

PROPOSED FINAL
TRANSPORTATION-AIR QUALITY CONFORMITY ANALYSIS
FOR THE
AMENDMENT TO THE TRANSPORTATION 2030 PLAN &
2007 TRANSPORTATION IMPROVEMENT PROGRAM
AMENDMENT 07-06

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I. INTRODUCTION

The Metropolitan Transportation Commission (MTC) prepares a transportation air quality conformity analysis when MTC amends or updates its long-range regional transportation plan (RTP), or adds or deletes regionally significant, non-exempt projects into the Transportation Improvement Program (TIP).

The purpose of this conformity analysis is to conform the proposed Amendment to the Transportation 2030 Plan and proposed update to the 2007 TIP (herein referred to as the 2007 TIP Amendment 07-06) in accordance with EPA's transportation conformity regulations and the Bay Area Air Quality Conformity Procedures (MTC Resolution No. 3757). This conformity analysis includes a new regional emissions analysis because:

1. One current project is being shifted from the vision element into the financially constrained element of the Transportation 2030 Plan due to new funding from Proposition 1B Corridor Mobility Improvement Account (CMIA) funds. This project is the I-880 Southbound High-Occupancy Vehicle (HOV) Lane Extension from Hegenberger Road to Marina Boulevard.
2. One new project is being added to the financially constrained element of the Transportation 2030 Plan due to new funding from Proposition 1B CMIA funds. This project is the I-880 HOV Lane Extension in both directions from State Route 237 to U.S. 101.
3. Project costs and finances of several projects in the Transportation 2030 Plan are being updated due to new funding from Proposition 1B CMIA funds and other local/state/federal funds; however, these financial changes do not trigger a conformity analysis.
4. Non-exempt projects from the Transportation 2030 Plan are being added to the 2007 TIP via Amendment 07-06 due to new funding from Proposition 1B CMIA funds, STIP Augmentation funds, unprogrammed federal earmark funds, and other local funds. It is important to also note that MTC is preparing a formal update to the 2007 TIP via Amendment 07-06 to make the TIP compliant with Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA) planning regulations by July 1, 2007.

This report explains the basis for the conformity analysis and provides the results used by MTC to make a positive conformity finding.

Purpose of Conformity Analysis

The 1990 Clean Air Act Amendments (CAAA) outlines requirements for ensuring that federal transportation plans, programs and projects are consistent with (“conform to”) the purpose of the State Implementation Plan (SIP). Conformity to the purpose of the SIP means that transportation

activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant national ambient air quality standards.

A conformity finding demonstrates that the total emissions projected for a RTP or TIP are within the emissions limits ("budgets") established by the SIP, and that transportation control measures (TCMs) are implemented in a timely fashion.

Conformity applies to areas that are designated non-attainment, and those redesignated to attainment after 1990 ("maintenance areas" with plans developed under Clean Air Act section 175A) for ozone, particulate matter, carbon monoxide, and nitrogen oxide. The U.S. EPA published conformity regulations to implement the 1990 CAAA conformity requirements in November 1993, and revised them in August 1995, November 1995, August 1997, July 2004, and May 2005.

Metropolitan Planning Organizations such as MTC are required to adopt and follow these regulations. In the Bay Area, the procedures were first adopted in September 1994 to comply with the 1990 CAAA. Four subsequent amendments to the transportation conformity procedures in August 1995, November 1995, August 1997, and July 2006 have been adopted by the three co-lead agencies (MTC, Association of Bay Area Governments (ABAG), and Bay Area Air Quality Management District (BAAQMD)). MTC Resolution 3757 represents the latest San Francisco Bay Area Transportation Air Quality Conformity Protocol adopted by the three agencies in July 2006. Acting on behalf of the three agencies, the BAAQMD has submitted this latest Protocol to California Air Resources Board (CARB) as a revision to the California State Implementation Plan (SIP). CARB approved this proposed revision to the Conformity SIP in December 2006, and transmitted it to U.S. EPA for final action. U.S. EPA anticipates final action on the revision to the Conformity SIP this spring 2007.

These regulations and resolutions state in part that, MTC cannot approve any transportation plan, program or project unless these activities conform to the purpose of the federal air quality plan (officially titled the State Implementation Plan, or SIP). "Transportation plan" refers to the RTP. "Program" refers to the TIP, which is a financially realistic set of highway and transit projects to be funded over the next four years. A "transportation project" is any highway or transit improvement, which is included in the RTP and TIP and requires funding or approval from the Federal Highway Administration or the Federal Transit Administration. Conformity regulations also affect regionally significant non-federally funded projects which must be included in a conforming transportation plan and program.

Status of Regional Transportation Plan

The Transportation 2030 Plan is the current long-range regional transportation plan for the nine-county San Francisco Bay Area adopted by MTC in February 2005 (MTC Resolution 3681). The Transportation 2030 Plan represents a strategic investment plan to improve system performance for

Bay Area travelers over the next 25 years and includes a set of highway, transit, local roadway, bicycle and pedestrian projects identified through regional and local transportation planning processes.

Similar to previous long-range plans, the Transportation 2030 Plan is made up of two separate elements. The “financially constrained” element includes those transportation projects that would be funded through revenues projected to be reasonably available over the next 25-year horizon of the plan. The more comprehensive “vision” element identifies illustrative transportation projects that would be funded through revenue measures that may become available in the future through either legislative action or voter mandate.

MTC prepared a conformity analysis that addresses only those projects identified in the financially constrained element of the Transportation 2030 Plan. The Federal Highway Administration and Federal Transit Administration approved MTC’s conformity determination for the Transportation 2030 Plan and 2005 TIP/Amendment #05-05 on March 17, 2005.

Proposed Amendment to the Transportation 2030 Plan

MTC proposes to amend the Transportation 2030 Plan to take advantage of the funding opportunities presented by Proposition 1B, which is a roughly \$20 billion transportation bond approved by California voters on November 7, 2006. Proposition 1B features a \$4.5 billion statewide competitive Corridor Mobility Improvement Account (CMIA) aimed at improving performance on highly congested corridors. On January 10, 2007, MTC submitted the region’s proposed Program of Projects for the CMIA, totaling over \$2 billion in significant corridor mobility and congestion relief projects in the nine-county Bay Area. Following the project nomination and selection process, the California Transportation Commission adopted a Program of Projects for the CMIA on February 28, 2007. The Bay Area successfully received an allocation of close to \$1.7 billion in CMIA funds plus an additional \$300 million in Proposition 1B State Transportation Improvement Program (STIP) Augmentation funds, totaling \$2.0 billion.

This Amendment to the Transportation 2030 Plan consists of the following updates:

1. Adds the \$2.0 billion in Proposition 1B funds into the financial assumptions for the financially constrained element of the plan, increasing the projected 25-year revenues for State revenues in the financially constrained element from \$14 billion to \$16 billion. In total, the 25-year revenue estimate for the plan increases from \$118 billion to \$120 billion.
2. Adds one new project into the financially constrained element. This project is the I-880 HOV Lanes Extension from SR 237 to U.S. 101, as described below.

This HOV gap closure project along I-880 in Santa Clara County involves adding an HOV lane in each direction, extending the HOV system connecting Santa Clara and Alameda counties by four miles. Either no or minimal right-of-way will be needed. This project is

currently not identified in the Transportation 2030 Plan so the RTP Reference Number to be assigned to this new project is 22944. This Amendment will add this project into the financially constrained element and identify the estimated \$142.7 million project cost.

3. Shifts one current project from the vision element into the financially constrained element of the plan. This project is the I-880 Southbound HOV Lane Extension from Hegenberger Road to Marina Boulevard, as described below.

This HOV gap closure project along I-880 in Alameda County involves extending the existing southbound HOV lane from its current beginning point approximately 1,000 ft. south of the Marina Boulevard overcrossing to the Hegenberger on-ramp, extending the HOV lane by almost three miles. It also reconstructs bridges over I-880 at Davis Street and Marina Boulevard to provide standard vertical clearance over the freeway. This project is currently identified in the vision element under RTP Reference Number 22670 but without identification of its costs. The Amendment will shift this project into the financially constrained element and identify the estimated \$108 million project cost.

4. Updates the cost and financial information for all projects receiving Proposition 1B CMIA funds and/or other local/state/federal funds.

Refer to **Appendix A-1** for detailed description of project changes included in the Amendment to the Transportation 2030 Plan.

Status of Transportation Improvement Program

The latest conformed TIP is the 2007 Transportation Improvement Program adopted by MTC on July 26, 2006 (MTC Resolution No. 3755). All projects included in the 2007 TIP are derived from and/or consistent with the financially constrained element of the Transportation 2030 Plan. The Federal Highway Administration and Federal Transit Administration approved MTC's conformity determination for the 2007 TIP on October 2, 2006, which also served to re-conform the Transportation 2030 Plan.

Proposed 2007 Transportation Improvement Program Amendment 07-06

MTC proposes to amend the 2007 TIP in the form of a formal amendment via Amendment 07-06 to include the following:

1. Demonstrate the TIP's compliance with SAFETEA planning requirements;
2. Establish the TIP as being a four-year programming document (which would enable Caltrans to reflect the four-year program of projects in the Statewide TIP (also called the Federal State TIP (FSTIP)));

3. Update existing TIP projects; and
4. Add new projects derived from the financially constrained RTP into the TIP due to available new funding that allows the project or phases of the project to advance (including Proposition 1B funds, STIP Augmentation funds, unprogrammed federal earmark funds, and other local funds).

Refer to **Appendix A-2** for detailed description of new non-exempt projects being added to the 2007 TIP through 2007 TIP Amendment 07-06. Furthermore, the 2007 TIP will document the updates to the financial assumptions (see 2007 TIP).

II. BAY AREA AIR POLLUTANT DESIGNATIONS

National 1-Hour Ozone Standard

On November 6, 1991, the U.S. Environmental Protection Agency (EPA) designated the Bay Area as a moderate ozone non-attainment area. Based on “clean” air monitoring data from 1990 to 1993, the co-lead agencies—BAAQMD, MTC, and ABAG—determined that no ozone violations had occurred and requested the California Air Resources Board (ARB) to forward a redesignation request and an ozone maintenance plan to U.S. EPA.

On May 25, 1995, the Bay Area was classified as an ozone maintenance area, having attained the 1-hour national ozone standard for five years (1990-1994). However, on July 10, 1998 the U.S. EPA published a Notice of Final Rulemaking redesignating the Bay Area back to an ozone non-attainment (unclassified) area. This action was due to violations of the 1-hour standard that occurred during the summers of 1995 and 1996, and became final on August 10, 1998.

On October 31, 2003, U.S. EPA proposed a finding of attainment of the national 1-hour ozone standard for the Bay Area. The proposed finding was based on air quality monitoring data from the 2001, 2002, and 2003 ozone seasons. In April 2004, U.S. EPA made a final finding that the Bay Area had attained the national 1-hour ozone standard. Because of this finding, some of the elements of the 2001 Ozone Attainment Plan, submitted to EPA to demonstrate attainment of the 1-hour standard, were suspended. The finding of attainment did not mean the Bay Area had been reclassified as an attainment area for the 1-hour standard. To be reclassified, the region would have had to submit a formal redesignation request to EPA, along with a maintenance plan showing how the region would continue to attain the standard for ten years. However, this redesignation request was no longer necessary upon the establishment of the new national 8-hour ozone standard.

On April 15, 2004, EPA issued the first phase of the final implementation rule designating and classifying areas not meeting the federal 8-hour ozone standard. This phase of the implementation rule explained how EPA was classifying areas not meeting the national air quality standard for 8-hour ozone. It also established a process for transitioning from implementing the 1-hour standard

for ozone to implementing the more protective 8-hour ozone standard. The rule also established attainment dates for the 8-hour standard and the timing of emissions reductions needed for attainment. The 8-hour designations and classifications took effect on June 15, 2004; and one year following this effective date, EPA revoked the 1-hour standard.

National 8-Hour Ozone Standard

In July 1997, U.S. EPA revised the ozone standard, setting it to 0.08 parts per million in concentration-based form, specifically the 3-year average of the annual 4th highest daily maximum 8-hour ozone concentrations. In April 2004, EPA issued final designations for attainment and non-attainment areas. The Bay Area monitoring stations recorded concentrations that exceeded the national 8-hour ozone standard for 2001, 2002 and 2003. In April 2004, EPA formally designated the Bay Area as a non-attainment area for national 8-hour ozone, and classified the region as “marginal” based on five classes of non-attainment areas for ozone, ranging from marginal to extreme. Marginal, non-attainment areas must attain the national 8-hour ozone standard by June 15, 2007.

On July 1, 2004, EPA published a final rule amending the transportation conformity rule to address the new national 8-hour ozone standard. The amended rule stated that Plans and TIPs in nonattainment areas must be found to conform against the new standard by one year after the effective date of designation – by June 15, 2005 for 8-hour ozone areas. Conformity for the 1-hour ozone standard will no longer apply in existing 1-hour ozone nonattainment and maintenance areas once the 1-hour ozone standard is revoked; this occurred on June 15, 2005. Furthermore, prior to 8-hour budgets being established, all areas with adequate or approved 1-hour motor vehicle emission budgets must use them to demonstrate conformity with the 8-hour ozone standard, unless it is determined through interagency consultation that using the interim emissions tests is more appropriate. The conformity finding in this report is based on the approved 1-hour motor vehicle emissions budget.

On December 22, 2006, the U.S. Court of Appeals for the District of Columbia Circuit vacated U.S. EPA’s Phase 1 8-hour ozone implementation rule. U.S. EPA is currently analyzing all aspects of the decision including impacts on transportation conformity requirements, and will provide guidance to metropolitan planning organizations (MPOs) in the near future. In the interim, as determined through interagency consultation, MTC was advised to continue to proceed with a conformity analysis for the 8-hour ozone standard using the approved 1-hour motor vehicle emissions budget.

National 8-Hour Carbon Monoxide Standard

In April 1998, the Bay Area was redesignated to a “maintenance area” for the national 8-hour carbon monoxide (CO) standard, having demonstrated attainment of the standards. As a maintenance area, the region must assure continued attainment of the CO standard.

Approved Motor Vehicle Emissions Budgets

The Bay Area has conformity requirements for both the federal ozone and CO standards. Under these requirements, the Bay Area has to meet a motor vehicle emission “budget” test for Volatile Organic Compounds (VOC), Nitrogen Oxides (NO_x) and CO. To make a positive conformity finding, MTC must demonstrate that the calculated motor vehicle emissions in the region are lower than the approved budgets. As mentioned above, under EPA’s new conformity rule for the national 8-hour ozone standard, the existing 1-hour motor vehicle emission budget is to be used for conformity analyses until it is replaced by another budget.

For the ozone precursor emissions VOC and NO_x, the applicable motor vehicle emissions budget was developed for the 2006 attainment year as part of the 2001 Ozone Attainment Plan and was subsequently approved by EPA.

For CO, the applicable motor vehicle emissions budget was developed for the 2004 Revisions to the California State Implementation Plan for Carbon Monoxide (herein referred to as the 2004 Carbon Monoxide Maintenance Plan).

The motor vehicle emission budgets are listed below:

VOC:	164 tons per day (2006 and beyond)
NO _x :	270.3 tons per day (2006 and beyond)
CO:	1,850 tons per day (2003 and beyond)

On road motor vehicle emissions are analyzed for various analysis years that must not be more than 10 years apart, or more than 10 years from the base year used to validate the model (2000). For this conformity analysis, the analysis years are 2006, 2007, 2015, 2025, and 2030 for VOC and NO_x. MTC has prepared separate travel forecasts for the Bay Area for each of these years. For CO, the analysis years are 2006, 2007, 2015, 2018, 2025, and 2030. Travel forecast data for year 2018 were interpolated between 2015 and 2025. These travel forecasts are then used to calculate motor vehicle emissions.

III. CONFORMITY ANALYSIS & RESULTS

Approach to Conformity Analysis

Motor vehicle emissions for future years are estimated using MTC’s travel demand forecast model (BAYCAST 2000), which estimates vehicle activity in the Bay Area, and the California Air Resources Board’s latest model for determining motor vehicle emissions (EMFAC2002). The

MTC travel demand model requires various inputs. MTC has used the latest planning assumptions for the purpose of preparing this TIP conformity analysis.

The MTC travel demand model requires various inputs, including demographic inputs for future population and employment growth in the Bay Area. This conformity analysis uses the latest socio-economic/land use forecast series *Projections 2005* developed and adopted by ABAG and the latest validated version of the MTC travel demand model (BAYCAST, 2000).

The ABAG projections incorporate the new regional “Smart Growth” land use assumptions, which have been approved for use in the conformity analysis by the US DOT and EPA, subject to preparation of a future monitoring report. ABAG has submitted a monitoring report for *Projections 2005* for review by US DOT and EPA, and is currently modifying that report in response to comments received. A revised monitoring report for *Projections 2005* will be available for review by late spring 2007. The latest projections (*Projections 2005*) reflect the near term effects of the current economic slowdown on job creation in the Bay Area between years 2000 through 2005. In addition to the demographic changes occurring over time, the travel demand model determines how changes in the highway, transit, and bicycle network affect people’s travel behavior and ultimately the amount of vehicle activity that will occur in the region.

The list of transportation projects in the 2007 TIP, including projects being proposed for inclusion in the 2007 TIP through TIP Amendment 07-06 that will be implemented in the Bay Area by 2015 and affect regional vehicle activity, are shown in **Appendix A-3**¹. A list of specific projects implementing TCMs A through E is included in **Appendix A-4**. Other key modeling inputs and methodological issues are detailed in **Appendix B**.

Motor vehicle emissions are then calculated by using the vehicle activity outputs from MTC’s travel demand forecasting model for the various analysis years, together with the California Air Resources Board (ARB)’s latest motor vehicle emission model (EMFAC2002 version 2.2, April 23, 2003). EMFAC2002 accounts for the effectiveness of the State’s vehicle inspection and maintenance program, called Enhanced Smog Check Program in the Bay Area. The Bureau of Automotive Repair (BAR) is currently in the regulatory process for developing a mobile source measure for low pressure evaporative testing of vehicles, and this measure will be in place by late 2007 and further reduce mobile source emissions.

Because of differences between ARB’s estimate of Bay Area Vehicle Miles of Travel (VMT) and the VMT estimates from MTC’s travel demand forecast model, MTC adjusts the regional VMT forecasts (both regional and county level) upward after the initial vehicle activity forecasts are prepared. The process generally involves using the MTC model-predicted VMT growth rates and

¹ The full list of projects modeled for conformity analysis can be found in the Appendix B of the *Final Transportation Conformity Analysis for the Transportation 2030 Plan for the San Francisco Bay Area and 2005 Transportation Improvement Program/Amendment #05-05* (February 2005).

applying these growth rates to ARB's 2000 base year VMT. To account for this higher VMT in the emission calculations, MTC adjusts the vehicle populations (by county) in EMFAC 2002 per ARB's *Recommended Methods for Use of EMFAC2002 to Develop Motor Vehicle Emissions Budgets and Assess Conformity* (<http://www.arb.ca.gov/planning/sip/emfac2002/emfac2002.htm>). This methodology also ensures that evaporative hydrocarbon emissions are not underestimated.

In addition to regional and county VMT estimates, the amount of VMT occurring at different speeds is critical to the estimation of motor vehicle emissions. New speed distributions for 2006, 2007, 2015, 2025 and 2030 were applied to passenger cars (PC), light-duty trucks (T1, T2), medium-duty trucks (T3), and motorcycles (mcy) in EMFAC 2002. EMFAC2002 model "default" values were used for all other vehicle types (such as heavy duty trucks) and times of day. Separate peak period speed distributions were utilized for the AM and PM peak periods, while off-peak period speed distributions were employed during the hours representing the 18 off-peak hours of the daily travel demand assignment.

Consultation Process

MTC has consulted on the preparation of this conformity analysis and other conformity related issues with the Bay Area's Air Quality Conformity Task Force. The Conformity Task Force reviews the assumptions going into the analysis, and consults on TCM implementation issues, and reviews the results. The Conformity Task Force is composed of representatives of U.S. EPA, ARB, FHWA, FTA, Caltrans, MTC, BAAQMD, ABAG, the nine county Congestion Management Agencies, and Bay Area transit operators. The meetings are open to the public and are regularly attended by interested members of the public. Topics covered in past meetings of this group include the following:

January 2007

- Proposed 2007 TIP Amendment 07-06
- Proposed Amendment to the Transportation 2030 Plan
- Approach to the Conformity Analysis for the Amendment to the Transportation 2030 Plan and 2007 TIP Amendment 07-06
- Air Quality Updates

February 2007

- Administrative Draft Conformity Analysis for the Transportation 2030 Amendment and 2007 TIP Amendment 07-06
- Air Quality Updates

April 2007

- Response to Comments and Proposed Final Conformity Analysis for the Transportation 2030 Amendment and 2007 TIP Amendment 07-06

- Progress Report on MTC’s Public Participation Plan
- ABAG’s Draft Monitoring Report for Policy Based Forecasts
- Air Quality Updates

Comparison of Motor Vehicle Emissions To Budgets

As explained earlier, motor vehicle emissions budgets are established in the SIP for VOCs, NOx and carbon monoxide (CO). To make a positive conformity finding, the regional motor vehicle emissions must be equal to or less than these budgets. The results of the vehicle activity forecasts and motor vehicle emission calculations are shown below for each separate analysis year. For VOC and NOx, the motor vehicle emission budget also reflects anticipated emission reductions from five Transportation Control Measures (TCMs) incorporated in the 2001 Ozone Attainment Plan (Table 1).

**TABLE 1
VOC AND NO_x EMISSIONS BUDGETS FROM 2001 OZONE ATTAINMENT PLAN (TONS/DAY)
(SF BAY AREA-EMFAC 2000)**

VOC	
2006 On Road Motor Vehicle Emissions	168.5
2006 Mobile Source Control Measure Benefits	(4.0)
2006 TCM Benefits	(0.5)
2006 Emissions Budget	164.0
NO_x	
2006 On Road Motor Vehicle Emissions	271.0
2006 TCM Benefits	(0.7)
2006 Emissions Budget	270.3

**TABLE 2
VEHICLE ACTIVITY FORECASTS***

	2006	2007	2015	2025	2030
VEHICLES IN USE	5,084,099	5,146,988	5,884,899	6,769,168	7,269,775
Daily VMT (1000s)	172,298	174,090	194,764	218,793	232,621
Engine Starts	33,893,781	34,247,285	38,510,161	43,292,850	45,971,240

*VMT forecasts have been adjusted per CARB recommended methods (see Appendix B)

Carbon Monoxide Maintenance Plan Budget

The budget for carbon monoxide is derived from the 2004 Carbon Monoxide Maintenance Plan and is 1,850 tons per day for 2003 and beyond.

Comparison of Estimated Regional Motor Vehicle Emissions to the Budget

The motor vehicle activity forecasts for the Transportation 2030 Amendment and 2007 TIP Amendment 07-06 for the various horizon years are converted to motor vehicle emission estimates

by MTC using EMFAC2002 (version 2.2, April 23, 2003). EMFAC2002 includes the effects of the implemented (October 2003) enhanced Inspection/Maintenance program for the Bay Area with Test-Only stations (AB 2637, Cardoza, 2002). ARB estimates that the emission reductions in the Bay Area in 2006 from this enhanced Smog Check program are 10 tons per day for VOC and 16 tons per day for NOx. In addition, as mentioned previously, BAR is currently in the regulatory process for developing a mobile source measure for low pressure evaporative testing of vehicles, and this measure will be in place by late 2007 and further reduce mobile source emissions.

Table 3A and 3B compares the results of the various analyses with the applicable budgets. The analyses indicate that the motor vehicle emissions are substantially below the budget, due in large part to recent improvements in ARB’s latest EMFAC model which reflect the effects of cleaner vehicles in the California fleet and the enhanced Smog Check program now in effect in the Bay Area. With respect to the new Maintenance Plan motor vehicle emission budget for CO, Table 3B shows that calculated motor vehicle emissions will be well below the new budget of 1,850 tons per day in 2018 as well.

The estimated effectiveness of the various Transportation Control Measures, given their current implementation status is shown in Table 4. TCMs A through E are fully implemented. They have achieved the required cumulative total emission reductions of 0.5 tons per day of VOC and 0.7 tons per day of NOx by 2006.

**TABLE 3A
EMISSIONS BUDGET COMPARISONS FOR OZONE
(TONS/DAY WITH BUDGETS BASED ON SF BAY AREA-EMFAC 2000 AND ON ROAD MOTOR VEHICLE
EMISSIONS USING MORE CURRENT EMFAC 2002, V2.2)**

Year	VOC Budget	On-Road Motor Vehicles VOC	TCMs*	Net Emissions
2006	164.0	126.5	(0.3)	126.2
2007	164.0	116.3	(0.3)	116.0
2015	164.0	68.6	(0.3)	68.3
2025	164.0	44.6	(0.3)	44.3
2030	164.0	38.2	(0.3)	37.9

Year	NO_x Budget	On-Road Motor Vehicles NO_x	TCMs*	Net Emissions
2006	270.3	248.8	(0.5)	248.3
2007	270.3	229.8	(0.5)	229.3
2015	270.3	123.5	(0.5)	123.0
2025	270.3	67.0	(0.5)	66.5
2030	270.3	55.9	(0.5)	55.4

*The transit services for TCM A Regional Express Bus Program were modeled. The emission benefits from TCM A are therefore included in the On-Road Motor Vehicles VOC and NOx emission inventories for 2006 and beyond.

**TABLE 3B
EMISSIONS BUDGET COMPARISONS FOR CARBON MONOXIDE**

Year	2004 CO Budget*	Estimated CO
2006	1,850	1,320.0
2007	1,850	1,204.9
2015	1,850	647.8
2018 (interpolated)	1,850	558.5
2025	1,850	350.2
2030	1,850	297.0

* 2004 Revision to the California State Implementation Plan for Carbon Monoxide, Updated Maintenance Plan for 10 Federal Planning Areas

**TABLE 4
EMISSIONS REDUCTIONS FOR TRANSPORTATION CONTROL MEASURES (TCMS) A – E IN
STATE IMPLEMENTATION PLAN THROUGH JUNE 2006 (TONS PER DAY)**

TCM	VOC Emission Reductions through December 2006	NOx Emission Reductions through December 2006
TCM A Regional Express Bus Program	0.20	0.20
TCM B Bicycle/Pedestrian Program	0.04	0.03
TCM C Transportation for Livable Communities	0.08	0.12
TCM D Expansion of Freeway Service Patrol	0.10	0.25
TCM E Transit Access to Airports	0.09	0.13
Total Reductions	0.5	0.7

IV. TRANSPORTATION CONTROL MEASURES

History of Transportation Control Measures

Transportation control measures (TCMs) are strategies to reduce vehicle emissions. They include such strategies as improved transit service and transit coordination, ridesharing services and new carpool lanes, signal timing, freeway incident management, increased gas taxes and bridge tolls to encourage use of alternative modes, etc. With the exception of the five new TCMs (A-E), the original set of TCMs has been completed. The TCMs were added over successive revisions to the SIP (see Table 5). For more information on TCMs 1-28, which are completed, see the last *Transportation Air Quality Conformity Analysis for the 2001 Regional Transportation Plan and FY 2001 Transportation Improvement Program Amendment 01-32 (February 2002)*. This report can be found in the MTC/ABAG Library.

- Twelve (12) ozone measures were originally listed in the 1982 Bay Area Air Quality Plan.

- In response to a 1990 lawsuit in the federal District Court, sixteen (16) additional TCMs were subsequently adopted by MTC in February 1990 as contingency measures to bring the region back on the “Reasonable Further Progress” (RFP) line. The Federal District order issued on May 11, 1992, found that these contingency TCMs were sufficient to bring the region back on the RFP track anticipated in the SIP. These measures became part of the SIP when U.S. EPA approved the 1994 Ozone Maintenance Plan.
- Two (2) transportation control measures from the 1982 Bay Area Air Quality Plan apply to Carbon Monoxide control strategies, for which the region is in attainment with the federal standard, and primarily targeted downtown San Jose (which had the most significant CO problem at that time.) MTC also adopted a set of TCM enhancements in November 1991 to eliminate a shortfall in regional carbon monoxide emissions identified in the District Court’s April 19, 1991 order. Carbon monoxide standards have been achieved primarily through the use of oxygenated/reformulated fuels in cars and with improvements in the Smog Check program.
- As part of EPA’s partial approval/partial disapproval of the 1999 Ozone Attainment Plan, four (4) TCMs were deleted from the ozone plan (but two of these remain in the Carbon Monoxide Maintenance Plan).
- Five (5) new Transportation Control Measures were adopted as part of the new 2001 1-Hour Ozone Attainment Plan and are fully funded in the TIP and 2001 Regional Transportation Plan.

With respect to TCM 2 from the 1982 SIP, there has been a protracted debate, leading to a citizens lawsuit in federal court, about the obligations associated with this TCM. On April 6, 2004 MTC prevailed in the U.S. Court of Appeals for the Ninth Circuit which concluded that TCM 2 does not impose any additional enforceable obligation on MTC to increase ridership on public transit ridership by 15% over 1982-83 levels by November 2006 (Bayview Hunters Point Community Advocates v. Metropolitan Transportation Com’n, (2004 WL 728247, 4 Cal. Daily Op. Serv. 2919, 2004 Daily Journal D.A.R. 4209, 9th Cir.(Cal.), Apr 06, 2004)). Thus TCM 2 has been resolved, and there are no further implementation issues to address in this TCM.

TABLE 5
Transportation Control Measures (TCMs) in the State Implementation Plan

<i>TCM</i>	<i>Description</i>
<i>Original TCMs from 1982 Bay Area Air Quality Plan</i>	
TCM 1	Reaffirm Commitment to 28 percent Transit Ridership Increase Between 1978 and 1983
TCM 2	Support Post-1983 Improvements in the Operators' Five-Year Plans and, After Consultation with the Operators, Adopt Ridership Increase Target for the Period 1983 through 1987
TCM 3	Seek to Expand and Improve Public Transit Beyond Committed Levels
TCM 4	High Occupancy Vehicle (HOV) Lanes and Ramp Metering
TCM 5	Support RIDES Efforts
TCM 6*	Continue Efforts to Obtain Funding to Support Long Range Transit Improvements
TCM 7	Preferential Parking
TCM 8	Shared Use Park and Ride Lots
TCM 9	Expand Commute Alternatives Program
TCM 10	Information Program for Local Governments
TCM 11**	Gasoline Conservation Awareness Program (GasCAP)
TCM 12**	Santa Clara County Commuter Transportation Program
<i>Contingency Plan TCMs Adopted by MTC in February 1990 (MTC Resolution 2131)</i>	
TCM 13	Increase Bridge Tolls to \$1.00 on All Bridges
TCM 14	Bay Bridge Surcharge of \$1.00
TCM 15	Increase State Gas Tax by 9 Cents
TCM 16*	Implement MTC Resolution 1876, Revised — New Rail Starts
TCM 17	Continue Post-Earthquake Transit Services
TCM 18	Sacramento-Bay Area Amtrak Service
TCM 19	Upgrade Caltrain Service
TCM 20	Regional HOV System Plan
TCM 21	Regional Transit Coordination
TCM 22	Expand Regional Transit Connection Ticket Distribution
TCM 23	Employer Audits
TCM 24	Expand Signal Timing Program to New Cities
TCM 25	Maintain Existing Signal Timing Programs
TCM 26	Incident Management on Bay Area Freeways
TCM 27	Update MTC Guidance on Development of Local TSM Programs
TCM 28	Local Transportation Systems Management (TSM) Initiatives
<i>New TCMs in 2001 Ozone Attainment Plan</i>	
TCM A	Regional Express Bus Program
TCM B	Bicycle/Pedestrian Program
TCM C	Transportation for Livable Communities
TCM D	Expansion of Freeway Service Patrol
TCM E	Transit Access to Airports

*Deleted by EPA action from ozone plan

**Deleted by EPA action from ozone plan, but retained in Carbon Monoxide Maintenance Plan.

Source: Bay Area Air Quality Management District, Metropolitan Transportation Commission, 2001.

Status of Transportation Control Measures

TCMs A-E were approved into the SIP as part of EPA's Finding of Attainment for the San Francisco Bay Area (April 2004). The conformity analysis must demonstrate that TCMs are being implemented on schedule (40 CFR 93.113). TCMs A-E have specific implementation steps which are used to determine progress in advancing these TCMs (see Table 6). TCMs A-E are now fully implemented.

*Transportation-Air Quality Conformity Analysis
Amendment to Transportation 2030 Plan and 2007 Transportation Improvement Program Amendment 07-06*

TABLE 6*
IMPLEMENTATION STATUS OF FEDERAL TRANSPORTATION CONTROL MEASURES FOR OZONE (TCMS A – E)

#	TCM	Description	Ozone Attainment Plan Implementation Schedule	Implementation Status
A	Regional Express Bus Program	Program includes purchase of approximately 90 low emission buses to operate new or enhanced express bus services. Buses will meet all applicable ARB standards, and will include particulate traps or filters. MTC will approve \$40 million in funding to various transit operators for bus acquisition. Program assumes transit operators can sustain service for a five year period. Actual emission reductions will be determined based on routes selected by MTC.	FY 2003. Complete once \$40 million in funding pursuant to Government Code Section 14556.40 is approved by the California Transportation Commission and obligated by bus operators	\$40 million for this program was allocated by the CTC in august, 2001. The participating transit operators have ordered and received a total of 94 buses. Four of the initial proposed projects no longer appear viable; the buses ordered for these will be redeployed in alternate services. All buses were operational by 2006. TCM A is fully implemented.
B	Bicycle / Pedestrian Program	Fund high priority projects in countywide plans consistent with TDA funding availability. MTC would fund only projects that are exempt from CEQA, have no significant environmental impacts, or adequately mitigate any adverse environmental impacts. Actual emission reductions will be determined based on the projects funded.	FY 2004 – 2006. Complete once \$15 million in TDA Article 3 is allocated by MTC.	MTC allocated over \$20 million in TDA Article 3 funds during FY2004, FY2005, and FY2006. TCM B is fully implemented.

*Transportation-Air Quality Conformity Analysis
Amendment to Transportation 2030 Plan and 2007 Transportation Improvement Program Amendment 07-06*

#	TCM	Description	Ozone Attainment Plan Implementation Schedule	Implementation Status
C	Transportation for Livable Communities (TLC)	Program provides planning grants, technical assistance, and capital grants to help cities and nonprofit agencies link transportation projects with community plans. MTC would fund only projects that are exempt from CEQA, have no significant environmental impacts, or adequately mitigate any adverse environmental impacts. Actual emission reductions will be based on the projects funded.	FY 2004 – 2006. Complete once \$27 million in TLC grant funding is approved by MTC	<p>In December 2003, the Commission reaffirmed its commitment of \$27 million annually over 25 years for the TLC program as part of Phase 1 of the Transportation 2030 Plan.</p> <p>MTC and the county Congestion Management Agencies (CMAs) have approved over \$27 million in TLC grant funding by FY 2006. In November 2004, MTC approved \$500,000 for regional TLC Community Design Planning Program, and in December 2004, MTC approved \$18.4 million in TLC funding for the regional TLC Capital program. As of December 2006, CMAs in Alameda, Marin and Sonoma counties approved an additional \$12.4 million in their county-level TLC Capital programs for a regional total of \$31.2 million.</p> <p>TCM C is fully implemented.</p>
D	Additional Freeway Service Patrol	Operation of 55 lane miles of new roving tow truck patrols beyond routes which existed in 2000. TCM commitment would be satisfied by any combination for routes adding 55 miles. Tow trucks used in service are new vehicles meeting all applicable ARB standards.	FY 2001. Complete by maintaining increase in FSP mileage through December 2006	<p>FSP continues to maintain the operation of the 55 lane miles of new roving tow truck coverage. This level of service was maintained through 2006. FSP continues to expand its service areas.</p> <p>TCM D is fully implemented.</p>

*Transportation-Air Quality Conformity Analysis
Amendment to Transportation 2030 Plan and 2007 Transportation Improvement Program Amendment 07-06*

#	TCM	Description	Ozone Attainment Plan Implementation Schedule	Implementation Status
E	Transit Access to Airports	Take credit for emission reductions from air passengers who use BART to SFO, as these reductions are not included in the Baseline.	BART – SFO service to start in FY 2003. Complete by maintaining service through December 2006	Service began June, 2003. Service adjustments were made in September, 2004 to improve productivity and to increase the number of peak period trains stopping at the Airport station. Service was maintained through 2006 and is continued. TCM E is fully implemented.

**See Appendix A-4 for listing of specific projects implementing TCMs A-E.*

V. RESPONSE TO PUBLIC COMMENTS

MTC's Planning Committee released the Draft Conformity Analysis for a 30-day public review period from March 9, 2007 to April 9, 2007. Two public hearings were held for the Amendment to the Transportation 2030 Plan. While the conformity analysis was not subject to a public hearing, staff welcomed comments on the draft report. At the time of this report, no oral comments were provided at the April 13 public hearing. Staff has prepared minor technical corrections to Appendices A-1, A-2, and A-3 in response to discussions with Federal Highway Administration and project sponsors.

VI. CONFORMITY FINDINGS

Based on the analysis, the following conformity findings are made:

- This conformity assessment was conducted consistent with EPA's regulations and with the Bay Area Air Quality Conformity Procedures adopted by MTC as Resolution No. 3757.
- The Amendment to the Transportation 2030 Plan and 2007 Transportation Improvement Program Amendment 07-06 provide for implementation of TCMs pursuant to the following federal regulation:
 - (1) *An examination of the specific steps and funding source(s) needed to fully implement each TCM indicates that TCMs which are eligible for funding under title 23 U.S.C. or the Federal Transit Laws are on or ahead of the schedule established in the applicable implementation plan, or, if such TCMs are behind the schedule established in the applicable implementation plan, the MPO and DOT have determined that past obstacles to implementation of the TCMs have been identified and have been or are being overcome, and that all State and local agencies with influence over approvals or funding for TCMs are giving maximum priority to approval or funding to TCMs over other projects within their control, including projects in locations outside the non-attainment or maintenance area.*
 - (2) *If TCMs in the applicable implementation plan have previously been programmed for Federal funding but the funds have not been obligated and the TCMs are behind the schedule in the implementation plan, then the TIP cannot be found to conform if the funds intended for those TCMs are reallocated to projects in the TIP other than TCMs, or if there are no other TCMs in the TIP, if the funds are reallocated to projects in the TIP other than projects which are eligible for Federal funding intended for air quality improvements projects, e.g., the Congestion Mitigation and Air Quality Improvement Program.*
 - (3) *Nothing in the TIP may interfere with the implementation of any TCM in the applicable implementation plan. (40 CFR Part 93.113(c)).*
- For carbon monoxide, motor vehicle emissions in the Amendment to the Transportation 2030 Plan and 2007 Transportation Improvement Program Amendment 07-06 are lower than the transportation conformity budget in the SIP.
- For Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx), motor vehicle emissions in the Amendment to the Transportation 2030 Plan and 2007 Transportation Improvement Program Amendment 07-06 are also lower than the applicable motor vehicle emission budgets for the 8-hour ozone standard.

APPENDIX **A-1**
LIST OF PROJECT CHANGES IN
AMENDMENT TO THE TRANSPORTATION 2030 PLAN

Appendix A-1
Amendment to the Transportation 2030 Plan
Revisions to Transportation 2030 Plan Appendix One - Projects By County

Proposed Revisions Shown in Bold and Italics.

Reference Number	Project/Program	Total Project Cost (in millions)	Financially Constrained Element	Vision Element	Notes	Reason For Amendment
Bay Area Region/Multi-County						
21001	Freeway Traffic Operations (includes Traffic Operations System/Transportation Management Center enhancements, Freeway Service Patrol, incident management and technical assistance)	\$466.2 \$546.7	\$109.5 \$190.0	\$356.7	<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	
Alameda County						
22670	Widen I-880 for <i>southbound</i> HOV lanes northbound from Hacienda overcrossing to 98th Avenue and southbound from 98th Avenue Hegenberger Road to Marina Boulevard (<i>includes reconstructing bridges at Davis Street and Marina Boulevard</i>)	TBD \$108.0	\$108.0	TBD	<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan; shift project into Financially Constrained Element
22013	I-580 corridor improvements (includes widen I-580 in both directions for HOV and auxiliary lanes from Hacienda Tassajara Road to Greenville Road, construct HOV direct connector from westbound I-580 to southbound I-680, construct eastbound truck climbing lane from Flynn Road to Greenville Road (Altamont Summit), and acquire express buses)	\$445.0 \$620.0	\$445.0 \$620.0		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
21105	I-580/Isabel interchange improvements (Phases 1 and 2)	\$100.0 \$153.0	\$100.0 \$153.0		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
Contra Costa County						
98999	Widen Route 4 from 4 lanes to 8 lanes from Somersville Road to Route 160	\$232.0 \$445.0	\$232.0 \$445.0		<i>Funded with Prop. 1B Corridor Mobility Improvement Account, Regional Measure 2, and AB 1171 funds, Measure C and J sales tax, and other local funds</i>	Update project cost and finance plan

Reference Number	Project/Program	Total Project Cost (in millions)	Financially Constrained Element	Vision Element	Notes	Reason For Amendment
21206	Caldecott Tunnel fourth bore	\$218.0 \$420.0	\$218.0 \$420.0		Includes \$8 million from Alameda County and \$20 million from Contra Costa County; e-Cost assumes 2-lane bore on the north side; Partially funded with Prop. 1B Corridor Mobility Improvement Account funds	Update project cost and finance plan
98142	Widen Route 4 from 4 lanes to 8 lanes with HOV lanes from Loveridge Road to Somersville Road	\$70.0 \$140.0	\$70.0 \$140.0		Funded with TCRP, Measure C sales tax, Regional Measure 2, and SAFETEA earmark funds	Update project cost and finance plan

Reference Number	Project/Program	Total Project Cost (in millions)	Financially Constrained Element	Vision Element	Notes	Reason For Amendment
Marin County						
98154	Widen US 101 from Route 37 to the Sonoma County line from 4 lanes to 6 lanes (including 2 HOV lanes) and convert some highway sections to freeway standards	\$200.0 \$320.0	\$200.0 \$320.0		Joint project between Marin and Sonoma counties. <i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
21325	U.S. 101/Greenbrae interchange improvements	\$47.5 \$70.0	\$47.5 \$70.0		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
Napa County						
94074	Widen Route 12 (Jamieson Canyon) from I-80 in Solano County to Route 29 in Napa County from 2 lanes to 4 lanes (Napa County portion of project)	\$52.0 \$70.0	\$52.0 \$70.0		See companion Solano County project #94152 on page 110; <i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
San Francisco County						
21505	Local bridge seismic work	\$8.0 \$200.0	\$4.0 \$200.0	\$4.0	<i>Funded with Prop. 1B funds</i>	Update project cost and finance plan
94089	Reconstruct South Access to the Golden Gate Bridge: Doyle Drive to Broderick Street (includes Route 1/US 101 interchange improvements)	\$446.7 \$810.0	\$446.7 \$810.0		<i>Funded with State Highway Operation and Protection Program (SHOPP) funds</i>	Update project cost and finance plan

Reference Number	Project/Program	Total Project Cost (in millions)	Financially Constrained Element	Vision Element	Notes	Reason For Amendment
San Mateo County						
21608	US 101 northbound and southbound auxiliary lanes from Marsh Road to Santa Clara County line SR-85	\$91.2 \$215.0	\$91.2 \$215.0		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project scope, cost and finance plan
Santa Clara County						
<i>New 22944</i>	<i>Widen I-880 for HOV lanes in both directions between Route 237 in Milpitas to U.S. 101 in San Jose</i>	<i>\$142.7</i>	<i>\$142.7</i>		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Add new project into Financially Constrained Element
22848	Develop High Occupancy Toll (HOT) lane demonstration project on one two freeway corridor in Santa Clara County	\$2.0 \$34.0	\$2.0 \$34.0		<i>AB 2032 authorized HOT demos in two freeway corridors</i>	Update project scope per AB 2032
22142	US 101/Capitol Expressway interchange improvements (includes new northbound on-ramp from Yerba Buena Road)	\$20.0 \$42.0	\$20.0 \$42.0		<i>Funded by local funds</i>	Update project cost and finance plan
22134	Widen US 101 southbound from Story Road to Yerba Buena Road	\$11.0 \$22.0	\$11.0 \$22.0		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
21723	US 101/Tully Road interchange modifications	\$22.0 \$42.0	\$22.0 \$42.0		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
21719	I-880/I-280/Stevens Creek Boulevard interchange improvements (Phase 1)	\$14.0 \$110.0	\$14.0 \$110.0			Update project cost and finance plan
Solano County						
94152	Widen Route 12 (Jameson Canyon) from I-80 in Solano County to Route 29 in Napa County from 2 lanes to 4 lanes (Solano County portion of project)	\$52.0 \$70.0	\$52.0 \$70.0		See companion Napa County project #94074 on page 99; <i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
21807	I-80/I-680/Route 12 interchange improvements (Phase 2); includes widen I-80 from Route 12 to Air Base Parkway for HOV lanes (includes a braided ramp from I-680 to Suisun Valley Road and improvements to Red Top Road)	\$139.5 \$325.0	\$139.5 \$325.0		Partially funded with Regional Measures 1 and 2 Toll Bridge Program funds; <i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan

Reference Number	Project/Program	Total Project Cost (in millions)	Financially Constrained Element	Vision Element	Notes	Reason For Amendment
Sonoma County						
21908	Ferry service from Port Sonoma <i>environmental studies only</i>	\$25.0 \$20.0	\$25.0 \$20.0		<i>SAFETEA federal earmark project</i>	Update project cost and finance plan
22655	Widen US 101 for HOV lanes (one in each direction) from Rohnert Park Expressway to Santa Rosa Avenue (includes interchange improvements and ramp metering)	\$40.0 \$85.5	\$40.0 \$85.5		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
21902	Widen US 101 for HOV lanes from Old Redwood Highway to Rohnert Park Expressway	\$99.0 \$184.0	\$99.0 \$184.0		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
98193	Widen US 101 for HOV lanes between Steele Lane and Windsor River Road	\$100.0 \$170.0	\$100.0 \$170.0		<i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan
98147	Widen US 101 (adding an HOV lane in each direction) from the Marin/Sonoma County line north to Old Redwood Highway in Petaluma and convert some highway sections from expressway to freeway	\$200.0 \$220.0	\$200.0 \$220.0		See Marin project #98154. Improvements to the Petaluma River Bridge in this project are distinct from Sonoma project #21346. <i>Partially funded with Prop. 1B Corridor Mobility Improvement Account funds</i>	Update project cost and finance plan

APPENDIX A-2

LIST OF NEW NON-EXEMPT PROJECTS
AMENDED INTO 2007 TIP AMENDMENT 07-06

2007 TIP - Amendment No. 2007-06

Appendix A-2

May, 2007

Sponsor	Mode	TIP ID	Project Name	Description of Change	Funding Change
Alameda County					
Caltrans	State Hwy	ALA070041	I-80 Integrated Corridor Mobility Project	Amend in new STIP Augmentation project.	\$88,296,000.00
Caltrans	State Hwy	ALA070042	I-880 SB HOV Lanes - Marina Blvd to Hegenberger	Amend in new CMIA funded project.	\$112,590,000.00
City of Oakland	Local Rd	ALA991081	42nd Ave. & High St. I-880 Access Improv.	Amend-in Con phase and funding. Transfer \$1.9M in STIP from Mandela Pkwy.	\$13,395,000.00
Contra Costa County					
City of Antioch	Local Rd	CC-050001	Somersville Road Bridge Widening	Update project costs per the latest Caltrans HBRR Program release.	\$351,000.00
City of Brentwood	Local Rd	CC-070077	John Muir Parkway Extension	Amend in new locally funded project.	\$5,389,000.00
City of Brentwood	Local Rd	CC-070078	John Muir Parkway Extension: Phase II	Amend in new locally funded project.	\$6,996,000.00
City of Concord	Local Rd	CC-070027	Waterworld Parkway Bridge	Advance ROW phase and funding into the 2007 TIP.	\$0.00
Contra Costa County	Local Rd	CC-070075	Kirker Pass Road Truck Climbing Lanes	Amend in new locally funded project.	\$20,000,000.00
Contra Costa County	Local Rd	CC-070079	Byron Hwy Extension	Amend in new locally funded project.	\$7,200,000.00
Contra Costa County	Local Rd	CC-070081	Byron - Armstrong Road Extension	Amend in new locally funded project.	\$2,500,000.00
State Route 4 Bypass Authority	State Hwy	CC-070048	SR4 Bypass: Sand Creek to Balfour Rd	Advance project schedule and funding.	\$0.00
State Route 4 Bypass Authority	State Hwy	CC-070049	SR4 Bypass: Laurel Rd to Sand Creek Ph. I	Split the project into two phases and advance Phase 1 schedule.	(\$9,500,000.00)
State Route 4 Bypass Authority	State Hwy	CC-070057	SR4 Bypass: Sand Creek Interchange	Update project cost and advance funding schedule.	\$32,000,000.00
State Route 4 Bypass Authority	State Hwy	CC-070076	SR4 Bypass: Laurel Rd to Sand Creek Ph II	Amend in project split from CC-070049.	\$9,000,000.00

2007 TIP - Amendment No. 2007-06

Appendix A-2

May, 2007

Sponsor	Mode	TIP ID	Project Name	Description of Change	Funding Change
Santa Clara County					
Valley Transit Authority (Santa Clara Trans Dist)	State Hwy	SCL070016	I-880 Widening - SR237 to US101	Amend in new project funded with CMIA and local funds.	\$95,000,000.00
San Francisco County					
San Francisco County Transportation Authority	State Hwy	SF-070027	Yerba Buena Island Ramp Improvements	Amend in new Locally funded project.	\$215,450,000.00
Transbay Joint Powers Authority	Transit	SF-010015	Transbay Terminal/Caltrain Downtown Ext - Ph.1	Revise project scope and funding to show Phase 1 programming, including all project phases to construction.	\$570,336,186.00
Transbay Joint Powers Authority	Transit	SF-050002	Transbay Terminal/Caltrain Downtown Ext: Ph. 2	Revise project scope and funding to show Phase 2 programming, including all project phases to construction	\$512,243,000.00
Solano County					
City of Suisun City	State Hwy	SOL070020	I-80/I-680/SR 12 Interchange Project	Amend in new project funded with SAFETEA earmark, CMIA Funding and other long range commitment funding.	\$99,953,000.00
City of Suisun City	Local Rd	SOL070021	Travis AFB: N/S Gates Impr. Project	Amend in new project funded with SAFETEA earmark.	\$8,470,000.00
Sonoma County					
North Bay Ferry Service	Transit	SON070013	Ferry Service to Port Sonoma	Amend in new project.	\$23,171,000.00
Total Funding Change					1,812,840,186

APPENDIX **A-3**

LIST OF PROJECTS

IN THE 2007 TIP AMENDMENT 07-06 IMPLEMENTED BY 2015

**2007 TRANSPORTATION IMPROVEMENT PROGRAM
APPENDIX B-2: PROJECT LISTING**

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
1	ALA010003	21112	ALA	Alameda County	Crow Canyon Safety Improvements	Alameda County: On Crow Canyon Road: from I-580 north to the Alameda/Contra Costa County line; Safety improvements, shoulder widening and curve realignment.
2	ALA010004	22080	ALA	Oakland	ITS Deployment in Oakland Airport - APD	In Oakland: Hegenberger Rd from Oakland Airport to the Coliseum; ITS deployment including traffic signal coord. message boards, transit coordination, & upgrade of signal control & other equipment.
3	ALA010005	21126	ALA	Caltrans	SR 84 Westbound HOV On-Ramp at Newark Blvd.	Newark: State Route 84 from 0.3 miles west of the Newark overhead to the Newark Undercrossing; Construct direct HOV on-ramp connector to westbound HOV lane.
4	ALA010006	21125	ALA	Caltrans	SR 84 WB HOV Lane Extension	Newark: Route 84 btw Newark Avenue Undercrossing and 0.1 mile west of the I-880/SR 84 interchange; Extend westbound HOV lane.
5	ALA010013	2201321100	ALA	Livermore	I-580/Vasco Road Interchange Modification	Livermore: I-580 between 1st Street and Vasco Road; Construct Eastbound and Westbound auxiliary lanes and modify I-580/Vasco Road interchange.
6	ALA010014	98141	ALA	Caltrans	I-680 Sunol Grade NB HOV Lane	Rt. 680: Sunol Grade from Milpitas to Rt. 84; Construct North Bound HOV lanes.
7	ALA010015	98208	ALA	SJRC	ACE Track Improvements.	ACE: In the Livermore Valley between UPRR Mileposts 56.9 and 30.8 in the Livermore Valley; Construct 8,000 Ft. passing siding.
8	ALA010027	22007	ALA	Berkeley	Berkeley Santa Fe RR Bike/Ped Path	Berkeley: On the former Santa Fe Railroad ROW btw University Ave. & Delaware St.; Construct ped/bike path and new mid-block ped signal and crosswalk on University Avenue. MTC Housing Incentive Program (HIP).
9	ALA010032	98208	ALA	Caltrans	I-580 San Leandro Estudillo Noise Barrier	San Leandro: I-580 between post mile 33.5 and 34.6; Construct noise barriers/Sound walls in both directions.
10	ALA010034	94004	ALA	AC Transit	AC Transit Maintenance Facilities Upgrade	AC Transit: Agency's facilities & equipment upgrades.
11	ALA010035	94004	ALA	AC Transit	AC Transit SATCOM Expansion	AC Transit: Expand/Enhance AC Transit District's satellite-based global tracking and communication system.
12	ALA010036	21992	ALA	AC Transit	Berkeley/Oakland/S.Leandro Corr MIS Study	AC Transit: Along the Berkeley/Oakland/S. Leandro service corridor; Complete Major Investment Study including the preliminary engineering & completion of environmental clearance.
13	ALA010040	94003	ALA	BART	BART Lake Merritt Channel Subway Repair	BART District: Lake Merritt subway facility running under the Lake Merritt Channel in Oakland; Renovation & restoration of subway to a structurally secure state.
14	ALA010052	21103	ALA	Newark	Central Avenue Railroad Overpass at UPRR	Newark: On Central Ave at the Union Pacific Railroad tracks; Construct grade separation no new lanes.
15	ALA010053	21121	ALA	Newark	Thornton Avenue Widening	Newark: Thornton Avenue between Gateway Blvd and Hickory Street; Widen from 2 lanes to 4 lanes.
16	ALA010056	21468	ALA	SJRC	ACE Track Improvements.	ACE: Between Alameda & Santa Clara Counties: Track improvements, including siding upgrades and replacement of rail and track bed stabilization.
17	ALA010060	21468	ALA	AC Transit	AC Transit Welfare to Work Program	AC Transit: Operating Assistance to support welfare to work program.
18	ALA030001	94526	ALA	AC Transit	AC Transit Bus Component Preventive Maintenance	AC Transit: Capitalized Maintenance Program; Including replacement of critical components like axles, brakes, electrical systems, seats, windows, lifts & associated labor.
19	ALA030002	21139	ALA	Alameda County	Vasco Road Safety Improvements	Livermore: On Vasco Road about 1.8 miles N. of Livermore to 1.6 miles South of CC County line; Realign roadway, provide standard shoulder widths & add truck-climbing lanes. (Total length of truck lanes is .9 miles).
20	ALA030003	21119	ALA	Caltrans	Mandela Parkway Extension Phase II	Oakland/Emeryville: On Yerba Buena Ave btw Horton St and Hollis St; Roadway Channelization including addition of a 3rd left turn lane, signals, curbs, & sidewalks.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
21	ALA030004	22089	ALA	AC Transit	Emeryville Intermodal Transfer Station	Emeryville: Construct bus terminal with 9 bus bays, including facilities for Amtrak Rail, Capitol Corridor and AC Transit, plus additional parking for shuttles & taxicabs, and other landscape improvements.
22	ALA030015	94527	ALA	LAVTA	Bus Catalyst Devices	LAVTA: Acquire and install bus catalyst devices on agency buses.
23	ALA030017	22712	ALA	LAVTA	LAVTA Regional Express Bus Operations	Alameda; LAVTA: Operating support for the Regional Express Bus service on the Rt. 70 and Subscription Routes (New Service).
24	ALA030025	94030	ALA	ACCMA	AB 3090 Reimbursement Project-I-880 Mission	ACCMA: AB 3090 Reimbursement Project for the I-880/Mission HOV Lane Project
25	ALA030026	94030	ALA	ACCMA	AB3090 Replacement Project 880/Mission Landscape	AB 3090 Replacement Project - Landscaping at Mission/I-880
26	ALA030027	22990	ALA	Alameda Cty TA	AB 3090 Reimbursement project	I-880 Corridor: I-880 between Santa Clara County line and Alvarado-Niles; Construct 2 HOV lanes, reconstruct I-880/Warren Ave./SR 262 I/C and construct UPRR grade separation.
27	ALA030029	94527	ALA	LAVTA	Operating Assistance	LAVTA: System wide; Operating assistance for LAVTA's Fixed Route System.
28	ALA030030	94527	ALA	LAVTA	Preventive Maintenance	LAVTA: Preventive Maintenance Program for Agency Fleet.
29	ALA030031	94528	ALA	Union City	Bus Parking Area Repaving Project.	Union City: Concrete paving of existing agency bus parking area.
30	ALA030032	21123	ALA	Union City	Union City Intermodal Station	Union City: U.C. Intermodal Station; Modify U.C. BART Station to allow integration of a future rail station, create a new 16-bus bay facility & reconfigure BART parking lot to improve access.
31	ALA030034	94526	ALA	AC Transit	Express Bus Demonstration Service	AC Transit: From Fremont to the Silicon Valley; Assistance to operate the Express Bus across the Dumbarton Bridge into the Silicon Valley.
32	ALA030038	94527	ALA	LAVTA	Replace (2) 1983 RTS buses w/40" Hybrid Buses	LAVTA: Replace (2) 1983 RTS buses with 40" Diesel/Electric Hybrid Buses.
33	ALA030039	94527	ALA	LAVTA	Replace (2) 1986 RTS buses w/40" Hybrid Buses	LAVTA: Livermore Valley; Replace (2) 1986 RTS buses with 40" Diesel/Electric Hybrid Buses.
34	ALA030040	94527	ALA	LAVTA	Replace (9) 24" Medium Duty Cutaway Vans	LAVTA: Livermore Valley; Replace (9) 1997 24" Medium Duty Cutaway Vans (with farebox, radio, and AVL equipment) with similar vehicles.
35	ALA030041	21465	ALA	BART	Estuary Crossing Transit Study	Alameda: Oakland-Alameda Estuary; Feasibility study for alternative transit estuary crossing.
36	ALA030042	21145	ALA	ACCMA	E. Bay Incident & Emergency Mgmt. System	Alameda & Contra Costa Counties: I-880 & I-80 Corridor; Incident & Emergency Mgmt System utilizing ITS technologies for improved incident responses along the corridor.
37	ALA050001	21455	ALA	San Leandro	I-880/ Washington Ave. I/C Reconfig.	San Leandro: At I-880/Washington Ave; Interchange reconfiguration - Widen intersection and widen SB on/off ramps.
38	ALA050002	21451	ALA	San Leandro	SR 185- E. 14th St/ Hesperian Blvd/150th Ave	San Leandro: 150th/E. 14th/Hesperian; construct NB left turn Ln from Hesperian to E.14th, EB left turn Ln from E.14th to 150th Av & SB Ln from Hesperian to 150th.
39	ALA050006	22013	ALA	ACCMA	I-580 (TriValley) Corridor Improvements	I-580 Corridor (Tri-Valley): Provide improvement enhancing transit access and operations, such as HOV and Aux Lanes, Express Bus and HOV connectors, and other related improvements.
40	ALA050007	21492	ALA	Dublin	Dougherty Road Widening	Dublin: Dougherty Rd from I-580 to Houston Place; Widen from 4 to 6 lanes & widen intersection of Dougherty/Dublin Blvd. to accommodate additional turning lanes and modify traffic signal.
41	ALA050008	22013	ALA	Dublin	I-580/Fallon Road Interchange Improvements	Dublin: I-580/Fallon Rd Interchange; Widen Fallon Rd. overcrossing to provide 2 lanes in each direction, widen on & off-ramps, and install traffic signals at the ramp termini.
42	ALA050009	22777	ALA	Alameda County	I-580 Castro Valley Interchange Improvements	Castro Valley: I-580/Redwood Rd/Crow Canyon/Center St/Grove Way; Reconfigure Interchange.
43	ALA050011	21456	ALA	ACCMA	I-580 (TriValley) Corridor - WB Aux Lanes	I-580 (TriValley) Corridor: Construct WB Auxiliary Lanes between Airway Blvd and Tassajara Rd.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
44	ALA050012	21473	ALA	Livermore	North Canyons Parkway Widening	Dublin/Livermore: N. Canyon Parkway; Construct 4-lane arterial roadway to close gap btw the westerly end of N. Canyons Pkwy and Dublin Blvd.
45	ALA050014	22776	ALA	Alameda Cty TA	Route 84 Expressway Widening	In Livermore: Widen Route 84 from Jack London Blvd. to Pigeon Pass.
46	ALA050015	21132	ALA	BART	BART - Warm Springs Extension	Fremont: Fremont BART station to Warm Springs; Extend BART service to the Southern end of Alameda County including new station at Irvington.
47	ALA050016	21133	ALA	BART	West Dublin BART Station	BART: Dublin; Construction West Dublin/Pleasanton BART station.
48	ALA050017	22455	ALA	AC Transit	Enhanced Bus - Telegraph/Intl/East 14th	AC Transit: Along the Telegraph/Intl Ave /E. 14th Corridor; System includes Bus Stop & station improvements, bus procurement and other street enhancements to implement bus rapid system.
49	ALA050018	22002	ALA	ACCMA	Grand/MacArthur Bus Improvements	Oakland: Grand/MacArthur Blvd; Implement Enhanced Transbay Bus Service by providing system engineering analysis, signal modification & retiming, revising bus stop locations and layouts interconnect and intersection improvements.
50	ALA050019	22769	ALA	ACCMA	I-880 North, Safety Improvements	Oakland: I-880 btw 16th Ave to 29th Ave; Reconfigure Interchange, including new ramps.
51	ALA050020	22007	ALA	Berkeley	Berkeley - Gilman Street Rehabilitation	Berkeley: Gilman Street from San Pablo to Hopkins; Rehab Roadway.
52	ALA050021	21886	ALA	Alameda County	Alameda County - East Avenue Rehabilitation	Near Hayward: East Avenue between Windfeldt Road and E St; Rehab roadway, construct pedestrian ramps and other pedestrian enhancements.
53	ALA050022	94522	ALA	Fremont	Fremont - Various Streets Rehabilitation	Fremont: Various Streets; Rehabilitate and overlay of various local streets. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
54	ALA050023	94001	ALA	Oakland	Oakland - Various Streets Rehabilitation	Oakland: Various Streets; Resurface & repair of streets throughout the City, including sidewalks, curbs, gutters, Consistent with 40 CF Part 93.126, 127, 128, Exempt Tables 2 & 3.
55	ALA050024	21100	ALA	Livermore	Livermore - South Vasco Road Rehabilitation	Livermore: South Vasco Road between Patterson Pass Road and Daphne Drive; Repair failed pavement sections and overlay.
56	ALA050025	94001	ALA	Hayward	Hayward - Hesperian Blvd Rehabilitation	Hayward: Hesperian Blvd from Industrial Blvd. to Sleepy Hollow Ave.; Pavement Rehabilitation and Overlay.
57	ALA050026	94522	ALA	San Leandro	Washington Ave Rehab: Railroad to Halycon	San Leandro: Washington Avenue from Railroad underpass to intersection of Montgomery Blvd and Halcyon, centered upon the Halycon/Floresta intersection: Rehab roadway & Bike Lane.
58	ALA050028	21011	ALA	Oakland	Chinatown Ped. Oriented Improvements	Oakland: Chinatown; Various pedestrian-oriented improvements, including traffic signals, bulb outs and high visibility crosswalks (TLC Project).
59	ALA050029	98141	ALA	ACCMA	I-680 SMART Carpool Lane Project	Sunol Corridor: I-680 btw SR 84 & SR 237 (14miles); Convert the existing HOV Lane to a Combined HOT/HOV facility to further encourage ridesharing activities.
60	ALA050033	22240	ALA	ACCMA	Ardenwood Blvd Park & Ride Lot	Fremont: Express Bus South: Ardenwood Blvd; Acquire and build site near SR84/Ardenwood Blvd to expand existing park and ride lot. AC Transit is a co-sponsor of project.
61	ALA050034	22240	ALA	AC Transit	Express Bus South	AC Transit: Express Bus South between Alameda County and San Mateo County; Procure 10 over-the-road coaches for express bus service.
62	ALA050035	94522	ALA	Alameda County	Sidewalk Improv. in Cherryland/Ashland/CV	Cherryland, Ashland and Castro Valley: Sidewalk improvements in the vicinity of Schools within unincorporated Alameda County area.
63	ALA050036	21145	ALA	ACCMA	Alameda SMART Corridors Operations & Management	Oakland: Smart Corridor; Telecommunication charges, computer upgrades and management for operations, design modifications. Continuation of same project previously in the TIP under ALA991061.
64	ALA050039	22007	ALA	Oakland	MacArthur Transit Hub Improvement Project	Oakland: Along 40th St.; At the Macarthur Transit Hub; & at SR 24 underpass; Improve access to transit hub & support future TOD developments plus other BART plaza renovations.
65	ALA050041	94526	ALA	AC Transit	Information Systems Upgrade	AC Transit: Upgrade agency's information system including HR component, accounting, project accounting and payroll systems.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
66	ALA050042	21468	ALA	SJRC	ADA Operating Set-aside	ACE: Operating set-aside to improve ADA access from the ACE Stations to employment centers in Alameda and Contra Costa Counties.
67	ALA050043	21468	ALA	SJRC	ACE Signal System Rehabilitation	ACE: Rehabilitate the existing Signal System between Niles Junction and Lathrop on the UPRR alignment.
68	ALA050044	21017	ALA	Union City	Preventive Maintenance	Union City: Preventive Maintenance for agency fleet.
69	ALA050045	21017	ALA	Union City	Van Repl: Purchase Paratransit Van	Union City: Replace 1 1996 Dodge Intrepid with Paratransit Van.
70	ALA050046	21017	ALA	Union City	Bus Repl: Purchase (1) 35" Bus	Union City: Replace one 30 ft Bus with 35 ft. bus.
71	ALA050047	21017	ALA	Union City	Replace (2) 1998 and (2) 1999 Paratransit Vans	Union City: Replace two 1998 and two 1999 Paratransit Vans with similar vans.
72	ALA050048	94527	ALA	LAVTA	Bus Repl. (12) 40" Alt. Fuel Vehicles	LAVTA: Replace 12 1983 40 ft RTS 2 Diesel powered coaches with 6-40 foot Diesel/Electric Hybrid MC; & 6-29 ft Diesel/Electric Hybrid MC.
73	ALA050049	94527	ALA	LAVTA	Replace 3 1999 24" Paratransit Vehicles	LAVTA: Replace 3 1999 24 foot paratransit vehicles including farebox's and radios with similar vehicles.
74	ALA050050	94527	ALA	LAVTA	LAVTA Facilities Security Program	LAVTA: Procure video and audio surveillance security systems to be placed at the LAVTA Administration facility and the Livermore Transit Center. [2006 LAVTA Facilities Security Program]
75	ALA050051	94636	ALA	LAVTA	Replace 3 2000 24" Paratransit Vehicles	LAVTA: Replace 3 2000 24" paratransit revenue vehicles including fareboxes and radios.
76	ALA050052	21113	ALA	Alameda County	E. Castro Valley Blvd /Dublin Canyon Rd Rehab	Btw Castro Valley & Dublin: On E. Castro Valley Blvd & on Dublin Canyon Rd; Rehabilitate pavement, improve shoulders & install bike lanes on portions of E. Castro Valley Blvd plus drainage inlet modifications.
77	ALA050053	94522	ALA	Berkeley	Berkeley - Piedmont Avenue Rehabilitation	In Berkeley: On Piedmont Ave: from Bancroft Way to Dwight Way, reconstruct pavement.
78	ALA050054	94522	ALA	Livermore	Livermore - East Avenue Rehabilitation	Livermore: East Ave between Hillcrest Ave and approximately 450" East of Loyola Way; Repair failed pavement sections and overlay.
79	ALA050055	94522	ALA	San Leandro	San Leandro - Floresta Blvd Rehabilitation	San Leandro: On Floresta Blvd, from Fremont Ave to Washington Ave; Rehabilitate pavement and re-stripe for bike lane.
80	ALA050056	94522	ALA	Hayward	Hayward - West "A" Street Rehabilitation	Hayward: West "A" Street; From Eastern edge of I-880 to Hathaway Ave; Rehabilitate roadway.
81	ALA050059	21011	ALA	Caltrans	SR 13 Median Landscaping	Oakland: State Route 13 from Joaquin Miller overcrossing to Moraga Avenue undercrossing; Construct Median landscaping (TLC-STP Exchange Project).
82	ALA050060	21011	ALA	MTC	Emeryville - San Pablo/MacArthur Bike/Ped Imps.	Emeryville: Intersection of San Pablo Ave. MacArthur Blvd & Adeline St.; Bike/Ped safety & circulation improvements, including medians, bulb-outs, wider sidewalks & Ped. buffer. (HIP Program).
83	ALA050061	21011	ALA	Oakland	Oakland - Latham & Telegraph Pedestrian Imps.	Oakland: At Latham Square: Reconfigure the square, signal modernization & pedestrian amenities including bike racks, trees, lighting, etc. On Telegraph Ave; widen sidewalks, travel construct bulb-outs. (HIP Program)
84	ALA050062	94012	ALA	Union City	Replacement of One 35 foot Bus	Union City: Replace one 35ft Bus with similar bus.
85	ALA050064	94526	ALA	AC Transit	Transit Security Project	AC Transit: District facilities and Buses; Install cameras on District's buses and at District's facilities also fund design and fabrication of a mobile emergency-operating center.
86	ALA050065	21465	ALA	BART	Ed Roberts Campus	Berkeley: By the Ashby BART Station; Construct facility that will be a Transit Oriented Development serving people with disabilities and encourage more transit use.
87	ALA050066	22005	ALA	SJRC	Signal Upgrade Project (Stockton to Lathrop)	ACE: On the UPRR between Stockton and Niles Junction; Upgrade the existing 60 year old signal system.
88	ALA050067	21468	ALA	SJRC	GPS Train Tracking & Reporting System	ACE: Install instant messaging systems at the Alameda County ACE Stations.
89	ALA050068	94522	ALA	Livermore	Livermore - Murrieta Blvd Rehabilitation	Livermore: On Marietta Blvd between Fenton Street and the UPRR tracks and also between Jack London Blvd and Del Norte Drive; Rehabilitate deteriorated pavement.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
90	ALA050069	94522	ALA	San Leandro	Washington Ave Rehab: San Lorenzo Crk to I-880	San Leandro: On Washington Avenue between San Lorenzo Creek and the I-880 Overcrossing; Pavement Rehabilitation
91	ALA050070	94522	ALA	Union City	Union City - Alvarado-Niles Road Rehabilitation	Union City: On Alvarado-Niles Rd from I-880 to Western Avenue; Rehab roadway.
92	ALA050071	94552	ALA	Hayward	Hayward - Various Streets Rehabilitation	Hayward: Pavement rehab on 1) Huntwood Ave - From Tennyson Rd to Harris Rd, 2) Santa Clara St - From Jackson St to 300" south of Winton Ave, and 3) Whitman St - From Tennyson Rd to Harder Rd.
93	ALA050072	94552	ALA	Alameda County	Alameda County - Castro Valley Blvd Rehabilitation	Castro Valley: On Castro Valley Blvd from Foothill Blvd to Stanton Ave; Rehabilitate roadway.
94	ALA050073	94522	ALA	Berkeley	Berkeley - University Ave Rehabilitation	Berkeley: On University Avenue from 6th Street to San Pablo Avenue; Reconstruct asphalt concrete pavement, including installation of ADA ramps and any necessary drainage improvements.
95	ALA050074	21085	ALA	ACCMA	I-580 (TriValley) Corridor - TMP/TOS	I-580 (TriValley)Corridor: Implement Traffic Mgmt Plan, including TOS & ITS, ramp metering equipment, & related I-580 corridor advance elements to support EB/WB HOV projects to follow.
96	ALA050075	94525	ALA	BART	Streetscape Improvements	BART Transit Villages: Construct streetscape and intermodal improvements at various transit villages located by BART stations.
97	ALA050076	22007	ALA	BART	Oakland Bay Trail	Oakland: From the Coliseum BART station to MLK Regional shoreline; Construct Bay Trail.
98	ALA050077	94525	ALA	BART	Study of Intermodal Facility	Alameda: Plan, design and construct Intermodal Terminal with direct connection to BART.
99	ALA050078	22007	ALA	San Leandro	Bay Trail Bridge at Oyster Bay Slough	San Leandro: Oyster Bay Slough; Construct a bicycle and pedestrian bridge and provide connecting trail to close a critical gap in the East Bay section of San Francisco Bay Trail System.
100	ALA050079	21144	ALA	Berkeley	I-80 Gilman Interchange Reconfiguration	Berkeley: On Gilman Avenue at I-80; Reconfigure interchange providing dual roundabout at the entrance & exits from I-80 as well as the Eastshore Highway and West Frontage Road.
101	ALA050080	22007	ALA	Oakland	7th Street,W. Oakland Transit Village Improvements	Oakland: West Oakland BART station; Streetscaping and various bike and pedestrian access improvements.
102	ALA050081	22007	ALA	Berkeley	Ed Roberts Intermodal Transit Center	Berkeley: At the Ashby BART station; Various pedestrian access improvements.
103	ALA050082	21011	ALA	Dublin	E. Dublin BART Station Corridor Bike/Ped Enh.	Dublin: E. Dublin BART Station corridor; Multi-modal improvements including bike/ped & transit safety improvements, gateway enhancement & other streetscape improvements on Dublin Blvd (HIP project).
104	ALA050083	21011	ALA	Dublin	W. Dublin BART Station Corridor Bike/Ped Enh.	Dublin: W. Dublin BART Station corridor; Implementing multi-modal improvements including bike/ped & transit safety improvements plus traffic calming & streetscape enhancements. (HIP Program)
105	ALA070001	22007	ALA	EB Reg Park Dis	Temescal Regional Recreation Area	Oakland: Lake Temescal Regional Recreation Area; Construct trail to provide ADA accessible linkages to the Eastshore Trail and Landvale Station Trail.
106	ALA070002	22007	ALA	EB Reg Park Dis	Roberts Reg. Rec. Area Trail	Oakland: Roberts Regional Recreation Area; Construct Trail to provide ADA accessible linkages to the Barrier-Free Playground, Upper Field & ADA accessible restroom.
107	ALA070003	22763	ALA	Caltrans	I-880 Fifth Avenue Bridge Retrofit/Replacement	Oakland: On Route 880 at Fifth Avenue: Seismic retrofit and Replace bridge (33-27).
108	ALA070004	22007	ALA	Oakland	MacArthur Blvd Bikeway	Oakland: On MacArthur Blvd; Construct Class II Bikeway between Park and Lincoln.
109	ALA070005	94001	ALA	Caltrans	I-580 Oakland Horton/Hollis St. Widening	Oakland and Emeryville: I-580 at intersection of Horton and Hollis Streets; rehabilitate and widen roadway.
110	ALA070006	22087	ALA	Caltrans	I-880 SB Auxiliary Lane at Oak Street	Oakland: Southbound Oak Street on-ramp at Route 880; Construct auxiliary lanes.
111	ALA070007	21107	ALA	Caltrans	I-880 High Street Bridge Retrofit/Replacement	Oakland: On High Street (Route 77) at 880 off ramp; Replace bridge and seismic retrofit (#33-146S & #33-146W).

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
112	ALA070008	22778	ALA	Alameda County	Lewelling Blvd Widening	Widening Lewelling/East Lewelling between Hesperian Blvd and Meekland Ave from two lanes to four lanes Hayward: On East Lewelling between Hesperian Blvd and Meekland Ave; Widen roadway from two lanes to four lanes.
113	ALA070009	98207	ALA	Alameda Cty TA	I-880/Broadway-Jackson Interchange	Oakland: Between Oak Street and Union Street; Perform study to develop alternatives to improve connections between I-880, the Posey and Webster tubes and the downtown Oakland area.
114	ALA070010	22782	ALA	Oakland	MacArthur Transit Village	Oakland: MacArthur BART Station; Intermodal improvements including renovations to the BART entry plaza & other bus and shuttle transfer improvements.
115	ALA070011	21085	ALA	Oakland	Coliseum Gardens Phase 3-66th Avenue Streetscape	Oakland: 66th Avenue from San Leandro St. to fire station at 1061 66th Ave.; install street trees, streetlights, corner bulb-outs, and colored concrete crosswalks.
116	ALA070012	22782	ALA	Oakland	Oakland Coliseum TOD	Oakland: Adjacent to the Oakland Coliseum; Construct Pedestrian walkway and plaza to link residents of the adjacent TOD and Coliseum station.
117	ALA070014	22100	ALA	San Leandro	I-880/SR 112 Overcrossing Replacement	San Leandro: at the I-880/SR 112 (Davis St.); Replace overcrossing and widening roadway plus ramp, intersection reconfiguration, signal improvements and coordination.
118	ALA070015	98148	ALA	Emeryville	Emeryville Intermodal Transfer Station: Phase 1	Emeryville: At the Emeryville Amtrak intercity rail station; Construct the first phase of the intermodal transfer station. Including a parking garage and bus terminals.
119	ALA070016	22009	ALA	CCJPA	Capitol Corridor Rail Improvements	Between Oakland and San Jose: Rail improvements including construction of siding, extensions, additional mainline track, crossovers and signal control systems.
120	ALA070017	22013	ALA	ACCMA	I-580 (Tri Valley) Corridor - WB Noise Barrier	Livermore along I-580 Corridor: between Vasco Road and First Street; Construct soundwall on Westbound I-580.
121	ALA070018	22013	ALA	ACCMA	I-580 (TriValley) Corridor - WB HOV & Connectors	I-580 (TriValley) Corridor: Westbound HOV lane on I-580 from east of Greenville Road to west of Santa Rita Road and HOV direct connectors from WB I-580 to SB I-680 and NB I-680 to EB I-580.
122	ALA070019	94526	ALA	AC Transit	Repl 71 1997 40" NABI buses w/ 50 VHools	AC Transit: Purchase up to 50 buses to replace buses that have reached the end of their useful life. Replace 71 1997 40" NABI buses with 50 40" and 30" Van Hool buses.
123	ALA070020	22013	ALA	ACCMA	I-580 (TriValley) Corridor - EB HOV Lane	I-580 (TriValley) Corridor: From east of Greenville Road to west of Santa Rita Road; Contract Eastbound HOV lane. Sub-project of TIP ID ALA050006.
124	ALA070021		ALA	LAVTA	LAVTA Bus Rapid Transit System	LAVTA: Provide Rapid bus services to the cities of Livermore, Dublin and Pleasanton and Eastern Alameda County.
125	ALA070022	21011	ALA	Alameda	Park St Streetscape & Town Center Ph: II	Alameda: On Park Street from Webb to Lincoln Ave/Tilden Way and from Central in a southerly direction; Streetscape including installation of vintage lighting and street trees.
126	ALA070023	22082	ALA	Port of Oakland	7th Street Grade Separation	Port of Oakland: On 7th Street, W of I-880 through the intersection of 7th and Maritime: Rebuild roadway under tracks, widen rail bridge, provide ped/bike access plus grade separation.
127	ALA070024	22090	ALA	Port of Oakland	Outer Harbor Intermodal Terminal	Port of Oakland: From intersection of I-80/I-580 to the intersection of Maritime/7th St.; Construct a third intermodal container transfer facility.
128	ALA070025	22080	ALA	Alameda	City of Alameda Signal Coordination	Alameda: On Otis Dr/Doolittle Dr/Island Dr; Signal coordination to improve traffic flow.
129	ALA070026	22421	ALA	Alameda	Electric Fleet Vehicles & Charging Stations	Alameda: Citywide; Purchase 4 electric vehicles and install the required charging stations.
130	ALA070027	22007	ALA	Oakland	W. Oakland Bay Trail: Mandela Pkwy & 8th St.	Oakland: Mandela Pkwy & 8th St: Construct a segment of the regional San Francisco Bay Trail to close a critical gap between 7th to 8th St. on Mandela Pkwy.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
131	ALA070028	94527	ALA	LAVTA	ACE Station Shuttle Services	LAVTA: Operating assistance for new service from the Pleasanton ACE station to the Stoneridge Mall Area.
132	ALA070029	94527	ALA	LAVTA	E. Dublin/Pleasanton BART Station Shuttle	LAVTA: Between Dublin/Pleasanton BART station and the Hacienda Business Park; Operating assistance to provide new shuttle during peak commute hours.
133	ALA070030	21468	ALA	San Leandro	San Leandro - Traffic Signal System Improvements	San Leandro: Installation of Advance Vehicle Detection, Central System Signal Communications and Emergency Vehicle Preemption Devices at various signal locations in the City.
134	ALA070031	98139	ALA	ACCMA	Vasco Rd. ACE Parking	Livermore: On Vasco Rd; Safety & Transit Enhancement Project in Alameda and Contra Costa including ACE Parking.
135	ALA070032	94526	ALA	AC Transit	AC Transit Hybrid: Commercialization of Fuel Cells	AC Transit: Accelerated testing to failure (partial phase 1) of Fuel Cells for Public Transit.
136	ALA070033	22423	ALA	MTC	Operating Assistance For Service to Hayward	AC Transit: Operating assistance to provide day and evening service on Lines 83, 86 and 386 seven days a week in Hayward and South Hayward (JARC).
137	ALA070034	22423	ALA	MTC	Ashby BART Station/Ed Roberts Campus	Berkeley: Ed Roberts Campus: Install ramp, staircase, pathway and crosswalk on Adeline, plus bus shelter and transit information kiosk and signage at the transit plaza (Lifeline).
138	ALA070035	22423	ALA	Alameda County	E. Lewelling Blvd. Streetscape	Alameda County: Ashland and Cherryland Districts; Various pedestrian improvements to improve pedestrian access to buses, schools and businesses (lifeline).
139	ALA070036	22423	ALA	MTC	Wheels - Operating Assistance Rt. 14	LAVTA: From central residential district of Livermore to downtown employment center; Operating assistance to provide transit service (JARC).
140	ALA070037	21011	ALA	Fremont	Bay Street Streetscape & Parking Project	Fremont: On Bay Street; Streetscape enhancement for improved pedestrian and bicycle access to high volume transit hubs (TLC).
141	ALA070038	21011	ALA	Livermore	Downtown Livermore Pedestrian Transit Connection	Livermore: Downtown Livermore; Create a pedestrian enhancement including, landscaping, lighting, signage, art, benches, transit information kiosks and other enhancements (TLC).
142	ALA070039	22007	ALA	Oakland	Oakland Waterfront Bay Trail	Oakland: From Jack London Square to 66th Avenue; Construct new segments of the Bay Trail.
143	ALA070040	94522	ALA	Alameda County	Hampton Rd Streetscape Improv	Cherryland & Unincorporated areas of Alameda County: Along Hampton Road; Sidewalk Improvements including new curbs, gutters, and other bike/ped improvements.
144	ALA070041	21001	ALA	Caltrans	I-80 Integrated Corridor Mobility Project	Contra Costa and Alameda Counties: On the I-80 from Carquinez Bridge to San Francisco-Oakland Bay Bridge Toll Plaza; create an integrated and arterial network.
145	ALA070042	22670	ALA	Caltrans	I-880 SB HOV Lanes - Marina Blvd to Hegenberger	I-880 Corridor: From Marina Blvd in San Leandro to Hegenberger in Oakland; Construct new SB HOV lanes.
146	ALA070045	22780	ALA	ACCMA	I-880/Maritime Street Ramp Modification	Oakland: I-880 / Maritime Street; Interchange Ramp modification & widening.
147	ALA977007	22063	ALA	Hayward	Route 238 Corridor Improvement Project	Hayward; On Foothill and Mission Boulevards (existing Route 238) from Industrial Parkway to Route 580; Construct Route 238 Corridor Improvement Project.
148	ALA977038	21879	ALA	Caltrans	San Francisco-Oakland Bay Bridge	In San Francisco-Oakland: Bay Bridge; East Span Replacement Project.
149	ALA978004	94506	ALA	Caltrans	Rt 84 4 lane Expwy on new alignment	In Fremont/Union City/Hayward: Route 880 to Route 238; Reconstruct Freeway on new alignment.
150	ALA978015	98208	ALA	Caltrans	I-80 Berkeley Aquatic Park Noise Barrier	Berkeley: Route 80 from Ashby Avenue to University Avenue (near aquatic park); Construct noise barrier (required mitigation)
151	ALA978027	94030	ALA	Caltrans	I-880/SR 262 I/C and HOV lanes	I880 corridor: I-880 btw Santa Clara Co. line & Alvarado-Niles; Construct 2 HOV lanes, reconstruct I-880/Warren Ave/SR 262 I/C & construct UPRR grade separation.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
152	ALA979001	98558	ALA	ACCMA	ACCMA - CMA Planning Activities	Alameda County: Support for CMA Planning Activities. Funding Includes 3% Planning Set-Aside.
153	ALA979004	94001	ALA	Caltrans	SR 92 - Hesperian to Santa Clara St. Soundwall	Hayward: Hesperian Boulevard to Santa Clara Street; construct Soundwall (both directions)
154	ALA990013	21455	ALA	Caltrans	I-238 Widening	Near San Leandro: On Rt 238 from Rt 580 to Rt 880; Widen from 2 to 3 lanes (northbound) and on Route 880 add auxiliary lane between "A" St & Rt 238 (southbound).
155	ALA990014	21114	ALA	Fremont	Washington Blvd/Paseo Padre Grade Separation	Fremont; Union Pacific Railroad tracks between Washington Blvd and Paseo Padre Parkway; Construct grade separations.
156	ALA990015	94012	ALA	Union City	Union City Intermodal Station	Union City: Union City BART station; modify station to allow integration of a future rail station, create 16-bus bay transit facility and reconfigure BART parking lot to improve access for all modes (TLC).
157	ALA990052	94525	ALA	AC Transit	Paratransit Van Leasing	AC Transit: Operating assistance to provide contracted paratransit services for the EB Consortium paratransit service.
158	ALA990054	21101	ALA	Alameda	Tinker Avenue Reconfiguration	Alameda: On Tinker Avenue btw Webster St and 5th St; Reconfigure intersection including the construction of a 4 Ln. extension to Tinker Ave, install signals, and modify Webster St Tube off-ramp.
159	ALA990072	98219	ALA	Livermore	I-580/Isabel Ave/SR 84/Portola Ave I/C Mod.	Livermore: On I-580 at the extension of Isabel Ave (SR 84); construct interchange at a new location and remove existing partial interchange on I-580 at Portola Ave.
160	ALA990074	21451	ALA	San Leandro	E. 14th St. Median Improvements	San Leandro: On E. 14th St. approximately from San Leandro boulevard to 146th Ave; Construct median.
161	ALA990076	21464	ALA	AC Transit	AC Transit ADA Paratransit Assistance	AC Transit: ADA Paratransit Operating Subsidy.
162	ALA990077	21464	ALA	LAVTA	ADA Paratransit Operating Subsidy	LAVTA: ADA Paratransit Operating Subsidy
163	ALA990078	22007	ALA	Berkeley	San Pablo Ave. Corridor Bicycle Path	Berkeley: Construct a Class I Bikeway along UPRR ROW from Heinz/Ninth St. to Class I Bikeway at the Berkeley/Emeryville city limits.
164	ALA990093	94027	ALA	EB Reg Park Dis	Bay Trail (Baumberg Track Trail seg)	Near Hayward: Bay Trail; Construct Baumberg Track Trail Segment.
165	ALA991070	94526	ALA	AC Transit	AC Transit Preventive Maintenance Program	AC Transit: Preventive maintenance for agency fleet and related equipment.
166	ALA991077	21011	ALA	Alameda County	E. 14th St. Streetscape & Underground Utility Proj	Alameda County: on East 14th St. between Thrush and 162nd Avenue; Construct "bulb-outs" in conjunction with larger streetscape improvement in redevelopment area.
167	ALA991081	21107	ALA	Oakland	42nd Ave. & High St. I-880 Access Improv.	Oakland: Widening and re-alignment of local streets in the vicinity of the I-880/42nd & High interchange. Includes modified traffic signals and intersection improvements.
168	ALA991084	98141	ALA	ACCMA	I-680 Sunol Grade - Alameda SB HOV Final Phase	Sunol Grade Corridor: Stone Ridge in Alameda County to SR 237 in Santa Clara County: Final project phase - Construction of HOV lane, shoulders and other project clean up. Alameda portion. Additional funding in ALA991084, SCL991076 & SCL991077, ALA990016, A
169	ALA99SA01	22425	ALA	ACCMA	Planning, Programming and Monitoring	Alameda: Planning, Programming and Monitoring (PPM).
170	ALA99SA09	21151	ALA	LAVTA	Satellite Bus Operating Facility Expan. Ph. 1 & 2	Livermore: Expand maintenance and operations facility which currently holds 50 vehicles to hold additional 150.
171	B-B030001	94541	REG	Caltrans	Benicia/Martinez Bridge Env. Mitigation	Benicia & Martinez: Benicia-Martinez Bridge; Conduct Environmental Mitigation for Bridge. Also See B-B970001 for rest of project.
172	B-B970001	94541	REG	Caltrans	Benicia-Martinez Bridge	Benicia-Martinez Bridge: Construct new bridge parallel to existing bridge with bike lanes make modifications to 680/780 and Marina Vista interchanges & construct new toll plaza.
173	B-C030001	94540	REG	Caltrans	Carquinez Bridge Demolition	Carquinez Bridge: Demolition and Clean up of the 1927 Bridge. (Also see B-C970001).

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
174	B-H970002	94657	ALA	Caltrans	San Mateo-Hayward Bridge	San Mateo Hayward Bridge Interchange: At I-880/SR-92; Reconst Interchange with additional travel Lanes.
175	B-R990003	21014	REG	Caltrans	Richmond-San Rafael Bridge Deck Resurfacing	Richmond and San Rafael: Richmond-San Rafael Bridge; Resurface existing concrete deck.
176	BRT030001	21921	SCL	VTA	BART - Warm Springs to San Jose Extension	BART: Extend BART from Fremont Warm Springs to Milpitas, San Jose and Santa Clara: Environmental, Preliminary Engineering and Right Of Way Only.
177	BRT030004	94525	REG	BART	Train Control Renovation	BART: Replace obsolete elements and subsystems of the train control system.
178	BRT030005	94525	REG	BART	Traction Power System Renovation	BART; System wide; Replace obsolete elements and subsystems of the traction power system to maintain and improve reliability and safety.
179	BRT030006	21005	REG	BART	TransLink Fare Collection System	San Francisco Bay Area: BART; Design, build, operate and maintain the TransLink fare collection system on the BART system.
180	BRT030007	94525	REG	BART	L-Line Intrusion Barriers	BART: Along Highway 580 Corridor (Dublin Pleasanton line); Install physical barriers between the freeway and the rail ROW to prevent intrusion along sections where there is potential for such intrusion.
181	BRT030009	94525	REG	BART	System Wide Safety Project	BART: Safety Program including CCTV Remote monitoring systems, Tunnel & other row intrusion detection systems, implementation of post-9/11 detection strategies, etc. [Security Cameras Repl]
182	BRT050001	94525	REG	BART	Platform Edge Tile Replacement Program	BART: Remove and replace existing edge tiles for core BART system at 34 stations.
183	BRT050003	22636	REG	BART	BART Transbay Tube Seismic Retrofit	San Francisco: Transbay Tube; Seismically retrofit the BART Tube/Tunnel which connects Oakland to San Francisco.
184	BRT050004	22674	REG	BART	BART Core System Rehabilitation Program	BART: Regionwide; Rehabilitate various system elements including traction power, train control, way rehabilitation, and fare collection equipment.
185	BRT971001	94525	REG	BART	Rail, Way and Structures Program	BART: Systemwide; Replace worn out mainline rail and make other timely reinvestments in way.
186	BRT97100B	94525	REG	BART	Rail, Way and Structures Program	BART: Systemwide; Replace worn out mainline rail and make other timely reinvestments in way.
187	BRT975004	21572	SM	BART	San Francisco Airport Extension	S. San Francisco: From Colma BART station to the new SFO station; Extend BART system to the San Francisco International Airport.
188	BRT990002	21131	ALA	BART	BART Oakland Airport Connector	Oakland: Between the Oakland Coliseum BART station & the Oakland International Airport; Construct 3.2 miles fixed guideway connector.
189	BRT990003	94525	REG	BART	Wayside Train Control Rehab	BART: Rehabilitate or replace 520 Wayside Electronics Train Control Track Circuit System.
190	BRT991003	22520	REG	BART	BART Seismic Retrofit Program	BART: Seismic Retrofit Program; Upgrade the entire System against forces from local fault lines using current seismic design standards.
191	BRT99T001	94525	REG	BART	ADA Paratransit Capital Accessibility Improve	BART: Capital Access Improvements Program including, station elevator improvements, installation of hands-free emergency telephones, and tactile stair tread replacement at various stations.
192	BRT99T01B	94525	REG	BART	ADA Paratransit Capital Accessibility Improve	BART: Capital Access Improvements Program including, station elevator improvements, installation of hands-free emergency telephones, and tactile stair tread replacement at various stations.
193	CC-010002	21206	CC	Caltrans	SR 24 - Caldecott Tunnel 4th Bore	Orinda/Oakland: Caldecott Tunnel SR 24; Develop and construct a 2-lane bore north of the existing tunnels.
194	CC-010009	98142	CC	CCTA	SR 4 East Widen Loveridge to Somersville Ph 2	Pittsburg/Antioch: SR 4 from Loveridge to Somersville; Widen to 8 lanes (including HOV Lane)& reconstruct interchanges.
195	CC-010021	21208	CC	BART	Richmond Transit Village Transit & Ped Improv.	Richmond: Richmond Transit Village; Construct pedestrian path & transit improvements at Transit Village. (Project Sponsor is BART and Richmond). MTC Housing Incentive Program (HIP) project.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
196	CC-010023	21205	CC	CCTA	I-680 / SR 4 Interchange (Phases 1 and 2)	Pacheco: At I-680/SR 4: Reconstruct I/C providing for a 2 lane direct connector from NB 680 to WB SR 4 with slip ramps at Pacheco Blvd and for a direct EB SR4 to SB I-680 connector.
197	CC-010024	21212	CC	Antioch	Hillcrest Ave/SR 4 EB Off Ramp Improvements	Antioch: Hillcrest Avenue/Rte 4 off ramp; Improve, widen, add turn lanes and construct soundwall.
198	CC-010027	94040	CC	BART	BART Pittsburg-Bay Point Terminal Zone	BART: Pittsburg-Bay Point BART station; Install/construct equip station with fully automatic turn back capability.
199	CC-010031	21202	CC	CC County	Delta DeAnza Trail Gap Closure	Pittsburg/Bay Point: At the intersection of Delta DeAnza Trail and Bailey Rd (north of SR4) construct a signalized crossing for pedestrians/bicyclists.
200	CC-010044	94558	CC	CCCTA	4 Paratransit & 5 Van Purchase	CCCTA: Purchase 4 paratransit minivans and 5 standard vans to expand revenue fleet.
201	CC-030001	21208	CC	Richmond	Richmond Prkwy Transit Center Parking	Richmond: Adjacent to I-80 at the Richmond Parkway Transit Center; Provide up to 700 parking spaces, improve transit facilities and improve bicycle/ped. access. (OLD TIP ID - CC-010028).
202	CC-030002	21210	CC	MTC	Hercules Intercity Rail Station	Hercules: Construct a Train Station along the Capitol Corridor and accompanying track adjustments (HIP Project).
203	CC-030003	21208	CC	BART	Richmond BART Parking Structure	Richmond: Richmond BART station; Construct five (5) level parking structure and an additional 120 long-term parking spaces.
204	CC-030004	21207	CC	Martinez	Martinez Intermodal Station Parking Expansion	Expand parking at the Martinez Intermodal Station from 175 spaces to 600 spaces.
205	CC-030005	94051	CC	CCTA	I-680 Aux Lanes	Danville: I-680 between Crow Canyon Road and Sycamore Valley Rd.; Construct Auxiliary Lanes in both directions.
206	CC-030009	94556	CC	BART	BART Stations Bicycle Pavilions	Walnut Creek, Pleasant Hill and Richmond; BART stations: design and construct bicycle pavilions.
207	CC-030010	22609	CC	CC County	Camino Tassajara Bikeway Shoulders	San Ramon: On Tassajara from Blackhawk Drive to County line; Construct paved shoulders for bicycle commuting.
208	CC-030017	94559	CC	ECCTA	Acquire 62 Bus Catalyst Devices	TriDelta: Acquire and install bus catalyst devices on 56 existing agency buses. Acquire and install CARB approved PM & NOx devices on FY07 purchased 6 replacement buses (1995s).
209	CC-030025	94559	CC	WCCTA	Preventive Maintenance Program	WestCat: Operating assistance to aid agency with preventive maintenance activities of its fleet.
210	CC-030028	98999	CC	CCTA	SR 4 East Widening from Somersville to SR 160	Pittsburg/Antioch: SR 4 from Somersville to SR160; Expand Hwy from 4 to 8 lanes including HOV lanes from Somersville to Hillcrest and from 4 to 6 lanes from Hillcrest to SR 160.
211	CC-030033	94558	CC	CCCTA	Automated Fuel and Lube Island Replacement	CCCTA: Replace automated fuel and lube island at the corporation yard.
212	CC-030034	94558	CC	CCCTA	Preventive Maintenance Program	CCCTA: Preventive maintenance program of agency fleet.
213	CC-030035	94559	CC	ECCTA	ADA Operating Assistance	Tridelta: Operating assistance to fund ADA Set Aside requirement.
214	CC-030037	94559	CC	ECCTA	Preventive Maintenance Program	TriDelta: Preventive Maintenance Program for agency fleet.
215	CC-030042	94559	CC	WCCTA	Replace (2) 1999 Medium DR Vehicles	WCCTA: Replace (2) 1999 DR WOC medium size vehicles with similar vehicles.
216	CC-050001	94046	CC	Antioch	Somersville Road Bridge Widening	Antioch: On Somersville Road near Buchanan Rd.; Replace existing 2 lane bridge with a 4 lane bridge.
217	CC-050002	94046	CC	Antioch	Antioch - Wilbur Ave Bridge Widening	Antioch: On Wilbur Ave., over BNSF, Amtrak, and UP RR, 0.25 Miles east of Minaker Drive; Widen from 2 to 4 lanes, rehabilitate bridge & upgrade bridge railings.
218	CC-050004	22637	CC	BART	Central Contra Costa BART Crossover	BART: Pleasant Hill. Construct Crossover tracks within existing ROW to facilitate quick removal of problem trains and for smoother headways.
219	CC-050008	94558	CC	CCCTA	Direct I-680 HOV Lane Connector Study	Martinez to Pleasanton: I-680 HOV Corridor; Direct HOV lane study to develop options and recommendations for providing express bus service on the I-680 corridor.
220	CC-050010	94558	CC	CCCTA	Pacheco Transit Hub	Martinez Transit Center: Construct Bus Transfer Station.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
221	CC-050011	94553	CC	Pinole	Pinole - Appian Way Rehab: Phase I	Pinole: Appian Way between (approximately) Tara Hill Dr and Michael Dr. Rehabilitate and overlay roadway.
222	CC-050020	94553	CC	Orinda	Orinda - Moraga Way Rehab: Phase I	Orinda: Moraga Way between Camino Encinas and Ivy Drive; Grind and overlay roadway.
223	CC-050025	21211	CC	BART	E-BART - East Contra Costa Rail Extension	Pittsburg/Antioch: East Contra Costa County; Extend Rail Service from the Pittsburg/Bay Point Station into eastern Contra Costa County
224	CC-050026	98211	CC	Caltrans	I-80 EB HOV Ln - Rt 4 to Carquinez Bridge	Hercules/Rodeo: On I-80 between Rt 4 & Carquinez Bridge; Construct EB HOV lanes.
225	CC-050028	22353	CC	CCTA	I-680 SB HOV Lane Gap Closure	Improvements near I-680 and Pleasant Hill BART Station for improved HOV access. Construct an HOV lane from North Main Street to Livorna in the southbound direction.
226	CC-050029	21204	CC	ECCTA	Park and Ride Facility Land Purchase	Purchase & develop land for park and ride facility.
227	CC-050030	98198	CC	Brentwood	Vasco Road Improvements	Vasco Rd: From Walnut Blvd to the Alameda/Contra Costa County line; Road improvements including concrete median, pavement widening as necessary and other straightening, including Brushy Creek area.
228	CC-050031	21202	CC	Walnut Creek	Ygnacio Valley Road Ped/Bike Trail.	Walnut Creek: N. Side of Ygnacio Valley Rd btw John Muir Dr & Ygnacio Ct; Widen sidewalk to better accommodate pedestrian and bicycle traffic.
229	CC-050034	94553	CC	CC County	Contra Costa Co. - Byron Highway Rehabilitation	Byron: Byron Hwy between approximately Byron Hot Springs Rd to Alameda County line; Rehab and overlay roadway.
230	CC-050037	94553	CC	Concord	Concord Blvd. Bike/Ped Gap Closure	Concord: Along Concord Blvd btw Farm Bureau Rd and Sattler Dr; Project will close gaps in the sidewalks along Concord Blvd while adding continuous bicycle lanes.
231	CC-050038	94558	CC	CCCTA	Replace 38 LINK vans and 12 Flex vans	CCCTA: Replace 38 2002 cut-away vans & 12 2002 Flexvans with similar vehicles.
232	CC-050039	21017	CC	WCCTA	Replace 10 2002 Paratransit Vehicles	WestCat: Replace Ten 21 Ft Revenue paratransit vehicles with similar vehicles.
233	CC-050040	21017	CC	WCCTA	Replace (2) 35" 1997 Thomas Buses	WestCat: Replacement (2) 35" 1997 Thomas buses
234	CC-050041	21017	CC	WCCTA	Replace (3) 1996 Thomas 35" Buses.	WestCat: Replace (3) 1996 35" Thomas buses with similar buses.
235	CC-050042	21017	CC	ECCTA	Bus Security Monitoring Systems	Tridelta: Procure security cameras & monitoring equipment to be installed in all agency fleet.
236	CC-050043	21017	CC	ECCTA	Replace 6 1995 40" Gillig buses	Tridelta: Replace 6 1995 buses with similar vehicles.
237	CC-050044	21017	CC	ECCTA	Capitalized Facility Repairs	Tridelta: Repairs on bus parking area & other parts of existing facility.
238	CC-050045	21017	CC	ECCTA	Security Equip. & Farebox Replacement	Tridelta: Replace security equipment and fareboxes in existing revenue vehicles.
239	CC-050046	94558	CC	CCCTA	APC and AVA with Security Upgrades	CCCTA: Install clever devices hardware and software on 67 buses to include automatic passenger counting, vehicle announcement, and other security upgrades, including training and software support.
240	CC-050048	21017	CC	ECCTA	Luminator Demonstration Project	TriDelta: Install and implement ITS equipment and software for entire fixed route fleet.
241	CC-050050	21017	CC	WCCTA	Replace (6) 1988 35" revenue vehicles	Westcat: Replace 6 revenue service vehicles with similar vehicles.
242	CC-050051	21017	CC	WCCTA	CARB Filter Mitigation	Westcat: Install 11 CARB filters on replacement vehicles.
243	CC-050052	94558	CC	CCCTA	On-Board Security Cameras	CCCTA: Purchase and installation of a new on-board security camera system for fixed route fleet.
244	CC-050053	94558	CC	CCCTA	Operations Facility Security System	CCCTA: Install/enhance camera surveillance and related equipment at CCCTA main facility.
245	CC-050054	94558	CC	CCCTA	Security Access to Operations Facility	CCCTA: Secure access to facility and install alarms on doors and other access points at the Operations Facility.
246	CC-050055	94558	CC	CCCTA	Emergency Communications Equipment	CCCTA: Project will install and enhance emergency communications equipment
247	CC-050056	94558	CC	CCCTA	ADA Accessible Bus Stops	CCCTA: Design and construct two accessible bus stops at the CCCTA Operations Facility.
248	CC-050057	94558	CC	CCCTA	Scheduling Software Components	CCCTA: Purchase and install planning component of our existing scheduling software system.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
249	CC-050058	94558	CC	CCCTA	Diablo Valley College Bus Transit Center	CCCTA: Construct a new Diablo Valley College Bus Transit Center
250	CC-050059	94054	CC	CCCTA	Martinez Intermodal Facility Restoration	CCCTA: Martinez; Restore historic railroad station in downtown City of Martinez.
251	CC-050060	94553	CC	Walnut Creek	Walnut Creek - Treat Blvd Rehabilitation	Walnut Creek: Treat Blvd from approximately Sheppard Rd to Bancroft Rd; Rehab roadway.
252	CC-050061	94553	CC	Martinez	Martinez - Alhambra Avenue Rehabilitation	Martinez: Alhambra Avenue from approx. Hwy 4 to John Muir Road; Rehabilitate roadway.
253	CC-050062	94553	CC	CC County	Contra Costa Co. - Stone Valley Rd Rehabilitation	Danville: Stone Valley Rd from approx. Danville Blvd to just west of 1252 Stone Valley Rd; Rehabilitate roadway.
254	CC-050063	94553	CC	Lafayette	Lafayette - Mt. Diablo Blvd Rehabilitation	Lafayette: On Mt. Diablo Blvd from approx. Dolores Dr. to First St.; Overlay and rehabilitate roadway plus spot curb/gutter/sidewalk repair and re-striping.
255	CC-050064	94553	CC	Concord	Concord - Clayton Road Rehabilitation	Concord: Clayton Road from approx. Latour Lane to Willcrest Dr.; Rehabilitate roadway.
256	CC-050065	94553	CC	CC County	Contra Costa Co. - San Pablo Dam Rd Rehabilitation	Richmond: San Pablo Dam Road from El Portal Dr to Richmond city limit at Tri Lane; Rehabilitate roadway.
257	CC-050066	94553	CC	San Pablo	San Pablo Ave Rehabilitation	Sam Pablo: On San Pablo Avenue San Pablo Dam Rd to 23rd St.; Rehabilitate Roadway including base failures repair, pavement overlay, spot curb/gutter/sidewalk improvements, bus pads, ADA tree grates, ADA ramps, upgraded signage and striping.
258	CC-050067	94553	CC	El Cerrito	El Cerrito - Various Streets Rehabilitation	El Cerrito: Various streets between 6921 Fairview Dr. and 701 Colusa St.; Rehabilitate roadway.
259	CC-050068	94553	CC	San Ramon	San Ramon Valley Blvd Rehabilitation	San Ramon: On San Ramon Valley Blvd from Norris Canyon Rd to Crow Canyon Road; Rehabilitate roadway.
260	CC-050069	94553	CC	Moraga	Moraga - Moraga Road Rehabilitation	Moraga: On Moraga Rd from Lafayette-Moraga Town limits to Buckingham Drive; Rehabilitate roadway.
261	CC-050070	94553	CC	Orinda	Orinda - Moraga Way Rehab: Phase II	Orinda: On Moraga Way from Ivy Dr. North to Ivy Drive South; Rehabilitation of roadway.
262	CC-050071	94553	CC	Pittsburg	Pittsburg - Harbor Street Rehabilitation	Pittsburg: On Harbor St. between California Ave to East 3rd St; Rehabilitation Roadway.
263	CC-050072	94553	CC	Pleasant Hill	Pleasant Hill - Contra Costa Blvd Rehabilitation	Pleasant Hill: Contra Costa Blvd between Gregory Lane and Vivian Drive; Pavement Rehabilitation.
264	CC-050073	94553	CC	Pinole	Pinole - Appian Way Rehab: Phase II	Pinole: On Appian Way between Tara Hills Dr. and Marlesta Drive; Pavement Rehabilitation.
265	CC-050074	21209	CC	WCCTA	Hercules Intermodal Station Improvements	Hercules: Intermodal Station along the capitol corridor: Various passenger and station improvements.
266	CC-050075	94051	CC	Danville	Crow Cnyn/Camino Tassajara Improvements	Danville: At Camino Tassajara & Crow Canyon; Street. rehab including signal & drainage work, spot sidewalk, curb & gutter improvements & improvements for ped/bike facilities.
267	CC-050076	94048	CC	Richmond	I-80/Central Ave Interchange Modification	Richmond: At I-80/Central Ave Interchange; Modifications and reconfiguration to interchange to ease traffic congestion.
268	CC-070001	22607	CC	Brentwood	Sand Creek Road Widening - Phase II	Brentwood: On Sand Creek Road from Hwy. 4 Bypass to Fairview Avenue; Widen from 2 to 4 lanes.
269	CC-070002	22607	CC	Antioch	Hillcrest Avenue Widening	Antioch: Hillcrest Road; Widen to 4 lanes from UPRR tracks near SR4 to East 18th.
270	CC-070003	22607	CC	Antioch	L Street Widening	Antioch: On L Street between 10th street and 4th Street; Widen to four lanes.
271	CC-070004	22607	CC	Antioch	Somersville Road	Antioch: On Somersville Road between James Donlon Blvd and CCWD canal south of Buchanan Rd; Widen divided roadway.
272	CC-070005	22607	CC	Antioch	Hillcrest Ave Extension	Antioch: On Hillcrest Avenue between Prewett Ranch Rd and San Creek Road; Construct new 4 lane divided extension.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
273	CC-070006	22607	CC	Antioch	Sand Creek Road Extension	Antioch: On Sand Creek Road between Hillcrest and Deer Valley Road; Construct new 2 lane extension.
274	CC-070007	22607	CC	Antioch	Empire Road Widening	Antioch: On Empire Avenue between Lone Tree Way and UPRR/Antioch City limits; Widen from 2 to 4 lanes.
275	CC-070008	21216	CC	Antioch	Laurel Road Extension	Antioch: On Laurel Road between Hillcrest and SR4 Bypass; Construct new 4 lane divided extension.
276	CC-070009	22607	CC	Antioch	Slatten Ranch Road	Antioch: On Slatten Ranch Road between Lone Tree Way and Laurel Road; Construct new 4 lane road.
277	CC-070010	22607	CC	Antioch	Wild Horse Road Extension	Antioch: On Wild Horse Road between Hillcrest and SR4 Bypass; Construct new 2 lane arterial.
278	CC-070011	22981	CC	Brentwood	SR4/Brentwood Boulevard Widening - North	Brentwood: From Marsh Creek to Delta Road; Widen SR4/Brentwood Boulevard from 2 to 4 lanes including widening of bridge over Marsh Creek.
279	CC-070012	22981	CC	Brentwood	SR4 (Brentwood Boulevard) Widening	Brentwood: On SR4 (Brentwood Blvd) between Chestnut Street to Fir Streets; Widen from 2 to 4 lanes in each direction.
280	CC-070013	22607	CC	Brentwood	Lone Tree Way Undercrossing	Brentwood: On Lone Tree Way at the UPRR track; Construct 6-lane grade separation undercrossing.
281	CC-070014	22607	CC	Brentwood	Lone Tree Way Widening	Brentwood: On Lone Tree Way between O Hara Ave and SR4; Widen from 2 lanes to 4.
282	CC-070015	22607	CC	Brentwood	Central Blvd Widening	Brentwood. On Central Blvd btw Griffith Ln and the intersection of Central and Dainty Ave; Widen bridge and roadway from 2 to 4 lanes.
283	CC-070016	22607	CC	Brentwood	Central Boulevard Widening	Brentwood: On Central Boulevard from Union Pacific Railroad to Griffith Lane; Widen from 2 to 4 lanes.
284	CC-070017	94036	CC	Caltrans	I-680 South Contra Costa Roadway Rehabilitation	Route 680: In San Ramon, Danville & Walnut Creek, between Alameda County line and Rudgear Road; Rehabilitate roadway.
285	CC-070018	98133	CC	CC County	Pacheco Blvd Widening	Martinez: On Pacheco Blvd between Blum Rd and Arthur Road; Widen roadway to 2 lanes in each direction.
286	CC-070019	22400	CC	CC County	SR 239 Construction	SR 239: Between SR4 in Brentwood and I-205 in Tracy; Study, design and construct new state route.
287	CC-070020	21202	CC	CC County	Port Costa-Martinez Bike/Ped Trail	Martinez/Crockett: Carquinez Scenic Drive; Repair and reconstruct trail into a Class I multi-use bicycle/pedestrian trail.
288	CC-070021	22425	CC	CCTA	Planning, Programming and Monitoring	Contra Costa: Planning, Programming and Monitoring (PPM)
289	CC-070022	22351	CC	CCTA	I-680 NB HOV Gap Closure	Walnut Creek/Pleasant Hill/Concord: On I-680 between Main St and SR242; Extend Northbound HOV lanes.
290	CC-070023	98198	CC	CCTA	SR4/Vasco Rd/Byron Highway Safety Enh.	Byron: On SR4 Bypass, Vasco Road and on Byron Highway; Complete capacity and safety enhancements.
291	CC-070024	22388	CC	Concord	SR242/Clayton Rd	Concord. Construct NB on-ramp and SB off-ramp at the SR242/Clayton Rd Interchange.
292	CC-070025	98194	CC	Concord	SR4/Willow Pass Interchange Improvements	Concord. SR4/Willow Pass Rd. Ramp Improvements to accommodate traffic generated by the development of the Naval Weapons Station.
293	CC-070026	98194	CC	Concord	Commerce Avenue Extension	Concord: Commerce Avenue between Pine Creek and Waterworld Parkway; Extend roadway.
294	CC-070027	98194	CC	Concord	Waterworld Parkway Bridge	Concord: Waterworld Parkway between Commerce Avenue and Meridian Park Boulevard; Construct a two-lane bridge over Walnut Creek connecting both roadways.
295	CC-070028	98193	CC	Concord	Panoramic Drive Extension	Concord: On Panoramic Drive from North Concord/Martinez BART Station to Willow Pass Road; Construct a two-lane roadway and Class I trail.
296	CC-070029	98194	CC	Concord	SR242/Concord Ave Off-Ramp Widening	Concord: At the SR242/Concord Avenue off ramp; Widening from 2 to 3 lanes.
297	CC-070030	22609	CC	Concord	Concord Blvd. Gap Closure, Phase 2	Concord: Concord Blvd between Farm Bureau Road and Sixth Street; Construct a 6-foot wide sidewalk with curb, gutter and pavement widening.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
298	CC-070031	22609	CC	Danville	Sycamore Valley Road Improvement	Danville: On Sycamore Valley Rd between Camino Ramon and Brookside Road; Construct third westbound travel lane and a 5-ft bike lane.
299	CC-070033	21202	CC	EB Reg Park Dis	Bike/Ped Trail Improvements in CC Parks	Contra Costa County: Various County Parks; Various bicycle and pedestrian trail improvements.
300	CC-070034	22247	CC	El Cerrito	El Cerrito/Albany Ohlone Greenway Project	El Cerrito/Albany: Ohlone Greenway; Safety Improvements including lighting, surveillance cameras and wayfinding signage to various Transit Hubs.
301	CC-070035	22360	CC	San Pablo	I-80/San Pablo Dam Rd I/C Modifications	San Pablo: At the I-80/San Pablo Dam Rd interchange; Upgrade and improve interchange including provisions for bicyclists and pedestrians.
302	CC-070036	22352	CC	San Ramon	I-680/Norris Canyon Bus Ramps	San Ramon: I-680/Norris Canyon; Construct Carpool and bus on-and off-ramps.
303	CC-070037	98130	CC	Martinez	Alhambra Avenue Widening	Martinez: On Alhambra Avenue between Mac Alvey and SR4; Widen roadway from 2 to 4 lanes, plus turn lanes & traffic signals at major intersections.
304	CC-070038	94052	CC	Martinez	I-680/Marina Vista I/C Improvements	Martinez: I-680/Marina Vista I/C; Improvements including realignment of off-ramp, increased deceleration/acceleration distance for existing NB/SB traffic plus Bike/Ped facilities.
305	CC-070039	21204	CC	Lafayette	Lafayette Carpool Lots	Lafayette: On Mt. Diablo Blvd. within walking distance to the BART station; Construct park and ride lot.
306	CC-070040	21204	CC	Hercules	Hercules Transit Center Relocation	Hercules: Intersection of San Pablo Ave/ I-80/Sycamore; Construct 423-space park & ride lot and 13 bus bays.
307	CC-070041	22607	CC	Pittsburg	California Avenue Widening	Pittsburg: On California Avenue between Loveridge Road and Railroad Avenue; Widening from 2 to 4 lanes.
308	CC-070042	94046	CC	Pittsburg	West Leland Extension. Phase I	Pittsburg: On Leland Rd between Woodhill Drive and San Marco Blvd.; Extend roadway.
309	CC-070043	94046	CC	Pittsburg	West Leland Extension, Phase II	Pittsburg: On Leland Road from San Marco Blvd. to Willow Pass Rd.; Extend roadway.
310	CC-070044	22607	CC	Pittsburg	Pittsburg-Antioch Highway Widening	Pittsburg: Pittsburg-Antioch Highway from Somersville Rd to Loveridge Rd; Widen from 2 to 4 lanes.
311	CC-070045	22607	CC	Pittsburg	James Donlon Extension (Buchanan Rd Bypass)	Pittsburg: James Donlon Blvd from Ventura Dr. to Kirker Pass Road; Construct 2 lane roadway.
312	CC-070046	21011	CC	El Cerrito	Del Norte Area TOD	Transit Oriented Development project at the Del Norte Intermodal Station (transit connections include BART, bus, express bus, bicycle, and pedestrian).
313	CC-070047	21202	CC	Richmond	Griffen Drive Railroad Crossing	Richmond/San Pablo: RR crossings at Griffin and John Avenue; Replace grade separation & expand from 2 to 4 lanes with a protected ped/bike path & protected crossing/updated warning signs.
314	CC-070048	98221	CC	St. Rte. 4 BA	SR4 Bypass: Sand Creek to Balfour Rd	Brentwood: SR4 Bypass between Sand Creek Rd & Balfour Rd.; Widen from 2 lanes to 4 lanes.
315	CC-070049	98221	CC	St. Rte. 4 BA	SR4 Bypass: Laurel Rd to Sand Creek Ph. I	Brentwood: SR4 Bypass from Laurel Road to Sand Creek Road; Widen from 2 lanes to 4 lanes.
316	CC-070050	22609	CC	Walnut Creek	Geary Rd Widening Ph. 3	Walnut Creek: Widen Geary Road from Putnam Blvd to Pleasant Hill Rd.; Widen roadway one lane in each direction, center two way left turn lane, bike lanes and sidewalks.
317	CC-070051	21204	CC	Hercules	SR4/Willow Avenue Ramps	Hercules: SR4/Willow Avenue Ramps; Relocate and realign ramps and construct express bus ramps and transit facilities.
318	CC-070052	22241	CC	Hercules	Develop Concept for W-BART	Hercules: Conduct engineering, environmental and financial feasibility assessment of rail mass transit to west Contra Costa.
319	CC-070053	98221	CC	St. Rte. 4 BA	SR4 Bypass: Balfour Interchange	Brentwood: Balfour Road/SR4 Bypass; Construct Intersection including loops and grade separation.
320	CC-070054	98221	CC	St. Rte. 4 BA	SR4 /SR160 Interchange and Connectors	Oakley: SB 160 at SR 4; Construct direct connectors.

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321	CC-070055	94048	CC	Hercules	TOD Arterials in Hercules	Hercules: Willow Avenue, San Pablo Avenue & Sycamore Avenue; Roadway expansion and various other improvements to arterial streets for express bus & rail facilities.
322	CC-070056	21864	CC	San Pablo	Rumrill Bridge Replacement	San Pablo: Intersection of Rumrill Blvd & Brookside Drive; Replace Bridge, widen in one direction, replace signals and controllers and install planting and vegetation.
323	CC-070057	22607	CC	St. Rte. 4 BA	SR4 Bypass: Sand Creek Interchange	Brentwood: Sand Creek Rd at SR4 Bypass; Construct interchange.
324	CC-070058	94048	CC	WCCTAC	San Pablo Ave Corridor Improvements	West Contra Costa County: On San Pablo Ave btw El Cerrito/Albany city limits to Crocket/Rodeo; Infrastructure Improvements including safety and accessibility improvements.
325	CC-070060	21202	CC	WCCTAC	Bay Trail Gap Closure	Richmond/Pinole/Hercules: Along Richmond Parkway between Pennsylvania Ave and Gertude Ave; N. of Freethy Blvd to Payne Dr.; from Payne to Cypress; from Pinole Shores to Parker Avenue; Close gaps in the Bay Trail.
326	CC-070061	21204	CC	ECCTA	E. Leland Park and Ride Lot	Antioch/Pittsburg: South of E. Leland near Century Blvd; Obtain property and construct Park and Ride lot.
327	CC-070062	22122	CC	WTA	Richmond Ferry Service	WTA: Implement new ferry transit service between Richmond and San Francisco.
328	CC-070063	21864	CC	EB Reg Park Dis	Atlas Road Bridge	Richmond. Point Pinole Regional Shoreline; Extend Atlas road and construct new 2 lane road bridge with a separated ped/bike trail across UPRR tracks.
329	CC-070064	22123	CC	WTA	Hercules Ferry Service	WTA: Hercules; Implement ferry transit service between Hercules and San Francisco.
330	CC-070065	22604	CC	Oakley	SR4 Realignment in Oakley	Oakley: West of Vintage Parkway to Main ST/2nd St.; Realign and widen a half-mile from 2 to 4 lanes including traffic signals.
331	CC-070066	21202	CC	Richmond	Central Richmond Greenway (East Segment)	Richmond: Construct Class I Bicycle Trail (eastern segment) from Carlson Blvd to I-80 along abandoned railroad property.
332	CC-070067	22247	CC	St. Rte. 4 BA	Mokelumne Trail Bike/Ped Overcrossing	Antioch/Oakley: Construct a pedestrian and bicycle overcrossing near or on the Mokelumne Trail at the SR4 Bypass.
333	CC-070068	98142	CC	CCTA	SR4 E widening from Loveridge to Somersville: Ph 1	Pittsburg/Antioch: SR 4 from Loveridge to Somersville; Replacement of the existing storm water pump station with a new pump plant. Scheduled for completion prior to beginning of the roadway construction.
334	CC-070069	21202	CC	EB Reg Park Dis	Oakley - Big Break Regional Trail	Oakley: Big Break Regional Shoreline between Delta Science Center and the Marsh Creek Trail; Construct approximately one half mile of new paved multi-use shoreline trail.
335	CC-070070	22423	CC	MTC	Low Income Access to Health Care	ECCTA: Operating assistance to continue Route 200 service for East County residents (JARC).
336	CC-070071	22423	CC	MTC	Operating Assistance for Monument Shuttle	CCCTA: Operating assistance to fund new shuttle service within the Monument Corridor, to provide access to a local health care clinic, shopping (Lifeline).
337	CC-070072	22423	CC	MTC	CCCTA Route 111 Weekend Service	CCTA: Service between the Concord and Pleasant Hill BART stations; Operating assistance to provide weekend service (JARC).
338	CC-070073	22423	CC	MTC	Operating Assistance for Route 376	AC Transit: Operating Assistance for late night service on the AC Route 376 serving Richmond and North Richmond (JARC).
339	CC-070074	21011	CC	El Cerrito	San Pablo Avenue Streetscape	El Cerrito: Along San Pablo Avenue (SR 123) from the Southern City limit to approximately Carlson; Development of pedestrian, transit stop, and streetscape improvements (TLC).
340	CC-070075	98115	CC	CC County	Kirker Pass Road Truck Climbing Lanes	Concord & Walnut Creek: On Kirker Pass Road; Construct south and north truck climbing lanes to improve traffic flow.
341	CC-070076	98221	CC	St. Rte. 4 BA	SR4 Bypass: Laurel Rd to Sand Creek Ph II	Brentwood: SR4 Bypass from Laurel Road to Sand Creek Road, Widen from 4 lanes to 6 lanes.

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342	CC-070077	22607	CC	Brentwood	John Muir Parkway Extension	Foothill Drive to Ventura Drive and from Foothill Drive to new John Muir Parkway; Extend and expand roadway.
343	CC-070078	22607	CC	Brentwood	John Muir Parkway Extension: Phase II	Brentwood: On John Muir Parkway from Foothill Drive Southerly to Fairview Avenue; Construct 4 lane roadway.
344	CC-070079	22607	CC	CC County	Byron Hwy Extension	Byron: On Byron Highway between Bethel Island and Delta Road. Construct bridge over Rock Slough and a 4-lane facility.
345	CC-070080	21011	CC	Richmond	Richmond Downtown Bike & Ped Improvements	Richmond: On Nevin Avenue, Barrett Ave & other downtown Richmond areas; Construct ped. count-down signals, sidewalk improvements, bike lanes, mid-block lighted crossing and landscaping (TLC)
346	CC-070081	22607	CC	CC County	Byron - Armstrong Road Extension	Byron: On Armstrong road from west of Byron Highway to Vasco Road; Extend roadway one lane in each direction.
347	CC-070082		CC	EB Reg Park Dis	Chen Acquisition - Calaveras Ridge Trail	Danville: Las Trampas Regional Wilderness, Calaveras Ridge Trail; Acquire Chen property and extend trail proximately 0.33 miles.
348	CC-970050	22601	CC	St. Rte. 4 BA	Route 4 Bypass - Segment 3	Rt 4 bypass: Segment 3 continues from Balfour to Marsh Creek Road and onto both SR 4 at Byron and Vasco Rd.
349	CC-979042	98559	CC	CCTA	CCTA - CMA Planning Activities	Contra Costa County: Support for CMA Planning Activities. Funding Includes 3% Planning Set-Aside.
350	CC-990035	94558	CC	CCCTA	Four Van replacements	CCCTA: Van Replacement; Purchase 4 replacement vans.
351	CC-990045	21017	CC	WCCTA	ADA Paratransit Operating Subsidy	ADA Paratransit Operating Subsidy
352	CC-990046	94049	CC	CC County	Iron Horse Trail Over-crossing at Treat	Near Pleasant Hill: Iron Horse Trail Over-crossing at Treat Blvd.
353	CC-991026	94558	CC	CCCTA	Bus Wash Equipment Replacement	CCCTA: Concord; Replace bus washing equipment.
354	CC-991087	98197	CC	Richmond	Richmond Intermodal Station - Phase 3	Richmond: Design, engineer and construct station building, an information kiosk, other project amenities, including lighting (TLC Project).
355	CC-99T001	94558	CC	CCCTA	ADA Paratransit Assistance	CCCTA: ADA Paratransit Assistance to transit agency.
356	CC-99T005	94558	CC	CCCTA	Paratransit Van Replacement	CCCTA: Replace 2 standard Paratransit Vans with 2 new paratransit vans.
357	JPB010001	21622	SCL	VTA	Palo Alto Intermodal Transit Center	Palo Alto: Area bounded by Menlo Park City limits, S.W. University Ave. to S. Alma St, & El Camino Real; Engr & Env. studies to modify the Caltrain Station.
358	JPB950001	94664	REG	Caltrain	Caltrain Maintenance Facility	Caltrain: In San Jose & in Redwood City; Design and construct a maintenance facility to service and maintain fleet of vehicles.
359	JPB990004	94613	REG	Caltrain	N/S Terminal Track Upgrades	San Francisco to San Jose: Rehab & improve RR infrastructure near the terminus of the RR corridor in SF & San Jose. From post mile (PM) 0 to 4.27 & from PM 43.5 - 48.35.
360	JPB991001	98569	SM	Caltrain	Diridon Stn:Track/Signal/Term Rehab Upgrade	San Jose: Diridon Station; Rebuild tracks, platforms, terminal facilities and subways to improve operations for users, includes Caltrain, Amtrak, Capitol Corridor, ICE and UPRR.
361	JPB991002	94664	REG	Caltrain	Track and Signal Replacement and Upgrade	Caltrain: Systemwide; Replace, upgrade, or modernize Caltrain's track and signal systems, including the replacement of jointed rail with continuous welded rail (CWR).
362	JPB991004	94634	SCL	Caltrain	Accessible Capital Enhancement	Caltrain: Between San Francisco & San Jose: Accessibility Improvements at various Caltrain stations.
363	JPB99T002	94664	REG	Caltrain	ATCS Upgrade	Caltrain: Upgrade Automate Train Control System (ATCS).
364	MRN010032	94572	MRN	GGBHTD	Acquire 82 Bus Catalyst Devices	Golden Gate Transit: Acquire and install bus catalyst devices on 132 agency buses.
365	MRN010033	94572	MRN	GGBHTD	Golden Gate Transit Bus Rehabilitation Project	GGBHTD: Re-power and rehabilitate coaches that have reached the end of their useful life.
366	MRN010034	94572	MRN	GGBHTD	Preventive Maintenance Program.	Golden Gate Transit: Preventive Maintenance Program for agency Fleet and related equipment.
367	MRN010035	94572	MRN	GGBHTD	GGBHTD Radio Communications System	GGBHTD: Replace radio communications system on agency's bus fleet.
368	MRN030003	22146	MRN	Marin County	Cal-Park Hill Tunnel Improvements	Between Larkspur & San Rafael: CalPark Hill Tunnel; Construct 5,800 Ln. Ft. Class 1 Bikeway, including rehabilitation of an existing railroad tunnel (TLC Program).

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369	MRN030005	94572	MRN	GGBHTD	Transit Safety and Security Improvements	GGBHTD: Safety and Security improvements to revenue vehicles and transit facilities.
370	MRN030007	98511	MRN	FHWA	Chimney Rock Lighthouse Rehabilitation.	Marin County; Chimney Rock and Lifeboat Station Roads; Reconstruct and Widen Lighthouse Roadway.
371	MRN030008	94572	MRN	GGBHTD	GGBHTD Regional Express Bus Operations	GGBHTD: Sonoma-Marin-San Francisco US 101 Corridor; Operating support for the expansion of Regional Express Bus service on the Route 101 Corridor
372	MRN030010	94572	MRN	GGBHTD	Fixed Guideway Connectors	Golden Gate Ferry: This project will replace/rehab fixed guideway connectors such as floats, floating barges, ramps, and gangways throughout the system.
373	MRN030011	94572	MRN	GGBHTD	Ferry Major Components Rehabilitation	Golden Gate Ferry: Rehab, replace major ferry components like propulsion & navigation systems, dry-dock, hull, interior and other components.
374	MRN030012	94572	MRN	GGBHTD	Ferry Vessel	Golden Gate Ferry: Replace MV Sonoma with similar vessel.
375	MRN030013	94572	MRN	GGBHTD	Replace (6) 1997 Paratransit Vans	Golden Gate Transit: Replace (6) 1997 E350 Paratransit Vans with similar vans.
376	MRN030014	94572	MRN	GGBHTD	Replace (8) Paratransit Vans	Golden Gate Transit: Replace (8) 1998 Paratransit Vans with similar vans.
377	MRN050001	21325	MRN	TAM	US 101/Greenbrae Interchange Improvements	Marin: US 101 Greenbrae I/C Corridor Improvements: Sir Francis Drake To Tamalpais; Reconfigure interchange.
378	MRN050002	98560	MRN	TAM	Planning, Programming and Monitoring	Marin: Planning, Programming, and Monitoring
379	MRN050003	98511	MRN	Caltrans	SR 1 Wildlife Crossing at Giacomini Gulch	Marin: Giacomini Gulch; Remove culvert & install 11-11.5 meter long box or arch culvert below roadway to provide wildlife crossing.
380	MRN050004	98511	MRN	Corte Madera	Corte Madera Avenue Sidewalk Rehabilitation	Corte Madera: Along approximately 200 feet of Corte Madera Avenue in the vicinity of 405 Corte Madera Avenue; Rehabilitate Sidewalk.
381	MRN050005	98511	MRN	San Rafael	San Rafael - Various Streets Rehabilitation	San Rafael: Various streets: Resurface various roadways with an AC overlay, replace curb & gutter, sidewalk, and curb ramps.
382	MRN050006	98511	MRN	Marin County	Marin County - Various Streets Rehabilitation	Marin County: Various Streets on the MTS; Rehab, overlay and resurface various roadways. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
383	MRN050007	98511	MRN	Fairfax	Fairfax - Sir Francis Drake Blvd. Rehabilitation	Fairfax: Sir Francis Drake Blvd; Remove and replace pavement structure failures, apply crackseal, slurry seal, replace traffic loop detectors and re-stripe pavement markings.
384	MRN050008	98511	MRN	Novato	Novato - Ignacio Blvd. Rehabilitation	Novato: On Ignacio Boulevard from Laurel Wood Dr (formerly San Jose Blvd) east end to Sunset Parkway; Rehabilitate roadway.
385	MRN050010	98511	MRN	Sausalito	Sausalito - Spencer Avenue Rehabilitation	Sausalito: On Spencer Avenue from Highway 101 to San Carlos Avenue. Rehab and refurbish of roadway.
386	MRN050012	94627	MRN	Caltrans	Golden Gate Botanical Management Area Revegetation	Golden Gate Botanical Management Area: along US 101 from Golden Gate Bridge to Rodeo Ave; Native plant revegetation.
387	MRN050013	98178	MRN	TAM	Larkspur Sir Francis Drake Blvd Widening	Larkspur: From Larkspur ferry terminal to the northbound U.S. 101 ramps; Widen westbound Sir Francis Drake Blvd from 2 to 3 lanes.
388	MRN050014	21302	MRN	TAM	Central Marin Ferry Access Improvements	Central Marin: From Wornum Dr (east of Hwy 101) to Sir Francis Drake Blvd; Provide bicycle/ped connection.
389	MRN050015	94572	MRN	GGBHTD	4 Replacement Express Buses	GGBHTD: Replace 4 Express Buses.
390	MRN050016	94636	MRN	FHWA	West Bunker & Mitchell Rd Rehab	Golden Gate National Recreation Area: West Bunker and Mitchell Roads; Rehabilitate roadways.
391	MRN050018	21012	MRN	GGBHTD	Golden Gate Bridge Seismic Retrofit, Phase 3B	SF/Marin County: Golden Gate Bridge; Seismic retrofit of the Golden Gate Bridge - construction of suspension span, south pier and fender.
392	MRN050019	94572	MRN	GGBHTD	Physical Suicide Deterrent System	Golden Gate Bridge: Develop alternatives for a physical suicide deterrent system. Including design & Environmental analysis, plus analysis of alternatives & wind tunnel tests to ensure the feasibility of designs.
393	MRN050020	94576	MRN	FHWA	Stinson Beach Access Road	Marin County: Stinson Beach; Rehabilitate entry road and North and Central parking area.
394	MRN050021	94572	MRN	GGBHTD	Replace (40) 1994 40ft Flexible Buses	GGBHTD: Replace 40 - 1994 40ft Buses with 27 60ft articulated buses.

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395	MRN050022	94572	MRN	GGBHTD	Replace 29 - 1991 40" TMC buses	GGBHTD: Replace 29 - 1991 40" with 13 - 45" buses and 11 - 30" or smaller buses.
396	MRN050023	94572	MRN	GGBHTD	Replace 34 - 1991 40" TMC	GGBHTD: Replace 34 - 1991 refurbished buses with similar vehicles.
397	MRN050024	94572	MRN	GGBHTD	Computerized Dispatch Upgrade	GGBHTD: Upgrade the agency's computer assisted dispatch/scheduling/timekeeping system.
398	MRN050025	94572	MRN	GGBHTD	Facilities Rehabilitation	GGBHTD: Rehabilitate agency's maintenance and operating facilities and replace heavy duty operating and maintenance equipment.
399	MRN050026	94572	MRN	GGBHTD	Replace MS Sonoma Ferry Vessel	GGBHTD: MS Sonoma; Replace one Spaulding ferry vessel with similar ferry.
400	MRN050027	95811	MRN	TAM	Marin County - Rehab on Various Streets	Marin County: Various Streets; Perform rehabilitation and maintenance work on priority local road projects.
401	MRN050028	21302	MRN	Marin County	Bicycle Guide Signing	Marin County: Northern Marin County, including north San Rafael and Novato; Install Bicycle guide signs.
402	MRN050029	21302	MRN	Marin County	Olema Bolinas Pathway	Marin County: Along the south east side of Olema Bolinas Road from the Bolinas School to vicinity of the Olema Bolinas Rd/Mesa Rd intersection; Construct Class I pathway.
403	MRN050030	21303	MRN	MCTD	Bus Stop Enhancements	Marin County: At the Marin City transit hub and at the Marin City shopping center on Donahue Street; Construct bus stop improvements like lighting and other passenger amenities.
404	MRN050031	21302	MRN	Tiburon	Pine Terrace Multiuse Path	Tiburon: Between the multiuse path in the McKegney Green soccer, park, and recreation areas and Tiburon Blvd. near Pine Terrace; Construct an ADA compliant pathway.
405	MRN050032	21302	MRN	Larkspur	E. Sir Francis Drake Wooden Bridge Rehab	Larkspur: From westerly limit under Hwy 101 to the eastern limit adjacent to the railroad trestle approximately 300 feet; Removal and replacement of wooden bridge deck and railings.
406	MRN050033	21302	MRN	Marin County	Non-motorized Transp. Pilot Program - Lump Sum	Marin County; Various locations; Lump sum Non-motorized Transportation Pilot Program. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
407	MRN050034	98154	MRN	TAM	US 101 HOV Lanes - Marin-Sonoma Narrows (Marin)	Marin and Sonoma Counties: From SR 37 in Novato to Old Redwood Highway in Petaluma; Convert expressway to freeway and widen to 6 lanes for HOV lanes.
408	MRN070001	21017	MRN	MCTD	Novato Bus Stop Improvements	MCTD: In Novato; Improvements including bus stops, enhanced shelters, accessible pathways, bicycle racks and other passenger amenities.
409	MRN070002	94055	MRN	Mill Valley	Mill Valley - Miller Avenue Rehabilitation	Mill Valley: Miller Avenue: Pavement resurfacing, reconstruction of bicycle lanes, modifications to traffic islands, and improvements to sidewalk facilities.
410	MRN070003	21302	MRN	TAM	Marin Bike/Ped Facility North of Atherton Ave.	Marin County: Along US 101 from north of Atherton Avenue to south of Petaluma River bridge; Construct bicycle-pedestrian facility.
411	MRN070004	22247	MRN	Marin County	Carson Falls Trail Restoration	Mt. Tamalpais Watershed Lands: Carson Falls Area; Improve pedestrian access including decommissioning and rerouting trails, building a bridge and installing educational signage.
412	MRN070005	21011	MRN	Fairfax	Fairfax: Center Blvd Streetscape Improvements	Fairfax: Center Blvd: Streetscape Improvements including promenade sidewalk, landscape improvements, pedestrian friendly lighting, bike lanes, bike racks and street furniture.
413	MRN070006	98511	MRN	Novato	Novato Boulevard Improvements, Diablo to Grant	Novato: Navato Blvd between Diablo and Grant St.: Improvements to roadway including including widening existing two/three lanes to four lanes and adding turn lanes, curbs, and sidewalks.
414	MRN070007	21325	MRN	TAM	I-580 WB to US 101 NB Aux Lanes	Marin County: On I-580/US 101; Construct aux lanes, widen connectors from WB 580 to NB 101, extend and modify ramps and improve bike/ped facilities.
415	MRN970016	21012	MRN	GGBHTD	Golden Gate Bridge Seismic Retrofit, Ph: 1-3A	San Francisco /Marin Counties: Golden Gate Bridge; Seismic retrofit of the Golden Gate Bridge - construction on north and south approach viaducts, and Ft. Point Arch.

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416	MRN970034	98560	MRN	TAM	TAM - CMA Planning Activities	Marin: Support for CMA Planning Activities. Funding Includes 3% Planning Set-Aside.
417	MRN990001	94563	MRN	Caltrans	Marin US 101 HOV Gap Closure	In San Rafael: On US 101 from Lucky Drive to North San Pedro Road; Construct HOV lanes to close gap between existing HOV lanes.
418	MRN990017	94572	MRN	GGBHTD	Ferry channel & berth dredging.	Golden Gate Ferry: From San Francisco to Marin County; Dredge ferry channel and berth.
419	MRN990035	21308	MRN	Marin County	Marin Parklands Visitor Access Improvements	Marin City: SR 1/US 101 I/C; Develop Muir Woods shuttle bus and Tennessee Valley Multi-use pathway and expand the Manzanita Park-&-Rd lot by 80 spaces.
420	MRN990055	98154	MRN	Caltrans	US 101 HOV Lanes - Marin-Sonoma Narrows	Marin and Sonoma Counties: From SR 37 in Novato to Old Redwood Highway in Petaluma; Convert expressway to freeway and widen to 6 lanes for HOV lanes.
421	MRN991039	94572	MRN	GGBHTD	Management Information System	GGBHTD: Purchase a replacement Management Information/Computerized financial system.
422	MRN991048	98511	MRN	Fairfax	Fairfax - Center Boulevard Rehabilitation	Fairfax: Center Blvd; Replace and rehabilitate Center Blvd.
423	MRN99T001	94572	MRN	GGBHTD	ADA Paratransit Assistance	Golden Gate Transit: ADA Paratransit Assistance.
424	MTC030003	21001	REG	MTC	Freeway Operations	San Francisco Bay Area: Develop a comprehensive plan to guide next generation of freeway investment and deploy equipment in highly congested corridors.
425	MTC030005	21011	REG	MTC	TLC/HIP Planning Grants	Regionwide: TLC/HIP Planning grants to help cities and non-profits develop transportation enhancement projects (Not for Capital planning. Project is for ENV. Phase Only).
426	MTC050001	21006	REG	MTC	Transit Commute Benefits Promotion	Region wide: Ridesharing marketing program to promote tax-saving opportunities for employers and employees as specified in the IRS Code Section 132 (f)(3).
427	MTC050006	94001	REG	Caltrans	Lump Sum SHOPP - Mobility	Lump Sum SHOPP - Mobility; Various locations throughout the Region. Projects are consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
428	MTC050008	94001	REG	Caltrans	Lump Sum SHOPP - Roadside Preservation	Lump Sum SHOPP - Roadside Preservation: Various locations; State hwy projects to repair roadside damage. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
429	MTC050009	94001	REG	Caltrans	Lump Sum SHOPP - Roadway Preservation	Lump Sum SHOPP - Roadway Preservation: Various locations; Repair of State highway. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
430	MTC050011	94001	REG	Caltrans	Lump Sum SHOPP - Collision Reduction	Lump Sum SHOPP - Collision Reduction: Various locations; Collision Reduction activities on State highway. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
431	MTC050012	94001	REG	Caltrans	Lump Sum SHOPP - Transportation Enhancements (TE)	Lump Sum SHOPP - TE: Various locations; Roadway enhancement activities on State highway. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
432	MTC050018	22421	REG	MTC	Spare The Air - Free Regional Transit	Regionwide: Provide free transit rides on "Spare The Air" Days.
433	MTC050019	22421	ALA	Port of Oakland	LNG Infrastructure Implementation	Port of Oakland: Install two LNG fueling stations and purchase one LNG powered hostler truck and nine LNG powered heavy duty trucks. Vehicles purchased are to replace currently operated diesel vehicles.
434	MTC050020	22242	REG	MTC	Real-time transit information Grant Program	Regionwide: Provide real-time transit information to riders at transit stops or via telephone, wireless or internet communication.
435	MTC050021	22245	REG	MTC	Safe Routes to Transit	Regionwide: Grants to fund infrastructure projects that improve bike/ped access to transit stations. Including signs, multi-use trails and bike parking.
436	MTC050022	21005	REG	MTC	Integrated Fare Structure Program	Regionwide: Develop a plan to implement a multi-agency regional fare program
437	MTC050024	22241	REG	MTC	Bay Area Regional Rail Plan	Regionwide: Develop long-range vision for passenger/freight rail system that serves Bay Area and Northern California region, including high-speed rail from Central Valley to Bay Area.
438	MTC050026	22509	REG	WTA	Ferry Service - Alameda	Alameda/Oakland/San Francisco: Provide expanded ferry service including the acquisition of ferry service and associated capital equipment/facilities.
439	MTC050027	22511	REG	WTA	Ferry Service - Berkeley/Albany	Berkeley/Albany: Provide ferry service from Berkeley/Albany to San Francisco.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
440	MTC050028	22241	REG	WTA	WTA Ferry Expansion Studies.	Regionwide studies to determine environmental/other impacts of expanded ferry service in the Bay Area.
441	MTC050029	22006	REG	WTA	SF Ferry Terminal/Berthing Facilities	San Francisco: At the Ferry Terminal; Construct additional ferry docking/berthing facilities to improve ferry access and support WTA berthing/maintenance operational needs.
442	MTC050030	22125	REG	WTA	Ferry Service for South San Francisco	SSF: Develop/implement service & infrastructure for new ferry service to S. San Francisco Includes service operation, acquisition of vehicles and development and construction of a new terminal.
443	MTC050031	22006	REG	WTA	Spare Vessels	WTA: Purchase 2 spare vessels for use within the regional ferry system.
444	MTC950001	94083	REG	BART	AFC Modernization/Translink Implementation	BART: Systemwide; Replace/renovate old AFC equipment, perform necessary site preparation, and implement TransLink®.
445	MTC990013	21006	REG	MTC	Regional Transportation Marketing	San Francisco Bay Area: Perform marketing and market research services for regional operations projects.
446	MTC990015	22421	REG	BAAQMD	Spare the Air Program	San Francisco Bay Area: Spare the Air Campaign: Inform/educate the public about ozone problems, notify when Spare the Air days are called & encourage use of transit, ridesharing etc.
447	MTC990017	21004	REG	MTC	Pavement Mgmt Tech. Assist. Program (P-TAP)	Regionwide: Pavement Management System (PMS) Technical Assistance Program (P-TAP); assistance to Bay Area local agencies to implement & maintain computerized PMS system.
448	MTC99002B	21005	REG	GGBHTD	TransLink Fare Collection System	San Francisco Bay Area; Design, build, operate and maintain the TransLink fare collection system.
449	MTC991001	21010	REG	MTC	Performance Monitoring	MTC: Support to collect travel time data on roadways & transit services to monitor mobility & reliability. Collect information on non-motorized travel at locations throughout the Bay Area.
450	NAP010001	94073	NAP	Caltrans	SR 12/29/221 Intersection Improvements	Napa: SR 12/29/221 (Soscol Avenue) Intersection: Various intersection improvements and expansion.
451	NAP010008	94074	NAP	NCTPA	SR 12 (Jamieson Canyon Road) Widening	In Napa and Solano Counties: SR 12 between SR 29 and I-80 (Jamieson Canyon): Rehab roadway and expand from two to four lanes.
452	NAP010009	98561	NAP	NCTPA	Planning, Programming and Monitoring	Napa: Planning, Programming, and Monitoring (PPM) activities
453	NAP030004	21017	NAP	Napa Vine	ADA Operating Assistance	Napa: ADA operating assistance for paratransit service
454	NAP030005	21017	NAP	Napa Vine	Bus Stop Improvements	Napa Vine: Various bus stop improvements throughout the Napa County transit service areas.
455	NAP050001	94575	NAP	Caltrans	Trancas St. Interchange (mitigation planting)	Napa: Trancas Street/SR 29; New interchange mitigation planting.
456	NAP050002	94576	NAP	Napa	Napa - 3rd Street Rehabilitation	Napa: On 3rd Street from California Boulevard to the Silverado Trail (1.3 miles); Rehabilitate roadway.
457	NAP050003	94576	NAP	Napa	Napa - Jefferson Street Rehabilitation	Napa: On Jefferson Street from Trancas to Hayes; Rehabilitate roadway.
458	NAP050004	94576	NAP	Amer Canyon	American Canyon Road Rehabilitation	American Canyon: On American Canyon Road from Flosden to SR 29; Rehabilitate roadway.
459	NAP050005	94576	NAP	Napa County	Yountville Cross Road Rehabilitation	Yountville: On Yountville Cross Road from the Town Limits to the Silverado Trail; Rehabilitate roadway.
460	NAP050006	94576	NAP	Napa County	Silverado Trail Rehabilitation	Napa County: On the Silverado Trail from the Rector Creek Bridge to Petra Drive; Rehabilitate roadway.
461	NAP050007	94576	NAP	Napa County	Wooden Valley Road Rehabilitation	Napa County: Wooden Valley Road from the Solano County Line to SR 121; Rehabilitate roadway.
462	NAP050008	94578	NAP	NCTPA	Vallejo Ferry Express Commuter Service	Napa Vine: Service between Calistoga in Napa County to the Vallejo Ferry terminal; Purchase six vehicles operate Express Commuter Service (Route 10).
463	NAP050009	22243	NAP	Napa Vine	Park & Ride Lots in Napa County	Napa County: At Trancas/Hwy 29, American Canyon, and Calistoga/St. Helena; Construct Park and Ride Lots.
464	NAP050010	94576	NAP	Napa	Napa - Redwood Road Rehabilitation	Napa: Redwood Road from Browns Valley Road to Dry Creek Road; Rehabilitate roadway.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
465	NAP050011	94576	NAP	Amer Canyon	American Canyon - Elliott Street Rehabilitation	American Canyon: Elliott Street from Donaldson South to the City limits; Rehabilitate roadway.
466	NAP050012	94576	NAP	Napa County	Silverado Trail Rehabilitation	Napa County: On the Silverado Trail from 0.5 miles north of Oakville Cross Road to 1.5 miles south of Oakville Cross Road; Rehab trail.
467	NAP050013	21017	NAP	Napa Vine	On-board Equipment	Napa Vine: Install on-board equipment including cameras, radio technologies, and upgraded destination signs.
468	NAP070001	22417	NAP	Napa County	Napa - Las Amigas Class II Bicycle Lane	Napa: On Las Amigas Road from Cuttings Wharf to Milton (Part of the Bay Trail); Construct a Class II Bike lane.
469	NAP070002	22247	NAP	Amer Canyon	Wetlands Edge Bay Trail Segment	American Canyon: Wetlands Edge Road segment of the Bay Trail; Construction bike/ped trail.
470	NAP070003	94576	NAP	Napa	Napa - Browns Valley Road Rehabilitation	Napa: On Browns Valley Road from Patrick to Austin; Rehabilitate Roadway.
471	NAP070004	98511	NAP	Amer Canyon	West American Canyon Road Rehabilitation	American Canyon: West American Canyon Road from SR 29 to Elliott Drive; Rehabilitate roadway.
472	NAP070005	94576	NAP	Napa County	Deer Park Road Rehabilitation	Napa County: Rehabilitate Deer Park Road from the Silverado Trail to Howell Mountain Road.
473	NAP070006	94064	NAP	Napa	Napa - Soscol Avenue Rehabilitation	Napa: On Soscol Avenue from north of LaHoma to south of Pueblo; Rehabilitate roadway.
474	NAP070007	94064	NAP	Napa	Napa - Imola Road Rehabilitation	Napa: On Imola Road from Soscol to east of Patton Avenue; Rehabilitate roadway.
475	NAP970004	98561	NAP	Napa Co TA	NCTPA - CMA Planning Activities	Napa County: Support for CMA Planning Activities. Funding Includes 3% Planning Set-Aside.
476	NAP970010	94578	NAP	Napa Vine	Operating assistance.	Napa Vine: Operating assistance to support transit routes and services.
477	NAP97AM58	94578	NAP	Napa Vine	Preventive Maintenance	Napa Vine: Preventive maintenance.
478	NAP990011	94076	NAP	NCTPA	Relocate existing Downtown Terminal	Napa Vine: Relocate existing downtown terminal in a new location with better access and more office and bus space.
479	NAP990015	94071	NAP	Napa	Maxwell St. Drawbridge (Rte 121) replacement	In Napa: On Route 121; Replace 2-lane Maxwell Street drawbridge with 4-lane high-level structure.
480	NAP991022	94077	NAP	Napa County	Cuttings Wharf Road Bicycle Lane	Napa County: On Cuttings Wharf Rd. from State Highway 12/121 to Las Amigas Road (part of Bay Trail Network); Construct four foot wide shoulders for bicycle lane.
481	REG050006	94525	REG	BART	Strategic Maintenance Program	BART: Strategic Maintenance Program (SMP) for maintenance of rolling stock. Including a proactive approach to predicting and mitigating system and component.
482	REG050007	94525	REG	BART	ADA Operating Set-aside	BART: ADA Operating assistance set-aside.
483	REG050008	22425	REG	MTC	Station Area Planning Program	Regional: Provide grants to local jurisdictions to develop plans for their transit stations in order to help increase transit ridership.
484	REG050009	21001	REG	MTC	Emergency Management Program	MTC: Manage congestion by developing regional plan for addressing major disasters and other regional incidents.
485	REG050010	94525	REG	BART	General Mainline Renovation	BART: General Mainline Renovation to include but not limited to track work, rail, guideway rehabilitation, traction power, train control or fencing.
486	REG050011	94525	REG	BART	High Priority Security Project	BART: District wide; Install security barriers including but not limited to gates, locks and intrusion detection devices.
487	REG050013	21010	REG	MTC	Transit Capital Inventory Improvements	MTC: Procure Asset Management System to enable ability to anticipate regional rehab, replacement and funding needs.
488	REG050014	22425	REG	MTC	MTC - Planning, Programming and Monitoring Part 2	MTC-Regional: Planning, Programming, and Monitoring (PPM) activities - Part 2
489	REG050015	21003	REG	MTC	TETAP & Signal Timing Program - Part 2	MTC: Provide traffic engineering assistance to Bay Area jurisdictions for signal retiming, traffic systems improvements and other MTS related activities. See MTC990018 for PY funds.

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490	REG050017	21008	REG	MTC	511 Traveler Information	Regionwide: Collect real-time and static transportation data (traffic, transit, rideshare and bicycle) and disseminates the information to the public for free by telephone and on a website.
491	REG050020	94525	REG	BART	BART Preventive Maintenance & Car Repl. Exchange	BART: Fund preventive maintenance program, including maintenance of rail cars and other system components and provide funding for preventive maintenance car replacement exchange.
492	REG050021	21001	REG	MTC-SAFE	Incident Management Program	Regionwide: Manage congestion by preventing and/or addressing minor & major highway incidents/events including FSP, Call Box, incident detection equipment & incident management systems, etc.
493	REG070001	94522	REG	Caltrans	Lump Sum SHOPP - Emergency Response	Lump Sum Shopp - Emergency Response; Various locations throughout the Region. Projects are consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
494	REG070002	22676	REG	BART	Alameda County BART Station Renovations	BART: System-wide. Renovations to existing BART stations
495	REG070003	22512	REG	WTA	Treasure Island Ferry Service	Treasurer Island: Implement new ferry transit service between Treasure Island and San Francisco/East Bay locations.
496	REG070004	22090	REG	MTC	Oakland/LA Maintenance Facilities Security	Oakland/LA Maintenance Facilities Security
497	REG070005		REG	MTC	TE Reserve	Regionwide: Transportation Enhancement (TE) Reserve.
498	REG070006	22241	REG	MTC	San Francisco Bay Crossings Studies	Regionwide: San Francisco Bay: Various Bay Crossings Studies including feasibility and financial studies.
499	SCL010004	98564	SCL	VTA	Planning, Programming and Monitoring	Santa Clara: Planning, Programming and Monitoring (PPM) activities.
500	SCL010006	96002	SCL	VTA	SR-152 Safety Improvement	In Gilroy: SR-152, US-101 to Fergusson Road; construct safety and operational improvements including interchange reconfiguration, signals and bridge widening to include a turning lane.
501	SCL010013	98121	SCL	Caltrain	San Jose to Santa Clara - 4th main Track	San Jose to Santa Clara; Construct 4th main Track.
502	SCL010018	94592	SCL	VTA	Rt 85/US101 NB I/C Modification (Mt View)	Mountain View: On US 101 @ Rte 85; Operational reconfig. & re-orientation of ramps at Moffett Blvd, N. Shoreline blvd & Old Middlefield Wy plus the NB & SB HOV connector ramps.
503	SCL010019	21703	SCL	VTA	I-880 Coleman Avenue I/C Reconfiguration.	San Jose: I-880@Coleman; Reconst. Coleman Ave. bridge & realign, reconst. all ramps accessing I-880 & add new direct connection ramp to SB I-880 from Airport Blvd & Newhall St. (Garvee SCL030012)
504	SCL010021	21735	SCL	Santa Clara	San Tomas Aquino/Saratoga Crk Path	City of Santa Clara: Along San Tomas Aquino/Saratoga Creek between Agnew Road and Scott Boulevard; construct grade separated, multi-use path.
505	SCL010023	94610	SCL	VTA	Zero Emission Bus Demonstration Project	SCVTA: Acquire up to 6, 40 foot Low-Floor Zero Emissions expansion Buses.
506	SCL010035	21754	SCL	Caltrans	I-280 Soundwall	San Jose: Rte 280 between Bird Ave. and Los Gatos Creek Bridge; Construct Sound wall.
507	SCL010037	21754	SCL	Caltrans	I-680 Soundwall -Capitol Expwy to Mueller	San Jose: Rte 680, at various locations, between Capitol Expressway and Mueller Avenue; Construct soundwalls.
508	SCL010038	21754	SCL	Caltrans	I-880 Soundwall	San Jose: Rte 880 between Rte 280 and Stevens Creek Boulevard; Construct soundwalls.
509	SCL010040	21715	SCL	VTA	SR-152/SR-156 Interchange Improvements.	SR-152/SR-156: WB SR-152 to SB-SR-156; Construct a flyover and other improvements at the interchange. HPP earmark Nos. 1759 & 1793
510	SCL030001	21727	SCL	Caltrans	US 101 Aux Lane from SR 87 to Trimble Rd.	San Jose: US 101 from 0.8 km south of the SR-87/US-101 separation to 0.4 km north of Trimble Rd; Reconfigure interchange including realignment, eliminate, and construction of auxiliary lanes.
511	SCL030005	94610	SCL	VTA	Guadalupe Corridor LRT Platform Rehab & Retrofit	San Jose: Guadalupe Corridor; Rehabilitate and retrofit existing station platforms to accommodate Low-floor Light Rail Transit (LRT) vehicles.
512	SCL030006	21785	SCL	VTA	US 101/Blossom Hill Reconst & Widening	San Jose: US-101/Blossom Hill Rd IC; widen Blossom Hill Rd and reconstruct I/C to provide an additional lane in each direction, including the OC structure over US-101 plus other improvements.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
513	SCL030008	94587	SCL	Caltrans	Route 87 Guadalupe Freeway Corridor	In San Jose: On SR-87 from Julian St to route 101; Landscaping along new corridor improvements (Also see SCL990041).
514	SCL030011	94610	SCL	VTA	T-Signals Retrofit Project	Santa Clara County: Systemwide retrofit/upgrade of Light Rail T-Signals with new updated MUTCD standardized T-Signals.
515	SCL030012	94124	SCL	VTA	Garvee Debt. Srv. - SCL010019, SCL990030-31	Santa Clara County: Garvee Debt Service Payment for issue of bonds for the State Route 87 HOV projects (SCL990031 and SCL010019 & SCL990030), and I-880/Coleman.
516	SCL030013	21717	SCL	VTA	AB3090 replacement project	VTA: Add new AB3090 replacement project. (See SCL010039)
517	SCL030015	94117	SCL	VTA	Sunnyvale Transit Center Enhancement	Sunnyvale: Sunnyvale Transit Center on Francis St Btw Capella & Evelyn Ave; Install bus shelters, landscaping, lighting and other amenities.
518	SCL030020	94117	SCL	VTA	Francis St. Corridor Enhancement	VTA: Francis Street Caltrain Station; Provide enhanced shelters, landscaping, lighting, and art elements.
519	SCL030021	94610	SCL	VTA	Purchase 228 Bus Catalyst Devices	VTA: Purchase 228 Bus Catalyst Devices for Agency fleet.
520	SCL030022	94117	SCL	VTA	Tamien Caltrain Station Enhancements	San Jose: Tamien Station; Various enhancement to facilitate transit ridership.
521	SCL050001	94610	SCL	VTA	Standard & Small Bus Replacement	VTA: Standard and Small Bus Replacement
522	SCL050002	94610	SCL	VTA	VTA - Rail Replacement Program	VTA: Rail Replacement Program throughout the Light Rail system (no rail expansion).
523	SCL050003	94610	SCL	VTA	Strain Insulator & Contact Wire Replacement	VTA: OCS Strain Insulator & Contact Wire Replacement Program.
524	SCL050004	94610	SCL	VTA	LRT Crossovers and Switches	VTA: Install and rehab Crossovers & Switches throughout the Light Rail System.
525	SCL050005	94610	SCL	VTA	Bus Fareboxes Replacement	VTA: Bus Fareboxes Replacement on agency fleet.
526	SCL050006	21868	SCL	Caltrans	Mathilda Avenue Bridge Replacement.	Sunnyvale: Mathilda Ave, Over Caltrain/UPRR at Evelyn Ave; Widen Structure along both side, add south bound aux lane, realign, replace.
527	SCL050007	94117	SCL	VTA	De Anza College Transit Center Rehab.	Santa Clara: De Anza College; Design & Construction of a state-of-the-art 8 bay transit center. Project includes landscaping, seating and plaza area, lighting, etc.
528	SCL050008	94610	SCL	VTA	Chaboya Division Rebuild	Santa Clara County: Chaboya Bus Yard; reconstruct and upgrade bus yard to a modernized facility.
529	SCL050009	22014	SCL	VTA	Capitol Expressway LRT Ext: Downtown to E. Valley	Downtown San Jose: From Alum Rock Avenue to Hwy 87 in San Jose; Construct LRT Line on Capitol Expressway from Alum Rock Avenue to Eastridge Transit Center.
530	SCL050010	21735	SCL	Santa Clara	San Tomas Aquino Creek Trail - Reach 3	Santa Clara: At the San Tomas Aquino Creek; Construct Reach 3 of Bike/Ped Trail.
531	SCL050011	96002	SCL	Caltrans	SR 152 Runoff Pollution Control	Near Sprig Lake: On Hwy 152 btw Santa Cruz County Line & Sprig Lake; Install up to two storm-water runoff filtration sites for temp stockpile disposal sites and screen landscaping.
532	SCL050012	98849	SCL	Caltrans	Rte 152 Truck Passing Lane - Part B	Near Gilroy: SR-152 from Prunedale Avenue to Route 156 at various locations; Construct passing and truck climbing lanes and left turn lanes outside of the urbanized area.
533	SCL050013	21727	SCL	Caltrans	US 101/ SR 87-Trimble Rd. Landscaping	San Jose: US 101 from 0.8 km south of the SR-87/US-101 separation to 0.4 km north of Trimble Rd; Landscape Mitigation.
534	SCL050017	94609	SCL	Gilroy	Gilroy - Rossi Lane and Murray Ave Rehabilitation	Gilroy: On Rossi Lane btw Luchessa Ave. & City Limits & on Murray Avenue btw Tompkins Ct & Ronan St.; Rehab roadway.
535	SCL050018	94609	SCL	Los Altos	Los Altos - Grant Road Rehabilitation	Los Altos: Grant Road between Foothill Expressway and Northern City Limits; Rehabilitate roadway.
536	SCL050019	94609	SCL	Los Altos Hills	Los Altos Hills - Page Mill Road Rehabilitation	Los Altos Hills: On Page Mill Road From the Matadero Creek Ln to approx. 900 ft north of Altamont Rd & from Berryhill Lane to Country Way; Rehabilitate roadway.
537	SCL050020	94609	SCL	Mountain View	Mountain View - Miramonte Avenue Rehabilitation	Mountain View; On Miramonte Avenue between El Camino Real and Los Altos City limits; Rehab roadway.

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538	SCL050021	94609	SCL	Palo Alto	Palo Alto - Page Mill Rd & Univ. Ave. Rehab	Palo Alto: University Ave. btw San Francisquito Creek & Chaucer St, & on Page Mill Rd. from mile marker 1.7 to mile marker 1.9 & from mile marker 2.3 to mile marker 2.6; Rehab & replace roadway.
539	SCL050023	94609	SCL	Santa Clara	Santa Clara - Lick Mill Blvd Rehabilitation	Santa Clara: Lick Mill Boulevard, btw Tasman Drive and Montague Expressway; Rehabilitate and replace roadway.
540	SCL050024	94609	SCL	Saratoga	Saratoga - Various Streets Rehabilitation	Saratoga: Allendale Ave btw Fruitvale & Quito Rd, On Saratoga-Sunnyvale Road btw Herriman & Prospect Rd & on Saratoga Ave btw Fruitvale & Heritage Oak & Cox Ave & City Limits; Rehab roadway.
541	SCL050025	94609	SCL	Santa Clara Co	Santa Clara Co - Montague Expwy Rehab Phase I & II	Santa Clara County: On Montague Expwy. between US 101 and I-680; Pavement overlay and repair.
542	SCL050026	94609	SCL	Santa Clara Co	Santa Clara Co. - Page Mill Road Rehabilitation	Santa Clara County: On Page Mill Road between County line and 0.5 miles north; Pavement repair overlay.
543	SCL050027	94609	SCL	Sunnyvale	Sunnyvale - Various Streets Rehabilitation	Sunnyvale: Mary Avenue, Fair Oaks Ave, Hollenbeck Ave, & Kifer Rd; Rehab and overlay four MTS streets. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
544	SCL050028	94609	SCL	San Jose	San Jose - Various Streets Rehabilitation	San Jose: Various MTS Roadway Within City Limits: Resurface and rehab various MTS roadway. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
545	SCL050029	94609	SCL	Los Gatos	Los Gatos - Various Streets Rehabilitation	Los Gatos: Various MTS roadways within City Limits; Rehab and overlay roadway. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
546	SCL050030	94609	SCL	Milpitas	Milpitas - S. Park Victoria Drive Rehabilitation	Milpitas: South Park Victoria Drive between Yosemite Drive and Calaveras Blvd and Calaveras Blvd between South Park Victoria Dr and I-680 Ramp East; Rehabilitate and overlay roadway.
547	SCL050031	21011	SCL	Morgan Hill	Depot Street Capital Improvements	Morgan Hill: Depot St; Construct new sidewalks, landscape and other bike/ped streetscape improvements including along unfinished 6-block section of Eastern gateway (TLC Program).
548	SCL050032	21011	SCL	Gilroy	Monterey Streetscape - 4th to 6th St.	Gilroy: On Monterey St. Between 4th and 6th Streets; Various streetscape improvements (TLC Project).
549	SCL050033	21723	SCL	VTA	US-101/Tully Road Interchange Modifications	In San Jose: US-101, Modify US-101/Tully IC and widen US-101. Project includes two HPP earmarks #943 (\$4M) and #2245 (\$4M)
550	SCL050034	22142	SCL	VTA	US-101/Capitol-Yerba Buena Interchange Mods	San Jose: On US-101 at the Capitol/Yerba Buena Interchange: Modify interchange.
551	SCL050035	98121	SCL	VTA	Caltrain Service Improvement Project in SCL	Caltrain: Gilroy; Expand service to Gilroy, improve parking, stations and platforms along UPRR line in Santa Clara County.
552	SCL050037	94610	SCL	VTA	Bus Signal Priority Project	VTA: Design, purchase & install Bus Signal Priority System. Scope includes bus-mounted emitters, traffic signal controller software, equipment, hardware & professional services.
553	SCL050039	22175	SCL	San Jose	Almaden Expressway Ped. Overcrossing	San Jose: Almaden Expressway, near Coleman Rd; Construct a 360 ft. Ped Bridge over Almaden Expressway to connect nearby trails and to the Almaden Light Rail Station.
554	SCL050042	22847	SCL	Los Gatos	SR 9 Bicycle and Pedestrian Improvements	SR 9 through Monte Sereno, Los Gatos and Saratoga; Bike/Ped safety improvements including new bike lanes and shoulder widening for improved mobility for non-motorized public.
555	SCL050043	21017	SCL	SJRC	Ped Underpass & Platform Improvements	ACE: Santa Clara Center; Construct ADA compliant pedestrian underpass and platform center improvements to facilitate train movements and pedestrian movement. [Santa Clara Platform and Pedestrian Improvements]
556	SCL050044	94610	SCL	VTA	Replace Bus Fareboxes	VTA: Purchase new "Next Generation" validating bus fare collection system to replace existing fareboxes.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
557	SCL050045	94610	SCL	VTA	ADA Bus Stop Improvements	VTA: Construct ADA bus stop improvements at various locations. Improvements include wheelchair access improvements and improved lighting and signage. [Transit Enhancement]
558	SCL050046	94610	SCL	VTA	ADA Operating Set Aside	VTA: ADA operating assistance set aside.
559	SCL050047	94610	SCL	VTA	De Anza Transit Center Enhancements	VTA: Design/construct improvements at the De Anza Transit Center including reinforced pavement section, eight bus bays, passenger shelters and other amenities.
560	SCL050048	94610	SCL	VTA	CCTV/Video/Laser Intrusion. Detect. Systems	VTA: Purchase and install Closed Circuit TV or Video On Demand System and Laser Intrusion Detection System.
561	SCL050049	94610	SCL	VTA	Rail Substation Rehab/Replacement	VTA: Replacement of DC breakers housed in the 15 Siemens substations along the Guadalupe LR line.
562	SCL050050	94610	SCL	VTA	LRT Crossovers & Switches	VTA: Purchase and install crossovers & switches at various locations throughout the system.
563	SCL050051	94609	SCL	Gilroy	Gilroy - Forest Street Overlay	Gilroy: On Forest Street, between IOOF Avenue and Miller Slough Bridge; Overlay/Rehabilitate local roadway.
564	SCL050052	94609	SCL	Los Gatos	Los Gatos - Main Street Rehabilitation	Los Gatos: On Main Street, between Alpine Avenue and Santa Cruz Avenue; Resurface and rehabilitate local roadway.
565	SCL050053	94609	SCL	Santa Clara Co	Santa Clara County - Non-Expressway Rehabilitation	Santa Clara County: Various locations; Rehabilitate various roadways that have been identified with a PCI rating of less than 70.
566	SCL050054	94609	SCL	Mountain View	Mountain View - California Street Rehabilitation	Mountain View: On California Street between Mariposa Avenue and Castro Street; Rehabilitate roadway adding 1.5" of asphalt overlay.
567	SCL050055	94609	SCL	Sunnyvale	Sunnyvale - Mary Avenue Rehabilitation	Sunnyvale: On Mary Avenue between Homestead Rd. and the Dalles; Complete rehabilitation of roadway.
568	SCL050056	94609	SCL	Cupertino	Cupertino - Various Street Rehabilitation	Cupertino: Various locations; Rehabilitation of roadway including improvements to failing pavement and improve roadway on three major collectors.
569	SCL050057	94609	SCL	Palo Alto	Palo Alto - Embarcadero Road Rehabilitation	Palo Alto: On Embarcadero Rd, btw Emerson Street and Middlefield Road; Resurface and rehabilitate roadway segments, sidewalks, curbs, gutters and driveways.
570	SCL050058	94609	SCL	Santa Clara	Santa Clara - Lafayette Street Rehabilitation	City of Santa Clara: Lafayette Street from Agnews Road to Calle De Luna; rehab roadway with rubber cape seal and pavement markings.
571	SCL050059	94609	SCL	Morgan Hill	Morgan Hill - Various Streets Rehabilitation	Morgan Hill: On East Main St., from the UPRR crossing to Calle Mazatan, and from Serene Drive to Laurel Road, and on Cochrane Road between US 101 and Monterey Road; Rehabilitation and overlay roadway, replace failing pavement and perform striping.
572	SCL050060	94609	SCL	Los Altos Hills	Los Altos Hills - El Monte Road Rehabilitation	Los Altos Hills: On El Monte Road, between Moody Road and Stonebrook Drive; Reconstruct and rehabilitate roadway including drainage system, traffic loop and pavement markings.
573	SCL050061	21011	SCL	MTC	San Jose State Univ. / Japantown Pedestrian Imps.	San Jose: From San Jose State University and Japantown to Civic Center through the Hensley Historic District; Construct pedestrian improvements including street trees, lighting, etc. (TLC project).
574	SCL050062	94610	SCL	VTA	Procure Paratransit Vehicles	VTA: Purchase up to 90 sedans and 30 ramped vehicles for ADA paratransit service.
575	SCL050063	22807	SCL	Caltrain	Central Control Relocation & Improvements	Caltrain: San Jose; Relocate Caltrain central control/dispatch center from an Amtrak owned building to a JPB owned building & furnishing/equipment upgrade.
576	SCL050064	22807	SCL	Caltrain	Diridon Station Improvements	Caltrain: Diridon Station improvements including ADA modifications to walkways, paths, and other improvements for Amtrak personnel and station rehabilitation.
577	SCL050065	94613	SCL	Caltrain	Installation of Fixed Fuel Facility	Caltrain: Install two-35,000 gallon tanks and an underground distribution system with four fueling stations at the new Caltrain maintenance facility.
578	SCL050066	94610	SCL	VTA	Satellite Phones	VTA: Procure satellite phones for transit security.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
579	SCL050067	94609	SCL	Campbell	Campbell - Various Streets Rehabilitation	Campbell: Various Streets; preventative maintenance and rehabilitation of AC pavement.
580	SCL050068	94609	SCL	Los Altos Hills	Los Altos Hills - Fremont Road Rehabilitation	Los Altos Hills: On Fremont Rd btw Concepcion & Edith Ave, & from Edith Ave to Burke Rd; Overlay roadway & reconstruct failed sections, replace pavement marking, & improve roadway drainage system.
581	SCL050069	94609	SCL	Mountain View	Mountain View - California Street Rehab Phase II	Mountain View: California St between San Antonio Road and Rengstorff Avenue; Resurface and overlay roadway.
582	SCL050070	94609	SCL	Gilroy	Gilroy - Forest Street Rehabilitation	Gilroy: Forest Street from the Forest Street Bridge to Lewis Street; Pavement overlay and rehab.
583	SCL050071	94609	SCL	Palo Alto	Palo Alto - California Ave & Newell Rd Rehab	Palo Alto: California Ave from El Camino Real to east end of Park Blvd & Newell Rd from Hamilton Ave to Embarcadero Rd; Resurfacing and rehabilitate roadway.
584	SCL050072	94106	SCL	Santa Clara Co	Santa Clara Co. - Capitol Expwy. Rehabilitation	San Jose: On Capitol Expressway between SR 87 and Seven Trees Blvd; Minor repair of any failed roadway areas.
585	SCL050073	94106	SCL	Santa Clara	Santa Clara - Tasman Dr. and Homestead Rd. Rehab	Santa Clara: Tasman Dr within City Limits and on Homestead Rd between Lawrence Expwy and Kiely Blvd; Resurface and rehabilitate roadways.
586	SCL050074	94609	SCL	Morgan Hill	Morgan Hill - Main Street Rehabilitation	Morgan Hill: On West Main St. between Monterey Rd and Peak Ave & East Main Street between Carriage Lamp Wy and Serene Dr; Remove and replace damaged curb and gutter.
587	SCL050075	94106	SCL	Santa Clara Co	Santa Clara Co. - Oregon/Page Mill Expwy Rehab	Santa Clara County: Oregon/Page Mill Expressway between I-280 and US 101; Minor repair of any failed roadway.
588	SCL050076	94106	SCL	Santa Clara Co	Santa Clara Co. - Various Non-Expressway Rehab	Santa Clara County: Various non-expressway roadways; Rehabilitation of pavement on various federal-aid eligible arterial/collectors.
589	SCL050077	22178	SCL	Milpitas	Calaveras Boulevard Widening	Milpitas: Calaveras Boulevard from Town Center Drive to Abel Street; widen roadway from 4 to 6 lanes.
590	SCL050079	21001	SCL	San Jose	Silicon Valley TIMC	San Jose: Transportation Incident Management Center: Implement subregional hub for traffic management activities including arterial traffic, incident management, traveler information and emergency incident management center. HPP #2017
591	SCL050080	22816	SCL	Santa Clara Co	Oregon-Page Mill Expwy Improvements	Santa Clara County: On the Oregon-page Mill Exwy btw US 101 and SR 82; Traffic improvements including traffic signal upgrade, optimizing timing plans & bike and ped facilities.
592	SCL050081	22869	SCL	San Jose	Lower Guadalupe River Trail	San Jose: From I-880 to Gold Street; Construct 6mile trail including safety enhancement and improvements. HPP# 1943
593	SCL050082	22861	SCL	San Jose	Bay Trail Reach 9	San Jose: Near Gold Street to the existing San Tomas Aquino Creek Trail; Preparation of CNST and ENVR documents for 1.2 miles of commuter/transportation trail, pedestrian bridge, and under-crossings with safety and enhancement improvements. HPP # 2084
594	SCL050083	22865	SCL	San Jose	Coyote Creek Trail	San Jose: from Highway 237 to Story Road; Master plan, design and construction of 9.8 miles transportation trail, including safety and improvements.
595	SCL050085	22979	SCL	VTA	US101/4th St overpass & 4th /Zanker/Skyport	San Jose: US 101: Construct new overpass at 4th Street and Zanker Road to connect with Skyport Drive.
596	SCL050089	22153	SCL	Sunnyvale	Mary Avenue Extension	Sunnyvale: Mary Avenue across US 101 and 237; Extend roadway by constructing overcrossing.
597	SCL050090	22245	SCL	Cupertino	Collins School Safe Route to School Proj.	Cupertino: At Collins School; Install flashing beacons, stop sign lights.
598	SCL050091	94609	SCL	Palo Alto	Citywide Traffic Signal upgrade	Palo Alto: Citywide; traffic signal upgrades requiring the installation of hardware and software at 9 major intersections in Palo Alto.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
599	SCL070001	21011	SCL	Los Gatos	Los Gatos Creek Bridge	Los Gatos: Roberts Road at Los Gatos Creek (south of Blossom Hill Rd; Replace one lane bridge with 2 lane bridge (Bridge No. 37C0343).
600	SCL070002	21719	SCL	VTA	I-880/I-280/Stevens Creek I/C Improvements	San Jose: At the I-280/I-880/Stevens Creek Boulevard Interchange; interchange improvements including a braided ramp to separate the merge & weave movements. HPP Earmarks #1367 (\$9.6M) and #3785 (\$3M)
601	SCL070003	22138	SCL	VTA	US 101/ SR 25 I/C and US 101 Widening	Gilroy: SR 25 and US 101 interchange; Reconstruct interchange and widen Route 101 from 4 to 6 lanes BTW Rt 25 and Monterey Highway.
602	SCL070004	22894	SCL	VTA	US 101/Mabury Interchange	San Jose: US 101/Mabury interchange; Construct full interchange.
603	SCL070005	21833	SCL	Santa Clara Co	Almaden Expressway Improvements	San Jose: On Almaden Expressway btw Branham Lane and Blossom Hill Road; Various improvement including adding northbound and southbound auxiliary lanes.
604	SCL070006	22890	SCL	Gilroy	Camino Arroyo Bridge and Gap Closure	Gilroy: On Camino Arroyo from Ronan Channel to Arroyo Cir & on 6th St from Gilman to Railroad; Extend Roadway, construct a new bridge and other improvements including lights, bike lanes and sidewalk.
605	SCL070007	21719	SCL	Santa Clara Co	San Tomas Expressway I/C Improvements	Campbell: On San Tomas Express Way and Hamilton Ave; Add 2nd add a 2nd left-turn lane in the northbound, westbound, and eastbound directions & adaptive traffic control system.
606	SCL070008	21719	SCL	VTA	I-880 Corridor Improvement Project	San Jose: On I-880 between US-101 and I-280; Construct operational improvements.
607	SCL070009	21743	SCL	Santa Clara Co	Santa Clara Co.- Almaden Expressway Bike/Ped Imps.	Santa Clara County: Almaden Expwy. between Foxworthy Ave and Ironwood Dr.; To provide bike lanes and pedestrian facilities to facilitate and promote interactions between local residential and commercial land uses.
608	SCL070010	22423	SCL	MTC	Gilroy Pedestrian Enhancement	Gilroy: Along Miller Sough; Construct sidewalks and a pedestrian bridge and also (Lifeline).
609	SCL070011	22423	SCL	MTC	Outreach Family Transportation Program	Santa Clara County: Outreach; Assistance to provide individualized transportation plans with flexibility to offer rides and or repair of personal vehicles (JARC).
610	SCL070012	22423	SCL	MTC	Santa Clara County - Ways to Work Loan Prog.	Santa Clara County: Family and Children"s Services; Assistance to provide loan services with comprehensive case management.
611	SCL070013	22992	SCL	Santa Clara Co	Harvey Bear Ranch Trail Development: Ph 2	Santa Clara County: Coyote Lake, Harvey Bear Ranch County Park; Plan and develop 14.35 miles of multi-use, varied width, trails that completes existing trail network.
612	SCL070014	21011	SCL	Morgan Hill	Third Street Promenade	Morgan Hill: On Third Street; Streetscape improvements including, wide sidewalks, bicycle lanes, decorative paving at intersections, pedestrian scaled lighting, street furniture (TLC).
613	SCL070015	94609	SCL	Sunnyvale	Tasman/Fair Oaks Area Enhancements	Sunnyvale: Area bounded by Tasman Drive, Morse Avenue, Weddell Drive and Fair Oaks Avenue; Enhancements including signage, lighting, sidewalks, curbs, crosswalks for pedestrian access to transit.
614	SCL070016	22944	SCL	VTA	I-880 Widening - SR237 to US101	San Jose/Milpitas: On I-880 btw SR 237 & US 101; Operational and safety improvements including widening to accommodate HOV lanes in both directions.
615	SCL070017	22423	SCL	San Jose	Auto Repair & Assistance Program	Santa Clara County: Auto repair funding assist grants (Lifeline).
616	SCL070018	22848	SCL	VTA	Santa Clara County HOT Lane Project	Santa Clara County: Within US 101 and SR 85 corridors transitioning into San Mateo County; Construct HOT Lanes.
617	SCL070019	22246	SCL	VTA	Blossom Hill Rd/Monterey Hwy Ped O/C	San Jose: South of Blossom Hill Rd at Monterey Hwy; Construct a pedestrian overcrossing over Monterey Hwy and UPRR Tracks, including sidewalk and fencing.
618	SCL070020	21720	SCL	Morgan Hill	US 101/Tennant Ave Interchange Project	Morgan Hill: At US 101 and Tennant Ave Intersection; Interchange modification, including EB overcrossing NB loop & widening of Tennant Ave to 4 lanes btw Juan Hernandez Dr. and Condit Rd.

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619	SCL070021	22007	SCL	Milpitas	Midtown Transportation & Streetscape Improvements	In Milpitas: N. Main St. from SR 237 off-ramp to Carlo St.; Construct sidewalks that transition into parking bays, traffic calming amenities including street trees, landscaping, lighting & other transit facilities.
620	SCL070022	22007	SCL	Campbell	East Campbell Avenue Master Plan Project	Campbell: East Campbell Ave from Railroad Ave to Union Ave; Improving streetscape, ped and bike access on Campbell Ave.
621	SCL070023	94106	SCL	Palo Alto	Stanford Ave-El Camino Real Intersection Project	Palo Alto: Intersection of Stanford Ave and El Camino Real; Design and Construction of intersection improvements including bulbouts, enhanced paving, lighting and storm drain outlets.
622	SCL070024	21608	SCL	VTA	US101 Auxiliary Lanes- SC County line to SR85	Santa Clara County: US 101 between Route Route 85 and Embarcadero Road (County line); Construct auxiliary lanes.
623	SCL970002	98849	SCL	Caltrans	Rte 152 Truck Passing Lane - Part A	Near Gilroy: SR-152 from Prunedale Avenue to Route 156 at various locations; Construct passing and truck climbing lanes and left turn lanes outside of the urbanized area.
624	SCL976002	22910	SCL	San Jose	Silicon Valley Smart Corridor	San Jose: Silicon Valley Smart Corridor; Install fiber optics, video cameras, changeable message signs, traffic sensors, data collection stations & other equipment/software.
625	SCL978008	98564	SCL	VTA	SCVTA - CMA Planning Activities	Santa Clara County: Support for CMA Planning Activities. Funding Includes 3% Planning Set-Aside.
626	SCL990002	98174	SCL	Caltrans	Route 237/I-880 Replacement Planting	Milpitas and San Jose: Route 880 HOV Corridor from route 237 to Dixon Landing Road; Replacement planting.
627	SCL990031	94124	SCL	VTA	SR 87 HOV Lane - I-280 to SR-85	In San Jose: SR-87 between Branham Lane and I-280; Construct HOV lanes in each direction in the existing median (For Debt service see SCL030012).
628	SCL990046	94610	SCL	VTA	Preventive Maintenance	SCVTA: Preventive Maintenance of agency's fleet.
629	SCL990053	94610	SCL	VTA	Guaranteed Ride Home Program	SCVTA: Operating assistance for the Guaranteed Ride Home program; provide trip planning, training of caseworkers and other transportation related services.
630	SCL991007	94109	SCL	San Jose	Stevens Creek Blvd/Winchester Blvd ITS	San Jose: Stevens Creek Blvd/Winchester Blvd; Install ITS infrastructure along a highly congested MTS regional arterial corridor.
631	SCL991023	94109	SCL	Caltrans	Traffic Operating System Improvements	Santa Clara County: Install TOS equipment. Including 2 CCTV camera/monitoring stations on Route 237.
632	SCL991060	94114	SCL	Caltrain	Caltrain/ACE Santa Clara Train Station	Caltrain: Santa Clara Station; Rebuild tracks, construct new passenger platforms and construct tracks to enable ACE trains to stop at the Station.
633	SCL991063	21737	SCL	Sunnyvale	Borregas Ave/US 101/SR 237 Bike/Ped Bridges	Sunnyvale: Routes 101 and 237 at Borregas Avenue; Construct bicycle/pedestrian bridges.
634	SCL991077	98140	ALA	Caltrans	Route 680 Sunol Grade - SCL Final	Sunol Grade: From Rte. 84 in ALA to Rte. 237 in SCL.; Final project phase construction of HOV lane, shoulders and other project clean up. Santa Clara portion. More funding in ALA991083, ALA991084 and SCL991077.
635	SCL99T007	94610	SCL	VTA	Cerone Bus Division Reconstruction.	SCVTA: Cerone Bus Division Facility; Reconstruct, expand and upgrade 20 year old facility to meet industry standards for maintenance and operations.
636	SF-010004	98506	SF	SF City/County	4th St Bridge Seismic Retrofit & Rehab	San Francisco: On 4th St over Mission Channel waterway; Repair, seismic retrofit, and rehabilitation of 4th St. bridge.
637	SF-010007	22255	SF	Port of SF	Illinois St Inter-modal Bridge	San Francisco: Over Islais Creek at Southern terminus of Illinois Street; Construct new intermodal bridge for freight traffic including bike lanes and ped sidewalk improvements. HPP # 3541
638	SF-010008	98562	SF	SF County TA	Planning, Programming and Monitoring	San Francisco: Planning, Programming and Monitoring (PPM) activities.
639	SF-010015	21342	SF	TBJPA	Transbay Terminal/Caltrain Downtown Ext - Ph.1	San Francisco: Transbay Transit Center; Replacement and expansion of the terminal at the present site.
640	SF-010018	21506	SF	SF Dept of Park	Oak and Fell Streets ITMS Project	San Francisco: On Oak & Fell Streets from Franklin Street to Stanyan St.; Install advanced signal controls including vehicle detection devices, cameras, & dynamic message signs.

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641	SF-010020	21503	SF	SF Park&Traffic	Addison and Digby Traffic Circle	San Francisco: Intersection of Addison and Digby Streets; Construct traffic islands.
642	SF-010023	21502	SF	SF Dept of Park	Phelan Ave. Crosswalk & Traffic Calming.	San Francisco: On Phelan Avenue at the entrance to City College; Install Curb bulbs, median refuge, lighted crosswalk, ladder crosswalk and FYG crossing signs.
643	SF-010024	94636	SF	MUNI	Overhead Lines Facility Rehab/Replacement	San Francisco: Rehab/replace existing overhead lines facility due to San Francisco Un-reinforced Masonry Building Ordinances requirements.
644	SF-010026	94572	SF	GGBHTD	GGBHTD San Francisco Ferry Term. Rehab	San Francisco: Along the Embarcadero btw Piers 1 and 2 at Golden Gate Ferry's San Francisco Terminal; Rehabilitate facilities.
645	SF-010028	21627	SF	Caltrain	Caltrain Electrification	Caltrain: From San Francisco to Gilroy: Electrification of entire corridor, including catenary poles, wires, power supply, track and signals.
646	SF-010036	22512	SF	MUNI	SF Muni - Treasure Island Permanent Ferry Terminal	Treasure Island: Ferry Terminal; Final Design and engineering for temporary and permanent Ferry Terminal.
647	SF-010037	21510	SF	MUNI	3rd St. LRT: Ph 2 - New Central Subway	San Francisco: North-south alignment under 4th St. to Market, then under Geary to Stockton & under Stockton to Clay St; Extend the Light Rail line project includes procurement of four LRVs.
648	SF-010041	94636	SF	MUNI	Preventive Maintenance	SF. Muni: Operating assistance to aid the agency with its preventative maintenance activities on its fleet.
649	SF-030001	21301	SF	GGBHTD	GGBHTD San Francisco Ferry Berth Facility	San Francisco: Along the Embarcadero btw Piers 1 and 2; Construct berthing facility at a separate location to replace current facility
650	SF-030002	94627	SF	Natl Park Svc	Golden Gate National Park Road Rehab	San Francisco: Golden Gate Natl Park: Field Rd from Conzelman Rd to Bunker Rd, from Alexander Rd to E. Fort Baker, & on McCullough Rd from Conzelman Rd to Bunker Rd; Rehab roadway.
651	SF-030004	94636	SF	MUNI	Security Improvements & Graffiti Prevention	Muni: Security improvements for facilities, vehicles and equipment. Includes CCTV, fencing, gates, lighting, electronic signage, and prompt graffiti cleanup to secure Muni assets and deter vandalism.
652	SF-030007	94636	SF	MUNI	Geneva Historic Car Enclosure	San Francisco: Geneva Yard; Build canopy over 4 to 6 tracks to provide weather protection for vulnerable MUNI's historic rail fleet to minimize deterioration of the HLRV cars.
653	SF-030008	94636	SF	MUNI	Motor Coach Clean Air Device Retrofit	San Francisco MUNI: Retrofit motor coaches with catalyst devices.
654	SF-030009	94636	SF	MUNI	Motor coach rehab - 12 artics	Muni: Major Rehab 12, 60ft motor coach artics.
655	SF-030010	94636	SF	MUNI	Motor coach repl 455 - 51 40" new flyers	Muni: Replace 51-40" 1989 new flyers with 51-40" alternative fuels vehicles.
656	SF-030011	94636	SF	MUNI	Bus Repl: 5 40" & 30 30" Alt Fuel Vehicles	Muni: Replace 35 1990 30ft Orions with 5 40ft and 30 30ft alternative fuel vehicles.
657	SF-030012	94636	SF	MUNI	Repl.10 1998 and 24 2001 Mini Vans	Muni: Replace 10 1998 and 24 2001 accessible ramped minivans with conversion vans for paratransit service.
658	SF-030013	94632	SF	MUNI	Wayside fare collection equip	Muni: Replacement of life-expired fare collection equipment to enable Translink implementation.
659	SF-050002	21342	SF	TBJPA	Transbay Terminal/Caltrain Downtown Ext: Ph. 2	San Francisco: Transbay Terminal; Extend Caltrain commuter rail service from Fourth/Townsend to Transbay Transit Center.
660	SF-050003	21510	SF	MUNI	3rd St. Light Rail - AB 3090 Reimb.	AB 3090 Reimbursement for 3rd Street Light Rail Project
661	SF-050004	22244	SF	MTC	City CarShare	San Francisco Bay Area; City Carshare; Promote car-sharing as a means of reducing automobile dependence. Project includes vehicle & software purchase Plus improvements to points of departures.
662	SF-050005	94064	SF	SF County TA	San Francisco AB 3090 Replacement Project	TBD AB 3090 Replacement Project
663	SF-050010	94627	SF	SF DPW	San Francisco - 16th Street Rehabilitation	San Francisco: On 16th street from Utah Street to Market Street; Rehabilitate roadway.
664	SF-050011	94627	SF	SF DPW	San Francisco - Valencia Street Rehabilitation	San Francisco: Valencia Street from Cesar Chavez Street to Market Street; Rehabilitate roadway.

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665	SF-050012	21011	SF	BART	St. Charles St. Ped & Bike Project	San Francisco: Daly City BART Station; Constructs key pedestrian/bicycle link between San Francisco and the Daly City BART Station (TLC Project).
666	SF-050013	21011	SF	SF City/County	Broadway Streetscape Improvements, Phase II	San Francisco: Broadway at Columbus Avenue; Streetscape improvements on Broadway, including bulb-outs, trees, pedestrian lighting, crosswalk enhancements (TLC Program)
667	SF-050014	94635	SF	BART	BART/MUNI Direct Connection Platform	BART/MUNI; Embarcadero & Civic Center Stations; Provide a direct connection platform between the BART & MUNI at both stations.
668	SF-050018	94090	SF	Port of SF	Downtown Ferry Terminal Public Pier	Downtown Ferry Terminal Public Pier - Develop a 637-foot public access pier for pedestrians and bicyclists on the recently constructed Ferry Terminal breakwater, begins at the Agriculture Bldg and extends into San Francisco Bay.
669	SF-050019	94090	SF	SF Dept of Park	Shared Lane Pavement Marking	San Francisco: Paint about 1500 bicycle stencils on 21 miles of Class III bicycle routes and provide support for a complementary outdoor education program targeted to both motorists and cyclists.
670	SF-050020	94627	SF	SF DPW	San Francisco - Various Streets Rehabilitation	San Francisco: Rehabilitate various roadways throughout the City including N. Point St. & Monterey Blvd. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
671	SF-050021	94635	SF	BART	Balboa Park Walkway & Access Improv.	San Francisco: Balboa Park BART station; Bike/Ped improvements including walkway, new station entrance, and additional lighting.
672	SF-050022	22481	SF	Caltrain	Downtown SF Bikestation Operations	Caltrain: downtown San Francisco Station; Provide three years of start-up operations costs for new attended bicycle facility.
673	SF-050023	94090	SF	Port of SF	Illinois St. Bridge Bike/Ped Improvements	San Francisco: On Illinois St. Bridge; Provide Bike/Ped. improvements for better access to downtown S. F. Construct approx 700 feet of bike lanes and sidewalks to the N & S of the new bridge.
674	SF-050024	94636	SF	MUNI	Wayside Train Control	Muni: Replace or rehabilitate elements of the Wayside Train Control system.
675	SF-050025	94636	SF	MUNI	Flynn Facility Ventilation	Muni: Replace the ventilation system at Flynn Maintenance Facility.
676	SF-050026	94636	SF	MUNI	Escalator Rehabilitation	Muni: Replace 28 escalator at 7 stations in the Muni Metro System.
677	SF-050027	94636	SF	MUNI	Trolley Coach Rebuild	Muni: Rehab components on the 60-New Flyer Articulated Trolley Coaches.
678	SF-050028	94636	SF	MUNI	Facility Safety Improvements	Muni: Rehab maintenance facilities for employee safety, including Eye Wash Station, Pit Drain pump Systems, Pit Safety Net Improvements, Motive Power Emergency Lights, etc.
679	SF-050029	21502	SF	SF City/County	Pine Lake Trail Improvement Project	San Francisco County: Pine Lake Park; Rehabilitate, construct lake overlook, control trailside erosion, re-vegetation and construct temporary fencing and interpretive signage.
680	SF-050030	94090	SF	SF City/County	Ped. Safety & Education Prog.	San Francisco: Citywide; Campaign to improve Pedestrian Safety and Access through Education strategies.
681	SF-050031	94090	SF	SF DPW	Stockton Tunnel Lighting & Ped. Imprv.	San Francisco: On Stockton Street tunnel from Sacramento to mid-block between Bush and Sutter Streets; Install continuous row of pedestrian-oriented fixtures in the tunnel to illuminate sidewalks.
682	SF-050032	21533	SF	SF City/County	Van Ness Avenue Enhancement Project	San Francisco: Along the Van Ness Ave Corridor; Install streetscape elements, including trees, planters, improved pedestrian lighting, hanging baskets, and center median improvements.
683	SF-050033	94636	SF	MUNI	Light Rail Vehicle Safety Modifications	Muni: Rehabilitate and modify Breda LRV fleet.
684	SF-050034	94636	SF	MUNI	Light Rail Vehicle Overhaul Program	Muni: Systematic overhaul of all light rail vehicles components in agency fleet.
685	SF-050035	94636	SF	MUNI	Replace Miscellaneous Equipment	Muni: Replacement of miscellaneous maintenance, operations, and administrative equipment.
686	SF-050036	94636	SF	MUNI	Potrero-Presidio Fall Protection System	Muni: Install safety cable system for maintenance personnel working on top of trolley coach vehicles.
687	SF-050037	94636	SF	MUNI	Subway Fire Alarm & Detection Systems	Muni: At West Portal, Forest Hill, Castro, Church and Van Ness muni-only stations; Replace existing fire alarm and fire detection systems.
688	SF-050038	94636	SF	MUNI	Potrero/Presidio - Trolley Coach Lifts	Muni: Potrero and Presidio Maintenance Facilities; Install lifts.

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689	SF-050039	94636	SF	MUNI	Glen Park Inter-modal Facility	Muni: Glen Park Facility; Transit connectivity enhancements to improve connections between Muni and BART.
690	SF-050040	94138	SF	SF City/County	San Francisco - Cortland Avenue Rehabilitation	San Francisco: Cortland Avenue from Prospect Avenue to Peralta Avenue; Rehabilitate roadway.
691	SF-050041	94627	SF	SF City/County	South of Market Various Streets Rehab.	San Francisco: Third St from Brannan to King, Fifth St from Mission to Townsend, Seventh St from Market to Townsend, & Howard St from Sixth to Van Ness; Rehabilitate roadway.
692	SF-050042	21533	SF	SF City/County	San Francisco Street Improvements Program	San Francisco: Citywide; Implement street improvement Program, including greening, streetscape and sidewalk reconstruction.
693	SF-050043	22244	SF	MTC	City CarShare Pilot Program	City and County of San Francisco; Expand car sharing services to serve low and moderate-income neighborhoods (Project is Con Phase Only).
694	SF-050044	94078	SF	SF County TA	S.F. Value Pricing Study & Pilot	San Francisco: Downtown; Conduct a feasibility study for an area road charging project as well as a study and initial pilot of a parking assessment program to be implemented citywide.
695	SF-050045	94090	SF	Natl Park Svc	Trails & Bikeways	San Francisco: Golden Gate Natl Parks; Rehabilitate trails and sites along the Coastal Trail and connectors in the Golden Gate National Recreation Area Implementing Agency is G.G. Natl. Parks Conservancy.
696	SF-070001	22420	SF	SF County TA	Van Ness BRT Study	San Francisco: Along Van Ness Avenue Corridor; Conduct BRT study to design a bus rapid transit system.
697	SF-070002	22420	SF	SF County TA	Geary Corridor BRT Study	San Francisco: Along the Geary Corridor; Conduct BRT Study to design a bus rapid transit system.
698	SF-070003	22415	SF	MUNI	Historic Streetcar Extension to Fort Mason	San Francisco: From Fisherman's Wharf through National Park Service lands in Aquatic Park to Fort Mason; Extend the E-line or the current F-line service.
699	SF-070004	22420	SF	MUNI	Geary Bus Rapid Transit	Muni: On Geary Boulevard; Design and implement a rail-ready BRT project.
700	SF-070005	22420	SF	MUNI	Van Ness Bus Rapid Transit	Muni: On Van Ness Avenue from Mission to North Point; Design and implement a BRT project.
701	SF-070006	22420	SF	MUNI	Mission Bay Trolley Coach Extension	San Francisco: Design and construct extensions of the 22-Fillmore and 30-Stockton or 45-Union/Stockton trolley coach lines into the Mission Bay area.
702	SF-070007	94636	SF	MUNI	Central Control - Facility Replacement	Design and construction of a new central control facility.
703	SF-070008	94636	SF	MUNI	Radio Comm/Computer Aided Dispatch	Muni: Replace the Radio Voice/Data Communications and Computer Aided Dispatch (CAD) systems.
704	SF-070009	21507	SF	Port of SF	Embarcadero Corridor Transportation Improvements	San Francisco: Embarcadero corridor (China Basin & Fisherman's Wharf); Improvements to transit services including signage, parking management strategies, bike/ped improvements & other outreach projects.
705	SF-070010	21507	SF	Port of SF	San Francisco Downtown Ferry Terminal	San Francisco: Downtown Ferry Terminal; Transit improvements including new intermodal transfer areas, ferry facilities, bike/ped improvements, passenger amenities and P.I. provisions.
706	SF-070011	94090	SF	Port of SF	Cargo Way Bay Trail Improvements	San Francisco: Bay Trail on Cargo Way; Construct bike/ped trail to close gap on the region Bay Trail.
707	SF-070012	21507	SF	Port of SF	Fishermans Wharf Ferry Terminal Improvements	San Francisco: Fisherman Wharf at Pier 41 to Pier 45; Implement transit improvements structural improvements, new intermodal transfer areas, ferry facilities, bike/ped improvements etc.
708	SF-070013	21529	SF	Port of SF	Freight Rail Tunnel Modifications	San Francisco: Port of San Francisco; Modify freight rail tunnels to accommodate automobile import business. Project listed for information purposes only.
709	SF-070014	21502	SF	Port of SF	Pier 70 Shoreline Open Space Improvements	San Francisco: Port of San Francisco Pier 70; Implement Shoreline Open Space improvements including a historic preservation 22nd Street connection. Port Project listed for informational purposes only.
710	SF-070015	94090	SF	Port of SF	Mission Bay Shoreline Park Bike/Ped Improvements	San Francisco: Mission Bay Shoreline Park between Pier 50 and Pier 64; Construct bike/ped Trail.

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711	SF-070016	94090	SF	Caltrans	San Francisco Healthy Transportation Network	San Francisco: Healthy Transportation Network - project will use various methods to provide pedestrian and bicycle education and technical assistance.
712	SF-070017	22421	SF	SF Int Airport	Shuttle Bus Clean Air Retrofits	SF International Airport: Retrofit Diesel Buses with Clean Air Devices.
713	SF-070018	94636	SF	MUNI	Compound Fuel Cell Hybrid Bus for 2010	Muni: One-year demonstration project to develop 40-foot fuel cell bus with fuel cell auxiliary power unit coupled with diesel engine.
714	SF-070019	22423	SF	MTC	Lifeline Fastpass Distribution Expansion	Muni: Operating assistance and capital support to expand distribution of MUNI's Lifeline Fast Pass to publicly owned properties at 1440 Harrison and 1 South Van Ness (Lifeline).
715	SF-070020	22423	SF	MTC	Muni - Late Night Service Route 109	Muni: Operating assistance to maintain late night service and more frequent service during peak periods and on weekends between San Francisco and Treasure Island (JARC).
716	SF-070022	22423	SF	MTC	Operating Assistance - Route 29	Muni: Operating assistance for additional two buses for the route 29 service (JARC).
717	SF-070023	22423	SF	MTC	Bayview Hunters Point Community Transportation	San Francisco: Bay View Hunters Point Community; Operating assistance to subsidize transportation services to Community Health Center and the SF Gen. Hospital (JARC).
718	SF-070025	21533	SF	SF City/County	19th Avenue Streetscape Improvements	In San Francisco: Along the 19th Avenue Corridor; Streetscape improvements including landscaping at key intersections, medians, tree and shrub planting, pedestrian bulb-outs, and public art.
719	SF-070027	94078	SF	SF County TA	Yerba Buena Island Ramp Improvements	San Francisco: On east side of the Yerba Buena Island Tunnel at SFOBB; Reconstruct ramps reducing from 6 travel lanes to 4 longer lanes.
720	SF-070029	22008	SF	TBJPA	Transbay Transit Center - TIFIA Loan Debt Service	San Francisco, Transbay Transit Center: TIFIA Load debt service for Ph. 1 & 2.
721	SF-070030	21506	SF	SF County TA	SFgo-Corridor Management	San Francisco: On the US 101 and US 1 corridors; Install new communications network and advanced traffic signal control systems
722	SF-950001	94636	SF	MUNI	SF MUNI Light Rail Vehicle Acquisition	San Francisco: Purchase 136 LRVs to replace the 128 Boeing SLRVs and 8 LRVs.
723	SF-950005	94636	SF	MUNI	SF MUNI Trolley Bus Replacement Program	Muni: Trolley Bus Replacement Program; Purchase 33 artics and 240 standard (89 in FY98/99, 51 in FY99/00, 24 in FY00/01, 14 in FY01/02, and 16 in FY 03.
724	SF-950023	94637	SF	MUNI	Replacement Paratransit Accessible Vans	Muni: Purchase accessible vans to be used by local taxi service providers as part of the ramp taxi program. Accessible van purchase and debit card (11 in 00, 21 in 02).
725	SF-950037	94080	SF	MUNI	SF Muni Rail Replacement Program 1998-20	San Francisco: Muni System; Phased design and replacement of trackway and related systems serving light rail and cable car lines.
726	SF-95037B	94080	SF	MUNI	SF Muni Rail Replacement Program. Part B	San Francisco: Muni System; Phased design and replacement of trackway and related systems serving light rail and cable car lines.
727	SF-970073	94636	SF	MUNI	Cable car vehicle renovation program	San Francisco: Rehabilitate up to four Cable Car vehicles in one year - two undergoing reconstruction, one in major overhaul, and one in minor overhaul.
728	SF-970075	94636	SF	MUNI	Motor Coach Replacement Program (455)	MUNI: Phased replacement of 455 Motor Coaches; 149 in FY98/99, 43 in FY99/00 & 43 in FY00/01 and 63 in FY03.
729	SF-970105	94632	SF	MUNI	3rd St LRT: Ph 1 & Metro E. Rail Facility	San Francisco: Design and construct new light rail line along the eastern side of San Francisco; and design and construct new LRV maintenance facility to support the 3rd Street light rail line.
730	SF-970170	94636	SF	MUNI	SF Muni Trolley Overhead Recon. Program	Muni: Phased design and replacement of the overhead wires and related traction power system serving the light rail and trolley coach lines.
731	SF-990003	94636	SF	MUNI	Global Positioning System	Muni: Global Positioning System, Central Control, and Radio system replacement project.
732	SF-990004	94632	SF	MUNI	Islais Creek Motor Coach Facility	Muni: Islais Creek Motor Coach Facility; Develop a new operating division to replace the Kirkland motor coach operating facility when it is vacated for redevelopment.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
733	SF-990015	98562	SF	SF County TA	SFTA - CMA Planning Activities	San Francisco: Support for CMA Planning Activities. Funding Includes 3% Planning Set-Aside.
734	SF-990022	94636	SF	MUNI	ADA Paratransit operating support	Muni: ADA Paratransit Operating Subsidy.; provides funding for increased van/taxi services to people with disabilities who are prevented from using Muni's fixed route services.
735	SF-991001	94636	SF	MUNI	Woods Maintenance Facility Rehab	San Francisco: Wood Maintenance Facility; replace fuel tanks, piping, electrical systems and vehicle lifts. Repave bus yard, rehab fueling islands and bus wash equipment.
736	SF-991005	94636	SF	MUNI	Potrero Paint & Body Shop Rehabilitation	San Francisco: Rehabilitation of the Potrero Division Paint and Body Shop to accommodate the articulated trolley coach fleet.
737	SF-991027	94090	SF	Caltrain	Caltrain Bike Station (4th/King)	San Francisco: at 4th and King Street: Construct bicycle facility for Caltrain customers.
738	SF-991030	94089	SF	SF County TA	US 101 Doyle Drive Replacement	San Francisco: US 101 (Doyle Drive) from Lombard Street/Richardson Avenue to Route 1 Interchange; Replace/rehabilitate roadway.
739	SF-99T002	94636	SF	MUNI	Cable Car Traction Power & Guideway Rehab	MUNI: Cable Car Traction Power and Guideway Rehab; Repair various guideway and infrastructure & make improvements to the cable car system.
740	SF-99T005	94636	SF	MUNI	Historic Rail Car rehabilitation	Muni: San Francisco; Rehabilitation of historic light rail vehicles for operation.
741	SM-010002	21893	SM	SMCTA	Rt 92 Shoulder Widening & Curve Correction	Half Moon Bay: Rte 92 btw eastern city limits and Pilarcitos Creek; Widen shoulders, straighten curves and improve vertical sight distances. No additional travel lanes.
742	SM-010005	94101	SM	BART	BART SFO Extension Bicycle/Ped Path	Colma, South San Francisco, San Bruno & Millbrae: Above or proximate to the BART SFO Extension alignment; Construct bicycle/pedestrian path.
743	SM-010031	98176	SM	Caltrans	US 101 Auxiliary Lanes - 3rd to Millbrae	Cities of San Mateo & Millbrae: Route 101 from 3rd Ave. in San Mateo to Millbrae Avenue in Millbrae; Construct new Auxiliary Lanes, reconstruct overcrossing & install ramp meters.
744	SM-010043	94101	SM	San Bruno	El Camino Real Pedestrian Improvements	San Bruno: On El Camino Real between Sneath Lane and I-380. Construct pedestrian improvements and install new traffic signal and mid-block crosswalk. MTC Housing Incentive Program (HIP).
745	SM-010047	21606	SM	Caltrans	US 101/Willow Road Interchange Reconstruction	Menlo Park: US 101 at Willow Road Interchange; Reconstruct and reconfigure interchange (No additional travel lanes).
746	SM-010048	94666	SM	SamTrans	Replace Minivans	SamTrans: Replace 21 minivans with 21 similar minivans
747	SM-010054	21626	SM	Caltrain	Tilton-Poplar Grade Separation	City of San Mateo: Caltrain Corridor from Tilton to Poplar Avenues; reconstruction of existing grade separation structures.
748	SM-030001	21608	SM	Caltrans	US 101 Auxiliary Lanes - Marsh Road to SCL County	San Mateo County: On US 101 from Santa Clara County Line to Marsh Road; Construct new Auxiliary Lanes.
749	SM-030002	21626	SM	San Mateo Co	Caltrain Peninsula Grade Separation	Caltrain Peninsula Corridor: Complete grade separations at Poplar Avenue, 25th Avenue and Linden Avenue in San Mateo County.
750	SM-030004	94666	SM	SamTrans	Leased Tire Program	SamTrans: Leased tire program; Replacement tires on all existing fleet.
751	SM-030006	94664	REG	Caltrain	Systemwide Track Rehab & Related Struct.	Caltrain: Replace jointed rail and upgrade existing main line track on the Caltrain Corridor.
752	SM-030010	94666	SM	Caltrain	Systemwide Security	Caltrain: Security enhancements such as the installation of panic buttons, fire alarms, surveillance/communication equipment and site hardening of facilities along the Caltrain Corridor.
753	SM-030014	94102	REG	Caltrain	Rapid Rail Related Projects Pt. II	Caltrain: Various points between San Francisco and San Jose; Rapid Rail Improvements including signals, track expansion, and track rehab.
754	SM-030015	98563	SM	CCAG	Planning, Programming and Monitoring	San Mateo: Planning, Programming and Monitoring (PPM) activities.
755	SM-030018	94666	SM	SamTrans	264 Bus Catalyst Devices	San Mateo; SamTrans: Acquire and install bus catalyst devices on 264 agency buses.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
756	SM-030020	94664	SM	Caltrain	Caltrain Stations - Safety Improvement Program	Caltrain Stations: California Ave., Broadway, Palo Alto, Hillsdale, Burlingame and Atherton; Design & construction of RR crossing with lighting, fences & gates, new outboard platform.
757	SM-030023	94666	SM	SamTrans	Preventive Maintenance	SamTrans: Preventative maintenance program for agency fleet.
758	SM-030025	94664	SM	Caltrain	Overhaul Locomotive	Caltrain: Overhaul of the diesel generators in 18 locomotives (3-1999 Boise & 15-2000 GM - EMD F40 locomotives), which supply electrical power to the passenger rail cars.
759	SM-030026	21626	SCL	Caltrain	Palo Alto ADA Crossing Improvements	Caltrain: Palo Alto Station; ADA accessible pedestrian grade crossing and platform improvements.
760	SM-030027	94664	SM	SamTrans	Maintenance & Op. Equipment Rehab & Replacement	SamTrans: Upgrade, replace or rehab operating equip. including Dynamometer, access card reader system & HVAC system (include. replacement of chiller, ancillary equipment & fall protection system).
761	SM-030028	94664	REG	Caltrain	Caltrain Vintage Rail Cars Replacement	Caltrain: Replace up to 14 1950s 85" single level passenger rail cars with new bi or tri-level passenger rail cars
762	SM-030029	94664	SM	Caltrain	Caltrain Fare Equipment Replacement	Caltrain: Replace wayside fare equipment.
763	SM-030030	94664	SM	Caltrain	S. SF Station Relocation & 4th Track	Caltrain: Construct 4 tracks, grade separate railroad and relocate South San Francisco Station
764	SM-030035	22242	REG	Caltrain	Train Tracking Information System	Caltrain: Procurement and deployment of enhanced dispatching equipment and software with GPS capability. Provision of real time transit information provided at stations and to the public.
765	SM-03006B	94664	REG	Caltrain	Systemwide Track Rehab & Related Struct.	Caltrain: Replace jointed rail and upgrade existing main line track and related civil structures on the Caltrain Corridor.
766	SM-050001	98204	SM	Pacifica	Route 1 Widening	Pacifica: Rte 1 between Fassler Ave. & West Port Dr.; Add an additional lane in each direction.
767	SM-050002	21618	SM	SMCTA	Dumbarton Rail Service	Dumbarton Bridge: ROW procurement to enable rail service over the Dumbarton bridge.
768	SM-050004	94664	SM	Caltrain	Install Crossovers & Control Points	Caltrain: Install up to 16 crossovers at key points on the Caltrain corridor
769	SM-050005	98631	SM	BART	Preventive Maintenance	BART: Systemwide; Preventive Maintenance
770	SM-050006	94662	SM	San Mateo Co	San Mateo County - Various Streets Rehabilitation	Near West Menlo Park: Resurface portions of Alameda de las Pulgas, Valparaiso Ave., Santa Cruz Ave.
771	SM-050007	94662	SM	San Mateo	Alameda De Las Pulgas Road Rehabilitation	Near West Menlo Park: On Alameda de Las Pulgas from Crystal Springs Road to Parrot Drive, and 42nd Avenue to La Casa Avenue; Reconstruction and Rehabilitation.
772	SM-050008	94662	SM	Hillsborough	Hillsborough - Crystal Springs Road Rehabilitation	Hillsborough: On Crystal Springs Road between Tartan Trail Road and El Cerrito Avenue; Rehabilitate and overlay roadway.
773	SM-050009	94662	SM	Daly City	Daly City - Mission Street Rehabilitation	Daly City: On Mission Street from Crocker Avenue to Sears Street; Rehab and overlay roadway. Including median, distinctive crosswalks, traffic signal loops & structural section of bus stops.
774	SM-050010	94662	SM	Pacifica	Pacifica - Palmetto Avenue Rehabilitation	Pacifica: Palmetto Avenue from Esplanade to Bella Vista Ave; Rehab and overlay roadway.
775	SM-050011	94662	SM	Belmont	Belmont - Old County Road Rehabilitation	Belmont: Old County Road between Ralston Avenue and the County of San Mateo limits; Rehab and overlay roadway.
776	SM-050012	94662	SM	Millbrae	Millbrae Avenue Rehabilitation	Millbrae: Millbrae Avenue between Magnolia Avenue and El Camino Real, and Millbrae/Rollins intersection; Rehab and reconstruct
777	SM-050014	94662	SM	Foster City	Foster City - Chess Drive Rehabilitation	Foster City: Chess Drive from Foster City Blvd. to San Mateo city limits; rehab roadway including upgrade or construct sidewalk ramps within project limits.
778	SM-050015	94662	SM	Redwood City	Redwood City - Various Streets Rehabilitation	Redwood City: Various Locations; Rehabilitate and overlay several streets within the City.

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779	SM-050016	94662	SM	Menlo Park	Menlo Park - Sand Hill Road Rehabilitation	Menlo Park: Sand Hill Road between Highway 280 and Santa Cruz Ave; Resurface in both directions.
780	SM-050018	94662	SM	SSF	South San Francisco - Grand Ave Rehabilitation	South San Francisco: Grand Avenue between Chestnut Avenue and Spruce Avenue; Rehab and overlay roadway.
781	SM-050019	94662	SM	East Palo Alto	East Palo Alto - Bay Road Rehabilitation	East Palo Alto: Bay Road Street btw University Ave and Clark/Illinois; Rehab roadway including landscaping & sidewalk improvements, and Traffic Calming.
782	SM-050020	94662	SM	San Carlos	San Carlos - Alameda de las Pulgas Road Rehab	San Carlos: Alameda De Las Pulgas from Eaton Ave. to San Carlos Ave; Rehab and overlay roadway including striping of Class II Bicycle Lanes on roadway.
783	SM-050021	94662	SM	Atherton	Atherton - Valparaiso Avenue Rehabilitation	Atherton: On Valparaiso Avenue and portions of the El Camino Real; Reconstruct and overlay roadway.
784	SM-050022	94662	SM	San Bruno	San Bruno - Various Streets Rehabilitation	San Bruno: Rehabilitate and overlay of various MTS streets within the city of San Bruno.
785	SM-050023	94662	SM	Millbrae	Millbrae - Various Streets Rehabilitation	Millbrae: Rehabilitation and overlay of various MTS roadways within the City of Millbrae. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
786	SM-050026	21011	SM	SSF	San Bruno - S. San Francisco BART Linear Park	South San Francisco: Phase 1 - Btw Orange Ave and San Bruno BART Station. Phase 2 - Btw Orange Ave and Chestnut Ave. Constructs Class 1 bikeway and other intersection safety improvements (TLC Program).
787	SM-050027	21603	SM	Caltrans	US 101/Woodside Interchange Improvement	Redwood City: US101/Woodside; Reconstruct and reconfigure interchange.
788	SM-050028	21602	SM	Caltrans	US 101/Broadway Interchange Improvement	Redwood City: US 101/Broadway Interchange; Reconstruct and reconfigure interchange. Replace existing bridge with a wider bridge structure.
789	SM-050032	94662	SM	San Mateo Co	Guadalupe Canyon Parkway Resurfacing	Brisbane & Daly City: Guadalupe Canyon Parkway from 3000 Ft E. of County Boundary with Price St (in Daly City) to County Boundary W. of Carter Rd (in Brisbane); Resurface Roadway.
790	SM-050033	94662	SM	Brisbane	Brisbane - Bayshore Rehabilitation - Phase 2	Brisbane: Bayshore Blvd between Industrial Way and Guadalupe Canyon Parkway; Rehabilitate roadway.
791	SM-050035	94662	SM	Daly City	Lake Merced Blvd. Bicycle Lane Project	Daly City: On Lake Merced Blvd from John Daly Blvd. to John Muir Drive; Construct bike lanes, curb ramps, signing and striping.
792	SM-050036	94666	SM	SamTrans	Bus Repl: (76) 40" Alt Fuel Vehicles	Samtrans: Replace seventy-six 1993 40 ft Gillig buses with new 40" buses.
793	SM-050037	94666	SM	SamTrans	Replace 19 1999 El Dorado Vans	SamTrans: Replace 19 1999 El Dorado paratransit vans with similar vehicles.
794	SM-050038	94666	SM	SamTrans	Purchase 10 Paratransit Minivans	SamTrans: Replace 10 2002 paratransit minivans with 10 RICON-Activan Minivans.
795	SM-050039	94666	SM	SamTrans	Replace (10) 2001 El Dorados	SamTrans: Replace 10 2001 El Dorado paratransit vehicles with similar vehicles.
796	SM-050040	94664	REG	Caltrain	ADA Operating Set-aside	Caltrain: ADA Paratransit Operating assistance set-aside
797	SM-050041	94664	REG	Caltrain	Signal/Communication Rehabilitation	Caltrain: Rehabilitate existing signal system and upgrade/replace communication equipment.
798	SM-050044	22262	SM	San Mateo Co	US 101 San Mateo Ramp Metering	San Mateo: On US 101 between Route 92 and the Santa Clara County Line; Install traffic control devices for Ramp Metering and initiate ramp metering along the corridor.
799	SM-050045	22247	SM	Atherton	Atherton Channel Trail and Bridge	Atherton: From Holbrook-Palmer Park to Watkins Avenue at Station Lane; Construct new trail and bridge connecting an existing trail.
800	SM-050046	21011	SM	Daly City	Daly City - Mission St. Pedestrian Imps.- Phase I	Daly City: Corner of Mission St. & John Daly Blvd & on Mission St. from John Daly Blvd to Alp St.: Construct transit and pedestrian improvements including crossing and real time transit info. (HIP Program)
801	SM-050047	94667	SM	SamTrans	Replacement of Fare Collection Equipment	Replacement of SamTrans fare collection equipment
802	SM-050048	94667	SM	SamTrans	Park & Ride Lots Rehabilitation	San Trans: Colma & Pacifica Crespi park-n-ride lots; Slurry seal and selective pavement rehabilitation.
803	SM-050049	94667	SM	SamTrans	Service Support Vehicles	Samtrans: Replacement of 15 existing service support vehicles with new vehicles, including extended warranties.
804	SM-050050	94667	SM	Caltrain	Systemwide Security Operating Support	Caltrain: Operating support for system-wide security.

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805	SM-050051	21744	SM	SamTrans	El Camino Real Grand Boulevard Initiative	El Camino Real Corridor: Ped. & transit facility enhancements, streetscape improvements including medians, wider sidewalks, bike routes & improved linkages to transit hubs & downtown.
806	SM-050052	21867	SM	Pacifica	Rt 1 San Pedro Creek Bridge Repl	Pacifica: On State Route 1 at San Pedro Creek; Replace bridge and roadway approaches within Caltrans right of way. No new travel lanes.
807	SM-050053	22247	SM	Millbrae	Millbrae Ave Bike/Ped Bridge	Millbrae: Across US 101 north of and adjacent to the existing Millbrae Avenue bridge; Construct a new 10-ft wide Class 1 mixed-use bike/ped overcrossing.
808	SM-070001	21011	SM	Redwood City	San Mateo - Villa Montgomery Streetscape	Redwood City: Downtown; Streetscape improvements including crosswalks, sidewalk and additional lighting enhancements to the pedestrian route (HIP project).
809	SM-070002	22274	SM	CCAG	San Mateo Countywide ITS Improvements	San Mateo County: County-wide; ITS improvements at various locations in San Mateo County.
810	SM-070003	22274	SM	Caltrans	SR 82-El Camino Real Signal Coordination	Menlo Park and Millbrae: Along El Camino Real; Upgrade traffic signals, controllers and interconnect traffic signals.
811	SM-070004	94662	SM	East Palo Alto	Bay Rd Improvement Phase II & III	E. Palo Alto: On Bay Rd btw University & Fordham (Ph II) & btw Clarke/Illinois & Cooley Landing Ph. III; Improvements including resurface, streetscape, bike lanes, & other improvements. HPP #706 (remainder programmed in SM050019)
812	SM-070005	22247	SM	Belmont	US Hwy 101 Bicycle/Pedestrian Bridge	Belmont: Between Hiller St. and the Belmont Sports Complex Conference Center; Construct a 2,448" bicycle/pedestrian bridge, including bike path approaches and ramps.
813	SM-070006	21867	SM	East Palo Alto	US 101 - University Overpass Bike/Ped Facility	E. Palo Alto: On University Ave across US 101 btw Woodland Ave and Donahoe St; Construct Bike Lane. HPP #3769
814	SM-070008	21619	SM	Caltrain	Caltrain Express: Phase 2	Caltrain Express Phase II; Extend express service including the addition of track capacity in key locations and other related improvements.
815	SM-070009	94662	SM	Daly City	East Market & Hillside Blvd Rehabilitation	Daly City: On East Market Street from 3rd Avenue to Orange Street and on Hillside Boulevard from East Market to Valley Street; Rehabilitate roadways.
816	SM-070010	94662	SM	Foster City	Foster City Boulevard Rehabilitation	Foster City: Foster City Blvd from E. Third Ave to E. Hillsdale Blvd.; Resurface roadway including grinding, adjusting utility frames & grates, & replacing markings & traffic signal detection devices.
817	SM-070011	94662	SM	San Mateo	San Mateo - Poplar Avenue Rehabilitation	San Mateo: On Poplar Ave, from El Camino Real to Amphlette Blvd; Tilton Ave. from Railroad track underpass to Humboldt; Humboldt St, from Tilton Ave to Santa Inez Ave.; Rehabilitate roadway.
818	SM-070012	94662	SM	Foster City	Foster City - Shell Boulevard Rehabilitation	Foster City: On Shell Boulevard from the Shell Blvd. Bridge to Beach Park Boulevard (approx.1,600 ft.); Resurface roadway.
819	SM-070013	94662	SM	Burlingame	Burlingame - Various Streets Rehabilitation	Burlingame: On California Dr. from Dufferin to Millbrae City limit, On Hillside Dr. from El Camino Real to Vancouver & on Rollins Rd. from Oak Grove Ave. to Cadillac Way; Rehab roadways.
820	SM-070014	94662	SM	San Mateo Co	Sam Mateo County - Bay Road Rehabilitation	Near Redwood City: On Bay Road from the County Boundary North of Kaynyne to Second Ave. in the unincorporated areas of Redwood City; Resurface and rehab roadway.
821	SM-070015	94662	SM	Pacifica	Pacifica - Sharp Park Road Rehabilitation	Pacifica: On Sharp Park Road from Gypsy Hill Road to Highway 1; Rehabilitate roadway.
822	SM-070016	94662	SM	Pacifica	Pacifica - Terra Nova Blvd. Rehabilitation	Pacifica: On Terra Nova Blvd from Victoria Way to Everglades Drive; Pavement rehab including grinding, base repair, traffic striping, markings and markers and other miscellaneous work.
823	SM-070017	94662	SM	Pacifica	Pacifica - Oddstad Boulevard Rehabilitation	Pacifica: On Oddstad Blvd from Park Pacifica Drive to Big Bend Drive; Pavement rehabilitation including overlay, grinding, base repair, striping, markings and other miscellaneous work.

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824	SM-070018	94662	SM	San Mateo	San Mateo - J. Hart Clinton Rehabilitation	San Mateo: On J. Hart Clinton Dr. from Norfolk St to Detroit Dr.; Resurface and Rehabilitate roadway including grinding, striping and minor traffic signal upgrades (video detection).
825	SM-070019	94662	SM	Menlo Park	Menlo Park - Oak Grove Avenue Rehab	Menlo Park: Oak Grove Avenue from Laurel Street to Rebecca Lane; Resurface street.
826	SM-070020	94662	SM	Millbrae	Millbrae - Skyline Boulevard Rehabilitation	Millbrae: On Skyline Boulevard between Millbrae Avenue and Larkspur Drive; Remove and replace existing asphalt pavement.
827	SM-070021	94662	SM	Redwood City	Redwood City - Alameda de Las Pulgas/Bay Rd. Rehab	Redwood City: On Alameda de Las Pulgas from Massachusetts Avenue to Eaton Ave. (excluding county area); and on Bay Road from 2nd Ave. to Florence St & Florence St. From Bay Rd. to Marsh Rd.; Overlay and rehab roadway.
828	SM-070022	22423	SM	MTC	San Mateo County - Ways to Work Loan Prog.	San Mateo County: Ways to Work Family Loan Program; Provide low-interest loans to low-income families for expenses that interfere with their ability to maintain self-sufficiency (JARC).
829	SM-070023	22423	SM	MTC	Public Transportation Workshops	San Mateo County: Assistance to conduct workshop to train low-income Spanish and English speaking individuals about effectively use public transportation (JARC).
830	SM-070024	22423	SM	MTC	S. San Francisco - Transportation Assist. Prog.	South San Francisco: Assistance to funds will be used provide emergency taxi vouchers to low-income families and individuals in San Mateo County (JARC).
831	SM-070025	22423	SM	MTC	Fair Oaks Community Shuttle	Redwood City: Operating assistance to implement a pilot shuttle service to connect residents with jobs and services (JARC).
832	SM-070026	22247	SM	San Mateo	San Mateo - Delaware Street Improvement	San Mateo: Delaware St btw Bermuda Dr & Bay Meadows and along between Bay Meadows entrance and Saratoga Dr.; widen portions of roadway and construct concrete sidewalk on other portions.
833	SM-070027	22247	SM	Pacifica	San Pedro Terrace Multi-Purpose Trail	Pacifica: San Pedro Terrace; Construct Class 1, multi-use trail including pavement, shoulders graded under-crossing structure for safe passage under Highway 1.
834	SM-070028	22247	SM	San Mateo Co	Mirada Surf Coastal Bike and Pedestrian Trail	San Mateo County: Near El Granada from Magellan Rd north to Coronado Rd; Construct approx 1/2 mile of Class I multi-use trail.
835	SM-070029	21612	SM	CCAG	Dumbarton Bridge to US101 Connection Study	East Palo Alto: Dumbarton Bridge at US 101; Study of connection between the Dumbarton Bridge and Highway 101. SAFETEA Earmark HPP #3062 (\$400K)
836	SM-070030	21876	SM	BART	Daly City BART Station Improvements	At the Daly City BART station: improve wayfinding signage, bicycle access improvements, and shuttle stop enhancements.
837	SM-970008	94643	SM	Half Moon Bay	Half Moon Bay - SR 92 / Main Street Widening	Half Moon Bay: On Main Street & Route 92 between Route 1 and Half Moon Bay eastern city limits; Widen to 4 lanes, add turn lanes and other roadway improvements.
838	SM-979013	94656	SM	Caltrans	SR 1 Devils Slide Bypass	San Mateo County: SR 1 between 2nd Street in Montara and Linda Mar Boulevard in Pacifica; Construct new bypass with tunnel(s) and approaches.
839	SM-979033	98563	SM	CCAG	SMCCAG - CMA Planning Activities	San Mateo: Support for CMA Planning Activities. Funding Includes 3% Planning
840	SM-990003	94643	SM	Caltrans	On Route 92 Truck Climbing Lane	On Route 92: Near Crystal Springs Reservoir Skyline Blvd (Route 35) to Route 280; Truck climbing lane outside of the urbanized area.
841	SM-990026	94667	SM	SamTrans	ADA Paratransit Operating Subsidy.	SamTrans: ADA Paratransit Operating Subsidy.
842	SM-991118	98184	SM	Caltrans	Rt 280/380 I/C Local Access Improvements	San Bruno: Rt 280/380 Interchange; New local access improvements including road at interchange.
843	SOL010002	98565	SOL	Solano Co TA	Planning, Programming and Monitoring	Solano: Planning, Programming and Monitoring (PPM) activities.
844	SOL010006	94683	SOL	Fairfield	Operating Assistance	Fairfield Transit: Operating Assistance to support transit operations.
845	SOL010007	94683	SOL	Vacaville	Operating Assistance	Vacaville: Operating Assistance
846	SOL010019	94679	SOL	Vallejo	Sereno Transit Center Improvements	Vallejo: Around Sereno Transit Center: Construct pedestrian improvements, (includes ped islands, lighting, landscaping, shelters, etc.). MTC Housing Incentive Program (HIP)

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
847	SOL010021	94139	SOL	Benicia	Benicia - West "K" Street Rehabilitation	Benicia: West "K" Street btw West 9th Street and Military West; Rehabilitate roadway with asphalt overlay.
848	SOL010023	94139	SOL	Fairfield	Fairfield - Hilborn Road Rehabilitation	Fairfield: Hilborn Road between Waterman Blvd. to Martin Road; Rehabilitate roadway.
849	SOL010024	94139	SOL	Solano County	Solano County - Various Streets Rehabilitation	Solano County: Overlay portions of Abernathy Road, Collinsville Road, Foothill Road, Fry Road, Meridian Road, Pleasants Valley Road, Stevenson Bridge Road, Timm Road, and Tremont Road.
850	SOL010026	94139	SOL	Vacaville	Vacaville - Nut Tree Road Rehabilitation	Vacaville: Nut Tree Road from Ulatis Drive to Orange Drive; Rehabilitate roadway.
851	SOL010027	94139	SOL	Vallejo	Vallejo - Lemon Street Rehabilitation	Vallejo: Lemon Street between Sonoma Blvd. and Curtola Parkway; Rehabilitate pavement.
852	SOL010028	94139	SOL	Rio Vista	Front Street Rehabilitation	Rio Vista: Front Street from Main Street to Gertrude Avenue; Pavement overlay and rehab.
853	SOL010030	94138	SOL	CCJPA	Capitol Corridor - Bahia Viaduct Track Upgrade	Solano County: UPRR right-of-way between mileposts 35.7 and 37.1 (westward) on the Cal P Line; Rehab and upgrade the Bahia Viaduct.
854	SOL010031	22985	SOL	Benicia	Benicia Intermodal Transportation Station	Benicia: Along the UPRR tracks; Construct Intermodal Transportation Station.
855	SOL010033	94683	SOL	Vallejo	54 Catalyst Devices Acquisitions	Vallejo: Acquire and install 27 bus catalyst devices .
856	SOL010035	94683	SOL	Vacaville	AVL/Annunciator Technology	Vacaville: Install transit vehicles with current AVL/Annunciator Technology (passenger information system).
857	SOL030001	94148	SOL	Dixon	Dixon Multimodal Transp. Center	Dixon: West B St adjacent to UPRR tracks; design and construct passenger rail station improvements (platform/pedestrian grade separation), Park-n-Ride Lot and building already constructed.
858	SOL030002	21341	SOL	Fairfield	Fairfield/Vacaville Intermodal Rail Station	Fairfield: Capitol Corridor; Construct train station with passenger platforms, pedestrian undercrossing, highway overcrossing, park and ride lot, and other station facilities.
859	SOL030003	21807	SOL	Solano Co TA	I-80/I-680/SR12 North Connector	Fairfield: along the I-80 corridor between SR 12 West and SR 12 East. Construct facility parallel to I-80.
860	SOL030004	21011	SOL	Suisun City	Driftwood Drive Pedestrian Way	Suisun City: Between Main St. & Driftwood Drive; Construct walkways on both sides of Suisun Marina with landscaping.(TLC Project)
861	SOL030006	94675	SOL	Caltrans	SR 37/29 Interchange Landscaping	Vallejo: at SR 37 and SR 29: between Enterprise Street and Diablo Street; Planting and Landscaping along new SR 37 freeway and SR 37/29 interchange (Also see SOL990003).
862	SOL030009	98212	SOL	Fairfield	Rockville Hill Reg. Park Trail	Fairfield: Rockville Hills Regional Park Trail; Construct trail for to allow better access to park by pedestrians, fire prevention resources. Also install signs.
863	SOL030011	94683	SOL	Vallejo	Operating Assistance	Vallejo: Operating assistance for Vallejo Transit fixed route service.
864	SOL030015	94681	SOL	FHWA	San Pablo Bay Entrance Rehabilitation	Solano County; San Pablo Bay: Rehabilitate entrance road 0.6 miles.
865	SOL030016	22712	SOL	Fairfield	FS Transit Regional Express Bus Operations	Fairfield/Suisun Transit: Operating support for the Regional Express Bus service on the Vacaville to Walnut Creek BART (New Service).
866	SOL030018	21017	SOL	Fairfield	24 Bus Catalyst Devices	Fairfield-Suisun Transit: Acquire and install bus catalyst devices on 24 agency buses.
867	SOL030019	94683	SOL	Vallejo	Preventive Maintenance (bus and ferry systems)	Vallejo: Preventative maintenance of agency fleet of buses and ferries.
868	SOL030021	94683	SOL	Vallejo	Ferry Fueling Facility	Vallejo: Construct new fueling facility for ferries at current ferry terminal.
869	SOL030022	94683	SOL	Vallejo	Ferry Major Components Rehabilitation	Vallejo: Replacement of ferry components includes work to replace major structural, mechanical, electrical, and navigation electronic subsystem.
870	SOL030023	94683	SOL	Vallejo	Ferry Fixed Guideway Connectors	Vallejo: Replace floats, gangways, and docks at the Vallejo Ferry Terminal and Maintenance Facility.
871	SOL030026	98168	SOL	Vallejo	Replace 3 1995 Paratransit Vans	Vallejo: Replace 3 1995 Paratransit Vans with similar vehicles.
872	SOL050003	98167	SOL	Caltrans	I-80/I-680 Aux Lanes Improvement Landscaping	Fairfield: I-80/I-680 Connector improvements and auxiliary lanes landscaping.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
873	SOL050004	94675	SOL	Caltrans	Route 37 Planting Mitigation	Vallejo: Route 37 from Napa River Bridge to Diablo St.; Planting Mitigation.
874	SOL050005	94152	SOL	Caltrans	SR 12 Truck Climbing Lane	State Route 12: In Suisun City near Red Top Road; Construct truck climbing lane.
875	SOL050006	22899	SOL	Caltrans	Suisun Valley Rd Bridge Replacement	Suisun City: Suisun Valley Rd at Bridge over Suisun Creek .4 miles West of June Williams Rd; Replace one lane bridge with 2 lane bridge.
876	SOL050007	22703	SOL	Dixon	I-80/Pedrick Road Interchange	Dixon: I-80/Pedrick Road Interchange; Modify/realign existing on/off ramp no new travel lanes.
877	SOL050009	94681	SOL	Dixon	Parkway Blvd/UPRR Grade Separation	Dixon: Parkway Blvd; Roadway Overcrossing of UPRR & Porter Rd (4 lanes); Improve grade crossings ISTEAD demo project.
878	SOL050010	21809	SOL	Dixon	Route 113 Interchange	Dixon: Route 113/I-80; Reconstruct/reconfigure interchange.
879	SOL050011	21809	SOL	Dixon	West A Street Interchange Reconfiguration	Dixon: West A Street; Modify and reconfigure interchange (additional travel lanes)
880	SOL050012	22794	SOL	Vallejo	Vallejo Curtola Transit Center	Vallejo: Vallejo Curtola Transit Center; Construct intermodal facilities for express bus service.
881	SOL050013	22634	SOL	Vacaville	Vacaville Intermodal Station	Vacaville: Vacaville Intermodal Station; Construct Express Bus Intermodal Facilities including parking facilities.
882	SOL050014	94681	SOL	Benicia	Benicia - Columbus Parkway Rehabilitation	Benicia: Columbus Parkway; Rehabilitate roadway.
883	SOL050015	94681	SOL	Fairfield	Fairfield - Pittman Rd & Suisun Valley Rd Rehab	Fairfield: Pittman Road btw I-80 & Central Way and on Suisun Valley Rd btw I-80 & City Limits.
884	SOL050016	94681	SOL	Rio Vista	2nd St and Gardiner Way Rehab	Rio Vista: 2nd Street from Montezuma Hills Road to Main Street and on Gardiner Way from SR 12 to Francis Way; Rehab and overlay roadway.
885	SOL050023	21101	SOL	Vallejo	Vallejo Station Pedestrian Links	Vallejo: York St.; Provide improvements around new transit center, including landscape enhancements, planting, lighting and site furnishing (TLC Project).
886	SOL050024	94861	SOL	Solano County	Vacaville-Dixon Bicycle Route	Vacaville & Dixon; On both sides of Pitt School Road; Construct Class 2 bicycles lanes.
887	SOL050025	94861	SOL	Vacaville	Ulatis Creek Bicycle Path	Vacaville: Ulatis Creek Path from Allison Drive to Ulatis Drive; Construct Class I bike path.
888	SOL050026	94861	SOL	Vacaville	Southside Bikeway	Vacaville: Southside Bike way from Alamo Drive to California Drive; Construct Class I bike path.
889	SOL050027	94861	SOL	Vacaville	Centennial Bike Way	Vacaville: Centennial Park bike path from Browns Valley Parkway to Vaca Valley Parkway; Construct Class I bike path. (6,720 linear feet.)
890	SOL050028	22003	SOL	CCJPA	Benicia Siding Extension	Benicia: Along the Union Pacific Railroad main line at Bahia; Construction of crossover track.
891	SOL050030	22243	SOL	Solano Co TA	Park/Industrial Park and Ride Facility	Benicia: Intersection of Park Road, Industrial Way, and I-680 in Benicia; Construct parking lot and transit transfer area.
892	SOL050031	21807	SOL	Solano Co TA	I-80 HOV lanes in Solano Co.	Suisun City/Fairfield: I-80/I-680 I/C; Construct HOV lane from I-80/I-680/SR12 (Redtop)to Putah Creek.
893	SOL050032	21869	SOL	Vacaville	E. Monte Vista Ave Bridge over Ulatis Creek	Vacaville: East Monte Vista Ave. Bridge over Ulatis Creek; Widen shoulders. No additional lanes. Bridge #23C0146.
894	SOL050033	98212	SOL	Fairfield	Linear Park Trail	Fairfield: Linear Park between North Texas Street and Dover Avenue; Construct 3000 ft segment of multi-use trail.
895	SOL050034	21017	SOL	Benicia	Replace 1, 1997 Cut-away Van	Benicia Transit: Replace 1 1997 cut-away van with similar vehicle.
896	SOL050035	21017	SOL	Benicia	Van Replacement: Purchase (2) Cut-Aways	Benicia Transit: Replace 2 mini cut-aways.
897	SOL050036	21017	SOL	Benicia	Replace (1) 2000 Cutaway Bus	Benicia Transit: Replacement of one cutaway bus with similar vehicle.
898	SOL050037	21017	SOL	Vacaville	Replace (7) 1995 30" Gillig Phantom Buses	Vacaville Transit: Replace (7) 1995 30" Gillig Phantoms with fareboxes and radios with similar vehicles.
899	SOL050038	94683	SOL	Vallejo	Replace 5 1983 40" RTS buses	Vallejo Transit: Replace (5) 40" RTS buses with similar vehicles new buses will include fareboxes, radios and CARB filters.
900	SOL050039	94683	SOL	Vallejo	Replace 10 Paratransit Vans	Vallejo Transit: Replace 10 paratransit vans with similar vehicles.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
901	SOL050040	94683	SOL	Vallejo	Replace 19 40" Gillig buses	Vallejo Transit: Replace nineteen 40-foot 1995 Gilligs buses including fareboxes and radios with similar buses.
902	SOL050041	94681	SOL	Dixon	Dixon - Stratford Ave Rehabilitation	Dixon: Stratford Ave from SR113 to Afton Way; Rehabilitate roadway with overlay plus minor curb gutter repair.
903	SOL050042	94681	SOL	Fairfield	Fairfield - Dickson Hill Road Rehabilitation	Fairfield: Dickson Hill Road between North Texas and Redwood Drive; Rehabilitate roadway including striping, installation of markers, traffic detectors and other curb improvements.
904	SOL050043	94681	SOL	Rio Vista	Drouin Drive and Delta Way Rehabilitation	Rio Vista: On Drouin Drive from Sierra Drive to SR12; Delta Way from Crescent St. to Crescent St; Rehab roadways including overlay, striping and signing.
905	SOL050045	94681	SOL	Vallejo	Vallejo - Admiral Callaghan Lane Rehabilitation	Vallejo: Humboldt St from Lincoln Rd east to Springs Rd and Admiral Callaghan Ln from Tennessee St I-80 onramp to Henry St; Pavement rehab & overlay, sidewalk upgrade, curb ramps, raising manhole covers to grade, signing & striping
906	SOL050046	98212	SOL	Solano County	Old Town Cordelia Enhancements	Cordelia: On Cordelia Rd from Lopes Road to Pittman Road; Transportation enhancement improvements including pedestrian paths, benches etc.
907	SOL050047	94683	SOL	Vallejo	Replace (3) 1987 40" MCI Buses	Vallejo: Replace three (3) 1987 40" MCI buses with similar vehicles, including filters required as mitigation by CARB.
908	SOL050048	98212	SOL	Vallejo	Downtown Vallejo Pedestrian Enh. - Phase I	Vallejo: Downtown Vallejo Sq.; Ped Enhancements including traffic calming, re-striping, diagonal on-street parking, decorative lighting, Brick pavers, street furniture, art, improved signs (HIP Project).
909	SOL050049	94683	SOL	Vallejo	Misc Support Equipment	Vallejo: Procure Miscellaneous support equipment to support agency fleet. Transfer \$40k from SOL991055.
910	SOL050050	94683	SOL	Vallejo	Bus Shelters	Vallejo: Project and install bus shelters throughout agency service area.
911	SOL050051	94681	SOL	Dixon	Dixon - North Fourth St and East "A" St Rehab	Dixon: N. Fourth Street btw East A & East C St: Rehabilitate roadway; East A St btw Second & Fourth St & North Fourth btw East A & East C includes upgrade ramps & minor curb, gutter & sidewalk repairs.
912	SOL050052	94681	SOL	Rio Vista	Rio Vista - Second Street Rehabilitation	Rio Vista: On Second Street from Main to Beach Drive; Install pavement fabric, thin asphalt concrete overlay and re-stripe centerline and legends.
913	SOL050053	94681	SOL	Suisun City	Suisun City - Sunset Ave Rehabilitation	Suisun City: Sunset Ave. from the intersection of Railroad and Sunset to UPRR tracks; repair and reconstruction roadway.
914	SOL050054	94681	SOL	Vacaville	Vacaville - Dobbins St/E Monte Vista Ave Rehab	Vacaville: On the intersection of Dobbins Sts. & E. Monte Vista Ave. (Scope does not include any part of the widening of the bridge over Ulatis Creek).
915	SOL050055	98212	SOL	Fairfield	Downtown Fairfield Pedestrian Project	Fairfield: On Texas Street corridor between State St. and Pennsylvania Ave. and Union St. from Texas to SR12, & other adjoining streets; Various street enhancements including ramps, signs, ped crosswalks & landscape.
916	SOL050056	94681	SOL	Vacaville	Vacaville Regional Transit Center Landscaping	Vacaville: At the Regional Transportation Center between VRTC and I-80; Landscape center.
917	SOL050057	94151	SOL	Vacaville	Jepson Parkway Gateway Enhancements	Vacaville: Art sculptures at Gateway of Jepson Parkway at I-80 & Leisure Town Road.
918	SOL050059	98212	SOL	Vacaville	Nob Hill Bike Path	Vacaville: From Linwood Street to North Orchard Ave. and over Alamo Creek to link Cheyenne Drive to Shady Glen Court; Construct bike/ped path and bridge.
919	SOL050060	22421	SOL	Vacaville	Alternative Fuel Vehicle Incentive Program	Vacaville: Alternative Fuel Vehicle Incentives Program including associated refueling infrastructure.
920	SOL050061	22703	SOL	Solano County	I-80 HOV Lanes Turner Overcrossing	Near Vallejo: Btw SR 37 & Carquinez Bridge and over I-80 on Turner Road; Conduct study to determine the feasibility of constructing HOV lanes & overcrossing over I-80. Env. Phase only.
921	SOL050062	21869	SOL	Rio Vista	SR12-Rio Vista Bridge Study	Rio Vista: Rio Vista Bridge; Preliminary Bridge Study to analyze traffic capacity and realignment alternatives for Bridge - PE Only (See SOL070018 for Construction Phase).

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
922	SOL070002	22703	SOL	Caltrans	Route 80 at Alamo Creek Widening	Route 80: In Vacaville, west of Alamo Creek Bridge to Alamo west-bound on-ramp; Lengthen on-ramp and widen bridge.
923	SOL070012	98212	SOL	Solano County	Cordelia Hill Sky Valley Enhancement Project	Cordelia Hill: Transportation enhancements including upgrade of pedestrian and bicycle corridors.
924	SOL070013	22703	SOL	Vacaville	I-80/505 Weave Correction	Vacaville: At interchange of I-80/505; Correct non-standard weave and construct auxiliary lane on westbound I-80, shoulder improvements and bridge modifications.
925	SOL070014	22701	SOL	Caltrans	I-80/I-680 Mitigation Landscaping	Fairfield: On Route 80 between Green Valley Road and Cordelia Truck Weigh Station; Landscape Mitigation.
926	SOL070015	22423	SOL	MTC	Benicia Vehicle Loan	Benicia: Benicia Community Action Council; Loan program to provide down payments for low-cost vehicles for low-income individuals (JARC).
927	SOL070016	22423	SOL	MTC	Fairfield Transportation Assistance	Fairfield: Community Action Council; Assistance to fund program management for the distribution of transportation vouchers and limited emergency taxi cab vouchers (JARC).
928	SOL070017	22423	SOL	MTC	Solano County Kids Shuttle	Solano County: Kids Xpress; Assistance to provide dedicated children's shuttle service between home, childcare, and schools (JARC).
929	SOL070018	98212	SOL	Suisun City	Central County Bike Gap Closure	Suisun City: Along State Route 12 from Marina Blvd to Amtrak Transit; Extend the bike path for safer access.
930	SOL070019	94662	SOL	Rio Vista	Rio Vista - Signage Improvement Program	Rio Vista: Adopt a new Street Sign standard and replace all the existing signs.
931	SOL070020	22701	SOL	Suisun City	I-80/I-680/SR 12 Interchange Project	Fairfield: Along the I-80 and I-680 corridors btw SR12 West & SR12 East; Rebuild EB truck scales including new braided ramps, construct 4 lane bridge across Suisun creek & reconstruct 80/12 interchange. HPP#1812
932	SOL070021	94139	SOL	Suisun City	Travis AFB: N/S Gates Impr. Project	Fairfield: Vanden Road by Travis Air Force Base; Widen roadway to bring to standard lane width, including shoulder and other safety improvements. No new travel lanes. HPP earmark #3220 (\$3.2M)
933	SOL950024	98168	SOL	Vacaville	Bus maintenance facility upgrades	Vacaville: Bus maintenance & facility upgrades.
934	SOL950035	22629	SOL	Vallejo	Vallejo Ferry Terminal Inter-modal Facility	Vallejo: Baylink Ferry Terminal; Construct new intermodal facility, including additional parking, upgrade of bus transfer facilities, and improvement to pedestrian access.
935	SOL970009	22898	SOL	Dixon	I-80/Pitt School Road Interchange	Dixon: at I-80/Pitt School Road interchange; Install signal at westbound ramp.
936	SOL970020	94681	SOL	Dixon	Two Signals on SR-113	Dixon: SR-113 at West "H" and at Parkway Blvd.; Install traffic signals at intersections.
937	SOL970033	98565	SOL	Solano Co TA	STA - CMA Planning Activities	Solano County: Support for CMA Planning Activities. Funding Includes 3% Planning Set-Aside.
938	SOL97AM70	21017	SOL	Vacaville	Purchase bus shelters	Vacaville: Purchase bus shelters
939	SOL990004	94151	SOL	Solano Co TA	I-80 Reliever Route: Jepson Parkway Project	Fairfield: On Jepson Parkway btw Walters Wy & Cement Hill Rd.; Construct integrated and continuous 4 Ln Roadway (Jepson Parkway Project).
940	SOL990016	21809	SOL	Vallejo	Columbus Parkway Improvements	Vallejo: Columbus Parkway from Ascot to Benicia Rd; Various improvements including installation of sidewalk, curbs, gutters, bike lanes, overlay & roadway widening to 4 lanes.
941	SOL990017	21809	SOL	Vallejo	Broadway Widening: Highway 37 to Mini Drive	In Vallejo: on Broadway between Hwy 37 & Mini Drive; Install sidewalk, curbs, gutters, ramps, bike lanes, widen street from 2 to 4 lanes plus overlay street.
942	SOL990018	22632	SOL	Vallejo	American Canyon Rd overpass Improvements	Vallejo: American Canyon Road overpass at Hwy. 80; capacity and safety improvements.
943	SOL990019	94681	SOL	Vallejo	Mare Island Route 37 Interchange	Vallejo: Mare Island North Gate/Rt 37 Interchange; Various improvements including off ramp improvements & Channelization for modified on-island St. No new travel lanes.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
944	SOL990021	21809	SOL	Vallejo	Mare Island - Azuar Drive improvements	Mare Island: Azuar/Cedar Ave. from G St. to Flagship; Various improvements including sidewalk, curb and gutter, bike lanes, railroad signals, & widen from 2 to 4 lanes.
945	SOL990023	22625	SOL	Fairfield	North Texas St. restoration - Phase 1 & 2	Fairfield: N. Texas St; Relocate roadway 800 ft easterly from I-80 IC, install new connection btw Manuel Campos PkWy & existing bridge, install new I-80 E/B off & on ramps. Ph 2 is const. new bridge.
946	SOL990028	21017	SOL	Fairfield	Automatic Vehicle Locator	Fairfield Transit: Procure Automatic Vehicle Locator System
947	SOL990039	21017	SOL	Vacaville	Preventive Maintenance	Vacaville: Preventive Maintenance Program.
948	SOL990040	94683	SOL	Vallejo	ADA Paratransit Operating Subsidy	Vallejo Transit: ADA Paratransit Operating Subsidy.
949	SOL99004B	94151	SOL	Solano Co TA	I-80 Reliever Route: Vacaville Jepson Pkwy Proj.	Vacaville: Jepson Parkway Project btw I-80 and Vanden & Peadby Roads; Construct integrated and continuous 4 Ln Roadway.
950	SOL991027	94683	SOL	Fairfield	Replace Fixed Route Buses	Fairfield Transit: Replace 2 sets of four (4) 30" local fixed route buses with like buses.
951	SOL991032	22629	SOL	Vallejo	Vallejo Ferry Maintenance Facility	Vallejo: Mare Island Naval Shipyard at Building 165; Construct new maintenance facility for Vallejo Baylink ferry service.
952	SOL991055	94683	SOL	Vallejo	Bus Maintenance Facility Rehab	Vallejo: Rehab Bus maintenance Facility, including: Staging area, building roof, HVAC, electrical, reconfigure/rehab dispatch and driver area, improve maintenance area, pit & equipment.
953	SOL991066	98565	SOL	Solano Co TA	Eastern Solano / SNCI Rideshare Program	Eastern Solano Air Basin (Sacramento Valley Air Basin - Solano/Napa Commuter Info); Encourage ridesharing activities within the Eastern Solano County Region.
954	SOL991068	22795	SOL	Fairfield	Fairfield Transportation Center-Phase II	Fairfield: Fairfield Transit Center; Construct approximately 600 automobile parking spaces and multi-use trail on W. Texas St. Adjacent to FST.
955	SOL991088	94681	SOL	Rio Vista	Drouin Drive Overlay	Rio Vista: Drouin Drive; Overlay and rehab roadway.
956	SOL991091	21011	SOL	Rio Vista	Rio Vista Main St. Improvements	Rio Vista: Main Street; Streetscape improvements to enhance the pedestrian-orientation to complement facade improvements and provide better connection to the waterfront. (TLC Program)
957	SOL991099	21017	SOL	Vacaville	Purchase Transit Maintenance Equipment	Vacaville: Operating assistance to insure all equipment and tools are maintained in a safe & efficient manner. Equipment includes, wrenches, power tools, and all mechanic tools.
958	SOL991101	21017	SOL	Vacaville	CNG Fuel Facility Upgrade	Vacaville: Upgrade and rehab CNG fueling facility including equipment and/or components to insure continued use and safe operation.
959	SOL991103	94675	SOL	Caltrans	Napa River to Route 29 - Planting Mitg.	Vallejo: from Napa River to Sonoma Boulevard (Route 29); Planting mitigation.
960	SON010001	98183	SON	Caltrans	Son 101 HOV - SR 12 to Steele & Steele Lane I/C	Santa Rosa: US 101 from SR 12 to .8 km north of Steele Lane and at US 101/Steele Lane Interchange; construct HOV lanes and modify interchange.
961	SON010002	98154	SON	Caltrans	US 101 - SR 116 to East Washington Aux Lane	Petaluma: on US 101 Between SR 116 and East Washington Avenue; Operational improvements at north end of Marin-Sonoma Narrows prior to hwy widening. Also see SON030001.
962	SON010017	98566	SON	Son Co TA	Planning, Programming and Monitoring	Sonoma: Planning, Programming and Monitoring (PPM) activities.
963	SON010019	98183	SON	Son Co TA	Son 101 HOV - Steele Lane to Windsor	Santa Rosa-Windsor: US 101 btw Steele Lane in Santa Rosa and Windsor River Road in Windsor; Widen from 4 to 6 lanes for High Occupancy Vehicle (HOV) lanes.
964	SON010024	98147	SON	Son Co TA	Son 101 HOV - Redwood Hwy to Rohnert Park Expwy	Petaluma-Rohnert Park: US 101 Btw Old Redwood Hwy in Petaluma & Rohnert Park Expwy; Env studies prior to widening of roadway from 4 to 6 lanes for HOV; purchase of ROW & PS&E.
965	SON030005	21017	SON	Son Co Transit	Preventive Maintenance Program	Sonoma County Transit: Preventive maintenance program for agency fleet.
966	SON030008	98566	SON	SantaRosa Bus	22 Bus Catalyst Devices	Santa Rosa Bus: Acquire and install bus catalyst devices on 22 agency buses.
967	SON030011	94693	SON	SantaRosa Bus	Operating Assistance	Santa Rosa CityBus: Operating Assistance to Transit Agency.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
968	SON030012	94695	SON	SantaRosa Bus	Bus Stop Enhancements	Santa Rosa: Upgrade and improve bus shelters, ADA accessibility, and facility amenities at bus stops including paving.
969	SON030015	94695	SON	Son Co Transit	CNG Bus Purchase	Sonoma County Transit: CNG Bus Purchase
970	SON030016	94695	SON	Son Co Transit	Two CNG Bus Purchase	Sonoma County Transit: Procure two CNG Buses.
971	SON050001	22194	SON	Caltrans	Mark West Creek Bridge	Mark West Creek Bridge: Laughlin Rd/Brickway Blvd Extension; Construct new 2 lane bridge.
972	SON050002	98213	SON	Caltrans	Son 101 HOV - Santa Rosa Bike/Ped Beautification	Santa Rosa: Along US 101 from Earle Street to Bicentennial Way; Widen sidewalk, construct new underpass and other streetscape and lighting improvements.
973	SON050004	94694	SON	Santa Rosa	Santa Rosa/Sebastopol - Various Streets Rehab	Santa Rosa: Various roadways Within City Limits; Rehabilitate and overlay. Project also includes various street rehabilitation projects in Sebastopol to be implemented by Santa Rosa.
974	SON050005	94694	SON	Cotati	Cotati - West Sierra / East Cotati Ave Rehab	Cotati: West Sierra/East Cotati Avenue from Old Redwood Highway to the City Limits (excluding segment between Metteri Lane and BayTree Court); Rehabilitate roadway.
975	SON050006	94694	SON	Healdsburg	Healdsburg Avenue Rehabilitation	Healdsburg: On Healdsburg Ave from Hwy 101/Central exit to Mill St & if funds remain Dry Creek Rd to Foss Creek School; Rehab roadway including AC grinding, overlay; ped-ramp striping & markings.
976	SON050008	94694	SON	Petaluma	Petaluma - S. McDowell and Bodega Ave Rehab	Petaluma: S. McDowell between Lakeville and East Washington on Bodega Avenue between Howard and Webster; Rehabilitate roadway.
977	SON050009	94694	SON	Rohnert Park	Rohnert Park Expressway Rehabilitation	Rohnert Park: Rohnert Park Expressway from the Western City Limits to the to the Eastern City limits; Rehab roadway.
978	SON050011	94694	SON	Sonoma County	Sonoma County - Various Streets Rehabilitation	Sonoma County: Various MTS roadway; Rehabilitate and overlay. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
979	SON050012	94694	SON	City of Sonoma	Sonoma - East Napa Street Rehabilitation	City of Sonoma: East Napa Street from Second to Fifth Streets; Rehab and overlay.
980	SON050013	94694	SON	Windsor	Windsor - Old Redwood Highway Rehabilitation	Windsor: Old Redwood Highway from Shiloh to Pan Adobe; Rehabilitate roadway.
981	SON050014	22001	SON	SMART	SMART Extension to Larkspur or San Quentin	SMART: Cloverdale to San Quentin or Larkspur: Develop/implement commuter passenger rail service.
982	SON050015	22656	SON	Caltrans	US 101/East Washington I/C Reconfiguration	Petaluma: On US 101 at East Washington Interchange: Reconfigure interchange including new ramps.
983	SON050016	21017	SON	Son Co Transit	CNG Bus Purchase	Sonoma County Transit: Acquire replacement CNG powered transit buses.
984	SON050017	98213	SON	Healdsburg	Foss Creek Pathway	Healdsburg: The Foss Creek Pathway; Construct 4.1 mile long Class I and Class II bicycle and pedestrian facility.
985	SON050018	98213	SON	Santa Rosa	SMART Corridor Bike/Ped Trail: Phase 1	Santa Rosa: Within the SMART Corridor; Construct Class I multi-use trail.
986	SON050019	98213	SON	Sonoma County	Old Redwood Highway Bicycle Lanes	Old Redwood Highway between the cities of Healdsburg and Windsor: Construct class II bicycle lanes.
987	SON050021	21017	SON	Son Co Transit	Bus Stop Improvement Project	Sonoma County Transit: Acquire and install new bus stop shelters plus other improvements to bus stops throughout the service area including.
988	SON050023	94572	SON	GGBHTD	Santa Rosa Fuel Tank Replacement	GGBHTD: Replace two underground diesel fuel tanks in Santa Rosa.
989	SON050024	94694	SON	Santa Rosa	Santa Rosa ITS Implementation	Santa Rosa: On College Ave from N. Dutton Ave. to Brookwood Ave; Conduct systems engineering to implement ITS Infrastructure.
990	SON050025	98213	SON	MTC	Smart Regional Bike/Ped Path: Ph. III	Santa Rosa: Between Jennings Ave & Guerneville Rd; Construct Bike/Ped Pathway, including barrier & fencing to separate the pathway from the railroad & other crossing improvements (HIP Project).
991	SON050026	21017	SON	SantaRosa Bus	Preventive Maintenance	Santa Rosa Bus: Preventive Maintenance program for agency fleet.

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
992	SON050027	21017	SON	Caltrans	Surveillance Cameras	Sonoma County Transit: Procure surveillance cameras. Project has ITS component.
993	SON050028	94694	SON	Windsor	Windsor - Conde Lane and Hembree Lane Rehab	Windsor: On Conde Lane West of Armondo to Oldfield and N. of Bell Road to Mitchell Ln. and on Hembree Ln. from N. of Wilson to S. of Northhampton; Rehabilitate roadway.
994	SON050029	94694	SON	City of Sonoma	Sonoma - Andrieux Street Rehabilitation	City of Sonoma: Andrieux Street from Broadway to Fifth Street West; Rehabilitate roadway.
995	SON050030	94694	SON	Petaluma	Petaluma - East Washington and 6th Street Rehab	Petaluma: East Washington between Petaluma River & Howard, 6th Street between "D" and "J" Streets; Rehabilitate roadway.
996	SON050031	94694	SON	Cloverdale	Cloverdale - Jefferson Street Reconstruction	Cloverdale: Jefferson Street between First Street and Third Street; Reconstruct roadway plus repair of existing curb, gutter and sidewalk and installation of pedestrian ramps.
997	SON050032	94694	SON	Cotati	Cotati - Old Redwood Highway South Rehab	Cotati: Approximately 1500 LF of Old Redwood Highway South from Myrtle Avenue to Eucalyptus; Rehabilitate roadway.
998	SON050033	94694	SON	Healdsburg	Healdsburg - Matheson Street Rehabilitation	Healdsburg: Matheson St from Center st to 2nd St.; Overlay roadway, install pedestrian ramps, repair street drainage and re-stripe roadway.
999	SON050034	94694	SON	Rohnert Park	Rohnert Park - Various Streets Rehabilitation	Rohnert Park: Various local roadways; Rehab roadways.
1000	SON050035	94694	SON	Sebastopol	Sebastopol - Various Streets Rehabilitation	Sebastopol: Various local streets; Rehab roadway.
1001	SON050036	94694	SON	Santa Rosa	Santa Rosa - Various Streets Rehabilitation	Santa Rosa: On various roads within City limits; Rehabilitate and overlay roadways.
1002	SON070001	21011	SON	Rohnert Park	Rohnert Park - City Center Plaza Pedestrian Imps	Rohnert Park: On City Center Drive; Construct City Center Plaza to improve mobility and create a pedestrian-friendly main street (TLC Project).
1003	SON070002	98213	SON	Son Co Reg Park	Santa Rosa Creek Trail Reach F	Near Santa Rosa: Willowside Road to Fulton Road; Construct a Class 1 bike path on top of an existing gravel maintenance road/levee used for flood control.
1004	SON070003	98213	SON	Windsor	Windsor Road Pedestrian Enhancements	Windsor: On Windsor Road; Construct streetscape and pedestrian crossing enhancements at four intersections including bulbouts crosswalk lights, curb ramps, landscaping, street lights etc.
1005	SON070004	98147	SON	Son Co TA	Marin/Sonoma Narrows Project	Marin and Sonoma Counties: From SR37 in Novato to Old Redwood Highway in Petaluma; Convert expressway to freeway and widen to 6 lanes for HOV lanes.
1006	SON070005	21011	SON	Windsor	Windsor - Old Redwood Hwy Pedestrian Linkages	Windsor: Old Redwood Highway; Ped Linkages project will construct sidewalk and streetscape, pathway and crossing enhancements (TLC Project).
1007	SON070006	21011	SON	Santa Rosa	Santa Rosa Courthouse Square Enhancements	Santa Rosa: Courthouse Square; Off-Site Improvements and gateway streetscape improvements (TLC Project).
1008	SON070007	21011	SON	Petaluma	Petaluma Blvd. Pedestrian Enhancements	Petaluma: On Petaluma Blvd., btw Washington St. & Lakeville St.; Implement ped. enhancements & traffic calming features including streetlights, trees, lighted crosswalks, bulbout, benches etc (TLC Project).
1009	SON070008	98213	SON	Son Co Reg Park	Bodega Bay Trail Segments 1B and 1C	Bodega Bay: Segments 1B and 1C parallel to Highway 1 from Salmon Creek Village to the southwest boundary; Construct bicycle and Pedestrian Trail (TLC Project).
1010	SON070009	98213	SON	Caltrans	Route 1 Kashaya Pomo Cultural Landscape	Sonoma: By Route 1 at the Kashaya Pomo Cultural Center; Landscape center.
1011	SON070010	98213	SON	Dept Parks&Rec	South Burma Trail Enhancement	Sonoma County: South Burma Trail within Annadel State Park; Re-route roadway, repair roadway and install trail drainage structures.
1012	SON070011	21017	SON	Santa Rosa	Diesel Hybrid Electric Bus Purchase	Santa Rosa City Bus: Expand Bus Fleet by procuring three Diesel Hybrid Electric Buses.
1013	SON070012	21011	SON	Santa Rosa Bus	Downtown Transit Mall Connectivity Improvements	Santa Rosa: Downtown Transit Mall; Various improvements including NextBus LED signage, maps, real-time transit information, kiosks, concessions, improved lighting, benches and public art.
1014	SON070013	21908	SON	NBFS	Ferry Service to Port Sonoma	SW Sonoma County; Port Sonoma; Construct multi-modal transit facility linking Ferry service to passenger rail, bus service, and auto traffic (Env. Phase Only).

	TIP ID	RTP ID	County	Sponsor	Project Name	Project Description
1015	SON950005	22655	SON	Caltrans	Son 101 HOV - Rohnert Park Expwy to Santa Rosa Av	Rohnert Park: US 101 between Rohnert Park Expressway & Santa Rosa Avenue; Widen from 4 to 6 Lanes, Modify Wilfred Avenue Interchange, add Auxiliary lanes and other interchange improvements.
1016	SON970081	98566	SON	Son Co TA	SCTA - CMA Planning Activities	Sonoma County TA: Support for CMA Planning Activities. Funding Includes 3% Planning Set-Aside.
1017	SON970101	94689	SON	Windsor	US 101/Arata Lane Interchange Modifications	Windsor: US 101 at Arata Lane; interchange modifications
1018	SON990001	94165	SON	Caltrans	Son 101 HOV - SR 12 to Steele Lane	Santa Rosa; US 101 from SR 12 to Steele lane; Construct HOV lanes and modify interchanges.
1019	SON991023	94694	SON	Sonoma County	Stony Point Road - Stage 5A	Petaluma: Stony Point Road from Pepper Road to Petaluma City limits; Rehabilitate roadway.
1020	SON991066	94165	SON	Caltrans	Son 101 HOV - Wilfred to SR 12 Planting	Santa Rosa: Wilfred Avenue to Route 12; Planting mitigation for high occupancy vehicle lanes.
1021	VAR030001	94695	REG	Caltrans	Elderly & Persons with Disability Program	Region-Wide: Eld. & Persons with Disabilities. Prog Lump Sum Listing; Project incl. Veh. replacements, minor expansion & office equip. Consist. with 40 CFR Part 93.126, 127, 128 Exempt Tables 2 & 3.
1022	VAR030002	21017	REG	Caltrans	FTA Non-Urbanized Formula Program	FTA Section 5311 Non-urbanized area funding, Non-ITS portion. Lump sum Listing; Projects include operating assistance, capital and preventive maintenance. Consistent with 40 CFT Part 93.126, 127, 129, Exempt Tables 2 and 3.
1023	VAR991003	941001	REG	Caltrans	Lump Sum - Minor Program	Lump sum Minor Program. Includes all FHWA funds (note: excludes park & ride lot minor projects). Minor hwy safety, rehab projects. Consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
1024	VAR991004	94001	REG	Caltrans	Lump Sum - Emergency Response (ER)	Regionwide: Lump Sum Emergency Response at various locations; State hwy projects to repair damage caused by natural disasters, civil unrest, or terrorist acts. Non-capacity increasing projects only.
1025	VAR991005	21013	REG	Caltrans	Lump Sum SHOPP - Bridge Preservation	Lump sum SHOPP: Non-capacity increasing SHOPP Bridge Preservation (including Const, R/W, supporting costs & change orders).
1026	VAR991007	94036	REG	Caltrans	Lump Sum Local - Highway Bridge Program	RegionWide: Lump sum local highway bridge program(HBP) Projects. Project is consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
1027	VAR991008	94001	REG	Caltrans	Lump Sum Local - Seismic Retrofit	Lump sum local seismic retrofit program. Various locations throughout the region. Consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
1028	VAR991009	94001	REG	Caltrans	Lump Sum Local - Railroad Crossings	Lump sum local railroad crossing program. Consistent with 40 CFR Part 93.126, 127, 128, Exempt Tables 2 & 3.
1029	VAR991010	22245	REG	Caltrans	Lump Sum Local - HES and SR2S	Lump sum local Hazard Elimination and Safety (HES)program. At various locations, Hazard Elimination Safety (HES) Projects and Safe Routes to School (SR2S) projects.

APPENDIX **B**
TRAVEL FORECASTING ASSUMPTIONS

Travel Forecasting Assumptions for Conformity Analysis of the 2007 Transportation Improvement Program Amendment 07-06 and Transportation 2030 Plan Amendment

This report documents the travel forecasting assumptions for the 2007 Transportation Improvement Program (TIP) Amendment 07-06 and Transportation 2030 Plan Amendment, and includes the following analysis years: 2006, 2007, 2015, 2025, and 2030. The analysis is based on the “latest planning assumptions” as documented below. In addition, the current conformity analysis also uses the latest upgrades to the MTC travel demand forecast model, which was updated and re-validated to a 2000 base year in Spring 2004.

The vehicle travel forecasts from the MTC travel demand model are then used in conjunction with the California Air Resource Board’s (ARB) motor vehicle emission model (EMFAC2002) to estimate total regional on road motor vehicle emissions.

In preparing these travel forecasts, MTC uses four basic sets of assumptions:

- Pricing Assumptions;
- Travel Behavior Assumptions;
- Demographic Assumptions; and
- Highway and Transit Network Assumptions.

Demographic and detailed highway and transit network definition assumptions are not included in this appendix. The RTP travel forecasts are based on the socio-economic/land use forecast series *Projections 2005*, developed by the Association of Bay Area Governments (ABAG). These projections reflect the new regional “Smart Growth” land use assumptions and have been approved for use in the conformity analysis by the US DOT and EPA, subject to periodic preparation of a monitoring report by ABAG to examine results and review assumptions used in the projections. The projections also reflect the near term effects of the current economic slowdown on job creation in the Bay Area.

Pricing assumptions include projected parking prices; gasoline and non-gasoline auto operating costs; fuel economy; bridge tolls; and transit fares.

Travel behavior assumptions include trip peaking factors, vehicle occupancy factors, and estimates of interregional commuters.

Additional travel forecasting methodology issues are addressed in this report. These are special methodological issues related to air quality and mobile source emissions inventories. The methodology issues include:

- Commercial Vehicle Methodology;
- Speed Post-Processing Methodology;
- Distribution of VMT by Speed Methodology; and
- Adjustment of Regional VMT and Trips.

I. Pricing Assumptions

A. Parking Costs

The MTC demand models were estimated using nominal, or posted parking prices as opposed to actual parking prices. Actual parking prices would be the average parking price paid by a consumer, weighted by those who are subsidized by their employer and those who are not subsidized by their employer. For peak period parking cost, the monthly posted parking price is divided by 22 days per month to derive an average

workday parking cost. The average workday parking cost is then divided by 8 hours to derive an average peak hour parking cost per hour in 1990 cents. In the home-based work mode choice model application, the per hour charge is multiplied by 8 hours, then divided by 2, to derive a per vehicle trip charge. Next, the per vehicle trip charge is divided by the vehicle occupancy so that parking costs are equally distributed between vehicle drivers and passengers.

Base year 2000 and forecast years 2006, 2007, 2015, 2025 and 2030 peak hour parking costs, by the MTC 1454 zone system, are shown in Table 1. Off-peak per hour parking costs –2000, 2006, 2007, 2015, 2025 and 2030 – are shown in Table 2.

The MTC assumption for parking costs is that they will change, in real terms, by the ratio of the net total employment density in the target year to the net employment density in the base year (2000). This differs from previous sets of forecasting assumptions, which used a one to three percent per year growth rate, irrespective of the change in employment density. Peak and off-peak parking costs assumptions are detailed in Table 1 and Table 2, respectively. In looking at Table 1, in travel analysis zone 1, the employment density for year 2000 in San Francisco is 18,378 jobs per 15 acres and grows to 21,553 jobs per 16 acres in year 2030, reflecting a 10 percent increase in employment density. When you multiply this 10 percent growth rate to the peak parking cost of 160 cents per hour in year 2000, this results in 176 cent per hour in year 2030.

MTC staff periodically inventory parking garages throughout the Bay Area to monitor trends in parking prices. The most recent update to this inventory was conducted fall 2000.

Auto Operating Costs

The MTC travel demand models are based on non-linear auto operating costs which vary according to trip speed and distance. As speed increases, the fuel consumption rate (gallons per mile) decreases linearly. As distance increases, the share of “cold start” fuel consumption decreases. This internal model is used to derive trip-specific fuel economy (miles per gallon) which is multiplied by the per gallon gas price to derive per trip gasoline operating cost. A constant non-gasoline operating cost per mile is multiplied by trip distance to get per trip non-gas cost. Total auto operating cost per trip is the sum of the gasoline cost per trip plus the non-gasoline cost per trip plus any bridge tolls or parking charges. Details on the auto operating cost model are included in the BAYCAST Users Guide (August 2004).

The MTC auto operating cost model is based on work conducted by Cambridge Systematics, Inc., as part of the *Urban Transportation Energy Conservation* study, published in 1978 (known as “UTEC”). The UTEC models were also used to derive auto operating costs for the Southern California Association of Governments’ current set of travel demand models.

The basic inputs to the BAYCAST model system, in terms of auto operating cost, are gasoline price (in 1990 constant dollars); the fuel correction factor (to represent fleet turnover and more fuel efficient vehicles); and the non-gasoline operating cost (in 1990 cents per mile.) Data on historical, 1990 to 2003, and assumed future year auto operating costs are detailed in Table 3 and Figures 1 and 2.

The notes to Table 3 indicate some of the major assumptions going into these auto operating cost forecasts. For gasoline prices, MTC uses future gas price estimates provided by the California Energy Commission (CEC) and the US Department of Energy’s Energy Information Administration (EIA). These agencies predict gas prices in the range of \$1.09 per gallon (CEC) to \$1.38/gallon (EIA) (in 1990 constant dollars.) The current assumption for years 2005 through 2025 is that gas prices will remain at their 2000 level, that is, \$1.83 per gallon in current (2000) dollars. Gas prices are reflected through December 2003. However, the gas prices for 2004 are higher than we assumed. The higher costs would suppress vehicle trips; therefore we are taking a conservative approach to the air quality analysis.

MTC is assuming no change in fuel economy relative to 1990. This respects the overall fuel economy trend as established by the US Energy Information Agency (EIA) in their “Household Vehicles Energy Consumption Report” (September 1997.) The EIA found no significant increase in overall passenger vehicle fuel economy between their national surveys conducted in 1988 and 1994. Overall this means that we are projecting that total auto operating cost per mile (gasoline + non-gasoline) will remain at 10.22 cents per mile between 2000 and 2025 (all in 1990 constant dollars).

Table 9 shows the ratio of San Francisco to Los Angeles gas prices between January 2001 and December 2003. Over this time period, San Francisco gas prices have been, on average, four percent higher than Los Angeles gas prices. This is not a significant difference, so the recommendation is to use the CEC statewide gas price forecast unadjusted for Bay Area price differential.

The other key assumption is that non-gasoline operating cost (maintenance and repair, motor oil, parts, accessories) is 40 percent of total auto operating costs. This 40 percent figure is based on US Bureau of Labor Statistics data on consumer expenditures (see Table 4 of the MTC report: *Consumer Price Indices: Bay Area & U.S. Cities: 1950-2001*.) In a typical household, between five and six percent of a household’s expenditures are related to auto operating costs. Gasoline cost has fluctuated from 55.6 percent to 73.5 percent of total auto operating costs over the past twenty years.

Auto ownership costs, which now comprise around 7.3 percent of the average household’s budget, are not used in determining trip running, or variable costs. Auto ownership costs includes the cost of new or used vehicle purchasing and financing, insurance premiums, and vehicle registration and licensing fees. These fixed costs of auto ownership are more important in determining the number and quality of vehicles to own or lease. Given the difficulty in projecting automobile quality and costs, household income is used as a surrogate in predicting auto ownership levels.

C. Bridge Tolls

Bay Area voters approved Regional Measure 2 on the March 2, 2004 general election. This measure increases the toll on all Bay Area state-owned bridges from \$2.00 to \$3.00 as of July 1, 2004. Bay Area state-owned bridge tolls are scheduled to remain at \$3.00 for the duration of the long-range planning period (Table 4, Figure 3)¹. Given an inflation assumption of 3 percent per year, a year 2025 toll of \$3.00 is equivalent to 105 cents in 1990 constant dollars (Table 10). This MTC bridge toll assumption is consistent with the financial forecasting assumptions used in projecting bridge toll revenues.

Note that discounted commute tickets were phased out with the introduction of FASTRAK (electronic toll collection) in 2000 and 2001. FASTRAK tolls were also discounted by 15 percent, but these FASTRAK discounts were discontinued in early 2002.

The Golden Gate Bridge District has also introduced FASTRAK, and has also eliminated commute discounts as of June 2001.

All Bay Area bridges had a standard automobile toll of \$1.00 per crossing in 1990. Commute ticket booklets offered 15 to 32 percent discounts off of the \$1.00 toll, as follows:

¹ On Jan. 1, 2007, a \$1 toll increase became effective on the Bay Area’s seven state-owned toll bridges, increasing toll to \$4. The \$3 bridge toll assumption remains unchanged for this conformity analysis due to very minimal change to the highway network (17 miles, or +0.001%). This unchanged assumption tends to yield higher estimates of VMT and vehicle emissions.

1990 Base Year Bridge Tolls

Bay Area Bridges	Auto Toll	Commute Tickets	Commuter Toll (\$/ticket)	Free Toll for SR3+ During Peak Period?
Antioch	\$1.00	\$27 / 40 tickets	\$0.68	No
Benicia/Martinez	\$1.00	\$27 / 40 tickets	\$0.68	No
Carquinez	\$1.00	\$27 / 40 tickets	\$0.68	No
Richmond/San Rafael	\$1.00	\$34 / 40 tickets	\$0.85	Yes (since 10/89)
Golden Gate	\$1.00	\$20 / 23 tickets	\$0.87	Yes
SF/Oakland Bay	\$1.00	\$34 / 40 tickets	\$0.85	Yes
San Mateo/Hayward	\$1.00	\$34 / 40 tickets	\$0.85	Yes
Dumbarton	\$1.00	\$34 / 40 tickets	\$0.85	Yes

For the state-owned bridges for FY 1989/90, MTC staff calculated an average auto toll weighted on commuter ticket usage and full toll usage, as follows:

Computation of Average Auto Toll, 1989/90

Bay Area Bridges	Commuter Tickets	Total Autos & Trailers	Tickets as % of Total	Average Auto Toll
Antioch	225,569	1,605,516	14%	\$0.96
Benicia/Martinez	3,696,160	13,643,902	27%	\$0.91
Carquinez	4,724,623	17,585,673	27%	\$0.91
Richmond/San Rafael	1,257,179	8,428,199	15%	\$0.95
SF/Oakland Bay	4,227,393	36,521,920	12%	\$0.96
San Mateo/Hayward	1,845,246	12,131,171	15%	\$0.95
Dumbarton	2,085,757	8,381,841	25%	\$0.92

The average toll for the Golden Gate Bridge was 94 cents per revenue vehicle between July and December 1990 (source: Golden Gate Bridge District. Comparative Record of Traffic for the Month of December 1990).

For purposes of travel forecasting, the one-way toll is halved so that both directions on every bridge are allocated one-half of the total average toll. This is a technical necessity to counter the toll collection direction bias.

Note that free tolls for three-or-more person carpools were instituted on the Carquinez Strait bridges (Carquinez, Benicia/Martinez and Antioch) in October 1995. This is the only change in toll assumptions from the 1990 base year. The final tolls used in the 1990 model simulation are as follows:

Bridge Tolls for Travel Forecasting: 1990 Base Year

Bay Area Bridges	Drive Alone & Carpool-2	3+ Carpool	Off-Peak Tolls
Antioch	\$0.48	\$0.48 / \$0.00	\$0.48
Benicia/Martinez	\$0.46	\$0.46 / \$0.00	\$0.46
Carquinez	\$0.48	\$0.48 / \$0.00	\$0.48
Richmond/San Rafael	\$0.48	\$0.00	\$0.48
Golden Gate	\$0.47	\$0.00	\$0.47
SF/Oakland Bay	\$0.48	\$0.00	\$0.48
San Mateo/Hayward	\$0.48	\$0.00	\$0.48
Dumbarton	\$0.46	\$0.00	\$0.46

D. Transit Fares

Year 2004 transit fares are used for all future year forecasts. This means that fares will increase with inflation, so that their real value is not eroded. This assumption is borne out by past fare trends, and reflects the ongoing need for transit operators to periodically adjust their fares to keep up with increased labor costs, maintain their local contribution to capital replacement projects, and pay for increases in the cost of fuel and other supplies.

Base and top end transit fares by Bay Area transit operator, 1970 to 1998, are shown in Table 5. Changes in Bay Area transit operator fares, 1998 to 2004, are summarized in Table 13.

Historical and projected base fares are charted in Figure 4.1 (Muni), Figure 4.2 (AC Transit), and Figure 4.3 (BART). These charts show base transit fares in current and 1990 constant dollars. These charts also show modest real decreases in transit fares for Muni and BART over the 1995 to 2004 time period. The current dollar fares are based on a three percent per year increase in consumer price indices through the Plan forecast period.

Most operators have increased their fares in the past several years due to adverse economic conditions. Transit operator fares were revised to incorporate fares as of March 2004. Table 13 shows the changes in base fares, comparing the previous conformity determination for the RTP (2001 RTP) with the current analysis.

II. Travel Behavior Assumptions

A. Vehicle Peaking Factors

The MTC BAYCAST model system is oriented to the production of daily and AM peak period traffic assignments. In addition, the user can factor the two-hour peak period vehicle trip tables to peak hour tables using peak hour-to-peak period factors by trip purpose.

In contrast to the old MTCFCAST model system, the BAYCAST system directly simulates the number of AM peak period home-to-work vehicle trips, derived from the home-to-work departure time choice model. This is basically a “peak spreading” model that will predict fewer trips in the peak period when congestion levels increase. The standard approach of using fixed shares for all other trip purposes is still needed to augment this new departure time choice model.

Old-style (MTCFCAST) AM and PM peak hour vehicle peaking factors are shown in Table 6.1. New-style (BAYCAST) AM and PM peak period vehicle peaking factors are shown in Table 6.2. The AM peak period is defined as 7:00-9:00 AM. The PM peak period is defined as 4:00-6:00 PM.

As a part of the peak period traffic assignment calibration and validation process, a set of peak period calibration factors were developed. These calibration factors, documented in Table 7, reflect the subregional variation from the regional peaking factors shown in Table 6.2.

Data from the 1990 household travel survey show that the AM peak hour (07:30-08:30) is 58 percent of total vehicle trips occurring in the AM peak period (07:00-09:00) (930,038 vehicle trips / 1,610,546 vehicle trips, from Survey Working Paper #4, page 160, Table 2.3.7A.) So, a rough rule of thumb is to multiply any AM peak (two-hour) period traffic assignment by 0.58 to get a rough estimate of peak hour predicted traffic volumes.

B. Vehicle Occupancy Factors

In the old MTC model system, vehicle occupancy assumptions were important input assumptions to the home-based shop, home-based social/recreation and the non-home-based mode choice model system. These vehicle occupancy assumptions were used, and are still used, for dividing the vehicle trip cost between vehicle drivers and passengers.

All of the new mode choice models either split the number of person trips by vehicle occupancy level (i.e., drive alone, shared ride 2, shared ride 3+), or they split the in-vehicle person trips by vehicle driver and vehicle passenger modes. The issue in auto occupancy forecasting is to ensure that the input occupancy assumption is reasonably consistent with the forecasting output vehicle occupancy rate.

Historical vehicle occupancy rates, from MTC household travel surveys, and BAYCAST predicted vehicle rates for 2000 and 2030, are shown in Table 8.

For the home-based work, home-based shop and home-based social/recreation mode choice models, trips are split by occupancy level (DA, SR2, SR3+). For the three home-based school mode choice models and non-home-based trips, person trips are split into vehicle driver and vehicle passenger. For home-based grade school trips, vehicle driver is not an available mode. This means that the vehicle driver trip for escorting children to school is typically included as a home-based shop/other shared ride 2 or shared ride 3+ trip; the vehicle passenger (the child) is classified as a home-based grade school vehicle passenger trip.

This is complex, but reflects the nature of travel: where persons in a particular vehicle may be traveling to different activities. For example, the parent's trip purpose is to escort the child to school (home-based shop/other); the child's trip purpose is to attend school (home-based school).

Historical and projected vehicle occupancy factors are shown in Table 8. Note that these are not assumptions per se but model simulations.

C. Interregional Commuters

Assumptions about the number of interregional commuters is key in two respects: first, intraregional home-based work productions and attractions need to be adjusted to reflect in-commuting and out-commuting from and to Bay Area jobs and households; second, interregional vehicle trips are needed to augment the intraregional trips included in the standard BAYCAST travel demand models. Interregional trips were updated to reflect Census 2000 journey-to-work data and commuter sketch planning forecasts.

Interregional commuters are estimated by factoring the Census 2000 journey-to-work data file using a 46-by-46 matrix that comprises the 34 Bay Area superdistricts and the 12 Bay Area neighbor counties. These sketch planning commuter forecasts are prepared for the years 2010, 2020 and 2030 and interpolated for intermediate conformity analysis years. The factored year 2030 interregional commuter matrix is used as the basis for estimating background interregional year 2030 daily and peak period vehicle trips. This is basically a "sketch planning" effort to complement the formal models used to predict intraregional personal and intraregional commercial travel. These interregional commuter forecasts are documented in the report "Commuter Forecasts for the San Francisco Bay Area: 1990-2030 (Based on ABAG Projections 2003): Data Summary" published May 2004.

III. Demographic Assumptions

MTC used ABAG's Projections 2005 forecasts (adopted November 2004) for future year population and employment assumptions and for the geographic distributions of residents and jobs throughout the region.

For use in MTC's travel demand model, MTC combines and allocates ABAG's tract-level forecasts to MTC's 1454 regional travel analysis zone system for all years.

IV. Transportation Network Assumptions

A major part of the 2007 TIP Amendment 07-06 and Transportation 2030 Plan Amendment conformity analysis is the definition of highway, transit, and pedestrian/bicycle networks for various analysis years. These networks describe the supply of transportation capacity and various service characteristics that influence travel behavior. The 2006 and 2007 transportation network reflects the projects in the TIP that will be operational in 2006 and 2007. The 2015, 2025, and 2030 networks reflect approved sales tax projects in November 2004 that were shifted into the financially constrained element of Transportation 2030 Plan. Projects assumed in the transportation network for the various analysis years are listed in Appendices B of the conformity report.

Transit operator service levels have significantly changed between 2000 and 2004, due to the economic decline and the need to reduce service on some routes. The most extensive service level changes were to SamTrans and AC Transit District (Newark, Union City routes), Golden Gate and SCVTA. In the most recent conformity analysis (Transportation 2030 Plan and 2005 TIP/Amendment #05-05), 2004 service levels are used in the baseline networks. The transit network used in the forecasting assumptions for this conformity analysis has not changed from the Transportation 2030 Plan and 2005 TIP/Amendment #05-05 conformity analysis.

V. Commercial Vehicle Methodology

The MTC BAYCAST commercial vehicle models are based on the truck trip generation models developed for Caltrans and Alameda County as part of the 1992 I-880 Intermodal Corridor Study; and truck trip distribution models documented in the 1996 report "Quick Response Freight Manual" produced by the US Department of Transportation (usable truck trip distribution models were not developed for the I-880 Intermodal Corridor Study).

These truck models are specifically limited to larger trucks of six-or-more tires. There are three sub-purposes to the MTC truck models: 1. "Small Trucks" (two-axle, six-tire vehicles); 2. "Medium Trucks" (three-axle vehicles); and 3. "Combination Trucks" (four-or-more axle vehicles).

Beginning in 2004, MTC has introduced a "very small, two-axle four-tire" commercial vehicle truck trip purpose. The "very small truck" trip model is borrowed from the Phoenix, Arizona MPO, as documented in the FHWA "Quick Response Freight Manual." Before 2004, these very small truck trips were indirectly estimated by increasing non-home-based vehicle trips.

The following sidebar summarizes the MTC BAYCAST truck trip generation and distribution models, including the very small truck trip models:

<p><u>Garage-Based Truck Trip Production Models</u></p> <p>Two-Axle Truck Productions = $0.011 * MFGEMP + 0.014 * RETEMP + 0.0105 * SEREMP + 0.046 * OTHEMP$</p> <p>Three-Axle Truck Productions = $0.0014 * MFGEMP + 0.00012 * RETEMP + 0.0037 * OTHEMP$</p> <p>Four--Axle Truck Productions = $0.0044 * MFGEMP + 0.0027 * SEREMP + 0.0084 * OTHEMP$</p> <p><u>Garage-Based Truck Trip Attraction Models</u></p> <p>Two-Axle Truck Attractions = $0.0234 * TOTEMP$</p> <p>Three-Axle Truck Attractions = $0.0046 * TOTEMP$</p> <p>Four--Axle Truck Attractions = $0.0136 * TOTEMP$</p> <p><u>Non-Garage-Based Truck Trip Production & Attraction Models</u></p> <p>Two-Axle Truck Productions and Attractions = $0.0324 * TOTEMP$</p> <p>Three-Axle Truck Productions and Attractions = $0.0039 * TOTEMP$</p> <p>Four--Axle Truck Productions and Attractions = $0.0073 * TOTEMP$</p> <p><u>Very Small Truck Trip Production & Attraction Models</u></p> <p>Productions = $0.251 * TOTHH + 1.110 * AGREMP + 0.938 * MFGEMP + 0.938 * TRDEMP + 0.888 * RETEMP + 0.437 * SEREMP + 0.663 * OTHEMP2$</p> <p>Where:</p> <p>MFGEMP = Manufacturing Employment</p> <p>RETEMP = Retail Employment</p> <p>SEREMP = Service Employment</p> <p>OTHEMP = Other Employment (Wholesale Trade, Agriculture/Mining, Other)</p> <p>AGREMP = Agricultural + mining Employment</p> <p>TRDEMP = Wholesale Trade Employment</p> <p>OTHEMP2 = Other Employment (Agriculture/Mining + Other)</p> <p>TOTEMP = Total Employment</p> <p>TOTHH = Total Households</p> <p><u>Truck Trip Distribution Models: Gravity Models based on AM Peak Period Travel Time</u></p> <p>Two-Axle Truck Trip Distribution Friction Factor: $FF_{ij} = \exp(-0.08 * TT_{ij})$</p> <p>Three-Axle Truck Trip Distribution Friction Factor: $FF_{ij} = \exp(-0.1 * TT_{ij})$</p> <p>Four--Axle Truck Trip Distribution Friction Factor: $FF_{ij} = \exp(-0.03 * TT_{ij})$</p> <p>Very Small Truck Trip Distribution Friction Factor: Built off of NHB trip distribution model</p>

In terms of mobile source emissions inventories, the MTC estimates of mobile source emissions are based on the “default” vehicle type and vehicle technology mix assumed by the California Air Resources Board (CARB) in their EMFAC/BURDEN model series. The CARB assumptions on vehicle type mix are based on the same Caltrans databases and truck counts as used by MTC in model validation, only adjusted by CARB staff to conform to the weight-based vehicle classes needed as input to the EMFAC emission factor models.

VI. Speed Post-Processing Methodology

The MTC BAYCAST models were updated and re-validated to a 2000 base year in Spring 2004. A major part of this effort was the validation of traffic assignments to observed daily traffic volumes, and observed AM peak period traffic volumes and speeds on Bay Area freeways. The model validation work is summarized in an MTC data summary: “2000 Base Year Validation of Travel Demand Models for the San Francisco Bay Area” (May 2004).

Previous conformity analyses required a speed post-processing methodology to correct for overly fast expressway and arterial speeds. This speed post-processing methodology has been eliminated in the current set of forecasts, and replaced with a consistent set of speeds used in all model components. What was formerly the “post-processing” methodology is now the “main processing” methodology. This means that reduced free-flow arterial and expressway speeds that were only incorporated in a post-processing

traffic assignment stage are now used throughout the MTC model system: as inputs to the trip distribution, mode choice, as well as traffic assignment stages.

The standard set of speed-flow models used in the MTC model system includes an MTC variation on the “BPR” curve, and application of the “Akçelik” speed-flow curve documented in previous MTC research. The “MTC Breakdown Curve” is used for freeways and freeway-to-freeway segments; the “Akçelik Curve” is used for expressways, collectors, freeway ramps, major arterials and metered ramps.

MTC assumptions of per lane capacity and free-flow speed are “lookup” tables based on facility type (freeway, major arterial, etc.) and area type (rural, suburban, etc.) Area types are based on “area density,” a combined measure of population and employment density. Current and former sets of free-flow speeds are shown in Table 11.

The following box summarizes the MTC standard and post-processing set of speed-flow models.

MTC Standard & Post-Processing Set of Speed-Flow Models

MTC Breakdown Curve (Freeways & Freeway-to-Freeway Facilities)
 $t = t_o * (1 + 0.20 * ((x)/0.75)^6)$

Akçelik Curve (All Other Facilities)
 $t = t_o + \{0.25 * T * [(x-1) + ((x-1)^2 + (16 * J_a * L^2/T^2))^{0.5}]\}$

where:
t = average travel time per unit distance (hours/mile)
t_o = free-flow travel time per unit distance (hours/mile)
T = flow period, i.e., the time interval in hours during which an average arrival (demand) flow rate, v, persists
Q = capacity
x = the degree of saturation, i.e., v/Q
J_a = the delay parameter (Expressway = 0.2, Collector=1.2, Freeway Ramp=0.17, Major Arterial=0.4, Metered Ramp=0.2)
J_a = the delay parameter (Post-Processing = calculated for each facility type, area type combination, where: J_a = (T_c - T_o)² / L² and “T_c” is the critical speed at V/C ratio of 1.0)
L = Link length (miles)

VII. Adjustment of Regional VMT and Trips Methodology

Regional VMT and engine starts (needed for emission calculations) are forecasted using a combination of output from MTC’s travel demand forecasting model and base year (1999) VMT information provided by the California Air Resources Board (ARB). The ARB base year VMT comes from the State Bureau of Automotive Repair’s (BAR) biennial inspection/maintenance odometer records for registered Bay Area vehicles. MTC then “grows” this VMT consistent with the growth in VMT projected in MTC’s regional travel model forecasts.

The BAR-based VMT will over-estimate Bay Area VMT by including Bay Area-registered vehicle travel occurring outside the nine-county region. The BAR-based VMT method will also not include Bay Area VMT by non-resident vehicular travel occurring inside the nine-county region. ARB considers that these anomalies offset each other, and that the resulting regional VMT level is a conservatively high value. In comparison, MTC estimates 140,116 thousand VMT per weekday in year 2000. The 1999 ARB estimates, based on BAR inspection/maintenance data, showed 157,359 thousand VMT per weekday. For conformity purposes, MTC agreed to follow ARB’s protocol for estimating VMT. Using MTC growth estimation data, the 1999 ARB VMT estimate was adjusted to establish a new 2000 ARB baseline VMT estimate for mobile source emission inventory calculations in the Bay Area. MTC calculated that the ARB estimated VMT in year 2000 is 164,073. For comparative purposes, below is a table showing the differences in MTC and ARB’s VMT estimates from the 2001 RTP and 2007 TIP Amendment 07-06 and Transportation 2030 Plan Amendment.

Base Year 2000, Average Weekday Daily VMT

	2001 RTP	2007 TIP Amendment
ARB	159,642*	164,073
MTC	134, 256	140,116
% Difference	-16%	-15%

*Source: San Francisco Bay Area-EMFAC2000

MTC used the 2000 ARB baseline VMT of 164,073 to develop VMT estimates for the remaining analysis years – 2006, 2007, 2015, 2025, 2030. Annual compounded growth rates were then updated and applied to generate regional VMT totals for this conformity analysis.

Regional VMT Growth Rates for the 2007 TIP Amendment 07-06 and Transportation 2030 Plan Amendment Conformity Analysis

Analysis Year Time Frame	Percentage Change
2000-2006	5.01%
2006-2007	1.04%
2007-2015	11.88%
2015-2025	12.33%
2025-2030	6.32%

Regional engine starts (which generate event-specific emissions) are based on ARB’s estimate of approximately 6.72 to 6.75 engine starts per vehicle per day. This 6.75 engine starts per day value is based on a small-scale survey of instrumented Sacramento-area vehicles conducted by ARB. This contrasts to other Bay Area, California and National surveys that show trip rates ranging from 2.5 to 3.5 vehicle trips per vehicle per day. For more discussion on this engine starts per vehicle issue, see the November 24, 1999 letter from the MTC to the California Air Resources Board (attached). ARB and MTC have also agreed to continue working on this issue.

VIII. Distribution of VMT by Speed Methodology

An important input to ARB’s EMFAC 2002, V2.2 mobile source emissions inventory model are county-level files of the share of vehicle miles travel by speed cohort, by time of day. Data is needed for 13 speed cohorts and 6 time-of-day periods (0000-0600, 0600-0900, 0900-1200, 1200-1500, 1500-1800 and 1800-2400). Regional totals of VMT by the 13 speed cohorts for 2000, 2015, and 2030 are summarized and charted in Table 12. These VMT values include intra-zonal VMT and terminal distance VMT.

It is important to note that these speeds are extracted from the post-processed highway assignments and represent average link speeds. They do not represent the range of actual traffic speeds that may be represented in average link speeds. For example, a 25 mile per hour average link speed on a freeway segment is very congested and represents “stop-and-go” conditions with speeds ranging from 0 to 65 miles per hour. The same 25 mile per hour average link speed on an arterial segment may represent a fairly “steady state” speed on a signal coordinated arterial system.

The first step in preparing the VMT-by-speed share file is the preparation of daily traffic assignments. The daily vehicle trips output from the last mode choice model iteration are split into AM-plus-PM peak period vehicle trips, and off-peak period vehicle trips. The peak period vehicle trips, representing the six peak hours, are assigned “all-or-nothing” to the MTC regional highway network using the post-processed congested speeds. The off-peak period vehicle trips, representing the 18 off-peak hours, are also assigned “all-or-nothing” to the same MTC regional highway network using free-flow speeds.

The “loaded” highway network with AM peak period and daily traffic assignment results are then exported into text files and subsequently imported into SAS (Statistical Analysis System) for further post-processing. Daily assignment volumes are then multiplied by link distance to yield vehicle miles of travel (VMT) by link, which are in turn summarized at the county-of-occurrence by speed-cohort level.

There are three components of regional VMT: interzonal VMT that is assigned to highway networks; intra-zonal VMT that is not assigned to highway networks; and terminal distance VMT that is not assigned to highway networks.

Intra-zonal vehicle trips are not assigned to highway networks. The VMT associated with intra-zonal vehicle trips is derived by exporting the intra-zonal vehicle trips and intra-zonal door-to-door distance data into a format compatible with SAS, and for merging with the daily traffic assignment SAS files. Intra-zonal VMT is approximately 7.2 to 7.5 percent of regional VMT in 2000 and in future years. SAS routines are then used to apply the “terminal distance” vehicle miles of travel to the inter-zonal and intra-zonal VMT. “Terminal distance” VMT is defined as the amount of travel from the “average household” or “average activity location” in a travel analysis zone to the nearest highway link represented in the regional highway networks.

These speed distributions were then applied to passenger cars (PC), light-duty trucks (T1, T2), medium-duty trucks (T3), and motorcycles (mcy) in EMFAC 2002. EMFAC2002 model defaults were used on all other vehicle types and times of day.



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November 24, 1999

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RE: Comments on California's On-Road Motor Vehicle Emissions Inventory

Dear Sirs:

Thank you for this opportunity to comment on the proposed revisions to the California on-road motor vehicle emissions inventory, reflected in the state's EMFAC2000 On-Road Emissions Inventory Estimation Model. MTC staff questions the very high estimate of daily engine starts per vehicle assumed in the EMFAC2000 model system. According to the California Air Resource Board (CARB) documentation, "EMFAC2000 uses a constant number of trips per day (6.7) per vehicle for light-, and medium-duty vehicles...."

1. CARB Methodology. The CARB estimates of engine starts per vehicle is defined as a "key on" event. The estimate of 6.7 daily engine starts per vehicle is derived from a CARB instrumented vehicle study of approximately 100 vehicles in the Sacramento region. We understand that these were "loaner" vehicles as opposed to the survey household's own vehicles. We also understand that only one loaner vehicle per household was provided to the household.
2. Comparison to Federal, State and Local Travel Surveys. The number of estimated vehicle trips per vehicle is a key input assumption in the statewide emissions inventory. MTC understands that the number of engine starts should be somewhat larger than the number of reported vehicle trips. Travel surveys are based on reported vehicle driver trips, and underreporting of vehicle trips is a concern. (MTC estimates a 5.8 percent underreporting of regional vehicle trips in the 1990 Bay Area Travel Survey.) Household surveys conducted at the federal, state and local level suggest a vehicle trip per vehicle level between 2.5 and 3.5 trips per vehicle, per day. This is a major difference from the 6.7 daily engine starts per vehicle estimated by the Air Resources Board.
 - a. Nationwide Personal Transportation Survey (1990). The 1990 NPTS survey, conducted by the Federal Highway Administration, was a telephone survey of 22,000 households during calendar year 1990. According to the 1990 NPTS summary reports, the 93.3 million U.S. households had 165.2 million household vehicles taking over 158.9 billion trips per year in 1990 (1). This yields an average of 961.9 annual vehicle trips per household vehicle, or an average of 2.64 daily vehicle trips per vehicle.
 - b. California Statewide Travel Survey (1991). The California 1991 statewide travel survey was conducted for the California Department of Transportation. Sample size was 13,500 California households for their weekday travel behavior. Caltrans reports a statewide average of 3.6 average weekday daily vehicle trips per vehicle (2). On a sub-state basis, Caltrans report 3.4 average weekday vehicle trips per vehicle in San Francisco and Los Angeles; 3.7 average weekday vehicle trips per

vehicle in the Sacramento region; and a high of 4.4 vehicle trips per vehicle in the Santa Barbara region.

- c. MTC Bay Area Travel Surveys (1965, 1981). The 1965 Bay Area Travel Survey of over 20,000 households indicated an average of 3.24 weekday vehicle trips per vehicle. The 1981 Bay Area Travel Survey, with 6,200 sample households, indicated an average of 3.08 weekday vehicle trips per vehicle (3).
- d. MTC Bay Area Travel Survey (1990). The 1990 Bay Area Travel Survey interviewed 9,359 households on their weekday travel patterns. The MTC 1990 survey shows a total of 4.02 million Bay Area vehicles taking an average 10.91 million vehicle trips per day, yielding an average of 2.72 weekday vehicle trips per vehicle (4).
- e. MTC Bay Area Travel Survey (1996). The 1996 Bay Area Travel Survey of 3,618 households collected data on 18,060 vehicle trips made in 6,550 sample household vehicles. This is an average of 2.76 weekday daily vehicle trips per household vehicle. The following table is a frequency distribution of vehicle trips per vehicle for the 6,550 sample vehicles in the 1996 survey. It is important to note that 32 percent of Bay Area household vehicles were *idle* (no trips were taken) on their assigned travel day.

Trips per Vehicle	Number of Vehicles	Number of Vehicle Trips	Percent of Vehicles
0	2,074	0	32%
1	216	216	3%
2	1,406	2,812	21%
3	620	1,860	9%
4	797	3,188	12%
5	430	2,150	7%
6+	1,007	7,834	16%
Total	6,550	18,060	100%

A second table derived from the 1996 Bay Area Travel Survey is the number of vehicle trips per vehicle made in the household's first and subsequent vehicles.

Vehicle Number	Number of Vehicles	Number of Vehicle Trips	Vehicle Trips per Vehicle
1 st	3,415	11,405	3.34
2 nd	2,099	5,267	2.51
3 rd	717	1,096	1.53
4 th	203	239	1.18
5 th	68	36	.53
6 th	31	14	.45
7 th	16	3	.19
8 th	1	0	.00
Total	6,550	18,060	2.76

The above table is important in showing the decreasing trip frequency for a household's second, third, fourth, etc., vehicles in the household. And in households

where the number of vehicles exceeds the number of vehicle drivers, then the excess vehicles could typically *not* be used on an average weekday.

3. Conclusions MTC is concerned about the use of a 100 sample instrumented vehicle study to represent the trip-making characteristics of Californians. There are unknown biases associated with providing "loaner" instrumented vehicles in place of a household's regular vehicle. The instrumented vehicle study may be useful in understanding the characteristics of vehicle trips (e.g., accelerations, decelerations, speed levels) but may not be an appropriate database for understanding consumer's trip-making characteristics. Our specific recommendations include:
- a. Conduct typical diary-based household survey with instrumented vehicles, to ascertain the relationship between engine starts and reported vehicle trips. This engine start to reported vehicle trip ratio could be used to correct standard household survey data.
 - b. Analyze the various survey databases in terms of: frequency distribution of trips per vehicle; mean trips per vehicle by age of vehicle; mean VMT per vehicle by age of vehicle; average trip length by age of vehicle; and mean trip frequency by first vehicle, second vehicle, etc., in a household.
 - c. Establish peer review panels to understand the characteristics of the various household travel and vehicle surveys being conducted in California and the U.S., to provide independent guidance and oversight on these important issues.

The consequence of using the CARB engine start data would be to overestimate mobile source emissions by potentially large amounts. This, in turn, would affect the emission inventory for all areas of the State and lead to errors in key assumptions underlying the development of new air quality control strategies. We hope there will be time to explore these issues with staffs of the Air Resources Board, the California Department of Transportation, the Federal Highway Administration, and possibly the University of California before the Board adopts the new factors. We further hope that CARB will consider having an additional workshop on EMFAC2000 in Northern California.

Please contact Mr. Chris Brittle, MTC Planning Manager, at (510) 464-7831; or Mr. Chuck Purvis, MTC Senior Transportation Planner, at (510) 464-7731, for more discussion of these issues.

Sincerely,



Steve Heminger
Deputy Executive Director

cc: Bob O'Loughlin, FHWA
Don Reynolds, Caltrans District 4
Tom Perardi, BAAQMD
Rusty Selix, CALCOG

Sources

1. Patricia Hu and Jennifer Young. 1990 NPTS Databook: Nationwide Personal Transportation Survey: Volume II. Federal Highway Administration, Washington, D.C., November 1993, pp. 5-1 and 5-12.
2. Don Ochoa and Les Jones. 1991 Statewide Travel Survey: Final Report. California Department of Transportation, Sacramento, California, December 1993, pp. 79-81.
3. Charles L. Purvis. "Changes in Regional Travel Characteristics and Travel Time Expenditures in the San Francisco Bay Area: 1960-1990" Transportation Research Record 1466 Transportation Research Board, National Academy of Sciences, Washington, D.C., 1994, pp. 99-110.
4. MTC travel survey data are from unpublished tabulations, and from the MTC report "San Francisco Bay Area 1990 Regional Travel Characteristics: Working Paper #4: 1990 MTC Travel Survey" (December 1994.)

Table 1
Peak Parking Cost Assumptions by Bay Area Regional Travel Analysis Zones
Peak Period Parking Costs in 1990 cents per hour

zone	City	Neighborhood	2000	2006	2007	2015	2025	2030	Annual Percent Change, 2000-2030
1	San Francisco	Financial District	160	161	162	176	172	176	0.3%
2	San Francisco	Financial District	160	160	162	176	184	187	0.5%
3	San Francisco	Union Square	160	159	159	176	184	188	0.5%
4	San Francisco	Financial District	140	141	142	153	152	155	0.3%
5	San Francisco	Union Square	140	139	140	162	171	175	0.7%
6	San Francisco	Tenderloin	110	129	130	138	141	142	0.9%
7	San Francisco	Tenderloin	150	169	172	202	209	213	1.2%
8	San Francisco	Tenderloin	85	87	88	99	104	107	0.8%
9	San Francisco	Civic Center	70	68	69	77	81	84	0.6%
10	San Francisco	South of Market	65	74	76	84	87	88	1.0%
11	San Francisco	South of Market	85	97	98	111	112	114	1.0%
12	San Francisco	South of Market	130	133	135	153	169	178	1.1%
13	San Francisco	South of Market	130	133	134	149	164	173	1.0%
14	San Francisco	South of Market	145	148	149	162	178	185	0.8%
15	San Francisco	South of Market	145	148	150	164	179	187	0.9%
16	San Francisco	South of Mission	120	126	129	146	150	156	0.9%
17	San Francisco	South of Mission	80	83	85	96	101	106	0.9%
18	San Francisco	South of Mission	70	72	73	82	87	90	0.8%
19	San Francisco	South of Mission	60	62	64	70	74	78	0.9%
20	San Francisco	South of Mission	60	60	62	69	70	73	0.7%
21	San Francisco	South of Mission	90	91	93	106	110	112	0.7%
22	San Francisco	Embarcadero	140	148	151	163	166	168	0.6%
23	San Francisco	East of Telegraph Hill	120	126	128	135	135	137	0.4%
24	San Francisco	Jackson Square	170	172	174	182	187	189	0.4%
25	San Francisco	Chinatown	170	139	140	146	148	149	-0.4%
26	San Francisco	Chinatown	170	173	174	182	185	186	0.3%
27	San Francisco	Chinatown	170	143	144	150	152	153	-0.4%
28	San Francisco	Nob Hill	110	92	92	98	100	100	-0.3%
29	San Francisco	Nob Hill	110	110	110	118	120	121	0.3%
30	San Francisco	Civic Center	70	71	71	83	94	101	1.2%
31	San Francisco	Polk Gulch	70	73	74	85	94	98	1.1%
32	San Francisco	Polk Gulch	70	70	71	75	79	80	0.4%
33	San Francisco	Polk Gulch	70	71	72	75	72	74	0.2%
34	San Francisco	Polk Gulch	60	46	46	49	54	56	-0.2%
35	San Francisco	Russian Hill	80	88	91	103	104	104	0.9%
36	San Francisco	North Beach	125	127	128	133	127	131	0.2%
37	San Francisco	North Beach	125	126	127	134	139	142	0.4%
38	San Francisco	North Beach	80	81	81	86	93	95	0.6%
39	San Francisco	North Beach	80	81	82	86	100	110	1.1%
40	San Francisco	Fisherman's Wharf	80	86	88	94	98	100	0.7%
41	San Francisco	Fisherman's Wharf	80	82	82	88	88	88	0.3%

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Peak Parking Cost Assumptions by Bay Area Regional Travel Analysis Zones
Peak Period Parking Costs in 1990 cents per hour

zone	City	Neighborhood	2000	2006	2007	2015	2025	2030	Annual Percent Change, 2000-2030
44	San Francisco	Western Addition	55	50	51	55	54	53	-0.1%
45	San Francisco	Western Addition	0	0	0	0	0	0	NA
46	San Francisco	Western Addition	55	54	55	60	49	51	-0.3%
47	San Francisco	Western Addition	0	0	0	0	0	0	NA
48	San Francisco	Western Addition	0	0	0	0	0	0	NA
49	San Francisco	Western Addition	0	0	0	0	0	0	NA
72	San Francisco	Western Addition	0	0	0	0	0	0	NA
73	San Francisco	Western Addition	50	49	49	54	60	58	0.5%
74	San Francisco	Western Addition	25	24	25	27	27	27	0.3%
75	San Francisco	Western Addition	50	49	49	53	48	50	0.0%
76	San Francisco	Western Addition	55	55	55	59	55	58	0.2%
77	San Francisco	Western Addition	55	54	55	60	62	62	0.4%
78	San Francisco	Western Addition	55	53	53	57	87	112	2.4%
79	San Francisco	Hayes Valley	70	69	69	73	75	75	0.2%
80	San Francisco	Hayes Valley	55	45	45	49	60	69	0.8%
81	San Francisco	Buena Vista	35	34	34	37	40	42	0.6%
82	San Francisco	Buena Vista	35	35	35	37	36	36	0.1%
84	San Francisco	Buena Vista	35	35	36	39	43	36	0.1%
85	San Francisco	Buena Vista	55	54	54	58	65	70	0.8%
94	San Francisco	Castro	0	0	0	0	0	0	NA
99	San Francisco	Mission District	0	0	0	0	0	0	NA
100	San Francisco	Mission District	0	0	0	0	0	0	NA
101	San Francisco	Mission District	0	0	0	0	0	0	NA
102	San Francisco	Mission District	0	0	0	0	0	0	NA
103	San Francisco	Mission District	0	0	0	0	0	0	NA
104	San Francisco	Mission District	0	0	0	0	0	0	NA
105	San Francisco	Mission District	35	37	37	42	42	42	0.6%
106	San Francisco	Mission District	35	35	35	39	40	41	0.5%
107	San Francisco	Mission District	35	35	35	38	40	40	0.4%
109	San Francisco	Mission District	50	60	61	70	77	82	1.7%
257	San Mateo	Downtown	0	0	0	0	0	0	NA
258	San Mateo	Downtown	0	0	0	0	0	0	NA
259	San Mateo	Downtown	0	0	0	0	0	0	NA
260	San Mateo	Downtown	0	0	0	0	0	0	NA
314	Redwood City	Downtown	0	0	0	0	0	0	NA
315	Redwood City	Downtown	0	0	0	0	0	0	NA
316	Redwood City	Downtown	0	0	0	0	0	0	NA
326	Redwood City	Downtown	0	0	0	0	0	0	NA
347	Palo Alto	Downtown	9	9	9	10	10	10	0.4%
354	Palo Alto	Downtown	17	17	17	18	18	18	0.2%
355	Palo Alto	Downtown	17	17	17	18	18	18	0.2%

Table 1
Peak Parking Cost Assumptions by Bay Area Regional Travel Analysis Zones
Peak Period Parking Costs in 1990 cents per hour

zone	City	Neighborhood	2000	2006	2007	2015	2025	2030	Annual Percent Change, 2000-2030
356	Palo Alto	Downtown	17	17	17	18	16	16	-0.2%
546	San Jose	Downtown	18	20	20	23	25	26	1.2%
549	San Jose	Downtown	43	43	44	57	83	104	3.0%
556	San Jose	Downtown	33	34	35	40	44	47	1.2%
557	San Jose	Downtown	33	34	35	40	44	48	1.3%
558	San Jose	Downtown	45	46	47	55	61	68	1.4%
560	San Jose	Downtown	29	30	31	41	58	72	3.1%
945	Oakland	Downtown	55	57	57	62	64	66	0.6%
946	Oakland	Downtown	30	32	32	34	35	36	0.6%
967	Oakland	Downtown	30	31	32	34	35	36	0.6%
968	Oakland	Downtown	55	57	57	62	64	66	0.6%
969	Oakland	Downtown	55	56	57	60	60	60	0.3%
970	Oakland	Downtown	55	57	58	67	72	75	1.0%
971	Oakland	Downtown	55	57	57	62	67	71	0.9%
980	Oakland	Downtown	30	30	31	33	35	36	0.6%
981	Oakland	Downtown	55	65	66	72	79	82	1.3%
1007	Berkeley	Downtown	96	101	101	101	104	105	0.3%
1008	Berkeley	Downtown	96	97	97	98	99	100	0.1%
1018	Berkeley	Downtown	96	99	99	101	103	104	0.3%
1019	Berkeley	Downtown	96	98	99	101	102	102	0.2%
1020	Berkeley	Downtown	96	97	97	98	100	100	0.1%
1021	Berkeley	Downtown	50	51	51	51	52	52	0.1%
1027	Berkeley	Downtown	50	50	51	52	53	54	0.3%

Note: Zones are from MTC's 1,454 regional travel analysis zone system.

Table 2
Off-Peak Parking Cost Assumptions by Bay Area Regional Travel Analysis Zones
Off-Peak Period Parking Costs in 1990 cents per hour

zone	City	Neighborhood	2000	2006	2007	2015	2025	2030	Annual Percent Change, 2000-2030
1	San Francisco	Financial District	525	528	532	577	566	577	0.3%
2	San Francisco	Financial District	525	526	530	577	603	614	0.5%
3	San Francisco	Union Square	525	521	523	577	605	618	0.5%
4	San Francisco	Financial District	230	232	233	251	250	255	0.3%
5	San Francisco	Union Square	230	229	231	266	280	288	0.8%
6	San Francisco	Tenderloin	400	469	472	503	511	515	0.8%
7	San Francisco	Tenderloin	440	495	505	592	612	625	1.2%
8	San Francisco	Tenderloin	325	333	336	380	397	409	0.8%
9	San Francisco	Civic Center	115	112	113	126	133	138	0.6%
10	San Francisco	South of Market	200	229	233	260	267	272	1.0%
11	San Francisco	South of Market	190	216	219	249	250	255	1.0%
12	San Francisco	South of Market	570	585	593	671	739	781	1.1%
13	San Francisco	South of Market	570	582	589	654	720	758	1.0%
14	San Francisco	South of Market	600	612	619	672	735	767	0.8%
15	San Francisco	South of Market	600	613	620	677	741	775	0.9%
16	San Francisco	South of Mission	390	411	420	475	487	507	0.9%
17	San Francisco	South of Mission	350	363	371	419	444	463	0.9%
18	San Francisco	South of Mission	200	206	210	233	248	256	0.8%
19	San Francisco	South of Mission	165	171	175	191	204	213	0.9%
20	San Francisco	South of Mission	165	166	169	190	194	201	0.7%
21	San Francisco	South of Mission	260	263	270	307	319	324	0.7%
22	San Francisco	Embarcadero	385	408	414	447	456	463	0.6%
23	San Francisco	East of Telegraph Hill	300	315	320	338	337	343	0.4%
24	San Francisco	Jackson Square	550	558	561	590	605	613	0.4%
25	San Francisco	Chinatown	250	204	206	215	218	219	-0.4%
26	San Francisco	Chinatown	250	255	256	268	272	274	0.3%
27	San Francisco	Chinatown	250	210	212	221	224	225	-0.4%
28	San Francisco	Nob Hill	400	334	336	357	363	365	-0.3%
29	San Francisco	Nob Hill	400	399	402	429	436	439	0.3%
30	San Francisco	Civic Center	95	96	97	113	128	137	1.2%
31	San Francisco	Polk Gulch	95	99	100	115	127	133	1.1%
32	San Francisco	Polk Gulch	95	96	96	102	107	109	0.5%
33	San Francisco	Polk Gulch	75	76	77	80	77	79	0.2%
34	San Francisco	Polk Gulch	75	57	58	61	68	70	-0.2%
35	San Francisco	Russian Hill	80	88	91	103	104	104	0.9%
36	San Francisco	North Beach	175	178	180	186	178	184	0.2%
37	San Francisco	North Beach	175	176	177	188	195	198	0.4%
38	San Francisco	North Beach	330	333	335	356	383	392	0.6%
39	San Francisco	North Beach	330	335	338	356	413	453	1.1%
40	San Francisco	Fisherman's Wharf	260	280	285	306	317	325	0.7%
41	San Francisco	Fisherman's Wharf	400	408	412	439	441	440	0.3%

Table 2
Off-Peak Parking Cost Assumptions by Bay Area Regional Travel Analysis Zones
Off-Peak Period Parking Costs in 1990 cents per hour

zone	City	Neighborhood	2000	2006	2007	2015	2025	2030	Annual Percent Change, 2000-2030
44	San Francisco	Western Addition	75	69	69	75	73	72	-0.1%
45	San Francisco	Western Addition	75	74	75	81	88	93	0.7%
46	San Francisco	Western Addition	75	74	74	82	67	69	-0.3%
47	San Francisco	Western Addition	90	88	89	99	91	97	0.2%
48	San Francisco	Western Addition	90	88	89	99	97	122	1.0%
49	San Francisco	Western Addition	90	88	89	99	93	108	0.6%
72	San Francisco	Western Addition	81	79	80	86	95	94	0.5%
73	San Francisco	Western Addition	90	88	89	96	108	105	0.5%
74	San Francisco	Western Addition	86	84	85	92	92	93	0.3%
75	San Francisco	Western Addition	90	88	89	95	86	90	0.0%
76	San Francisco	Western Addition	90	89	90	96	90	94	0.1%
77	San Francisco	Western Addition	90	88	90	98	102	102	0.4%
78	San Francisco	Western Addition	90	86	87	93	143	183	2.4%
79	San Francisco	Hayes Valley	90	88	89	94	97	96	0.2%
80	San Francisco	Hayes Valley	85	69	69	75	93	107	0.8%
81	San Francisco	Buena Vista	50	48	49	53	57	59	0.6%
82	San Francisco	Buena Vista	50	49	50	53	51	51	0.1%
84	San Francisco	Buena Vista	50	50	51	55	61	52	0.1%
85	San Francisco	Buena Vista	85	83	84	90	101	109	0.8%
94	San Francisco	Castro	45	43	43	49	40	43	-0.2%
99	San Francisco	Mission District	50	61	62	69	57	60	0.6%
100	San Francisco	Mission District	50	49	49	55	59	60	0.6%
101	San Francisco	Mission District	50	46	46	52	51	53	0.2%
102	San Francisco	Mission District	50	49	49	55	62	68	1.0%
103	San Francisco	Mission District	45	43	43	50	55	55	0.7%
104	San Francisco	Mission District	45	43	44	57	56	58	0.8%
105	San Francisco	Mission District	50	53	53	60	61	60	0.6%
106	San Francisco	Mission District	50	50	50	55	57	58	0.5%
107	San Francisco	Mission District	50	49	50	55	57	58	0.5%
109	San Francisco	Mission District	100	119	122	141	153	164	1.7%
257	San Mateo	Downtown	20	20	21	24	26	27	1.0%
258	San Mateo	Downtown	20	21	21	24	27	29	1.2%
259	San Mateo	Downtown	20	20	20	23	25	25	0.7%
260	San Mateo	Downtown	20	20	21	23	27	29	1.2%
314	Redwood City	Downtown	9	9	9	10	10	10	0.4%
315	Redwood City	Downtown	9	9	9	10	11	11	0.7%
316	Redwood City	Downtown	9	10	10	10	12	12	1.0%
326	Redwood City	Downtown	9	9	9	10	10	10	0.4%
347	Palo Alto	Downtown	31	31	31	33	34	34	0.3%
354	Palo Alto	Downtown	61	60	61	63	64	64	0.2%
355	Palo Alto	Downtown	61	61	61	64	64	65	0.2%

Table 2
Off-Peak Parking Cost Assumptions by Bay Area Regional Travel Analysis Zones
Off-Peak Period Parking Costs in 1990 cents per hour

zone	City	Neighborhood	2000	2006	2007	2015	2025	2030	Annual Percent Change, 2000-2030
356	Palo Alto	Downtown	61	62	62	65	59	59	-0.1%
546	San Jose	Downtown	113	123	127	143	156	164	1.2%
549	San Jose	Downtown	73	73	74	96	142	176	3.0%
556	San Jose	Downtown	92	95	97	111	123	132	1.2%
557	San Jose	Downtown	92	95	97	111	124	133	1.2%
558	San Jose	Downtown	194	199	204	236	264	293	1.4%
560	San Jose	Downtown	92	95	97	129	185	230	3.1%
945	Oakland	Downtown	120	124	125	136	140	145	0.6%
946	Oakland	Downtown	75	79	79	84	88	90	0.6%
967	Oakland	Downtown	75	78	79	84	88	89	0.6%
968	Oakland	Downtown	120	124	125	136	139	144	0.6%
969	Oakland	Downtown	120	123	124	132	131	132	0.3%
970	Oakland	Downtown	120	125	127	145	157	163	1.0%
971	Oakland	Downtown	120	123	124	134	146	155	0.9%
980	Oakland	Downtown	120	121	122	131	141	145	0.6%
981	Oakland	Downtown	120	143	144	157	172	179	1.3%
1007	Berkeley	Downtown	32	34	34	34	35	35	0.3%
1008	Berkeley	Downtown	32	32	32	33	33	33	0.1%
1018	Berkeley	Downtown	59	61	61	62	63	64	0.3%
1019	Berkeley	Downtown	26	27	27	27	28	28	0.2%
1020	Berkeley	Downtown	26	26	26	27	27	27	0.1%
1021	Berkeley	Downtown	32	32	32	33	33	33	0.1%
1027	Berkeley	Downtown	32	32	32	33	34	34	0.2%

Note: Zones are from MTC's 1,454 regional travel analysis zone system.

Table 3
Historical and Projected Auto Operating Costs, 1990 - 2030 (Revised March 2006)

Year	Retail Gas Price (Current \$)	CPI	Annual Inflation	Gas Price (1990\$)	Fuel Correction Factor	Fuel Economy (MPG)	Gasoline Operating Cost (¢/mi) (1990\$)	Non-Gas Operating Cost (¢/mi) (1990\$)	Total Auto Operating Cost (¢/mi) (1990\$)
1990	\$1.241	132.1		\$1.241	1.000	21.9	5.67 ¢/mi	3.05 ¢/mi	8.72 ¢/mi
1991	\$1.197	137.9	4.4%	\$1.147	1.000	21.9	5.24 ¢/mi	3.43 ¢/mi	8.67 ¢/mi
1992	\$1.302	142.5	3.3%	\$1.207	1.000	21.9	5.51 ¢/mi	3.57 ¢/mi	9.08 ¢/mi
1993	\$1.299	146.3	2.7%	\$1.173	1.000	21.9	5.36 ¢/mi	3.70 ¢/mi	9.06 ¢/mi
1994	\$1.275	148.7	1.6%	\$1.133	1.000	21.9	5.17 ¢/mi	3.45 ¢/mi	8.62 ¢/mi
1995	\$1.286	151.6	2.0%	\$1.121	1.000	21.9	5.12 ¢/mi	3.57 ¢/mi	8.69 ¢/mi
1996	\$1.434	155.1	2.3%	\$1.221	1.000	21.9	5.58 ¢/mi	3.47 ¢/mi	9.05 ¢/mi
1997	\$1.448	160.4	3.4%	\$1.193	1.000	21.9	5.45 ¢/mi	3.63 ¢/mi	9.08 ¢/mi
1998	\$1.304	165.5	3.2%	\$1.041	1.000	21.9	4.75 ¢/mi	3.17 ¢/mi	7.92 ¢/mi
1999	\$1.514	172.5	4.2%	\$1.159	1.000	21.9	5.29 ¢/mi	3.53 ¢/mi	8.82 ¢/mi
2000	\$1.832	180.2	4.5%	\$1.343	1.000	21.9	6.13 ¢/mi	4.09 ¢/mi	10.22 ¢/mi
2001	\$1.800	189.9	5.4%	\$1.252	1.000	21.9	5.72 ¢/mi	3.81 ¢/mi	9.53 ¢/mi
2002	\$1.599	193.0	1.6%	\$1.094	1.000	21.9	5.00 ¢/mi	3.33 ¢/mi	8.33 ¢/mi
2003	\$1.933	196.4	1.8%	\$1.300	1.000	21.9	5.94 ¢/mi	3.96 ¢/mi	9.89 ¢/mi
2004	\$2.165	198.8	1.2%	\$1.439	1.000	21.9	6.57 ¢/mi	4.38 ¢/mi	10.95 ¢/mi
2005	\$2.522	202.7	2.0%	\$1.644	1.000	21.9	7.50 ¢/mi	5.00 ¢/mi	12.51 ¢/mi
2006	\$2.430	208.2	2.7%	\$1.542	1.000	21.9	7.04 ¢/mi	4.69 ¢/mi	11.74 ¢/mi
2007	\$2.335	213.8	2.7%	\$1.443	1.000	21.9	6.59 ¢/mi	4.39 ¢/mi	10.98 ¢/mi
2010	\$2.358	231.6	2.7%	\$1.345	1.000	21.9	6.14 ¢/mi	4.09 ¢/mi	10.24 ¢/mi
2015	\$2.694	264.6	2.7%	\$1.345	1.000	21.9	6.14 ¢/mi	4.09 ¢/mi	10.24 ¢/mi
2020	\$3.078	302.3	2.7%	\$1.345	1.000	21.9	6.14 ¢/mi	4.09 ¢/mi	10.24 ¢/mi
2025	\$3.516	345.4	2.7%	\$1.345	1.000	21.9	6.14 ¢/mi	4.09 ¢/mi	10.24 ¢/mi
2030	\$4.017	394.6	2.7%	\$1.345	1.000	21.9	6.14 ¢/mi	4.09 ¢/mi	10.24 ¢/mi
2000-2005	\$1.975	193.5	2.7%	\$1.345					
Inflation Assumption (2005 - 2030) =						2.7%			

Notes:

1. Future gas price of \$1.343 (1990 dollars) is equivalent to \$1.83/gallon in 2000 current dollars.
2. Future non-gasoline operating cost based on assumption that it is 60% of auto gasoline cost.
3. No change in overall fleet fuel economy is assumed. This respects the no change in fuel economy trend shown by the US Energy Information Agency (EIA) in their "Household Vehicles Energy Consumption Report" (September 1997).
4. Future year estimates prepared 3/20/2006

Figure 1
Auto Operating Costs (Cents/Mile)
Gasoline and Non-Gasoline Operating Costs, 1990-2030

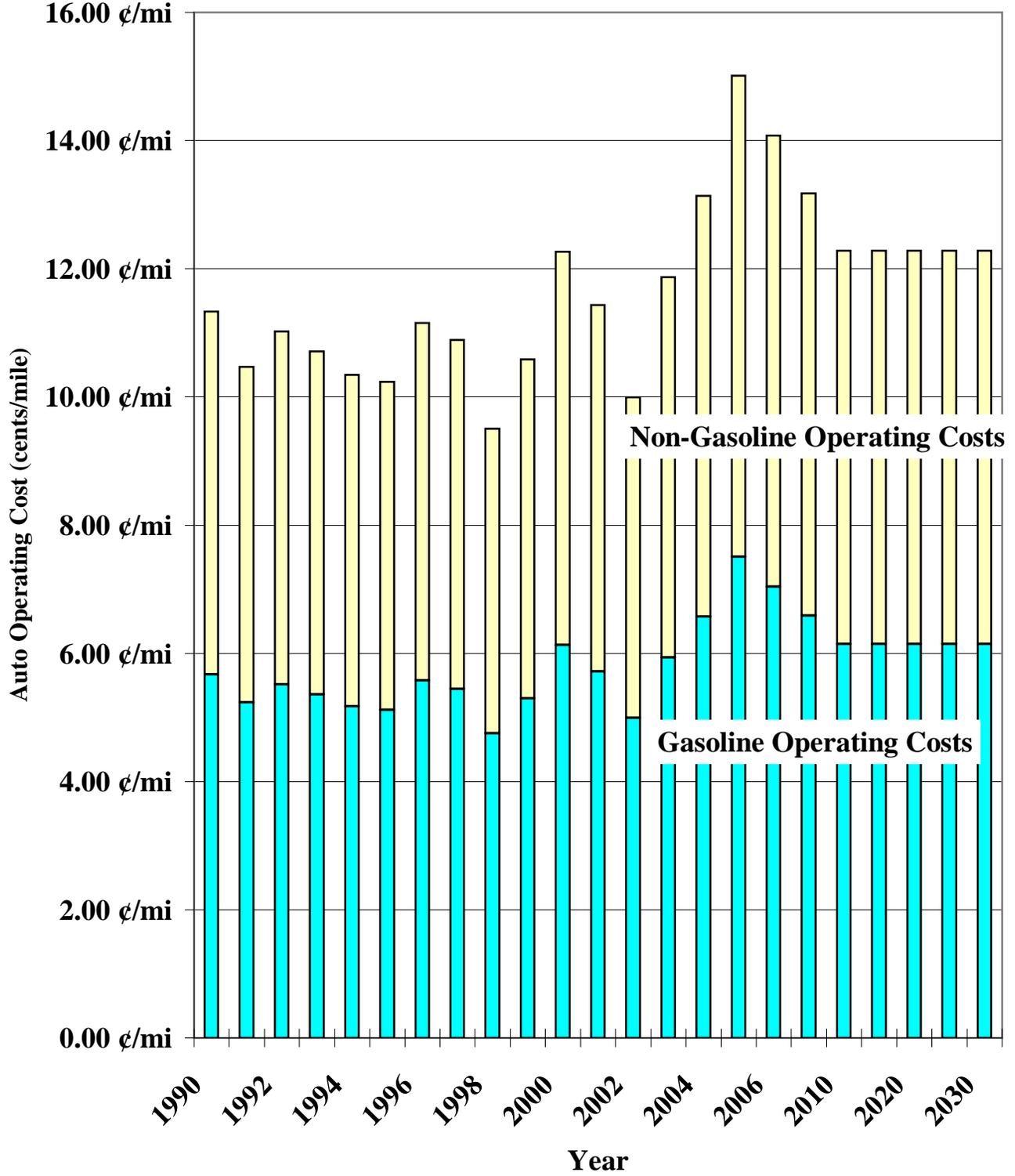


Figure 2
San Francisco Bay Area Gasoline Prices - 1990-2030
Current Dollars and 1990 Constant Dollars

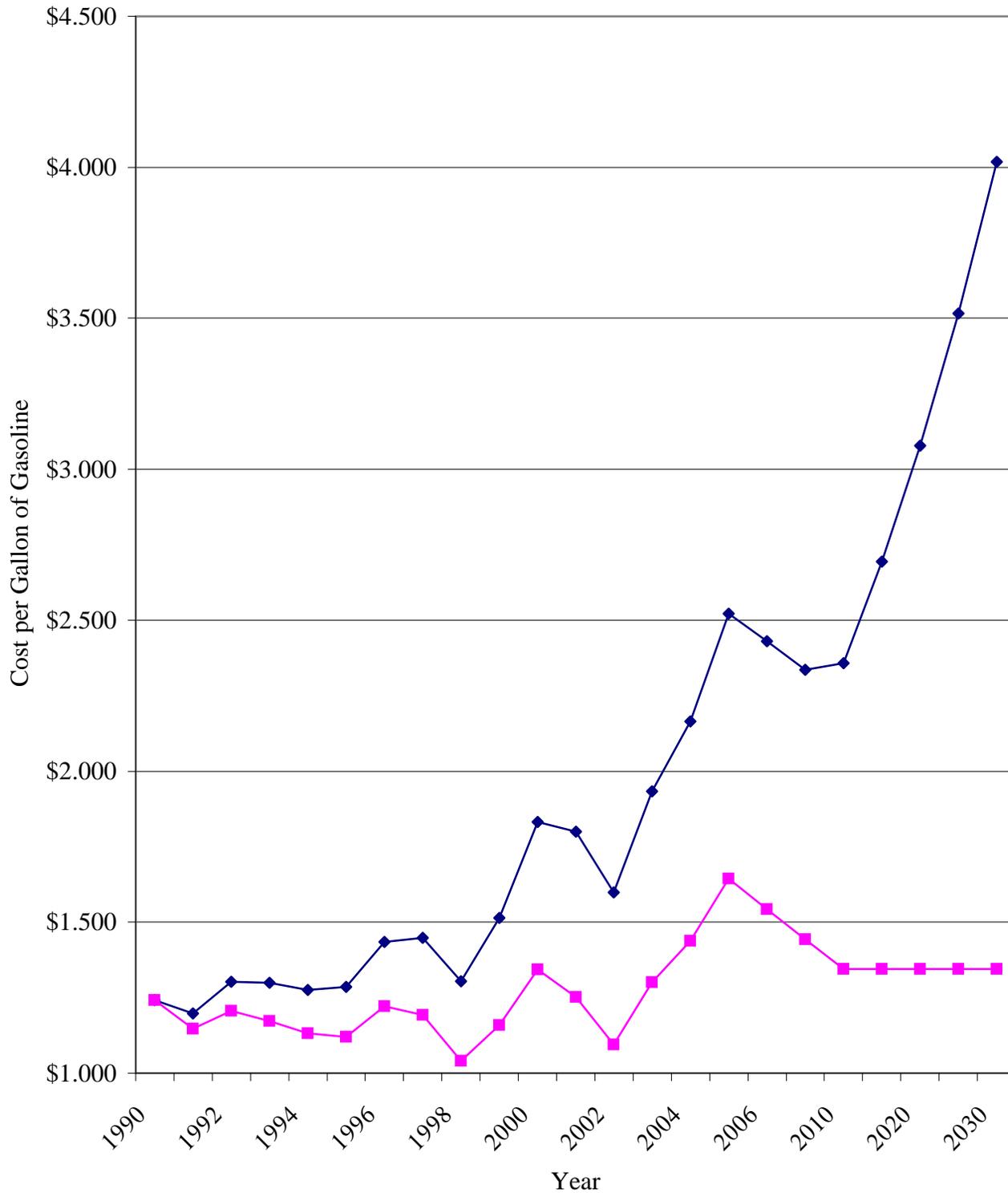


Table 4
Impact of Inflation on Bay Bridge Tolls, 1975 - 2030

Year	CPI-U All Items	San Francisco/Oakland Bay Bridge Toll	
		(current \$)	(1990 \$)
1975	159.1	50¢	41.5¢
1976	168.0	50¢	39.3¢
1977	180.8	75¢	54.8¢
1978	197.8	75¢	50.1¢
1979	214.6	75¢	46.2¢
1980	247.3	75¢	40.1¢
1981	279.0	75¢	35.5¢
1982	300.0	75¢	33.0¢
1983	302.5	75¢	32.8¢
1984	319.8	75¢	31.0¢
1985	333.1	75¢	29.7¢
1986	343.2	75¢	28.9¢
1987	354.7	75¢	27.9¢
1988	370.4	75¢	26.7¢
1989	388.5	100¢	34.0¢
1990	132.1	100¢	100.0¢
1991	137.9	100¢	95.8¢
1992	142.5	100¢	92.7¢
1993	146.3	100¢	90.3¢
1994	148.7	100¢	88.8¢
1995	151.6	100¢	87.1¢
1996	155.1	100¢	85.2¢
1997	160.4	100¢	82.4¢
1998	165.5	200¢	159.6¢
1999	172.5	200¢	153.2¢
2000	180.2	200¢	146.6¢
2001	189.9	200¢	139.1¢
2002	193.0	200¢	136.9¢
2003	196.4	300¢	201.8¢
2004	198.8	300¢	199.3¢
2005	202.7	300¢	195.5¢
2006	208.2*	300¢	190.4¢
2007	213.8*	300¢	185.4¢
2008	219.6*	300¢	180.5¢
2009	225.5*	300¢	175.7¢
2010	231.6*	300¢	171.1¢
2011	237.8*	300¢	166.6¢
2012	244.3*	300¢	162.2¢
2013	250.9*	300¢	158.0¢
2014	257.6*	300¢	153.8¢
2015	264.6*	300¢	149.8¢
2016	271.7*	300¢	145.8¢
2017	279.1*	300¢	142.0¢
2018	286.6*	300¢	138.3¢
2019	294.3*	300¢	134.6¢
2020	302.3*	300¢	131.1¢
2021	310.4*	300¢	127.7¢
2022	318.8*	300¢	124.3¢
2023	327.4*	300¢	121.0¢
2024	336.3*	300¢	117.9¢
2025	345.4*	300¢	114.8¢
2026	354.7*	300¢	111.7¢
2027	364.3*	300¢	108.8¢
2028	374.1*	300¢	105.9¢
2029	384.2*	300¢	103.2¢
2030	394.6*	300¢	100.4¢

* Assumes 2.7% per year annual inflation

Figure 3
Bay Bridge Tolls
1990 and Current Dollars

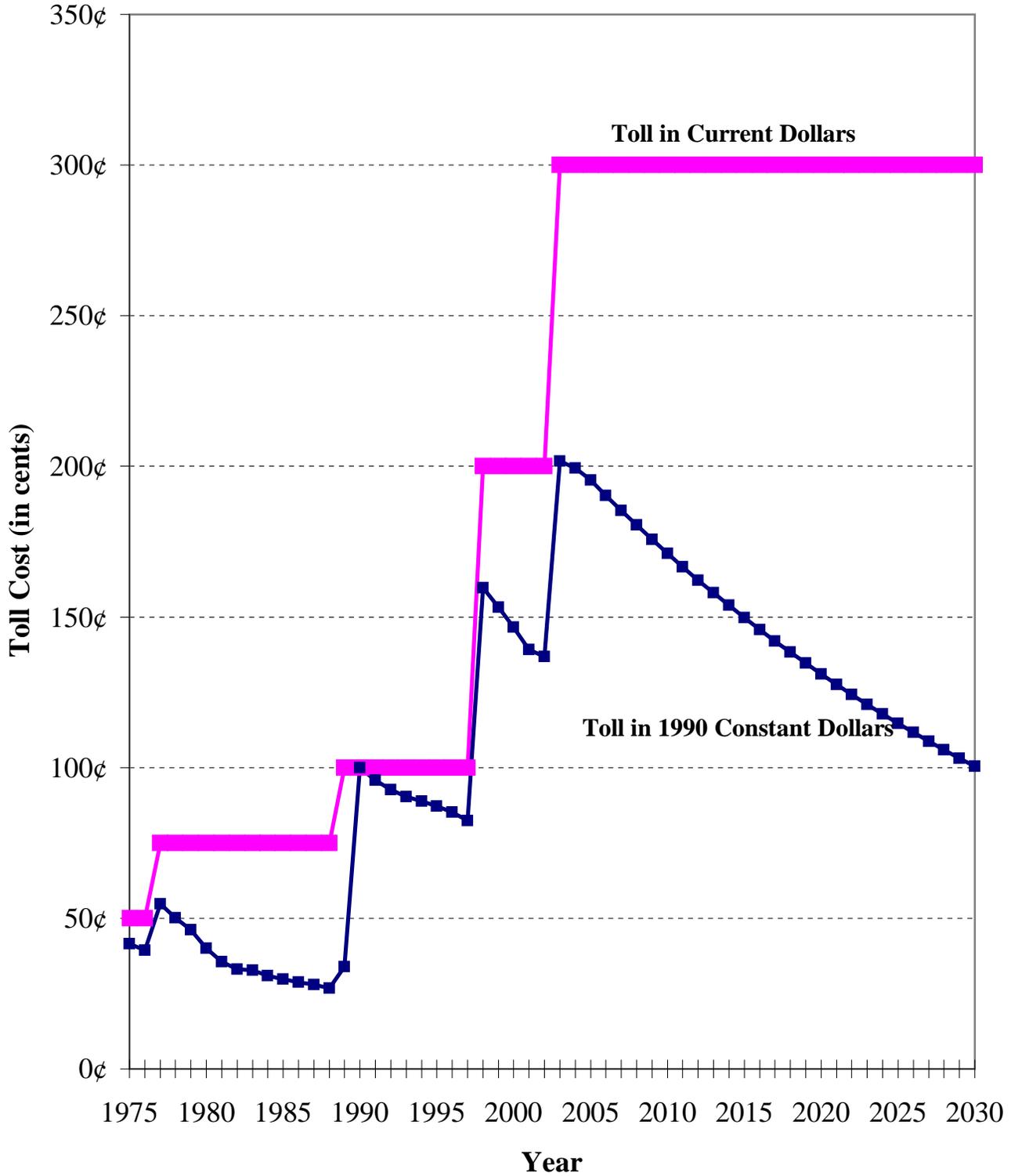


Table 5
History of Transit Fares in Bay Area, 1970-1998

	MUNI	AC Transit	BART Trains	BART Bus	SCVTA	SamTrans	GGBHTD Bus	GGBHTD Ferry	CalTrain	CCCTA	Vallejo Bus	Vallejo Ferry	AMTRAK	Napa Valley
1970														
Base	\$ 0.25	\$ 0.25				n.a.	n.a.	\$ 0.50	\$ 0.33			n.a.		
High		\$ 0.80						\$ 0.67						
1975														
Base	\$ 0.25	\$ 0.30	\$ 0.25	\$ 0.25	\$ 0.25	n.a.	\$ 0.35	\$ 0.50	\$ 0.35	n.a.	\$ 0.25	n.a.		
High		\$ 1.40	\$ 1.45	\$ 0.50			\$ 1.50		\$ 0.71					
1980														
Base	\$ 0.50	\$ 0.50	\$ 0.35		\$ 0.35	\$ 0.25	\$ 0.35	\$ 1.50	\$ 0.71	\$ 0.25	\$ 0.35	n.a.		
High		\$ 1.50	\$ 1.50		\$ 0.75	\$ 1.25	\$ 2.50	\$ 2.00	\$ 1.47	\$ 0.50				
1985														
Base	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.35	\$ 1.00	\$ 2.10	\$ 0.86	\$ 0.60		n.a.		
High		\$ 1.75	\$ 2.15	\$ 0.90	\$ 1.00	\$ 1.35	\$ 3.30	\$ 2.50	\$ 1.80					
1990														
Base	\$ 0.85	\$ 1.00	\$ 0.80	\$ 0.75	\$ 0.75	\$ 0.50			\$ 0.86	\$ 0.60				n.a.
High	\$ 2.00	\$ 2.00	\$ 3.00	\$ 1.15	\$ 1.00	\$ 1.95			\$ 1.92					
1995														
Base	\$ 1.00	\$ 1.25	\$ 0.90		\$ 1.10	\$ 1.00	\$ 1.25		\$ 0.73	\$ 1.00	\$ 1.00	\$ 6.36		\$ 1.00
High	\$ 2.00	\$ 2.20	\$ 3.55		\$ 2.25	\$ 2.50	\$ 4.50		\$ 3.64	\$ 1.25	\$ 2.00			\$ 2.50
1996														
Base			\$ 1.00		\$ 1.10		\$ 1.25	\$ 2.50						
High			\$ 4.00		\$ 2.25		\$ 4.50	\$ 4.25						
1997														
Base			\$ 1.10	\$ 1.10				\$ 0.77						
High			\$ 4.70	\$ 1.65				\$ 3.83						
1998														
Base								\$ 0.80			\$ 3.33			
High								\$ 4.02						

MUNI : High fare is for cable cars.

Benicia: High fare is for patrons travelling between Vallejo and Contra Costa County

Vallejo Ferry is monthly pass divided by 42 rides.

SamTrans: High fare is for all express routes, except 1F/19F

Oakland/Alameda Ferry: Prices are per trip cost of 10-ticket book (1990)

Table 5 (continued)

History of Transit Fares in Bay Area, 1970-1998

	Napa City	Tri- Delta	Benicia	Union City	LAVTA	30-Z	DB	WestCat	CityCoach (Vaca)	Flyer (Fairfld)	Oak/Ala Ferry	Sta Rosa City Bus	Sonoma County	Petaluma
1970														
Base High														
1975														
Base High	\$ 0.25	\$ 0.25										\$ 0.25		\$ 0.25
1980														
Base High	\$ 0.35	\$ 0.25			\$ 0.50			\$ 0.60				\$ 0.35	\$ 0.35	
1985														
Base High		\$ 0.50		\$ 0.50		\$ 0.60	\$ 1.25					\$ 0.60		
						\$ 0.85	\$ -							
1990														
Base High	\$ 0.60	\$ 0.60	\$ 0.75	\$ 0.75	\$ 0.60	\$ 1.00	\$ 0.75	\$ 0.75	\$ 0.75	\$ 0.75	\$ 2.50			
			\$ 1.50				\$ 1.50							
1995														
Base High	\$ 0.75	\$ 0.75	\$ 0.75	\$ 0.75	\$ 1.00			\$ 0.75				\$ 0.85	\$ 1.05	\$ 1.05
			\$ 1.50											
1996														
Base High		\$ 0.75												
1997														
Base High							\$ 0.75			\$ 2.75	\$ 1.00			
							\$ 1.75							
1998														
Base High							\$ 1.00							
							\$ 2.00							

MUNI : High fare is for cable cars.

Benicia: High fare is for patrons travelling between Vallejo and Contra Costa County

Vallejo Ferry is monthly pass divided by 42 rides.

SamTrans: High fare is for all express routes, except 1F/19F

Oakland/Alameda Ferry: Prices are per trip cost of 10-ticket book (1990)

Figure 4.1
San Francisco Municipal Railway (Muni)
Base Fare: Historical and Projected

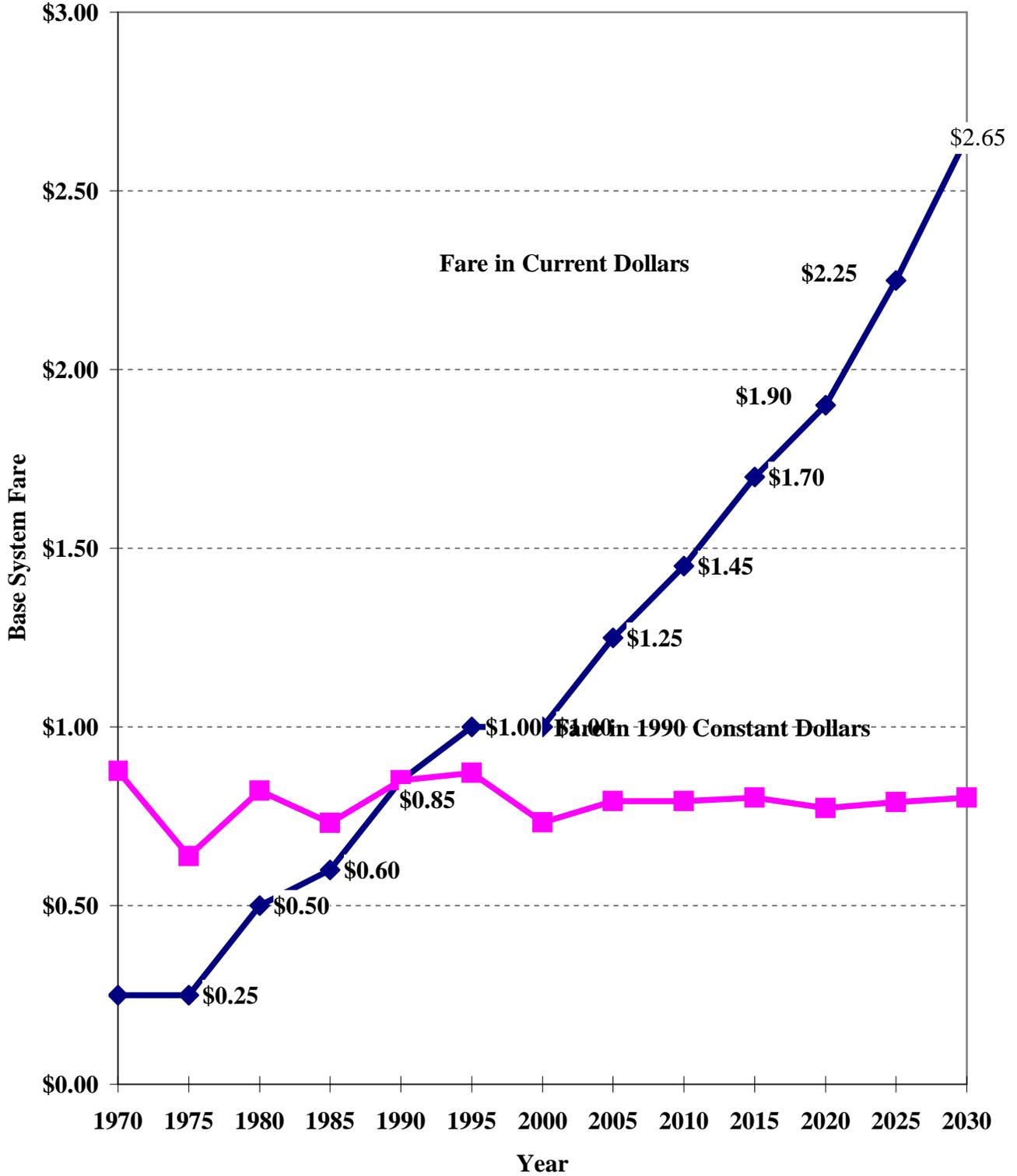


Figure 4.2
A.C. Transit District
Base Fare: Historical and Projected

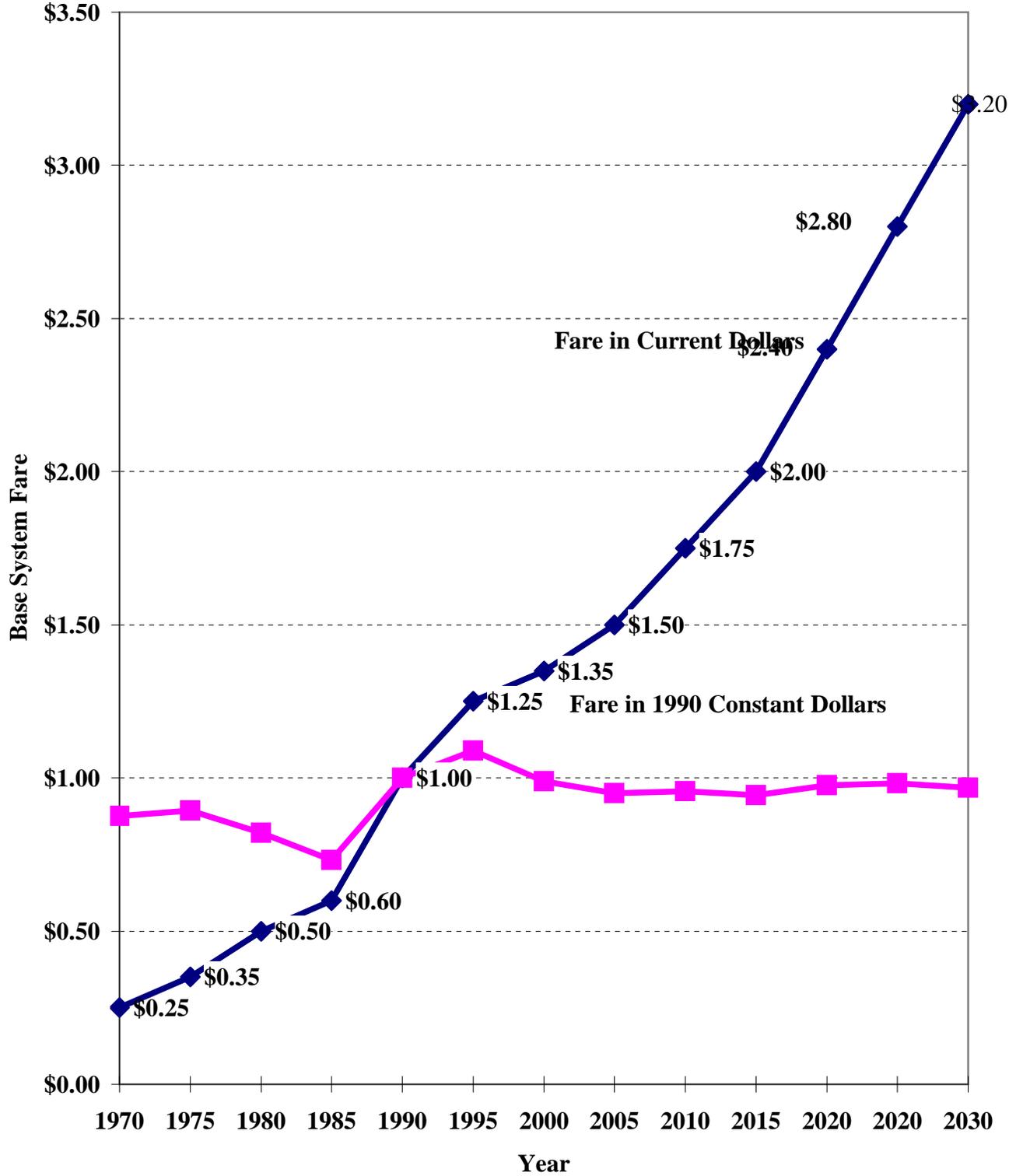


Figure 4.3
Bay Area Rapid Transit District (BART)
Base Fare: Historical and Projected

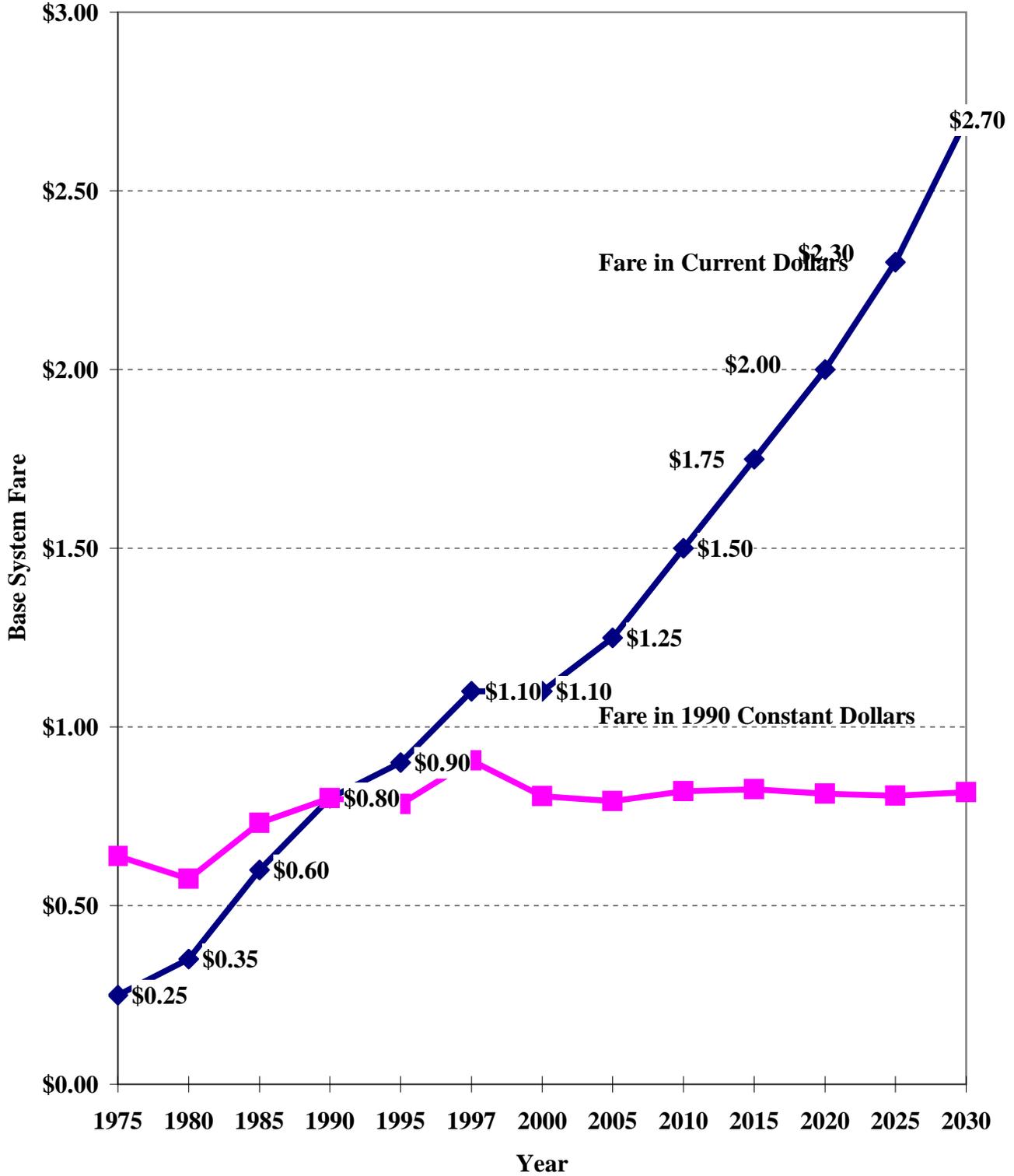


Table 6.1
Regional Highway Peaking Factors for AM and PM Peak Hours
"Old-Style" MTCFCAST Model System

AM/PM Peak Hour		1965	1981	1990	All
Trip Purpose	Trip Direction	Survey	Survey	Survey	Forecasts
<i>AM Peak Hour Factors</i>					
Home-Based Work	H → W	0.17021	0.15656	0.15436	NA
Weighted Average	W → H	0.00462	0.00483	0.00329	NA
Home-Based Non-Work	H → NW	0.03162	0.04146	0.05319	0.04476
	NW → H	0.01261	0.01459	0.01549	0.01576
Non-Home-Based	NW → NW	0.02077	0.02404	0.02797	0.02404
HBW Drive Alone	H → W	NA	0.14597	0.14418	0.14597
	W → H	NA	0.00514	0.00352	0.00514
HBW Shared Ride 2+	H → W	NA	0.17763	0.18514	0.17763
	W → H	NA	0.00172	0.00158	0.00172
<i>PM Peak Hour Factors</i>					
Home-Based Work	H → W	0.00686	0.00801	0.00788	NA
Weighted Average	W → H	0.15601	0.12637	0.12533	NA
Home-Based Non-Work	H → NW	0.03162	0.03528	0.02769	0.03626
	NW → H	0.05506	0.06155	0.05050	0.06325
Non-Home-Based	NW → NW	0.08814	0.08388	0.08207	0.08388
HBW Drive Alone	H → W	NA	0.00790	0.00837	0.00790
	W → H	NA	0.12661	0.12612	0.12661
HBW Shared Ride 2+	H → W	NA	0.00857	0.00661	0.00857
	W → H	NA	0.13595	0.12066	0.13595
Bay Bridge Spread Peak Factor		NA	NA	NA	0.62000
Ala/SC Spread Peak Factor		NA	NA	NA	0.70000

Table 6.2
Regional Highway Peaking Factors for AM and PM Peak Periods
"New-Style" BAYCAST Model System

AM/PM Peak Period		1990	All
Trip Purpose	Trip Direction	Survey	Forecasts
<i>AM Peak Period Factors (0700-0900)</i>			
Home-Based Work	H → W	0.26974 *	0.26974 *
Weighted Average	W → H	0.00661	0.00661
Home-Based Non-Work (HBSH, HBSR)	H → NW NW → H	0.06662 0.02719	0.06662 0.02719
Home-Based School	H → School School → H	0.28402 0.01141	0.28402 0.01141
Non-Home-Based	NW → NW	0.05679	0.05679
HBW Drive Alone	H → W W → H	0.25530 * 0.00707	0.25530 * 0.00707
HBW Shared Ride 2+	H → W W → H	0.31213 * 0.00421	0.31213 * 0.00421
<i>PM Peak Period Factors (1600-1800)</i>			
Home-Based Work	H → W	0.01584	0.01584
Weighted Average	W → H	0.20792	0.20792
Home-Based Non-Work (HBSH, HBSR)	H → NW NW → H	0.06230 0.10329	0.06230 0.10329
Home-Based School	H → School School → H	0.02684 0.05724	0.02684 0.05724
Non-Home-Based	NW → NW	0.14901	0.14901
HBW Drive Alone	H → W W → H	0.01644 0.20856	0.01644 0.20856
HBW Shared Ride 2+	H → W W → H	0.01529 0.20548	0.01529 0.20548

* Factors for AM peak period home-to-work trips are for illustrative use only. HBW departure time choice model is used in model application.

Table 8
Regional Work and Non-Work Trip Vehicle Occupancies
Historical and Projected

Trip Purpose	Household Surveys			Model Simulation	
	1965	1981	1990	2000	2030
Home-Based Work	1.180	1.129	1.095†	1.099*	1.109*
Home-Based Shop	1.443	1.241	1.416§	1.368*	1.361*
Home-Based Social / Rec	1.813	1.730	1.584§	1.547*	1.552*
Home-Based School	2.782	2.234	2.373§		
Home-Based Grade School			NA	NA	NA
Home-Based High School			3.205§	4.317*	4.145*
Home-Based College			1.164§	1.272*	1.318*
Non-Home-Based	1.445	1.254	1.206§	1.228*	1.231*
Total Trips	1.440	1.303	1.299§	1.341*	1.328*

1965, 1981 and 1990 vehicle occupancy rates derived from household travel surveys.

** Regional Model Simulation using BAYCAST system, not assumed.*

† Source: 1990 Census-based Observed Home-Based Work trips.

Standard Vehicle Occupancy Assumptions:

Drive Alone = 1.0 persons per vehicle

Shared Ride 2 = 2.0 persons per vehicle

Shared Ride 3+ = 3.5 persons per vehicle

Note: The vehicle occupancy rates for home-based shop and social/recreation trips are based on vehicle driver vs. vehicle passenger data from the 1965 and 1981 surveys. For the 1990 survey, the vehicle occupancy rates are based on drive alone, shared ride 2 and shared ride 3+ data. The vehicle occupancy data from the three household survey datasets are not strictly comparable, given the incomplete information on vehicle occupants obtained from household travel surveys.

Table 9
Ratio of Gas Prices in San Francisco and Los Angeles

		San Francisco	Los Angeles	Ratio SF/LA	Difference SF - LA
January	2001	\$1.760	\$1.609	1.09	\$0.151
February	2001	\$1.758	\$1.666	1.06	\$0.092
March	2001	\$1.830	\$1.708	1.07	\$0.122
April	2001	\$1.943	\$1.826	1.06	\$0.117
May	2001	\$2.035	\$2.067	0.98	-\$0.032
June	2001	\$2.006	\$2.049	0.98	-\$0.043
July	2001	\$1.883	\$1.896	0.99	-\$0.013
August	2001	\$1.709	\$1.650	1.04	\$0.059
September	2001	\$1.856	\$1.670	1.11	\$0.186
October	2001	\$1.758	\$1.529	1.15	\$0.229
November	2001	\$1.638	\$1.347	1.22	\$0.291
December	2001	\$1.419	\$1.158	1.23	\$0.261
January	2002	\$1.325	\$1.237	1.07	\$0.088
February	2002	\$1.313	\$1.383	0.95	-\$0.070
March	2002	\$1.492	\$1.585	0.94	-\$0.093
April	2002	\$1.679	\$1.693	0.99	-\$0.014
May	2002	\$1.638	\$1.657	0.99	-\$0.019
June	2002	\$1.667	\$1.658	1.01	\$0.009
July	2002	\$1.698	\$1.673	1.01	\$0.025
August	2002	\$1.680	\$1.684	1.00	-\$0.004
September	2002	\$1.662	\$1.677	0.99	-\$0.015
October	2002	\$1.632	\$1.619	1.01	\$0.013
November	2002	\$1.703	\$1.666	1.02	\$0.037
December	2002	\$1.667	\$1.613	1.03	\$0.054
January	2003	\$1.744	\$1.693	1.03	\$0.051
February	2003	\$1.950	\$1.878	1.04	\$0.072
March	2003	\$2.186	\$2.165	1.01	\$0.021
April	2003	\$2.149	\$2.122	1.01	\$0.027
May	2003	\$1.952	\$1.879	1.04	\$0.073
June	2003	\$1.875	\$1.766	1.06	\$0.109
July	2003	\$1.907	\$1.737	1.10	\$0.170
August	2003	\$1.968	\$1.917	1.03	\$0.051
September	2003	\$2.139	\$2.083	1.03	\$0.056
October	2003	\$1.897	\$1.889	1.00	\$0.008
November	2003	\$1.750	\$1.757	1.00	-\$0.007
December	2003	\$1.667	\$1.715	0.97	-\$0.048
				37.31	
				1.04	

Table 10
2025 Tolls on Bay Area Bridges

All Alternatives

Bridge	Share of Discounted Tolls	Full Price Toll (2025 \$)	Discounted Toll (2025 \$)	Average Toll (2025 \$)	Average Toll (1990 \$)	Avg. Toll / 2 (1990\$)
Benicia	0%	\$3.00	\$3.00	\$3.00	\$1.05	\$0.53
Carquinez	0%	\$3.00	\$3.00	\$3.00	\$1.05	\$0.53
San Rafael	0%	\$3.00	\$3.00	\$3.00	\$1.05	\$0.53
Golden Gate	0%	\$3.00	\$3.00	\$3.00	\$1.05	\$0.53
Bay Bridge	0%	\$3.00	\$3.00	\$3.00	\$1.05	\$0.53
San Mateo	0%	\$3.00	\$3.00	\$3.00	\$1.05	\$0.53
Dumbarton	0%	\$3.00	\$3.00	\$3.00	\$1.05	\$0.53
Antioch	0%	\$3.00	\$3.00	\$3.00	\$1.05	\$0.53

CPI: 1990=406.0; 2025=1157.1; Ratio 0.3509

Table 11
Speed/Capacity Table (With Revised Speeds)
San Francisco Bay Area Regional Highway Networks

Area Type	Facility Type								Speed Class*	
	Frwy-to-Frwy (1)	Freeway (2)	Expwy (3)	Collector (4)	Fwy Ramp (5)	Dummy (6)	Major Arterial (7)	Metered Ramp (8)	Special (9)	Special (10)
Core (0)	1,700 40	1,850 55	1,300 40 (25)	550 10 (5)	1,300 30 (25)	N.A.	800 20 (15)	700 25 (20)	1,900 ^(A) 55	1,350 ^(G) 40 (25)
CBD (1)	1,700 40	1,850 55	1,300 40 (25)	600 15 (10)	1,300 30 (25)	N.A.	850 25 (20)	700 25 (20)	1,950 ^(B) 60	1,500 ^(H) 45 (30)
UBD (2)	1,750 45	1,900 60	1,450 45 (30)	650 20 (15)	1,400 35 (30)	N.A.	900 30 (25)	800 30 (25)	2,000 ^(C) 65	1,530 ^(I) 55 (40)
Urban (3)	1,750 45	1,900 60	1,450 45 (30)	650 25 (20)	1,400 35 (30)	N.A.	900 30 (25)	800 30 (25)	1,780 ^(D) 50	900 ^(J) 25 (20)
Suburb.(4)	1,800 50	1,950 65	1,500 50 (35)	800 30 (25)	1,400 40 (35)	N.A.	950 35 (30)	900 35 (30)	1,800 ^(E) 45	950 ^(K) 30 (25)
Rural (5)	1,800 50	1,950 65	1,500 55 (40)	850 35 (30)	1,400 40 (35)	N.A.	950 40 (35)	900 35 (30)	1,840 ^(F) 50	980 ^(L) 40 (35)

Upper Entry: Capacity at Level of Service "E" in vehicles per hour per lane, i.e., ultimate capacity

Lower Entry: Free-Flow Speed (miles per hour)

* Speed Class = (Area Type * 10) + Facility Type

N.A. = Not Applicable

Notes:

(A) TOS Fwy (AT=0,1); (B) TOS Fwy (AT=2,3); (C) TOS Fwy (AT=4,5); (D) Golden Gate; (E) TOS Fwy-to-Fwy (AT=0-3); (F) TOS Fwy-to-Fwy (AT=4,5)

(G) Expwy TOS (AT=0,1); (H) Expwy TOS (AT=2,3); (I) Expwy TOS (AT=4,5); (J) Art.Sig.Coar. (AT=0,1); (K) Art.Sig.Coar. (AT=2,3); (L) Art.Sig.Coar. (AT=4,5)

Speed values in parentheses are used in MTC speed post-processing routine, now considered the "main processing" routine.

Table 12
Distribution of Average Weekday Daily Vehicle Miles of Travel (VMT)
by Average Link Speed (mph)
13 Speed Cohorts used in ARB BURDEN Models
Forecasts Prepared for the Update of the 2007 Transportation Improvement Program
and Transportation 2030 Plan Amendment

Speed Cohort	2000 Base Year		2015 Intermediate Year		2030 RTP Forecast	
	VMT	% of Total	VMT	% of Total	VMT	% of Total
1 < 7.5 mph	1,607,270	1.1%	166,819	0.1%	400,408	0.2%
2 7.5 - 12.5 mph	768,811	0.5%	961,693	0.6%	2,198,410	1.1%
3 12.5 - 17.5 mph	8,617,212	6.0%	10,009,928	5.9%	13,544,239	6.6%
4 17.5 - 22.5 mph	10,430,867	7.3%	10,455,166	6.2%	14,738,268	7.2%
5 22.5 - 27.5 mph	20,688,657	14.4%	22,295,796	13.2%	27,743,813	13.6%
6 27.5 - 32.5 mph	15,699,998	10.9%	17,618,795	10.4%	22,956,378	11.2%
7 32.5 - 37.5 mph	11,969,989	8.3%	15,461,563	9.1%	18,560,367	9.1%
8 37.5 - 42.5 mph	3,756,947	2.6%	6,870,477	4.1%	7,560,369	3.7%
9 42.5 - 47.5 mph	5,457,459	3.8%	5,363,832	3.2%	6,986,231	3.4%
10 47.5 - 52.5 mph	5,376,444	3.7%	5,976,691	3.5%	5,621,091	2.8%
11 52.5 - 57.5 mph	5,699,263	4.0%	7,211,141	4.3%	6,621,044	3.2%
12 57.5 - 62.5 mph	27,966,485	19.4%	31,988,635	18.9%	35,468,232	17.4%
13 > 62.5 mph	25,762,334	17.9%	34,960,021	20.6%	41,763,429	20.5%
TOTAL	143,801,736	100.0%	169,340,557	100.0%	204,162,280	100.0%

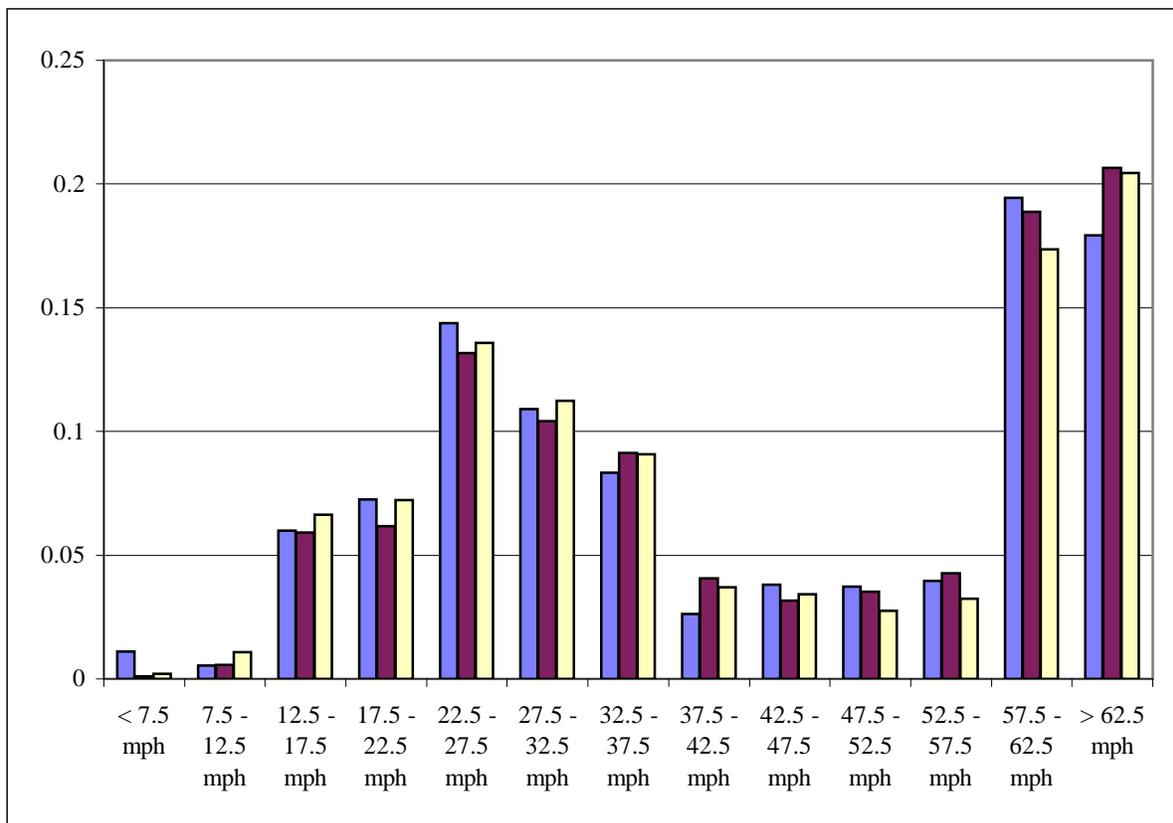


Table 13
Changes in Transit Operator Base Fares, 1998 to 2006

Operator	1998 Fare	2001 Fare	2004 Fare	2006 Fare	Percent Change, 2001-2006
Muni	\$1.00	\$1.00	\$1.25	\$1.50	50.0%
BART	\$1.10	\$1.10	\$1.25	\$1.40	27.3%
AC Transit	\$1.25	\$1.35	\$1.50	\$1.75	29.6%
SCVTA-Local	\$1.10	\$1.25	\$1.50	\$1.75	40.0%
SCVTA-Express	\$1.75	\$2.00	\$3.00	\$3.50	75.0%
SamTrans	\$1.00	\$1.10	\$1.25	\$1.50	36.4%
Golden Gate (Marin)	\$1.25	\$1.50	\$1.80	\$2.00	33.3%
Golden Gate (Sonoma)	\$1.75	\$2.15	\$2.45	\$2.85	32.6%
Caltrain	\$1.11	\$1.11	\$1.50	\$2.25	102.7%
CCCTA	\$1.00	\$1.25	\$1.50	\$1.75	40.0%
Vallejo	\$1.00	\$1.25	\$1.35	\$1.50	20.0%
Tri-Delta	\$0.75	\$0.75	\$1.00	\$1.00	33.3%
WHEELS (LAVTA)	\$1.00	\$1.00	\$1.25	\$1.25	25.0%

Notes:

1. For the 1998 RTP, fares as of February 1998 were used. For the 2001 RTP, fares as of May 2001 were used. For the 2005 RTP/TIP, fares as of March 2004 will be used.
2. Transit fares are from MTC records, and the Web site: <http://www.transitinfo.org/>
3. Caltrain fares are based on a 10-ride ticket book.
4. LAVTA increased adult fares to \$1.25 on 11/1/01.
4. Golden Gate Transit fares shown are for intra-Marín and intra-Sonoma counties. Golden Gate Transit District increased fares on an annual basis between 1999-2001. The fare increases of 7/1/00 were used in the 2001 RTP.

