Alameda County

Overview

Alameda County is the second-largest county in the nine-county Bay Area, with a population of over 1.5 million. Alameda County is at the heart of the Bay Area and transportation is a high priority for its residents. The extensive network of roads, rails, buses, trails and pathways carry roughly a million commute trips daily to, from, within and through the county, supporting economic growth in the Bay Area, California and beyond.

Roads and highways

A significant part of the regional and local transportation system, Alameda County roadways move people and goods within the county and beyond and support multiple transportation modes.

- Currently, six of the Bay Area's top ten most-congested freeway segments are in Alameda County and average freeway delays are growing.
- The congestion in Alameda County is compounded by the large amount of vehicle, rail and freight travel through Alameda County between the origins and destinations of San Joaquin, Contra Costa, Santa Clara, San Francisco and San Mateo counties.
- Implementation of intelligent transportation systems, express lanes, metered lanes and other technology is needed to provide traffic relief.
- The majority of Alameda County's 3,988 road miles are minor arterials and local roads that provide access to housing, jobs, education and transit through multimodal improvements.

Transit

Transit plays a critical role in Alameda County and includes rail, bus, ferry and shuttle service provided by public and private operators.

- Approximately 100 million riders are boarding transit annually in Alameda County.
- Of BART's 46 stations, 22 of them are in Alameda County and approximately 34 percent of all BART boardings originate in Alameda County.

Goods movement

Alameda County serves as a gateway for goods movement to and from the county, Bay Area, Northern California and beyond.

 The Port of Oakland is the fifth largest port in the nation and handles 90 percent of Bay Area trade, by weight.

2017 TIP

- Oakland International Airport and two major Class I railroads support international and domestic trade.
- The Bay Area's trucking distribution system is highly concentrated in Alameda County, which has an extensive network of interstate freeways and arterial roads.

Alameda County TIP Projects

The Alameda County projects in the 2017 TIP are targeted to improve the quality and efficiency of the transportation system by addressing the county's diverse transportation needs as identified in the current Regional Transportation Plan, the Alameda Countywide Transportation Plan, Countywide Bicycle and Pedestrian Plan and recent planning efforts resulting in first-time countywide plans for Transit, Multimodal Arterial and Goods Movement.

Highway and major arterial investments are targeted throughout the county to address identified expansion, operational and safety needs. In the more densely populated northern part of the county, various improvements are identified for the I-880 and I-80 corridors, including the I-880 North Safety Improvements and the 7th Street Grade Separations projects. In eastern Alameda County, highway projects include express lane improvements in the I-680 and I-580 corridors and I-580/I-680 interchange improvements. In southern Alameda County, improvements include the Route 262 cross connector between I-680 and I-880.

To increase the use of alternative modes, funding is also directed towards various transit, bicycle and pedestrian and multi-modal improvements on arterials and local roads throughout the county. These projects include Bus Rapid Transit (BRT), and transit- and Priority Development Area (PDA)-supportive projects such as the East Bay Greenway and accessibility improvements at BART stations. Additionally, a large investment in transit rehabilitation and capital is primarily directed towards the Alameda-Contra Costa Transit District (AC Transit) and the Bay Area Rapid Transit District (BART).

The funding for the Alameda County TIP projects comes from a variety of local, regional, state, and federal sources, resulting from local, regional and statewide partnerships to develop strategic funding packages, establish legislation and prioritize transportation investments to advance project delivery. As a result, record-level investments are improving Alameda County's transportation system, including the 2014 Measure BB, which will provide \$8 billion in transportation improvements over the next 30 years.

[Narrative summary provided by the Alameda County Transportation Commission]

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Contra Costa County

Overview

While the Bay Area has more than doubled in population since 1950, Contra Costa County has grown even faster, more than tripling in population between 1950 and 2010. ABAG now estimates that Contra Costa has a population of about 1,038,711 people with about 344,922 jobs. Contra Costa is forecast to add 289,410 residents between 2010 and 2040, a 28 percent increase. Job growth in Contra Costa is expected to be even more substantial, adding 122,470 new jobs, a 36 percent increase.

The Contra Costa Transportation Authority (CCTA) serves as the Congestion Management Agency (CMA) for the county. As the CMA, CCTA prepares a Congestion Management Program and updates it biennially, prepares a recommended list of projects for funding through the State Transportation Improvement Program (STIP), and works with other CMAs and regional and State agencies to address transportation and growth issues in the region and the State. CCTA also manages Measure J, the 2004 half-cent sales tax that succeeded 1988's Measure C, which first established Contra Costa's transportation improvement and growth management program. Measure J, which began on April 1, 2009, extends the sales tax for another 25 years.

THE VISION FOR CONTRA COSTA

As part of the development of its 2016 Countywide Comprehensive Transportation Plan, or CTP, CCTA refined its vision for the future of the transportation system in Contra Costa:

Strive to preserve and enhance the quality of life of local communities by promoting a healthy environment and strong economy to benefit all people and areas of Contra Costa, through (1) a balanced, safe, and efficient transportation network, (2) cooperative planning, and (3) growth management. The transportation network should integrate all modes of transportation to meet the diverse needs of Contra Costa.

To achieve this vision, CCTA has identified five goals and 31 strategies to help carry them out:

- Support the efficient and reliable movement of people and goods using all available travel modes;
- Manage growth to sustain Contra Costa's economy, preserve its environment and support its communities;



- Expand safe, convenient and affordable alternatives to the single-occupant vehicle;
- Maintain the transportation system; and
- Continue to invest wisely to maximize the benefits of available funding.

Achieving the vision and goals will require finding the right balance among the different, and sometimes competing, needs of Contra Costa's residents and businesses, including:

- Improving the regional system of roads, transit, trails and pathways while ensuring that the existing system is well maintained;
- Balancing the needs of through-traffic with the access needs and quality of life of adjoining neighborhoods and business areas;
- Recognizing the differing needs and situations of Contra Costa's subareas while developing a workable approach to countywide and regional initiatives;
- Recognizing that increased highway capacity will in the future come more from operational and technological improvements and not from widening roadways; and
- Supporting and encouraging the use of transit, carpools, bicycling and walking often within limited rights-of-way.

Finding this balance will require cooperation among the jurisdictions of Contra Costa and the support of residents and the business community.

CONTRA COSTA TIP PROJECTS

The projects in the proposed TIP support the goals CCTA has adopted especially the first and third goals:

- Support the efficient and reliable movement of people and goods using all available travel modes
- Expand safe, convenient and affordable alternatives to the single-occupant vehicle

Support efficient and reliable Movement on Highways and Arterial Roads. Probably the highest-profile Contra Costa County project in the TIP focused on enhancing vehicular movement is the I-680/SR4 Interchange Improvement project. The project will reduce congestion and improve operations along SR4 and 680 in the vicinity of the interchange. The 2017 TIP also includes additional improvements to State Route 4, including a new interchange at Balfour Road and a new Integrated Corridor Management Project focusing on operational improvements. In addition, the 2017 TIP includes the HOV lane completion project on southbound I-680 through the SR 24 interchange. When completed, the project will result in a continuous carpool lane from the Benicia-Martinez Bridge to the Alameda County line.



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Numerous arterial and interchange improvement projects are also planned to relieve congestion and improve circulation on city streets. In West County, these projects include improvements to the I-80/San Pablo Dam Road interchange in San Pablo and I-80/Central Avenue in Richmond. In Central County, they include a Kirker Pass Truck Climbing Lane. East County projects include the widening of Brentwood Boulevard in Brentwood and Main Street Realignment in Oakley. In Southwest County, projects include improvements to Bollinger Canyon Road in San Ramon.

Expand safe, convenient and affordable alternatives to the single-occupant vehicle. The TIP includes a large number of projects that support the transit system. The Eastern Contra Costa BART Extension, or eBART, when completed, will provide connecting transit service from Antioch west to the existing Pittsburg/Bay Point BART station. Other improvements include the construction of park-and-ride facilities and transit stations, including work at the Martinez and Hercules Intermodal Stations, Transit Oriented Developments at Walnut Creek and Richmond Transit Village and park-and-ride lots serving the Tri Delta system. The HOV improvements mentioned above will also support this goal.

The 2017 TIP also programs funding for a number of pedestrian and bicycle projects that will close gaps and improve pedestrian and bicyclist safety in Contra Costa. These include projects such as streetscape improvements near the BART stations in El Cerrito and Concord, the Detroit Avenue Bicycle and Pedestrian Improvements in Concord, the Moraga Way Pedestrian Pathway in Orinda, Transit Station Access Improvements for the new eBART station in Pittsburg, Transit Village streetscape improvements along Nevin Avenue in Richmond, and bicycle/pedestrian improvements on Golf Club Road in Pleasant Hill and San Pablo Avenue in San Pablo.

[Narrative summary provided by the Contra Costa Transportation Authority]

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Marin County

Marin County TIP Projects

Although Marin is usually thought of as a suburban residential and recreational area, ranching and dairy farming are major features of the rural areas of West Marin. Industry in the county includes movie and video production, computer software, communications equipment, bioengineering, financial services, printing, and the manufacture of plastic products, ceramics, candles, and cheese.

Marin County is linked to San Francisco by the Golden Gate Bridge and to the East Bay by the Richmond-San Rafael Bridge. It is bordered on the north and northeast by Sonoma County and on the west by the Pacific Ocean. Marin is the slowest growing county in the region in terms of population. Marin currently has approximately 260,000 residents. Marin residents prefer to retain the county's small town atmosphere and have established strong policies against development outside the urban corridor. Over 90 percent of the growth anticipated in Marin County will occur within the urban corridor, along Highway 101.

To address Marin County's most immediate transportation needs, residents, elected officials and planners agreed, after extensive public meetings, that local funding was indispensable. As a result, Measure A, a ½ cent transportation sales tax, was approved on November 2, 2004, generating approximately \$25 million annually for 20 years. Marin residents also voted to pass Measure B on November 2, 2010 to increase the annual vehicle registration fee by \$10 to help fund transportation improvements, generating approximately \$2.2 million annually. In addition to the sales tax and vehicle registration fee measures, Marin County has aggressively tapped into other regional, state, and federal funds to achieve the county's transportation goals.

Local matching funds will also help Marin County develop and implement plans to provide a variety of quality multi-modal transportation options for Marin residents, including improved bicycle and pedestrian access, senior mobility, and enhanced transit services.

Other notable projects of regional significance in Marin County include:

Marin Sonoma Narrows (MSN) – The overall project scope includes upgrading US-101 from expressway to freeway, extending approximately 16 miles of high occupancy vehicle (HOV) lanes from SR-37 in Novato, Marin County to north of Corona Road Overcrossing in Petaluma, Sonoma County; constructing new interchanges, frontage roads and pedestrian/bicycle facilities; and installing traffic

operation system (TOS) improvements such as traffic monitoring stations and ramp metering on mainline and ramps. The environmental document for this project was approved in October 2009. Construction of the first contract of Phase 1 started in July 2011 and was completed in November 2012. The Construction of three additional contracts began in fall 2012. Two of these three contracts were completed in November 2013 and December 2014, respectively. The remaining construction contract (MSN B1 Phase 1) that started in 2012 is substantially complete and is being prepared for close-out. The completion of these construction contracts will extend northbound HOV lane on US-101 from SR 37 to 1.4 miles south of Redwood Landfill Interchange, extend southbound HOV lane to Rowland Boulevard on-ramp, provide full service interchange at Redwood landfill and extend Redwood frontage road to Olampali State Park as well as provides Class I bike path through Olampali State Park. The MSN B3 (Hwy 101 San Antonio Bridge Replacement) and L1A (Mitigation and Soundwall) contracts have recently begun construction in spring 2016. The MSN B6 project (San Antonio Road Bridge), with Marin County as the project sponsor and administered by the Transportation Authority of Marin (TAM), entered the environmental revalidation and preliminary design phase in December 2014. No other future MSN contracts are anticipated to be initiated until future funds are identified.

- Central Marin Ferry Connection (CMFC) Multi-use Pathway Project Located in the City of Larkspur, this recently completed project provides a new Class 1 facility following the County's North-South Greenway, which is generally located within the Sonoma Marin Area Rail Transit (SMART) District's right-of-way. The project intends to further promote non-motorized commute alternatives and enhance recreational travel while providing safe, direct and convenient pedestrian/bicycle access between local transit facilities, schools, business centers and residential communities. The path directly connects the recently completed Cal Park Hill Multi-Use Pathway with an existing east/west multi-use path along Sir Francis Drake Boulevard.
- North/South Greenway Gap Closure Project (CMFC Phase II) This project is the second phase of an overall effort to close a gap in the non-motorized transportation network crossing multiple jurisdictional boundaries in central Marin. The proposed multi-use path will connect the existing paths at the intersection of Old Redwood Highway and Wornum Drive with the recently-opened bridge crossing Sir Francis Drake that leads to the Cal Park Hill multi-use path. The path alignment will be studied during the preliminary engineering and environmental documentation phase.

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- Sonoma-Marin Area Rail Transit (SMART) Rail and Pathway Project In 2008, voters in Marin and Sonoma Counties passed Measure Q to collect a one-quarter percent sales tax for the construction and operation of the SMART District commuter rail and non-motorized pathway project in both counties. Construction began on Phase 1 of the project in 2012 and the start of revenue rail service is scheduled to begin in FY 2017. As of December 2013, the scope of the SMART Phase 1 project extends 43-miles from Downtown San Rafael Station north to the Sonoma County Airport Station, with eleven segments of the pathway within those boundaries. Elements of the project include civil track reconstruction, bridges, crossings, signals and positive train control systems, maintenance facilities, stations, pathway segments, and rail car construction. A subsequent extension was funded from Downtown San Rafael to Larkspur Ferry Terminal. Revenue service for this extension is scheduled to begin in FY 2018.
- Richmond-San Rafael Bridge Improvements The Bay Area Toll Authority (BATA) is working diligently on a \$74 million project to improve access to Eastbound 580 across the Richmond-San Rafael Bridge. Additionally, the project will add a multi-use path to the upper deck providing bicycle and pedestrian access between Marin and Contra Cost Counties. As a part of this portion of the work, the Main Street on-ramp will be reconfigured in Marin and a retaining wall will be reconstructed in Richmond. The upper deck multi-use path will feature a 10-foot wide barrier-separated path from Main Street to Marine Street along the north part of I-580. The path will provide access to an additional path to be constructed to Point Molate. Improvements will be made along Francisco Boulevard East in Marin and along Sir Francis Drake on-ramp to I-580 to better access the path. The current BATA schedule shows advertisement in summer of 2016 and project completion in Summer/Fall of 2017.

[Narrative summary provided by the Transportation Authority of Marin]

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Napa County

Napa County TIP Projects

At approximately 137,000 residents Napa County has the smallest population in the Bay Area. It is primarily an agricultural county, world renowned for the quality of its vineyards and the wines produced from this region.

With its wineries, world-class restaurants, and restful scenery, this bucolic county lures three million visitors each year. Napa County voters and policy makers have embraced and adopted Smart Growth and agricultural preservation policies, including the first formal agricultural preserve in the country, which has protected the rural character of Napa County. The county's voters also approved a transportation sales tax in 2012 to rehabilitate local streets and roads, which takes effect in 2018.

The three million tourists that visit each year, combined with commute and local traffic, places great strain on the transportation network. Traffic congestion on main arterials such as SR-29 and Silverado Trail has become a critical issue for workers, residents, and the economic vitality of the region. The Vine transit service is provided to all of the cities (including extensive service in the City of Napa), connecting service to Sonoma County, Solano County, the BayLink Ferry in Vallejo, and to the El Cerrito Del Norte BART station in Contra Costa County. A new multimodal transit center in Napa, the Soscol Gateway Transit Center, opened in 2012 and route coverage and hours of service were updated to improve the transit system. Although the transit service has been increasingly successful, congestion relief and safety improvements are still needed in several locations. An extensive bicycle network has been planned, but is presently incomplete due to insufficient funds. A major north/south Class I facility, the Napa Valley Vine Trail, is being pursued by a broad coalition of citizens, local organizations and government agencies. A countywide pedestrian plan will be completed in the summer of 2016 and will develop a priority list of pedestrian projects throughout the county that will improve pedestrian access to schools and businesses.

The projects in the TIP address the areas of concern mentioned above. Additional connections adjacent to SR-29 along Devlin Road between the County of Napa and the City of American Canyon are also underway. The Devlin Road and Eucalyptus Drive extensions will provide congestion relief and better circulation along the SR-29 corridor. The roadway network will have new pavement at certain segments, safety improvements in key locations, capacity increasing projects, and a number of enhancements to meet Complete Street requirements. Improvements to the Napa County highway system

include interchange improvements at SR-29 and Petrified Forest Road as well as SR-29 and Grayson Avenue. The California Roundabout Project serves as the gateway to the City of Napa's Priority Development Area and will improve circulation and level of service in the vicinity. The Roundabouts will be constructed at the intersections of First Street and California Boulevard, Second Street and California Boulevard, and at the northbound off-ramp of SR-29 at First Street. The City of Napa is further planning improvements to the five-way intersection of Silverado Trail (SR-121), Third Street, Coombsville Road, and East Avenue.

The projects in the TIP will improve the safety, access, and mobility of the multimodal transportation system in the Napa communities.

[Narrative summary provided by the Napa Valley Transportation Authority]

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City and County of San Francisco

San Francisco TIP Projects

The 2017 TIP provides funding for a variety of projects in San Francisco over the next four years which will improve safety and mobility for its residents, workers, and visitors; improve air quality; reduce greenhouse gas emissions; and provide necessary infrastructure for anticipated housing and job growth.

Major transit projects in the TIP include the electrification of Caltrain and construction of a new Transbay Transit Center (TTC) that will serve as the San Francisco Bay Area northern terminus of the proposed California High Speed Rail. Caltrain has completed the procurement process for the design-build electrification and vehicle manufacture contracts and anticipates awarding both contracts by July 2016. The TTC entails construction of the new Transbay Terminal (to be completed in 2017), the development of a blended high-speed rail system, coordinating high speed rail construction and operations with existing passenger rail services (e.g., Caltrain in the San Francisco Peninsula corridor), as well as pedestrian and bicycle improvements associated with the TTC. For the Central Subway Project, which will extend the Third Street Light Rail service to connect neighborhoods from the Visitacion Valley, Bayview Hunters Point, South of Market (SOMA), Financial District, to Chinatown, the San Francisco Municipal Transportation Agency (SFMTA) is proceeding with construction work at the stations upon completion of the running tunnels and anticipates starting the revenue service in 2019.

The San Francisco County Transportation Authority (Transportation Authority), working in close coordination with the SFMTA, received certification for its final environmental document in 2013 for the Van Ness Avenue Bus Rapid Transit (BRT) project and is currently about to enter construction. The Transportation Authority, in partnership with the SFMTA, is preparing the Final EIS/EIR for the Geary Boulevard BRT project, scheduled to be released in Fall 2016. The proposed BRT projects would provide high-quality rapid transit service that would reduce travel time, increase reliability, and improve passenger comfort. Anticipated elements of San Francisco's BRT network include dedicated bus lanes, transit signal priority, all-door boarding and proof of payment, reduced stop spacing, real-time bus arrival information to riders, high quality bus stations, and pedestrian/streetscape improvements and amenities to improve access for pedestrians and bicyclists to the transit stations.

The TIP also includes funding for the annual availability payments for the Presidio Parkway Project, which has been constructed under an innovative public-private partnership. The project has successfully replaced the structurally deficient Doyle Drive, the southern access to the Golden Gate Bridge on US 101 connecting San Francisco to Marin and the North Bay, with a safer, more context-sensitive, and more accessible Parkway. The Project has reached its substantial completion in 2015 and will complete the remaining construction work by the end of 2016.

Another major capital project in the TIP is the Yerba Buena Island (YBI) I-80 Interchange Improvement Project, including 1) east side ramps reconstruction to improve traffic safety and operations, and 2) west-side bridges retrofit to meet seismic safety standards. This project is independent of, but closely coordinated with the Bay Bridge and Treasure Island Redevelopment projects. Construction of new east side ramps started in January 2014 and is scheduled to be complete by September 2016. The west-side bridges retrofit project is in the preliminary engineering phase with final design and right-of-way certification efforts underway and expected to be complete by late 2017, with a construction start anticipated by early 2018.

San Francisco has continued its efforts to improve transportation demand management (TDM) activities in order to improve air quality and reduce greenhouse gas emissions. Notably, the Transportation Authority, officially designated as the Treasure Island Mobility Management Agency in 2014, is currently undertaking the Treasure Island Mobility Management Study to recommend pricing program policies as part of the efforts to redevelop the Island to a sustainable urban neighborhood, aiming for adoption of toll policies in 2016 and a program launch in 2019.

Linked to ongoing development efforts, the TIP includes significant new transportation infrastructure to support planned growth in the southeast sector of the city, particularly SOMA, Mission Bay, Bayview/Hunters Point, Candlestick Point, and the San Francisco/San Mateo county line, as well as the Park Merced development in the western sector.

Many smaller projects in the TIP would be implemented in various locations throughout the city to preserve and enhance the basic transportation infrastructure to benefit all users, including signal timing and management projects, street resurfacing projects, curb ramps, and numerous traffic calming projects. In addition, the 2017 TIP provides funding for projects that promote safety and connectivity for pedestrians, bicyclists, and transit riders, such as major streetscape projects and Vision Zero projects with a safety focus to reduce traffic deaths in San Francisco by 2024.

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The SFMTA's Transit Effectiveness Project (TEP), the first comprehensive review of Muni in a generation to improve transit reliability, travel time, and customer experience, launched the Muni Forward program in 2014 to implement route changes and service improvements to reallocate limited resources where most needed and anticipates completing the first round of identified improvements by 2020.

The TIP also includes a number of transit improvement projects in addition to the major transit infrastructure and operational investments mentioned above. For instance, it shows significant funds for the ongoing replacement of the SFMTA vehicle fleet, which serves approximately 700,000 daily passengers, more than any other Bay Area transit system. The SFMTA's vehicle acquisition and rehabilitation program, overhead line and rail replacement program, and facilities improvement program will help provide better, more reliable service to its passengers. The TIP also includes similar critical rehabilitation and upgrade projects for regional transit operators that serve San Francisco, including the Bay Area Rapid Transit District (BART) and Caltrain.

The County looks forward to working with our project partners to bring these and other projects to fruition to improve the quality of life in our city and the Bay Area.

[Narrative summary provided by the San Francisco County Transportation Authority]

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San Mateo County

San Mateo County TIP Projects

Based on California Department of Finance Projections 2014, by year 2040, San Mateo County's population will be 874,626. About one quarter of the county's 286,720 acres is urban, and the remaining three-quarters are primarily rangeland or forest. The urbanized area is concentrated in the vicinity of US Highway 101 and the Caltrain corridor. The primary routes to the agricultural and open space coastal areas are State Route 92 (SR 92) from San Mateo and State Route 1 (SR 1) from Pacifica. In 2014, about 79 percent of commuters drove to work and about 10 percent took transit.

Emphasized transportation projects within San Mateo County include the following:

Roadway Projects

- **US 101 and Interstate 280 corridors** The major north-south artery in San Mateo is the US Highway 101 (Bayshore Freeway). San Mateo County has the vision to extend the existing managed lanes on the US 101 corridor. Various interchange improvements are also under consideration. County share of the State Transportation Improvement Program (STIP) are programmed for improving the US 101/Willow Road interchange and the US 101/ SR 92 interchange. Due to the limitation for expansion, most improvements in these corridors will be for improved operations and management of the existing system. Ramp metering has been completed along the entire US 101 within the county. Ramp metering along the portion of Interstate 280 north of I-380 has been completed.
- **SR 92 corridor** Projects focusing on the Route 92 corridor include operational improvements at the Route 92/ Route 82 (El Camino Real) interchange, and operational improvements for the US 101/ Route 92 interchange where conditions are extremely congested.
- **SR 1 corridor** Highway 1 projects include operational improvements between Fassler Avenue and Westport Drive in Pacifica, and various safety improvements in Half Moon Bay and the unincorporated areas.

Transit

• Caltrain State of Good Repair Program — The Caltrain SOGR program includes a number of projects with the shared goal of maintaining efficient and reliable railroad operations. These include replacing and rehabilitating track and related civil structures, as well as signal and communication equipment that have



- reached the end of their useful lives. The SOGR program also includes station rehabilitation and improvements, ongoing rehabilitation of existing Caltrain rolling stock, and periodic assessment of the entire route to ensure the rail system is maintained in a state of good repair and is kept in good working order.
- Caltrain South and North Terminal Enhancement Projects Caltrain is developing several projects that will enhance the capacity and operational efficiency of the railroad's terminals in San Francisco and San Jose. This includes planning and conceptual design work for a project to modernize and improve the Caltrain station and terminal at 4th and King. Caltrain also has developed a series of projects at the southern terminus to accommodate future service capacity for Caltrain operations, as well as other tenant operators, including Altamont Commuter Express, Amtrak Capitol Corridor, and Union Pacific Railroad.
- Caltrain Modernization The Caltrain Modernization Program, scheduled to be operational by 2020, will electrify and upgrade the performance, operating efficiency, capacity, safety and reliability of Caltrain's commuter rail service. In the future, the infrastructure developed as part of the Caltrain Modernization Program will also accommodate California's statewide high-speed rail service. Caltrain and high-speed rail will primarily share Caltrain's existing tracks, operating on a blended system.

The Caltrain Modernization Program includes the electrification of the existing Caltrain corridor between San Francisco and San Jose; the installation of a Communications Based Overlay Signal System Positive Train Control (CBOSS PTC), which is an advanced signal system that includes federally-mandated safety improvements; and the replacement of Caltrain's diesel trains with high-performance electric trains called Electric Multiple Units (EMUs).

The \$2.13 billion program is funded through a nine-party agreement that leverages local, regional and federal funding to match \$705 million in voterapproved high-speed rail bond revenues.

CBOSS PTC – CBOSS PTC is an advanced signal system that will equip the Caltrain corridor with federally-mandated safety technology by 2016 and will increase system capacity to help accommodate future increases in ridership demand. This project will enhance safety, increase system capacity, and improve highway grade crossing gate downtime. The project will enhance overall safety by eliminating the risk of train-to-train collisions, reducing the risk of potential derailments and providing additional safety for railroad workers on the tracks. With improved grade crossing functions, travelers crossing the tracks will benefit from reduced gate downtime and improved local traffic circulation. Finally, CBOSS PTC

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- will increase operating performance resulting in more frequent and more dependable passenger service
- Peninsula Corridor Electrification Project The PCEP will electrify the Caltrain corridor with an overhead contact system that will supply power to new, Electric Multiple Unit (EMU) trains. The new EMUs will have better performance than diesel-powered trains, consume substantially less energy, and will result in improved air quality and reduced noise. The 2017 TIP includes funding for the replacement of locomotives and rail cars for Caltrain. The replacement of existing locomotives and passenger rail cars that will be at the end of their useful life will coincide with the Caltrain Electrification Program. These vehicles are proposed to be replaced with EMUs, as discussed above.
- SamTrans State of Good Repair Program, including Required Revenue Vehicle Replacement The 2017 TIP includes funding for the replacement of fixed route bus and paratransit fleets as the vehicles reach the end of their useful lives. As part of SamTrans' on-going sustainability efforts, the agency will evaluate, with each sub-fleet replacement, whether to procure clean technology vehicles. Both financial and technical feasibility will be key factors in such consideration. The 2017 TIP also includes a portion of the funding required for SamTrans preventive maintenance efforts, as well as funds for other state-of-good repair projects, such as facilities rehabilitation and upgrades, bus communication systems, and others.
- SamTrans' support of Grand Boulevard Initiative and Last Mile Connection TDM Program – SamTrans is a partner of the Grand Boulevard Initiative, which is a collaboration of cities, counties, transit agencies, among others, along the El Camino Real in the Peninsula and South Bay. This Corridor is a planned Priority Development Area (PDA) prioritized for housing and job development with amenities and services that foster a transit and pedestrian-friendly environment. The 2017 TIP includes planning and capital projects in support of this effort. In addition to being a partner in the Grand Boulevard Initiative, SamTrans also supports a number of pilot projects as part of the Last Mile Connection TDM program in San Mateo County.

Alternative Modes of Transportation

The 2017 TIP includes funding for pedestrian enhancement projects, bicycle route improvement projects, and safe routes to school educational projects in various locations throughout San Mateo County. These projects promote alternative transportation modes and improve pedestrian and bicyclists safety. Example projects include transit accessibility improvements for bicyclists and pedestrians, pedestrian facility enhancements, and improvements to the countywide bicycle network.

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• SR 82 Complete Streets Project in South San Francisco – The 2017 TIP includes funding to develop a major complete streets project on the El Camino Real Highway which strives to establish a balance between transportation modes by providing bike and pedestrian enhancements in support of the Grand Boulevard concept.

[Narrative summary provided by the City/County Association of Governments of San Mateo County]

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Santa Clara County

Santa Clara County TIP Projects

As of January 1, 2015 Santa Clara County's population was approximately 1.89 million, making it the largest of the nine Bay Area counties. The county has 15 incorporated cities, including San Jose, which is the third largest city in California, following Los Angeles and San Diego. Santa Clara continues to be the larger of the San Francisco Bay Area's two major employment centers, and attracts workers from most of the Bay Area, as well as the non-Bay Area counties of Merced, Monterey, San Benito, San Joaquin and Santa Cruz.

Santa Clara County enjoys a relatively balanced jobs/housing split and county residents fill roughly 80% of Santa Clara County's jobs. Significant and continuing housing construction over the last three years is causing that percentage to rise. However, the scale of the county's economy makes the relatively small import percentage translate into hundreds of thousands of daily commute trips.

Within Santa Clara County, local bus, express bus, and light rail service is provided by the Santa Clara Valley Transportation Authority (VTA). Caltrain, Altamont Corridor Express (ACE), and Amtrak's Capitol Corridor provide regional passenger rail services. Major freeways include SR-17, SR-85, SR-87, US-101, I-280, I-680 and I-880. In addition, Santa Clara County is unique among California counties in that the County owns and operates its own expressway system.

Santa Clara County has a number of improvements to its transportation system planned and included in the 2017 TIP. Major transportation projects programmed in the 2017 TIP include the BART - Warm Springs to Berryessa Extension, funded with State Transportation Improvement Program (STIP), Federal Transit Administration Section 5309, and local sales tax funds. It is currently in construction with passenger service by 2018. In addition to state funds, Santa Clara County also uses federal funds for the improvement and maintenance of its multi-modal local streets and roads network, including improved bicycle and pedestrian infrastructure and road rehabilitation. This includes projects that received Active Transportation Program (ATP) funding, such as the Coyote Creek Trail project in San Jose. The county has access to its local transportation sales tax measures, which is used for transit projects as well as leveraging state and federal funds. To meet both internal and external travel demands Santa Clara County has developed multiple transportation investment strategies. The projects included in

the 2017 TIP reflect both internal and gateway transportation investments in the county's roadway, transit and bicycle networks.

[Narrative summary provided by the Santa Clara Valley Transportation Authority]

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Solano County

Solano Comprehensive Transportation Plan Consistency

The Solano County 2017 TIP project listing was developed in coordination with Solano Transportation Authority (STA), public transit agencies, the seven cities and the County of Solano. The projects included in the 2017 TIP collectively reduce GHG emissions, improve mobility, reduce congestion, ensure travel safety, and provide ladders of economic opportunity to the citizens of Solano County. This is consistent with the Solano Comprehensive Transportation Plan's goals and objectives, including:

- Identify a transportation system that supports the existing and planned land uses of Solano County's seven cities and the County of Solano.
- Maintain regional mobility while improving local mobility.
- Assess projects and programs based on their ability to balance the goals of economy, environment and equity.
- Encourage projects and programs that maintain and use existing systems more efficiently before expanding infrastructure.

Solano County 2017 TIP Narrative

Roadway Projects

The 2017 Solano County TIP projects include major improvements along the I-80 and State Route (SR) 12 Corridors. The projects identified on the I-80 corridor include large capital projects related to the I-80/I-680/SR-12 Interchange. The first segment of this project, WB80 to WB12 west connector and a new Green Valley overcrossing, is expected to complete construction in Fall 2016. In addition, the 2017 TIP includes new I-80 Express Lanes, which consists of a HOV lane conversion for the I-80 corridor in Fairfield from Red Top Road to I-505 and construction of new Express Lanes from Airbase Parkway to I-505 in Vacaville.

State Route 12 (SR12) will see improvements at the intersection of State Route 113 (SR113), where Caltrans is expected to propose a round-about, with construction expected to begin in Summer 2018. This improvement will vastly reduce the amount of waiting time for cars from SR113 entering onto SR12, which can at times cause a significant back-up.

The Jepson Parkway Project, with its four unique phases, is also included in the 2017 TIP. The Jepson Parkway Project is a multimodal route that will provide a route for local traffic to avoid traveling on I-80. Jepson Parkway travels through the cities of Fairfield, Suisun City, and Vacaville, and portions of unincorporated Solano County adjacent to Travis Air Force Base. The Jepson Parkway Project continues to be a priority project for

2017 TIP

the STA and its member agencies. STA anticipates to have the first 2 phases begin construction by Fall 2016.

The Parkway Blvd/UPRR Grade Separation project will help to improve safety in Dixon by connecting two previously blocked off communities with a grade separated crossing over the rail road tracks. This project will help to promote access and improve safety throughout the city and save all modes of transportation time by not having to travel around the area or trapped in a traffic queue waiting for a train to pass.

The 2017 TIP also includes a number of projects related to maintenance, safety improvements and rehabilitation of local streets and roads. This includes roadway improvement projects that provide better and safer access to Travis Air Force Base.

Transit

Solano County currently has six transit operators, which includes the countywide intercity paratransit service. The 2017 TIP includes intermodal transit centers, transfer facilities and bus shelter infrastructure improvements as well as construction of a rail station in Fairfield.

The new Fairfield/Vacaville train station will serve residents of both Fairfield and Vacaville and serve as a catalyst for growth within the existing Priority Development Area (PDA).

Alternative Modes

Alternative modes Modes projects consist of bicycle, pedestrian and carpool/vanpool incentive programs. The STA continues to support the Solano Safe Routes to School Program (SR2S) and Solano Napa Commuter Information Rideshare Program. The SR2S program promotes walking and bicycling through education, incentives, and capital improvements. The Rideshare Program promotes transit and commuter incentives such as vanpools and carpools.

The 2017 TIP also includes the following countywide significant bicycle and pedestrian projects:

- Suisun Valley Bicycle and Pedestrian Improvements
- The City of Vallejo's Priority Development Area (PDA) project, "Vallejo Downtown Streetscape"
- SR2T Curtola Bike Path
- Driftwood Dr SR2S Project
- Dixon SR2S Project
- Alison Bicycle/Ped Improvements

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The Suisun Valley Bicycle and Pedestrian Improvements are part of the Suisun Valley Priority Conservation Area (PCA). This project consists of constructing a staging area with bicycle and pedestrian improvements including adding Class II bicycle facilities on Rockville Road, Suisun Valley Rd, Mankas Corner Rd, Abernathy Rd, and Ledgewood Rd.

The City of Vallejo's SR2T – Curtola Bike Path will help to close a gap along Sonoma Blvd, allowing bicyclists and pedestrians to reach the newly updated Curtola Park & Ride lot by using active transportation modes. The City of Suisun City's Driftwood Dr SR2S project will provide a much needed improvement alongside Crystal Middle School, expanding the existing sidewalk to a Class I path, which will connect to the existing Grizzly Island Trail. Dixon's SR2S project will take place at 2 schools and provide improved striping and radar feedback signs to encourage safe driving around schools.

The City of Vallejo's PDA project is the first Solano County PDA project to be originally funded with Transportation for Livable Communities (TLC) County capital funds. The PDA project will enhance pedestrian connections from the future intermodal transit facility to Downtown Vallejo.

Summary

The Solano County TIP Listing is a balanced mix of roadway projects, transit projects, and active transportation projects. STA has a desire to provide multimodal transportation options that improve access and reliability for our residents. The projects included in the 2017 TIP will help address the current and future transportation needs in Solano County. These projects are consistent with the Solano Comprehensive Transportation Plan (CTP) and have been identified as part of the STA's Routes of Regional Significance, Transit Centers of Regional Significance an or included in a CTP subsidiary plan (e.g., Countywide Bicycle Plan and Countywide Pedestrian Plan).

[Narrative summary provided by the Solano Transportation Authority]

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Sonoma County

Sonoma County TIP Projects

Sonoma County is the largest of the four North Bay counties by area, covering over one million acres of land and has a population of 502,146.

Sonoma County has a relatively balanced jobs/housing split with over 83% of its residents working within the county. The economy is based on a diverse mix of agriculture, manufacturing, high tech and telecommunications, and the service sector.

Transportation ranks as one of the key issues among Sonoma County residents. The transportation system in the county includes several state highways, 2,300 miles of streets and roads, four bus transit providers. Sonoma County also has an approved sales tax measure, which helps to fund key multi-modal transportation projects within the county. Sonoma and Marin Counties also share a sales tax measure to fund the Sonoma Marin Area Rail Transit (SMART) project on a section of the Northwestern Pacific railroad line, which is in public ownership.

Sonoma Comprehensive Transportation Plan Consistency

The TIP project listing for Sonoma County was developed in coordination with the Sonoma County Transportation Authority (SCTA), public transit operators, and the nine cities and the County of Sonoma. The projects included in the 2017 TIP serve to meet the SCTA Board approved goals for the Draft 2016 Comprehensive Transportation Plan of Sonoma County:

- Maintain the System
- Relieve Congestion
- Reduce Emissions
- Plan for Safety and Health
- Promote Economic Vitality

Roadway

There are several projects in the 2017 TIP that continue the addition of High Occupancy Vehicle (HOV) Lanes on Highway 101 in Sonoma County from the Marin County line to the Town of Windsor, which has been a longstanding need for local and interregional travel. The Highway 101 projects collectively serve to reduce congestion, maintain the current facility, upgrade the facility to current safety standards, and reduce emissions by encouraging carpooling and use of express bus service. The Highway 101 projects also

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address local access across Highway 101 with interchange improvements, widening of local streets and the addition of sidewalks and bike lanes. There are also several local pavement maintenance projects needed to protect existing infrastructure included in the 2017 TIP. Also included are bridge replacement projects, needed for seismic safety, maintenance, and expansion of local roadways.

Transit

Sonoma County currently has four bus transit operators. Sonoma County Transit serves the entire county and Golden Gate Transit serves the 101 Corridor as far north as Santa Rosa. The cities of Petaluma and Santa Rosa have transit systems that serve their respective cities. Sonoma County also shares a rail transit district with Marin County that will be operational by the end of 2016. Sonoma Marin Area Rail Transit (SMART) district is improving street crossings and building rail stations for operation. The 2017 TIP contains projects that will allow for the installation of clean natural gas fueling station and purchase clean air vehicles for the transit fleets. Transit facilities including metropolitan transportation hubs and maintenance yards will receive upgrades. Bus stops will be improved in multiple locations. New bus routes will be added and existing routes will be modified to coordinate with SMART service.

Alternative Modes

Sonoma County Transportation Authority is working with stakeholders to implement a Safe Routes to Schools program that will receive federal funds to add up to 20 new schools to the existing county program. The program seeks to educate school children on safe biking and walking practices, and encourages school children to use bicycling and walking as an alternative mode of transportation.

The SCTA also administers funds to implement student pass subsidy programs, and free ride trip reduction projects to reduce the number of single occupant vehicles on city streets and enhance air quality.

Several jurisdictions have bicycle and pedestrian improvement projects that will extend Class I bike paths, or create new pathways. Additionally, proposed pedestrian improvements will enhance walkability inside city centers and along waterways and coastline. Examples include the SMART multi-use path and bicycle and pedestrian enhancements on Old Redwood Highway in Windsor, both partially funded with State Transportation Improvement Program (STIP) funds.

The SCTA is working on a car share pilot program in Santa Rosa and planning for various transportation demand management measures.

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Summary

The Sonoma County 2017 TIP listing is a balanced mix of roadway projects, transit projects, and alternative modes projects. The projects included in the 2017 TIP will help address the current and future transportation needs in Sonoma County. These projects are consistent with the Sonoma Comprehensive Transportation Plan.

[Narrative summary provided by the Sonoma County Transportation Authority]

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Various Counties

This section contains projects in various counties listed within the TIP as a Group listing (GL).

Group Listings include similar-type projects throughout the region that are bundled together rather than listed individually within the TIP. This includes projects funded through the state-managed programs, such as the State Highway Operations and Protection Program (SHOPP) which maintains the state highway system, Highway Safety Improvement Program (HSIP) which improves safety on local roadways. and Highway Bridge Program (HBP) which rehabilitates and replaces local bridges. Projects included within the Group Listings may be found in Appendix A-65.

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Multiple Counties

This section contains projects involving multiple counties, such as projects sponsored by MTC or other region-wide jurisdictions that cover more than one county.

The projects are within several counties and are generally sponsored by a regional agency or a project sponsor acting on behalf of other entities. In some instances these are projects that cover the entire region, benefiting the entire region.



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Regional Projects

Overview

The Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) track and forecast the region's demographics and economic trends to inform and guide Plan Bay Area investments and policy decisions. Between 2010 and 2040, the nine-county San Francisco Bay Area is projected to add 1.1 million jobs, 2.1 million people, and 660,000 homes, for a total of 4.5 million jobs, 9.3 million people, and 3.4 million homes. These figures translate to more drivers on the Bay Area's roads and riders on both local and regional transit systems. This increase in the use of the region's transportation infrastructure will necessitate greater coordination to ease the flow of riders and traffic between destinations.

In addition to better coordination among systems, these projected increases in population and employment raise concerns about the environmental impact of transporting these individuals and the goods that they will need. Senate Bill 375 mandates per-capita greenhouse gas (GHG) target achievements for years 2020 and 2035 as established by the California Air Resources Board. Plan Bay Area achieves the greenhouse gas emissions reduction target required by state law through a more efficient land use pattern, key transportation investments, and initiatives such as accelerated electric vehicle deployment. It also achieves the housing target required by state law to provide housing for all of the region's population over the next three decades, relying on local communities' support for policies that direct the lion's share of housing growth into Priority Development Areas. Plan Bay Area not only meets but exceeds its GHG emissions reduction target. By 2040, the typical Bay Area resident is expected to reduce his or her daily transportation carbon dioxide emissions by 18 percent compared to 2005 conditions.

While MTC has considered the effects of transportation investments on GHG emissions in prior regional transportation plans, Plan Bay Area is the first regional effort with an aggressive and achievable emission reduction goal. By accelerating efforts to emphasize infill growth and to boost funding for public transit, the plan represents a bold step for the region in this era of climate change. The 2017 TIP's project programming is consistent with and supports the goals of Plan Bay Area, and its successor, Plan Bay Area 2040.

Regional TIP Projects

To address the issues facing the Bay Area as a whole, certain regional projects and programs have been included in the 2017 TIP. Among these are funding for planning activities undertaken by regional entities such as MTC, ABAG, and the Bay Conservation & Development Commission (BCDC) and marketing to support the region's transportation operations. Other projects in this area are as follows:

Clippersm – Clippersm was introduced in the Bay Area to provide a consistent experience for riders across multiple transit systems. It is an all-in-one transit card that can be used on nearly all Bay Area transit operators, including AC Transit, BART, Caltrain, Golden Gate Transit and Ferry, San Francisco Muni, SamTrans and VTA. The card may be customized to the user's travel preferences by loading passes, ride-books, discounted tickets or cash value. This may be done online, by phone, through Clippersm Add Value machines or participating retailers, through an employee benefit program or automatically using the Auto-load feature.

511 – 511 provides information regarding transit, rideshare, traffic and bicycling to users by phone or through the 511.org website. Callers to the 511 system can get estimated travel times for trips, traffic congestion updates, transit departure time predictions, carpooling and vanpooling information and other assistance. Users of the website are able to plan trips by transit or roads, view traffic maps, find carpool members, view bicycle maps and safety tips, and access other information.

Safety – Many projects in the 2017 TIP are aimed at increasing the safety of the Bay Area's highways. Activities such as bridge and pavement rehabilitation and highway shoulder widening projects help prevent accidents by addressing unsafe road conditions. Under its Incident Management Program, the Metropolitan Transportation Commission Service Authority for Freeways and Expressways (MTC SAFE), in conjunction with Caltrans and the California Highway Patrol, operates both the Freeway Assist Program and the Freeway Service Patrol (FSP) in the Bay Area. The Freeway Assist Program provides motorists experiencing breakdowns and flat tires with access to assistance 24 hours a day via call boxes and the 511 phone system. The FSP is a fleet of over 70 roving tow and service trucks deployed during peak travel times to clear accidents, assist motorists, and remove dangerous debris from freeways.

Regional and Inter-Regional Freight Rail Projects – The 2015 TIP includes a number of regional and inter-regional freight rail projects that will not only facilitate economic growth, but also aid in reducing greenhouse gas and PM emissions. The Port of Oakland's Outer Harbor Intermodal Terminal (OHIT) project aims to alleviate congestion and improve efficiency of Port operations. Similarly, the Port of Oakland will be studying

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options for greater rail connectivity between their facilities and the Central Valley. Finally, the GoPort! project aims to improve both freight and rail efficiency in the Port of Oakland, including the 7th Street Grade Separation and roadway improvements. Many of these projects are under construction.

Climate Initiatives Program – Many measures are being taken to reduce greenhouse has (GHG) emissions and/or to mitigate the effects of climate change as required by state and federal law. Such measures and programs include innovative grants for activities such as car/bike sharing, shore power for the Port of Oakland, Spare the Air Youth Program to educate and inspire youth to take alternate forms of transportation, Smart Driving Pilots to encourage more efficient driving techniques, and promotion of electric vehicles (EV) and EV infrastructure.

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Tollway Projects

Regional Measure 1 Toll Bridge Program

In November 1988, Bay Area voters approved Regional Measure 1 (RM 1), which authorized a standard base auto toll of \$1.00 on all seven state-owned Bay Area toll bridges – the Antioch, Benicia-Martinez, Carquinez, Dumbarton, Richmond-San Rafael, San Mateo-Hayward and San Francisco-Oakland Bay bridges. The additional revenues generated by the base toll increase were designated for a number of bridge, highway, and transit improvement projects designed to reduce congestion on the bridges.

In 1998, the Metropolitan Transportation Commission (MTC), in its role as the Bay Area Toll Authority (BATA), assumed administration of these base toll funds as well as responsibility for overseeing the RM 1 toll bridge capital improvement program. Two RM 1 projects — the widening of the Benicia-Martinez Bridge and construction of the West Grand Avenue connector to the San Francisco-Oakland Bay Bridge — had, by then, already been completed by Caltrans, which continues to provide the engineering staffing for design and construction oversight of the projects, reimbursed by BATA.

The RM 1 projects have been completed. The program cost approximately \$2.4 billion and was funded primarily by BATA toll funds. The projects and their status are as follows:

- New Carquinez Bridge (Open to traffic in 2003)
- New Benicia-Martinez Bridge (Open to traffic in 2007)
- Existing Benicia-Martinez Bridge Modified for Southbound Only Traffic (Completed in 2009)
- Major Rehabilitation of Richmond-San Rafael Bridge
 - o Replacement of trestle and rehabilitation of fenders (Completed in 2005)
 - o Resurfacing of bridge deck (Completed in 2006)
- Completion of Richmond Parkway (Completed in 2001)
- Widening of San Mateo-Hayward Bridge and eastern approach (Open to traffic in 2003)
- Improvements to the western approach to Dumbarton Bridge
 - Modifications to US 101/University Avenue interchange (Completed in 2004)
 - Widening of State Route 84/Bayfront Expressway (Open to traffic in 2004)
- Reconstruction of Interstate 880/State Route 92 Interchange (Completed in 2011)



Toll Bridge Seismic Retrofit Program

Tolls on all state-owned bridges in the Bay Area include seismic surcharges applied to the base toll. Administered by BATA, these toll funds are used in combination with other state and federal moneys to finance a multibillion-dollar toll bridge seismic retrofit program affecting the state-owned Bay Area toll bridges. Caltrans' engineering staff determines what retrofit work is needed on each bridge based on traffic uses, expected life of the bridge, cost of higher post-earthquake performance levels, and other considerations. Each retrofit is designed to a level that, at a minimum, will ensure that the bridge will remain standing in an earthquake.

When first conceived, the Toll Bridge Seismic Retrofit Program only identified seven of the nine state owned toll bridges to be in need of seismic retrofit – excluding the Dumbarton and Antioch Bridges. Further seismic vulnerability studies on those bridges determined the need for retrofit based on current seismic standards. In 2009, Assembly Bill 1175 was signed to add these bridges to the program. Tolls were subsequently increased to cover the cost of these retrofits.

The \$9.4 billion Toll Bridge Seismic Retrofit Program is overseen by the Toll Bridge Oversight Committee – a committee composed of the executive directors of BATA and the California Transportation Commission and the director of Caltrans. The projects and their status are as follows:

Toll Bridge Seismic Retrofit Program

- Antioch Bridge Strengthen or replace structural elements, add isolation and dampening features (Completed in 2012)
- Benicia-Martinez Bridge (original 1962 span) Strengthen or replace structural elements, add isolation and dampening features (Completed in 2002)
- Carquinez (1958 eastbound structure) Bridge Strengthen or replace structural elements, add isolation and dampening features (Completed in 2002)
- Dumbarton Bridge Strengthen or replace structural elements, add isolation and dampening features (Completed in 2012)
- Richmond-San Rafael Strengthen or replace structural elements, add isolation and dampening features (Completed in 2005)
- San Francisco-Oakland Bay (west span) Strengthen or replace structural elements, add isolation and dampening features (Completed in 2004)
- San Francisco-Oakland Bay (west approach) Strengthen or replace structural elements, add isolation and dampening features (Completed in 2009)
- San Francisco-Oakland Bay (east span) Construct new bridge (Opened to traffic in September 2013)
- San Mateo-Hayward Strengthen or replace structural elements, add isolation and dampening features (Completed in 2000)



Regional Measure 2 Toll Bridge Program

On March 2, 2004, voters passed Regional Measure 2 (RM2), raising the toll on the seven State-owned toll bridges in the San Francisco Bay Area by \$1.00. This extra dollar is to fund various transportation projects within the region that have been determined to reduce congestion or to make improvements to travel in the toll bridge corridors, as identified in SB 916 (Chapter 715, Statutes of 2004). Specifically, RM2 identifies thirty-six capital and fourteen transit operating assistance projects and programs eligible to receive RM2 funding (California Streets and Highway Code Section 30914 (c) & (d)). The capital program totals \$1.5 billion in project investments to be implemented over time and the operating program is funded at up to 38% of annual revenues, or approximately \$44 million per year.

In accordance with the legislation as approved by the voters, the Bay Area Toll Authority (BATA) is the financial manager for RM2 funds, whose responsibilities include the preparation of financial plans, the issuance of debt financing, and the disbursal of funds to project sponsors. The Metropolitan Transportation Commission (MTC) is the program and project coordinator, whose responsibilities include reviewing project applications, programming and allocating funds to specific projects, and monitoring project delivery. In some cases, MTC also serves as the project sponsor, for the regional Transit Connectivity Study, as well as certain regional customer service projects, such as the Transit Commuter Benefits promotion, the Real Time Transit information program, and implementation of Clipper^(sm), formerly known as TransLink®.

Express Lane Program

The 2017 TIP includes a number of express lanes projects that will be operated by MTC (through the Bay Area Infrastructure Authority). MTC's express lanes complement other express lanes in the region, collectively known as 'Bay Area Express Lanes'. Express lanes allow solo drivers the choice to pay for a more reliable trip, while carpools travel free. Tolls change dynamically based on traffic congestion and are collected by FasTrak. The lanes are mostly conversions of existing high-occupancy vehicle lanes, but in a few cases involve widening to build a new lane. They are in various stages of development: initial study, environmental clearance, design and construction.

- CC-680 Southern Segment Express Lanes: Alcosta to Livorna/Rudgear (opens spring 2017);
- CC-680 Northern Segment Express Lane: Southbound from Benicia/Martinez Bridge Toll Plaza to El Cerro;
- CC-680 Northern Segment Express Lane: Northbound from North Main to Benicia/Martinez Bridge Toll Plaza;
- ALA-880 Express Lanes: Dixon Landing to Hegenberger;

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- ALA/CC-80 (Carquinez Bridge to Powell) and Bay Bridge Approaches (ALA-80, ALA-580 and ALA-880 to Toll Plaza) Express Lanes; and
- SOL-80 Express Lanes: Red Top to I-505.