Orangeline High Speed Maglev

Documentation demonstrating compliance with federal
"Financial Constraint" Guidelines for approval of projects
in the 2008 Regional Transportation Plan
January 10, 2008

Federal guidelines (provided in, "A Guide to Federal and State Financial Planning Requirements" by FHWA, FTA and Caltrans, April 28, 2004, attached) require that RTPs must demonstrate fiscal constraint – meaning that there will be sufficient funds to implement proposed improvements and to operate and maintain the proposed projects and entire transportation system. Fiscal constraint is demonstrated by commitment of available funds or by demonstrating that required funding is "reasonably available", even though they are not currently available or committed. The guidelines identify the following criteria for assessing if funding is "reasonably available".

The Orangeline Development Authority believes that the Orangeline High Speed Maglev demonstrates that funding is reasonably available, based on the evidence provided below and in the attached information documents, which thereby enables inclusion of the project in the 2008 RTP.

1. Ensure there are sufficient funds to implement the project, and to operate and maintain the system
    - A funding plan has been prepared and is available for review on the project website – www.orangeline.calmaglev.org. Passenger fares, cargo fees and other project revenues provide sufficient funds to cover project planning, construction, construction financing and O&M costs.
    - Reasonably available funding sources have been identified: Project revenues include passenger fares, cargo fees and other project revenues such as concessions, advertising, etc. Financing to fund construction may include one or more of the following sources: public investment and private equity, bonds and other private borrowing, and state and federal credit enhancements (such as TIFIA) and/or loan guarantees.
2. Include a financial plan and implementation plan for the project that can serve as input to and a basis for the required MPO financial plan
    - A project financial plan has been prepared: The Financial Plan can be found at http://orangeline.calmaglev.org/documents/ 20070417 milestone_10.pdf.
    - The Financial Plan Supplement can be found at http://orangeline.calmaglev.org/documents/Orangeline_High_Speed_Maglev Financial Model 2h2 _20070613.pdf
    - The Implementation Plan can be found in the Milestone 9 and 10 reports.
3. Base financial plans on realistic or reasonably available funding sources using data assumptions that reflect the existing situation and historical trends
    - As shown in the Financial Plan, the use of project revenues to fund construction and operation is reasonably based upon existing market data, which demonstrate the value of the service provided to the commuter and the willingness of commuters to pay for that service at the price needed to cover capital and operating costs.
    - Specifically, the high-speed maglev service price point is at or less than what we can reasonably expect future users would pay. It is less than what they have to pay for travel by auto. The cost savings increase in comparison to travel on a toll lane. For example, the Chicago Skyway charges a minimum $.35 per mile that increases to over $1 per mile depending upon distance

traveled. The OCTA 91 Express Lane charges as much as $1.00 per mile during peak periods. These are examples of transportation systems that pay for themselves by offering a superior service compared to heavily congested "freeways". A ride on the Orangeline High Speed Maglev can cost less than the cost of travel by auto on toll lanes or on congested "free" lanes.

4. Identify proposed new revenues and/or revenue sources, and strategies for ensuring their availability
   - The Authority has prepared and is implementing a strategy to secure funding. The strategy is to develop a project that generates enough revenue to cover costs, to gain support of all cities along the corridor, to gain support of state and regional agencies, to secure required rights-of-way, to secure a development partner, and to attract public and private financing to cover construction costs that will be repaid from operating revenues.
   - Our progress in carrying out this strategy is described in the on-going monthly reports to the Authority's Board of Directors, available for review on the project website and summarized in “Project Milestones, attached”.
5. Identify innovative financing techniques proposed to ensure project implementation
   - The Authority has identified a straight-forward funding approach based on conventional project-revenue financing techniques. The techniques are similar to those used successfully to finance construction of toll roads in Orange County and San Diego County, to finance toll road concession leases in Indiana, Chicago and Colorado, and to finance other public works projects.
   - The Authority is currently engaged in securing collaterization to enhance loan terms and costs and to maximize competition in securing project financing.
6. Base cost and revenue estimates on sound cost and revenue estimating practices
   - The Authority and its development partner, ARCADIS, utilized a bottoms-up cost estimating approach based on SCAG unit-cost data developed for the LAX-March project and other maglev studies completed during the past seven years at an estimated cost of over $10 million.
   - The Orangeline High Speed Maglev cost estimate of $176 million per mile is comparable to $140 million per mile for the SCAG IOS maglev project. The cost per mile is favorable to the $300+ million per 8-lane equivalent cost per mile for current freeway widening projects in the corridor (a cost that does not include the cost of vehicles).
   - The project cost estimate is based on a well-defined project design prepared by the Authority and ARCADIS and on Phase 1 preliminary engineering studies costing about $1.5 million. Revenue estimates were derived from ridership estimates prepared by the very reputable planning firm Meyer Mohaddes Associates, using SCAG computer-based ridership/revenue estimating models, and were subjected to a three-level independent review for reasonableness by Fehr & Peers, ARCADIS and the Authority.
   - The project cost estimate is based on the assumption that public rights-of-way will be provided at no additional cost to the project. This assumption is felt to be reasonable in that payment for the public rights-of-way would add an expense that would have to be passed on to system users. This would be a form of double taxation as system users have already contributed tax support to purchase the rights-of-way and it would not be fair to tax them again, especially if the payments would be used to subsidize users of other transit systems. Should it be decided that payment will be required, the financial plan would be refined to include this cost. The impact will be to reduce the project surplus or extend the bond debt pay-off period and increase borrowing costs, or to reduce funding now designated for station area improvements and feeder services.

7. Provide a letter of intent. "A letter of intent by the responsible official or body having control of the funds should suffice as a commitment."
    - The Authority's commitment to using project revenues to cover project costs, including financing debt payment obligations, is evidenced in its adoption of the Milestone 10 report which establishes operating revenues as the source of funding for building and operating the maglev system.
    - The Authority Board has adopted a resolution to affirm its commitment to allocate project revenues to fund the project (see attached).
    - Additionally, the Orangeline High Speed Maglev Financial Plan has been reviewed by two private institutional funding sources who have determined that the project may be financed through tax-exempt debt or with a range of private funding mechanisms. (See attached letter from Wedbush Morgan Securities.)
8. Demonstrate adequate current support by public, elected officials, business community and/or special interests
    - The Authority has secured support of a majority of the cities along the 108-mile project corridor. Twenty cities along the corridor have passed resolutions expressing various levels of support for the project. Fifteen cities have passed resolutions authorizing participation as members of the Joint Powers Authority, and fourteen are currently "Member Cities" and have been contributing funds to support the operation of the Authority since March 2003. The City of Santa Ana City Council recently approved action authorizing the City to become a member of the Authority.
    - Member Cities have adopted resolutions committing to reviewing their General Plans and modifying those plans to incorporate appropriate changes that support the Orangeline High Speed Maglev, including higher-density, transit-oriented development around maglev stations, as well as resolutions adopting key project milestone reports, including the concluding report - Milestone 10 Financial Plan and the partnership proposal the Authority submitted to the California Transportation Commission on November 21, 2006. (See attached sample resolutions.)
    - The project is also supported by the Gateway Cities Council of Governments, representing 27 cities with a combined population of 2 million people.
    - The Authority has secured a letter of support from the Los Angeles County Metropolitan Transportation Authority with respect to use of MTA-owned right-of-way required for the project (see attached).
    - The City of Los Angeles provided funding for Orangeline High Speed Maglev feasibility studies.
    - The State has supported the project in the form of AB 2882 passed in 2006, which enables Orangeline Development Authority Member Cities to provide funding to the Orangeline High Speed Maglev from tax-increment revenues derived from infrastructure financing districts formed along the 108-mile project corridor. Key state and federal legislative leaders are working to advance the Orangeline High Speed Maglev project.
    - The federal government has supported the project in the form of an earmark in SAFETEA-LU and identification of the Orangeline High Speed Maglev as a "High Priority Project".
    - Private/business interest in the project is well demonstrated. The Authority has been successful in attracting, through a competitive procurement, a private consortium that has entered into a private public partnership agreement with the Authority. The consortium, led by the Dutch infrastructure development firm ARCADIS, has invested over $1.1 million in

the project, affirming the consortium's support for the project and confidence in the project, in the Authority and in the Authority's member cities. The consortium has reaffirmed its commitment to partner with the Authority in bringing the Orangeline High Speed Maglev to reality, as evidenced in the attached letter from ARCADIS dated December 4, 2007.

- The Authority has secured demonstrated support for the project by undertaking an outreach program. One of the Authority's member cities conducted a community survey that demonstrated 75% of residents and a majority of businesses would definitely or probably support an Orangeline High Speed Maglev-type transportation system along the proposed corridor alignment. An estimated 200 local city council meetings and other public events in which the project has been presented and/or voted upon have generate positive public responses.

9. Develop specific action plan for securing funding
    - The Authority's plan of action is to secure participation of the remaining cities along the corridor as members of the Authority, to secure control of/access to the public rights-of-way required to build the project, to secure State support for the project at a level adequate to attract private investment, and to secure private investment and direct public investment in the project.
    - The Authority is currently focused on this action plan; meetings have been held with investment bankers and other private interests involved in the financing and construction of transportation infrastructure; meetings have been held and are continuing to secure state support, including legislation and support of the Administration; discussions are also underway to secure support of local transportation agencies, such as L.A. Metro and OCTA; a formal process for obtaining proposals from the private investment/ development community has been initiated. An Investor and Developer Conference is planned for March 2008 to solicit private sector proposals, which are anticipated during the second quarter of 2008.
10. Develop the design concept and scope description to permit air quality conformity determination
    - The Authority has completed Phase 1 preliminary engineering and environmental/economic impact analyses to establish the design concept and project scope.
    - Ten "Milestone" reports documenting the results of this work, completed over a 12 month period, can be found at the project website.
    - The Authority estimates that the project will reduce gasoline consumption by 2.5 billion gallons and reduce NOx and CO_2 emissions by 40 million tons, based on current vehicle emission characteristics. The project will help to meet conformity goals, as well as state mandates for reducing green house gas (GHG) emissions.

Significant progress has been made, beyond just forming a JPA, to advance the Orangeline High Speed Maglev Corridor Development Project. We believe that the project meets federal and state requirements for financial constraint in the preparation of the 2008 Regional Transportation Plan.

ORANGELINE HIGH SPEED MAGLEV – *PROJECT MILESTONES*

December 2001

STUDY CONCLUDES PRIVATELY- FUNDED MAGLEV IS FEASIBLE

A study of high speed ground transportation options to connect LAX, Downtown Los Angeles and Palmdale determined the potential feasibility of deploying maglev technology along public rights-of-way using primarily private funds.

February 2002

ORANGELINE MAGLEV STUDY GETS UNDERWAY

Fifteen local cities along the former Pacific Electric Red Car corridor serving Los Angeles and Orange Counties join with the Gateway Cities Council of Governments in support of a 3-month maglev feasibility study funded by local cities with matching funds from SCAG. Orange County Transportation Authority funds additional study of Western Orange County transit alternatives.

July 2002

ORANGELINE STUDY CONCLUDES MAGLEV IS VIABLE AS SELF-FINANCED PROJECT

Following completion of the study, the Gateway Cities Council of Governments of 27 cities in Southeast Los Angeles County considers steps to deploy a 33-mile maglev line connecting downtown Los Angeles to central Orange County.

October 2002

CERRITOS INITIATES SUPPORT FOR ORANGELINE JOINT POWERS AUTHORITY

The Cerritos City Council unanimously approves support for the formation of a joint powers authority that would conduct studies necessary to begin construction of the Orangeline.

NINE CITIES PASS RESOLUTIONS IN SUPPORT OF ORANGELINE

Artesia, Bellflower, Bell, Downey, Huntington Park, Maywood, Paramount, and Stanton join Cerritos in supporting the Orangeline Development Authority.

November 2002

GATEWAY CITIES COUNCIL OF GOVERNMENTS SUPPORTS ORANGELINE

Local council representing 27 cities and 1.8 million residents in Los Angeles County is the 10th public agency to support formation of a joint powers authority.

February 2003

TWO MORE CITIES JOIN IN SUPPORT OF ORANGELINE

Vernon and South Gate pass resolutions expressing support for the Orangeline bringing total to 18 cities that support formation of Orangeline Development Authority.

SOUTH GATE MAYOR HECTOR DE LA TORRE ELECTED CHAIR OF ORANGELINE DEVELOPMENT AUTHORITY

Cerritos Mayor Bruce Barrows calls to order the first meeting of the Orangeline Development Authority at which South Gate Mayor Hector De La Torre is unanimously elected Interim Chair of the Authority. Cerritos City Manager Art Gallucci is appointed Board Secretary.

March 2003

TWO MORE CITIES JOIN IN SUPPORT OF ORANGELINE

Garden Grove and Huntington Beach pass resolutions expressing support of the Orangeline.

SECRETARY GALLUCCI ISSUES FORMAL REQUEST TO MEMBER CITIES TO JOIN THE ORANGELINE DEVELOPMENT AUTHORITY – A JOINT POWERS AGENCY

An invitation sent on behalf of the Authority by Board Secretary Art Gallucci asks for local city councils to approve entry into the Orangeline Development Authority Joint Exercise of Powers Agreement.

June 2003

FORMAL ESTABLISHMENT OF THE ORANGELINE DEVELOPMENT AUTHORITY

The cities of Bell and South Gate become the first to adopt the Joint Exercise of Powers Agreement, effectively establishing the Orangeline Development Authority on June 10, 2003.

LOCAL CITIES CONTRIBUTE FUNDS TO THE ORANGELINE DEVELOPMENT AUTHORITY

In a demonstration of strong support of the maglev project, the City of Cerritos becomes the first of many cities to pay its proportionate member investment contribution, thus establishing a fund for the Authority.

June 2003 **FUNDING PROPOSAL SENT TO HOUSE OF REPRESENTATIVES**

Congresswoman Linda Sanchez submits a funding request on behalf of the Orangeline Development Authority to the U.S. Congress House Transportation and Infrastructure Committee.

April 2004 **U.S. HOUSE OF REPRESENTATIVES DESIGNATES ORANGELINE AS A NATIONAL "HIGH PRIORITY PROJECT"**

HR 3550, the House transportation reauthorization bill, recognizes the importance of the Orangeline; includes support language and funding to initiate environmental studies for the project.

CITY OF PALMDALE, CALIFORNIA BECOMES THIRTEENTH MEMBER CITY OF THE ORANGELINE DEVELOPMENT AUTHORITY

The City of Palmdale, located in the Antelope Valley in north Los Angeles County looks to the Orangeline to stimulate economic development and provide improved access to and from the southern part of the County, and to improve access to Palmdale Regional Airport.

September 2004 **ORANGELINE ATTRACTS INTERNATIONAL INDUSTRY INTEREST**

An international team of firms led by Lockheed Martin is selected as development partner to the Authority. Team commits to investing $750,000 in development planning studies. Negotiations of a partnership agreement are authorized. HDR, Inc. is selected as environmental planning consultant, along with four other firms that will provide as-needed planning services.

November 2004 **SANTA CLARITA CITY COUNCIL, BY UNANIMOUS VOTE, APPROVES CITY'S PARTICIPATION AS A MEMBER OF ORANGELINE DEVELOPMENT AUTHORITY**

The City of Santa Clarita City Council approves motion authorizing the City's participation as a member of the Orangeline Development Authority. The City becomes the 14th member city of the Orangeline Development Authority.

April 2005 **DEVELOPMENT AGREEMENT WITH PRIVATE PARTNER TEAM APPROVED – CONSORTIUM COMMITS OVER $1 MILLION TO NEXT DEVELOPMENT PHASE**

The Orangeline Development Authority Board of Directors approves a development agreement with a consortium of 24 local, national and global firms led by ARCADIS, headquartered in the Netherlands with its principle U.S. office in the Denver area.

December 2005 **AUTHORITY AND ARCADIS INITIATE $1.5 MILLION ORANGELINE HIGH SPEED MAGLEV PHASE 1 PRELIMINARY ENGINEERING WORK PROGRAM**

The work follows initial studies to assess the feasibility of a privately funded high speed maglev system from Palmdale to Irvine.

November 2006 **AUTHORITY BOARD APPROVES FINAL MILESTONE REPORT CONFIRMING FEASIBILITY OF ORANGELINE HIGH SPEED MAGLEV PROJECT**

Adoption of the Milestone 10 – Financial Plan completes Phase 1 preliminary engineering. 108-mile system would extend from Palmdale to Irvine and include 18 stations. The $18.7 billion project is planned to be privately funded with a target date for beginning operation as early as 2012.

AUTHORITY SUBMITS $200 MILLION PROPOSAL AND APPLICATION TO STATE FOR PHASE 2 PRELIMINARY ENGINEERING

Funding would come from voter-approved $19.9 billion infrastructure bond measure and be used to complete pre-construction planning and engineering and to secure $18.7 billion project revenue bonds to finance construction of 108-mile high speed maglev from Palmdale to Irvine.

April 2007 **AUTHORITY MEETS WITH WALL STREET INVESTMENT BANKERS**

Investment opportunity is described to determine interest in Orangeline High Speed Maglev. Positive responses and demonstration of interest includes recommendations for enhancing financial plan to address potential investment risks

August 2007 **CITY OF SANTA ANA CITY COUNCIL APPROVES MEMBERSHIP IN ORANGELINE DEVELOPMENT AUTHORITY**

City to seek funding from OCTA to cover membership assessments

November 2007 **STATE SENATOR LOWENTHAL, ASSEMBLYMEMBER DE LA TORRE URGE SUPPORT FOR ORANGELINE HIGH SPEED MAGLEV**

Legislators join delegation of local officials urging that the Orangeline High Speed Maglev be included in the 2008 Regional Transportation Plan

December 2007 **SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS APPROVES ORANGELINE HIGH SPEED MAGLEV AS COMPONENT OF DRAFT 2008 REGIONAL TRANSPORTATION PLAN**

Coalition of project supporters overcomes opposition from competing interests to ensure retention of project in draft regional plan, a key requirement for securing state and federal support

AUTHORITY BOARD APPROVES MAJOR CONFERENCE SET FOR MARCH 2008 IN SACRAMENTO TO SOLICIT INVESTOR AND DEVELOPER PROPOSALS

Effort is aimed at bringing local, state and federal officials together with global investors and developers to move project to next development stage and to secure up to $200 million in financing for completion of advanced design engineering, environmental assessments and financial planning for 108-mile project

RESOLUTION NO. 07-09

RESOLUTION OF THE ORANGELINE DEVELOPMENT AUTHORITY BOARD OF DIRECTORS EXPRESSING ITS INTENT TO USE ORANGELINE HIGH SPEED MAGLEV PROJECT OPERATING REVENUES AS THE SOURCE OF FUNDING TO CONSTRUCT AND OPERATE THE ORANGELINE HIGH SPEED MAGLEV SYSTEM

WHEREAS, the Orangeline Development Authority Board of Directors, on November 8, 2007, adopted Resolution 06-17 to approve the Milestone 10 – Orangeline High Speed Maglev Financial Plan Report;

WHEREAS, the approved Milestone 10 Financial Plan identifies Orangeline High Speed Maglev project revenues as the source of funding to build and operate the Orangeline High Speed Maglev system;

WHEREAS, the Orangeline High Speed Maglev project, in order to move forward toward implementation, must be included in the Regional Transportation Plan (RTP) for Southern California, which must identify a source of funding resources committed or intended to be used to cover project costs, in order to meet federal financial constraint requirements;

WHEREAS, federal guidelines pertaining to the preparation of Regional Transportation Plans establish "For local or private sources of funding not dedicated to or historically used for transportation purposes (including donations of property), a commitment in writing/letter of intent by the responsible official or body having control of the funds should suffice as a commitment."

NOW, THEREFORE, THE ORANGELINE DEVELOPMENT AUTHORITY BOARD OF DIRECTORS DOES HEREBY FIND, RESOLVE AND ORDER AS FOLLOWS:

Section 1. The Orangeline Development Authority hereby expresses its intent to use Orangeline High Speed Maglev project operating revenues as the source of funding to construct and operate the Orangeline High Speed Maglev system.

Section 1. The Authority may seek and use other revenues to help fund the construction and operation of the Orangeline High Speed Maglev system that may become available to the Authority.

Section 2. The Secretary shall certify to the adoption of this Resolution.

PASSED, APPROVED and ADOPTED this 12th day of December, 2007.

Kirk D. Cartozian
____
Kirk Cartozian, Chair

ATTEST:

W. Michael McCormick, Secretary

I HEREBY CERTIFY that the foregoing Resolution was adopted by the Board of Directors of the Orangeline Development Authority at a regular meeting held on the 12th day of December 2007, by the following vote, to with:

AYES:	Board Members:	Lima, Larsen, Lee, Gurule, Cartozian, Edgar, Martin, Martinez, Hofbauer, McCormick, De Witt
NOES:	Board Members:	None
ABSTAIN:	Board Members:	None

W. Michael McCormick, Secretary

APPROVED AS TO FORM

____

General Counsel

1000 WILSHIRE BOULEVARD | 10TH FLOOR | LOS ANGELES | CALIFORNIA 90017
MEMBER NEW YORK STOCK EXCHANGE
www.wedbush.com

WEDBUSH MORGAN SECURITIES

(800) 659-8200
FAX (858) 793-1446

December 6, 2007

Albert Perdon
Executive Director
Orangeline Development Authority
16401 Paramount Blvd.
Paramount, CA 90723

John C. Moriniere
Senior Vice President, Project Development
ARCADIS
630 Plaza Drive, Suite 200
Highlands Ranch, CO 80129

Re: Orangeline Development Authority & ARCADIS – A Public Private Partnership
Orangeline High Speed MAGLEV Project, Milestone 10

Gentlemen:

Wedbush Morgan Securities ("Wedbush") has reviewed the Milestone 10 Financial Plan and accompanying PowerPoint presentation provided by ARCADIS and the Orangeline Development Authority. More specifically, we have reviewed the assumptions and projections, which provide the groundwork analysis in determining feasibility of financing the aforementioned project.

In establishing the feasibility of issuing tax-exempt debt to finance a portion of the project, several criteria must first be met:

- The project should have a good credit quality, and
- The amount of project costs financed through the sale of tax-exempt debt will need to be sized based on revenue coverage generated by the project.

Upon meeting these criteria, the Orangeline High Speed Maglev Project may be financed through tax-exempt debt. However, this letter does not constitute any commitment by Wedbush Morgan Securities to underwrite tax-exempt securities issued by the Orangeline Development Authority.

Wedbush Morgan Securities

Douglas L. Charchenko

Doug Charchenko

RESOLUTION NO. 7161

CITY OF SOUTH GATE
LOS ANGELES COUNTY, CALIFORNIA

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH GATE IN SUPPORT OF ORANGELINE MAGLEV STATION AREA DEVELOPMENT POLICIES

WHEREAS, the City is a member of the Orangeline Development Authority; and

WHEREAS, the City Council has given careful consideration to Milestone 7 – Orangeline Maglev Station Area Development report presented by the Orangeline Development Authority and the Authority's development partner, ARCADIS, at the regular meeting of November 28, 2006;

NOW, THEREFORE THE CITY COUNCIL OF THE CITY OF SOUTH GATE DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The City Council of the City of South Gate generally supports the concepts of Orangeline Maglev Station Area Development described in the Milestone 7 report.

Section 2. The City Council of the City of South Gate supports the recommendation in the Milestone 7 report that the City of South Gate, along with other member agencies of the Orangeline Development Authority, undertakes a program to review and update its land use plans, including the General Plan, to incorporate those policy recommendations contained in the Milestone 7 report that the City Council believes are appropriate for the City of South Gate.

Section 3. The City Manager is directed to report to the City Council with recommendations for implementing a program to update the City's planning documents as proposed in the Orangeline Development Authority-ARCADIS Milestone 7 report, inciuding budget, funding scurces and schedule.

Section 4. The City Clerk shall certify to the adoption of this Resoluticn which shall be effective upon its adoption.

PASSED, APPROVED and **ADOPTED** this 28th day of November 2006.

CITY OF SOUTH GATE:

aria Davila, ayor

ATTEST:

Carmen Avalos, City Clerk

(SEAL)

APPROVED AS TO FORM:

Raul F. Salinas, City Attorney

RESOLUTION CERTIFICATION PAGE

STATE OF CALIFORNIA)

COUNTY OF LOS ANGELES) **SS**

CITY OF SOUTH GATE)

I, Carmen Avalos, City Clerk of the City of South Gate, California, hereby certify that the whole number of Members of the City Council of said City is five; that Resolution No. 7161 **was** adopted by the City Council at their Regular Meeting held on November 28,2006, by the following vote:

Ayes:	Council Members:	Davila, De Witt, Gonzalez, Hurtado and Martinez
Noes:	Council Members:	None.
Absent:	Council Members:	None

Witness my hand and the seal of said City on December 18,2006.

Carmen Avalos, City Clerk
City of South Gate, California

RESOLUTION NO. 2007-11

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS IN SUPPORT OF THE ORANGELINE MAGLEV NOVEMBER 21, 2006 PROPOSAL/APPLICATION TO THE CALIFORNIA TRANSPORTATION COMMISSION

WHEREAS, the City Council has given careful consideration to the Orangeline Maglev Proposal/Application to the California Transportation Commission presented by the Orangeline Development Authority and the Authority's development partner, ARCADIS, at the regular meeting of April 2,2007,

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The City Council supports the Proposal/Application submitted to the California Transportation Commission by the Orangeline Development Authority on November 21, 2006, which seeks a loan guarantee of up to $200 million for the next Orangeline Maglev project development phase.

SECTION 2. The City Council urges the State of California to provide additional support to facilitate the next phase of project development (including Environmental Impact Report and Community Outreach) of the Orangeline Maglev, to attract private investment in the project, and to expedite the project's timely development and completion.

SECTION 3. The City Manager is directed to communicate the City Council's action to the Orangeline Development Authority and to the City's state and federal representatives.

SECTION 4. The Orangeline Maglev Proposal/Application to the California Transportation Commission is attached as Exhibit A.

SECTION 5. The City Clerk shall certify to the adoption of this Resolution.

PASSED, APPROVED AND ADOPTED this 2nd day of April, 2007.

Catherine A. Driscoll

CATHERINE A. DRISCOLL, Mayor

ATTEST:

Susan C. Vanderpool

Susan C. Vanderpool, City Clerk

APPROVED AS TO FORM:

Dean Derleth, City Attorney

STATE OF CALIFORNIA)
COUNTY OF ORANGE) ss
CITY OF LOS ALAMITOS)

I, Susan C. Vanderpool, City Clerk of the City of Los Alamitos, do hereby certify that the foregoing Resolution was adopted at a regular meeting of the City Council held on the 2nd day of April, 2007, by the following vote, to wit:

AYES:	COUNCILMEMBERS:	Driscoll, Grose, Edgar & Parker
NOES:	COUNCILMEMBERS:	Mejia
ABSENT:	COUNCILMEMBERS:	None
ABSTAIN:	COUNCILMEMBERS:	None

Susan C. Vanderpool

Susan C. Vanderpool, City Clerk

METRO

Roger Snoble
CEO
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA
90012-2952

Phone: 213.922.6888
Fax: 213.922.7447

December 12, 2003

The Honorable Hector De La Torre, Chair
Orange Line Development Authority
7300 Alondra Boulevard, Suite 201
Paramount, California 90723

RE: AUTHORIZATION OF USE OF PACIFIC ELECTRIC RIGHT-OF-WAY

Dear Mr. De La Torre:

This is in response to the Orange Line Development Authority's (Authority) request for MTA's permission to "use the former Pacific Electric right-of-way (ROW) for the development of the Orange Line maglev project." It is MTA's understanding that the Authority has recently completed an initial feasibility study for the proposed, and as yet unfunded, project.

MTA originally purchased the railroad property with the intention of eventually developing transit services in that corridor. However, in consideration of the current financial situation throughout the State of California, MTA has not yet identified when a project along this corridor might be included in its future transportation plans.

We would not expect our Board to grant the Authority use of the former Pacific Electric ROW for development of the Orange Line project until the Authority has completed preliminary engineering and the State and federally required environmental assessments. If the Orange Line becomes the preferred project for the corridor through the abovementioned studies and the cities along the corridor support the project we would expect that the MTA Board would allow the Authority use of ROW. At that time, we would have to discuss, among other things, how would ownership be addressed and how long would the agreement last if the Orange Line project is not funded.

In the meantime, if you need access to our ROW to conduct your studies, we would be happy to discuss that with you. We expect that granting such access will be simplified once the Surface Transportation Board approves Union Pacific's application to abandon the ROW.

We also heard from Albert Perdon, that you are interested in using the ROW as local match for grant revenues or other funding. Our County Counsel, railroad consultant and grants staff are not aware of any situation where railroad ROW has been used to match engineering support cost. Our experience indicates that it match engineering support cost. Our experience indicates that it would be more appropriate to use the ROW as match for final design and construction.

We look forward to working with your organization as you further develop the scope, nature and financial feasibility of the Orange Line Project. Please feel free to call me at (213) 922-6888 or Ray Maekawa at (213) 922-3016.

Sincerely,

Roger Snoble
Chief Executive Officer

cc: James de la Loza, MTA
Carol Inge, MTA
Sharad Mulchand, MTA
Albert Perdon, Executive Director, OLDA

ARCADIS
Infrastructure, environment, facilities

ARCADIS U.S., Inc.
1400 North Harbor Boulevard
Suite 700
Fullerton
California 94804
Tel 714 278 0992
Fax 714 278 0051
www.arcadis-us.com

Mr. Albert Perdon
Executive Director
Orangeline Development Authority
16401 Paramount Boulevard
Paramount, California 90723

Subject:
Orangeline High Speed Maglev Corridor Development Project

Date:
04 December 2007

Contact:
Kurt Goddard

Phone:
770.431.8666 ext 326

Email:
kurt.goddard@arcadis-us.com

Dear Mr. Perdon:

On behalf of ARCADIS U.S., Inc. and the member firms of the ARCADIS team, we express our continuing support and commitment to bringing the Orangeline High Speed Maglev Corridor Development Project to fruition.

Our commitment to the partnership with the Authority is consistent with the mutual covenants and promises in the Development Agreement by and between the Orangeline Development Authority and ARCADIS G&M, Inc. dated August 25, 2005. The Development Agreement outlines the scope of the project which includes the necessary tasks to plan, design, build, operate and maintain the Orangeline, an elevated and magnetic levitation (maglev) technology transportation system.

We have honored our undertaking to you in the completion of Phase 1 which includes the feasibility review that will serve as a basis to the next project phase. The results of our efforts are well documented in the 10 Milestone Reports adopted by the Authority Board concluding with the Milestone 10 – Orangeline High Speed Maglev Financial Plan.

Our commitment to the project, the Authority, and to the Agreement has been demonstrated by our willingness to invest over $1.1 million in the project.

We re-affirm our willingness and commitment to you to abide by the terms of the Agreement for award of Phase II, and negotiate the terms which will result in moving our efforts forward towards the successful design, finance, building and operations of the Project.

We look forward to continuing our successful relationship with the Orangeline Development Authority and each of the Authority's member cities. The ARCADIS Team appreciates this opportunity to work with the Orangeline Development

Authority and its' member cities to bring this much needed high speed transport project to realization for Southern California.

Respectfully submitted,

ARCADIS U.S., Inc.

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Financial constraint . . .

and the statewide and metropolitan transportation planning and programming process in California:

A GUIDE TO FEDERAL AND STATE FINANCIAL PLANNING REQUIREMENTS

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California Department of Transportation (Caltrans)

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Introduction

This document is provided to help California metropolitan planning organizations (MPOs) and others gain an understanding of the basic federal and state financial planning and financial constraint requirements that apply to the statewide and metropolitan transportation planning and programming process in California.

This guidance should also help California MPOs respond to a corrective action that the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) provided with their approval of California's 2002/03 Federal Statewide Transportation Improvement Program (FSTIP). In providing this approval, the federal agencies directed each MPO in California, in cooperation with the State and transit operators, to either develop or update their financial plan for use in preparing their next (2004/05) Federal Transportation Improvement Program (FTIP), and make such financial plans available for public review and comment in conjunction with the development of their draft 2004/05 FTIPs.

Financial planning has become a significant component of transportation planning and programming practice. It is a critical element of the FSTIP, each MPO's FTIP, and California's statewide and regional long-range transportation plans. The proper conduct of the financial planning process will help avoid barriers to effective planning and programming.

The Need for Financial Plans and Financial Constraint

A financial plan is the mechanism for demonstrating financial constraint in the metropolitan planning process. Fiscal constraint is a demonstration that there will be sufficient funds to implement proposed improvements, and to operate and maintain the entire system, by comparing costs with available financial resources. The federal agencies are responsible for making a financial constraint determination on the federally required FSTIP, with states and MPOs being called on to demonstrate such fiscal constraint. The Transportation Conformity Rule requires that regional long-range transportation plans (RTPs) and FTIPs in non-attainment and maintenance areas must be fiscally constrained in order to be found in conformity.

In short, federal rulemaking says that RTPs and FTIPs must include a financial plan. States and MPOs must *demonstrate*, and FHWA and FTA must *determine* financial constraint in the metropolitan planning process, all relying heavily on the MPO's required financial plans.

The requirement for financial constraint and financial plans in the metropolitan transportation planning process began in 1991 with the enactment of the Intermodal Surface Transportation Efficiency Act (ISTEA), and the implementing regulations (23 CFR 450 and 49 CFR 613), and was continued with the Transportation Equity Act for the 21^{st} Century (TEA-21), with added requirements for an annual listing of obligated projects, cooperative revenue forecasting, and illustrative projects. Before 1991, RTPs and FTIPs submitted by MPOs were often viewed as "wish lists" for policymakers and the public.

By developing RTPs and FTIPs that are constrained to include only projects that have realistic or reasonably available funding sources, MPOs gain credibility and trust among their planning partners and the public. Good financial planning challenges policymakers and citizens to consider trade-offs between projects and to make difficult choices early in the planning process. In air quality non-attainment and maintenance areas, the validity of the air quality conformity process depends on reasonable planning for affordable improvements. Overall, financial planning and fiscal constraint requirements strengthen the metropolitan transportation planning process by tying State, MPO, local and transit operator budgets to the decisions made in the process.

A Summary of Federal Financial Planning Requirements

Financial plans prepared by each MPO must demonstrate and document compliance with a number of explicit federal planning and programming requirements including:

1. The financial plan must demonstrate how the RTP and/or FTIP can be implemented. Accordingly, it is required to demonstrate the consistency of proposed transportation investments with already available and projected sources of revenue. The existing and proposed revenues identified in the financial plan must cover all forecasted capital, operating and maintenance costs. In summary, the financial plan must document the comparison of estimated revenue from existing and proposed funding sources (that can reasonably be expected to be available for transportation uses) and the estimated costs of constructing, maintaining and operating the existing and planned transportation system over the period of the plan. Federal regulations also require that all cost and revenue projections be based on data reflecting the existing situation and historical trends.

2. The financial plan must indicate what resources from public (local, state and federal) and private sources are reasonably expected to be available to carry out the RTP and/or FTIP. In carrying out the financial planning process, existing revenue available for transportation projects must be estimated by source and any shortfalls must be identified. Revenue estimates should be as comprehensive as possible. For example, in addition to California's State Transportation Improvement Program (STIP) Fund Estimate (see pages 10-11), a robust financial planning process should consider revenues provided by programs including the Congestion Mitigation and Air Quality Improvement Program (CMAQ) (for non-attainment and maintenance areas) and sub-allocated Regional Surface Transportation Program (RSTP), etc. Proposed new revenues and/or revenue sources proposed to cover identified shortfalls must also be identified in the financial plan, including strategies for ensuring their availability for proposed investments.

3. The financial plan must identify and/or recommend any innovative financing techniques needed to implement planned and programmed projects or strategies. In non-attainment and maintenance areas, the financial plan must address the specific financial strategies required to ensure the implementation of project and programs needed to reach compliance with air quality standards.

4. For information only, the financial plan may also include a listing of "illustrative" or additional projects that would be included in the RTP or FTIP if reasonable additional resources, beyond those identified in the financial plan, were available. To enable accurate and expeditious financial constraint and air quality conformity demonstrations and determinations, illustrative projects should be clearly documented as separate and distinct from the RTP or FTIP project listings used for such demonstrations and determinations.

5. For the FTIP, the financial plan must demonstrate which projects can be implemented using current revenue sources and which projects will be implemented using proposed revenue sources. In non-attainment and maintenance areas, the financial plan must demonstrate compliance with federal requirements limiting the programming of projects for the first two years of the FTIP to those for which funds are "available or committed."

Cost Estimate Requirements

In the context of the statewide and metropolitan transportation planning and programming process, neither FTA nor FHWA maintain specific requirements related to cost estimating practices. However, to help ensure the integrity of financial planning requirements related to statewide and metropolitan transportation planning and programming, the federal agencies and Caltrans encourage MPOs to work closely with project sponsors to develop and use sound cost estimating practices that will limit significant changes in cost estimates over time, particularly for major capacity and service enhancement projects. To the greatest degree possible, cost (and revenue) estimates for such high cost projects included in the MPO RTP and FTIP should be consistent with project-specific financial plans, for which there are a few notable federal requirements as follows:

"Mega Projects"

Section 1305(b) of the Transportation Equity Act for the 21st Century (TEA-21) modified Section 106 of Title 23 by adding subsection "(h)" which requires "... A recipient of Federal financial assistance for a project ...with an estimated total cost of $1,000,000,000 or more shall submit to the Secretary an annual financial plan for the project." The act requires that the plan be based on detailed annual estimates of the cost to complete the remaining elements of the project and on reasonable assumptions of future increases in the cost to complete the project.

The Initial Financial Plan will provide information on the immediate and longer term financial implications resulting from project initiation. Annual updates of the Financial Plan should provide information on actual cost and revenue performance in comparison to initial estimates as well as updated estimates of future years obligations and expenditures. The annual updates will provide information on cost and revenue trends, current and potential funding shortfalls and the financial adjustments necessary to assure completion of the project.

FTA New Starts

Projects seeking discretionary capital funding under the FTA New Starts program are required to develop and submit comprehensive financial plans that identify funding sources and revenue forecasts, proposed project capital budgets, other planned capital projects, and annual operating and maintenance expenses for the proposed project and the existing system.

It is important that the metropolitan planning process provide appropriate and even enhanced scrutiny of the cost and revenue assumptions associated with New Starts and other high cost transit projects when they are included in the RTP. Improving cost estimates early in the process will promote greater consistency between project cost estimates in the RTP and later FTIP cost estimates and detailed financial plans. In the case of New Starts projects, the stability and reliability of capital financing plans, operating financing plans, and local share of project costs must be evaluated. The ability of the transit operator to maintain the operation of the existing transit system must be evaluated as well.

Demonstrating Financial Constraint for the Metropolitan Plan (RTP) And Program (FTIP)

Because financial planning requirements and financial constraint are applicable to both the RTP and FTIP, the MPO financial plan should be a document that demonstrates and responds to financial constraint requirements for a timeframe covering the current FTIP through the current RTP planning horizon. MPOs can include the financial plan as a chapter in their RTP, FTIP, or it can be submitted as a stand-alone document under separate cover. In common practice, financial planning requirements and financial constraint for the FTIP are demonstrated via a subset of information provided with the RTP's financial plan. To assist the federal agencies in their determinations of financial constraint, MPO financial documentation for the RTP and FTIP should include a summary sheet that displays revenue and cost information under two categories (transit and highway programs) for comparison, and provides this information by year.

As discussed, in consideration of financial constraint requirements and the metropolitan transportation planning process, the RTP may rely on a demonstration that funds are "reasonably available" while the FTIP maintains more stringent requirements that may include a demonstration that funds are "available or committed" for the first two years.

Available or Committed Funding

For State funds, "available" means funds derived from an existing source of funds dedicated to or historically used for transportation purposes that the financial plan (in the FTIP approved by the MPO and the Governor) shows to be available to fund projects. In the case of State funds that are not dedicated to or historically used for transportation purposes, only those funds over which the Governor has control may be considered to be "committed" funds.

For local or private sources of funding not dedicated to or historically used for transportation purposes (including donations of property), a commitment in writing/letter of intent by the responsible official or body having control of the funds should suffice as a commitment.

With respect to Federal funding sources, "available or committed" shall be taken to mean authorized funds the financial plan shows to be available to the area on an annual basis. Total available or committed federal funds should not exceed annual apportionment levels. Where the FTIP period extends beyond the current authorization period for Federal program funds, "available" funds may include an extrapolation based on historic allocation and apportionment levels of federal funds. For Federal funds that are allocated (distributed on a discretionary basis), including Section 5309 and "demo funding", any funding beyond that currently authorized (for project allocation) and targeted to the area should be treated as a new source and must be demonstrated to be a "reasonably available new source". For more information about federal funding programs for transportation and their eligibility requirements, see the following websites:

FTA (Transit Programs) - http://www.fta.dot.gov/4187_ENG_HTML.htm
FHWA (Highway Programs) - http://www.fhwa.dot.gov/programadmin/covert21.htm

Reasonably Available Funding

For periods beyond years 1 and 2 of the FTIP in non-attainment and maintenance areas, for all years of FTIPs in other areas, and for the RTP, funding must be "reasonably available," but need not be currently available or committed. Hence, new funding sources may also be considered. New funding sources are revenue sources that do not currently exist or that require some steps (legal, executive, legislative, etc.) before a jurisdiction, agency, or private party can commit such revenues to transportation projects. Simply identifying new funding sources without identifying strategies for ensuring their availability is not acceptable. The financial plan must also identify strategies for ensuring their availability. It is expected that the strategies, particularly for new funding sources requiring legislation, voter approval or multi-agency actions, include a specific plan of action that describes the steps that will be taken by the MPO or others to ensure that the funds will be available within the timeframe shown in the financial plan, and presents evidence supporting a medium to high probability that funds will become available as indicated.

The plan of action should provide information on the actions that will be taken to obtain the new funding, such as, how the support of the public, elected officials, business community, and special interests will be obtained, e.g., comprehensive and continuing program to make the public and others aware of the need for new revenue sources and the consequences of not providing them. Past experience (including historical data) with obtaining this type of funding, e.g., success in obtaining legislative and/or voter approval for new bond issues, tax measures, special appropriations of funds, etc., should be included. Where efforts are already underway to obtain a new revenue source, objective and verifiable information about the amount of support (and/or opposition) for the measure(s) by the public, elected officials, business community, and special interests should be provided. For innovative financing techniques, the plan of action should identify the specific actions that are necessary to implement these techniques including the responsible parties, steps (including the timetable) to be taken to complete the actions and extent of commitment by the responsible parties for the necessary actions.

The following are examples of specific cases where new funding sources should **not** generally be considered to be "reasonably available": (1) past efforts to enact new revenue sources have generally not been successful; (2) the extent of current support by public, elected officials, business community and/or special interests indicates passage of a pending funding measure is doubtful; or (3) no specific plan of action for securing the funding source and/or other information that demonstrates a strong likelihood that funds will be secured is available.

Metropolitan Plan (RTP) Financial Plan - Federal Requirements

23 USC section 134(g) (2) (B) requires that metropolitan area long-range transportation plans contain a financial plan. Each MPO's transportation plan must include a financial plan that demonstrates how the adopted long-range transportation plan can be implemented, indicates reasonably expected resources from public and private sources to carry out the plan, and recommends any additional financing strategies for needed projects and programs.

The RTP's financial plan may include, for illustrative purposes, more projects that would be included in the adopted long-range transportation plan if reasonable additional resources beyond those identified in the financial plan were available. Also, in the development of the RTP, the MPO and State must cooperatively develop estimates of funds that will be available to implement the RTP.

Two key CFR provisions regulate financial planning for the RTP:

1. 23 CFR 450.322 (b) (7) requires that the RTP reflect an evaluation of the financial impact of the overall plan; and

2. 23 CFR section 450.322 (b) (11) requires that metropolitan area long-range transportation plans contain a financial plan. Each MPO's transportation plan must include a financial plan that demonstrates the consistency of proposed transportation investments with available and projected sources of revenue.

The RTP's financial plan must compare estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation uses, and the estimated costs of constructing, maintaining and operating the total (existing plus planned) transportation system over the period of the plan. Existing and proposed revenues must cover all forecasted capital, operating, and maintenance costs, and all cost and revenue projections must be based on data reflecting the existing situation and historical trends. For non-attainment and maintenance areas, the RTP's financial plan must also address specific financial strategies needed to ensure the implementation of projects and programs to achieve air quality compliance.

Funding shortfalls are also addressed in the federal requirements for the RTP's financial plan. In determining estimated revenue by existing revenue source (public and private), shortfalls in funding must be identified. Proposed new revenues and/or revenue sources to cover shortfalls must be identified, including the strategies employed to ensure the availability of such revenues for ensuring their availability for proposed projects and programs.

Public involvement in the development of the RTP’s financial plan is a specific requirement, also addressed in the planning regulations. Since financial plans will be included in RTPs, the general public and other interested parties, including interagency consultation partners in non-attainment and maintenance areas, should have an opportunity to review and comment on the RTP financial plan through the public involvement process. 40 CFR 93.108 requires the RTP to be financially constrained in order to be found in conformity. 23 CFR 450.316 (b) requires that the RTP be made available for public comment as part of the public involvement process for the metropolitan transportation planning process.

When significant comments are received on the financial plan, a summary, analysis, and report on their disposition must be included in the final RTP and FTIP for consideration by FHWA and FTA under the provisions of 23 CFR 450.330 (b).

Metropolitan Program (FTIP) Financial Plan – Federal Requirements

The following statutory provisions shall be followed while developing the FTIP financial plan. 23 USC 134 (h) (2) (B) requires that the FTIP include a financial plan. Each MPO’s FTIP must include a financial plan that demonstrates how the transportation improvement program can be implemented and indicates reasonably available resources from public and private sources to carry out the program.

The FTIP’s financial plan shall also recommend any innovative financing techniques to finance projects or programs as required. The financial plan may include, for illustrative purposes, more projects that would be included in the approved FTIP if reasonable additional resources beyond those identified in the financial plan become available. 23 USC 134 (h) (3) (D) requires that the FTIP include a project, or an identified phase of a project, only if full funding can reasonably be anticipated to be available for the project within the time period contemplated for completion of the project.

23 CFR 450.324(e) requires that the FTIP be financially constrained by year. The FTIP shall include a financial plan that demonstrates which projects can be implemented using current revenue sources and which projects are to be implemented using proposed revenue sources, while the existing transportation system is being adequately operated and maintained. Priority should be given to the maintenance and operation of the existing system including capital replacement. A credible cost estimate and replacement schedule must support this assessment. In non-attainment or maintenance areas, priority must be given to the implementation of transportation control measures (TCMs) included in the approved State Implementation Plans (SIPs). The financial plan shall be developed by the MPO in cooperation with the State and transit operator. The State and transit operator must provide the MPO the estimates of available Federal and State funds, which the MPO shall use to develop the financial plan.

The FTIP shall include projects for which construction and operating funds are reasonably available. If the FTIP identifies any new funding sources, strategies for ensuring their availability shall be identified in the financial plan. For non-attainment and maintenance areas, the FTIP's financial plan must include available or committed funding for the first two years of the FTIP.

Since financial plans will be included in FTIPs, the general public and other interested parties, including interagency consultation partners in nonattainment and maintenance areas, should have an opportunity to review and comment on the FTIP financial plan through the public involvement process. 40 CFR 93.108 requires the FTIP be financially constrained in order to be found in conformity with the SIP. 23 CFR 450.316 (b) requires that the FTIP be made available for public comment as part of the public involvement process for the metropolitan transportation planning process.

Statewide Program (FSTIP) Financial Plan – Federal Requirements

The statutory provision 23 USC 135 (f) (2) (D) requires that the FSTIP include only fully funded projects. The FSTIP shall include a project, or an identified phase of a project, only if full funding can reasonably be anticipated to be available for the project within the time period contemplated for completion of the project. Illustrative projects may be provided for information only. As for the FTIP, illustrative projects in the FSTIP should be clearly documented as separate and distinct from FSTIP project listings used for financial constraint and air quality conformity demonstrations and determinations.

The regulatory provision 23 CFR 450.216 (a) (5) requires that the FSTIP be financially constrained by year. The FSTIP should contain financial information showing projects to be implemented using current revenues and those projects to be implemented using proposed revenues, while the system as a whole is being adequately maintained and operated. Where proposed funds are included, strategies for ensuring their availability must be identified. In non-attainment and maintenance areas, first two years of the FSTIP may only contain projects for which funds are available or committed.

For statewide transportation planning coordination, 23 CFR 450.210 (a) (10) requires that the State, in cooperation with the MPOs and other participating organizations, provide fully coordinated transportation planning and financial planning.

State Requirements For Transportation Funding/Financial Planning

The State Transportation Improvement Program (STIP) Fund Estimate

Streets & Highways Code Section 163 requires that the California Legislature establish a policy for the use of all transportation funds that are available to the state, including the State Highway Account, the Public Transportation Account and federal funds (for which obligation authority is provided under annual federal transportation appropriations acts). The California Department of Transportation (Caltrans) and the California Transportation Commission (CTC) prepare the Fund Estimate (FE) to meet this requirement. The FE includes annual expenditures for the administration of the Department and for the maintenance, operation and rehabilitation of the state highway system. It also includes expenditures to fund various local assistance programs required by state or federal law or regulations, including, but not limited to railroad grade crossing maintenance, bicycle transportation account, local highway bridge replacement and rehabilitation, local seismic retrofit, local hazard elimination and safety, and local emergency relief.

Government Code Section 14524 requires that on July of each odd-numbered year, Caltrans submits a five-year FE to the CTC, in annual increments, of all federal and state funds reasonably expected to be available during the following five state fiscal years. The FE specifies the amount that may be programmed in each county for the Regional Transportation Improvement programs and identifies any statutory restriction on the use of particular funds. For the purpose of estimating revenues, Caltrans assumes that there will be no changes in existing state and federal statutes. Federal funds available for demonstration projects that are not subject to federal obligation authority are not considered funds that would otherwise be available to the state and are not be included in the FE. The CTC determines the method by which the estimate is to be determined in consultation with the Department, transportation planning agencies, and county transportation commissions.

After deducting expenses for administration, operation, maintenance, local assistance, safety, rehabilitation and environmental mitigation, the remaining funds are available for capital improvement projects to be programmed in the STIP.

<u>State Regional Transportation Plan (RTP) Guidelines</u>

The California Transportation Commission (CTC) adopts RTP Guidelines that identify State as well as Federal planning requirements to be met in the development of RTPs by all the State's Regional Transportation Planning Agencies (RTPAs), including all California MPOs. The State's current RTP Guidelines were adopted by the CTC in December of 1999. On December 22, 2003, the CTC adopted a Supplement to the 1999 Regional Transportation Plan Guidelines with a Revised Checklist of Items Required to be in the RTP, and a new recommendation for providing a List of Financially Un-Constrained Projects.

Completing the Caltrans Revised Regional Transportation Plan Checklist is a requirement, and by completing the checklist, the MPO verifies that the RTP addresses required financial planning and financial constraint information within the RTP. For example, the checklist asks that the MPO identify where the RTP conforms to projected revenues, and identifies consistency with projected constrained financial revenues. The checklist also asks where the RTP states that the first four years of the fund estimate is consistent with the four year STIP Fund Estimate adopted by the CTC, and where does the RTP state that the goal, policy and objective statements of the RTP are consistent with the RTP's Financial Statement – i.e., financial element or plan.

California Government Code 65080 (3)(a) states that the RTP Financial Element (plan) may recommend the development of specified new sources of revenue, consistent with the Policy and Action Elements of the RTP. The Supplement to the 1999 Regional Transportation Plan Guidelines recommends that in addition to the current list of financially constrained projects identified in the RTP, each plan should also contain a list of needed unconstrained projects. This unconstrained list will identify projects that are recommended by the MPO without a funding source identified. As with federal requirements, this unconstrained list should be included separately from the financially constrained project list, and the State also prefers that projects on the unconstrained list be identified by transportation corridor within the region.

<u>Financial Planning Checklist - RTP</u>

<u>RTP - 23 USC Section 134(g) & CFR 450.322</u>

Financial Resources

- ❑ Plan (RTP) includes a financial plan.

- ❑ Reasonably available resources from public and private sources to implement the plan are indicated.

- ❑ Estimated revenues by existing revenue source (local, state, federal, private) available for transportation projects are determined, and revenue estimates by fund type are provided.

- ❑ Shortfalls in estimated revenues are identified.

Project Programming Data

- ❑ How RTP (long-range and short-range strategies/actions) can be implemented is demonstrated (i.e. – a project listing).

- ❑ Additional projects that would be included in the adopted RTP if reasonable additional resources beyond those identified in the financial plan were available may be identified (e.g. – an "illustrative" or unconstrained project listing).

- ❑ Proposed improvements are described in sufficient detail to develop cost estimates per provisions of 23 CFR 450.322(b)(6).

- ❑ Design concept and scope descriptions of all existing and proposed transportation facilities are provided in sufficient detail in non-attainment and maintenance areas to permit conformity determinations under the US EPA conformity regulations at 40 CFR Part 51 per provisions of 23 CFR 450.322(b)(6)

- ❑ Project selection/prioritization methods are addressed, and consider attainment goals in non-attainment and maintenance areas.

Analysis/Financial Constraint

- ❑ Estimated revenue from existing and proposed funding sources expected to be reasonably available for transportation uses, and the estimated costs of constructing, maintaining and operating the total (existing plus planned) transportation system over the period of the plan are compared.

- ❑ Consistency of proposed transportation investments with already available and projected sources of revenue is demonstrated.

- ❑ Existing and proposed revenues cover all forecasted capital, operating, and maintenance costs.

- Cost and revenue projections are based on data reflecting existing situation and historical trends.

- Financial assumptions regarding anticipated federal funds, sales tax revenues, inflation, etc. are clearly stated.

- For non-attainment and maintenance areas, specific financial strategies required to ensure the implementation of projects and programs to reach air quality compliance are addressed.

Innovative Finance

- Proposed new revenues/revenue sources to cover shortfalls are identified.

- Strategies/required implementation steps for ensuring availability of proposed revenues/revenue sources to cover shortfalls are identified.

- Innovative financing techniques such as: Advance Construction; Garvee Bonding; Tax Increment Financing; Developer Fees; Sales Tax Measures; Tolls, Congestion Pricing etc. are recommended.

Public Involvement – 23 CFR 450.316(b)(1)(vii)

- Financial plan is made available for comment through the interagency consultation process under the conformity regulations.

- Financial plan is made available for public comment as part of the public involvement process for the transportation planning process.

- Significant comments received on the financial plan, a summary, analysis, and report on their disposition are included in the final plan for consideration by FHWA under the provisions of 23 CFR 450.330(b).

Financial Planning Checklist - FTIP

FTIP - 23 USC Section 134(h) & CFR 450.324

Financial Resources

- FTIP includes a financial plan.
- FTIP only includes projects or identified phases where full funding can reasonably be anticipated to be available for the project within the time period contemplated for completion of the project or phase.
- Resources from public and private sources that are reasonably expected to be available to carry out the programs are indicated.

Project Programming Data

- How the FTIP can be implemented is demonstrated.
- Only projects consistent with the plan (RTP) are included.
- Sufficient descriptive material (i.e., type of work, termini, length, etc.) is provided for projects.
- Estimated total cost for the fully completed project is provided for all projects.
- Proposed source of Federal and non-Federal funds is provided for projects.
- Identification of the recipients/sub-recipients and state and local agencies responsible for carrying out the projects are identified.
- Additional projects that would be included in the adopted FTIP if reasonable additional resources beyond those identified in the financial plan were available are identified.
- Design concept and scope descriptions of all existing and proposed transportation facilities are provided in sufficient detail in non-attainment and maintenance areas to permit conformity determinations under the US EPA conformity regulations at 40 CFR Part 51.
- In non-attainment and maintenance areas, identification of those projects that are identified as TCMs in the applicable SIP are identified.

Analysis/Financial Constraint

- FTIP is financially constrained by year.

- In non-attainment and maintenance areas, projects included for the first two years of the current FTIP are limited to those for which funds are available or committed.

- Projects that can be implemented using current revenues are demonstrated.

- Projects that can be implemented using proposed revenue sources are demonstrated (while the existing transportation system is being adequately operated and maintained).

- The total federal share of projects included in the FTIP proposed for funding under Section 5307 of the Federal Transit Act does not exceed Section 5307 authorized funding levels available to the area for the program year.

- The total federal share of projects included in the first year of the FTIP proposed for funding under Section 5309 of the Federal Transit Act does not exceed levels of funding committed to the area; and

- The total federal share of projects included in the second, third and/or subsequent years of the FTIP does not exceed levels of funding committed, or reasonably expected to be available, to the area. In the second, third, and/or subsequent years of the FTIP, funding identified in an approved Full Funding Grant agreement (FFGA) should be considered as reasonably available funds.

Innovative Finance

- Proposed new revenues/revenue sources to cover shortfalls are identified.

- Strategies for ensuring availability of proposed revenues/revenue sources to cover shortfalls are identified.

- Innovative financing techniques such as: Advance Construction; Garvee Bonding; Tax Increment Financing; Developer Fees; Sales Tax Measures; Tolls, Congestion Pricing etc. are recommended.

Public Involvement – 23 CFR 450.316(b)(1)(vii)

- The financial plan is available for comment through the interagency consultation process under the conformity regulations.

- The financial plan is available for public comment as part of the public involvement process for the transportation planning process.

- If significant comments are received on the financial plan, a summary, analysis and report on their disposition must be included in the final plan and FTIP for consideration by FHWA under provisions of 23 CFR 450.330(b).

Financial Planning Checklist – Statewide Plan

23 USC Section 135 (e) & 23 CFR 450.214

Financial Resources

- ❑ Availability of financial and other resources needed to carry out the plan is provided (may be referenced or summarized).

- ❑ The State, in cooperation with the MPOs and other participating organizations, provides for fully coordinated transportation planning and financial planning.

Project Programming Data

- ❑ Corridor level information is provided (may be referenced or summarized).

- ❑ Applicable short range planning studies, strategic planning and/or policy studies, transportation need studies, management system reports and statements of policies, goals and objectives are provided (may be referenced or summarized).

- ❑ Plan is intermodal (including consideration and provision, as applicable, of elements and connections of and between rail, commercial motor vehicle, waterway, and aviation facilities, particularly with respect to intercity travel) and statewide in scope in order to facilitate the efficient movement of people and goods.

- ❑ Plan contains as an element, a plan for bicycle transportation, pedestrian walkways and trails that is appropriately interconnected with other modes.

- ❑ Plan is coordinated with the metropolitan transportation plans required under 23 USC 134 and meets all other coordination requirements per CFR 450.210.

- ❑ Plan shall be reasonably consistent in time horizon among its elements, but cover a period of at least 20 years.

Public Involvement

- ❑ Plan provides for public involvement as required under CFR 450.212.

Summary

We hope that this document provides assistance to California's MPOs as they demonstrate and document compliance with current state and federal transportation planning and programming requirements related to financial planning and constraint. To the extent that these requirements are modified, FHWA, FTA and Caltrans will try to revisit this document to update its contents as necessary. However, to ensure that all current financial planning and constraint requirements are being met, we encourage MPOs to prepare and update their financial planning documentation in close collaboration with their state and federal partners, as well as their local jurisdictions, other project sponsors, and the public.

Appendix - Financial Constraint: FHWA Guide To The Basics

Before 1991, the many RTPs and FTIPs submitted by MPOs were vague documents that contained "wish lists" of projects to be built. The planning regulations of ISTEA brought about a change and required MPOs to consider the financial implications of their planning efforts. To this end, the federal planning regulations put into place the requirement for financial constraint of these documents.

In 23 CFR 450.322(b)(11), it is stated that transportation plans shall:

Include a financial plan that demonstrates the consistency of proposed transportation investments with already available and projected sources of revenue. The financial plan shall compare the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation uses, and the estimated costs of constructing, maintaining and operating the total (existing plus planned) transportation system over the period of the plan. The estimated revenue by existing revenue source (local, State, Federal, or private) available for transportation projects shall be determined and any shortfalls identified. Proposed new revenues and/or revenue sources to cover shortfalls shall be identified, including strategies for ensuring their availability for proposed investments. Existing and proposed revenues shall cover all forecasted capital, operating, and maintenance costs. All cost and revenue projections shall be based on the data reflecting the existing situation and historical trends. For non-attainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure implementation of projects and programs to reach air quality compliance.

In 23 CFR 450.324(e) it is stated:

The TIP shall be financially constrained by year and include a financial plan that demonstrates which projects can be implemented using current revenue sources and which projects are to be implemented using proposed revenue sources (while the existing transportation system is being adequately operated and maintained). The financial plan shall be developed by the MPO in cooperation with the State and the transit operator. The State and transit operator must provide MPOs with estimates of available Federal and State funds that the MPOs shall utilize in developing financial plans. It is expected that the State would develop this information as part of the STIP development process and that estimates would be refined through this process. Only projects for which construction and operating funds can reasonably be expected to be available may be included. In the case of new funding sources, strategies for ensuring their availability shall be identified. In developing the financial analysis, the MPO shall take into account all projects and strategies funded under Title 23 U.S.C., and the Federal Transit Act, other Federal funds, local sources, State assistance, and private participation. In non-attainment and maintenance areas, projects included for the first two years of the current TIP shall be limited to those for which funds are available or committed.

The FHWA California Division has put together some information to help MPOs in the development of financially constrained RTPs and FTIPs.

Approach to Prepare a Financial Element (Plan) for the RTP

The development of a financially constrained transportation plan gives rise to a number of questions including:

What are considered "reasonable" assumptions for revenues over the long term?

What costs are to be included in the plan?

Every MPO is unique. Therefore, it is difficult to define an exclusive set of procedures to prepare a financial plan that will fit every MPO in California. Here are some typical procedures, calculations, approaches, and work activities that can be applied to the MPOs in the state.

Steps for putting your plan together

Step 1: Identify RTP Revenues

a. Classify revenues into "available or committed" and "reasonably available" categories.

Available or committed revenue sources are those that are currently being used for transportation investments. These would include any federal, state, and local revenues or other revenue streams (i.e. fare box, advertising, tolls)

Reasonably available revenue sources are those that are currently not in place but stand a good chance of becoming available or being used. Historical use of funding, voter support for similar ballot initiatives, and high revenue streams after fare increases are examples of events that would lead one to believe a funding source could be possible. Federal Section 5309 Discretionary and "Demonstration" projects is an example of a "reasonably available new source."

b. Project revenues, by source, over the planning period - 20 years is typically used.

Revenues from various federal, state, and local sources are identified and forecast. In developing a 20-year RTP an assumption regarding the availability of federal funds must be developed. The best way to do this is to extrapolate currently authorized or appropriated levels of funding into the future to provide an estimate of these fund types. Additional methods for revenue forecasting are listed on a separate page.

In developing forecasts, be sure to document the assumptions used to reach your estimated revenues. The assumptions you make currently may not be valid during the next plan update. Keeping these documented may avoid duplication of work later on. Documentation of your assumptions may also help in justifying if the revenue source can be considered "reasonably available" or not.

Step 2: Identify RTP Costs

Compile information describing the capital, operating, and maintenance costs of the transportation system including highways and public transit. Maintenance costs are to include operations and other program support costs.

Capital costs are represented in the plan by a listing of proposed projects for all modes. This listing should be readily available by the time a financial plan is being developed. Operations and maintenance (O&M) costs, on the other hand will require some effort. For years, transit systems across the country have been required to gather detailed information about the operations of their systems. So finding information on transit operations and maintenance will be easy to obtain. The operation and maintenance of the road network will involve the cooperation of many agencies. Caltrans is the organization that is responsible for the maintenance and operation of the highway system. Information will have to be garnered from them on how much they are currently spending for O&M. Information will also have to gathered to determine if the current levels of expenditures for O&M are sufficient. Is there a problem with deferred maintenance? How much will it cost to bring those deficiencies up? The same questions and information needs hold true for local streets and roads. County and municipal officials will have to be quizzed to find out about the state of O&M on their particular part of the system.

Step 3: Allocate RTP Revenues to RTP Costs

a. Project revenues are to be allocated to project costs based on funding eligibility requirements as well as regional priorities. Emphasis is to be placed on maintaining the current transportation system before any additional system expansion is to be considered.

b. Identify shortfalls (if any) for system maintenance requirements as well as any proposed system expansion projects (23 CFR 450.322(b)(5).

Step 4: Reconcile any Differences Between RTP Costs and RTP Revenues

a. Modify the program to eliminate or reschedule projects and/or develop new funding sources to implement priority projects. Effort should be made to reflect funding sources that are reasonable. Make sure there is enough time for revenues anticipated (such as voter tax measures) to begin flowing properly to ensure a proper revenue stream. Also, any new funding should have an action plan. The action plan will commit the parties involved to certain actions to make sure that the new revenue stream becomes a reality.

Step 5: Prepare Financial Plan Documentation

a. Develop a financial plan that outlines revenues, operating and maintenance costs, capital costs, and shortfall financing strategies.

b. The financial plan should go through the public involvement process with the rest of the transportation plan.

Basic Outline For Financial Elements Of The Long-Range Transportation Plan (RTP)

I. Background

II. Accomplishments Since Last Transportation Plan

III. Issues and Assumptions Made

IV. Financial Plan

a. Transit Financing

i. Transit Capital and Operating Costs

ii. Transit Revenues

iii. Transit Revenue Needs

iv. Potential Revenue Sources

b. Highway Financing

i. Highway Capital, Operating, and Maintenance Costs

ii. Highway Revenues

iii. Highway Revenue Needs

iv. Potential Highway Revenue Sources

V. Other Modes

a. Bicycle

b. Pedestrian

c. Airport

d. Intermodal

Approach to Prepare a Financial Element for the FTIP

Step 1: Identify Revenues

a. Identify all revenues that will be available or committed, or reasonably available for transportation costs during each year of the FTIP.

Step 2: Identify FTIP Costs

a. Identify costs necessary to adequately operate, maintain, and rehabilitate the transportation system during the FTIP period. Any costs for system expansion that are called for in the long-range transportation plan for that period should also be identified.

Step 3: Allocate FTIP Revenues to FTIP Costs

a. Project revenues are to be allocated, by year, to project costs based on funding eligibility requirements as well as regional priorities. Emphasis is to be placed on maintaining the current transportation system before any additional system expansion is to be considered.

b. Identify shortfalls (if any) for system maintenance requirements as well as any proposed system expansion projects (23 CFR 450.324(e).

Step 4: Reconcile any Differences Between FTIP Costs and FTIP Revenues

a. Modify the program to eliminate or reschedule projects and/or develop new funding sources to implement priority projects. Effort should be made to reflect funding sources that are reasonable. Make sure there is enough time for revenues anticipated (such as voter tax measures) to begin flowing properly to ensure a proper revenue stream. Also, any new funding should have an action plan. The action plan will commit the parties involved to certain actions to make sure that the new revenue stream becomes a reality.

Step 5: Prepare Financial FTIP Documentation

a. Develop a financial plan that outlines revenues, operating and maintenance costs, capital costs, and shortfall financing strategies.

b. The financial plan should go through the public involvement process with the rest of the FTIP.

Basic Outline For Financial Elements Of The FTIP

I. Background

II. Accomplishments Since Last FTIP

III. Issues and Assumptions Made

IV. Financial Plan

a. Transit Financing

i. Transit Capital and Operating Costs

ii. Transit Revenues

iii. Transit Revenue Needs

iv. Potential Revenue Sources

b. Highway Financing

i. Highway Capital, Operating, and Maintenance Costs

ii. Highway Revenues

iii. Highway Revenue Needs

iv. Potential Highway Revenue Sources

c. Other Modes

i. Bicycle

ii. Pedestrian

iii. Airport

iv. Intermodal

Strategies for Forecasting Revenue

A number of analysis techniques are valuable in preparing a forecast of expected revenues. Here is a sample of a few:

Regression: Ordinary Least Squares (OLS):

OLS regressions characterize the relationship of one variable to other variables. A cause-effect link is established, and that relationship is used to project future values of one variable based on the other variables.

Advantages: Simplicity, flexibility, availability, familiarity, OLS regression options exist on most spreadsheet programs. OLS can be used to characterize a variety of circumstances. Explanations are often contained in the spreadsheet manuals. Causal variables are often projected by economists in publicly available sources, and by state and federal agencies.

Disadvantages: Requires a tight cause-effect relationship. Requires data for trend analysis. Requires assumptions for causal variables. To be used properly, requires a working knowledge of statistical methods and properties.

Appropriateness: This method is best for funds that have a direct relationship to economic trends, for example, household income to purchase of goods and services (and the link to sales tax receipts). Regressions are frequently used to predict gas tax receipts. OLS regressions are also used to project total fare revenues from proposed new fare structures.

Regression: Time Series

A time series regression is a way of projecting a variable based on the past values of that variable alone. Time series statistical packages have been used for business cycle analyses and are available on many business application software programs.

Advantages: Simplicity.

Disadvantages: Requires special software. Current packages are a bit of a black box method, both in terms of the statistical analysis done by the computer (the packages often just spit out the answer without any statistical justification or support) and in terms of being able to justify why this projection method is better than other regression or algebraic methods.

Appropriateness: A time series is best for variables that have a constant pattern over time, and no discernible relationship to any other economic variables or political decisions. Some use time series for business cycle variables.

Input-Output Model:

An input-output model is a characterization of an economic system, and the direct and indirect linkages within it, in a matrix form. Some input-output models can calculate fund revenues, or the variables that drive projections of funding resources. For example, if a region is experiencing defense industry cutbacks, an input-output model could also quantify the decline in tax base due to the decline in the industry sectors that provided inputs to the defense factories, or provided service to former defense industry employees.

<u>Advantages:</u> Accuracy, in some cases.

<u>Disadvantages:</u> Complicated for projecting fund sources. Requires an updated, input-output model. Away from academic circles, this is rare. To be used properly, requires a working knowledge of some advanced statistical/mathematical methods and properties.

<u>Appropriateness:</u> Good for analyzing direct and indirect impacts of a tax structure or toll. Not appropriate where updated input-output models are not readily available.

Geometric, or Exponential Growth Rates:

This method uses a trend curve to characterize the behavior of a fund source and to characterize the behavior of a fund source and to project future values. This can be done on a calculator.

<u>Advantages:</u> Simplicity.

<u>Disadvantages:</u> No sensitivity to political or economic forces.

<u>Appropriateness:</u> A geometric formula can be used to characterize funds that have been increasing at a decreasing rate. An exponential formula is sometimes appropriate to project funds that increase at an increasing rate. An exponential formula is sometimes appropriate to project funds that increase at an increasing rate. This is sometimes appropriate for sources driven by population growth. A bridge that is reaching its technical capacity may generate toll revenues that can be characterized by a geometric formula.

Constant Growth Rates:

This method uses a linear trend line to project future values. For example, if vehicle registration fee receipts have increased 3% per year over the past 10 years, it might be reasonable to project an increase of 3% next year.

<u>Advantages:</u> Simplicity. This can be done on a calculator, or by hand.

<u>Disadvantages:</u> No sensitivity to independent political or economic forces.

Appropriateness: Appropriate to characterize the behavior of some funds sources over time, especially if those fund sources are linked to targets, or have experienced little variation, growth or changes of behavior over time.

Institutional Formula:

Some fund sources are easy to predict because they are based on a legislatively determined formula. Sometimes they are set at a certain dollar level, sometimes the values are geared to their (simple or complex) considerations.

Advantages: Accuracy. This can be done on a calculator, or by hand.

Disadvantages: Only true for some fund sources. Even the ones that are directed by legislative formula are occasionally changed by the legislative body that devised them.

Appropriateness: Appropriate only to funds that are determined by legislative formula.

Algebraic:

Some fund sources have strict algebraic relationships to their variables. For instance, average general fund contribution to transportation may always be 10% of the budget.

Advantages: Simplicity. This can be done on a calculator, or by hand.

Disadvantages: Only true for some fund sources. Algebraic relationship may change. Other variables, assumptions, political or economic factors are often difficult to predict.

Appropriateness: Appropriate only to certain funds, those that don't change much from year to year.

Constant Value:

Some fund sources haven't changed much over time. The question here is, "Well, what did we get last year?" and use that value to predict future values.

Advantages: Simplicity.

Disadvantages: No consideration of political or economic forces.

Appropriateness: Appropriate only to certain funds, those that don't change much from year to year.

Political Judgment:

Some fund sources are subject to annual budget battles, or are private dedications that are subject to negotiations. These vary widely depending on the circumstances of the decision.

<u>Advantages:</u> Some funds just work like this, and the judgment of experience may be more appropriate than other more technical projection methods for these types of funds.

<u>Disadvantages:</u> Difficult to justify. Everyone may have his or her own opinion on this source and consensus might be difficult to reach. This method relies heavily on an open forum for reasonableness check.

<u>Appropriateness:</u> Certainly not all fund types are subject to a wide amount of political discretion in the short term. Many fund types projected by the other methods should have the wisdom of a good political judgment as a reasonableness check.

The choosing of the most appropriate Technical Projection Method depends on:

1. The past behavior of the funding source, how it has increased and decreased over time, and how it is related to events or trends;

2. Expectations about the continuation of those past relationships in the future;

3. Data that is available, including assumptions where needed, and

4. Experience in using statistical methods.

Choosing a Technical Projection Method is really choosing how to systemize, or rationalize, a judgment about the future. Each of the methods above has its advantages and disadvantages. Sometimes, using methods to project actual values is useful in seeing which comes the closest to that value.

Use of these methods provides a set of checks and balances. Though occasionally labor intensive, a democratic process is usually the best way to proceed. Having an open, cooperative process virtually ensures that all projections will be subject to a reasonableness check.

<u>The Reasonableness Check</u>

After a Technical Projection Method is chosen, the projections, i.e., the dollars projected to be available each year from each fund source, must be reviewed in a reasonableness check. Sometimes a projection method is chosen by consensus at the start. Other times, one agency is delegated the responsibility for projecting one fund source.

In either case, the set of projections are brought before the broader forum (including the federal reviewing agencies such as FTA and FHWA) for endorsement before being used in the RTP or the FTIP. The projections are scrutinized to make sure the estimates are the most defensible and the most justifiable. The limits that financial constraint dictates on the RTP or the FTIP ensure that each projection will be scrutinized carefully.

In testing projections for reasonableness, three checks can be made:

1. <u>Was the correct Technical Projection Method chosen?</u> Was a method used that results in the most statistically probable projection? Is there another method that results in a better projection, or one that fits past experience and future circumstances better?
2. <u>Where assumptions were made, are the assumptions themselves accurate?</u> The OLS regression method, for example, requires assumptions about the causal variables in order to project the effect into the future. These assumptions should be called out specifically in the course of developing financial constraint. If, in the end, the assumptions are suspect, then so are the projections.
3. <u>Where political judgments were made, or where politics were left entirely out of the projection methodology, is this supportable?</u> Political judgments are debatable. The omission of politics in the projection is debatable. It is here that the democracy of an open, cooperative process is especially key.

In this context, the larger forum would reject any projection that is at odds with political reality. If transportation has always been 10% of the state budget, but if the state is going broke and has not shown an ability to balance the budget, it may be unacceptable to continue to assume the same dollar levels from the state in the future.