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COMMISSION

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Memorandum

TO: Partnership Technical Advisory Committee

DATE: March 17, 2008

FR: Lisa Klein

W. I.

RE: Transportation 2035: Project Performance Assessment Update

By the time of your March 17 meeting, MTC staff will have initiated the Transportation 2035 project performance assessment. There will be an opportunity for project sponsors to conduct a technical review of the preliminary analysis results - both qualitative and quantitative - for their projects toward the end of April. Staff will provide a status report on the evaluation at your meeting.

Overview

As previously reviewed with PTAC, the performance evaluation consists of two elements: (1) a qualitative policy assessment drawn from the Vision Policy Strategies and (2) a quantitative performance evaluation based on the Transportation 2035 Performance Objectives. Many of the CMA and transit planning staff have participated in an ad hoc committee of the Partnership that has advised MTC staff on both the quantitative and qualitative assessment elements. Please note that only projects that are candidates for discretionary funding will be evaluated; committed projects are not subject to evaluation.

The complementary quantitative and qualitative assessments will provide information about how projects address key Transportation 2035 policy elements (see Figure 1). The information is intended to inform, not substitute for, the Commission's deliberation and decision making, which will necessarily expand to include additional considerations. Projects will not be included or excluded de facto based on the results of the evaluation.

The attached materials provide details on the evaluation elements described briefly below:

1. **Qualitative Project-Level Policy Assessment** (See [Attachment A.](#)) The Vision Policy Strategies (VPS) establish the framework for this assessment, which will apply to all potential discretionary projects. The VPS address strategies we know to be critical to achieving the Vision: investment, pricing and affordability, focused growth, technology and individual actions. The Partnership Board reviewed the VPS in late February, and the Planning Committee is expected to approve them on March 14. To review the Vision Policy Strategies, see the March 14 Planning Committee agenda packets at <http://www.mtc.ca.gov/meetings/schedule/index.htm>.

To help ensure consistency and transparency, MTC staff would meet with the Partnership Ad Hoc Committee in mid-March, after reviewing a set of approximately 40

representative projects. This will provide an opportunity for feedback and discussion about the criteria and their application prior to completing the assessment for all projects.

2. **Quantitative Project Performance Evaluation** (See [Attachment B.](#)) MTC staff will select a subset of approximately 100 projects and programs from among the candidates for discretionary funding. The evaluation will assess cost-effectiveness with respect to the quantitative performance objectives approved by the Commission in January. As a refresher, these address: improving maintenance; reducing injuries and fatalities, delay, emissions, vehicle miles traveled; and improving affordability for low-income households. PTAC reviewed the approach and criteria on February 4, and the Planning Committee approved them on February 8.

Process & Schedule

MTC staff sees the planning process unfolding through the following key steps, listed below and illustrated in Figure 2:

1. Identify the most cost-effective projects/programs with respect to the performance objectives (Quantitative project evaluation approach – see Attachment A);
2. Consider the extent to how projects/programs advance the Commission’s Vision Policy Strategies (Qualitative policy evaluation - see Attachment B);
3. Debate the trade-offs among various investment strategies that consider both performance objectives and vision policy strategies as part of the deliberations, as well as other considerations the Commissioners may bring to the table;
4. Determine which projects/programs we can afford within the revenues projected to be reasonably available to the region over the next 25 years (i.e., dollars and cents approach); and
5. Develop an investment plan of projects/programs for the financially constrained plan.

We will provide our partner agencies, the public and the Commission with a wealth of evaluation results in late April/May 2008. The evaluation results are intended to inform the investment trade-off discussions that will take place in May and June 2008. As part of its deliberations, the Commission will take into account numerous factors including: (1) Three Es, goals and performance objectives set for the plan; (2) results from the project performance and policy assessments; (3) financial constraints, and (4) and input received from partners, stakeholders and the public. Ultimately, the Commission will exercise its policy discretion and decide on the program of projects/programs for the financially constrained plan in July 2008.

Below are the upcoming key Transportation 2035 milestones:

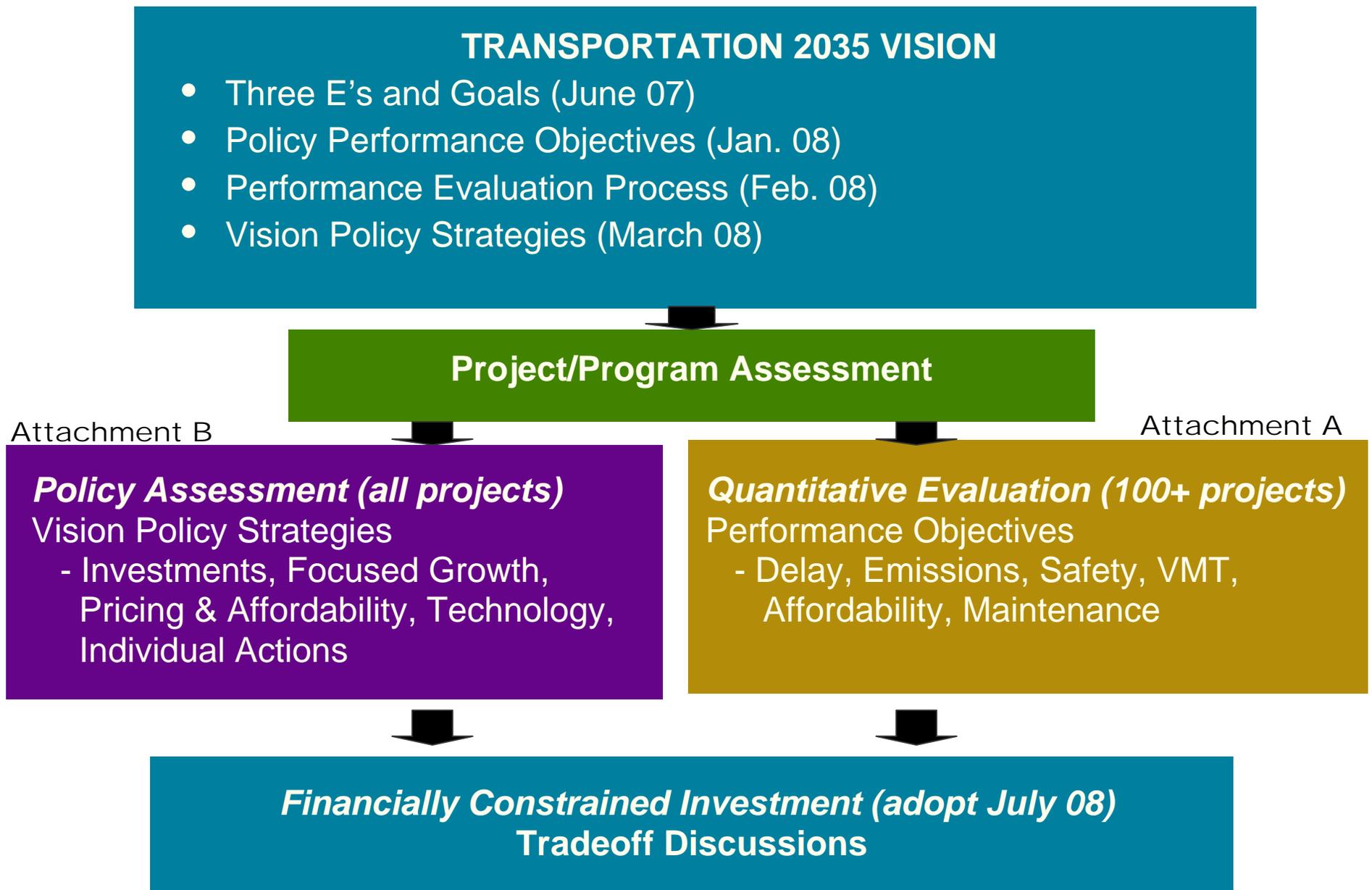
March 5	Project submittals are due to MTC
March 14	Planning Committee approves <u>Proposed Final</u> Vision Policy Strategies
Late April	MTC staff releases preliminary project performance & policy assessment results for technical review
May - June	Partners, stakeholders, the public and Commission to review evaluation results and begin investment trade-off discussions. This will include public workshops in each county, as well as meetings of the Partnership Board.
June 13	Planning Committee reviews Draft T2035 Investment Plan

July 11	Planning Committee approves Final Draft T2035 Investment Plan
July 23	Commission approves Final Draft T2035 Investment Plan
Aug.-Nov.	Prepare equity analysis, EIR, and air quality conformity analysis
December 12	Planning Committee releases Draft T2035 Plan & Draft EIR for public review
March 2009	Commission approves Final T2035 Plan

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Figure 2: Evaluation Elements Reinforce Transportation 2035 Policy Framework

E's	Goals	Performance Objectives Quantitative Evaluation	Policy Strategies Qualitative Evaluation				
ECONOMY	Maintenance & Safety	Improve maintenance	Investments	Individual Actions	Focused Growth	Pricing & Affordability	Technology
		Reduce injuries and fatalities					
	Reliability	Reduce delay					
	Freight						
Security	None recommended						
ENVIRON	Clean Air	Reduce VMT					
	Climate Protection	Reduce emissions					
EQUITY	Access	Improve affordability					
	Livable Communities						

Figure 1: Transportation 2035 Planning Process

Attachment A

Qualitative Project-Level Policy Assessment

The policy assessment will provide information on how projects address the Vision Policy Strategies. This parallel assessment will complement the quantitative project performance evaluation by capturing a range of key considerations that would not otherwise be addressed. As part of the subsequent “trade-off” discussions, MTC staff or stakeholders will likely recommend including some projects in the Plan that are not highly cost effective but do support key policies. The individual policy strategies will not be weighted.

Approach

MTC staff will note the impact on relevant policy strategies from the five Vision Policy Strategies for individual (or bundled) projects, which will be presented along with the results of the quantitative project performance evaluation. This will provide project sponsors and MTC staff with the flexibility to highlight key policy considerations that might be overlooked in other project analysis without requiring an overly cumbersome project assessment.

Process

MTC staff will conduct the policy assessment with assistance from ABAG, BAAQMD and BCDC staff. To help ensure consistency and transparency, MTC staff would meet with the Partnership Ad Hoc Committee in mid-March, after reviewing a set of approximately 40 representative projects. This will provide an opportunity for feedback and discussion about the criteria and their application prior to completing the assessment for all projects.

Criteria

The assessment criteria are shown in Table 1 under each policy strategy. The criteria have been kept relatively broad to ensure the policy assessment remains a high-level assessment meant to highlight critical policy considerations that might be overlooked through the other quantitative project evaluation. The evaluation would consider the depth of support for each criteria based on both functionality and scale. For example, project may be (1) critical or strongly supportive, (2) generally supportive or encouraging, or (3) neutral toward a given criterion.

Project Subject to Evaluation

MTC staff intends that the policy assessment capture all non-committed projects submitted. Some projects may be bundled to expedite the evaluation. As per Commission policy, committed projects will not be evaluated.

Table 1: MTC Draft Policy Assessment Criteria

Policy	Criteria	Examples
Investment	-Improves safety (addresses collisions, seismic and personal security)	-Bike/ped projects, seismic upgrade, improved lighting at transit stations
	-Improves freight mobility	-Intermodal investments, truck facilities, fwy improvements in key trucking corridors, rail investments in key freight corridors, access to ports or freight facilities
	- Improves transit mobility, effectiveness or efficiency	-New or expanded transit service, signal improvement on key transit route, core capacity improvements
	-Completes a critical transportation system gap (geographic and temporal)	-Gap closure in HOV network, improved transit network connectivity between modes or services
	-Advances maintenance of the existing transportation system	-Improvement or expansion of transit maintenance facility, roadway reconstruction
	-Improves access for youth, elderly and disabled persons	- Accessible taxis, paratransit service, first and last mile transit connections
Pricing and Affordability	-Institutes or enables a new user-based pricing program	-HOT lanes, parking pricing, congestion pricing initiatives
	- Provides a transit alternative to driving on a future priced facility or area	-Express bus serving HOT lanes, BRT/local bus serving cordon pricing area
	-Reduces transportation (or housing) costs for low-income households	-Ridesharing, transit, shuttle, or bike/ped improvement serving low-income community;
Focused Growth	-Located within a proposed or planned PDA	-Improved transit, bike/ped investments, transit priority measures, or local roadway improvements within a PDA
	-Connects two PDAs	- Improvements to roadways & transit services that connect PDAs
New Technology	- Implements technology-based regional and corridor operations programs or traveler information	-TOS, ramp metering, 511, real time traveler or parking information
	-Supports greenhouse gas emissions reduction through technology	-Alternative fuels programs
Individual Behavior	-Marketing, education and incentive programs that encourage mode shift away from driving alone or during peaks	-Safe Routes to School, transit vouchers, Spare the Air, telecommuting
	-Provides an alternative to driving alone	-Transit capacity expansion, improved bike/ped facilities, new transit services, ridesharing facilities

Attachment B

Quantitative Project Performance Evaluation

Approach

The approach is to compare project costs and benefits in order to identify the most cost-effective projects with respect to the Transportation 2035 Performance Objectives. Key aspects include:

- Quantitative comparison of project costs and benefits: Wherever possible, benefits are to be valued monetarily, based on established economic research.
- Benefits related directly to the Transportation 2035 Performance Objectives
- Projects compared directly and quantitatively: The evaluation will capture a wide range of project types. Data will be generated through the regional travel demand model, as possible. In some cases, alternative sources may be used. In particular, MTC staff may need to pioneer evaluation methodologies to quantify the benefits of regional funding programs (such as Transportation for Livable Communities, Lifeline and transit and roadway maintenance shortfall programs) in terms of the adopted performance objectives.
- Most cost-effective projects identified: The strength of this analysis lies in identifying the outliers (i.e. the highest and lowest project performers). It is not likely to be precise enough to distinguish among investments with very close benefit-to-cost ratios.
- Focus performance evaluation on major investment decisions: While practical limitations preclude evaluation of each of the 400 to 600 discretionary investments expected in the Plan, major investment decisions can be informed through evaluation of a subset of projects defined by the guidelines in Attachment B. These guidelines account for approximately 80% of discretionary investment costs in the current Transportation 2030 plan. Some smaller projects will not be quantitatively evaluated, but be subject to a policy assessment in conjunction with trade-off discussions.

Criteria (See table below.)

1. Combined benefit-cost measure capturing reductions of delay, greenhouse gas emissions, particulate matter emissions, and fatal and injury collisions. The benefits are expressed in monetary terms. For example, the monetary value of delay is tied to the average regional wage rate; that of particulate matter reflects the costs associated with its health impacts. While the combined measure reflects the cumulative benefits associated with several performance objectives, information also will be provided on the individual components.
2. Cost per reduction in vehicle miles traveled (VMT). VMT has no inherent economic value aside from that associated with emissions and collisions, which are captured in the benefit-cost measure described above.
3. Cost per low-income household served (transit projects only). The rationale for the measure is that transit alternatives serving low-income households can reduce the need to own additional automobiles, a significant transportation cost for low-income households. Staff would estimate the low-income households within a half-mile of any proposed transit stops that are served by the project. Since not all low-income households will

actually use any given transit service, staff would apply a discount factor based on actual transit usage rates from MTC's 2000 Bay Area Household Travel Survey. This dataset could allow staff to develop current transit usage rates based on income level, geography (urban/suburban and rural), and location (San Francisco/non-San Francisco).

4. Alternative benefit-cost measure for maintenance. This measure reflects public and private cost savings from performing maintenance on-time as opposed to deferring it. While this is not a complete measure, it illustrates a large component of benefits from the roadway and transit capital shortfall programs.

Proposed Project Performance Measures	Examples of Projects*
Combined benefit-cost Benefit equals value in dollars of reductions in: <ul style="list-style-type: none"> • Delay • Particulate matter emissions • Carbon dioxide emissions • Fatalities and injuries 	Transit expansion and efficiency, e.g., Bus rapid transit/bus priority New ferry routes Rail extensions Freeway expansion and operations, e.g., New carpool lanes/HOT lanes, freeway to freeway interchanges, projects from Freeway Performance Initiative Regional programs, e.g. TLC/HIP, Lifeline, Regional Bike/Pedestrian Program,
Cost per vehicle mile traveled (VMT) reduced	
Cost per low-income household served	Transit expansion and efficiency per above
Alternative benefit-cost for maintenance Benefit equals direct public and private cost savings from performing maintenance on-time	Transit capital shortfall program and local streets and roads shortfall program

* Applies only to projects that are not committed and meet other functional and cost criteria described in Attachment B.

Projects Subject to Quantitative Evaluation

MTC staff will select projects for evaluation from among those submitted to MTC by March 5. Staff propose to focus our efforts on the most costly and biggest-impact projects and programs under consideration for discretionary funding, as outlined by the guidelines below:

1. Committed projects and programs as defined by the Planning Committee on January 11, 2008 are not subject to evaluation.
2. Projects considered in the regional Freeway Performance Initiative (FPI) will be evaluated. Prior analyses conducted for the FPI will be used and supplemented, as needed.

3. MTC staff will select up to 100 other projects using cost and functional criteria:
- (a) Projects with total cost of \$50 million or greater and with area-wide impacts would generally be subject to evaluation. Examples of projects with area-wide impacts include:
- New/enhanced transit service, including transit priority measures
 - Freeway-to-freeway interchanges
 - Freeway widenings, including HOV lanes & HOT lanes
 - State highway widenings in areas with limited freeways
- Examples of projects considered to have local impacts (and therefore not subject to evaluation) include:
- Arterial or intersection improvements, except reliever routes as noted above
 - Local interchanges
 - Individual, new transit stations/stops for existing services
 - Transit center improvements & parking expansion
 - Grade separations
- (b) Regional funding programs (e.g., TLC/HIP, Regional Bike and Pedestrian Program, Lifeline, Climate Change, Clean Air) would be evaluated. Per Commission policy, MTC's ongoing Regional Operations Programs, Resolution 3434 projects and current TIP projects are deemed committed and would not be evaluated. Other programmatic categories generally would not be evaluated. Examples include: countywide bike and pedestrian projects, non-capacity enhancing arterial improvements, non-specific transit priority measures.
- (c) MTC staff would consider narrowing the criteria if, after a review of the projects by March 5, the criteria net more than 100 projects.