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## *Memorandum*

TO: Partnership Technical Advisory Committee

DATE: June 18, 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 (CO<sub>2</sub>) 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 CO<sub>2</sub> 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 (CO<sub>2</sub> 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

