



METROPOLITAN
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Memorandum

TO: Partnership Board

DATE: June 20, 2007

FR: Ashley Nguyen & Lisa Klein

W. I.

RE: Transportation 2035 Vision & Scenario Performance Assessment Approach

Fork in the Road

Today, the Bay Area possesses a robust, multi-modal transportation system that includes local streets and roads; freeways and expressways; bus, paratransit, ferry and rail services; and bicycle and pedestrian paths. These assets are the dividend paid by billions of dollars of investment over the past several decades; money used for the continuing maintenance, operation and strategic expansion of the regional transportation network. Each of these assets is precious.

Before us now is a deciding moment when we must choose how our region grows and how our transportation network supports this growth. Our fundamental challenges will in many ways continue to center around how to keep our roads and transit systems in good repair, how to squeeze more efficiency out of our system, and how to build the most cost-effective new infrastructure where needed. But on the horizon are new challenges to meet and new questions that must be answered:

- how should we direct scarce resources to provide the infrastructure to support communities primed for higher housing growth;
- how should we reduce greenhouse gas emissions from transportation sources and respond to the effects of global warming already underway;
- how should we harness the power of the marketplace and cutting-edge technology to deal with congestion, and;
- how do we make policy and investment choices that yield equitable benefits to all residents?

The Bay Area transportation network is a fortune inherited from previous generations. Now we stand at the proverbial fork in the road. We can continue to live off of our inheritance or establish a new legacy for generations yet to come. We can inspire, innovate and implement an integrated, efficient regional transportation system that is safe, reliable and secure; supports both economic development and focused land use patterns, and makes wise use of our limited resources. A shared vision of the region's future ought to center not just on what's past and present but what's possible, too.

Scenario Performance Assessment

MTC, partner agencies and stakeholders will work together to define the various elements of the vision for the Transportation 2035 Plan. To help inform policy and investment strategies for the vision, MTC staff proposes to conduct a scenario performance assessment focused on strategic expansion intended to support the region's future growth (see Attachment A).

We propose to begin by identifying core performance indicators and targets for each of the Three E's (economy, environment, and equity) and testing how different system expansion strategies contribute toward achieving the targets. The targets for measuring achievement under the economy and environment principles are modeled after ambitious targets proposed in state plans and existing or

pending legislation. There does not appear to be a comparable source for an equity target, and staff will explore potential indicators in a series of public involvement activities in the month of June.

Economy: Congestion – In poll after poll, traffic congestion is the number one concern of Bay Area residents. The San Francisco-Oakland urbanized area has the second worst congestion in the nation. The typical commuter spends 72 hours a year stuck in traffic, a situation that impacts quality of life and imposes enormous economic costs. Traffic congestion poses additional economic costs by hampering the efficient movement of freight throughout the region. Past RTP's have generally forecast worsening congestion in the future as population and vehicle travel grows.

Target: Reduce person hours of delay by 20 percent below today's levels

Source: Governor's Strategic Growth Initiative

Environment: Carbon Dioxide (CO₂) and Particulate Matter (PM) Emissions – With the passage of AB 32 (Pavley), California is leading the nation in establishing a framework for reducing greenhouse gas emissions, now broadly recognized as a serious threat to economic well-being and the environment. The transportation sector contributes 40-50% of total greenhouse gas emissions in the Bay Area and is thus a critical sector for achieving reductions as required by AB 32.

Particulate Matter (PM) emissions are demonstrated to pose a serious health risk. People who live near areas of high PM concentrations have higher incidences of cancer-related illnesses than those with lower exposure. In addition, the Bay Area will likely be designated by the federal government as a PM-2.5 non-attainment area in the coming months.

Target: Reduce CO₂ emissions by 40 percent below 1990 levels by 2035

Reduce PM-2.5 emissions by 10 percent below today's levels

Source: California Global Warming Solutions Act of 2006 and Governor's Strategic Growth Initiative (CO₂ only)

Environment: Vehicle Miles Traveled (VMT) – There is a strong correlation between VMT and harmful vehicle emissions, including carbon dioxide and particulate matter. VMT is used by many to measure the success of smart growth and environmentally friendly policies and investments. Legislation currently under consideration (SB 375 Steinberg) had originally proposed establishing aggressive targets for reducing VMT in response to global climate change.

Target: Reduce VMT per capita by 10 percent compared to today

Source: SB 375 (Steinberg)

Equity: To be determined. Options under discussion include:

- **Affordability** – The cost of transportation can pose a heavy burden, especially for low-income households in the Bay Area, where the cost of living is high. When combined with housing costs, Bay Area working families spend 63% of their household income on these two categories – the highest in the nation according to a recent survey. Reducing the amount households spend on transportation would improve access to opportunities and leave more room for other critical expenses, such as housing, food and education.
- **Access** – A fundamental purpose of the transportation system is to provide access to jobs, essential services and activities. A key test of the system is whether it provides adequate access to all Bay Area residents regardless of race or income. Low-income residents are of particular concern because they frequently have less access to private automobiles than the typical Bay Area resident does. As a result, they rely more heavily on transit, which must get them where they need to go when they need to go.

The three investment scenarios to be evaluated against these targets are as follows:

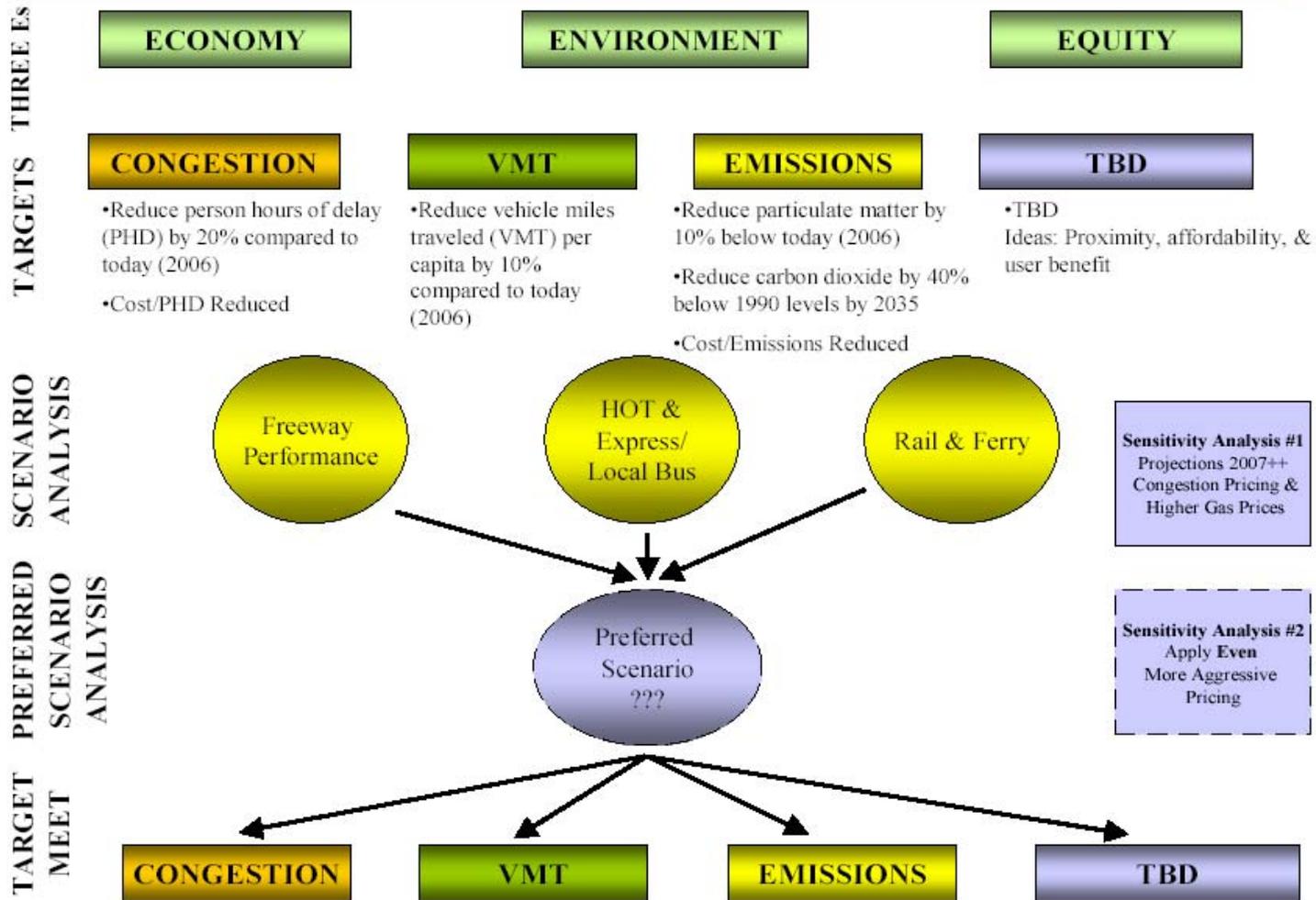
- **Freeway Performance:** This option focuses primarily on operational strategies such as ramp metering but includes limited capacity expansion such as a completed High-Occupancy Vehicle (HOV) network. Through MTC's Freeway Performance Initiative, MTC staff will work closely with partner agencies to identify the operational and expansion strategies to be considered in this option.
- **High-Occupancy Toll (HOT) Lanes/Express & Local Bus Service:** This option draws from the HOV/HOT network being evaluated as part of the Regional HOT Lanes Study. The complementary express and local bus network will be defined through collaboration between MTC and Bay Area transit operators.
- **Rail & Ferry:** This option is derived from the Regional Measure 2-mandated Regional Rail Plan developed by MTC, BART, Caltrain, and California High-Speed Rail Authority and from the Water Transit Authority's Ferry Implementation and Operations Plan (IOP). To the extent needed, additional ferry expansion projects not already included in the IOP will be identified through collaboration between MTC, WTA and Bay Area ferry operators.

Based on our past experience, we know that infrastructure expansion alone will not get us to the extremely aggressive performance targets outlined above because it addresses only the supply side of transportation. We propose to also conduct land use and pricing sensitivity analysis on each investment scenario to determine how such strategies will help to approach or reach the targets. The land use sensitivity strategy will feature focused residential and job growth above and beyond ABAG's adopted Projections 2007. MTC and ABAG staff will collaborate on the assumptions and ABAG staff will produce new land use forecast. Further, the pricing sensitivity test will include congestion pricing, higher gas prices, transit fare discounts, and parking charges to gauge the impact of these strategies on travel behavior.

MTC staff will present the approach to defining the Transportation 2035 vision and scenario performance assessment in greater detail at your meeting. We believe this performance-based approach to evaluating future transportation investments places the focus where it belongs: on whether our plans and projects deliver improved results for Bay Area taxpayers and travelers.

Attachment A

Transportation 2035 Plan: Scenario Performance Assessment for Strategic Expansion





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Memorandum

TO: Partnership Board

DATE: June 20, 2007

FR: Ashley Nguyen

W. I.

RE: Draft Transportation 2035 Three E Principles & Goals

Background

Our current regional transportation plan, *Transportation 2030*, features six goals: A Safe and Well-Maintained System, A Reliable Commute, Access to Mobility, Livable Communities, Clean Air, and Efficient Freight Travel. In fall 2003, MTC, partner agencies, and the public developed these new goals through numerous public workshops and focus groups in response to criticism that the goals from the previous regional plan were too broad to provide meaningful direction for the plan. The goals were crafted with the intent to reflect MTC's transportation vision, offer specificity, separate true "outcomes" from strategy statements, and provide measurable objectives. As such, the description of each of the six goals included a purpose, objectives, examples of current efforts, and measures of progress. These new goals were adopted as part of the Transportation 2030 Plan in February 2005.

Draft Transportation 2035 Goals

MTC staff believes it is important to reaffirm and carry the current six goals forward for purposes of keeping our focus and staying consistent from plan to plan. However, we also propose two new goals – security and climate change – to be responsive to our changing environment and new SAFETEA RTP regulations. The eight goals proposed for the Transportation 2035 Plan are as follows:

- A Safe and Well-Maintained System
- Security & Emergency Management (new)
- A Reliable Commute
- Access to Mobility
- Livable Communities
- Clean Air
- Efficient Freight Travel
- Climate Change (new)

In April and May 2007, staff presented the Draft Transportation 2035 Goals to our Partnership Technical Advisory Committee (TAC), MTC advisory committees, and Joint Policy Committee (JPC) for review and comment. More recently, we are conducting a second round of outreach through the Partnership TAC (June 18), joint meeting of MTC's three advisory committees (June 25), regional Transportation 2035 workshop (June 28), and the Partnership Board (June 29). We received a number of comments thus far including making the climate change goal more action-oriented; emphasizing that equity not only supports the Access to Mobility goal but all other

goals; and adding a new goal to promote economic vitality. Following the completion of the June outreach, staff intends to revise the draft goals in response to feedback received.

Based on the comments we heard thus far, staff felt that it was prudent to create an overarching framework to house the eight goals. This framework centers on the three principles of **Economy, Environment, and equity** (also known as the Three Es). The Three Es also provide the foundation for the Business, Housing and Transportation-funded smart growth planning efforts around the state, which includes the FOCUS effort being led by ABAG in this region.

Under each of the Three Es, we have arrayed the eight more specific goals carried over and augmented from the last plan (see Attachment A). For a prosperous economy, the featured goals are safety, security, reliability and efficient freight. For a quality environment, the clean air and climate change goals are the anchors. And lastly, for social equity, the access to mobility and livable communities goals help to advance equitable opportunities and benefits for all Bay Area residents. See Attachment B for a detailed description of each of the goals, including an explanation of the proposed revisions.

Staff seeks input and direction from the Partnership Board on the proposed economy, environment & equity framework principles and the associated eight goals. We will revise the draft goals in response to all comments received through the end of June, and return to the Planning Committee in July and seek the committee's conditional approval of the draft principles and goals, which may be subject to further refinements as we prepare the Transportation 2035 Plan for ultimate adoption in early 2009.

Attachment A

Transportation 2035 Plan: Three Es Principles & Goals

The Transportation 2035 vision seeks to achieve the classic principles commonly referred to as the Three Es – economy, environment, and equity – through its policies and investment strategies. Our long-range plan will invest in an innovative system that supports a prosperous and globally competitive economy, provides for a healthy and safe environment, and produces equitable opportunities for all Bay Area residents to share in the benefits of a well-maintained, efficient regional transportation system. For each of the Three Es, there is a set of more specific goals. These goals are safety, security, reliability, freight, clean air, climate change, access, and livable communities.

THREE ES
GOALS

ECONOMY

Safety /Security

Reliability

Freight

ENVIRONMENT

Clean Air

**Climate
Change**

EQUITY

**Access to
Mobility**

**Livable
Communities**

ECONOMY:

Revisions are shown in blue and bold text.

Safety: A Safe and Well-Maintained System

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
Purpose	<p>Ensuring the safety of travelers is a priority for all government agencies engaged in transportation, whether the trip is by car, transit, bike or walking. Protecting transportation facilities from terrorism is also a new safety area for federal, state, and local law enforcement officials and requires the cooperation of all Bay Area transportation agencies.</p> <p>The public also expects transportation facilities to be kept in a good state of repair, which requires diligence in attending to ongoing maintenance and rehabilitation needs. Future investments to improve transportation will not perform as intended if the rest of the system is poorly maintained. Maintaining the condition of the Bay Area's transportation infrastructure will enhance the region's economic growth potential and will help ensure the future viability of existing neighborhoods and downtowns.</p>	<p>Ensuring the safety of travelers is a priority for all government agencies engaged in transportation, whether the trip is motorized or non-motorized. Efforts to reduce collisions, fatalities and injuries include making strategic investments in safety engineering, enforcement, education, and emergency services.</p> <p>The public also expects transportation facilities to be kept in a state of good repair, which requires diligence in attending to ongoing maintenance and rehabilitation needs. Future investments to improve transportation will not perform as intended if the rest of the system is poorly maintained. Maintaining the condition of the Bay Area's transportation infrastructure will enhance the region's economic growth potential and will help ensure the continued livability of existing neighborhoods and downtowns.</p>	<ul style="list-style-type: none"> • Traffic safety is called out more prominently in this goal. • Reference to terrorism is deferred to the proposed new SECURITY goal to respond to SAFETEA's new standalone planning factors for Safety and Security. • Reference to seismic retrofits has been moved to the proposed new SECURITY goal.
Objectives	<ul style="list-style-type: none"> • Reduce injuries and fatalities for all modes • Be prepared for future transportation emergencies resulting from natural disasters and security threats • Reduce long term transportation repair costs through timely replacement of assets • Save consumers repair costs due to poor road conditions 	<ul style="list-style-type: none"> • Reduce collisions, injuries and fatalities for all modes • Extend the safe and useful life of transportation infrastructure through cost-effective preventive maintenance and rehabilitation first, then replacement • Save vehicle owners repair costs due to poor road conditions 	<ul style="list-style-type: none"> • Extending the life of transit assets via timely maintenance and rehabilitation could be more affordable and cost-effective than replacing the assets.

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
Examples of Current Efforts	A number of regional initiatives aim to improve the safety and condition of the Bay Area transportation system including: policies to close shortfalls for the timely replacement of worn-out transit vehicles and local street repair with flexible federal funding; efforts underway to complete seismic retrofit of Bay Area bridges; and programs offering technical assistance to cities and counties to improve roadway pavement conditions and improve bicycle and pedestrian safety. In addition, MTC and other Bay Area transportation agencies come together at least once a year to conduct emergency response exercises and training.	A number of regional initiatives aim to improve the safety of Bay Area travelers and the condition of the transportation system including: funding for the timely replacement of worn-out transit vehicles and repairs to local streets; technical assistance programs for cities and counties to improve roadway pavement conditions and to improve bicycle and pedestrian safety; collaboration with Caltrans on its Strategic Highway Safety Implementation Plan (in progress); incident management programs; summit for older drivers to educate advocates and service providers on ways to assist older motorists stay sharp behind the wheel or transition out of driving; and exploration of vehicle safety applications through participation in the national Vehicle Infrastructure Integration (VII) effort.	<ul style="list-style-type: none"> • New reference to the VII effort. • New reference to the state Strategic Highway Safety Plan and Strategic Highway Safety Implementation Plan.
Key Measures of Progress	<ul style="list-style-type: none"> • Number of injuries and fatalities at identified safety “hotspots” • Pavement Condition Index (freeways and roads) • Average age of transit fleet • Progress in completing bridge seismic retrofit program 	<ul style="list-style-type: none"> • Number of collisions, injuries and fatalities in the region • Number of collisions involving fatalities or injuries by mode, cause, and facility type • Average age of transit fleet by service vehicle type • Miles between service calls by operator/vehicle type • Pavement Condition Index (freeways and roads) 	<ul style="list-style-type: none"> • The seismic retrofit measure has been moved to the SECURITY goal. • Consider the type of collisions (i.e., pedestrian, bike, speeding, alcohol) involving injuries or fatalities. • Miles between service calls may help show if vehicles are still performing reliably as we look at potential changes in the frequency of vehicle replacement.

ECONOMY:

Security: Transportation Security and Emergency Management

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
Purpose	N/A	The Bay Area needs to be ready for a number of possible future natural and man-made emergencies, including earthquakes, floods, industrial accidents, and terrorist threats. Such emergencies may adversely affect the safety of the region’s residents and the ability of our airports, ports, bridges, freeways, arterials, transit, and bicycle and pedestrian paths to serve regional travel needs. Protecting transportation facilities from natural disasters and terrorism is an important responsibility of federal, state, and local officials and requires the full cooperation of all Bay Area transportation agencies. In order to maintain a high level of preparedness for all risks, it will be necessary to address both pre-event prevention, protection, and detection, as well as post-event emergency response, recovery, and reconstruction. Strategic financial planning is also necessary to ensure that there will be adequate resources available to address transportation security and other emergencies when needed.	<ul style="list-style-type: none"> • Consideration of SECURITY as a standalone goal is consistent with SAFETEA’s new Security planning factor. • SECURITY is considered here as pre-event prevention, protection, and detection, and post-event emergency response, recovery, and reconstruction.
Objectives	N/A	<ul style="list-style-type: none"> • Timely and coordinated response to any regional emergency that occurs through advanced planning and preparation • Support federal legislation to promote adequate security funding for airports and seaports. 	

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
<p>Examples of Current Efforts</p>	<p>N/A</p>	<p>Transportation security and emergency management efforts underway include: (1) Trans Response Plan – MTC and other Bay Area transportation agencies continue to conduct emergency response exercises and training for earthquakes and terrorist attacks. (2) Regional Transportation Emergency Management Plan – This plan focuses on restoring basic mobility for the general public following a major disaster, and includes plans for three specific disaster scenarios. A separate planning effort focuses on transportation of emergency aid workers, evacuees, and supplies. (3) Regional Transit Security Strategy – MTC, the California Office of Homeland Security, and the major transit operators have convened the Regional Transit Security Working Group to foster security enhancements to the region’s transit system.</p>	
<p>Key Measures of Progress</p>	<p>N/A</p>	<ul style="list-style-type: none"> • Progress in completing bridge seismic retrofit program • Conduct regional emergency exercises • Number of high-priority transit security projects completed each year 	<ul style="list-style-type: none"> • Although MTC has no authority over when and with whom individual transit operators conduct emergency exercises with first responders, it is of regional interest that exercises are being conducted regularly so that each party is conditioned to the varied and unique functional and physical environments they may encounter in a real emergency situation.

ECONOMY:

Reliability: A Reliable Commute

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
Purpose	<p>Every day people make choices about the easiest way to make trips to their jobs, shopping, school, or recreation. As every traveler knows, certain corridors are heavily congested as too many vehicles try to get to too many places at the same time. Future regional growth will result in continued traffic problems throughout the Bay Area and in most of today's chronically congested corridors. However, travelers will benefit by having an expanded range of choices for making trips based on their personal requirements for travel time, cost, convenience, and reliability.</p> <p>Many of the building blocks for an effective multimodal regional transportation system are already in place. Over the years, extensive new transit, carpool, and bike facilities have been created to provide new choices to travelers. In addition to these expanded choices, traffic management and operations strategies, such as incident management and real time information, and increased use of new technologies, are the key to reducing the impact traffic congestion has on people's lives and businesses.</p> <p>The public also perceives the need to fine-tune the system at key locations, where people connect between modes. Good connections require a range of strategies from removing physical barriers, to better information, to having more services to connect to.</p> <p>Finally, whether people make trips by bike, transit, or car, they desire a certain amount of predictability in terms of how long their trip will take. The manufacturing and freight shipping industries also depend heavily on the delivery of products within specified time windows.</p>	No Revisions	

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
Objectives	<ul style="list-style-type: none"> • Provide travel options that are responsive to individual preferences for time, cost, convenience, and trip reliability. • Increase the number of on-time trips • Improve connections between transit systems and between freeway segments • Improve information on travel conditions and options • Make cost-effective use of new technologies to support objectives 	<ul style="list-style-type: none"> • Provide travel options that are responsive to individual preferences for time, cost, convenience, and trip reliability. • Reduce delay experienced by travelers, thus increasing the number of on-time trips • Improve connections between transit systems and between freeway segments • Improve information on travel conditions and options • Make cost-effective use of new technologies to support objectives 	
Examples of Current Efforts	<p>Regional customer service programs such as the 511 traveler information system, FasTrak electronic system, freeway call boxes and roving tow truck patrols make the existing transportation system more reliable for travelers. Caltrans' Traffic Operations System (ramp metering, message signs, incident detection), as well as signal coordination and retiming help traffic flow more smoothly. Carpool lanes along with the newly proposed network of high occupancy/toll (HOT) lanes and the Resolution 3434 Regional Transit Expansion Program will provide reliable travel alternatives in the most congested travel corridors. And funding for the Regional Bicycle Network will add reliable travel alternatives for shorter trips.</p>	<p>Regional customer service programs such as the 511 traveler information system, FasTrak electronic system, freeway call boxes and roving tow truck patrols make the existing transportation system more reliable for travelers. Caltrans' Traffic Operations System (ramp metering, message signs, incident detection), as well as signal coordination and retiming help traffic flow more smoothly. Carpool lanes along with the newly proposed network of high occupancy/toll (HOT) lanes, the Resolution 3434 Regional Transit Expansion Program, and real-time transit information will provide reliable travel alternatives in the most congested travel corridors. Funding for the Regional Bicycle Network will add reliable travel alternatives for shorter trips.</p>	
Key Measures of Progress	<ul style="list-style-type: none"> • Capacity added to the metropolitan transportation system • Levels of service in congested corridors • Progress with freeway ramp meters and traffic signal retiming • On time transit performance • Effectiveness of incident management strategies • New transit connectivity projects • Progress in improving traveler information 	<ul style="list-style-type: none"> • Progress in completing the regional HOV/HOT network • Progress in implementing Regional Measure 2 and Resolution 3434 transit expansion projects • Number of vehicle revenue miles added to the transit system • Levels of service and delay in congested corridors • Progress with implementing freeway ramp metering and traffic signal retiming • On time transit performance • Effectiveness of freeway incident management strategies • Progress in improving traveler information such as providing real-time transit information, personalized 511 services, and increased public awareness of the 511 traveler system 	<ul style="list-style-type: none"> • Remove reference to the MTS • Add references to HOV network and RM2 and Resolution 3434 transit projects • Transit connectivity is more about access to transit services rather than the reliability of those services – move to ACCESS goal

EQUITY:

Access: Access to Mobility

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
Purpose	MTC must consider the needs of all travelers in order to determine equitable distribution of mobility benefits. Certain segments of the population have fewer mobility options and therefore require special attention in transportation planning: households without a car, school children, older adults, and the disabled. Removing existing barriers to mobility for older adults, the disabled, low-income persons, and school children is a shared responsibility among many organizations, including transportation and social service agencies. While not the only solution to the mobility needs of these individuals, transit will play a key role in many of the desired trips. The cost of transportation can also be a barrier to travel to work, school, medical services, or basic shopping.	MTC must consider the needs of all travelers in order to determine equitable distribution of mobility benefits. Certain segments of the population have fewer mobility options and therefore require special attention in transportation planning: households without a car, school children, older adults, and the disabled. Removing existing barriers to mobility— physical, informational, or financial —for older adults, the disabled, low-income persons, and school children is a shared responsibility among many organizations, including transportation and social service agencies. While not the only solution to the mobility needs of these individuals, transit will play a key role in many of the desired trips. In addition to fixed route transit service and paratransit services, other viable transportation options may include shuttles, accessible taxis, car-sharing, and auto loans to meet multi-faceted mobility needs.	
Objectives	<ul style="list-style-type: none"> Identify barriers, such as gaps in service, affordability, and safety Improve delivery of services by coordinating with a range of agencies Secure adequate resources to respond to lifeline mobility needs 	<ul style="list-style-type: none"> Identify barriers, such as gaps in service, affordability, safety, and connectivity Improve delivery of services by coordinating with a range of public and private service providers Secure adequate resources to respond to needs identified in the Coordinated Public Transit-Human Services Plan 	<ul style="list-style-type: none"> Added reference to connectivity (physical and informational accessibility, such as wayfinding signage).

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
<p>Examples of Current Efforts</p>	<p>Identification of a Lifeline Transportation Network; Low Income Flexible Transportation (LIFT) investment program; ADA and paratransit funding; Transportation for Livable Communities (TLC) and Housing Incentive Program (HIP) projects in disadvantaged communities; various planning studies such as the Older Adults Transportation Study; Transportation Affordability Study; Community-Based Transportation Plans; social equity analysis for Transportation 2030.</p>	<p>Ongoing programs to address access and mobility include: (1) Coordinated Public Transit-Human Services Transportation Plan – MTC, in partnership with our transportation and human services partners, has led the effort to assess the needs of individuals with disabilities, older adults, and people with limited incomes. The Plan identifies strategies for meeting those needs, and prioritizes transportation services for funding and implementation. (2) Community-Based Transportation Plans – MTC is continuing work on preparing new plans as well as prioritizing funding for disadvantaged communities in the Transportation for Livable Communities (TLC) and Housing Incentive Program (HIP). (3) Transit Passenger Demographic Survey – MTC is conducting a survey of 22 Bay Area transit operators to gauge customers’ trip patterns, trip frequency, access to automobiles, race, and income. (4) Signage and Information – MTC is also funding improvements in wayfinding signage and in-station information at regional transit hubs based on findings from the Transit Connectivity Plan.</p>	<ul style="list-style-type: none"> Added reference to the Coordinated Public Transit-Human Services Plan.
<p>Key Measures of Progress</p>	<ul style="list-style-type: none"> Amount of Lifeline transportation service provided Progress in implementing transportation programs for older adults Progress in completing community-based Plans MTC and Transit Operator Title VI reports 	<ul style="list-style-type: none"> Amount of Lifeline transportation service provided Number of Community-Based Transportation Plans completed Progress in implementing strategies from the Coordinated Public Transit-Human Services Plan Progress in implementing improvements in wayfinding signage and in-station information at regional transit hubs as identified in MTC’s Transit Connectivity Plan 	<ul style="list-style-type: none"> Deleted Title VI measure since MTC and transit operators, as Federal grantees, are legally required to prepare Title VI reports. Typically, no findings of significance come from Title VI reports. In addition, MTC has in place a discrimination complaint process to address customer complaints. The Coordinated Public Transit-Human Services Plan addresses needs of low-income, older adults and disabled populations.

ECONOMY:

Livable Communities: A Region of Vibrant Neighborhoods

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
Purpose	<p>It is widely recognized that, over the long term, transportation and land-use decisions will impact regional travel patterns as well as mobility within communities related to opportunities for biking, walking, or using transit. The Bay Area’s Smart Growth Vision recommends that future development take place around major transit lines or in other infill locations within the urban core to increase regional housing stock and improve transportation options. There appears to be early consensus that, from the regional level, the most effective approach for achieving these desirable land-use patterns is through incentives to local government. In addition, smaller scale projects funded through MTC’s Transportation for Livable Communities and Housing Incentive programs (TLC/HIP) will continue to play a role in helping communities create vibrant neighborhoods while providing expanding travel options within these communities.</p>	<p>Transportation and land-use decisions will impact regional travel patterns and ultimately mobility within and between communities related to opportunities for biking, walking, or taking transit.</p> <p>The Bay Area took the first bold step in 2002 by adopting the Smart Growth Vision wherein new development would be concentrated in compact forms, in existing communities, in areas accessible to transit and in places that are close to services and employment opportunities. This more compact growth pattern produces more efficient use of transportation facilities, greater housing choices, revitalization of older neighborhoods, towns, and cities, preservation and conservation of agricultural land, open space, and sensitive habitats, and attainment of high quality of life for Bay Area residents. The latest multi-agency Focusing Our Vision (FOCUS) effort strives to further advance smart growth objectives by engaging local governments and soliciting their help in identifying priority development areas (PDAs) and priority conservation areas regionwide.</p> <p>Successful implementation of desired compact land-uses will require incentives to local governments.</p>	<ul style="list-style-type: none"> • SAFETEA requires RTPs to “promote consistency between transportation improvements and State and local planned growth and economic development patterns.” • Introduces ABAG’s Focusing Our Vision effort and the associated Priority Development Areas.

	<i>Transportation 2030 Plan Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revisions</i>
Objectives	<ul style="list-style-type: none"> • Create incentives to encourage transit-oriented development around regional transit systems and mixed-use development elsewhere • Create new and safer ways to get around within communities by fostering walking and biking and connecting communities to transit • Partner with local communities in developing transportation approaches that enhance community vitality for neighborhoods and retail centers 	<ul style="list-style-type: none"> • Continue to use incentives to encourage transit-oriented development around transit corridors and hubs and mixed use development elsewhere • Target incentives and financial resources in support of compact growth areas and new FOCUS priority development areas • Create new and safer ways to get around and between communities by walking, biking, and taking transit • Partner with local communities in developing transportation approaches that enhance community vitality for neighborhoods and retail centers 	<ul style="list-style-type: none"> • Emphasize the benefits of retrofitting existing development as well as forward planning of transit-oriented development assisted by public funds.
Examples of Current Efforts	<p>Participation in regional Smart Growth initiative, expanded funding for TLC/HIP, Resolution 3434 regional transit expansion policies for supportive land use plans around new transit lines; Transportation Planning and Land Use Solutions (T-PLUS) – partnering with CMAs to help inform local land-use decisions</p>	<p>The multi-agency FOCUS initiative is the latest regional effort to solidify the transportation-land-use connection and to improve the coordination between planned transportation investments and locally planned growth. Other regional programs that help to link transportation investment and supportive land use development include: MTC’s Transit-Oriented Development policy ensures that Resolution 3434 transit expansion investments proceed only if station area plans and existing development exceed corridor threshold limits for housing. Smaller scale projects funded through MTC’s Transportation for Livable Communities and Housing Incentive programs (TLC/HIP), Station Area Planning Grants, and Transportation Planning and Land Use Solutions (T-PLUS) continue to support the development and revitalization of livable communities.</p>	
Key Measures of Progress	<ul style="list-style-type: none"> • Number of TLC projects completed • Number of new Transit Oriented Development projects assisted with HIP • Number of new mixed use development projects assisted with HIP • Annual results of T-PLUS program 	<ul style="list-style-type: none"> • Number of regional and county TLC capital projects funded and completed • Number of new housing projects assisted with regional HIP • Progress in implementing MTC’s Transit-Oriented Development Policy as applied to Resolution 3434 projects • Progress in implementing FOCUS priority development areas and priority conservation areas • Percent of all residents in the urban core within 5-minute walk to 10-minute or better transit service • Number of transit boardings per capita 	<ul style="list-style-type: none"> • Focus on the delivery of TLC regional and county capital projects. • Focus on MTC’s HIP since only two CMAs have a county HIP program • Measures progress in implementing the Resolution 3434 TOD Policy and FOCUS

ENVIRONMENT:

Clean Air: Clearing the Skies

	<i>Transportation 2030 Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revision</i>
Purpose	The federal and state governments have set standards to maintain healthy air. Over the last two decades, state and regional air quality agencies have achieved major reductions in chemicals that help form smog, and the Bay Area now meets the federal one-hour ozone standard. While most reductions from motor vehicles come from strict state controls on vehicle engines and fuels, certain types of transportation investments can help reduce the number of vehicle trips and lower emissions through more efficient traffic flows on freeways and local streets. Maintaining good air quality will require increased emphasis on efforts to control emissions on specific days when ozone could reach unhealthy levels. New challenges will include tackling the reduction of small particulate matter from vehicles (an emerging health concern), and further collaboration with the Central Valley on reducing transport of pollution from Bay Area sources.	Air quality planning in the Bay Area is designed to have the region attain and maintain standards for healthy air set by the federal and state government. Over the last two decades, state and regional air quality agencies have made steady progress in reducing ozone precursors (smog) and carbon monoxide emissions from all sources, but new, more stringent standards for ozone and fine particulate matter will pose new challenges. Long-term trends show a continued decline in emissions of both ozone precursors and carbon monoxide emissions from cars and trucks, primarily as a result of strict state emission requirements for new cars. While new federal controls on commercial trucks will reduce emissions from these engines, additional motor vehicle travel will lead to increased levels of particulates overall. Transportation investments can contribute to improving air quality in a number of ways, from providing alternatives to automobile travel, to improving traffic flows on freeways and local streets, to funding emission control technologies to clean up diesel exhaust from older transit and commercial vehicles.	<ul style="list-style-type: none"> • More information on long-term trends; identify new air quality standards as potential challenge; delete discussion of episodic controls, since this has not been worked on lately, except for Spare the Air/Free Transit Campaign.
Objectives	<ul style="list-style-type: none"> • Achieve additional reductions in motor vehicle emissions through effective transportation control measures • Working with the Bay Area Air Quality Management District, develop new episodic control strategies for predicted high-ozone days • Help reduce particulate matter from buses and other heavy duty vehicles • Promote non-motorized travel to reduce auto trips 	<ul style="list-style-type: none"> • Reduce regional emissions from motor vehicles by supporting public transit, carpooling, and bike/walk modes • Reduce regional emissions by maintaining certain speeds on local streets and Bay Area freeways • Reduce long-term emissions from motor vehicles by supporting regional smart growth planning • Reduce particulate matter from buses and other heavy duty vehicles through investments in retrofit technology and cleaner engines 	
Examples of Current Efforts	Ongoing implementation of various state and federal transportation control measures; funding for emission control devices on urban buses to lower ozone precursors and particulate matter.	Ongoing implementation of various state and federal transportation control measures; installation of retrofit kits on older diesel powered buses and garbage trucks to reduce particulate matter, and funding for free transit on predicted high ozone days.	

	<i>Transportation 2030 Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revision</i>
<p>Key Measures of Progress</p>	<ul style="list-style-type: none"> • Periodic analysis of consistency between the Transportation 2030 Plan and Transportation Improvement Program (TIP) and the federal air quality plan (also known as transportation “conformity”). • Progress is retrofitting urban buses with new emission controls • Development of new episodic controls on Spare the Air days • Progress in funding bicycle and pedestrian projects 	<p>Many transportation investments in the Plan will have both mobility and air quality benefits. Several measures of progress would include:</p> <ul style="list-style-type: none"> • Implementation status of federal and state Transportation Control Measures • Periodic updates of motor vehicle emission inventories as part of federal and state planning processes • Periodic assessments of the conformity of the Bay Area Transportation Improvement Program and Regional Transportation Plan with the transportation emission “budgets” in the federal air quality plan (or “SIP”) 	<ul style="list-style-type: none"> • New control strategies implemented at state and regional level will be needed to address criteria pollutants

ENVIRONMENT:

Climate Change: Managing Global Warming

	<i>Transportation 2030 Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revision</i>
Purpose	N/A – this is a new goal	<p>The continued warming of the earth’s atmosphere will have numerous implications for the State and Bay Area, from health and environmental issues to impacts on the Bay Area’s transportation infrastructure with rising sea levels. Transportation is nearly completely reliant on petroleum for fuel, thus the amount of regional travel and the efficiency of the vehicles used to transport people and goods will be major determinant of the amount of greenhouse gases (GHGs) produced by Bay Area travel activity. At the same time, critical elements of the transportation infrastructure (highway, rail, and airports) could face flooding as sea levels continue to rise. The state is committed to reduce its GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and 80 percent below 1990 levels by 2050.</p> <p>While there are multiple avenues for reducing GHGs from transportation, existing resources are scarce and there is a need to identify the most productive approaches to reducing GHG emissions. The same applies to the projects that will be necessary to protect the region’s transportation infrastructure.</p>	<ul style="list-style-type: none"> New goal to reflect state goal of reducing GHGs as well as significant public attention on climate change issue
Objectives	N/A	<ul style="list-style-type: none"> Identify the amount of future GHGs from Bay Area transportation sources Identify emission reduction strategies and new funding sources for climate protection Identify strategies to protect Bay Area transportation infrastructure and new funding sources for adaptation 	
Examples of Current Efforts		<p>Many regional programs that improve transportation and air quality will also have direct GHG reduction benefits:</p> <ul style="list-style-type: none"> Ongoing analysis of potential transportation strategies for reducing GHGs that can be implemented by MTC Participation in Joint Policy Committee process that will identify cooperative climate protection efforts that can be implemented by MTC, ABAG, the Air District and BCDC. 	<ul style="list-style-type: none">
Key Measures of Progress		<ul style="list-style-type: none"> Air District GHG Emission Inventory which shows trends in GHGs from transportation as well as all other Bay Area sources 	<ul style="list-style-type: none">

ECONOMY:

Efficient Freight Travel: Moving Goods to Market

	<i>Transportation 2030 Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revision</i>
Purpose	Expected increases in population and a resurgent economy will contribute to increased truck movement throughout the region, especially near the Bay Area’s major airports and seaports. Innovation in intermodalism has transformed the movement of freight, creating efficient connections between carriers, but ultimately the region’s major freight corridors will need further expansion. Both congestion on key freight routes and the reliability of trip times have become major concerns for those who move freight within, into and out of the Bay Area. The increasing cost of moving freight in the region could contribute to a higher cost of living, while impediments in shipping freight could lead some industries to relocate.	Expected increases in population, growing international trade with the Pacific Rim , and a resurgent economy will contribute to increased truck and rail freight movement throughout the region, especially near the Bay Area’s major airports and seaports. Innovation in intermodalism has transformed the movement of freight, creating efficient connections between carriers, but ultimately the region’s major freight corridors, particularly for rail freight , will need further expansion. Both congestion on key freight routes and the reliability of trip times have become major concerns for those who move freight within, into and out of the Bay Area. Furthermore, the environmental impacts of moving freight on local communities must also be considered, including air pollution, noise, and local traffic congestion. The increasing cost of moving freight in the region could contribute to a higher cost of living, while impediments in shipping freight could lead some industries to relocate. The needs of the goods movement industry should be better integrated into local land use and development decisions.	<ul style="list-style-type: none"> Acknowledge local concerns regarding goods movement, in particular air quality/emissions related impacts and the need to address these as part of a comprehensive goods movement strategy.
Objectives	<ul style="list-style-type: none"> Identify key improvements in the surface transportation system where public investment can help the freight industry; Identify long term capacity issues associated with cargo movement through airports and seaports Collaborate with the private sector to best leverage both public and private financial resources to improve freight-related infrastructure. 	<ul style="list-style-type: none"> Identify key freight improvements and potential funding sources, including private sector, state, and potential federal funding; Identify long term capacity issues associated with cargo movement through airports and seaports Collaborate with the private sector to best leverage both public and private financial resources to improve freight-related infrastructure. Encourage progress in implementing ITS and operational solutions to improve goods movement 	

	<i>Transportation 2030 Goal</i>	<i>Proposed Revisions</i>	<i>Reason for Revision</i>
Examples of Current Efforts	Regional Freight Initiative-- to identify future freight improvement projects in the region and issues related to zoning protection for freight activities; advocacy related to new transportation reauthorization bill (SAFETEA)	<p>MTC's Goods Movement/ Land Use Study (in progress) seeks to further the region's understanding of goods movement/land use issues and the implications of land use decisions for the transportation network, the environment and the overall quality of life and cost of living in the region. Such understanding can build interest and constituencies and provide the rationale for a regional land use strategy in support of a more efficient goods movement system.</p> <p>MTC is also working with surrounding regions (San Joaquin, Sacramento and Stanislaus) to evaluate the short and long-term infrastructure needs along the two major trade corridors serving the Bay Area. This collaboration is critical because trade relies on multi-region corridors to serve both inter-regional and international goods movement.</p>	
Key Measures of Progress	<ul style="list-style-type: none"> • Identification of key freight projects and associated funding • Development of a regional truck network on local arterials • Inclusion of a regional air cargo plan element in the next Regional Airport System Planning Analysis 	<ul style="list-style-type: none"> • Identification of key freight projects and associated funding including private sector funding • Inclusion of a regional air cargo plan element in the next Regional Airport System Planning Analysis • Progress in implementing priority freight projects • Progress in implementing new ITS or operational programs to improve efficiency of goods movement and/or environmental impact of goods movement 	