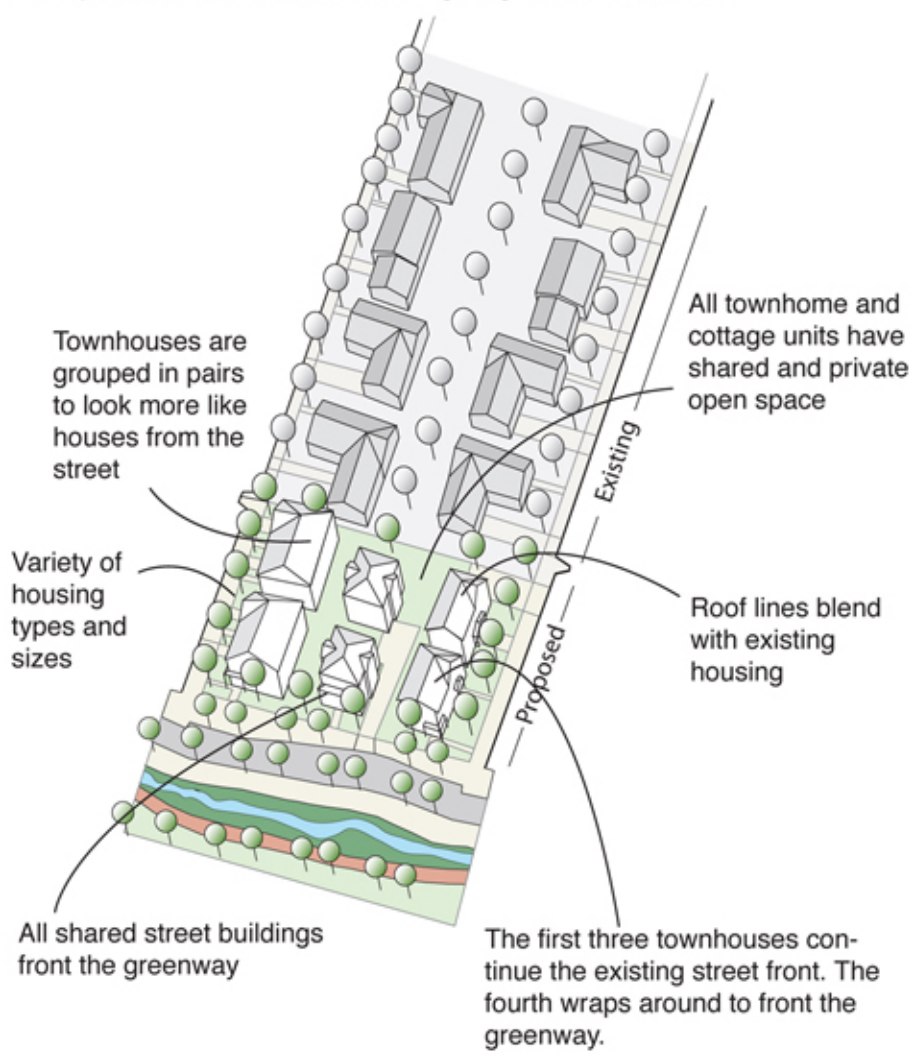
RESIDENTIAL AND NEIGHBORHOOD CENTER

housing and shared street plan

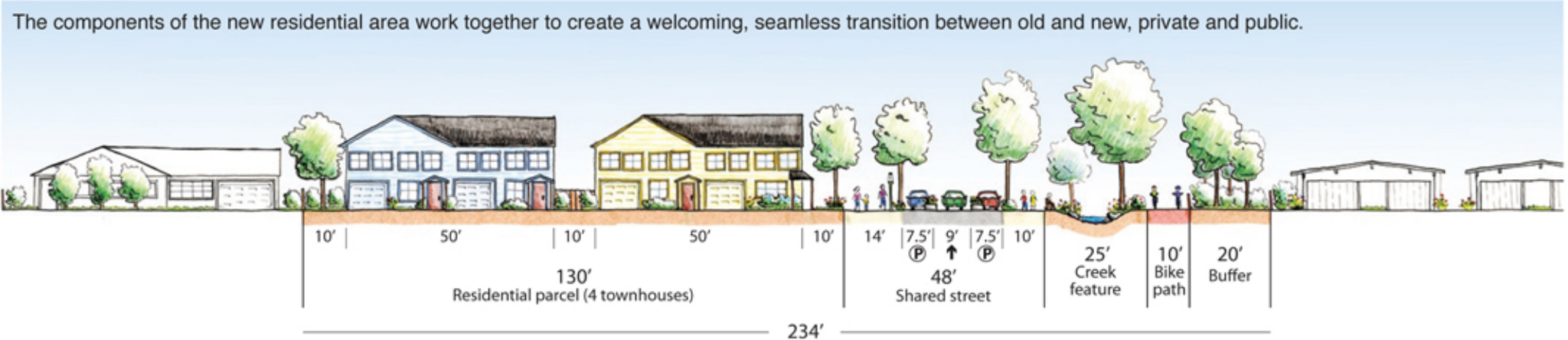


typical block

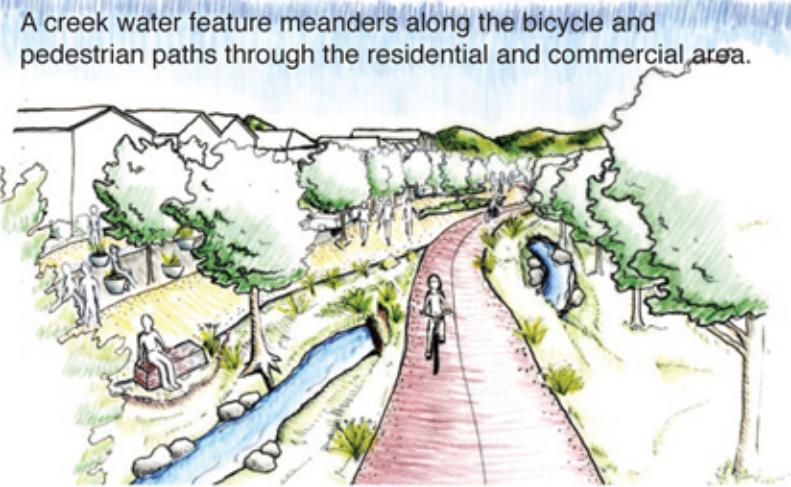
Density is increased while maintaining neighborhood character



section



creek feature



REGIONAL CYCLING

The greenway and SMART Train path will put Santa Rosa at the center of Sonoma cycling. Paving a trail in Annadel will complete the connection to the East.



DOWNTOWN CYCLING CONNECTIONS

By creating a cycling track on Sonoma a greenway connection can be maintained from downtown, the SMART Train, and the Prince Memorial Greenway, through Doyle Park and along Spring Creek, down to the greenway. Improved cycling conditions will ease neighborhood congestion.



TRAFFIC CALMING + BIKE/PED IMPROVEMENTS

strategies street typology, intersection crossings and land uses

1. Create safer and more appealing crosswalk, sidewalk and cycling conditions

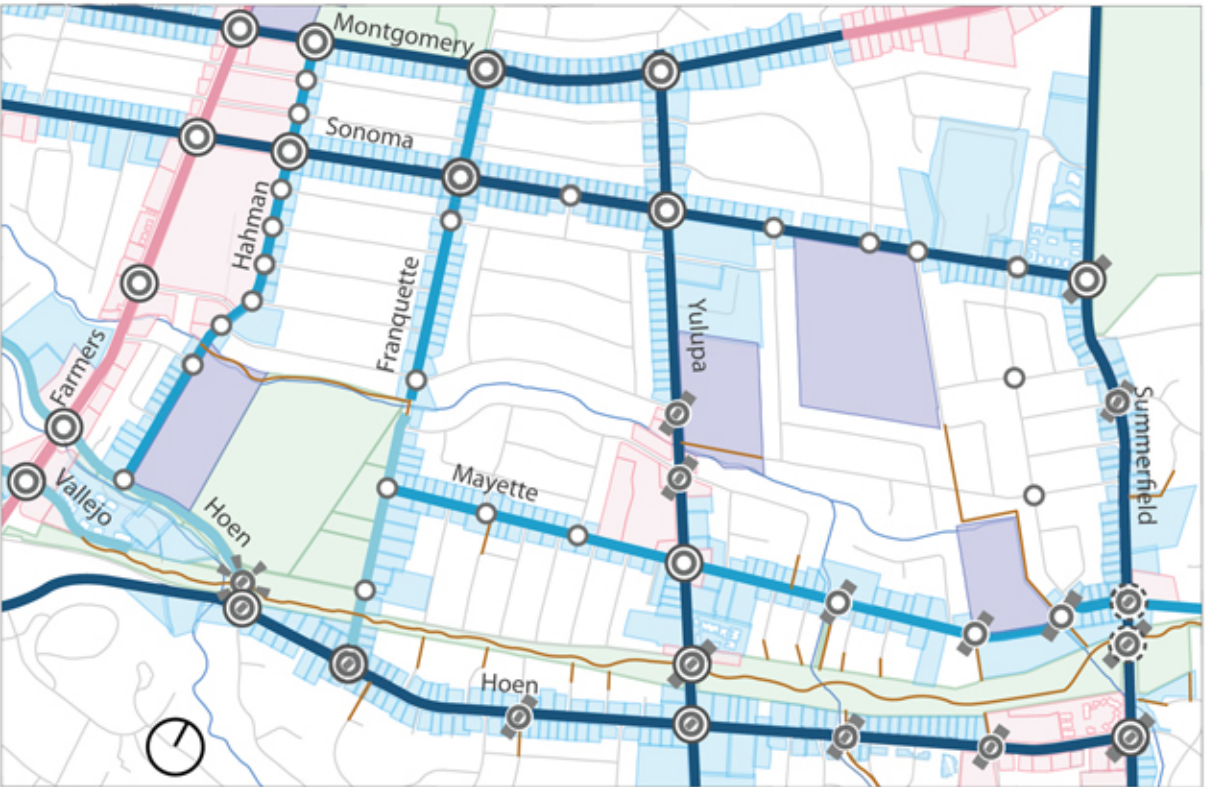
- Minimum 5 - 10 foot sidewalks on all streets
- Use bulb outs, mid-block crossings and refuge islands at crossings where possible
- Use parking lanes and planters to buffer sidewalks from traffic
- Minimum 6' wide bike lanes
- Major sidewalk plantings for beauty, shade, and to slow traffic

2. Lower speed limits and design streets for slower traffic

- 20-25 mph speed limits on neighborhood carriers
- 9.5 foot traffic lanes
- Sharpen corners to slow cars at intersections
- Add textured pavement at problem intersections
- Time signals to encourage lower speeds

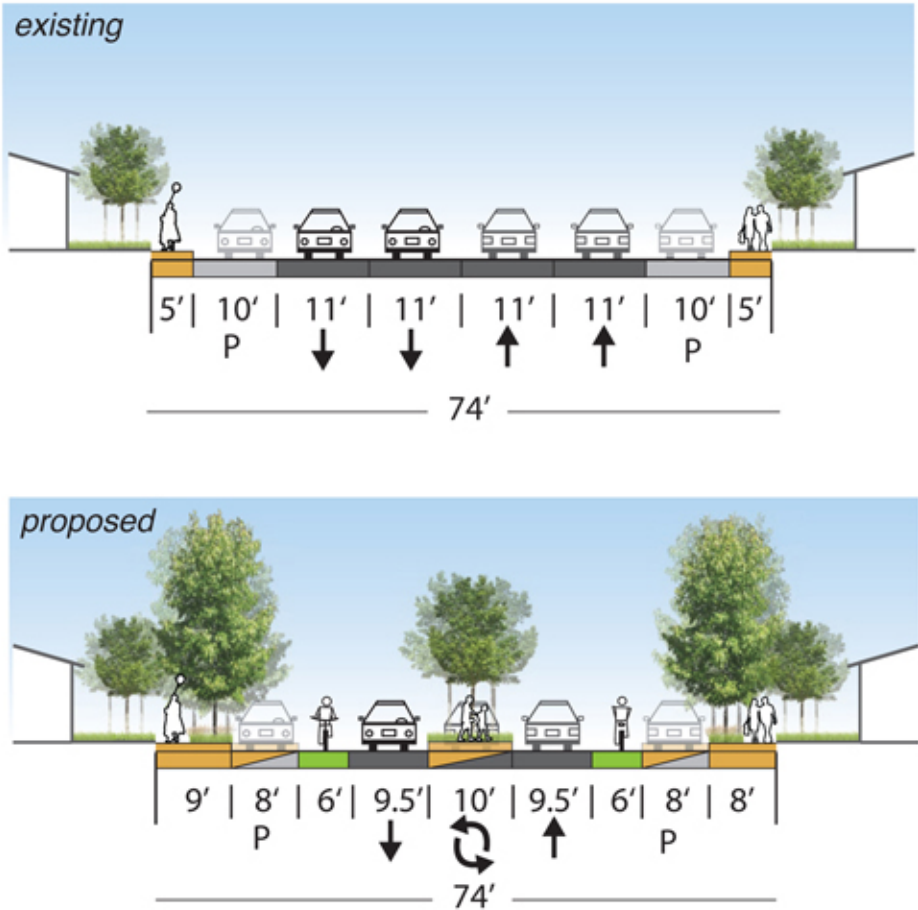
3. Road diets on Yulupa, Summerfield, and Sonoma

- Summerfield and Yulupa narrow to two lanes and a center turn lane
- New bike lanes on Yulupa
- Remove parking lanes on Sonoma to narrow street.



yulupa road diet

Road diets and pedestrian improvements will make arterials feel more like residential streets



OVER THE BRIDGE: ENHANCING CONNECTIVITY IN THE SOUTHEAST GREENWAY

KENYA HUEZO

VISION

The southeast greenway will be a thriving destination that provides access to NATURE, ACTIVITY, and CULTURE.

The greenway will become a seamless open space network by bridging existing gaps and providing visitors with a diverse experience through this new linear park.

WHY FOOTBRIDGES?

safety

The bridges allow safe access without crossing vehicular traffic.

connection

The bridges provide an uninterrupted experience on foot or bicycle.

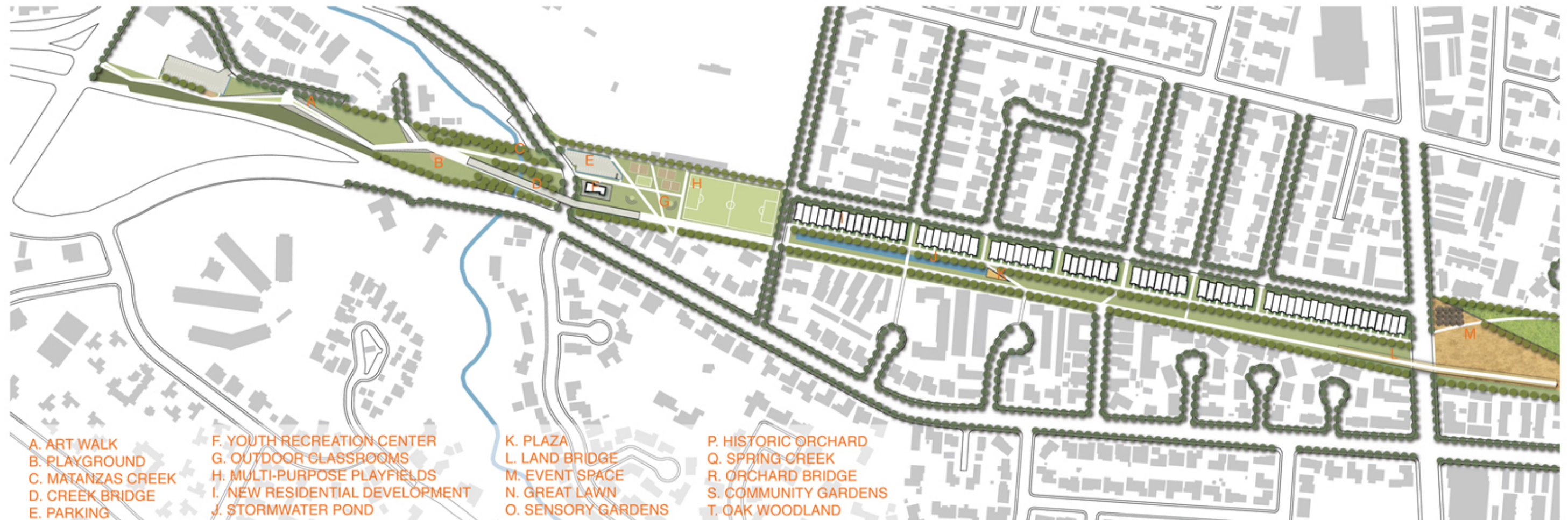
simulation

The undulating bridge forms are inspired by the neighboring Sonoma Mountain range. Each bridge responds to the elements of its immediate site.

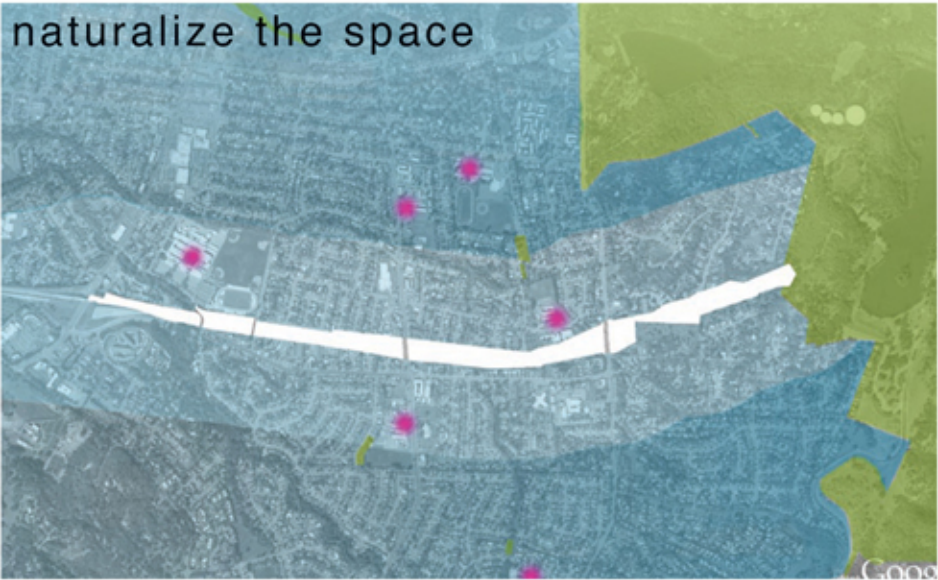
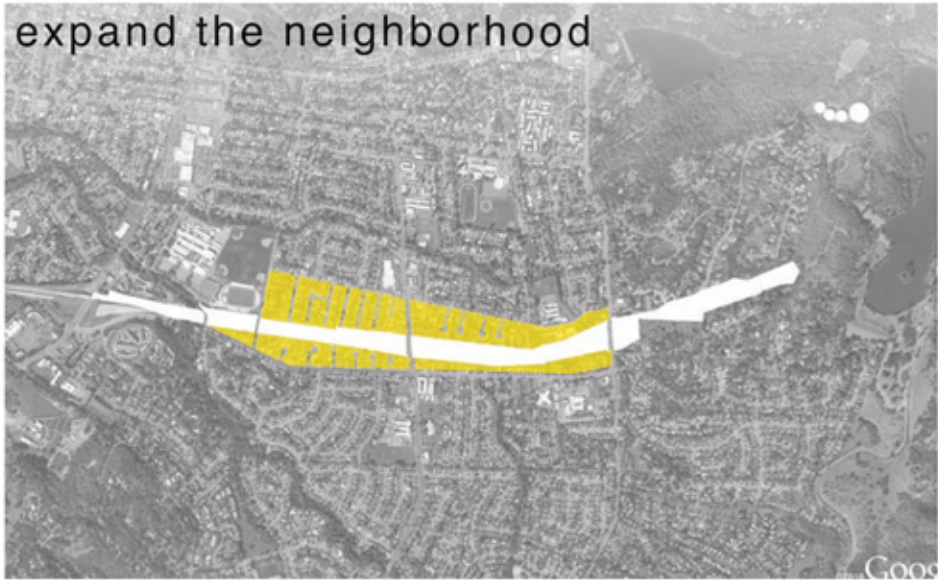
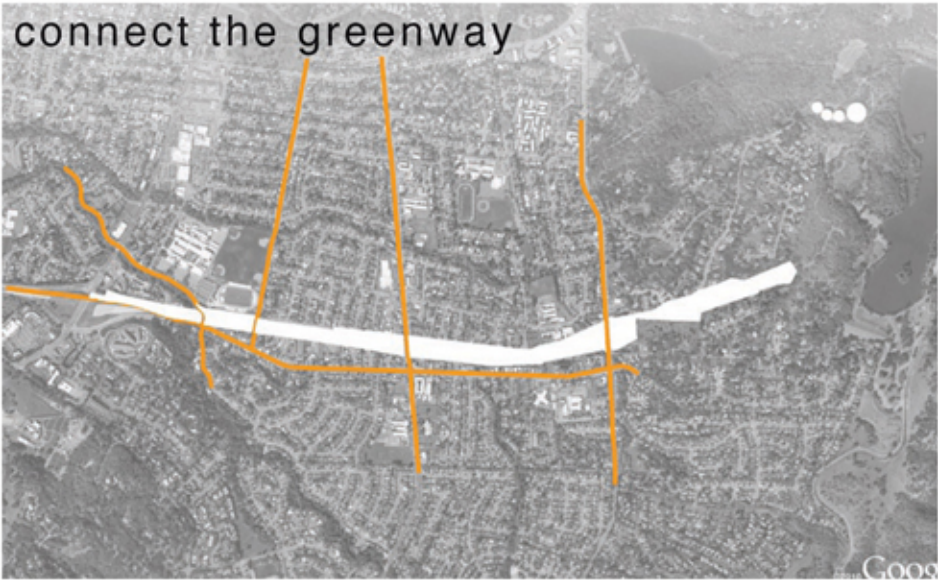
vistas

The bridges allow exclusive views of the hillside scenery.

MASTERPLAN



DESIGN OPPORTUNITIES



FRAMEWORK

nature

Great Lawn
Sensory Gardens
Restored Oak Woodland

activity

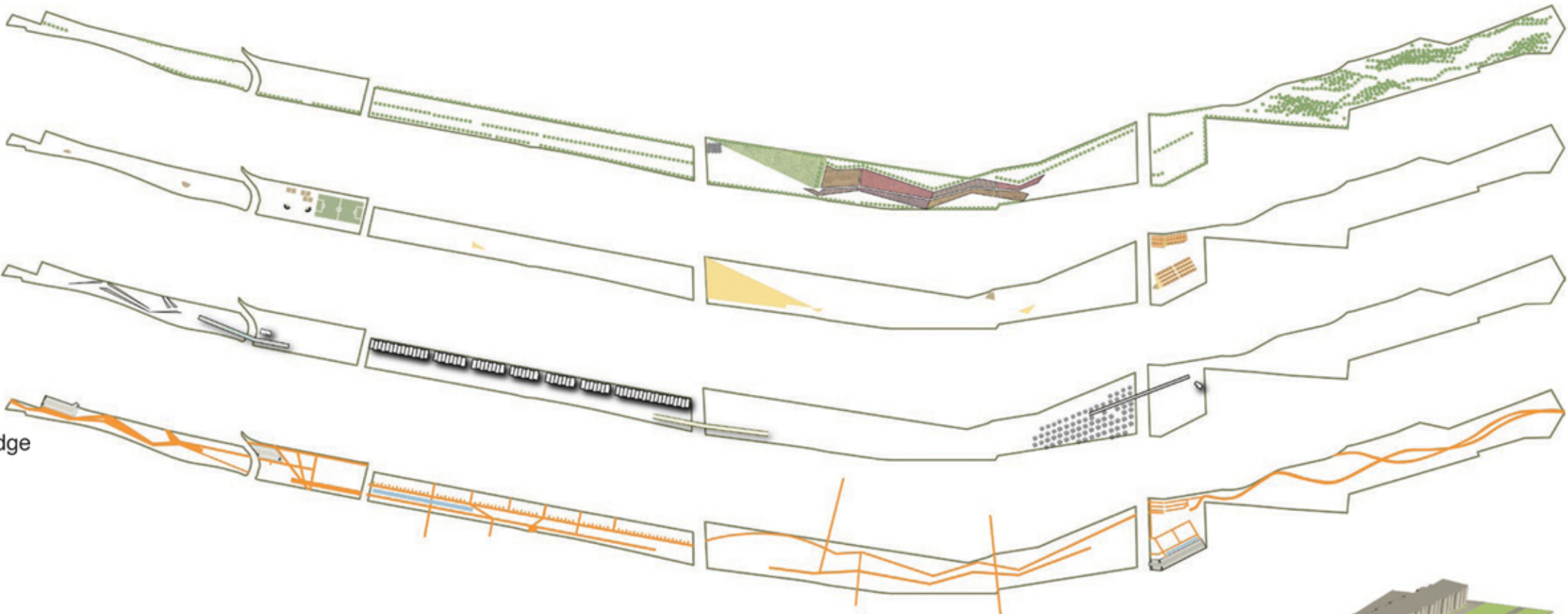
Playgrounds and Playfields
Outdoor Classrooms
Event Space
Plazas
Community Gardens

culture

Public Art Plazas
Residential Development
Youth Recreation Center
Historic Orchard
Creek Bridge, Land Bridge, Orchard Bridge

infrastructure

Paths
Stormwater Management
Parking Areas



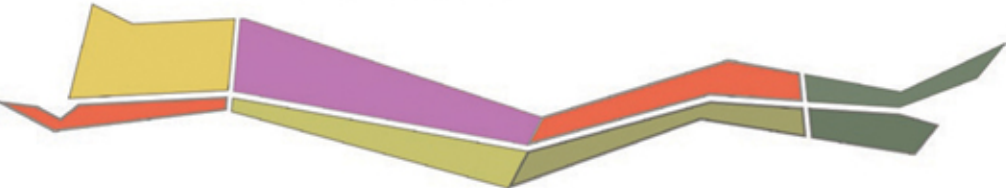
SENSORY GARDEN

California Poppy

Lavender

Bamboo

Succulents



Bird of Paradise

Rosemary

Sage

Asparagus

HOUSING

Typology

Total Units

Residential Density

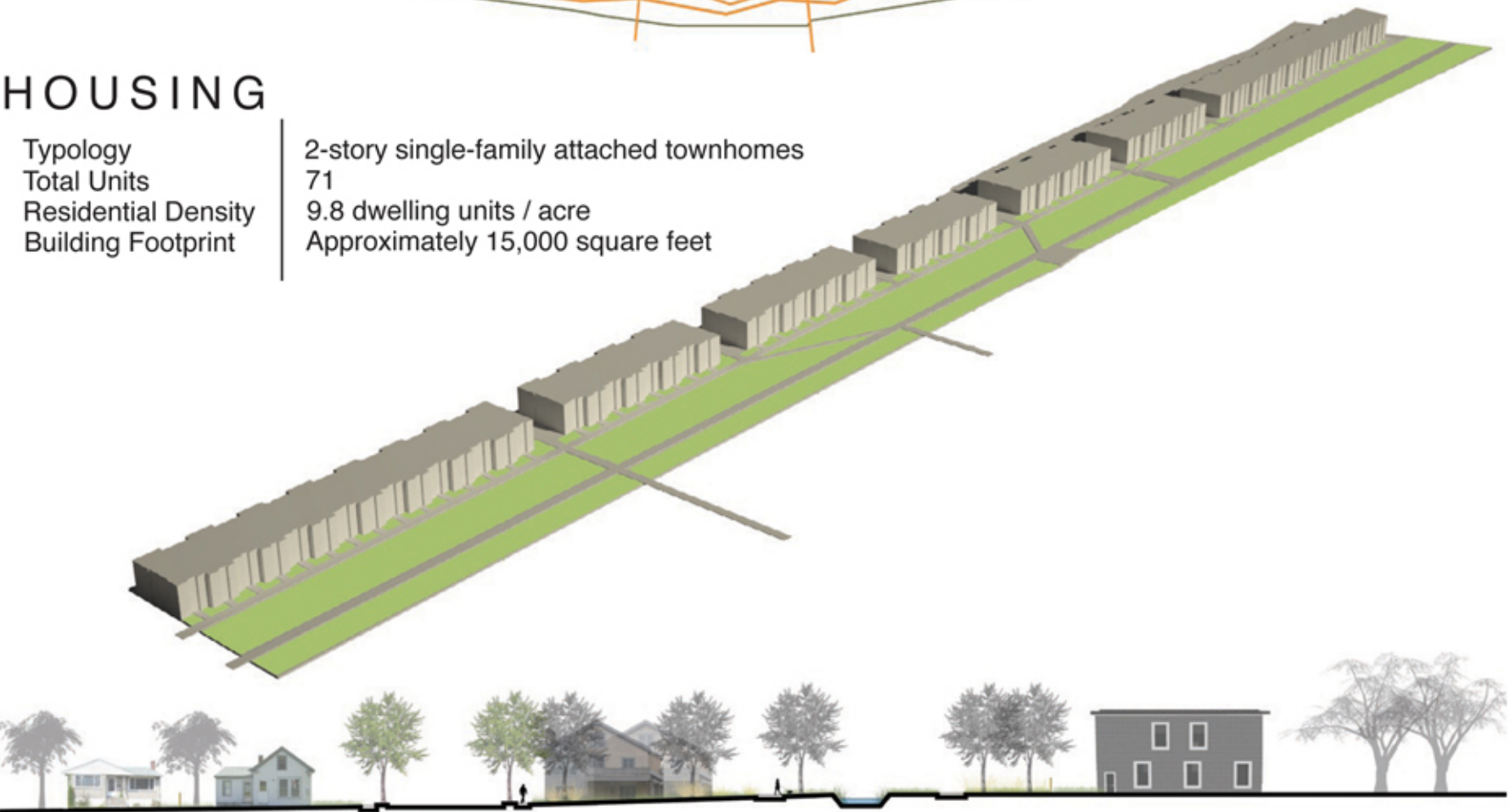
Building Footprint

2-story single-family attached townhomes

71

9.8 dwelling units / acre

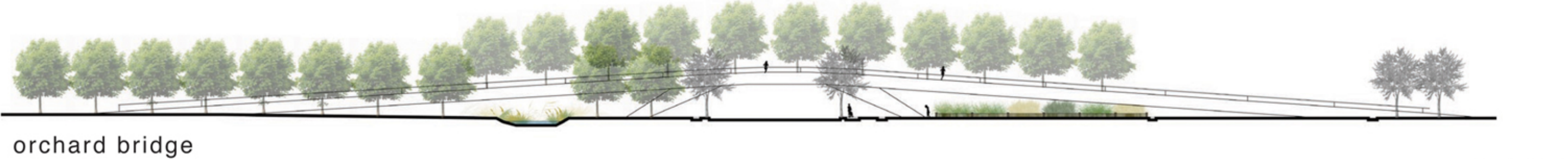
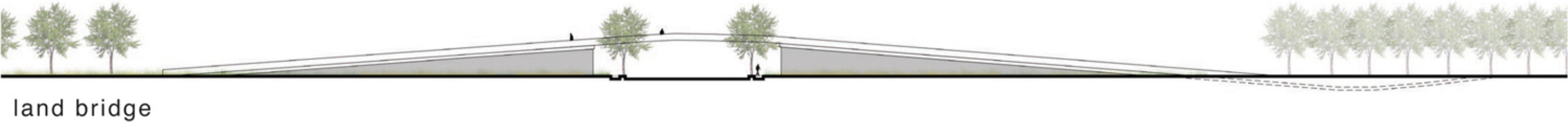
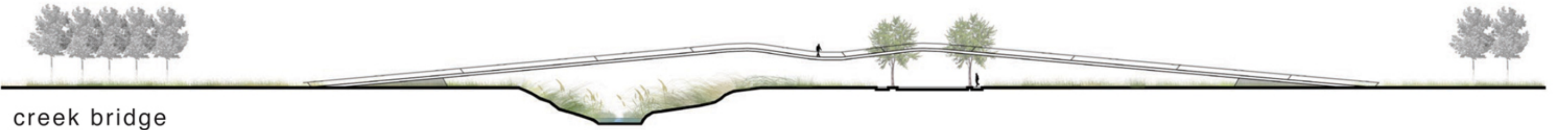
Approximately 15,000 square feet



ILLUSTRATIONS



FOOTBRIDGE ELEVATIONS



A BICYCLE ORIENTED NEIGHBORHOOD FOR SANTA ROSA

TAYLOR REISS

VISION

Encourage walking and bicycling through compact development nodes connected by a greenway along the former Highway 12 corridor and strategic transportation development in the surrounding neighborhood.

GOALS + DESIGN STRATEGIES



develop compact, bicycle-oriented residential nodes interspersed with community open space

PARKING Provide secure bicycle parking for all residents and a max. of one vehicle parking space per unit

DIVERSE USES Include a variety of housing types and neighborhood-serving retail

OPEN SPACE Use land between nodes to address the community's open space needs



create a vibrant greenway that will be comfortable for all types of pedestrians and cyclists

CONNECTIVITY Minimize vehicle crossings and maximize bicycle/pedestrian permeability

CROSSINGS Use raised crosswalks, signals, signage, and urban design to create safe road crossings

CAPACITY Provide sufficiently wide and segregated paths for both pedestrians and cyclists



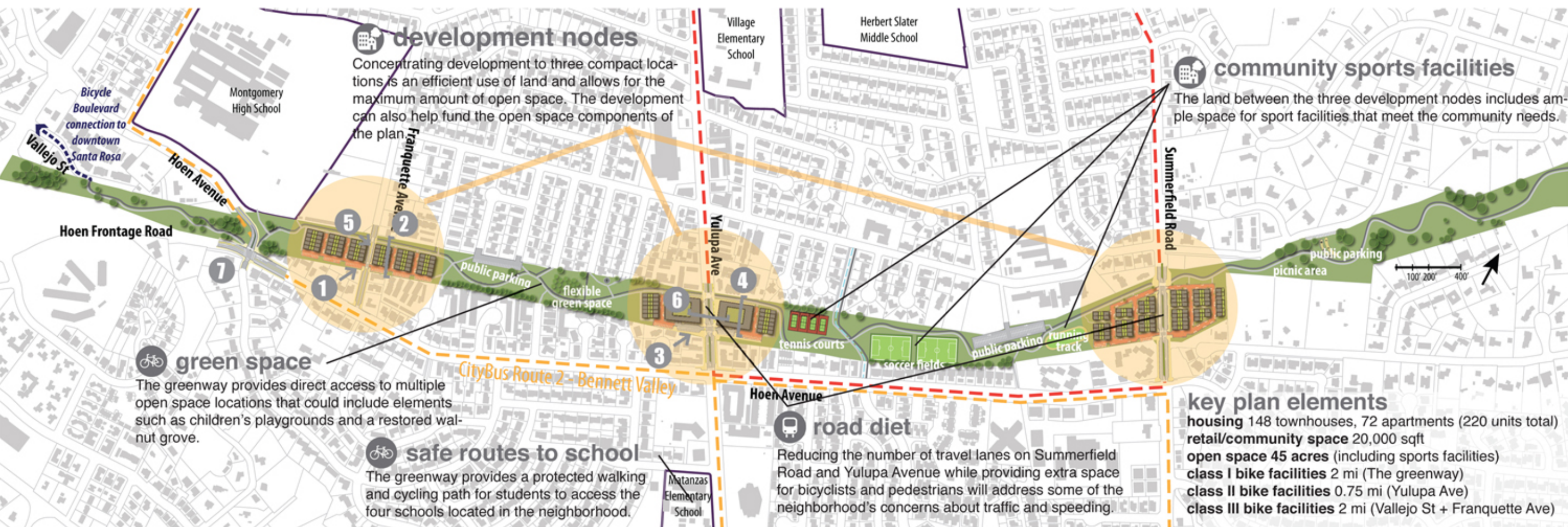
improve the livability of the entire neighborhood through strategic transportation investment

COMPLETE STREETS Reallocate a greater proportion of road width to non-motorized travel modes

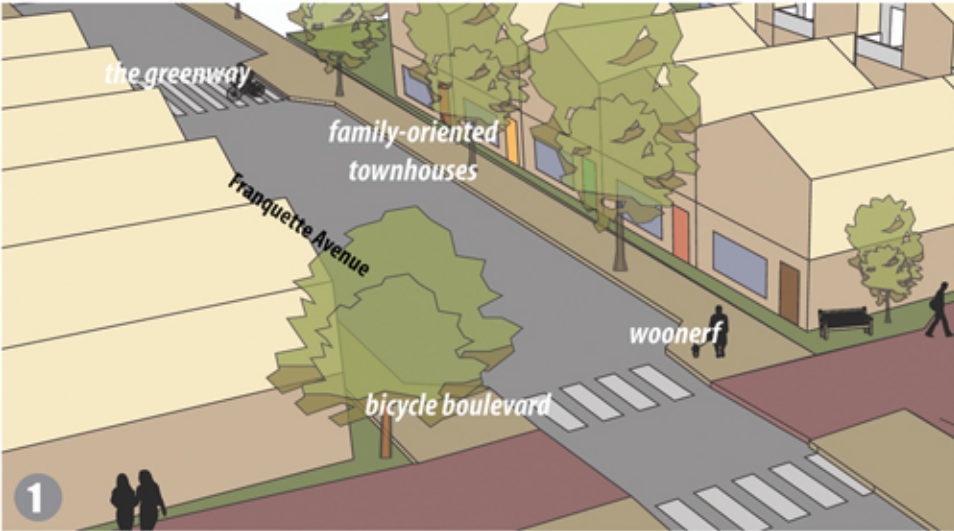
BICYCLE NETWORK Connect on-street facilities to the greenway

GREENING Add street trees and medians to the road

MASTER PLAN



BICYCLE VILLAGE



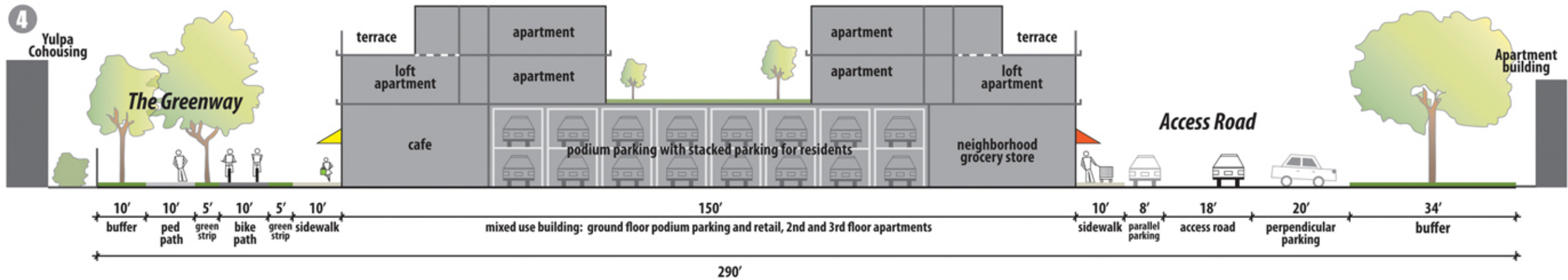
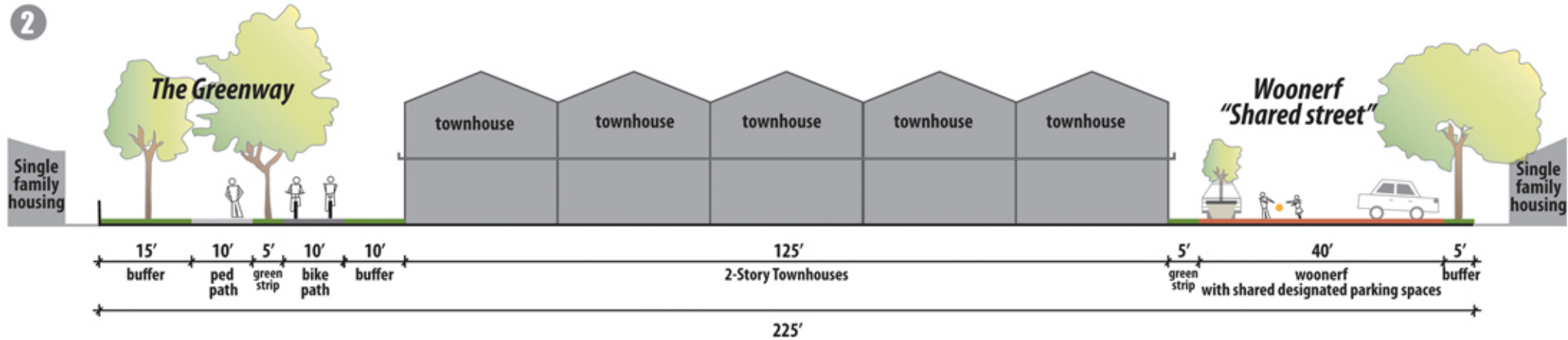
The two bicycle villages located at Franquette Ave and Summerfield Rd are comprised of townhouses situated along “woonerfs”: calmed residential streets where pedestrians, cyclists, and vehicles share the roadway. Consolidated parking is located on the edge of the development to discourage driving and all residents have easy access to the greenway to encourage cycling.

TRANSIT/BICYCLE COMMUNITY



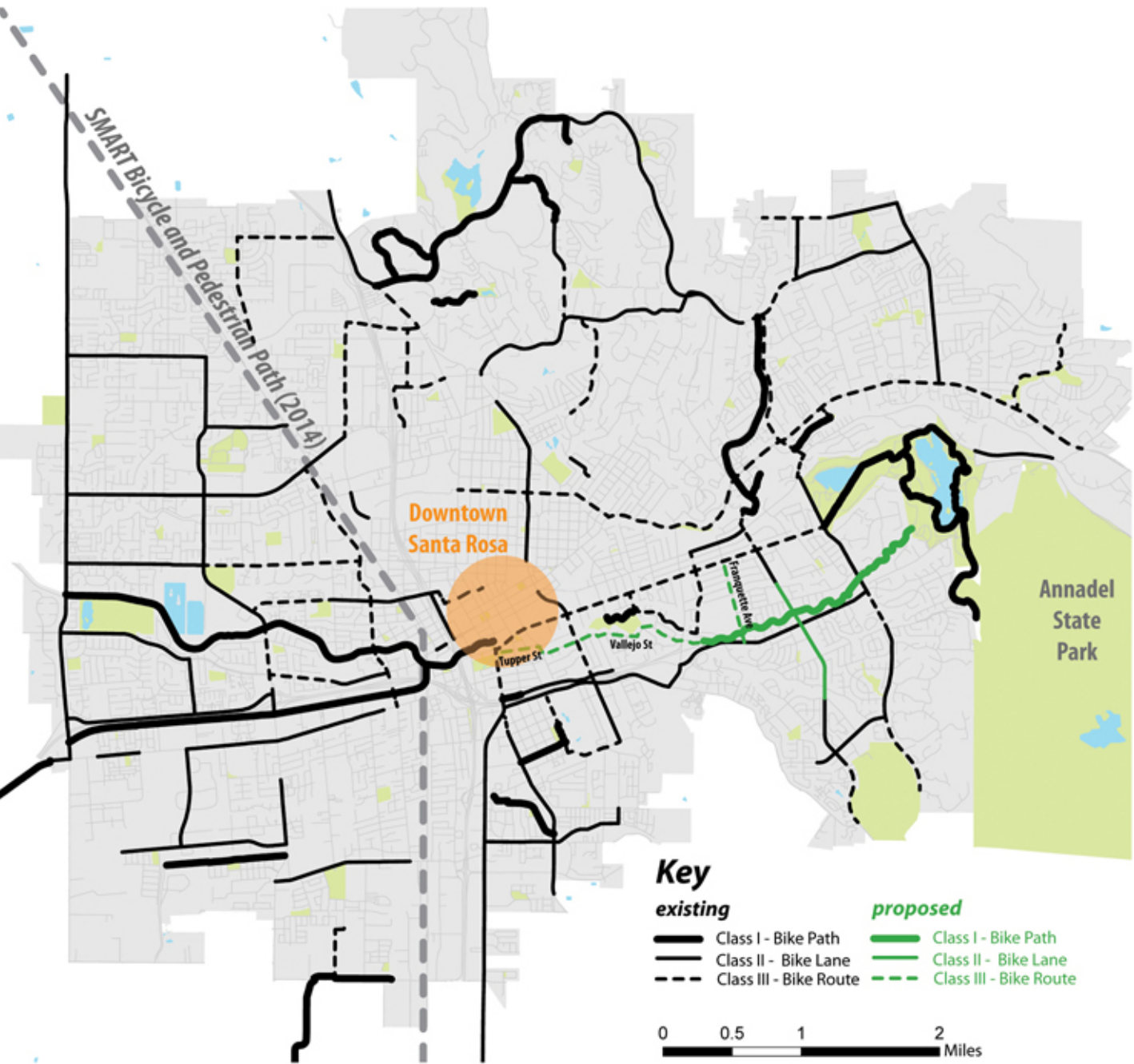
A transit/bicycle-oriented development at Yulupa Ave adds a range of housing options to the neighborhood including apartments and townhouses. All residents have direct access to the adjacent greenway and the CityBus lines on Yulupa and Hoen. The development also includes neighborhood-serving retail such as a local grocery store, cafe, and bicycle shop.

SECTIONS



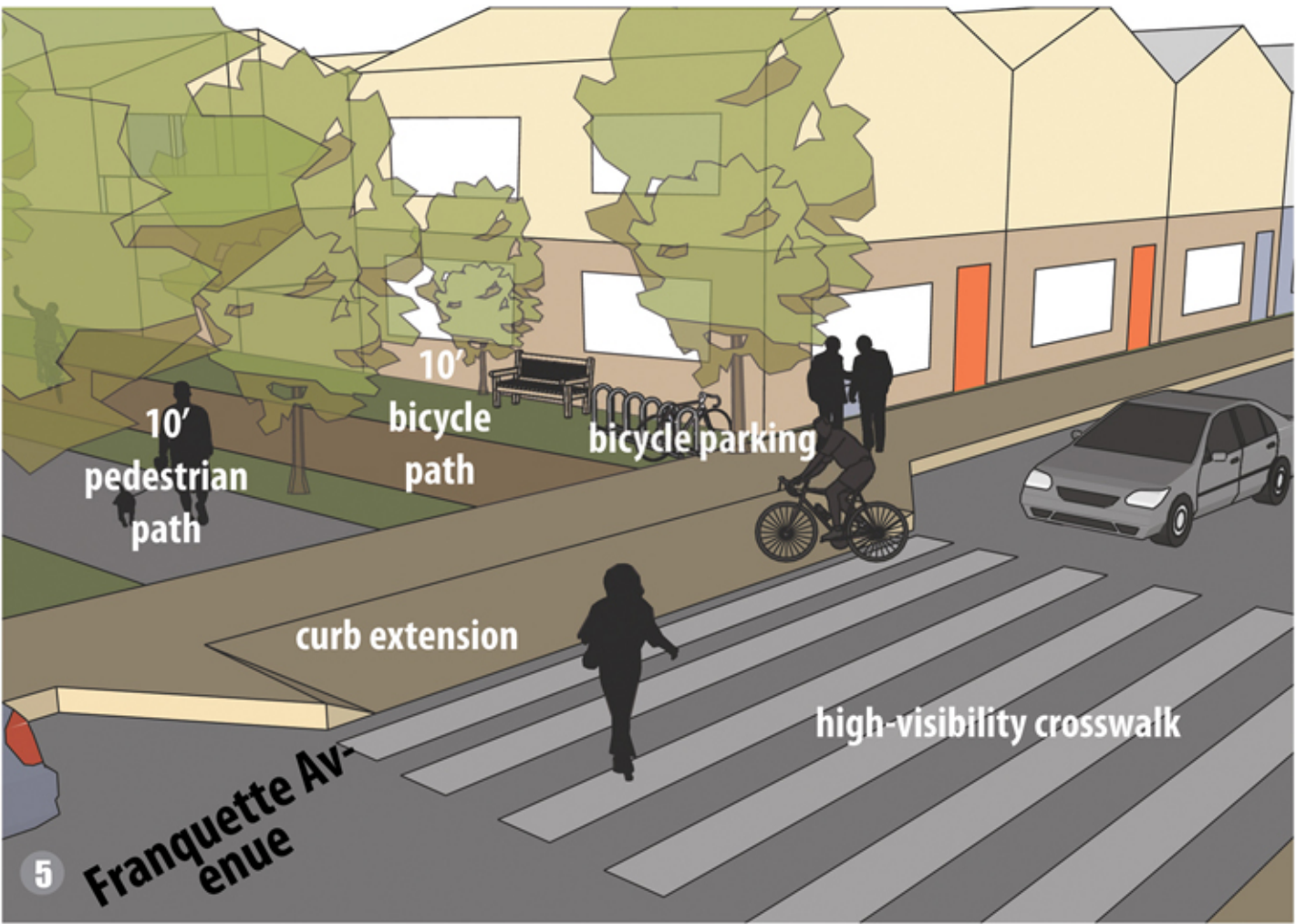
REGIONAL BICYCLE CONNECTIONS

The greenway will add two miles to the existing class I bicycle network in Santa Rosa. Residents of the neighborhood will be able to use the greenway, along with a proposed bicycle boulevard (class III) facility on Vallejo St to access downtown Santa Rosa and the new SMART train.



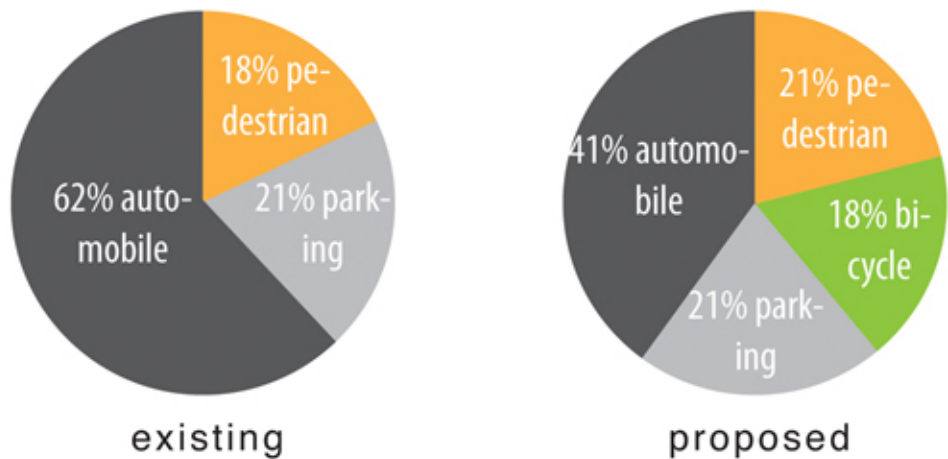
THE GREENWAY

Separate paths for pedestrians and cyclists along the greenway minimizes conflicts between the two groups. High-visibility crosswalks paired with curb extensions ensure safe crossings at each of the major arterials.

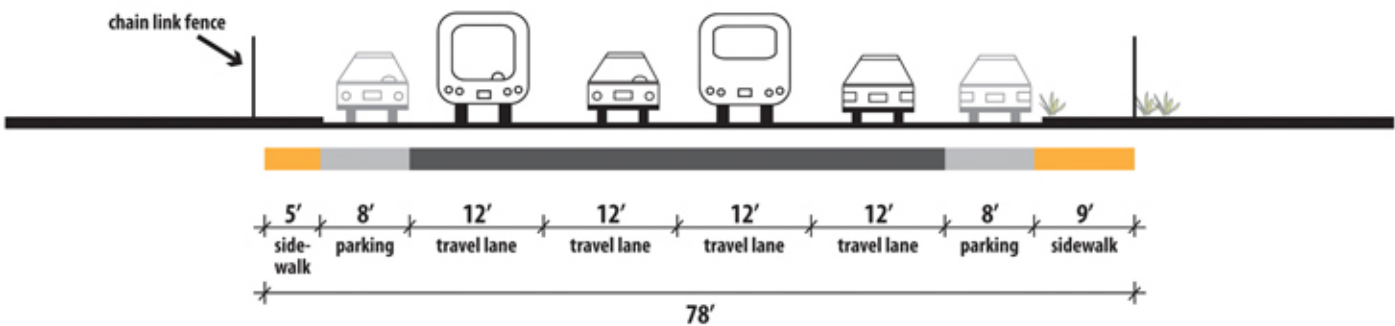


YULUPA AVE COMPLETE STREET

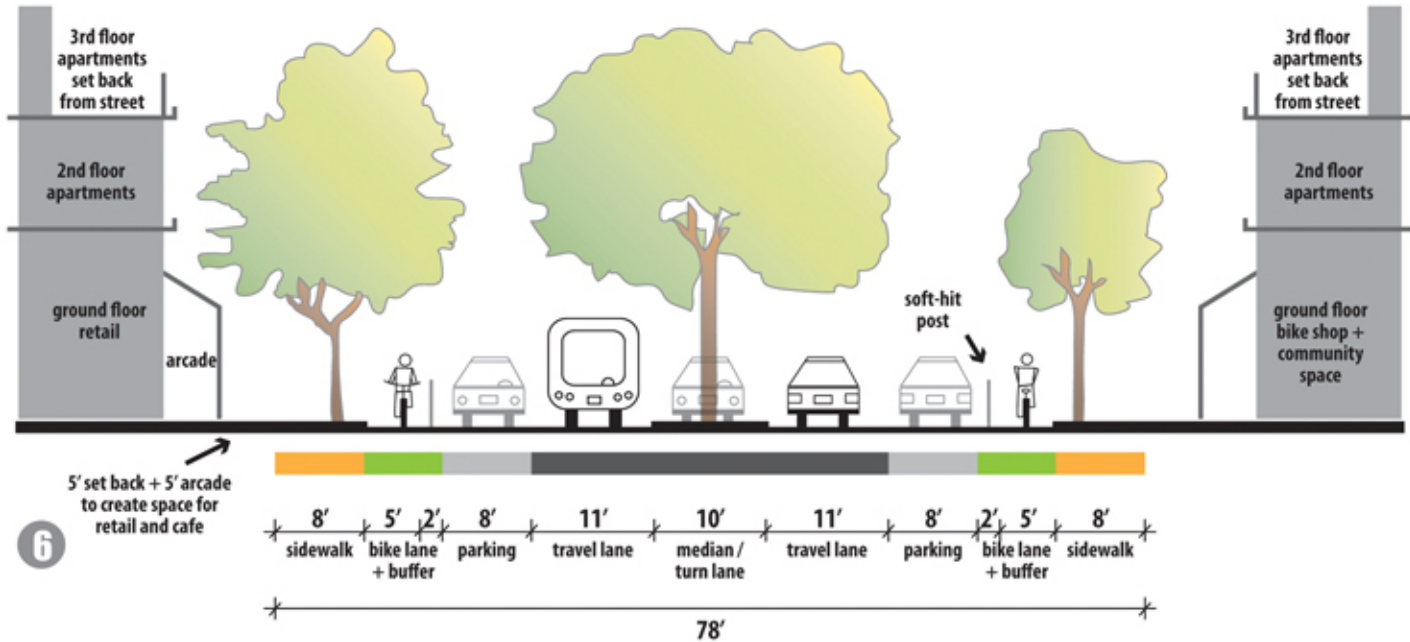
A more balanced right-of-way, with wider sidewalks and separated bicycle facilities, will improve safety and mobility for all users on this major arterial.



existing section

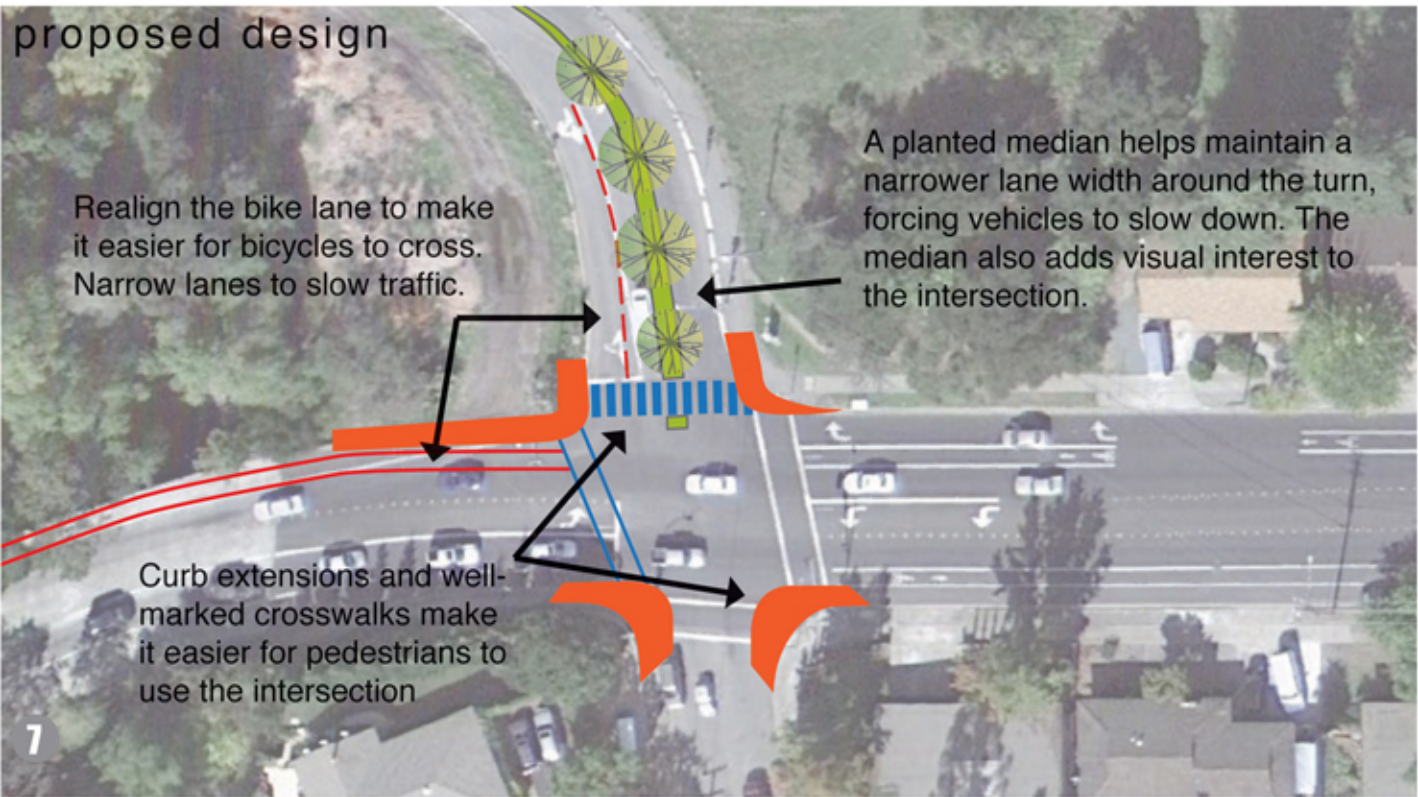
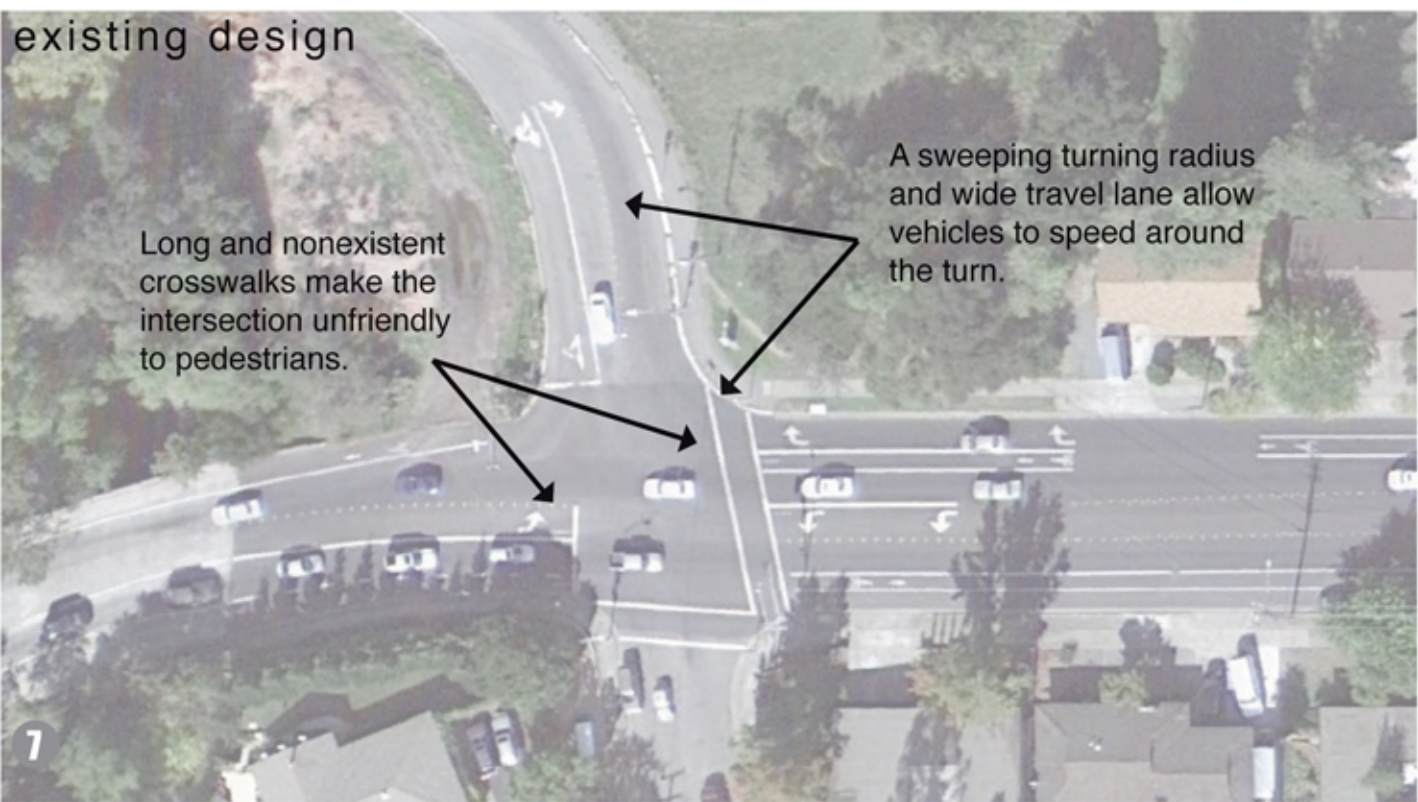


proposed section



HOEN AVE INTERSECTION TREATMENT

Simple interventions can significantly improve overall intersection safety by slowing down turning vehicles and improving pedestrian and bicycle conditions.



ART AROUND EVERY CORNER

JOHN M. FRANCIS & ANISHA GADE



VISION

The new Santa Rosa Southeast Greenway will be a center for art and education in Sonoma County and beyond. At its heart it is a walkable and lively community, engaging residents in both cultural and recreational programming.

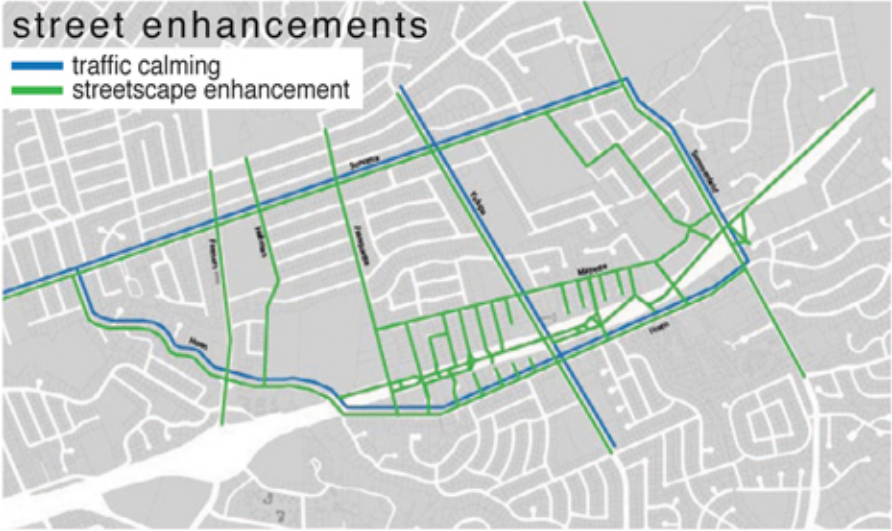
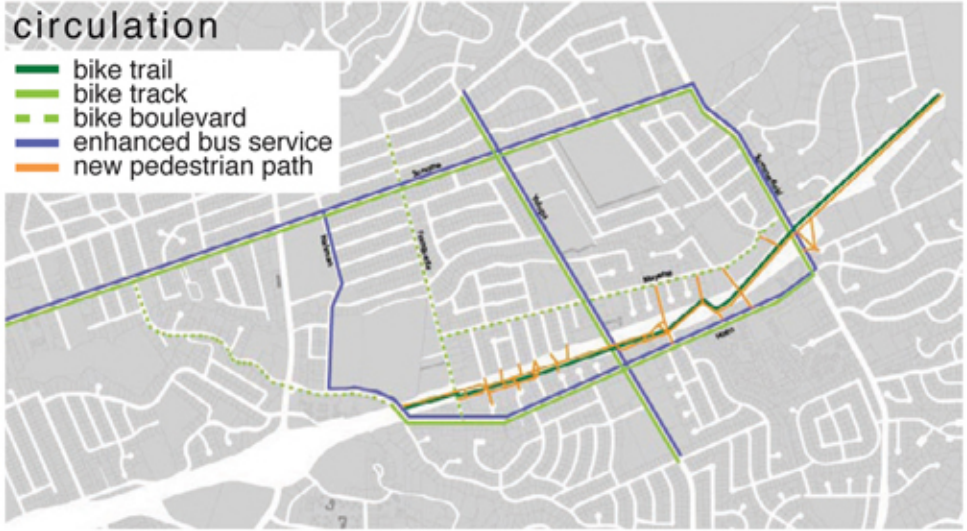
CONCEPTUAL PLAN



MASTER PLAN



FRAMEWORK PLANS

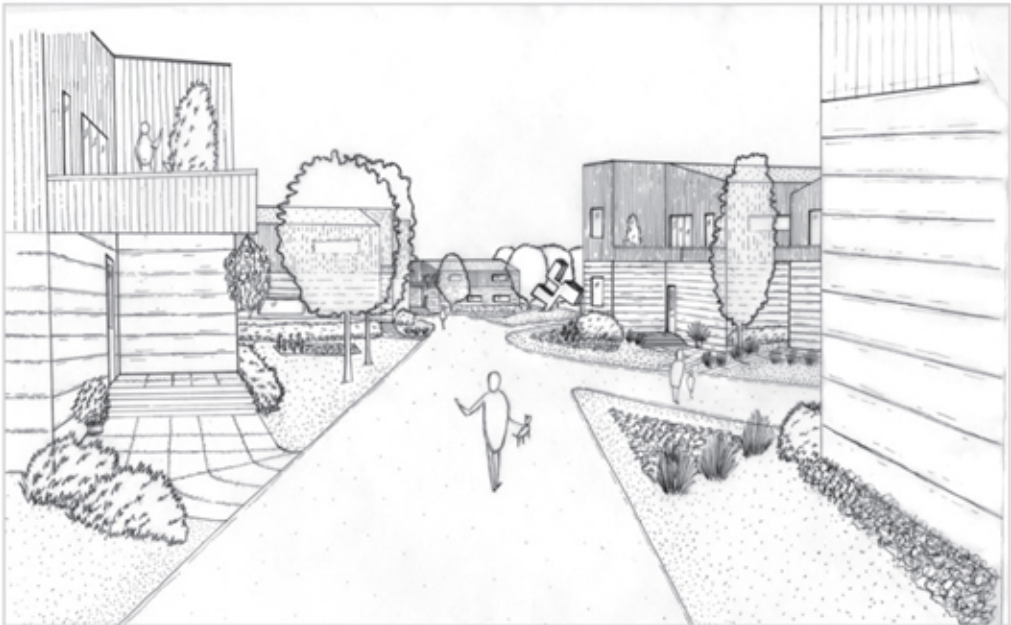


RESIDENTIAL DISTRICT

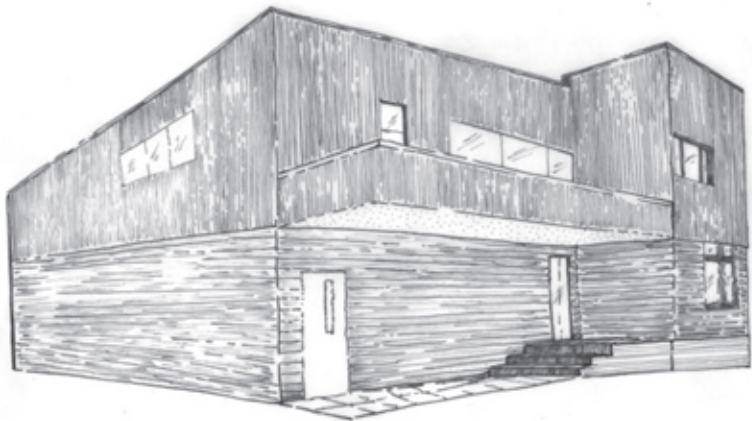
approaching from a neighboring street



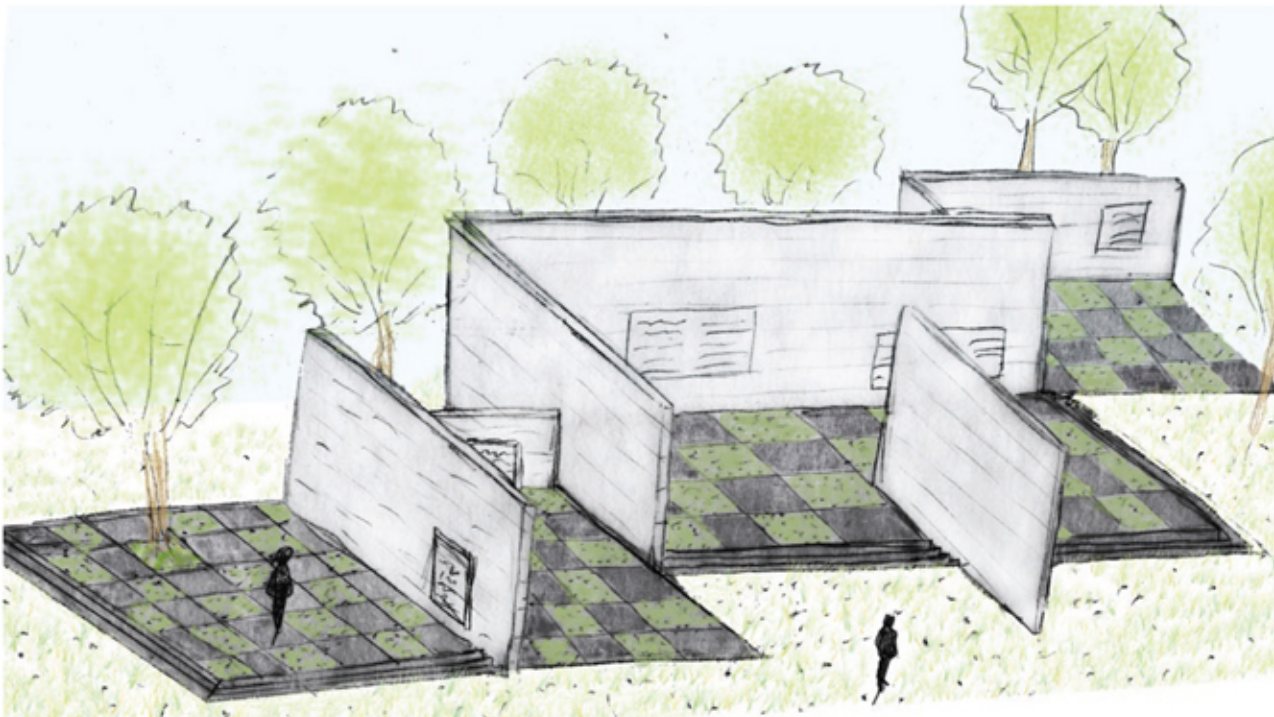
a stroll through the residential pathways



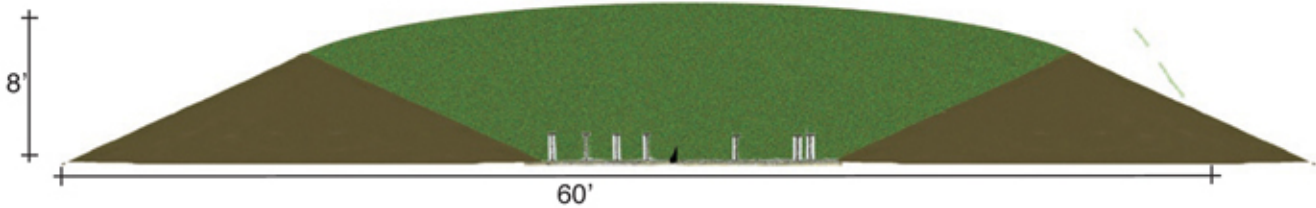
proposed typology: modified ranch
similar lines to classic ranch, duplex modification possible



MEMORIAL GLADE

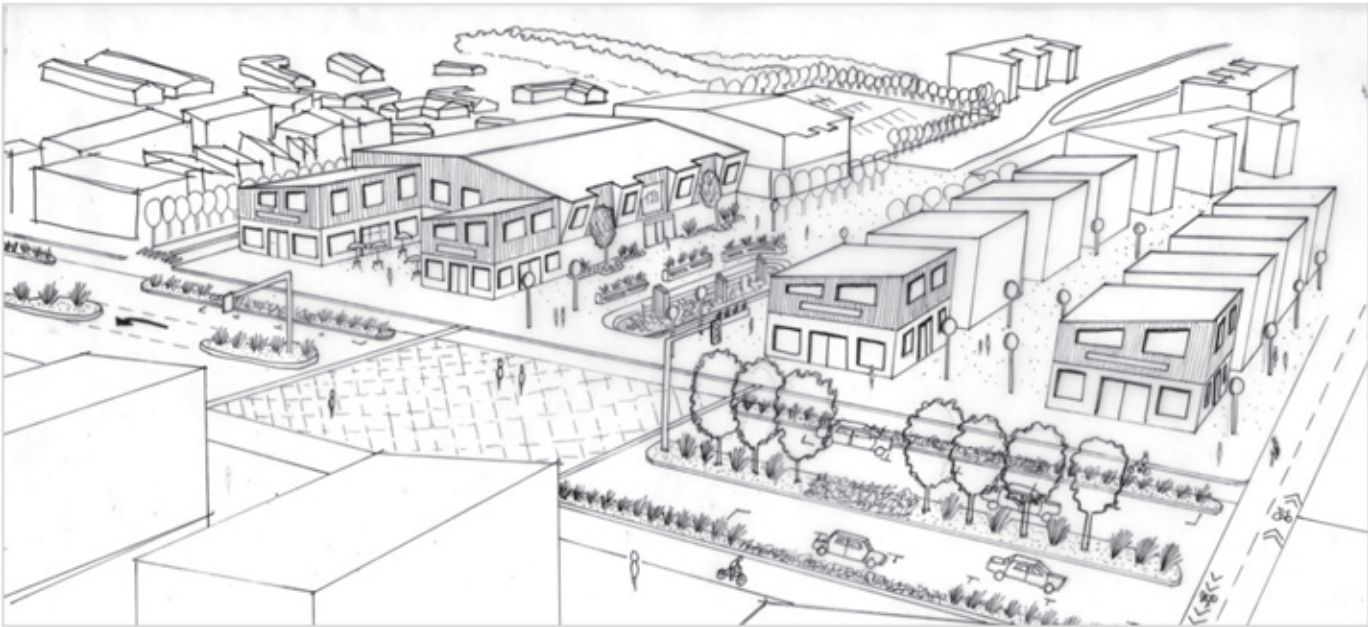


EDUCATIONAL MOUND

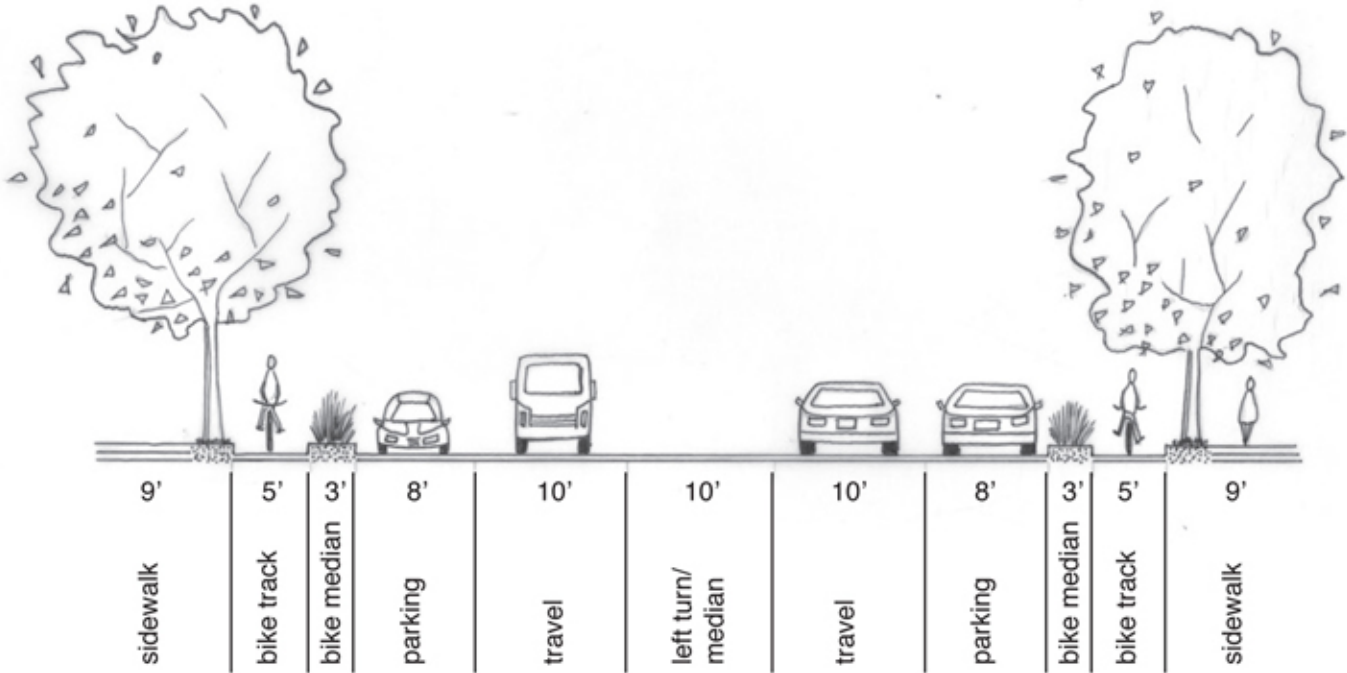


YULUPA MIXED-USE NODE

bird's-eye view from southwest

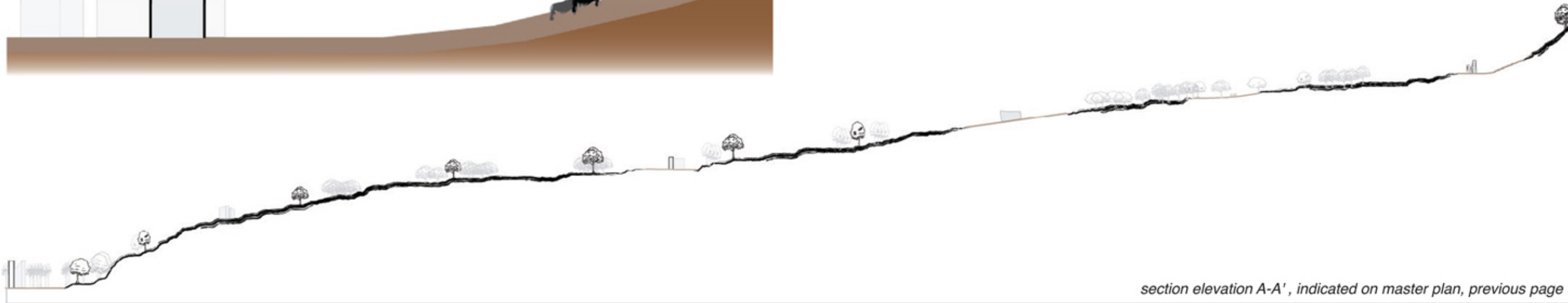
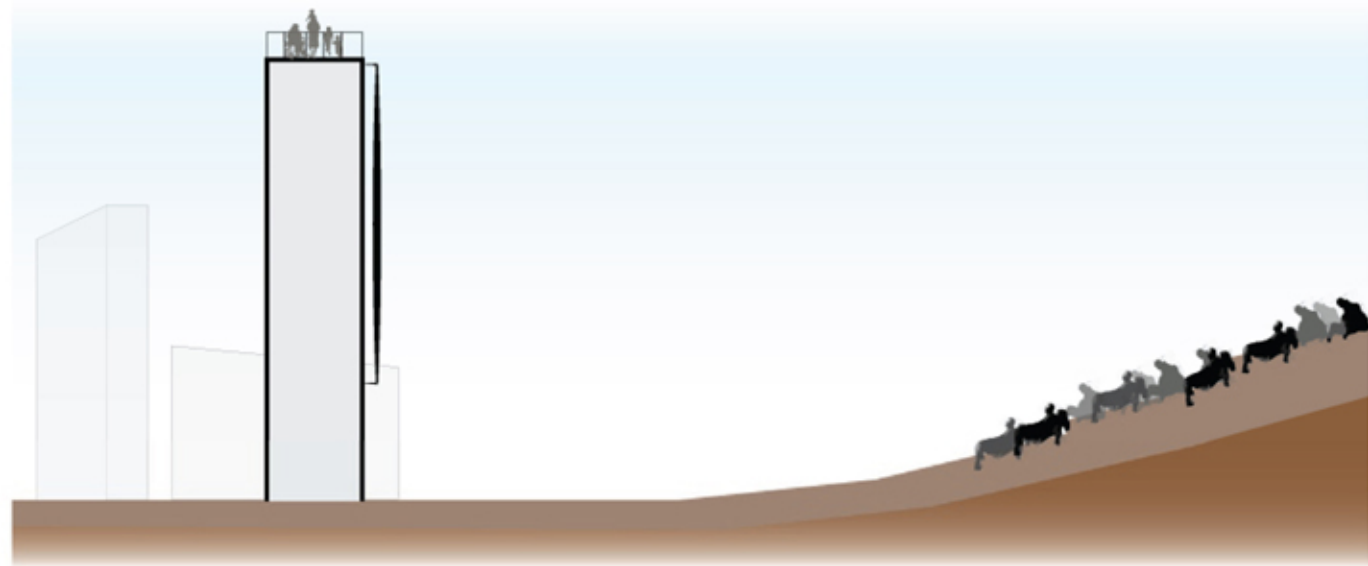


typical proposed street section (yulupa)



THE HILLSIDE

screen on the green and observation deck



section elevation A-A' , indicated on master plan, previous page

VIBRANT GREENWAY

XIAO WU

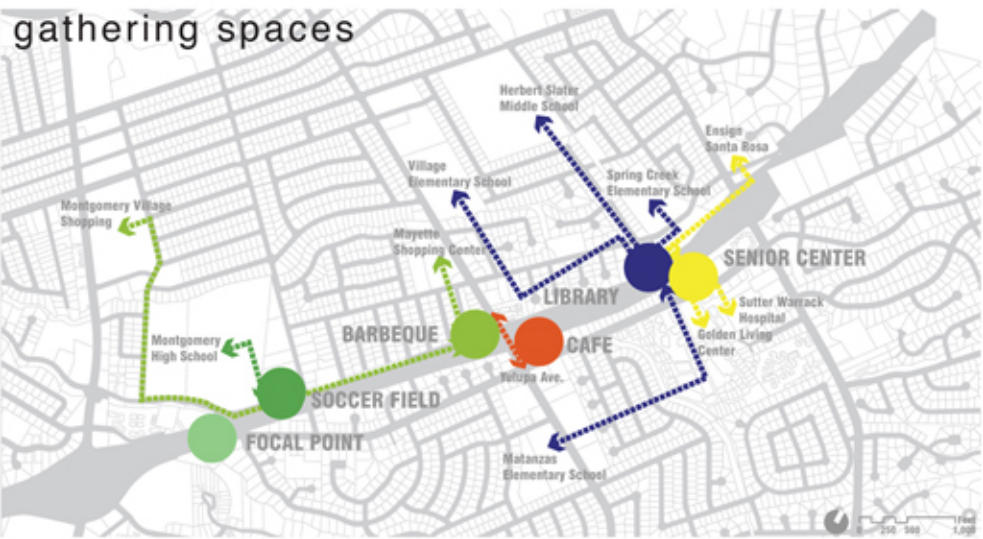
VISION

The aim of the project is to create a vibrant greenway as both an amenity to the residents and an attraction to non-residents, by introducing a braided belt of diverse places and various activities.

DESIGN CONCEPT



ANALYSIS

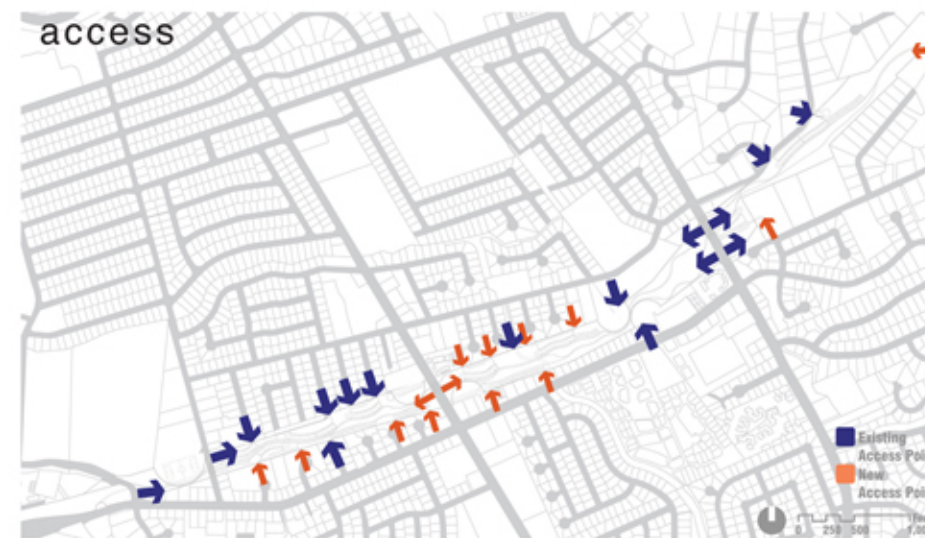


MASTER PLAN

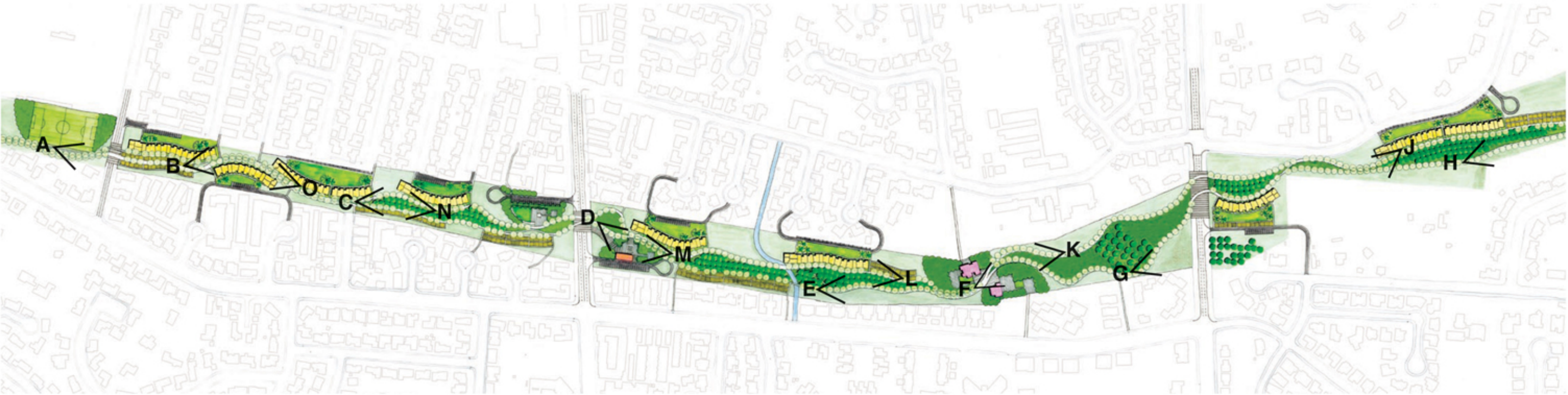


program highlights

- HOUSING UNITS
8 multi-family (5 units) + 97 single family = 137 units
- COMMUNITY GARDENS (20'x20')
137 + 48 for lease = 185 plots
- STREET PARKING
137



ILLUSTRATIONS





VISION

Nature is the strongest asset

- This vacant wedge from city edge to center is a rare gift that must be preserved in a natural condition to benefit the surrounding community.
- Native habitats will encourage species inflow from city edge, to produce a calming space full of delight for young and old.

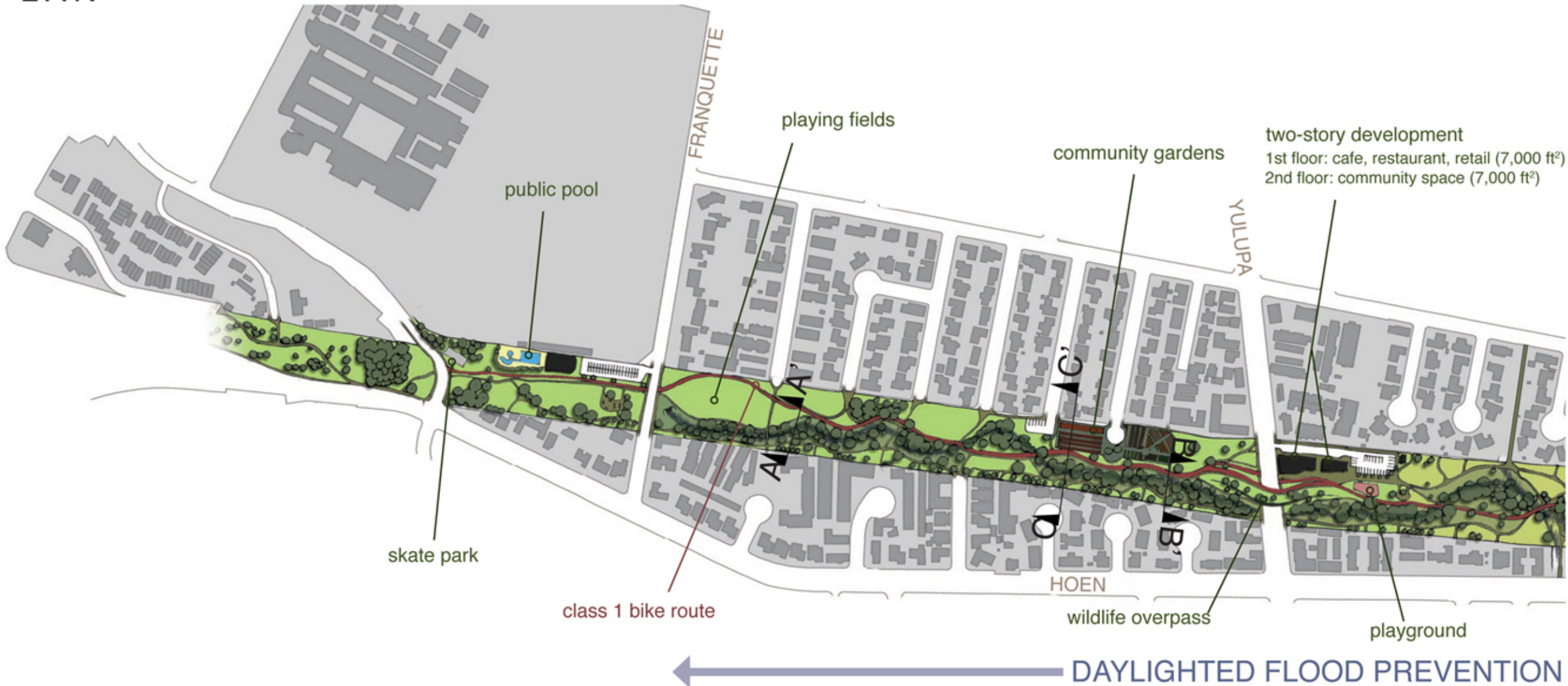
Create the best creekside walk in Sonoma County

- The mile-long creekside trail will be superior due to space afforded for pedestrians & cyclists and a bountiful canopy providing abundant shade.
- Unparalleled access to surrounding homes will ensure popularity of the facility.

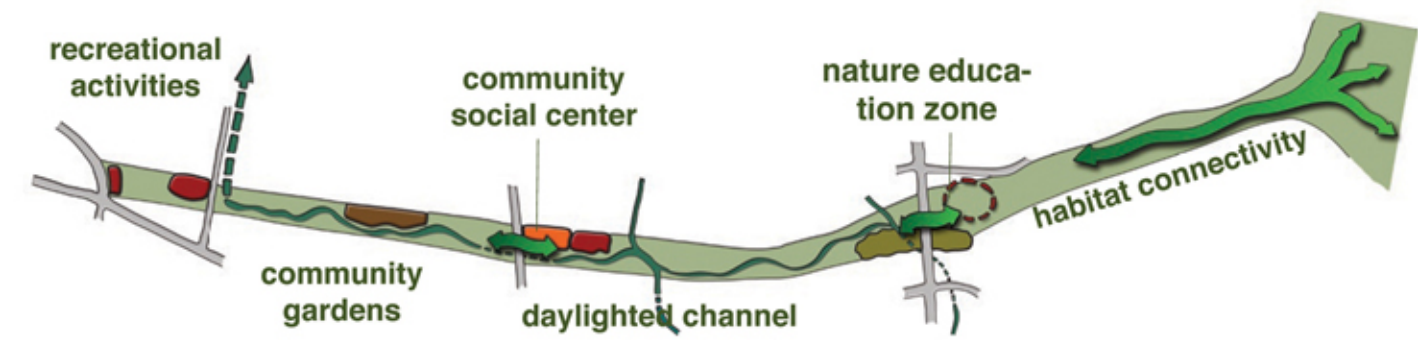
Variety of activities to keep people coming back

- For children, there will be abundant playing fields, playgrounds, the swim center, wooded areas and clearings, and a skate park.
- For adults, there will be cafés, restaurants, a communal garden, revitalized orchards, and the views from the wildlife overpasses.

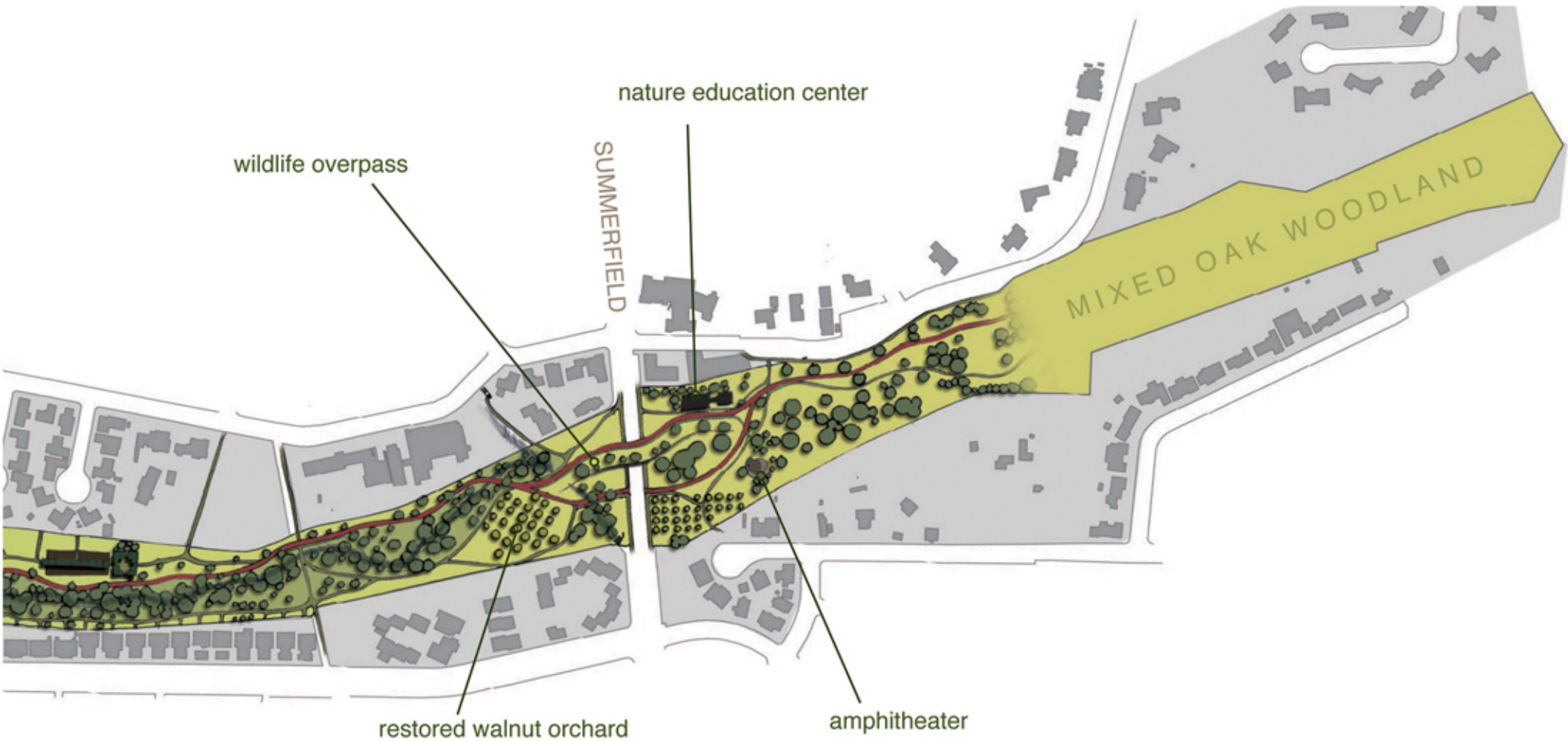
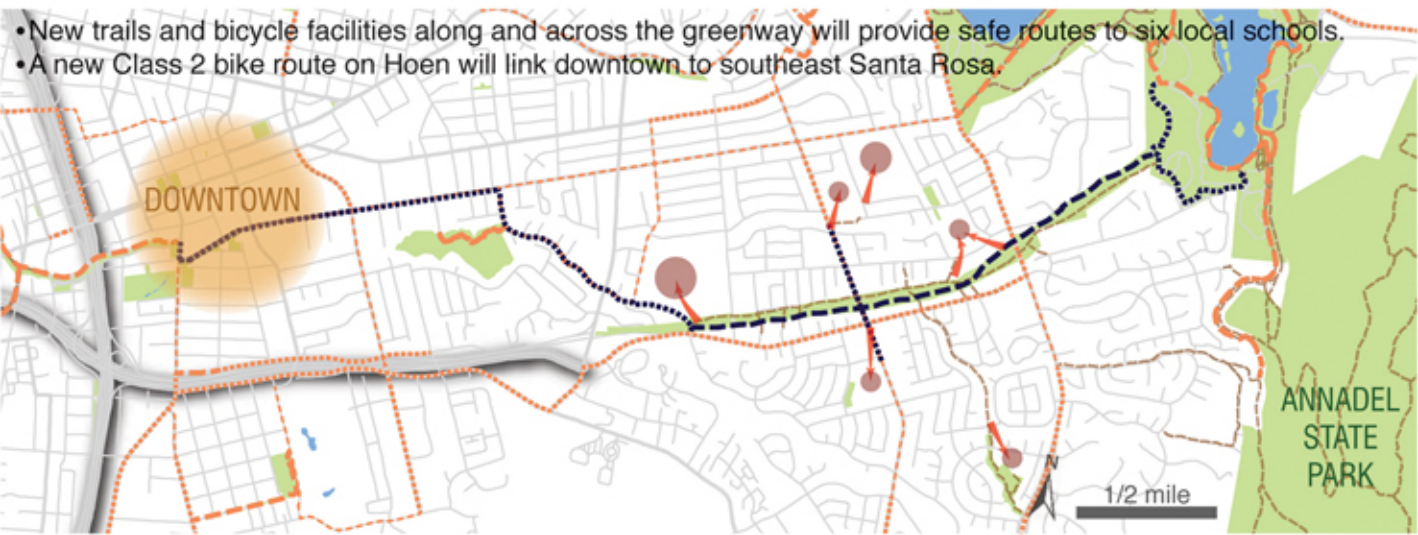
MASTER PLAN



CONCEPT PLAN



ACCESS PLAN



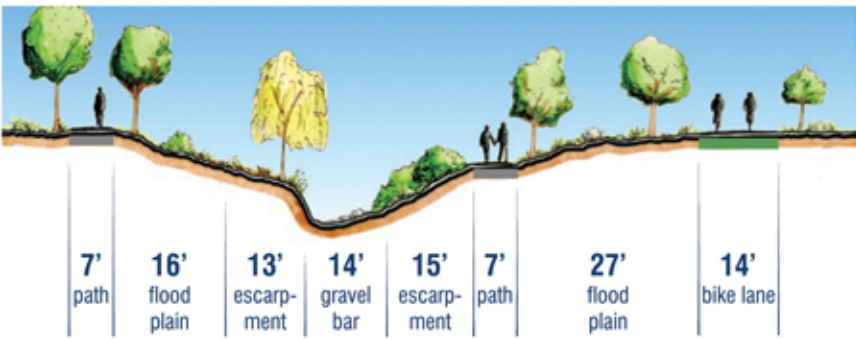
CHANNEL →

CREEK DESIGN

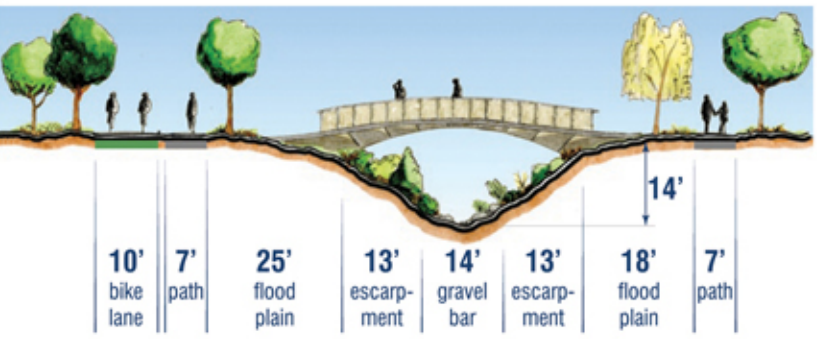


- The underground flood prevention channel will be daylighted at Summerfield and flow returned underground at Franquette.
- There are no changes in flow patterns so as not to affect scouring and flood risk at downstream locations.

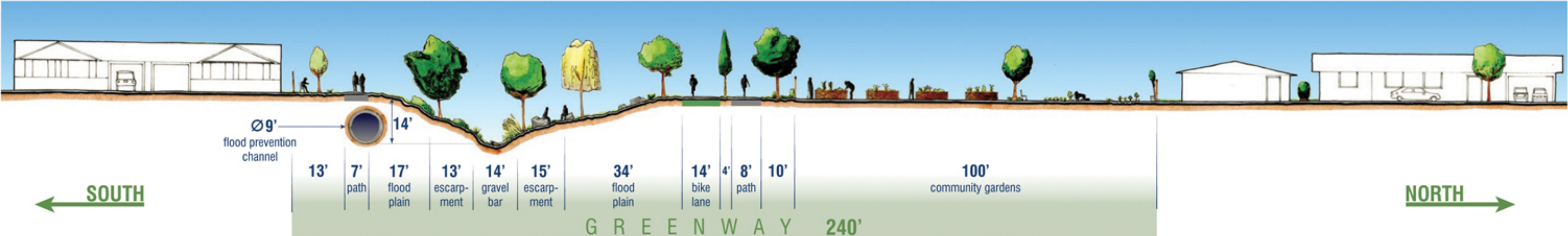
section A-A'



section B-B'

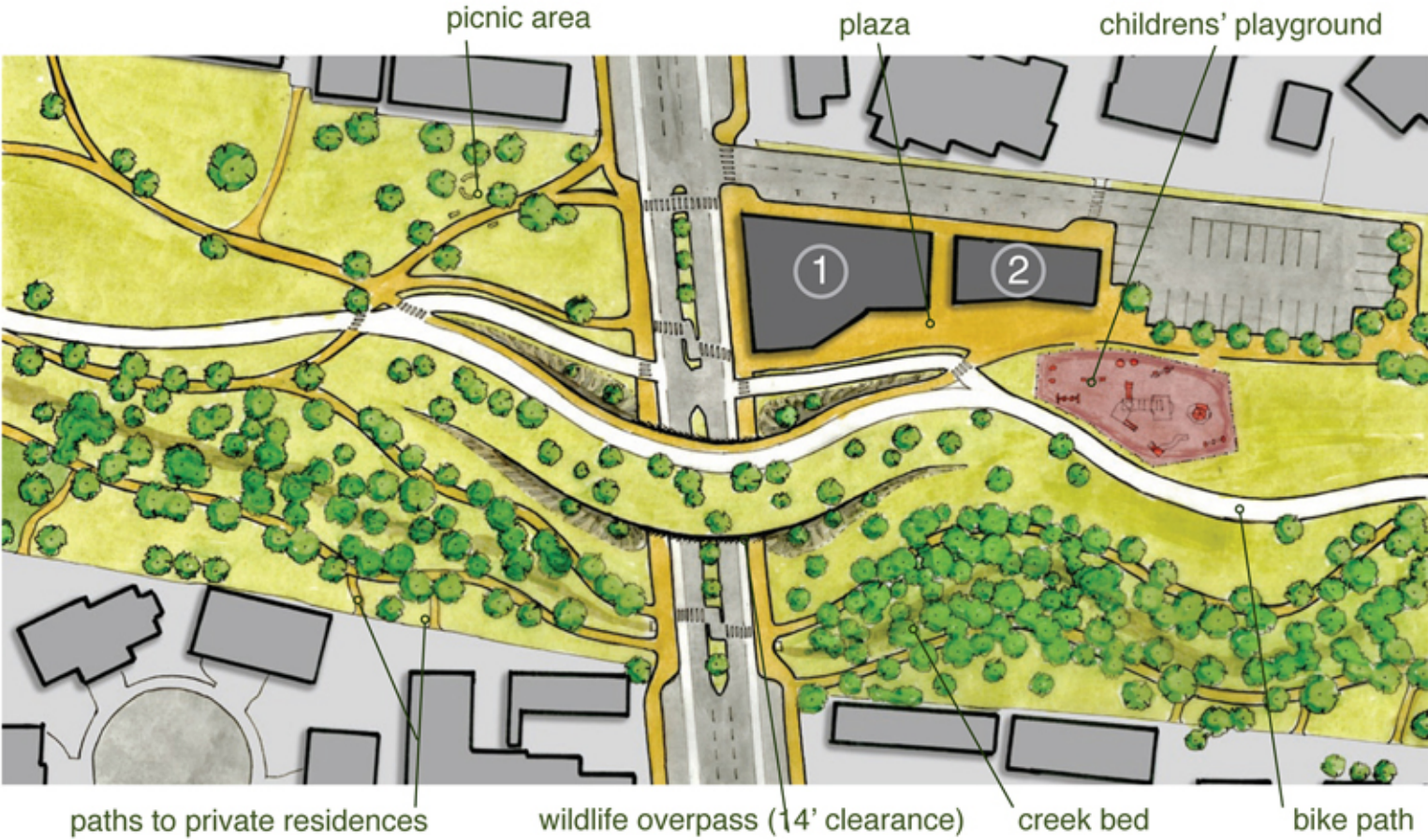


section C-C'



YULUPA CROSSING

- Two 2-story buildings are oriented around a small plaza.
- On the ground floor are cafes, shops, restaurants and a bicycle repair shop.
 - Much-needed community space is found on the second floor.



LOOKING EAST TOWARDS YULUPA



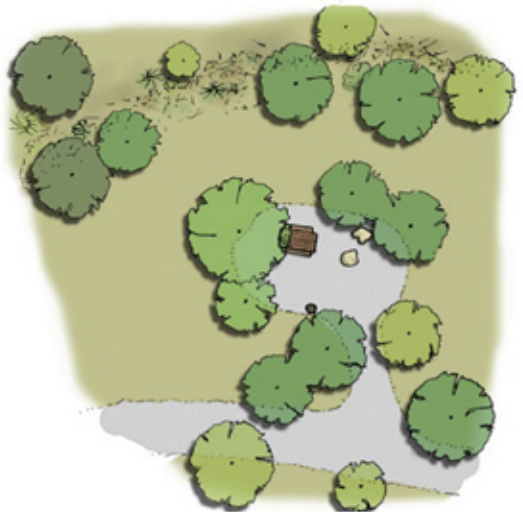
GATHERING TYPOLOGY

The greenway accommodates the full diversity of the local community through application of a typology of gathering spaces.

1-3 people
shaded // quiet // secluded



4-10 people
communal // welcoming // flexible



community
accessible // convenient // spacious



COMPACT + OPEN = LIVABLE

SEUNGYEN HONG & MEGHAN SHARP

VISION

The corridor is a diverse and vibrant community space and a catalyst for a more sustainable and livable Southeast Santa Rosa.

GOAL & PRINCIPLES

This project examines how mixed-income housing can be incorporated into the corridor while maintaining a continuous greenway, maximizing open space, and creating a focal point for adjacent neighborhoods.

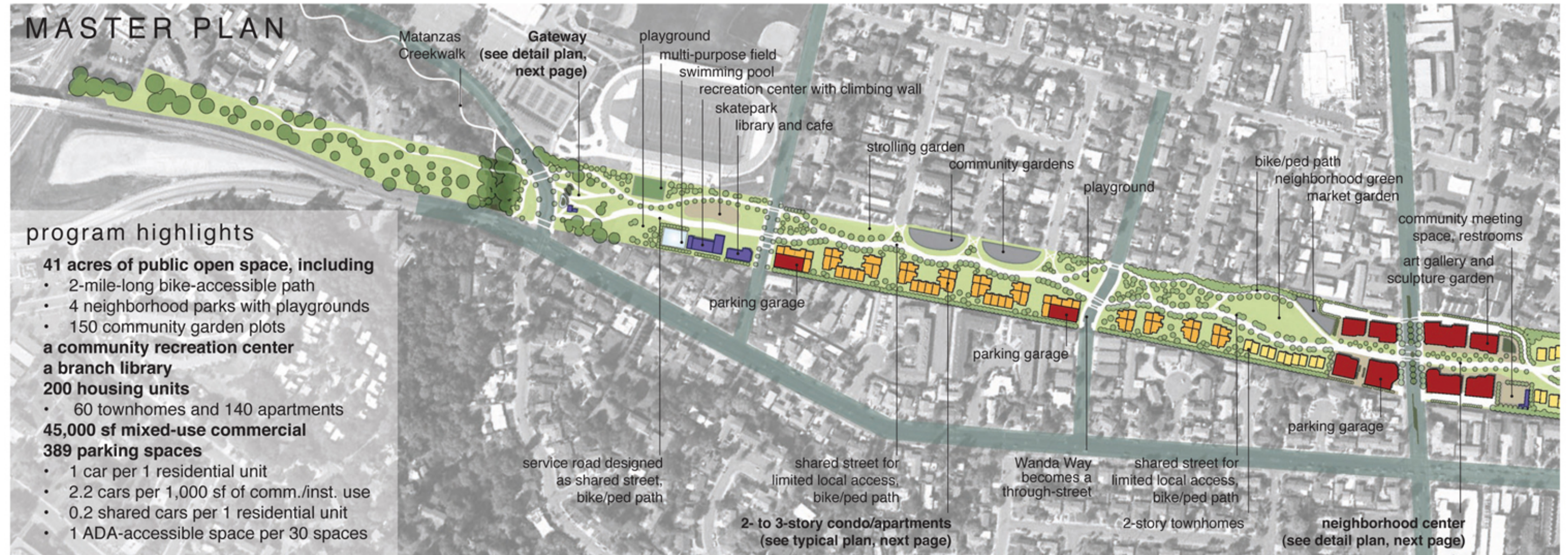
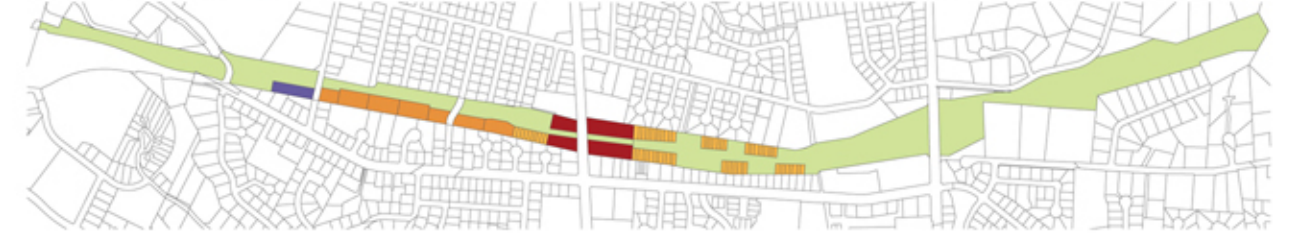
- Employ compact design to enable maximum open space for recreation and community use.
- Limit vehicle access to the greenway to shared electric vehicles; keep it carbon-free.
- Increase pedestrian and bicycle connections to support more active lifestyles.
- Create neighborhood park facilities throughout the greenway to help fill gaps.
- Locate recreational and community gathering spaces adjacent to existing institutions.

WHY COMPACT DEVELOPMENT?

200 residential units in a typical development pattern = marginal open space



200 residential units (+ other uses) in a compact development = 40+ ac. of open space



ILLUSTRATIONS

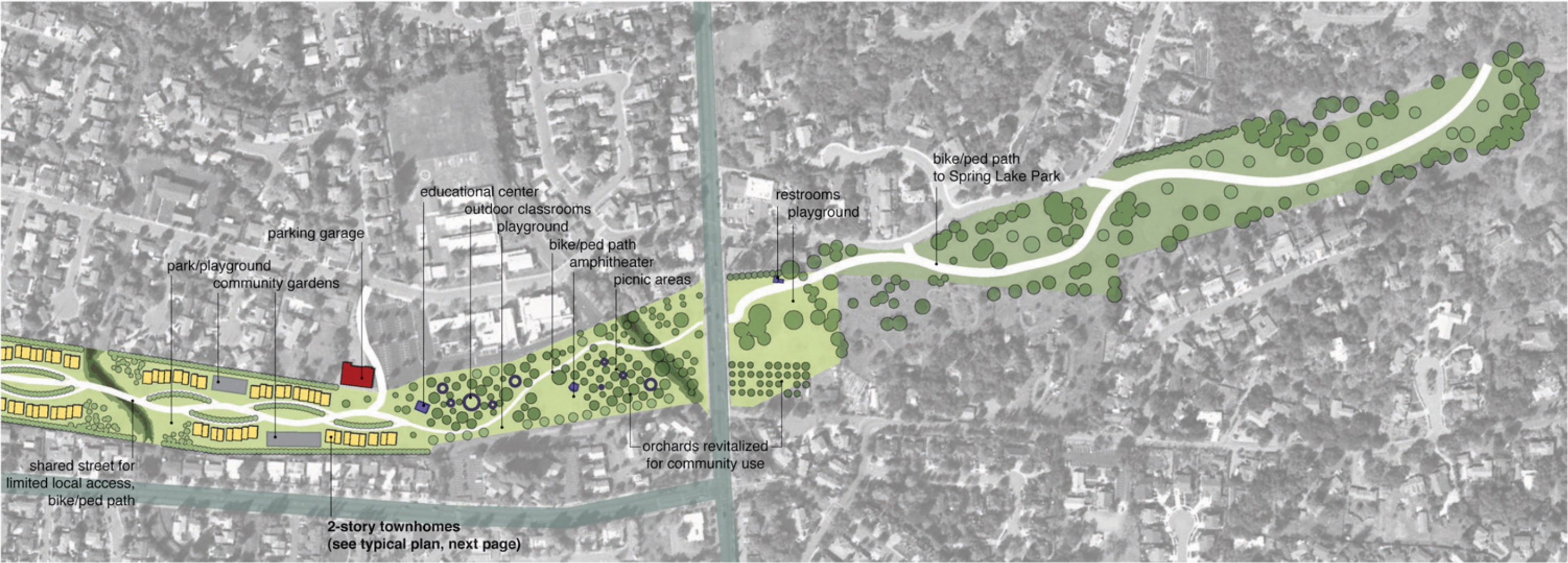
neighborhood center



matanzas creekwalk



gateway



NEIGHBORHOOD CENTER

center at yulupa ave

The greenway is centered on a centrally-located, mixed-use retail node at Yulupa Ave. This location is within walking and biking distance of most of the adjacent neighborhoods. Both surface and structured parking are included. The center offers affordable space for small shops, restaurants and businesses. It includes an art gallery with a sculpture garden, as well as a community meeting space. Market-rate apartments on the second story offset rents for locally-owned businesses below. Plaza areas feature interactive public art and water features. A garden provides fresh, seasonal produce for sale at the food market. Buildings incorporate green roofs and gray-water recycling.

gateway at hoen ave

The Gateway utilizes landscaping and sculptural structures to announce the greenway to passerby. The redesigned intersection is safer for pedestrians and cyclists, incorporating a raised pedestrian crossing and marked bike lanes and boxes. The Matanzas Creekwalk provides a scenic alternative to walking along Hoen.



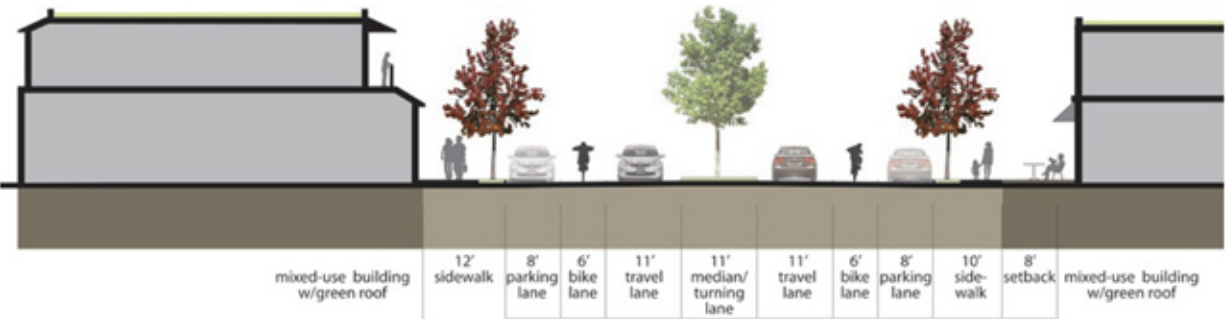
GATEWAY



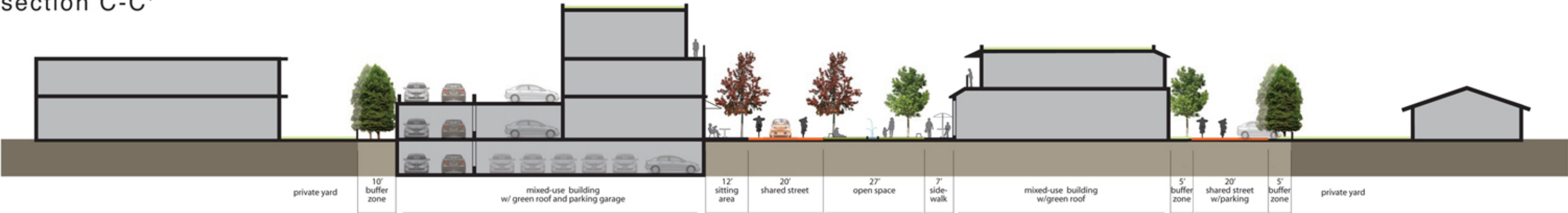
section A-A'



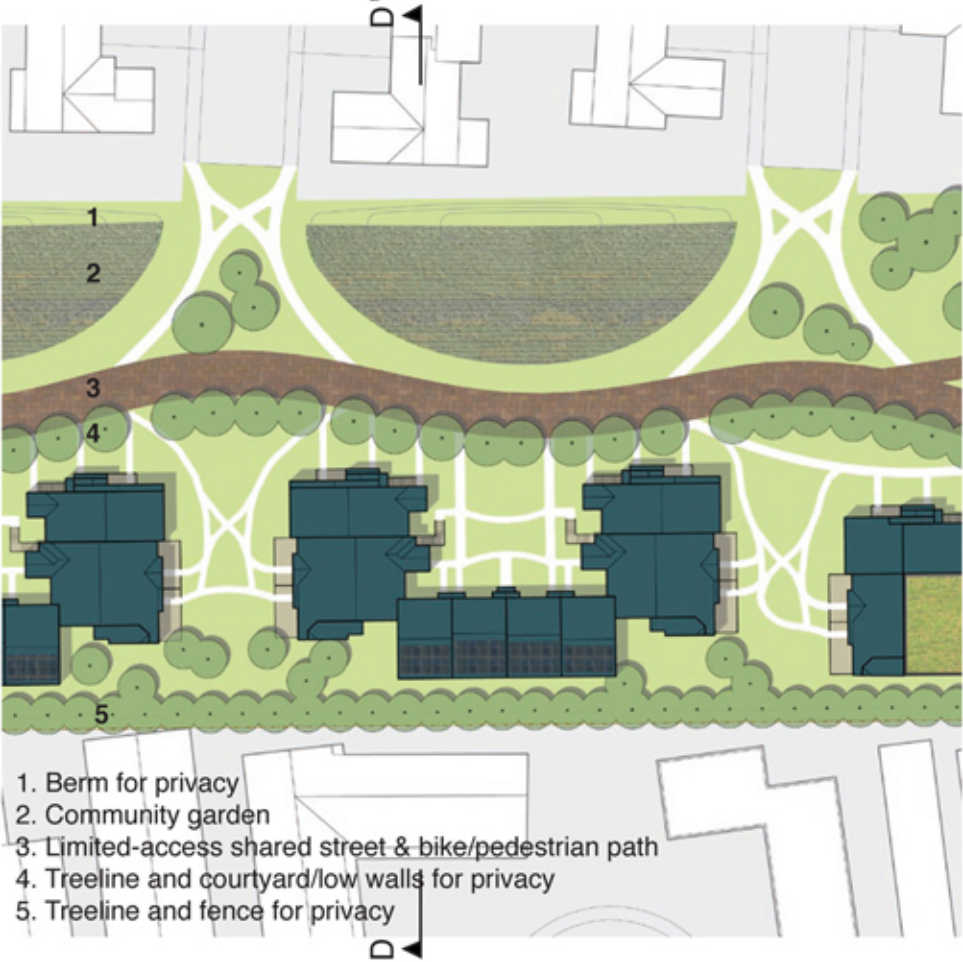
section B-B'



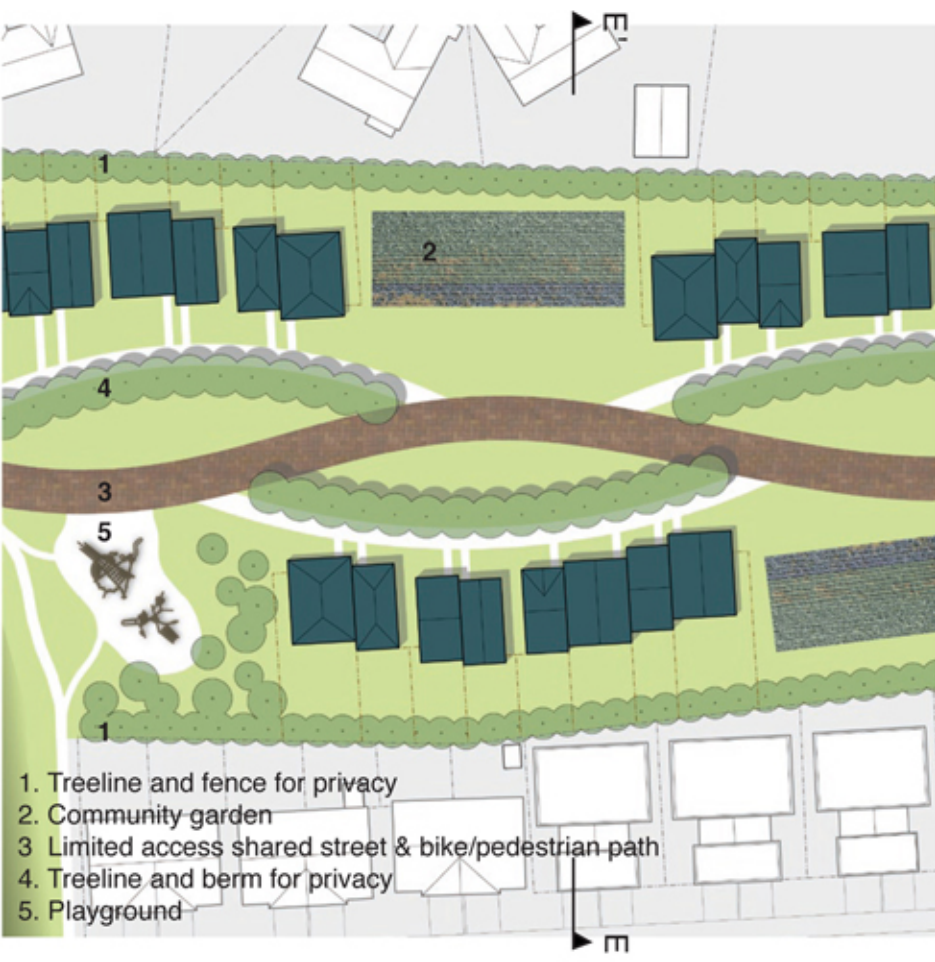
section C-C'



HOUSING TYPE 1



HOUSING TYPE 2



housing along the greenway

Two challenges face designers planning housing along a greenway: the need to delineate private and public space and the need to provide periodic vehicular access for residents. Each housing scheme in our plan addresses the need for privacy differently, based on its context (see below).

All residents of new housing along the greenway receive one parking space in nearby parking structures. When necessary, they may access the greenway via a shared street restricted to shared-use electric vehicles. This shared street also serves as the primary pedestrian and bicycle path through the greenway.

Community garden plots are available for residents along and near the greenway. All homes incorporate solar power and gray-water recycling.

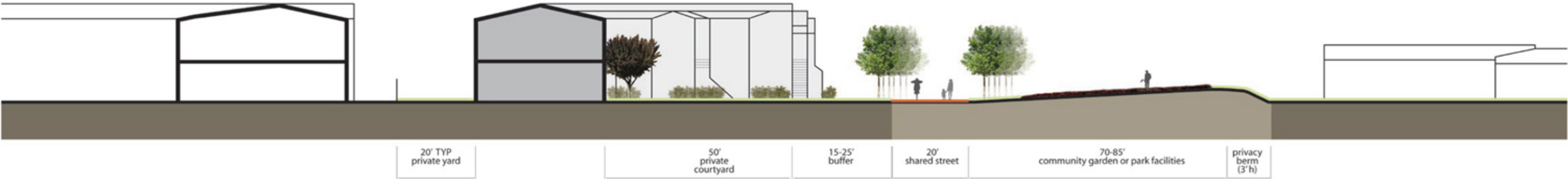
type 1: multi-family residences

Housing between Franquette and Yulupa comprises 2- to 3-story multi-family residences that include both affordable and market-rate apartments and condos. The new buildings are oriented around a courtyard and incorporate low walls, planting screens, and berms to increase privacy for residents. Berms along the north side of the greenway shield the backyards of existing adjacent residences.

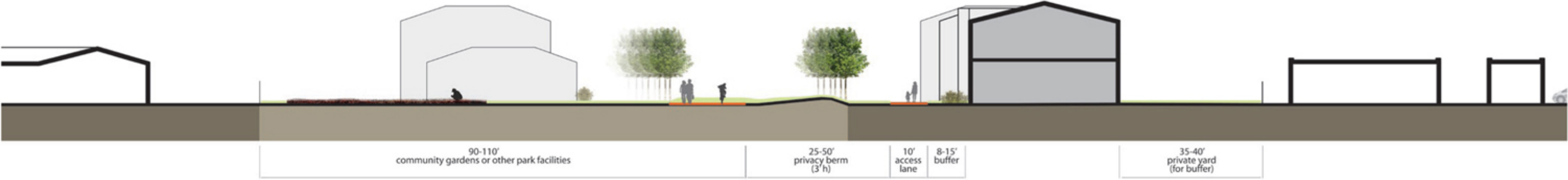
type 2: attached townhomes

Housing between Yulupa and Summerfield comprises 2-story attached townhomes at both affordable and market rates. Private walkways and berms delineate the private space of residents. Deep backyards and a tree-line create a buffer between existing residences and the new townhomes.

section D-D'



section E-E'



KEEPING THE GREENWAY GREEN

OMARI FULLER

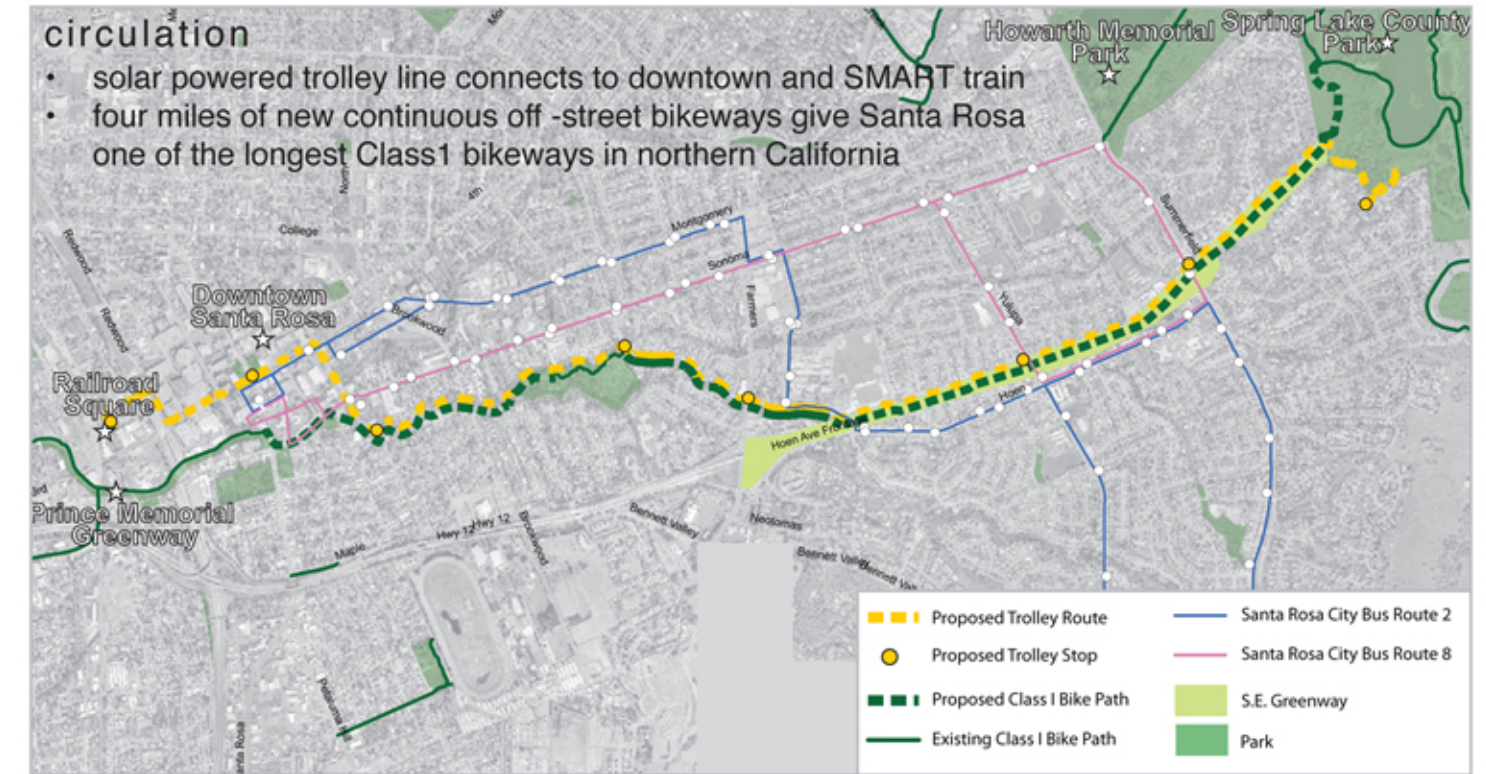
VISION

- *Preserve and restore our natural habitat*
- *Connect people to downtown, the SMART train, schools and parks with carbon-free transportation*
- *Grow profitable and educational community farms and gardens*

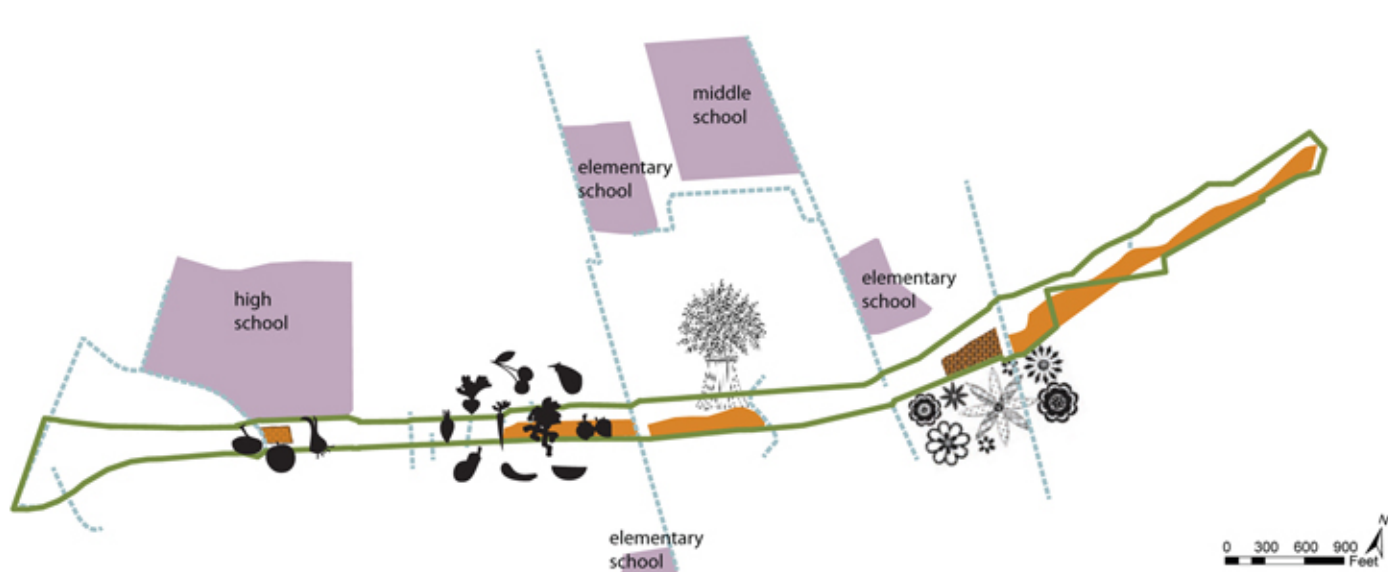
ILLUSTRATION



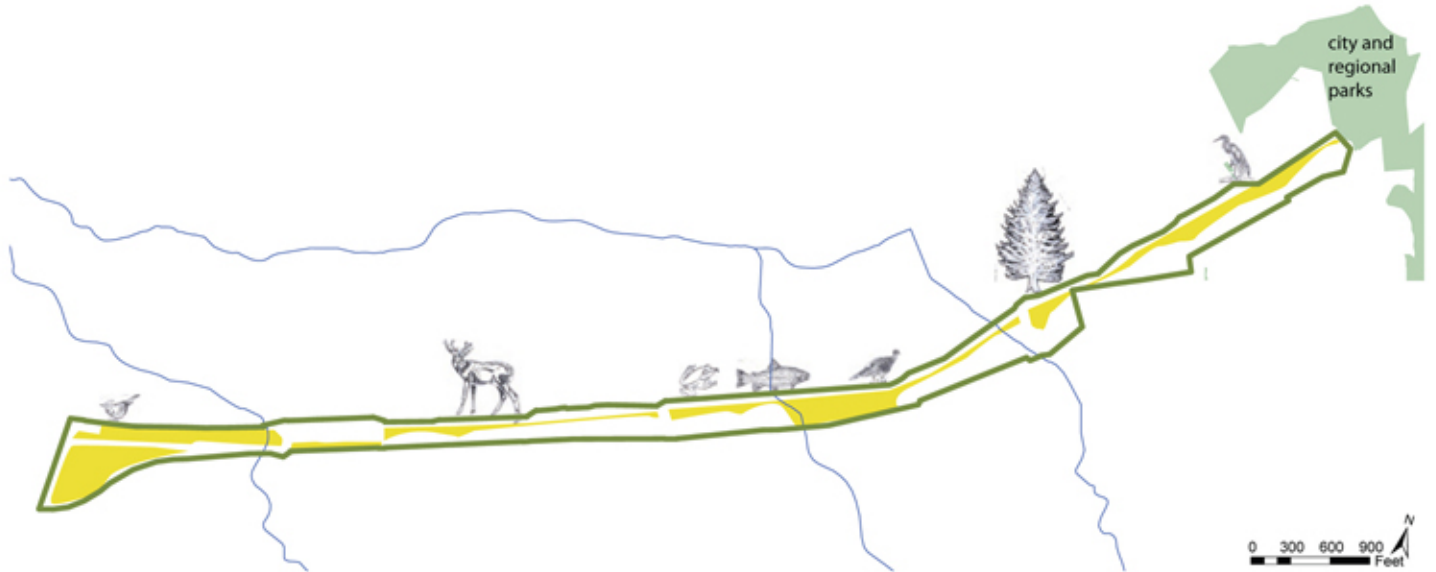
FRAMEWORK PLANS



agriculture
nearly 20 acres of ommunity- supported agriculture and farms



open space
over 24 acres of open space preserve



MASTER PLAN



SECTION ELEVATION A-A'

