SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION

THE FUTURE OF MOBILITY IN SANTA CRUZ COUNTY

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CHAPTER 1

THE NEED FOR SUSTAINABLE MOBILITY IN SANTA CRUZ COUNTY

Introduction

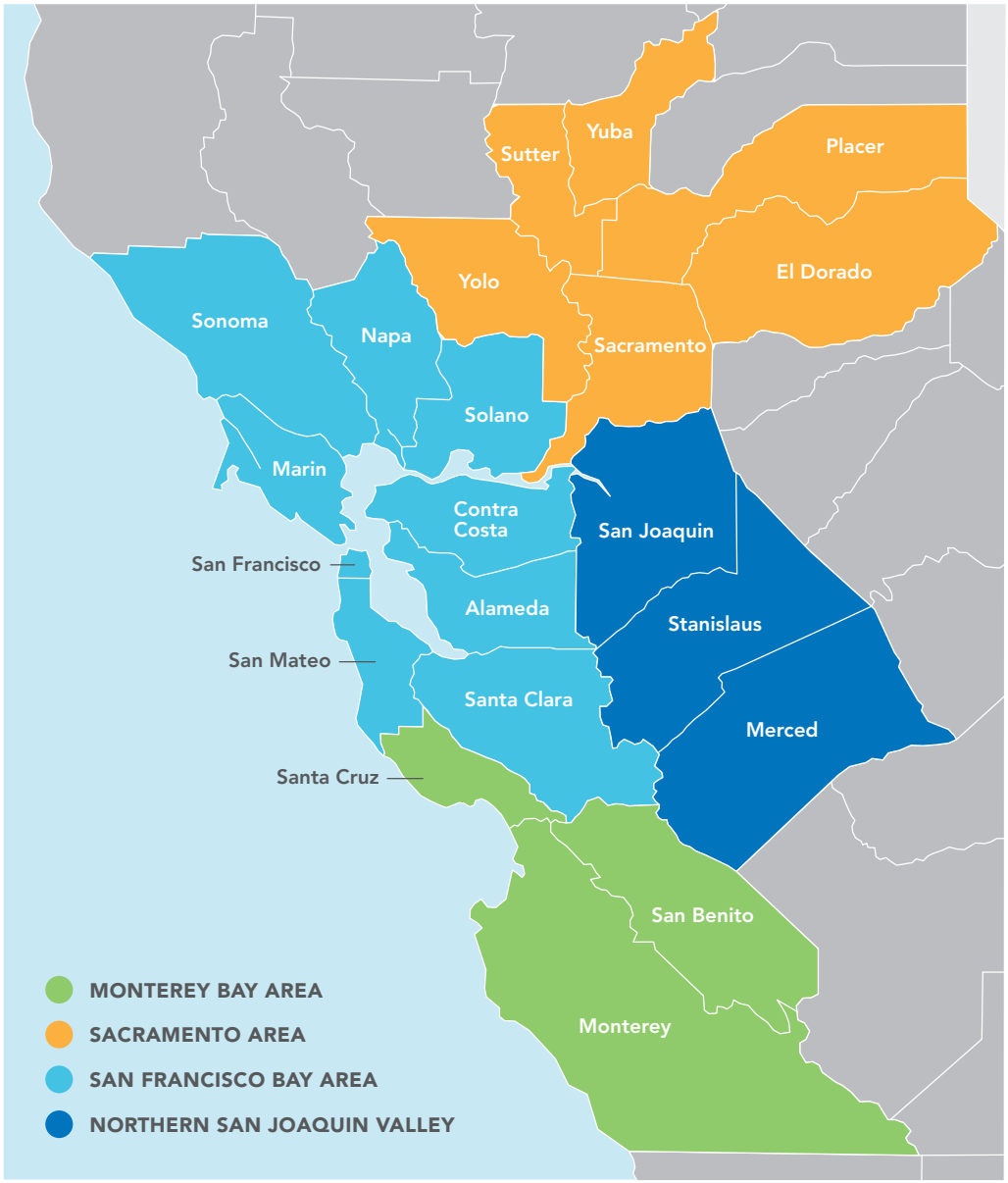
Like many communities in California, Santa Cruz County is facing a transportation crisis. Vehicle congestion has become unbearable, skyrocketing housing prices are pushing people farther and farther away from job centers and there is limited tolerance for new development. How can the community address these needs while continuing to prioritize the environment and community character? This report documents an exploration of visionary solutions to these complex problems using new mechanisms of communication in order to facilitate a truly robust and meaningful dialogue between the community and the Santa Cruz County Regional Transportation Commission.

The Regional Context

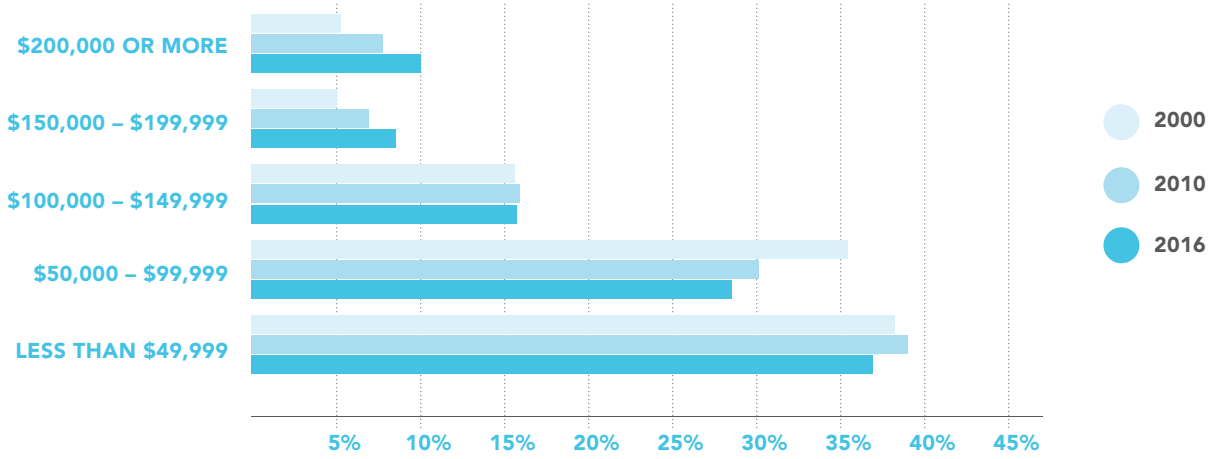
IMMENSE ECONOMIC GROWTH

The Santa Cruz County economy is largely driven by tourism, education, healthcare and agriculture. However, it is also shaped and impacted by broad regional economic forces in nearby Silicon Valley. Fueled largely by technology, start-ups and health care, the recent years since the Great Recession have brought immense economic growth to the San Francisco Bay Area and the Northern California megaregion. Almost half of Santa Cruz County's resident workforce commutes outside of the county for employment and the county labor market also imports many workers from elsewhere. These dynamics are explained by a thriving economy which has created competitive labor conditions and robust household income. The strong economic profile in nearby Silicon Valley also presents critical challenges that directly impact Santa Cruz County, namely high housing costs and vehicle congestion.

NORTHERN CALIFORNIA MEGAREGION MAP



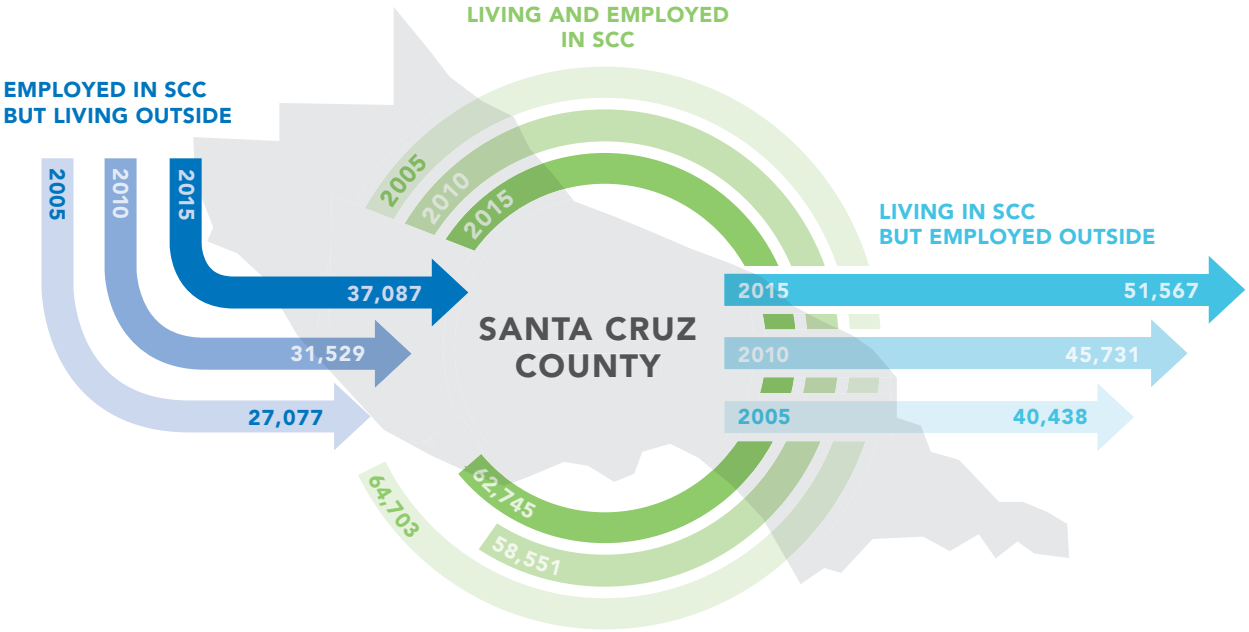
SANTA CRUZ COUNTY HOUSEHOLD INCOME (2000, 2010, 2016)



Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates. Table S1901.

The percentage of households earning higher income has increased over the years while the percentage of low income households has decreased.

EMPLOYEE INFLOW/OUTFLOW ANALYSIS



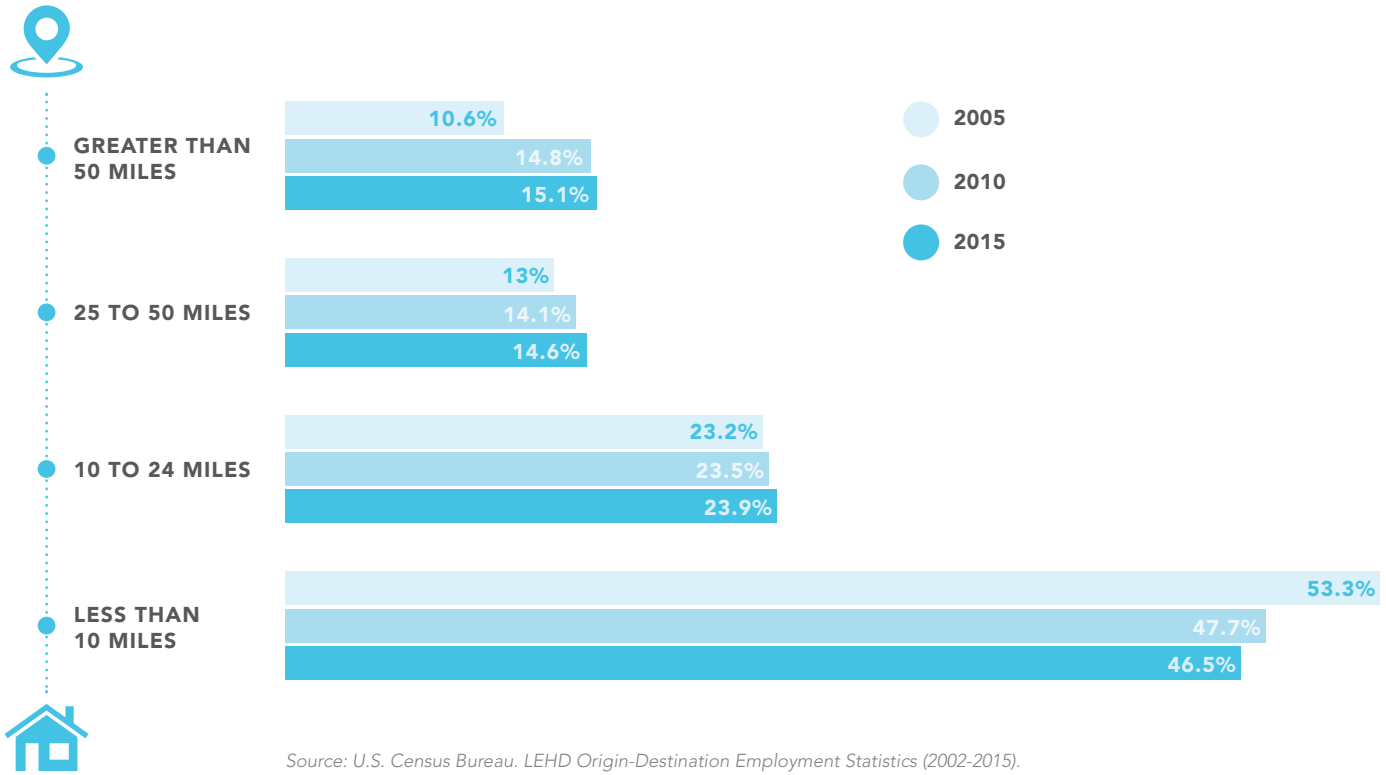
Source: U.S. Census Bureau. LEHD Origin-Destination Employment Statistics (2002-2015).

The number of people who live in Santa Cruz County and commute outside of the county for work has steadily been increasing as has the number of people commuting into the county.

UNMET HOUSING DEMAND

An accelerating and key challenge caused by the regional economic boom has been a well-documented and exceptionally high cost of living. High demand for housing, especially near job centers, coupled with a lag in production has resulted in some of the highest housing costs in the nation. The extraordinary pressure on housing costs has, in turn, prompted individuals and families to travel longer distances in search of less expensive housing opportunities. The largest employers within the county are located on the northern end while the only semi-affordable housing is located on the far southern end of the county creating a pronounced north-south commute pattern. And as evidenced by the morning and evening congestion on Highway 17 and Highway 1, Santa Cruz County's proximity to the Silicon Valley has made the county an attractive part of the regional commute shed.

COMMUTING DISTANCES



Source: U.S. Census Bureau. LEHD Origin-Destination Employment Statistics (2002-2015).

TRAFFIC CONGESTION SANTA CRUZ COUNTY

The expansion of the commute shed further and further south from Silicon Valley into Santa Cruz and even Monterey counties has exacerbated traffic congestion, which was already growing due to the housing crisis experienced at a local level by the county's workforce. The county's roadway network— built decades ago—has geographic constraints that prevent the development of any new cross-county roadway routes. The Santa Cruz Mountains surround the northern and eastern ends of the county and are a highly valued natural resource that could not accommodate new highways, neither pragmatically nor politically. To the west, lies the Pacific Ocean. Additionally, the county has many sloughs, creeks and rivers that create natural barriers to new roadway connections. Besides the Soquel/Freedom arterial, Highway 1 is the only viable north/south cross-county option for automobiles. For this reason, the Regional Transportation Commission has been investing research, planning and project delivery resources in transportation alternatives to single-occupancy vehicle trips including public transit, ridesharing and active transportation investments.

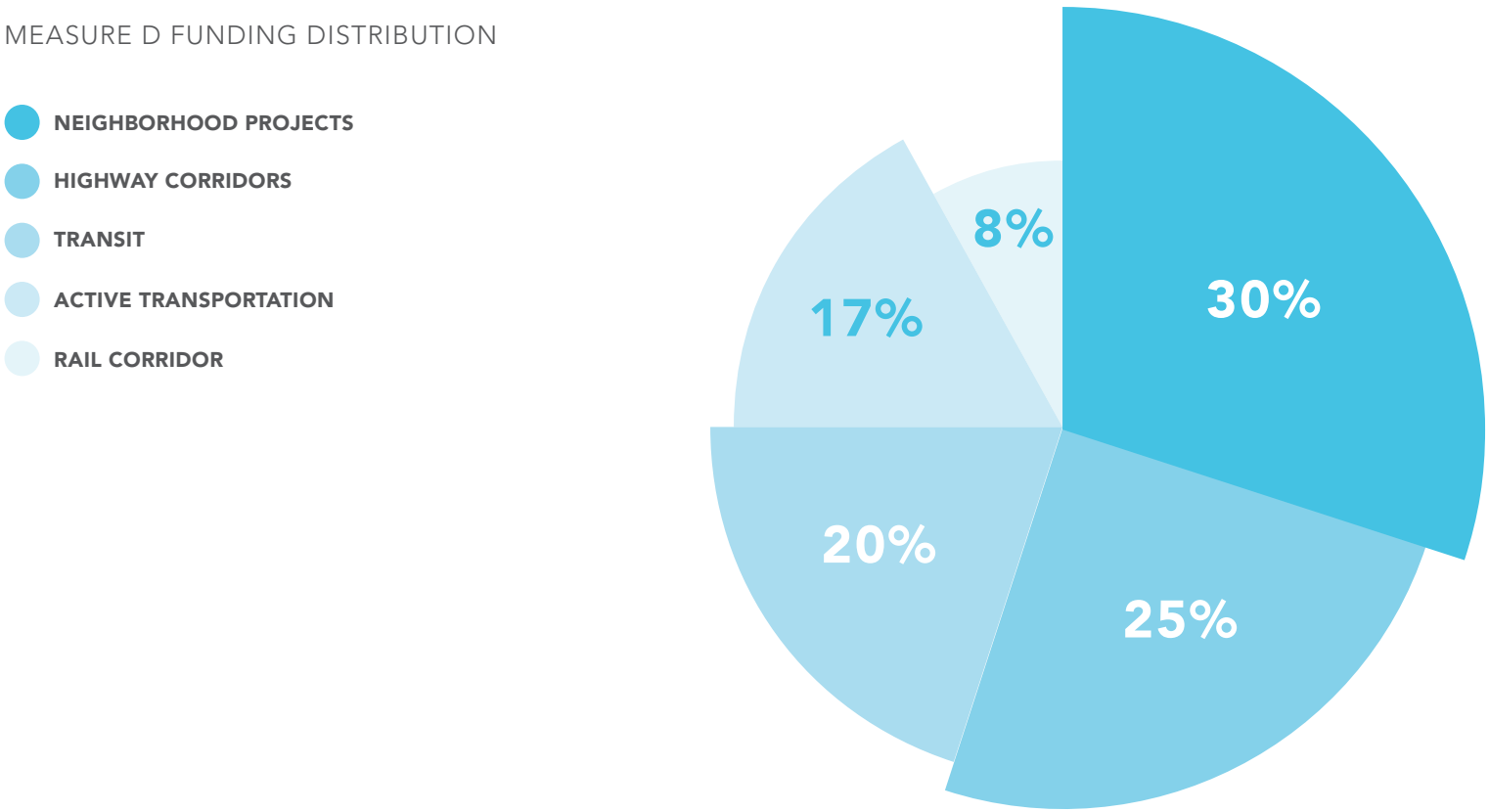
SCCRTC AND LOCAL PARTNERS ARE FOCUSING ON STUDYING KEY CORRIDORS, AREAS, AND TRANSPORTATION NODES TO CONSIDER HOW A RANGE OF MOBILITY IMPROVEMENTS CAN BEST IMPROVE THE OVERALL TRANSPORTATION NETWORK.

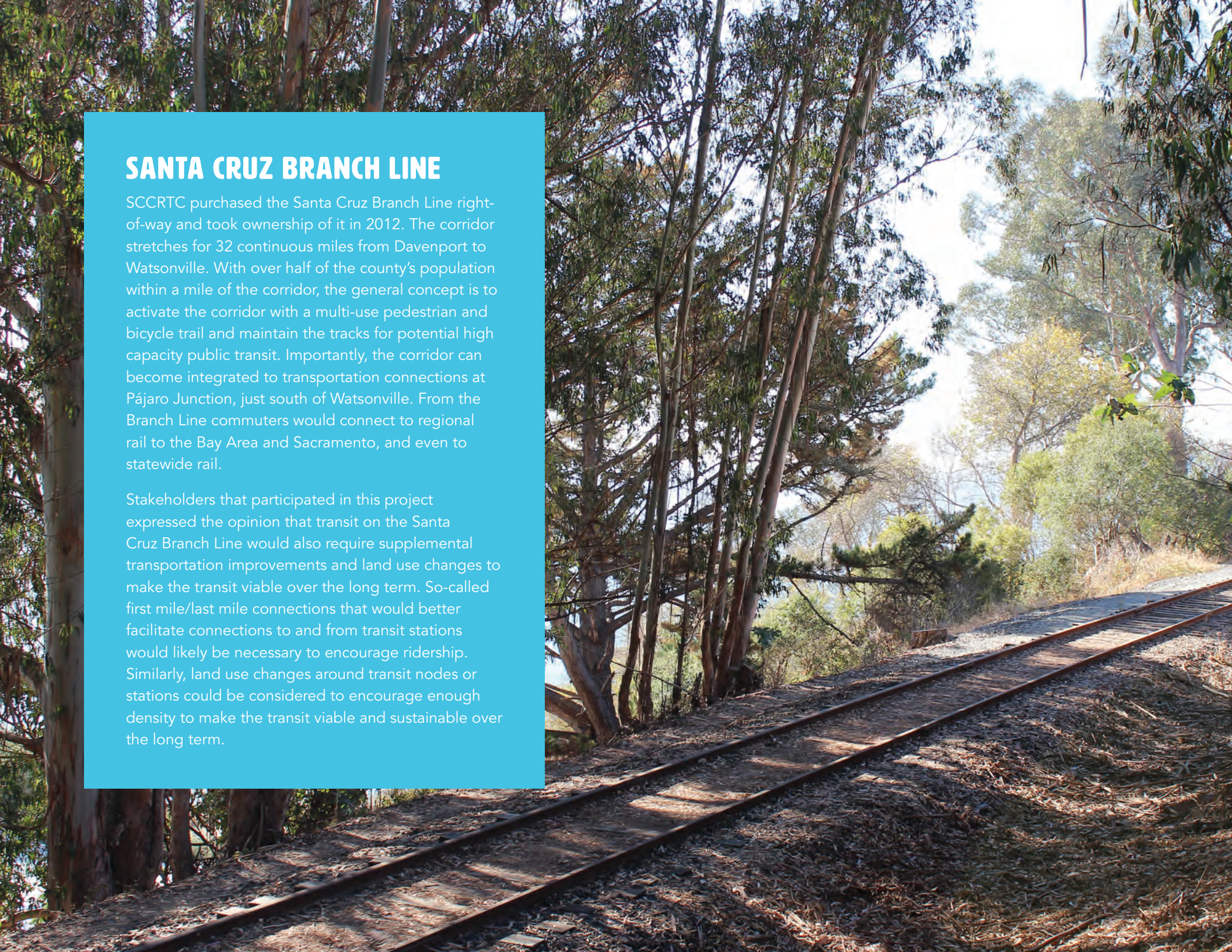
Viable Mobility Corridors

AN IMPETUS FOR TRANSPORTATION IMPROVEMENTS

The passage of Measure D in 2016 with over 2/3 of Santa Cruz County voters provided a ½ cent sales tax to guarantee a direct and steady source of funding for transportation improvements throughout the county. To that end, SCCRTC and local partners have focused their attention on studying key corridors/areas/transportation nodes to consider how a range of mobility improvements – including auto, transit, and active transportation options – can best work together to improve the overall transportation network throughout the county. These include the following north/south corridors that could viably become the backbone of an integrated mobility network in Santa Cruz County.

MEASURE D FUNDING DISTRIBUTION



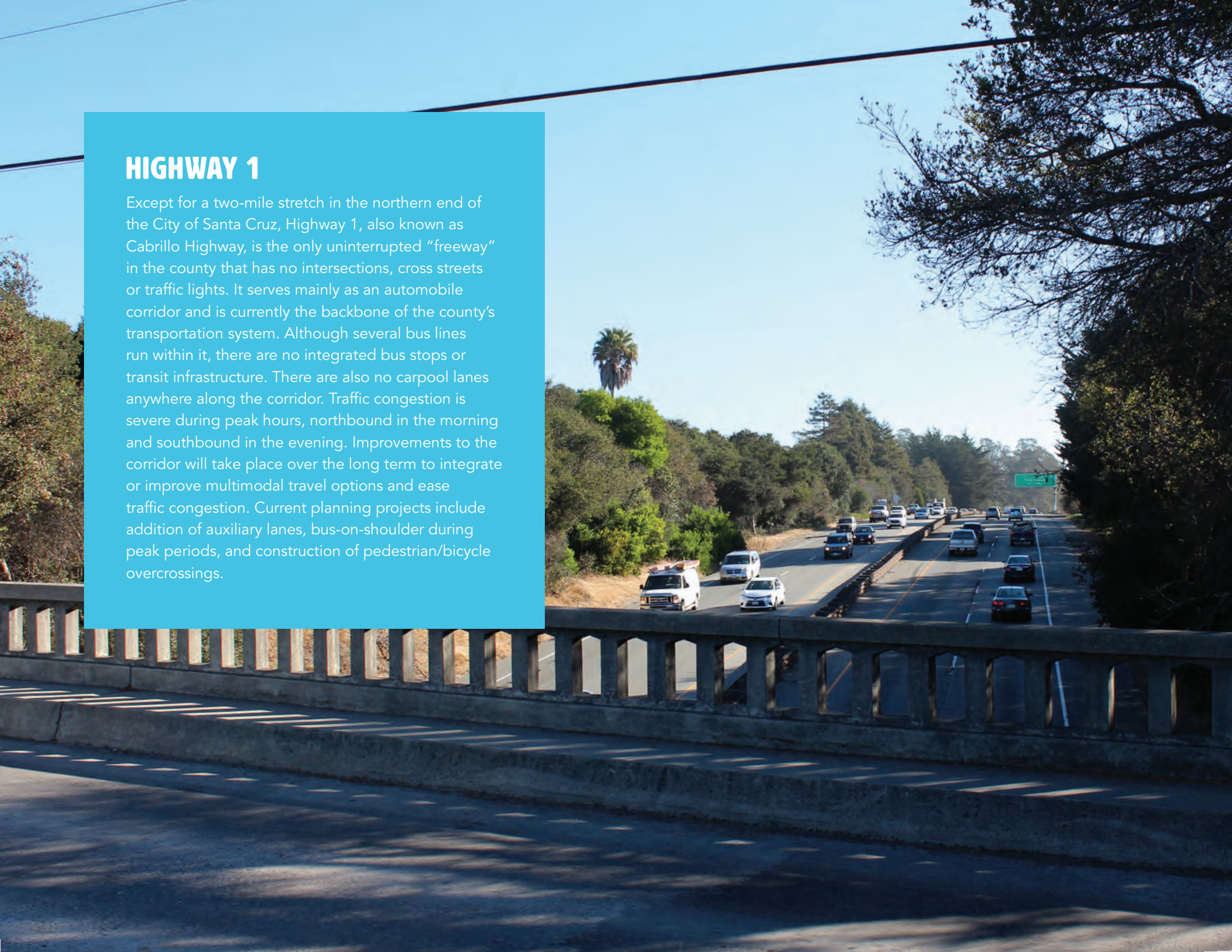


SANTA CRUZ BRANCH LINE

SCCRTC purchased the Santa Cruz Branch Line right-of-way and took ownership of it in 2012. The corridor stretches for 32 continuous miles from Davenport to Watsonville. With over half of the county's population within a mile of the corridor, the general concept is to activate the corridor with a multi-use pedestrian and bicycle trail and maintain the tracks for potential high capacity public transit. Importantly, the corridor can become integrated to transportation connections at Pájaro Junction, just south of Watsonville. From the Branch Line commuters would connect to regional rail to the Bay Area and Sacramento, and even to statewide rail.

Stakeholders that participated in this project expressed the opinion that transit on the Santa Cruz Branch Line would also require supplemental transportation improvements and land use changes to make the transit viable over the long term. So-called first mile/last mile connections that would better facilitate connections to and from transit stations would likely be necessary to encourage ridership. Similarly, land use changes around transit nodes or stations could be considered to encourage enough density to make the transit viable and sustainable over the long term.

MAP WITH POTENTIAL REGIONAL TRANSIT CONNECTIONS



HIGHWAY 1

Except for a two-mile stretch in the northern end of the City of Santa Cruz, Highway 1, also known as Cabrillo Highway, is the only uninterrupted "freeway" in the county that has no intersections, cross streets or traffic lights. It serves mainly as an automobile corridor and is currently the backbone of the county's transportation system. Although several bus lines run within it, there are no integrated bus stops or transit infrastructure. There are also no carpool lanes anywhere along the corridor. Traffic congestion is severe during peak hours, northbound in the morning and southbound in the evening. Improvements to the corridor will take place over the long term to integrate or improve multimodal travel options and ease traffic congestion. Current planning projects include addition of auxiliary lanes, bus-on-shoulder during peak periods, and construction of pedestrian/bicycle overcrossings.

BUS-ON-SHOULDER EXAMPLE FROM THE STATE OF WASHINGTON

SOQUEL AVE-DRIVE/ FREEDOM DRIVE

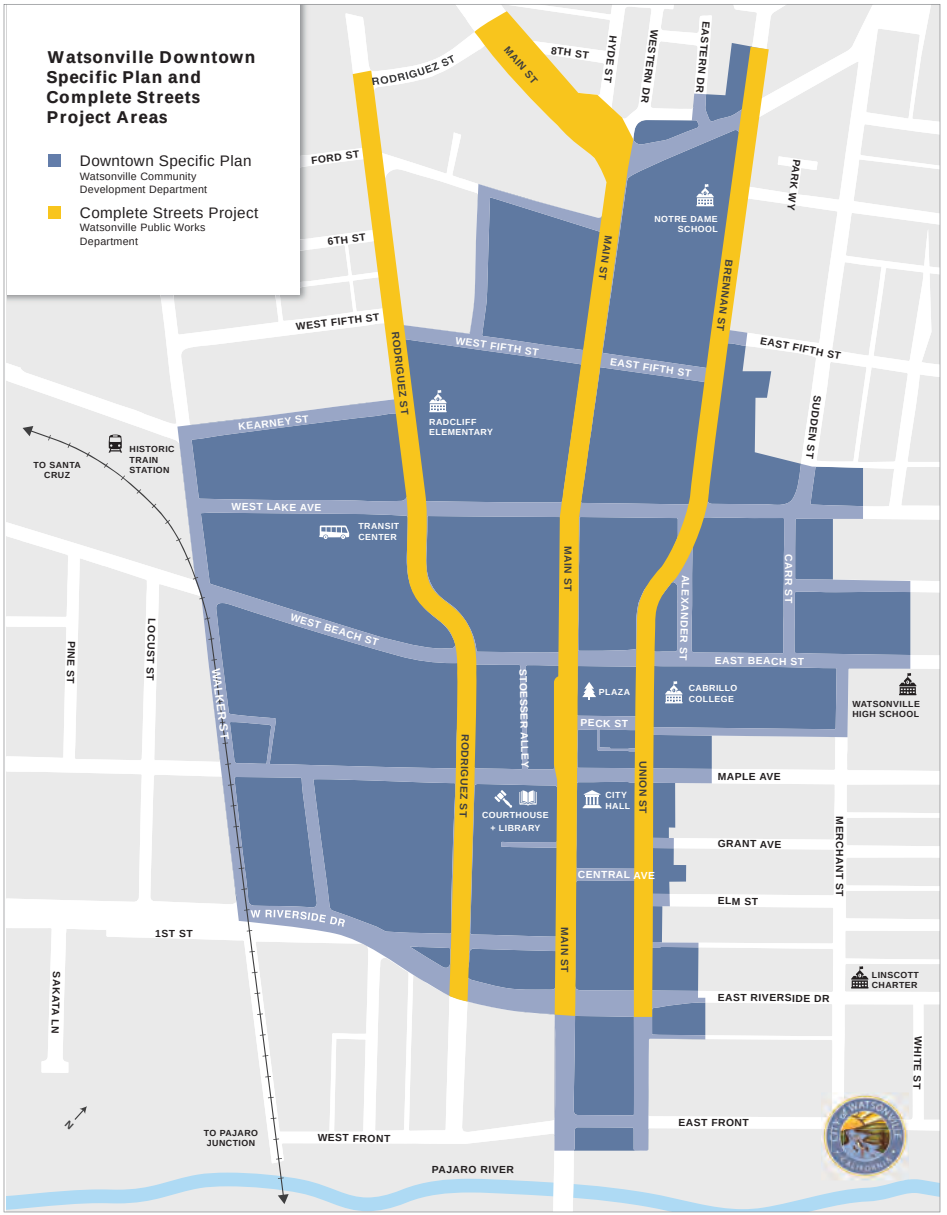
Soquel Avenue/Drive and Freedom Drive form another heavily traveled corridor that also cuts across a large portion of the county. This route is an arterial roadway adjacent to neighborhoods, schools, business districts and parks, limiting expansion of lanes and/or rates of speed. Improvement of the corridor is likely to be made through improved transit service and integration of active mobility amenities and safety features.


71 CLIFFORD

DOWNTOWN WATSONVILLE

The City of Watsonville is undertaking transportation and land use planning projects in Downtown along Main Street from Freedom Boulevard to the Pájaro River with the purpose of implementing "complete streets" strategies. These improvements are aimed at making Downtown Watsonville safer for all modes and improving the mobility of pedestrians, bicycles, and transit. The historic Watsonville train station at Beach Street would likely be a key node for any future transit system, effectively transforming the area into a transportation hub for the South County. In addition to the mobility enhancements, a critical goal of the planning efforts is to infuse social and economic vitality to the downtown area. These planning efforts present a transformational opportunity since the station and transit can become catalysts of development for adjacent land uses.

MAP OF THE WATSONVILLE STUDY AREA(S)




2813
CAUTION WIDE TURNS


KEEP
RIGHT

CHAPTER 2

A COMMUNITY DIALOGUE ABOUT MOBILITY

An Outreach Approach Across Perspectives

The mobility challenges facing Santa Cruz County residents and visitors are substantial. Highway 1 congestion starts earlier than ever and ends much later in the evening. The transit agency has struggled financially resulting in a reduction of service and the service that is provided is bogged down in the same traffic that everyone else is stuck in due to a lack of dedicated facilities. Just about everyone must contend with traveling around the county daily; commuting to work, getting to class, dropping of the kids for activities, or delivering goods and services. Community members are experts in their own mobility, they know firsthand the bottlenecks and pinch-points of their route. They have a keen sense of how potential solutions could work and can provide a viable basis for crowdsourced ideas about transportation modes, land use scenarios, and the overarching vision for mobility in Santa Cruz County.

AN ENGAGED COMMUNITY IS MORE LIKELY TO SUPPORT AND INCITE INCREASED USE OF SUSTAINABLE MOBILITY CHOICES AND ACTIVE TRANSPORTATION. OUTREACH IN THE COMMUNITY FOR THIS PROJECT WAS BOTH BROAD AND DEEP.

AUTHENTIC DIALOGUE

Efforts to involve stakeholders and members of the public spanned different areas of the county, included input across ages and from different industries in order to understand concerns and a variety of perspectives.

Santa Cruz County communities are experiencing growth within constrained land boundaries and there are concerns about preserving open space and natural resources, which often lead to community apprehension of change. A key outreach principle therefore has been to seek authentic dialogue rooted in planning research and data, about planning concepts for a future that considers growth. The county is slow growing, but nevertheless is anticipated to continue growing. An honest dialogue about how we can accommodate that growth rather than be fearful of it will lead to solutions rather than continued lack of infrastructure and mobility options. Community awareness of the connection between transportation, land use and economic growth help ground these conversations.

VISUALIZING SOLUTIONS

Outreach led to the development of rich graphics and realistic visualizations. The resulting images offered community members with varying planning knowledge a common point of reference and helped focus the community conversation on potential investments, and the potential vitality those investments can generate for the surrounding areas.

Stakeholder Groups

Gathering community intelligence and generating feedback about potential solutions is a critical step in making headway on the mobility challenges in Santa Cruz County. Residents, visitors, businesses, school officials, will each have a unique perspective. To understand those perspectives, outreach was conducted to identify groups that could share concerns and ideas representative of their constituencies. Groups with a planning and transportation focus were involved, but a specific effort was also made to reach other groups not typically involved transportation-related planning discussions.

AGENCY PARTNERS

Multiple layers of coordination are necessary to develop a fully integrated and coordinated mobility system. Agency partners at all levels are part of an ongoing regional discussion to improve and fund transportation infrastructure and mobility systems in the county. Outreach for this project to these partners included Cities of Santa Cruz, Watsonville, the County of Santa Cruz, Caltrans, and Santa Cruz Metro Transit District.

BUSINESS AND ECONOMIC DEVELOPMENT GROUPS

The transportation system in the county is the backbone of the regional economy. There are a variety of mobility needs affecting economic opportunities that should be considered including goods movement and access to employment. The county's strong tourism and recreation profile generates both commuter travel for people working in the service industry as well as substantial visitor travel. Outreach included business and tourism representatives.

HOUSING LEADERS

Housing is a critical issue in the county. Housing solutions are inextricably linked to transportation solutions. The experience of other regions suggests that viable active mobility systems thrive when residents are in convenient proximity to jobs. Outreach included developers, affordable housing companies, and advocates.

SCHOOLS AND YOUTH

Safe and effective active mobility options would have a tremendous benefit for students and young people. Regardless of whether students are old enough to drive, increasingly many are choosing and seeking alternative options. The support of youth and their adoption of any active transportation system will be an integral component to its success. Outreach included University of California Santa Cruz, local high schools, and youth groups.

BIKE ADVOCATES AND GROUPS

PEDESTRIAN ADVOCATES

FAITH-BASED ORGANIZATIONS

TOURISM ORGANIZATIONS

FOOD AND AGRICULTURAL ORGANIZATIONS

NEIGHBORHOOD ASSOCIATIONS

EMERGENCY AND SOCIAL SERVICES

NEWS AND MEDIA OUTLETS

COMMUNITY GROUPS

Neighborhood and advocacy groups have a deep understanding of the communities they are grounded in. These groups are a critical link to underserved communities that are often not involved in transportation policy making decisions, despite bearing disproportionate impacts from those decisions. They offer windows into their constituencies and often effectively synthesize their needs and concerns. Outreach efforts leveraged the existing social capital and networks of local community leaders and groups, thereby engaging a wider range of the community.

Checking in with Community Leaders: Stakeholder Interviews

At the onset of the community engagement effort, stakeholder interviews were conducted with key individuals within seven major categories; political leadership, tourism and business, real estate and economic development, education and youth, sustainable transportation and environmental advocates, and transit. They shared guidance and a critical understanding of the transportation issues impacting Santa Cruz County. Their input was categorized into an assessment of current conditions, key messages for the community, incentives for encouraging use, and keys to a successful sustainable transportation system.

Stakeholder Assessment of Transportation in Santa Cruz County

CAR DEPENDENCY

Santa Cruz County is car-dependent, and the traffic congestion issue is growing worse every year, specifically a south-north morning commute/north-south evening commute.

LACKING TRANSIT

The existing public transportation system has limited routes and is lacking in reliability, time of travel, frequency.

AFFORDABILITY CRISIS

The underlying issue is a jobs/housing imbalance with people moving longer distances to more affordable locations in the South County and beyond.

THE IMPACT ON QUALITY OF LIFE

Traffic congestion was framed as a quality of life issue for those enduring long commutes since there are unknown yet likely deep social repercussions on individuals and their families resulting from extended hours apart.

LINKAGE TO CLIMATE CHANGE

People in the county generally understand climate change, but a stronger link needs to be made to connect, quantify, and generally raise awareness of the relationship between carbon emissions and traffic congestion.

Suggested Resonant Messages

- Reliability, frequency and capacity are keys to sustainable transportation
- The Branch Line as the transportation spine
- Safe routes for bicycles and walking
- Comparison of GHG impacts across commute alternatives
- Comparison of traffic impacts for various Branch Line scenarios
- Effective transit improves social equity
- Measure D is the implementation of sustainable transportation

Incentives to Promote Use

- Explore robust commuter benefits programs
- Build on successful models, create mobility partnerships
- Increase density around commuter nodes/station areas
- Sync sustainable transportation and affordable housing development
- Manage parking comprehensively across the county's transit nodes
- Incentivize shared parking between transit and private structures/lots

Keys to Success

- Frequent, consistent service that is safe and well connected
- Improved transit connections that feed into the Branch Line
- Prioritized first and last mile connections and routes
- Bridge the North County/South County divide with improved commuter options
- Address and mitigate potential impacts such as noise concerns for adjacent neighborhoods

Gathering at Key Nodes: Focus Groups

Focus groups were organized to capture ideas and a community vision for a more robust sustainable transportation system in Santa Cruz County. Participants for the focus groups were identified from stakeholder interviews, staff recommendations, location-based interest groups, and research to ensure a well-rounded and representative discussion. The discussion questions focused on key needs and concerns to anticipate and discuss specific transportation nodes. Findings from the focus group and other outreach activities informed location, land use and transportation components, and details for the visual simulations.

List of Participating Agencies by Focus Group

COUNTY-WIDE

Community Bridges

Ecology Action

Visit Santa Cruz County

Ecology Action

Community Traffic Safety Coalition

Bike Santa Cruz County

WEST SIDE SANTA CRUZ

Pacific Collegiate School

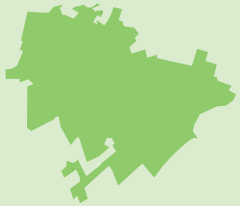
Redtree Properties

Santa Cruz Economic Development Office

Santa Cruz Arts Council

Ow Properties

UCSC Marina Studies Program



WATSONVILLE

MidPen Housing

Cabrillo College Watsonville Center

Community Bridges Family Resources Center

Planning Commission

City of Watsonville

LIVE OAK

Santa Cruz Department of Parks, Open Space and Cultural Services

County of Santa Cruz

Barry Swenson Builders

COUNTY-WIDE FOCUS GROUP

KEY ISSUES THAT SURFACED FOR THE COUNTY-WIDE GROUP:

- ***Social Equity is critical:*** Any sustainable system that emerges should be for the entire county and should strive to benefit everyone equally from workers to business to residents. It's important that there be a viable commuter option for Watsonville residents who compose a substantial portion of the tourism and service sector workforce in the northern areas of Santa Cruz County.
- ***Measure D Collaboration Model:*** The effort to pass Measure D was approached with a clear vision. In collaboration with community coalitions, a clear strategy emerged that included consistent messaging and key points of agreement. Development of a sustainable transportation network should follow this model.
- ***Exhaust Trail-Only Option:*** Before ruling out an option to remove the tracks and implement a greenway (referred to as the trail-only option) participants recommended a fair, transparent and methodical analysis.
- ***Activate Spaces Corridor-Wide:*** The Branch Line corridor has sections where there are gaps in activity that would benefit from art, development, and engagement opportunities.
- ***Share Ridership Projections and Data:*** Market data and rigorous ridership studies can help motivate people and organizations to support the idea of sustainable transportation and active mobility.

WEST SIDE FOCUS GROUP

KEY ISSUES THAT SURFACED FOR THE WEST SIDE GROUP:

» ***Develop the Trail:*** No matter the ultimate decision for the corridor, all participants wanted a multi-use trail at the earliest possible time with more robust transit phased in later.

» ***Excitement about West Side Development:*** There was general excitement about the development taking place throughout Westside Santa Cruz including the brewery and arts scene developing in the old Westside warehouses. UCSC was energized about the two new developments underway, a campus expansion at the UCSC Marine Studies Center and a research campus at 2300 Delaware.

Questions about Rail-with-Trail vs. Trail-only: Some participants expressed internal conflict over whether to support a rail-with-trail or trail-only option for the recently purchased rail corridor since they see benefits of both. The same participants also expressed concern about the viability of rail-with-trail. Real examples from other regions with specific data and metrics of success will be crtical.

» ***Branch Line Should be One of Several Options:*** Caution was suggested to not expect the Branch Line corridor to solve all of county's problems including the traffic, its housing crunch, its environmental concerns, or all modal (pedestrian/cyclists/transit) needs.

» ***Transit is Critical for UCSC***: University affiliated participants expressed strong support for mass transit on the Branch Line corridor. They anticipate continuing University growth and more robust activity, especially as the Marine Lab and other extension buildings are developed.

» ***Safety is Critical:*** Everyone, but especially young people, expressed the need for various safety considerations on the corridor if transit is developed. If any of the system components are seemingly unsafe, from personal safety to train interface with pedestrians and vehicles, ridership will be compromised.

LIVE OAK FOCUS GROUP

KEY ISSUES THAT SURFACED FOR THE LIVE OAK GROUP:

» ***Link Urban Growth Boundary with TOD:*** Santa Cruz residents voted for an urban growth boundary decades ago. However, residents do not necessarily make the connection that a growth boundary necessitates compact, transit-oriented development within the boundary. Growth continues, but when it is restricted outward to prevent urban sprawl, naturally it needs to be accommodated inward into suitable space.

» ***Modest Development:*** Live Oak is composed of workforce housing, primarily residential, and is not suitable towards high rise development. Any visualizations should show modest development of 2-3 stories, blending alongside existing residential development, ideally with no increase in traffic.

» ***Study Minimum Parking Requirements:*** To succeed as a transit corridor, development close to the Branch Line should be encouraged. However, minimum parking requirements were suggested to be counter to that goal. Each parking spot is both costly to produce and reduces land availability for other more critical needs like housing and business development. Development near the Branch Line would facilitate transit use and reduce the need for parking because people would have more mobility options.

» ***Incorporate Unique Character:*** Santa Cruz has a unique culture that should be integrated into the design of the Branch Line corridor.

T.O.D.

The creation of compact, walkable, pedestrian-oriented, mixed-use communities centered around high quality train systems.

WATSONVILLE FOCUS GROUP

KEY ISSUES THAT SURFACED FOR THE WATSONVILLE GROUP:

» ***Trail-Only Option Not Supported:*** Participants stated that a trail-only alternative would not be useful to most commuters in Watsonville. Riding a bicycle as a daily commute option to the North County area is an unrealistic expectation.

» ***Robust Support for Transit:*** All participants were excited about the possibility of a viable commuter transit option on the Branch Line. North County areas rely extensively on a workforce that resides in Watsonville adding to the vehicle traffic congestion on Highway 1.

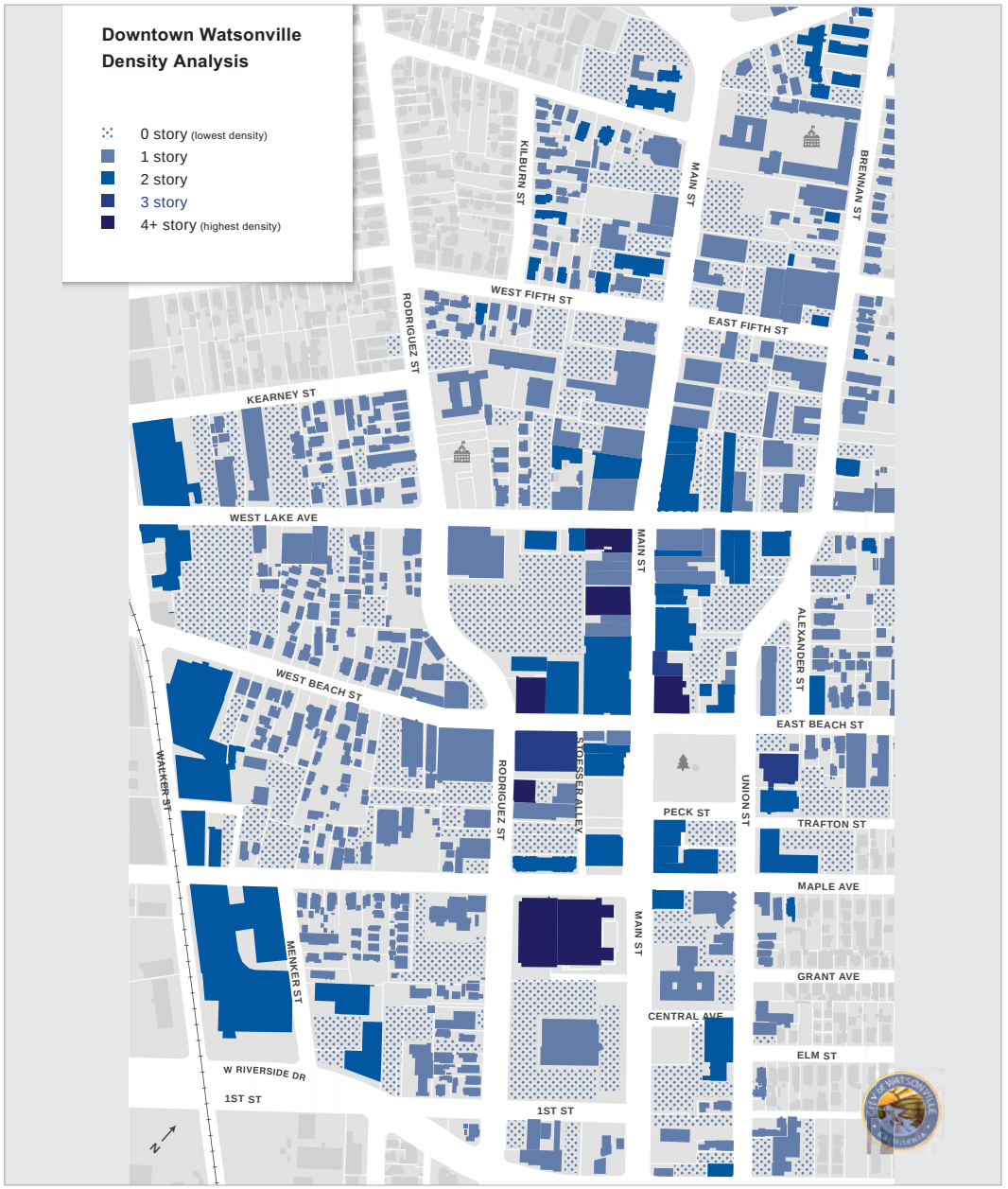
» ***First and last mile connections are critical:*** To improve access to future transit, participants recommended a local transit system with smaller, more nimble shuttles around Watsonville to ensure riders get to and from the Watsonville station, Downtown Watsonville, and the transit center.

» ***Expand to Pájaro:*** Transit on the Branch Line should eventually expand out to Pájaro and connect to other regional and statewide connections.

» ***Inclusive Messaging Needed:*** Messaging about the planning and policies related to the development of the Branch Line corridor often do not reach the general Watsonville audience. As a result, a general misperception by South County residents exists that transit on the Branch Line would be for tourists and not for commuters.

» ***Leverage Existing Parking Downtown:*** There is an abundance of parking in existing structures that are below capacity. Those buildings could provide parking for transit riders. A shuttle bus could transport people from the parking garage to the transit station. If developed fully, participants envisioned a free shuttle service that linked transit, parking, and downtown business stops.

» ***Promote Transit Oriented Development Downtown:*** Transit on the Branch Line corridor is an opportunity to promote mixed-use development in Watsonville. While existing industry would be bolstered as a transit-rich jobs center for the region, a new transit station will also catalyze mixed-use development consisting of mid-rise buildings 3-4 stories, including housing and ground floor retail with a few anchor stores. Watsonville's inclusionary housing rules ensure the provision of affordable housing in new development. Reduced parking minimums for housing were also highly recommended.



There is significant potential for infill development in Downtown Watsonville, a relatively low-density district with many underutilized lots.

Designing with a Regional Cohort

A diverse cross section of leaders from a variety of industries collaborated with local agency staff at a design charrette to focus on three study areas: Westside Santa Cruz, Live Oak, and Downtown Watsonville. Through a map-based exercise for each area, the activity solicited input and conceptual design ideas to promote sustainable transportation. The cohort activity day included a visioning message from former Assemblymember Fred Keeley.

CHARETTE PARTICIPANT ORGANIZATIONS

Blue Group

MIG Inc. (Facilitator)

Watsonville Police Dept.

Metro Advisory Committee

County Parks

University of California, Santa Cruz

City of Santa Cruz

Santa Cruz County, Planning Department

Commission on Disability

Ow Family Properties

Friends of Santa Cruz State Parks

City of Watsonville

Green Group

Thatcher & Thompson (Facilitator)

Santa Cruz County Health Services Agency/Community Traffic Safety Coalition

Santa Cruz County Business Council/Santa Cruz County Association of Realtors

City of Watsonville

Eadie Consultants

Palisade Builders

YWCA of Watsonville

Cabrillo College, Watsonville Campus

Watsonville Wetlands Watch

Yellow Group

MIG Inc. (Facilitator)

Community Bridges

Santa Cruz County, Economy Development Department

Nielsen Studios

University of California, Santa Cruz, Transportation & Parking

JLIA Landscape Architect

Spector CorsettArchitects, INS

United Way of Santa Cruz County, Jovenes Sanos

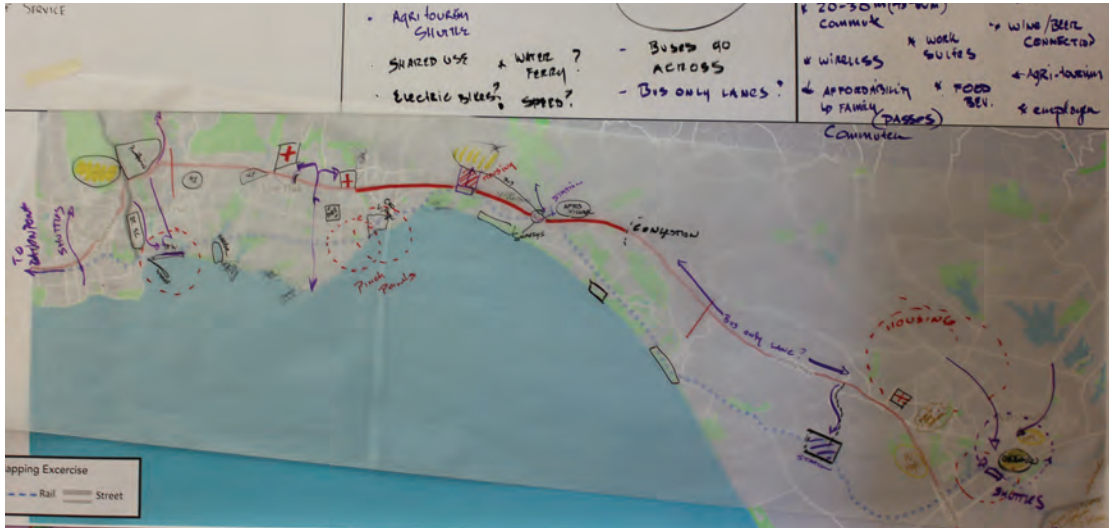
City of Watsonville

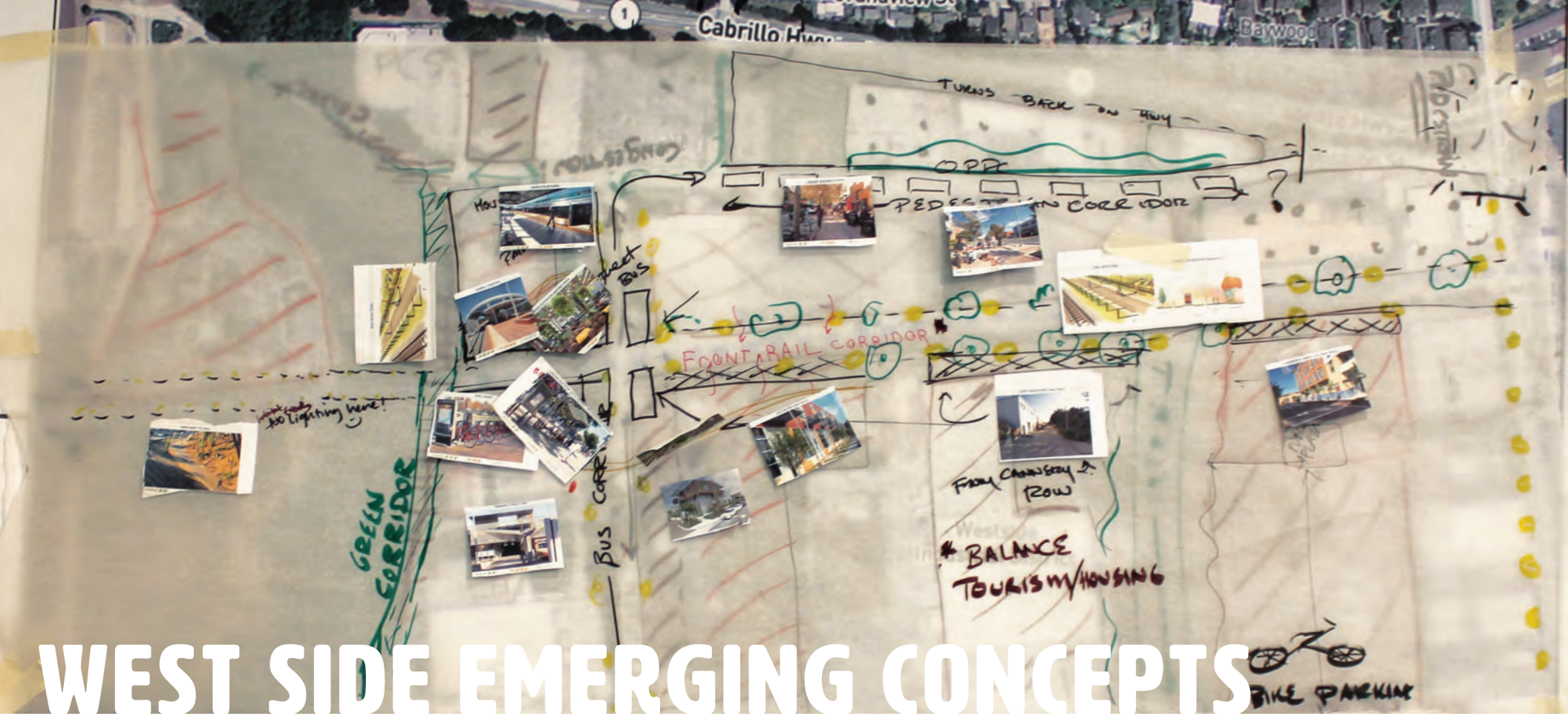
Santa Cruz County Regional Transportation Commission (SCCRTC)

OVERARCHING THEMES

Overarching themes that emerged from the mapping exercises included:

- Build-out of site areas should be gradual and in phases over time.
- Community support is critical.
- Development should be tailored at a neighborhood scale.
- Transit oriented development and affordable housing are needed throughout.
- The transportation system should appeal to both commuters and tourists.
- Connections from the Branch Line corridor to major work and play destinations should be bolstered with new bus routes and expanded bike lanes.
- Reduction of vehicle dependency and traffic congestion should be prioritized.
- Complete streets opportunities at key stops along the Branch Line corridor should be explored.
- Amenities such as schools, grocery stores, and parks near transit stops are suggested.
- Safety enhancements through lighting and security along the Branch Line corridor are important.





WEST SIDE EMERGING CONCEPTS

DEVELOPMENT POTENTIAL

The Santa Cruz Westside is anchored by UCSC, several related educational facilities, and a unique cluster of arts and entertainment establishments. With the potential for transit coming to the area, participants suggested that the large parcels, existing large buildings, and a light industrial mix made this area suitable and viable for mixed-use development.

MIX OF USES, SENSE OF COMMUNITY

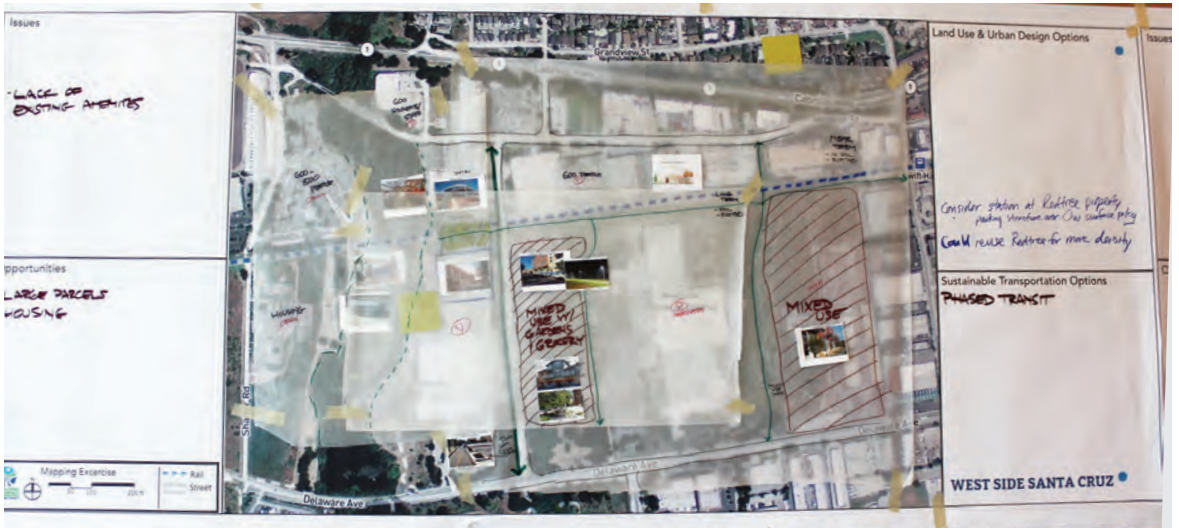
Groups suggested that a mix of uses was necessary to continue to build on the cluster of shops that exist there already. In addition to housing, ground floor retail would help to activate the area. Schools, childcare and recreation, preserving of green spaces, and the integration of community gardens, public art, and other community serving uses were also suggested as necessary to create a well-rounded community.

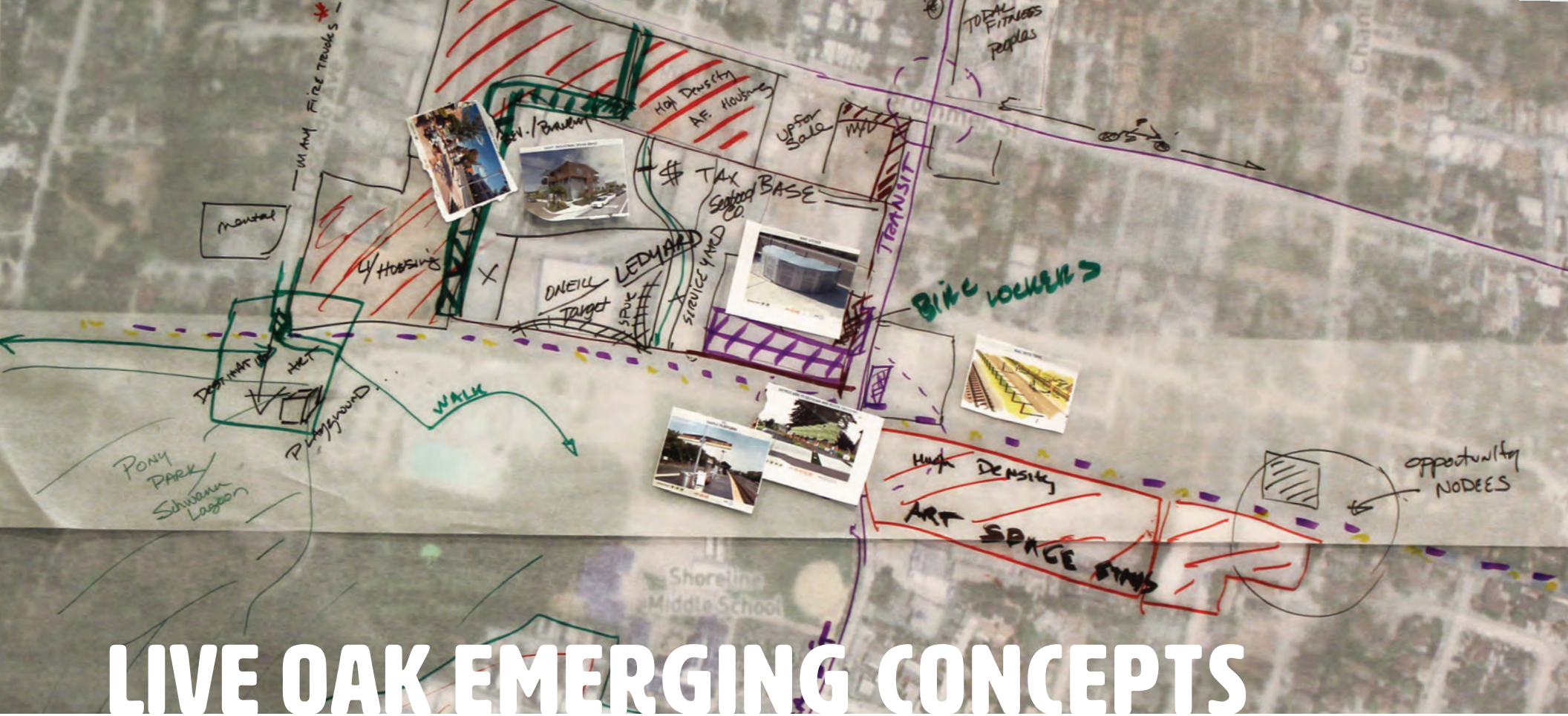
HOUSING NEEDED

All groups promoted the need for housing in the Westside. The proximity to the UCSC and various university labs made student housing a particularly pressing need.

VIABLE CONNECTIONS

While UCSC is nearby, it is still almost 2 miles away from the Branch Line corridor. Participants suggested that a regular shuttle service would be critical to ensure transit use by students, faculty and staff. In addition, improved active mobility amenities such as trails, sidewalks, lighting and other safety considerations would foster walkability and reduce the need for parking.





LIVE OAK EMERGING CONCEPTS

HIGHER DENSITY NEAR THE CORRIDOR

Participants envisioned a mixed-use employment hub near 17th Street and the Branch Line corridor. They noted large opportunity sites are becoming available that are suitable for anchor developments that could include multi-family housing, a grocery store, and perhaps office space.

SAFE ROUTES TO SCHOOLS

The Live Oak location has many residential neighborhoods and a wide array of schools, parks and recreational spaces, specifically the Simpkins Swim Center and adjoining fields. Participants suggested protecting these areas while promoting a bicycle and pedestrian culture through corridors to schools from the rail trail, more bike lines, bike stations, etc.

COMMUNITY AMENITIES

The residential neighborhoods, schools and youth-related facilities make the intersection of 17th and the Branch Line an ideal location for centering community life. This suggestion requires thinking more holistically about land use by going beyond physical buildings and space and thinking about programming and activating a variety of uses. For instance, participants suggested temporary art

installations or community gardens would bolster the community feel for both existing and new residents.

LINKS TO KEY LOCATIONS

Like the other study areas, participants suggested that improved reliable connections would be necessary from any Branch Line corridor mobility system whether or not transit was included. Bicycle lanes and sidewalks would help safely attract use of the multi-use trail, especially by young people. Improved bus and transit connections to high use areas – like Dominican Hospital – would help alleviate traffic and promote ridership on any Branch Line transit.

WATSONVILLE EMERGING CONCEPTS

PRESERVE EMPLOYMENT AND INDUSTRIAL USES

The area adjacent to the historic Watsonville train station is the interface between downtown and an industrial area. While there is potential and some desire for development and an intensifying of uses, particularly toward the west, groups suggested that the viability of employment and industry in the area was important to preserve.

HIGH DENSITY HOUSING

Participants suggested that the areas adjacent to the historic train station could accommodate a transit-oriented district with a higher density of uses, particularly of much needed housing and affordable housing. This development pattern would help foster use of any potential transit system on the Branch Line which, in turn, would also stimulate development.

TRANSIT HUB

Groups suggested that the Metro transit hub should be re-established closer to the train station to better link potential Branch Line transit and the local bus system. Although the existing bus depot is only a few blocks from the Branch Line, that short distance may be enough to dissuade ridership.

DOWNTOWN VITALITY

The Downtown business district would benefit greatly from a potential activation of transit on the Branch Line. Participants cited examples of bus shuttles – free to customers in some cities – that would circle and make key stops through downtown.

COMPLETE STREETS CORRIDORS

In addition to a shuttle, participants suggested improved active mobility connections leading to and through downtown that include safe walking options and improved bikeway network. One group suggested converting Beach Street into a promenade, another suggested Walker Street could be improved to connect to the slough trails and to the northern neighborhoods of the city. The Downtown Complete Streets project also resulted in support for bicycle and pedestrian improvements to better connect downtown neighborhoods with buffered bike lanes, green lanes, widened sidewalks and increased pedestrian amenities.

RAIL TRAIL INTEGRATION

Watsonville already has a robust network of recreational trails on the Pájaro River levees, and the slough trails. Although these are recreational in nature, they also lead into residential neighborhoods and should be integrated and linked to the future trail in the Branch Line corridor.

MIG Facilitator assists stakeholders to express and document ideas for improvements.

Watsonville Stakeholder Outreach

Stakeholder outreach activities specific to Watsonville focused on key downtown corridor concepts. Stakeholders were convened and included representatives from Watsonville businesses, schools and community groups as well as local safety departments such as the fire and police departments. These stakeholders were engaged at critical points throughout the Downtown Complete Streets project including at the very beginning prior to developing any visualizations, described in Chapter 3. Work with the stakeholders included a walking audit and dot exercises on "inspiration boards." The audit focused on identifying safety, access and mobility issues for both pedestrians and bicyclists whereas the inspiration boards provided examples of potential complete streets elements and asked participants to provide preferences.

Pop Up Tabling & Social Media

Traditional methods of outreach were also used to both gather input and raise awareness of the installations and visuals. These methods included pop-up events, Instagram, Facebook and other social media posts, presentations to community groups and wayfinding from nearby points of interest. In Watsonville, pop-up events were used both at the beginning of the project to gather input on Complete Streets concepts and throughout the project.


Route 22

CHAPTER 3

VISUALIZING THE FUTURE OF MOBILITY

Viable Transit Hubs

One of the main goals of sustainable transportation outreach was to communicate complex transportation and land use concepts in a visually engaging and interactive way to the public. The visual ideas for framing land use concepts around the sites were developed through a process of discovery that combined staff knowledge and suggestions, design consultant recommendations, and established plans. In addition, discussions with focus group participants and a design charrette with community and agency leaders—described in Section 2—provided critical input for each of the areas.

To bring visualizations to life, three specific key sites across the county became the basis for reimagining land use and transportation in ways that would improve mobility and access to transit. These geographically distinct areas have common components that define their viability and potential as transit hubs; their location along potential or existing transit corridors and their medium-low density land use character suitable for potential infill development. Each of these locations also has strategic implications since each is proximate to key job centers that would help sustain transit ridership.

THE SPECIFIC LOCATIONS VISUALIZED:

- Westside Santa Cruz – Natural Bridges Drive at the Branch Line
- Live Oak – Soquel Drive at Chanticleer Avenue
- Watsonville – Main Street, Rodriguez Street

Unified Corridor Study

The sites selected for visualization each touch on and relate to the three cross-county corridors studied by the SCCRTC within the Unified Corridor Investment Study (UCS). These include Soquel Drive/Avenue, the Santa Cruz Branch Line, and Highway 1. The purpose of the UCS is to identify the combination of transportation investments that provide the greatest benefit to economic vitality, equity, safety, reliability and efficiency as well as the environment and healthy communities.

The UCS analysis was conducted concurrently to this visualization project. Therefore, while community and stakeholder engagement for the Visualizing Sustainable Transportation project resulted in new ideas and visioning of transportation and land use connections, there are a number of potential investments referenced in this report that remain undetermined. The transportation investments that are made today will affect both land use and mobility for future generations. The imagery presented and tools used as part of the Visualization project helped to carry that point home for many stakeholders and members of the public.

Innovative Visualization Technologies

To help the public see the potential of each area, SCCRTC tested innovative visualization technologies in situ—that is, directly onsite. First, Owl Kiosks were placed in Westside Santa Cruz near the Branch Line and on Soquel Drive, a north south arterial that is critical to the county's mobility network. Later, virtual reality visualizations became a key outreach component for the Watsonville Downtown Complete Streets Plan.

OWL KIOSKS

At Soquel Drive and in Westside Santa Cruz, Owl Kiosks—viewers similar to the binocular units at scenic lookouts—helped residents visualize change in land use and transportation infrastructure. Through the kiosks, participants experienced a 360-degree photo-realistic representation of proposed sustainable transportation improvements at that location.

Based on stakeholder input, Owl Kiosks were installed on Soquel Drive at Chanticleer Avenue and on Natural Bridges Drive at the intersection of the Branch Line corridor. Both locations are near transit stops and are on streets with bicycle lanes and sidewalk access. The content

of the visualizations were developed based on the design charrette described in Chapter 2, the Sustainable Santa Cruz County Plan, and on early discussions about bus rapid transit implementation on Soquel Drive. The installations were completed in the late fall 2017.

To help the viewer envision progression in land use and transportation the Owl visuals depicted the adjacent area in phases: existing, short-term changes and potential long-term changes. An audio explanation of the visuals walked participants through what they were seeing and an integrated survey asked for feedback about the content of the visuals. Each visual was also available through a "pocket owl" link for smart phones which provided a panoramic view of the improvements.

VIRTUAL REALITY IN WATSONVILLE

To leverage public participation, the visuals for Watsonville were integrated into a project led by the City of Watsonville and funded by a Caltrans grant to develop a Complete Streets Plan for three main corridors in Downtown. The SCCRTC and the City of Watsonville combined efforts and partnered on the development of this plan. This helped avoid community outreach burn out and allowed the visuals to be grounded in a "real" ongoing project.

A company called Tangram3DS developed virtual reality – also known as VR – renderings of proposed complete streets scenarios for the downtown area. The VR content was based on initial outreach conducted by the City. To make the VR feel more realistic, video imagery of moving vehicles, pedestrians and bicyclists was incorporated. Auditory explanations of the content were also programmed into the VR in both English and Spanish. For ease of use the preferred language was chosen by the user before entering the VR.

SCCRTC purchased 35 Google Cardboard headsets and then took the VR simulations to community groups, high schools and pop-up events to show community members the options being considered for multimodal improvements in Downtown Watsonville. A survey was administered by paper and online after participants viewed the VR.


WATSONVILLE

Westside Concept

WESTSIDE SANTA CRUZ EXISTING CONDITIONS

Westside Santa Cruz around Natural Bridges Drive and the Branch Line corridor is described as an up-and-coming area and is surrounded by developable land, parcels with approved plans, existing businesses, natural amenities, and critically, adjacent and nearby connections to the largest educational institution in the county.

The area immediately adjacent to the Branch Line corridor is home to several UC Santa Cruz affiliated institutions and buildings including the Administration Building, the Technology Lab, the Marine Research Lab, the newly opened Coastal Sciences Campus which is home to Long Marine Laboratory and the Seymour Marine Discovery Center, the Coastal Science Campus and NOAA fisheries science laboratory, and the California Department of Fish and Wildlife marine wildlife center. Depending on the exact destination within the university, it is approximately a two to three-mile shuttle bus ride uphill to the UC Santa Cruz campus.

The area near the Branch Line has also become an arts and entertainment cluster. The Wrigley Building—the largest building in the county—is now a world class arts venue hosting a wide variety of artists and businesses. Food shops, breweries and tasting rooms are also nearby, and more are expected to open in the coming years.

The site area is relatively near to existing housing. Residential neighborhoods consisting of both single-family homes and apartments lie to the north of Highway 1, to the west of Swift Street, and along the coastline hugging W. Cliff Drive. The area is also a gateway to various natural habitats and preserves including Natural Bridges State Beach, Moore Creek Preserve, and Wilder Ranch State Park.

WESTSIDE DEVELOPMENT CONCEPT

The input for the area was centered on a community-focused concept that would build on the existing neighborhood characteristics while infusing vitality into transit, open space, and housing. The centerpiece of the visualization is a transit hub on the southwest corner of the Natural Bridges Drive and the Branch Line Corridor. Bus lines on Natural Bridges Drive are shown connecting passengers to a light rail station. Bike share and secure bicycle parking are located at the hub to facilitate transit access. Kiss-and-ride curb space and park-and-ride parking spaces are also shown in the visual at the transit hub.

A main feature of the visual is the multi-purpose bicycle and pedestrian Monterey Bay Sanctuary Scenic trail which runs adjacent to the existing Branch Line, behind the Wrigley Building. It connects to a plaza area on the southeast of Natural Bridges Drive. Within the plaza are commercial and public community spaces that can assist in activating the area. Surrounding the plaza are high-density housing units that help form a transit-oriented village to help promote transit ridership.

The Westside visualization concept was based around Natural Bridges Drive at the Branch Line.


STOP

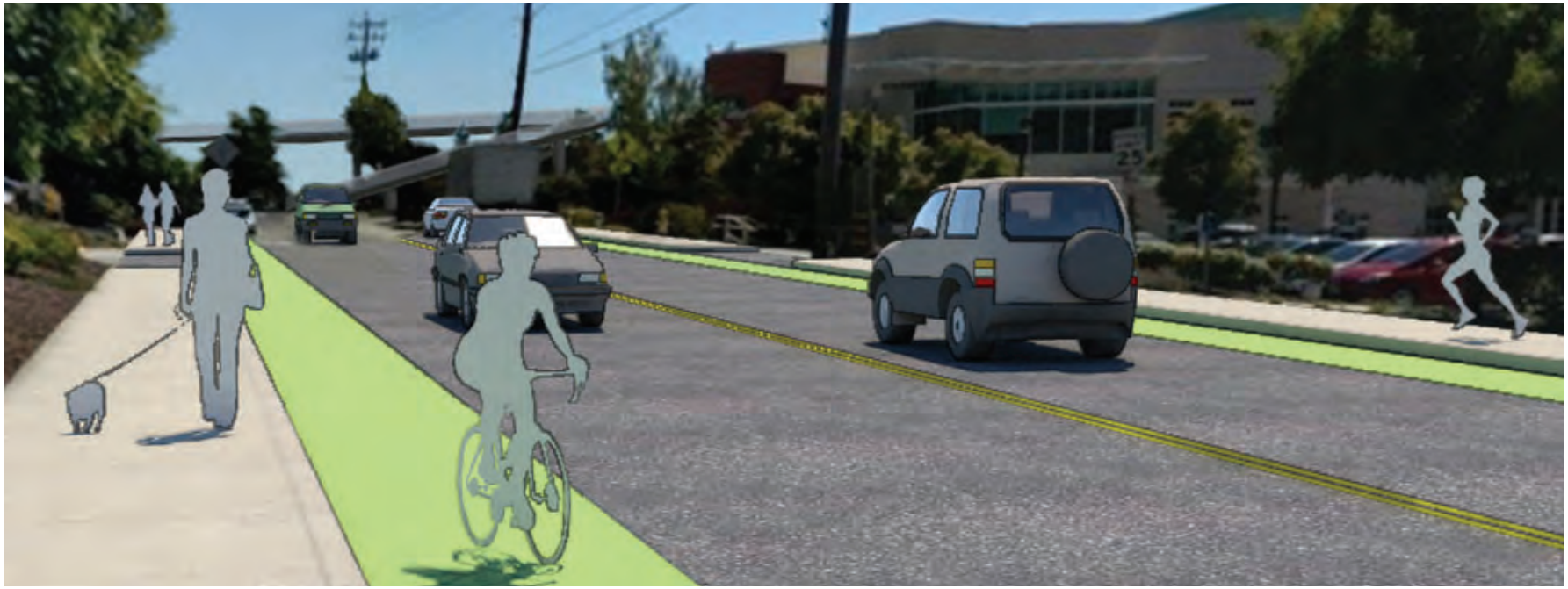
Soquel Drive Concept

SOQUEL DRIVE EXISTING CONDITIONS

The area around the intersection of Soquel Drive and Chanticleer is generally composed of low density commercial mixed uses. Immediately in the vicinity are offices, pharmacies, light industrial spaces, eateries, and strip malls. The largest employment center in the area is Dominican Hospital and various related medical offices. There are some homes along Soquel Drive, but the area's residential neighborhood is just north of Soquel Drive surrounding Winkle Farm Park. A large undeveloped parcel lies immediately across Chanticleer along an existing creek.

Soquel Drive is the lone arterial roadway that cuts through the entire county. Parallel to Highway 1, it is a typical four lane road with busy traffic and intersections. The intersection visualized—Soquel Drive and Chanticleer Avenue—was selected due to planned multi-modal transportation improvements that would help improve access for northern neighborhoods around Winkle Farm Park and nearby businesses on Soquel. Currently, the area adjacent to this intersection is cutoff from the majority of Santa Cruz and Live Oak by busy Highway 1. The only roads that connect the community across the freeway are also major vehicle interchanges and are more than a mile apart from each other—Soquel and 41st Avenue.

The Soquel visualization concept was based at the intersection of Soquel Drive and Chanticleer Avenue.



SOQUEL DRIVE AT CHANTICLEER AVENUE DEVELOPMENT CONCEPT

To overcome the isolation of the neighborhoods north of Highway 1, SCCRTC is planning a series of pedestrian and bicycle overcrossings over Highway 1. One such bridge would connect Chanticleer Avenue on either side of the freeway. In addition, Soquel bus lines are envisioned for potential conversion to bus rapid transit (BRT), thus making this intersection at Soquel Drive a critical mobility node for bicycles, pedestrians, and buses.

The visualization for the intersection at Soquel and Chanticleer was centered around these mobility improvements for bikes and buses. Bicycle infrastructure, including lanes and a bike box for bicycle queuing at the light, is included along Chanticleer, a relatively calm street ideal for bike traffic. The bike lanes connect cyclists to the future bicycle and pedestrian bridge over Highway 1. On Soquel, protected bike lanes and bike boxes provide more separation between cyclists and fast-moving traffic.

Transit improvements include red paint which denotes bus-only lanes for BRT that would allow transit to move at a steady and predictable pace despite heavy traffic conditions. The boarding station depicts other features of typical BRT improvements including level boarding and pre-payment of fare. The envisioned land uses in the area remain low and medium density.


Route 71


BUS

Watsonville Concept

DOWNTOWN WATSONVILLE EXISTING CONDITIONS

The City has a historic rail station at the edge of downtown and along the Branch Line corridor. The station is intact and in a prime location to connect to downtown amenities and within walking of distance of civic uses and businesses, and the existing transit depot. Adjacent to downtown are residential neighborhoods, industrial and commercial uses, and educational facilities.

Located at the south end of the Branch Line corridor, Downtown Watsonville has the potential to become the gateway to an envisioned regional passenger rail network, if it eventually connected to Pájaro Junction across the Pájaro River. There, Branch Line transit would connect to the Capitol Corridor extension. Through that connection, Branch Line passengers would be able to reach other systems and modes of travel in the Bay Area and Sacramento, including BART, High Speed Rail, and international airports.

The Watsonville Concepts were based around the area around old historic train station, and on Main, Rodriguez, and Union Streets.

Through its Downtown Specific Plan, the City of Watsonville is already undertaking plans to reimagine its downtown as a key hub of regional commuter rail and bus transit, a link between state highways, and a multi-use trail network. The Plan importantly establishes a regulatory framework for higher-intensity, transit-oriented, mixed-use neighborhoods that includes housing near existing services and transportation infrastructure.

DOWNTOWN COMPLETE STREETS DEVELOPMENT CONCEPT

To fulfill its downtown vision, the visualizations for this area represent development of a more pedestrian and bicycle friendly downtown that puts more emphasis on the circulation of pedestrians rather that the swift movement of vehicles. Watsonville is redesigning three primary corridors with complete streets improvements including Main Street, Rodriguez Street, and Union Street.

Complete Streets improvements to downtown – in combination with more housing and retail uses – will serve to activate downtown, bringing enhanced business vitality, events platforms, and ridership for planned and existing transit. Widened sidewalks, safe pedestrian crossings, and slowed traffic will all work to create a renewed sense of place downtown. This pedestrian vitality can work to improve and attract businesses that, in turn, can also foment an active pedestrian culture through parklets, patios, alleys, performance spaces, and street art.

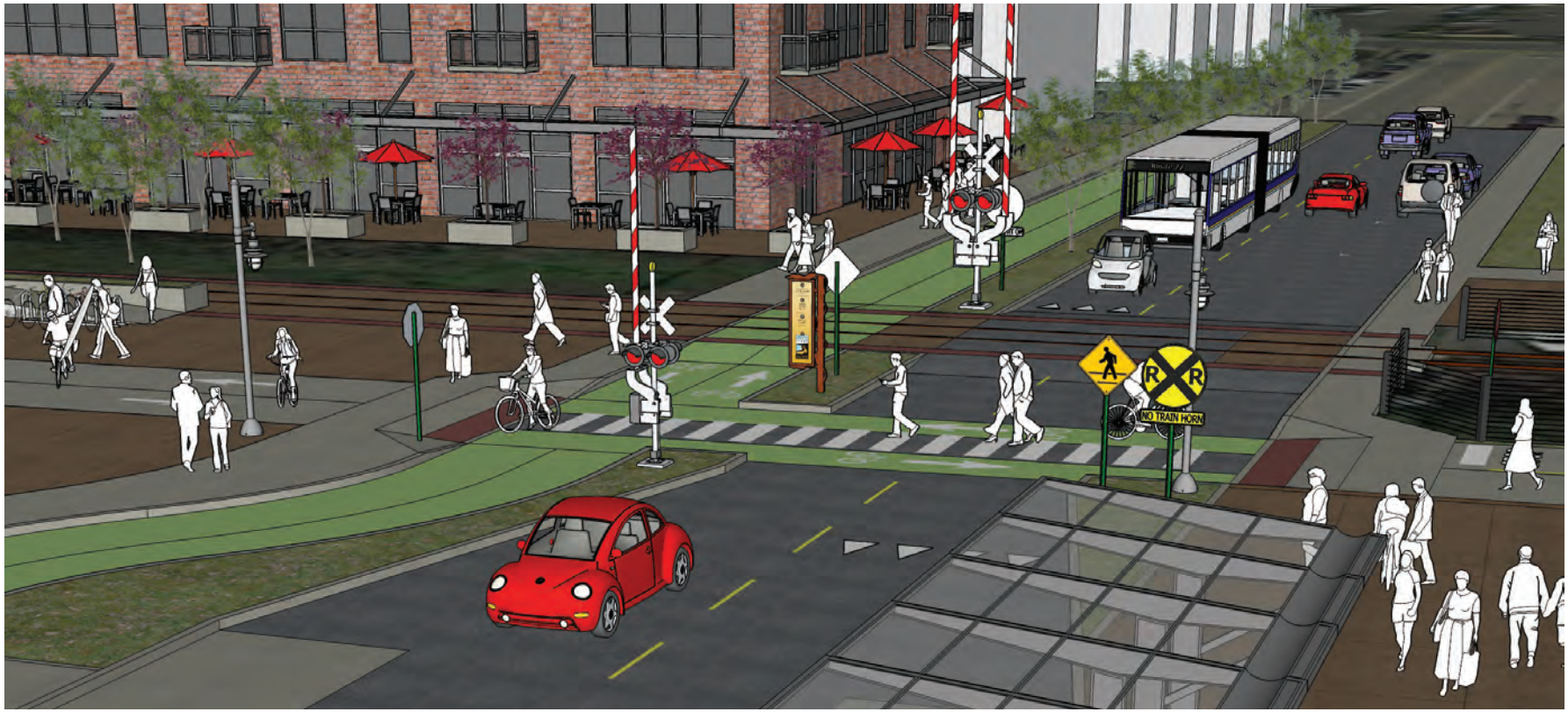

STOP

THESE VISUALIZATIONS ARE ADJACENT TO TRANSIT CORRIDORS, PLACING THEM IN PRIME POSITION TO BECOME TRANSIT-ORIENTED COMMUTER HUBS FOR A PLANNED SUSTAINABLE TRANSPORTATION SYSTEM.

A Larger Vision

These visualizations are adjacent to transit corridors, placing them in prime position to become transit-oriented commuter hubs for a planned sustainable transportation system that is envisioned to include regional transit and a multi-purpose active mobility trail. Several things will need to happen to make that vision a reality, but the critical path actions necessary will be improved access and connections to the transit nodes, and housing units for commuters to help sustain a countywide sustainable transportation system.

The larger sustainable transportation vision depends upon compact development near transit. This ultimately decreases automobile dependency, reduces both local and regional traffic congestion and related greenhouse gas emissions, and provides additional support for plans to increase multimodal access to and from historic downtowns and existing populated areas. By improving access to jobs and housing, existing issues of equitable mobility and access begin to be addressed.



CHAPTER 4

SUSTAINABLE MOBILITY OPTIONS

"Sustainable transportation" encompasses improvements to access and mobility, the preservation of our transportation system, and importantly, also bolstering of the quality of our natural environment, the economic vitality of the region and public health, safety and equity. These three "E's" (environment, economy and equity) are often referred to as the triple bottom line of sustainability. SCCRTC uses the triple bottom line sustainability principles in prioritizing projects for funding in the long-range planning process, as well as programming of funds for project implementation.

Key state and federal policies and regulations all necessitate a triple bottom line, performance-based approach for making transportation investment decisions. The legal requirements of California State Senate Bill 375 impose strict reductions to greenhouse gas emissions from transportation and land use. The federal requirements in the Moving Ahead for Progress in the 21st Century Act (MAP-21) are explicit in their expectation that transportation projects improve safety and reduce congestion. And lastly, the Caltrans Strategic Management Plan (CSMP) sets as a goal to double pedestrian and transit trips and triple bicycle trips in California.

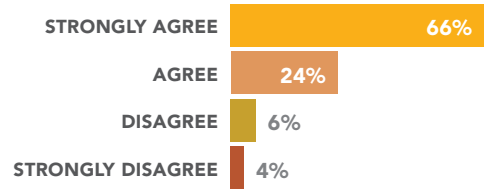
Preferences for Mobility Policies

Despite the ongoing controversies and disagreements played out in the media about which mobility options make the most sense for this region, the community discussion and surveys conducted as part of this project reveal broad community consensus on the policy approach to sustainable transportation.

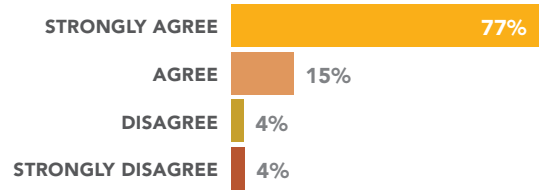
The surveys from the Owl Kiosks asked people whether they thought transit and active transportation solutions are important for Santa Cruz County, and if they would choose to live in a place near the transit hubs rendered in the visuals. The majority of people agreed in all instances that we need transit and active transportation to solve the congestion problem in Santa Cruz County. For the Downtown Watsonville Complete Streets Plan, similar survey questions were asked and similar results emerged. People agreed that we need to include public transportation near jobs, housing and services. This consensus around policy need bodes well for the future of the county if the community can agree on how to put these policies into practice.

WESTSIDE SURVEY RESULTS

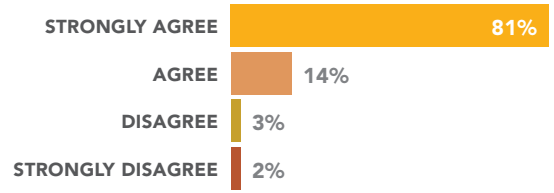
Options for avoiding traffic in Santa Cruz County are limited.



More safe and easy places to walk or bicycle are an important solution for Santa Cruz County.

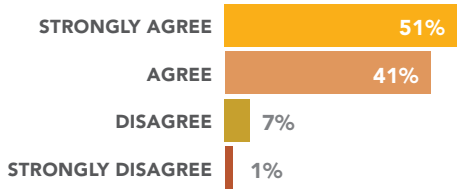


Efficient and reliable public transportation service near jobs, housing, and services is an important solution for Santa Cruz County.

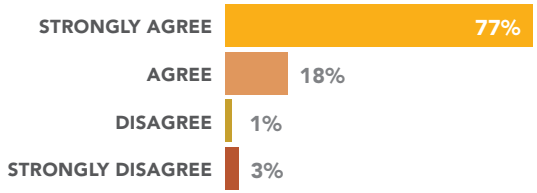


SOQUEL SURVEY RESULTS

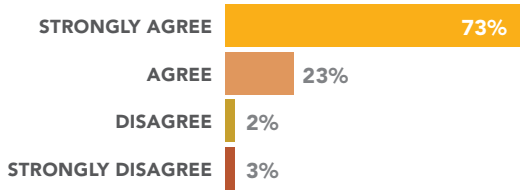
Options for avoiding traffic in Santa Cruz County are limited.



More safe and easy places to walk or bicycle are an important solution for Santa Cruz County.

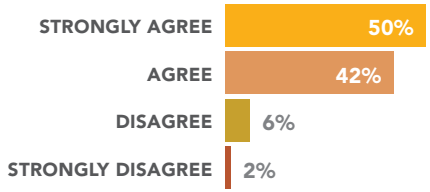


Efficient and reliable public transportation service near jobs, housing, and services is an important solution for Santa Cruz County.

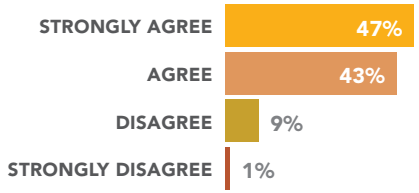


WATSONVILLE SURVEY RESULTS

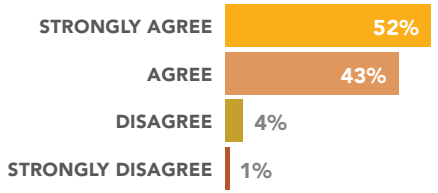
It is important to improve walkability to and through downtown Watsonville.

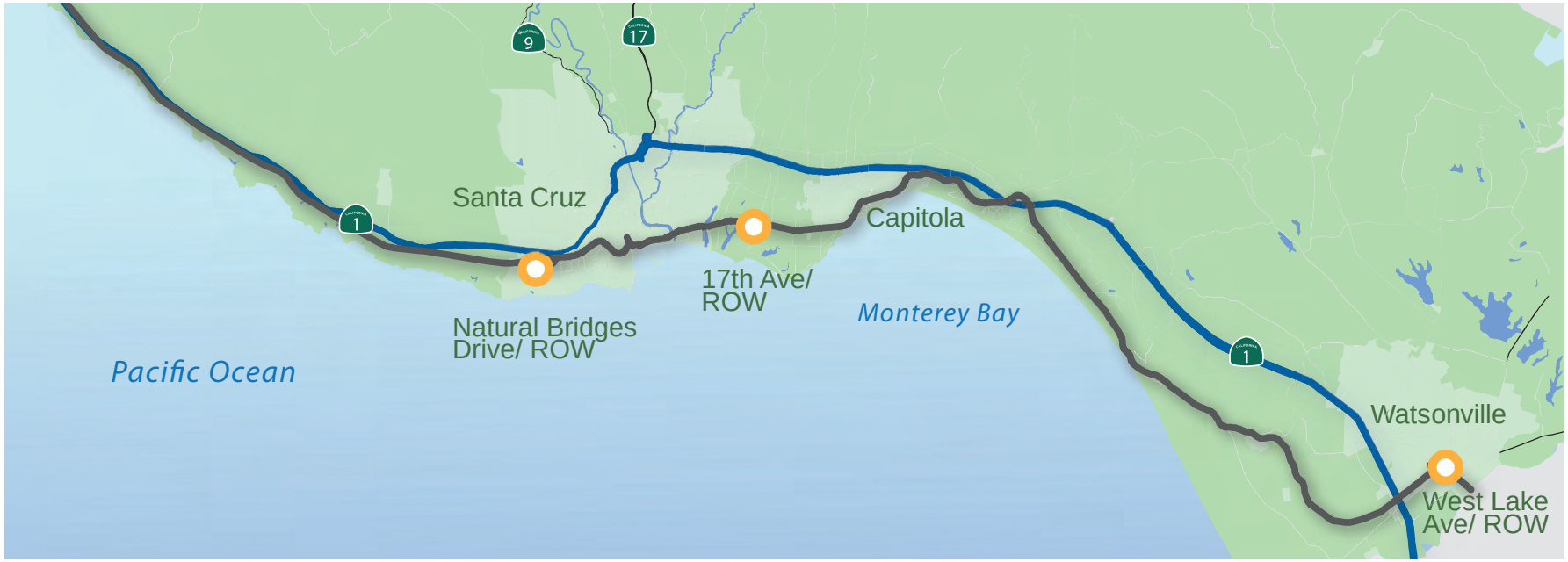


It is important to improve bicycle access to and through downtown Watsonville.



Efficient and reliable public transit service near jobs, housing, and services is an important solution.





IT MATTERS HOW WE GET THERE....

3D and 360-degree panoramic renderings created an informed discourse that allowed people to come to an agreement on a policy approach, however there is still considerable debate about which projects should be implemented to achieve this policy approach. The scenarios and survey results from the Visualizing Sustainable Transportation project reflect a community sentiment that congestion in Santa Cruz County is severe and active transportation and public transit are necessary solutions to address it. However, as we know from the Unified Corridor Investment Study (UCS) which was conducted concurrent to this project, there is not community consensus on what types of projects to implement to address travel problems.

The UCS evaluated transportation improvements using a performance-based scenario analysis to help prioritize projects in the three principal corridors that run through the county: Highway 1, Soquel Avenue/ Drive/Freedom Blvd., and the Santa Cruz Branch Line. Development of the scenarios was based on groupings of complimentary multimodal transportation improvements.

The Preferred Scenario includes bus on shoulder on Highway 1 and emphasizes the protection of the rail right-of-way for high-capacity public transit service, freight service, and a bike and pedestrian trail in the rail corridor. It also emphasizes regional projects that improve the connection between Watsonville and Santa Cruz, while providing guidance for the SCCRTC to implement a range of multi-modal transportation options with auto, transit, bike and pedestrian improvements that are integrated together as part of an overall transportation system.

	2035 PREFERRED	BEYOND 2035	SCENARIO A	SCENARIO B	SCENARIO C	SCENARIO E
Highway 1 Projects						
Buses on shoulders	●			●	●	
High occupancy vehicle lanes (HOV) and increased transit frequency		●	●			●
Auxiliary lanes to extend merging distance IN ADDITION TO MEASURE D	●	●	●		●	●
Metering of on-ramps	●	●	●	●		●
Additional lanes on bridge over San Lorenzo River			●			
Mission St intersection improvements			●	●		
Soquel Avenue/Drive and Freedom Blvd						
BRT lite (faster boarding, transit signal priority and queue jumps)			●	●	●	
Increased frequency of transit with express services			●	●	●	
Buffered/protected bike lanes	●	●		●		●
Intersection improvements for auto			●		●	
Intersection improvements for bikes/pedestrians	●	●	●	●	●	●
Rail Corridor						
Bike and pedestrian trail	●	●	●	●	●	●
Local rail transit with interregional connections				●		●
Bus rapid transit					●	
High-capacity public transit service	●	●				
Freight service on rail	●	●			● Watsonville Only	●
Overall Project Area/Connections between Routes						
Improved bike/pedestrian facilities throughout urban area closing gaps in network	*These projects will be evaluated in all scenarios.*					
Additional transit connections						
Bike share, bike amenities, transit amenities, park and ride lots						
Multimodal transportation hubs						
Automated vehicles/connected vehicles						
Transportation Demand and System Management						
Employers and residences - incentive programs	*These projects will be evaluated in all scenarios.*					
Education and enforcement - electric vehicle, motorist safety, and bike safety						

Prioritizing Projects for Our Future

To make an informed decision about which projects SCCRTC should advance in order to achieve movement toward the stated goals and policies, measurable effects of different groupings of projects were evaluated and considered in the UCS. The performance measures included in the UCS scenario analysis included:

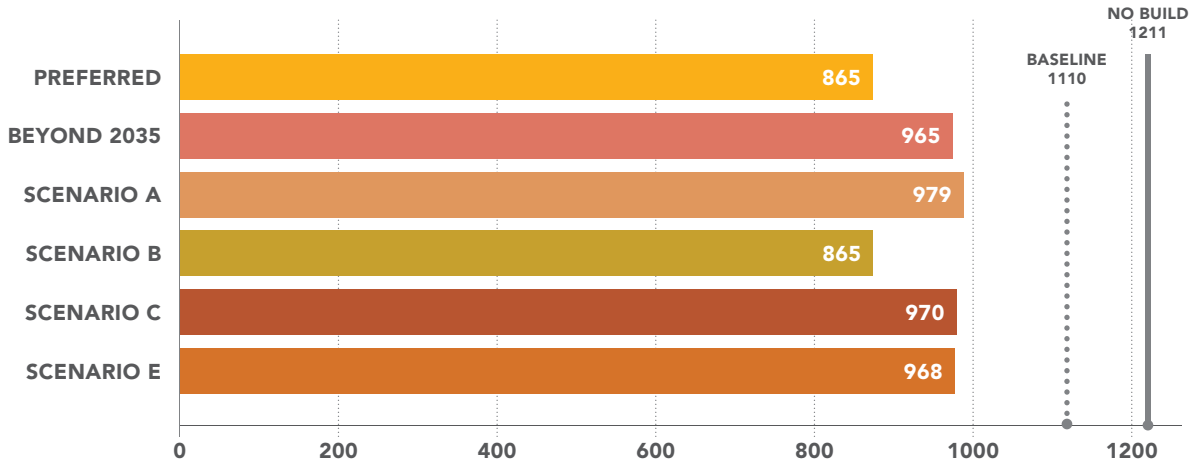
- **SAFETY**
- **EFFICIENCY**
- **ECONOMIC VITALITY**
- **ENVIRONMENT & HEALTH**
- **EQUITABLE ACCESS**

These performance measures were analyzed using several different metrics.

SAFETY

Future traffic collisions were forecasted using Crash Modification Factors (CMF) identified from the Federal Highway Administration's CMF Clearinghouse. CMFs are used to estimate the proportion of collisions that may be prevented by implementing specific types of projects shown by research to reduce collisions. All the scenarios evaluated showed substantial improvements to safety. However, scenario B and the preferred scenario demonstrated the lowest number of fatalities, injuries and property damage.

PM: TOTAL ANNUAL COLLISIONS *(Fatal, injury, and property damage only)*



RELIABILITY AND EFFICIENCY

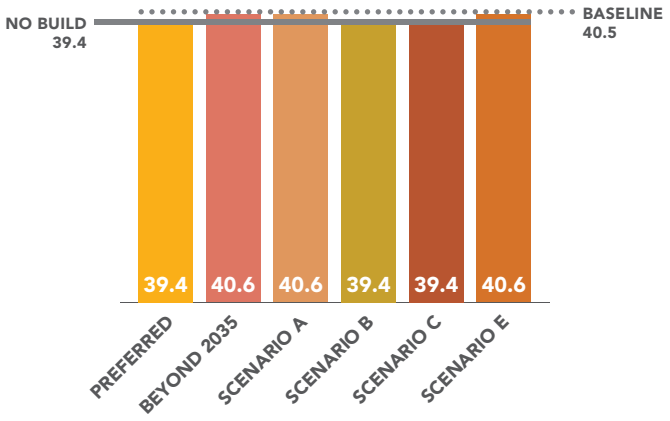
Transportation choices that serve the most people and facilitate the transport of goods are considered reliable and efficient. Scenarios were assessed using:

- peak period mean auto travel time (time spent by auto commuters during rush-hour)
- peak period mean travel time (time spent by all commuters during rush-hour)
- travel time reliability (the consistency or dependability of commuting time)
- mode share (the percentage of travelers using a particular type of transportation method)
- person trips (a trip by one person in any mode of transportation)

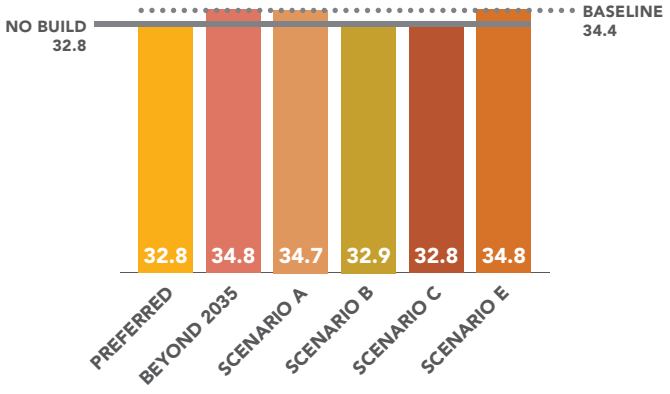
Notably the scenarios did not show remarkable differences as with other performance measures.

COUNTYWIDE MEAN AUTO SPEED (MPH)

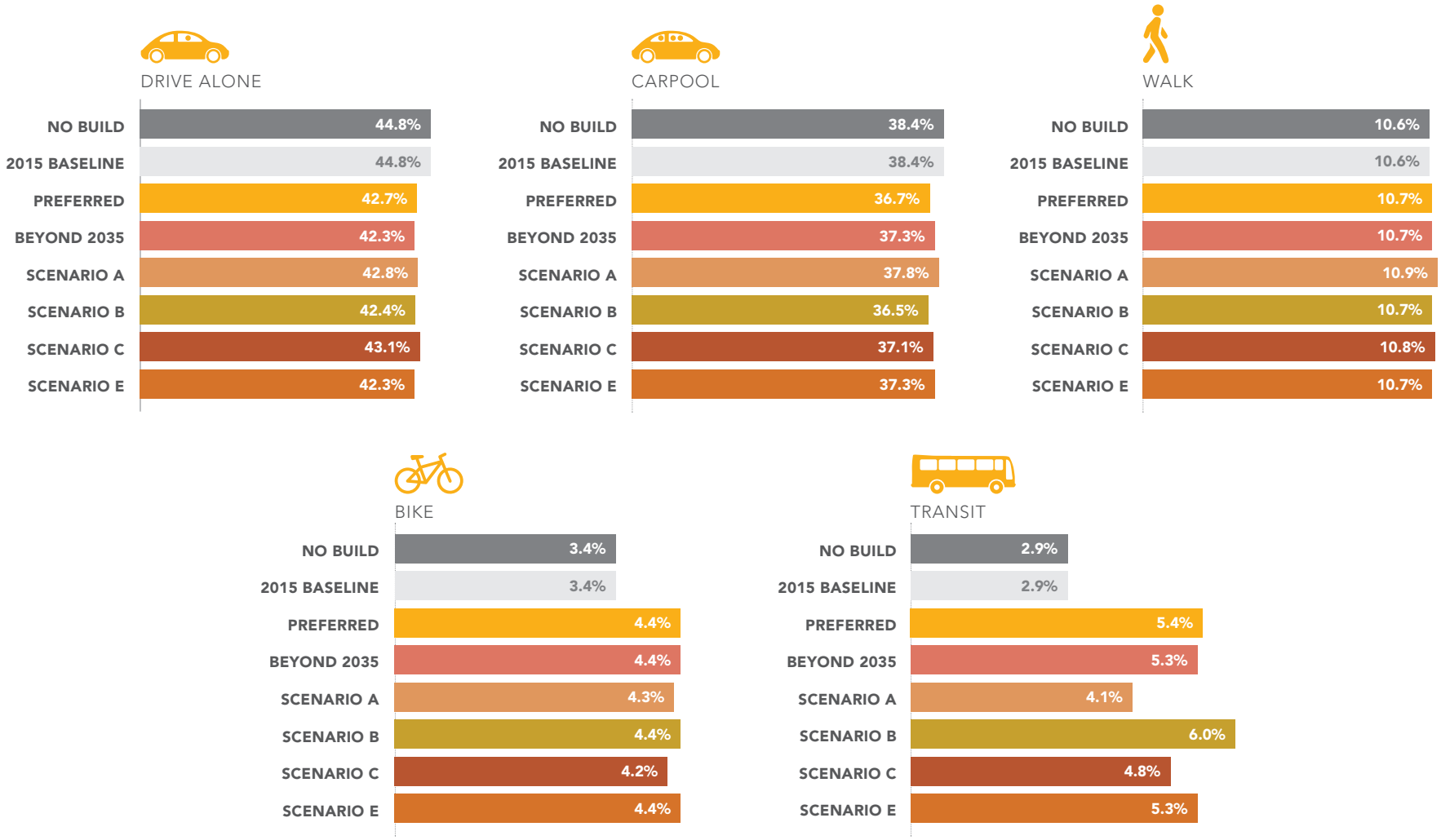
AM PEAK PERIOD *(6–9am)*



PM PEAK PERIOD *(4–7pm)*



MODE SHARE


DRIVE ALONE
NO BUILD 44.8%
2015 BASELINE 44.8%
PREFERRED 42.7%
BEYOND 2035 42.3%
SCENARIO A 42.8%
SCENARIO B 42.4%
SCENARIO C 43.1%
SCENARIO E 42.3%
CARPOOL
NO BUILD 38.4%
2015 BASELINE 38.4%
PREFERRED 36.7%
BEYOND 2035 37.3%
SCENARIO A 37.8%
SCENARIO B 36.5%
SCENARIO C 37.1%
SCENARIO E 37.3%
WALK
NO BUILD 10.6%
2015 BASELINE 10.6%
PREFERRED 10.7%
BEYOND 2035 10.7%
SCENARIO A 10.9%
SCENARIO B 10.7%
SCENARIO C 10.8%
SCENARIO E 10.7%
BIKE
NO BUILD 3.4%
2015 BASELINE 3.4%
PREFERRED 4.4%
BEYOND 2035 4.4%
SCENARIO A 4.3%
SCENARIO B 4.4%
SCENARIO C 4.2%
SCENARIO E 4.4%
TRANSIT
NO BUILD 2.9%
2015 BASELINE 2.9%
PREFERRED 5.4%
BEYOND 2035 5.3%
SCENARIO A 4.1%
SCENARIO B 6.0%
SCENARIO C 4.8%
SCENARIO E 5.3%

ECONOMIC VITALITY

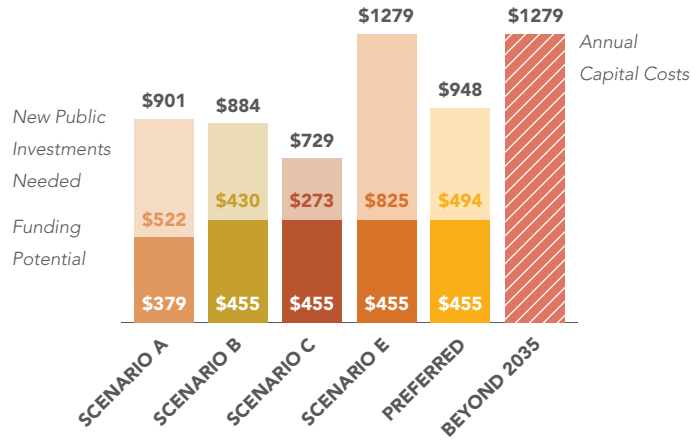
Transportation projects can impact economic activities by providing access to new destinations and changing costs to transportation system users. Of the economic metrics, the ones that show the most variation between scenarios are related to capital and operational costs, and reduction in costs associated with collisions.

The massive infrastructure projects included in these scenarios come with substantial investment costs. Highway and mass transit improvements are costly to implement as are all large-scale civic infrastructure projects, particularly in the current construction environment. However, the monetary costs for implementation should always be weighed against the immediate and long-term benefits.

While the average person may not usually consider the cost of a collision it is notable that the National Highway Traffic Safety Administration (NHTSA) estimates that traffic collisions cost an average of $38,100 in material losses. Caltrans estimates that the intangible costs due to lost quality of life from injuries and death are an average of $185,600 per collision, for a total of $223,700 per incident.

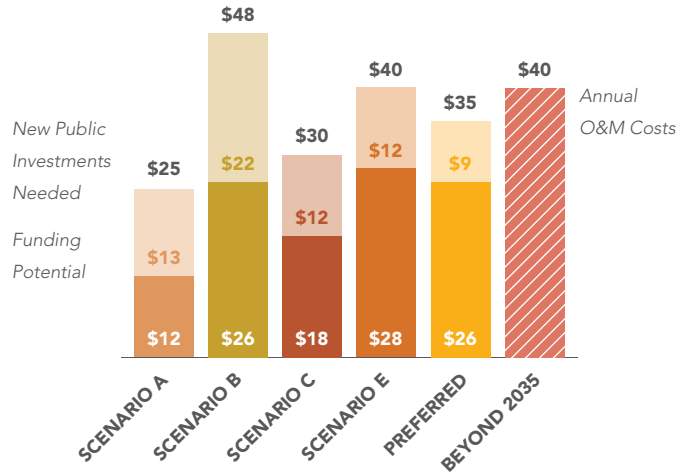
LEVEL OF PUBLIC INVESTMENT
CAPITAL COSTS & FUNDING POTENTIAL ESTIMATES

($ millions)



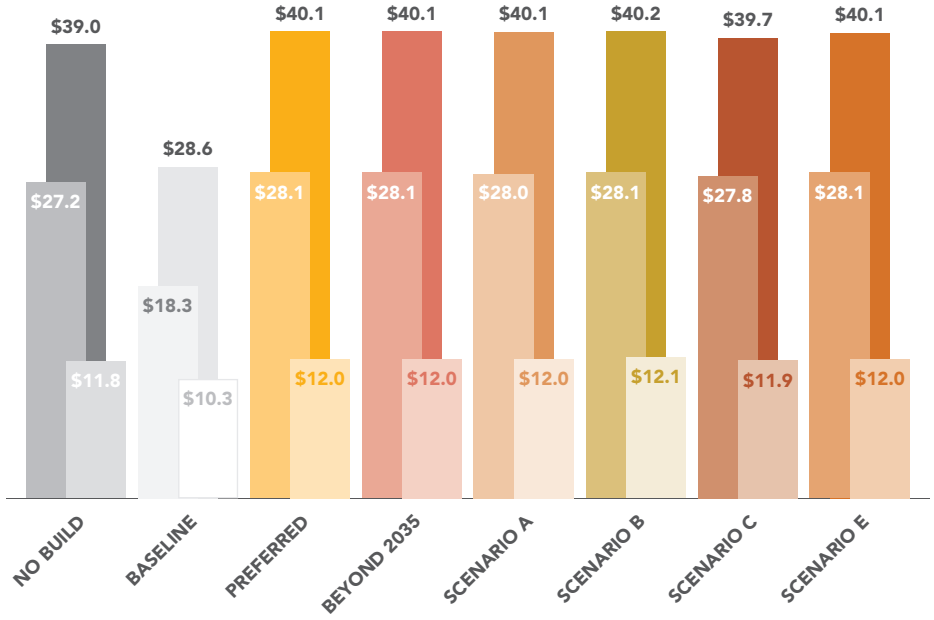
ANNUAL COST FOR OPERATIONS & MAINTENANCE

($ millions)



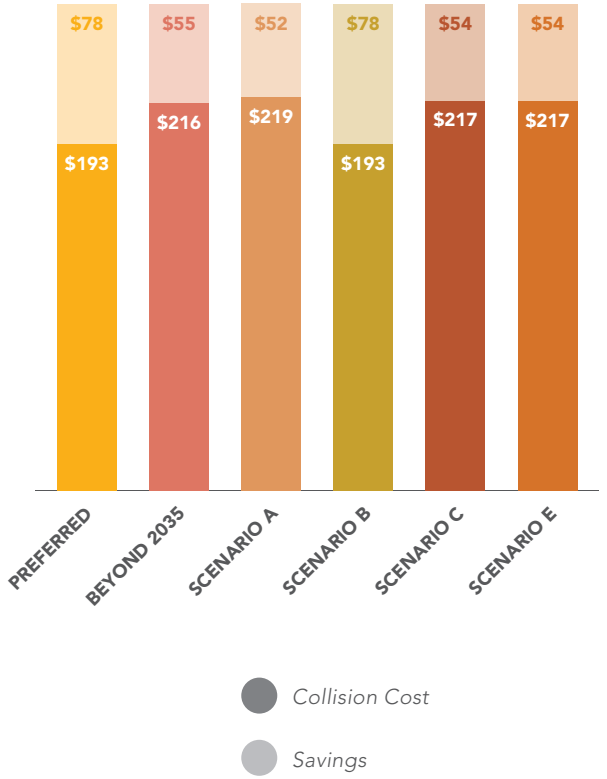
VISITOR TAX REVENUE

(per year in millions)



COST ASSOCIATED WITH COLLISIONS

(millions/year)



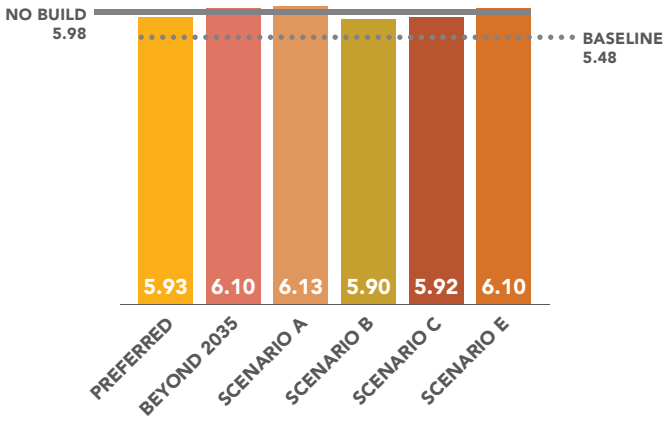
ENVIRONMENT AND HEALTH

Transportation projects can have beneficial or harmful effects on the environment and public health through alterations to environmentally sensitive areas or changes in vehicle emissions. The policy goal to minimize environmental concerns and reduce adverse health impacts is measured by assessing the change in automobile vehicle miles traveled and their associated criteria pollutants and greenhouse gas emissions (GHGs) and evaluating the effects on environmentally sensitive areas.

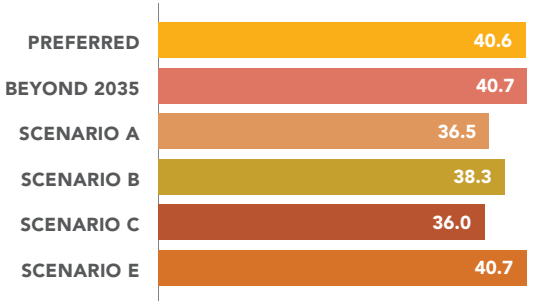
The movement towards cleaner vehicles affects the outcome of these metrics: even if there were no improvements made to Santa Cruz County's transportation infrastructure a substantial decline in criteria pollutants and CO2 emissions is still forecast. The scenarios differ more with regard to vehicle miles traveled and the amount of environmentally sensitive habitat that is impacted.

COUNTYWIDE VEHICLE MILES TRAVELED

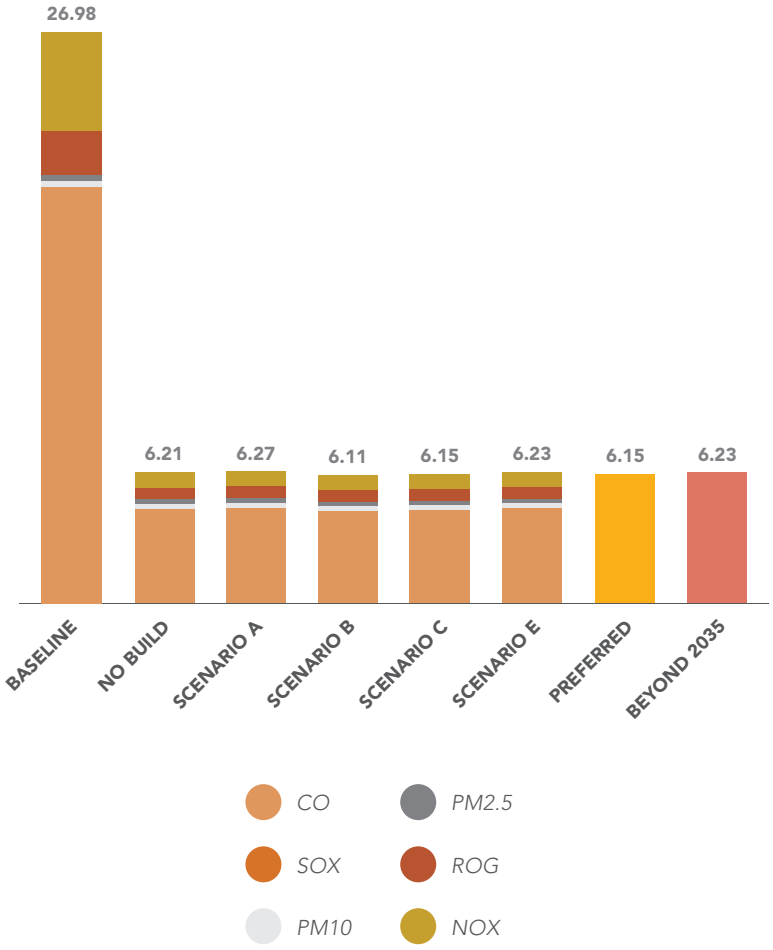
Miles (in millions/day)



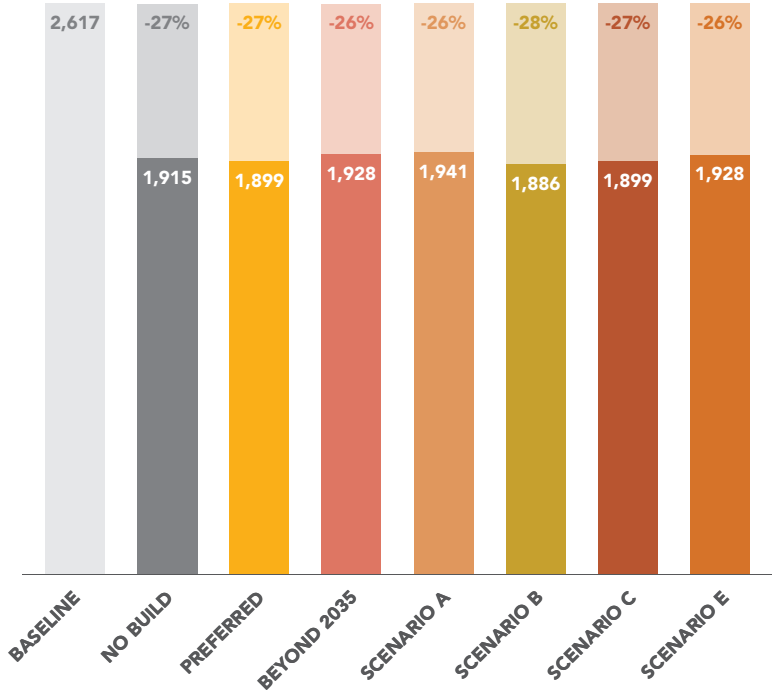
ENVIRONMENTALLY SENSITIVE AREAS



TOTAL CRITERIA POLLUTANTS
(metric tons/day)



CO2e EMISSIONS *(metric tons/day)* AND % REDUCTION FROM 2015 BASELINE



EQUITABLE ACCESS

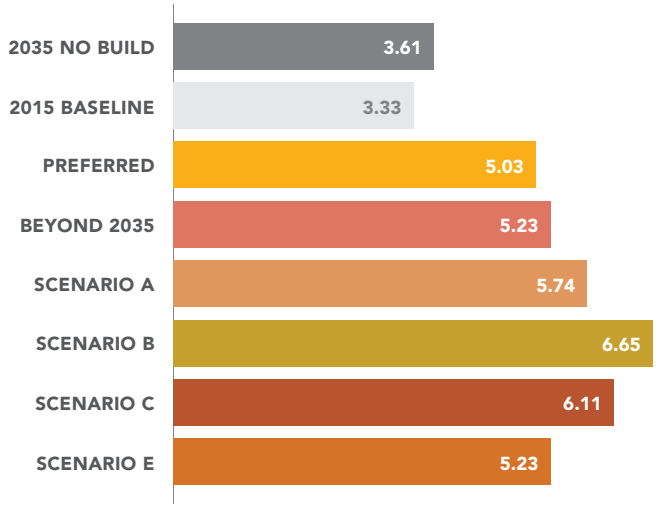
Santa Cruz County residents have varied income levels and physical abilities that may influence which transportation modes are both affordable and accessible. The availability of transportation services effects resident's access to the services they need to maintain independence and good health. The goal of providing an accessible and equitable transportation system that is responsive to the needs of all users is measured by assessing transit vehicles miles traveled, household transportation costs, and the benefits and impacts to transportation disadvantaged communities.

Transportation disadvantaged communities are defined for Santa Cruz County as areas with higher concentrations of low or very low income and minority-based populations. The benefits of the scenarios on transportation disadvantaged communities is evaluated as the share of investment benefit for this population.

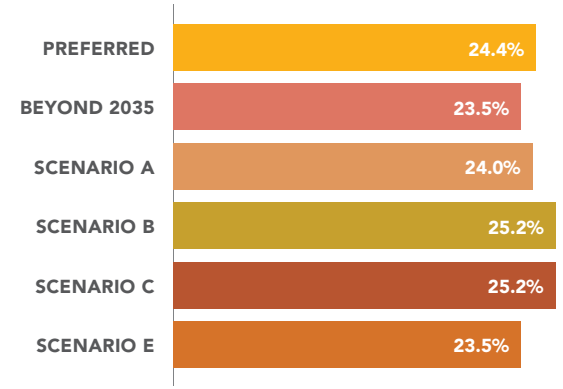
As expected, the scenarios with greater amounts of transit investments show higher transit travel and show greater amounts of investment in transportation disadvantaged communities. All the scenarios help to keep household transportation costs lower than a no-build scenario.

TRANSIT VEHICLE MILES TRAVELED

(millions/year)



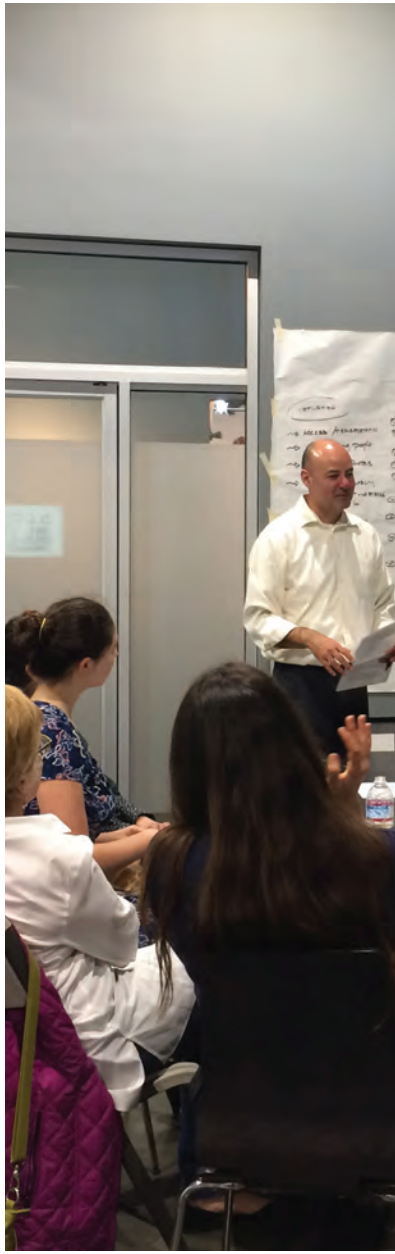
SHARE OF INVESTMENT FOR DISADVANTAGED POPULATIONS



When you Come to The Fork in the Road, Take It

SCCRTC faces a major decision that will impact how future generations are able to access jobs, services and employment in Santa Cruz County and the larger region. While the UCS analysis sheds light on the nuances of how different investments will carry us towards the future, ultimately SCCRTC has to prioritize investments based on what the community feels is the best path for the future.

While it has been difficult to achieve consensus on a solution to moving forward with this change, the SCCRTC must select a path to move forward with transportation solutions for this county. At its January 17, 2019 meeting the Commission unanimously voted to adopt the preferred scenario from the Unified Corridor Study and included a commitment to work with the Santa Cruz Metropolitan Transit District to develop a scope of work for additional analysis of high-capacity public transit alternatives on the Branch Line, including cost, operations, and a funding plan.



CHAPTER 5

AN ONGOING CONVERSATION ABOUT MOBILITY

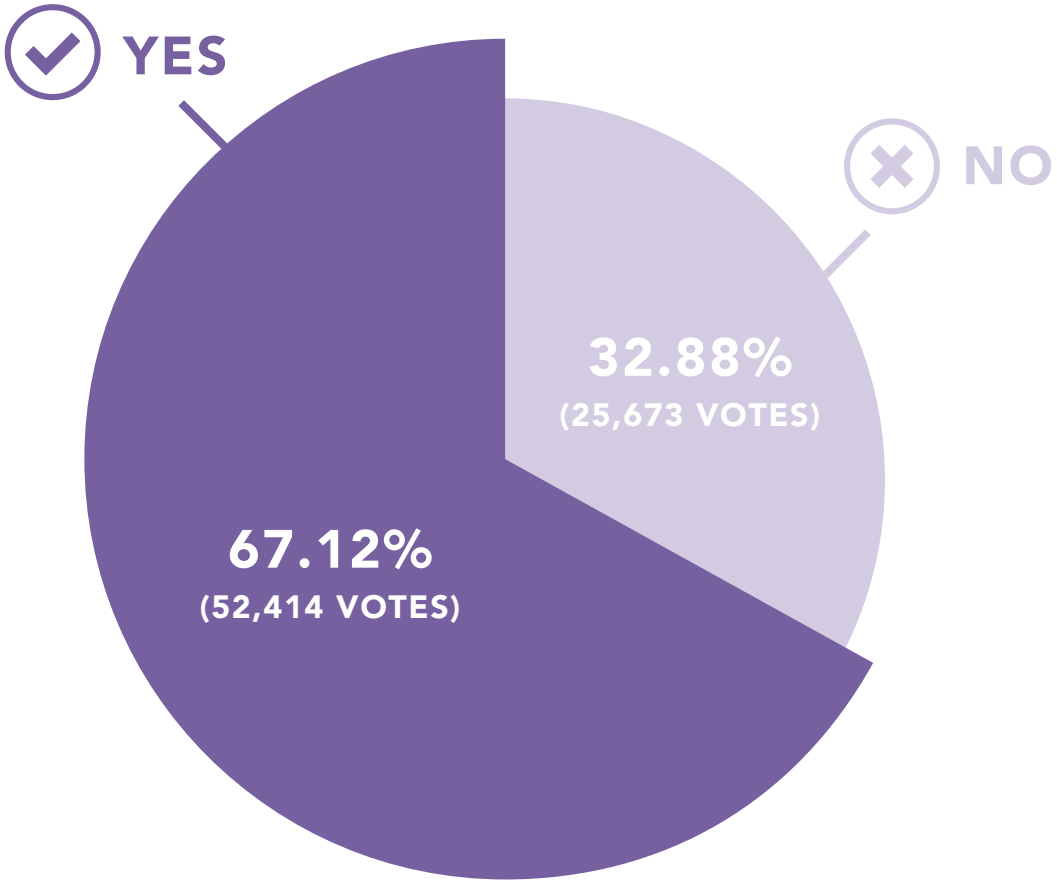
A Broad-Based Community Engagement Approach

The following recommendations are intended to foster coordination efforts internally, with partner agencies, and with the public to determine needs, opportunities, and recommendations that improve transit and multi-modal connectivity across Santa Cruz County. The purpose of community engagement is to support and inform the development of a countywide sustainable transportation strategy. Although focused on transit, bicycle and pedestrian planning, the engagement recommendations can also include other district-wide active transportation and complete streets efforts.

Through community engagement SCCRTC and its partners should continue focusing on priority transportation corridors and specific locations that are lynchpins for the county's sustainable transportation system. However, a broadly-based community partnership is also emphasized as essential for creating specific efforts that engage and inform key stakeholders, communities, and the public in creative and dynamic ways.

MEANINGFUL PUBLIC ENGAGEMENT IS CRITICAL TO ESTABLISHING AN ONGOING COMMUNITY DIALOGUE, ASSESSING LONG-TERM NEEDS AND ACHIEVING SUCCESSFUL IMPLEMENTATION.

MEASURE D VOTER RESULTS



Continue to Build Partnerships

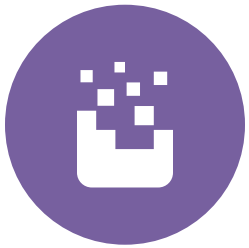
One of the most important lessons gleaned from this visualization and outreach process has been to approach the development of sustainable transportation as an organized community campaign. The success of Measure D—Santa Cruz County's landmark 2016 transportation funding initiative—was due in large part to the wide-ranging support and participation from a variety of groups. Support and ownership of the campaign was developed through direct collaboration in developing the campaign strategy, messaging, and grass roots networking. That same approach is recommended for reinforcing sustainable transportation choices.

GATHER COMMUNITY ADVISORS

Partnership-building starts with a few trusted advisors that can form the basis of a larger scale community effort. Typically, an advisory body takes shape as a committee or technical advisory group consisting of 10 to 20 individuals, each representing specific organizations or constituencies. However, the advisory mechanism can take the form of several municipal advisory committees, these would be more expansive and fluid so that various geographies and a wider variety of organizations are represented. Regardless of structure, the key is to convene ongoing and regular meetings to discuss specific sustainable transportation projects and their related outreach needs. Focusing on key nodes, locations, or corridors will help coalesce community energy and better ensures that community input leads toward specific site or area solutions.

A COMMUNITY MOVEMENT IN SANTA CRUZ COUNTY

Stakeholders suggested key lessons for a robust community movement toward sustainable transportation in Santa Cruz County:

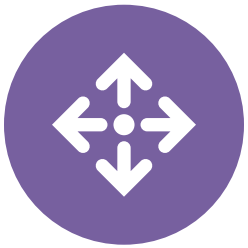


Build that Database

Outreach efforts should aim to reach participants that are reflective of the demographics of the county including age, ethnicity, and income. The database should be considered a living document that requires regular updating.

Categorize Your Stakeholders

These categories can be considered target audiences and outreach methods and messages will need to be tailored to attract and engage them in the planning process.



Coordinate Across Disciplines and Interests

Some groups will have a very clear and direct linkage with transportation, but any successful community outreach will work to reach beyond the usual groups. There will be a myriad of groups that might not typically be considered for a transportation effort, however, proactively searching out and building the link between their agenda and sustainable transportation is a critical component for a truly broad, deep, and inclusive engagement.

Focus on Specific Groups

There are some groups that would gain an outsized benefit should a more robust transit system emerge in the county. These include groups that might be typically more reliant on transit such as young people, senior citizens, or the disabled community.

Targeted Locations, Audiences, and their Key Issues

There are several specific locations throughout the Santa Cruz County that will become critical nodes of sustainable mobility. Most of these nodes will likely be on one of the three primary corridors that cross the county; the Branch Line corridor, Soquel Drive/Avenue, and Highway 1. There may be other areas that will also merit some focus including Highways 17 and 152, for instance. A specific starter set of locations should include the following types of targeted outreach audiences and key issues:

@ BAY AND CALIFORNIA NEAR NEARY LAGOON

In this area of Santa Cruz, the Branch Line corridor crosses through neighborhoods near single family homes and established neighborhoods. Additionally, some blocks and streets are bisected midblock by the corridor creating irregular angles at various intersections. Crossing safety, impacts to properties, and potential noise generated by transit are anticipated key concerns to address. Outreach should be made directly to all properties adjacent to the corridor and to various community and neighborhood groups.

@ THE BOARDWALK

The rail line near the Wharf and Boardwalk will prove to be a very popular option for the thousands of visitors to these key regional attractions. Visitors will have an option to avoid the traffic lines and high parking costs of the area through Branch Line transit. However, a Park & Ride system will need to be publicized and developed to mitigate impacts on satellite parking areas. Also, given that the rail line is integrated directly on Beach Street, pedestrian safety and separation of modes will be critical to stakeholders. Key audiences to reach will include merchants, tourism and economic development groups. Additionally, a specific group to engage includes service industry workers that work at the various hotels, restaurants, and attractions.

@ 17TH & 41ST AVENUES

The neighborhoods and uses around both nodes are diverse and wide ranging. There are small and large businesses, single family residences, mobile homes, and apartments. There are several schools and youth-serving facilities proximate that will rely extensively on the multi-purpose trail and transit. Outreach should focus on issues of access, safety, and mobility for young people. Additionally, pedestrian, bicycle, and supplemental transit connections leading to the Branch Line will be important to area businesses and residences as well as to sustain ridership. A key concern will be the scale and types of potential development near transit.

@ APTOS

There are significant resident concerns about rail transit in Aptos. It is a quiet residential community where homes are right next to the rail right of way. There are also some problematic elements to address including a lack of crossing gate arms, awkward angles at intersections, proximity of the tracks to crosswalks. Also, the community's experience with trains on the Branch Line has been with diesel freight cars. A noise comparison study including electric light rail trains might be useful as will design strategies to mitigate and dampen noise to surrounding properties. A close community collaboration to design strategies specific to this area will be useful to understand specific concerns and collectively arrive at solutions.

@ DOWNTOWN WATSONVILLE

City and business leaders are enthusiastic about the potential for transit to connect South and North County areas. A Downtown Watsonville Specific Plan process is underway that will evaluate land use, density, and parking to accommodate transit-oriented development. Other key issues to resolve will be improvement of multi-modal access on downtown streets, development around the train station, and integration/connection of bus lines to the Branch Line corridor. Bilingualism is key for this community as is the economic development potential that transit represents to the city, businesses, and families. Given the large population of youth (people under 18), outreach should include youth community groups, schools and after school programs. Other successful methods of reaching the primarily Spanish speaking audience is to invest in door-to-door outreach to speak face-to-face with residents and business owners about sustainable transportation.

HIGHWAY 1

The traffic congestion on Highway 1 will be the number one issue for this corridor. The potential integration of bus on shoulder, auxiliary lanes, and pedestrian overcrossing may likely provoke strong reactions. Concerns will be based on perceptions that the multi-modal improvements to Highway 1 will come at the expense of drivers. Additionally adding auxiliary lanes raises concerns about induced demand. Outreach and awareness will need to clarify how these different travel options will actually increase safety and help move more people through the corridor. Also, important to highlight will be transit connections to Silicon Valley on Highway 17. Outreach for the corridor should be broad in scale and equally distributed across the county.

SOQUEL CORRIDOR

The transformation of Soquel Avenue and Drive into a more bicycle and pedestrian friendly corridor will require a wide variety of intersection and corridor improvements. There may be places on Soquel where the configuration of lanes and street parking will be central to the community conversation that must include businesses and commercial areas that front the corridor. Perceived impacts to the flow of single occupancy vehicles will need to be balanced with traffic modeling data and the overall improvement to the movement of people. Also, improvements that connect roadways across Highway 1 can be framed as reuniting communities and improving connectivity to services and amenities.

Multi-Platform Outreach Activities

A combination of specific, location-based outreach and broad-based, corridor- or county-wide outreach will be necessary as the sustainable transportation system evolves in the county. At times, direct communication and engagement at a granular level with neighbors will be appropriate, particularly when impacts to property might be perceived. On the other hand, the considerations about transportation network will also benefit from system-wide approach. In addition to traditional outreach methods such as workshops, a website, and factsheets, these are a few suggested approaches:

DIRECT IN-PERSON VISITS

In areas where transportation improvements are adjacent or very near to homes, early and direct personal interaction with residents and/or homeowners will be important. Though resource intensive, this type of effort to understand concerns up close from the perspective of residents early in the process can work to build community trust while also improving the project. This approach is particularly effective at reaching Spanish-speaking populations which are historically very difficult to engage.

MOCK UP/POP UP

While typical pop-up events are popular and effective, they can also be one dimensional since staff are confined to a table or booth to talk with the public. They typically include graphics and informational materials, and often some form of preference-setting activity. In addition to pop-up events, outreach should include tactile urbanism—a full scale mockup simulation of a proposed change. Using mainly temporary striping tape, cones, chalk and other easy to remove materials a mock up is particularly effective at showcasing new bike lanes and realignment of travel lanes within the same right-of-way, for instance.

PEDESTRIAN INTERCEPTS

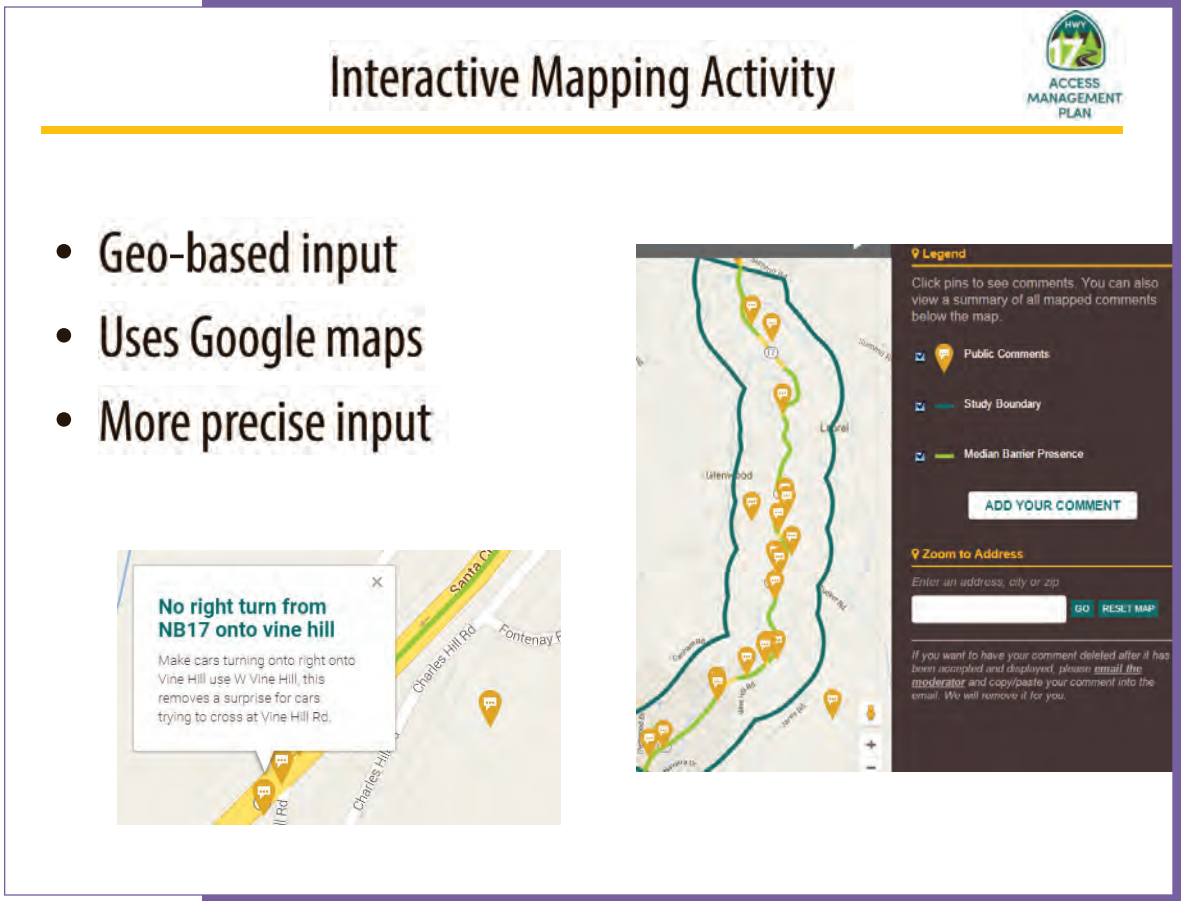
Engagement in the field directly with eventual users of sustainable transit is a tactic that both helps disseminate awareness about forthcoming improvements and simultaneously gathers critical data on user perceptions and expectations. This tactic also places staff onsite to observe and document behavior and context at a potential transit node.

VISUALIZATIONS

Already several visualizations across the county have been created for potential Branch Line nodes, on Soquel Drive to showcase multi-modalism, and in Watsonville to demonstrate complete streets improvements. These are valuable tools that help residents envision possibilities in a way that maps and cross sections simply cannot. Photo-simulations and particularly virtual and augmented reality simulations allow the user to "explore" an area and see it from different vantage points.

SOCIAL MEDIA

Digital posts and ads on social media channels are exceptionally effective at conveying information raising awareness. Paid media can target specific users by demographics, area, or interest and is relatively inexpensive compared to traditional newspapers. Links to reports and data are straightforward if viewers seek more information. Additionally, renderings, plans, or imagery are easily shareable and viewable on many of these platforms. Social media will be particularly useful for projects that are not based in one specific location.



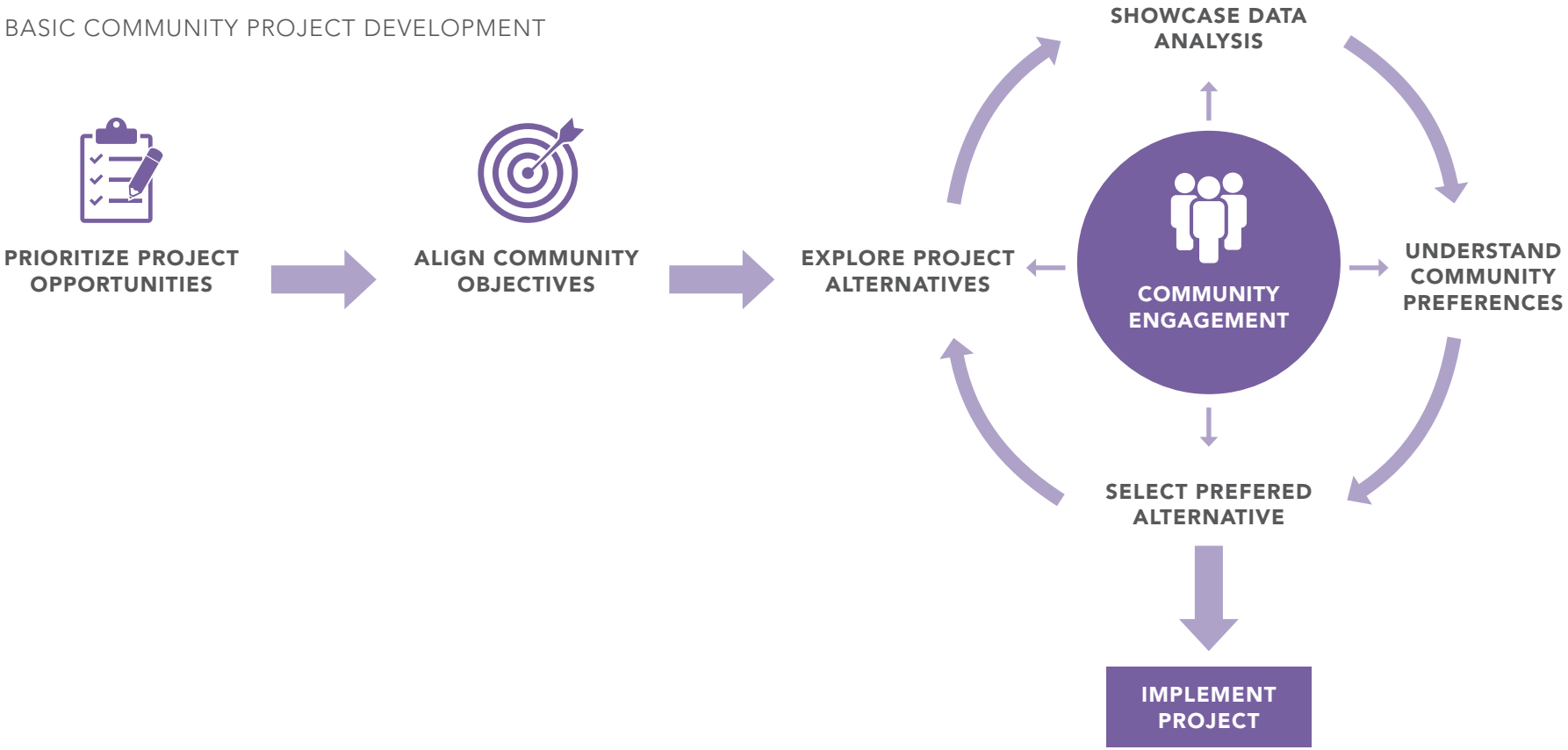
CROWDSOURCED MAP SURVEYS

Several survey platforms allow for a map-based feedback process that encourages residents to provide feedback about specific locations, intersections, or sites of proposed transportation improvements. This platform has the added benefit of presenting current information while also receiving feedback. A geographic-based survey is effective for reaching a wide array of users across a variety of areas or jurisdictions and is inexpensive compared to intercept surveys and other traditional modes of data collection. As a remote tool, participants can opt to participate when convenient.

Show Them the Data

As the engagement continues with small localized improvements and with large-scale system wide solutions, planning and transportation data should be prominent. The public seeks to understand how decisions are made and the reasons proposed solutions are expected to improve mobility in the county. Clarity, analysis, and presentation are important components to consider when presenting data. To the extent possible, the data and engineering information should be made accessible to non-technical people in concise and transparent ways.

BASIC COMMUNITY PROJECT DEVELOPMENT



Crowdsource Solutions

The general approach for engaging the community about sustainable transportation in Santa Cruz County must include a reciprocal flow of information between project sponsors and public. Information and feedback from the public should be considered planning data that can help inform and improve the operations and technical details of a transportation project. To the extent possible, the public should be made aware of project components that are fixed – like safety or accessibility regulations – or others that are flexible. Clear communication about fixed components sets expectations and a container for input, while flexible components are areas where the public can add its preferences and gain a sense of investment in the sustainable transportation networks.