

Testimony of Will Kempton
Little Hoover Commission Hearing on
Infrastructure Policy and Finance
May 28, 2009

Thank you for your efforts to focus attention on infrastructure policy and finance in California. Yours is an important and much-needed endeavor. California faces an unprecedented funding crisis as the infrastructure investments made by our parents and grandparents reach the end of their useful lives. In the area of transportation alone, we estimate the cost of rehabilitation of the existing State Highway System will exceed \$62 billion over the next ten years, and cities, counties and transit agencies project similar funding needs.

Your letter of invitation asked several specific questions, to which I will respond in turn.

How are transportation infrastructure projects planned and prioritized in the state, from the local to the state level? Please give a general overview of how this process works.

Transportation infrastructure projects are planned and prioritized based upon complex and well-established federal and State laws governing planning and programming of projects. State highway projects are identified through the system planning process. The system planning process includes development of the following documents: the California Transportation Plan (CTP), Regional Transportation Plans (RTP), the Interregional Transportation Strategic Plan (ITSP), and the Ten-year State Highway Operation and Protection Plan (Ten-year Plan).

CTP is a statewide, long-range transportation policy plan that provides for the movement of people, goods, services, and information. CTP offers a blueprint to guide future transportation decisions and investments that will ensure California's ability to compete globally, provide safe and effective mobility for all persons, better link transportation and land use decisions, improve air quality, reduce greenhouse gas emissions, and reduce petroleum energy consumption. As defined by State statute, CTP is not project specific. CTP is developed by the California Department of Transportation (Caltrans) and approved by the Governor or the Governor's designee. All highway projects must be consistent with CTP.

The foundation for regional transportation planning in California is RTP which is required to be consistent CTP. Since 1969, RTPs have been funded and required by State and federal statutes. The purpose of RTP is to plan a coordinated and balanced regional transportation system, and include all forms of transportation such as mass transportation, highways, railroads, bikeways, maritime, goods movement, and aviation facilities. RTP is required to consider the short (0-10 years) and long-term (10-20 years) future, and present clear, concise policy guidance to local, State, and federal officials. Additionally, RTP contains a financial element that identifies all anticipated funding for included projects. The plan development is an open process that includes citizen participation, interagency consultation and addresses regional environmental and air quality issues. The California Transportation Commission (CTC) adopts guidelines for preparing RTPs. The projects programmed by the region that are included as part of the State Transportation Improvement Program (STIP), Regional Transportation Improvement Program (RTIP) must be included in RTP. STIP projects are adopted by CTC. Senate Bill (SB) 375 requires additional efforts at the local level to demonstrate that transportation projects, land-use planning and environmental benefits are more carefully considered in the programming of State funds to transportation projects. Projects that are selected from RTP are then programmed in the region's Federal Transportation Improvement Program (FTIP). FTIP also includes both an environmental

conformity and a public participation process as required by federal regulation. Projects of lesser significance (such as local streets and roads projects and maintenance projects) are identified, prioritized, and funded by the local or State agency sponsor.

Caltrans prepares ITSP, which is complementary to the RTPs. The ITSP addresses interregional concerns and is the basis for the Interregional Transportation Improvement Program (ITIP). It recommends complementary actions by regional and local agencies to provide optimum integration of the State's transportation system. The plan addresses the State's visions, strategies, principles, objectives, and criteria for operating, developing, and improving interregional transportation facilities and services throughout the State. ITSP identifies both focus and high emphasis interregional routes that meet the objective of completing a trunk system to higher standards connecting all urbanized areas.

Caltrans develops the Ten-year Plan. The Ten-year Plan is prepared to identify the rehabilitation and reconstruction needs of all State highways and bridges under the jurisdiction of the State, and includes specific milestones and quantifiable accomplishments. The Ten-year Plan serves as the basis for Caltrans' budget request and for the adoption of the funding level available for the four-year State Highway Operation and Protection Program (SHOPP). SHOPP funds rehabilitation projects on the State Highway System, subject to priorities established by Caltrans based upon needs identified in the Ten-year Plan. Currently SHOPP is significantly underfunded. The 2009 Ten-year Plan identified a need for \$6.2 billion a year in SHOPP investments. Current funding provides only about \$1.5 billion a year for that purpose. As a result, the State has been unable to meet all of the prioritized needs in SHOPP, and funding is focused on safety, emergency restoration projects, regulatory/environmental mandates, bridge, and pavement preservation. Most of these highest-priority needs are not fully funded. The American Recovery and Reinvestment Act (Recovery Act) is being used to cover the funding shortfall for SHOPP projects programmed in the 2008/09 fiscal year (FY).

All projects of regional significance that are funded within the State must also be contained in both FTIP for the region and the Federal Statewide Transportation Improvement Program (FSTIP) as required by federal regulation. FSTIP must be updated at least once every four years, cover a programming period of four years, and contain a priority list of projects grouped by year. Currently, FSTIP is updated every two years. FSTIP must be financially constrained by year and include sufficient financial information to demonstrate that projects can be funded as programmed. Only projects with funds that are reasonably expected to be available may be programmed in FSTIP. In Metropolitan Planning Organization's air quality non-attainment and maintenance areas, all projects must be in conformity with the State Implementation Plan for air quality before they can be programmed. Additionally, reasonable opportunity must be provided for public involvement during the developmental stages of FSTIP. Caltrans has developed a public participation process that details the involvement opportunities provided to the public and interested parties during the development of FSTIP. FSTIP may be amended during its life cycle to reflect changes in project's scope, schedules, costs and priorities and to add or delete projects.

What is the current status of transportation projects in light of the actions of the Pooled Money Investment Board and the federal stimulus money coming to California?

On December 17, 2008, the Pooled Money Investment Board (PMIB) acted to suspend disbursements from the Pooled Money Investment Account (PMIA). The PMIA "freeze" affected approximately 5,700 projects across the State. In the weeks that followed this action, the Department of Finance authorized 276 projects to continue with the remaining 5,400 projects to be shut-down unless other non-state funding sources were available to enable them to continue. Ninety-eight of the projects that were allowed to proceed were high-priority transportation projects. Caltrans was able to avoid suspending contracts due to interim financing provided from PMIA and private placement bond sales between the Treasurers Office and the Metropolitan Transportation Commission in the Bay Area and the Los Angeles Metropolitan Transportation Authority.

In March 2008, the State sold \$6.54 billion in General Obligation bonds. On April 22, 2008, State Treasurer Bill Lockyer announced an additional \$6.85 billion sale of General Obligation bonds to fund infrastructure projects, including \$5.23 billion of the new Build America Bonds created by the federal economic stimulus package. Under the Build America Bond program, the Treasurer can sell taxable bonds, but use the proceeds to finance infrastructure projects eligible for tax-exempt bond funding. The federal government pays the State a cash subsidy equal to 35 percent of the interest cost.

Proposition 1B and other transportation programs received \$888 million from the March bond sale and \$1.06 billion of cash from the April sale. These funds were used for the following purposes:

- \$161 million for emission reduction programs administered by the Air Resources Board
- \$57 million for Port and Transit security
- \$211 million for local streets and roads
- \$235 million for transit capital grants administered by Caltrans
- \$1.22 billion to fund projects allocated by the CTC

The \$1.22 billion will be used by Caltrans to fund through completion the 98 contracts awarded prior to the PMIB suspension and over \$1.05 billion in new contracts. It should be noted that Proposition 1B transportation projects are the only category of bond-funded infrastructure work authorized to award new contracts as a result of these bond sales.

The bond proceeds provide funds to pay contractors on these new contracts through March 2010. This represents less than one year of cash in hand. The Treasurers Office is expected to conduct bond sales at least twice a year, likely each September and March. If the next bond sale occurs in September 2009, the available bond proceeds will be reduced to six months of cash-flow needs. Due to fluctuations in cash-flow and uncertainties about future bond sales, it is imprudent to reduce the available cash balance to less than six months of cash-flow needs.

Since suspension or termination of awarded construction contracts is costly and disruptive, Caltrans is likely to defer award of additional contracts until results of the September bond sale are known.

Until there is longer term stability in the financial markets, Caltrans expects to develop a shelf of “allocation pending” projects. As funds are made available from future bond sales, cash will be used first to cover on-going costs of awarded contracts, then to start new projects.

Caltrans estimates that \$1.5 billion to \$1.8 billion in bond proceeds will be required from each of the twice-a-year bond sale to allow Proposition 1B to proceed as planned through FY 2010/11. The need then reduces gradually, remaining over \$1 billion from each bond sale for FY 2011/12. Cash needs extend out through FY 2016/17.

The American Recovery and Reinvestment Act of 2009 (Recovery Act)

The Recovery Act provides more than \$48 billion for transportation nationwide. Formula programs in the Recovery Act apportion to California approximately \$2.57 billion for highways, local streets and roads, freight and passenger rail, and port infrastructure projects, and \$1.07 billion for transit projects. In addition, California is eligible to apply for funding under other discretionary programs that set aside:

- \$8 billion for high speed and intercity rail,
- \$1.5 billion for significant surface transportation projects,
- \$1.3 billion for aviation, and
- \$2.2 billion for AMTRAK, new starts, transit, ferries and other programs.

As a condition of receiving the Recovery Act funds, the State has had to provide a “Maintenance of Effort” (MOE) certification, pledging to maintain the level of State funds available for transportation purposes at the level established as of the date of enactment of the Recovery Act (February 17, 2009). Continuing budget issues may affect the MOE, which could threaten future federal funding.

The following is a more detailed breakdown of the funds received from the Recovery Act:

Transportation Funding for California:

- **Highways:** The Recovery Act provides California \$2.57 billion for federally eligible highway projects to be administered by the Federal Highway Administration (FHWA). State law (AB3X 20) distributes the funds as follows;
 - \$1.699 billion (62.5 percent) sub-allocated to the regions.
 - \$964 million (37.5 percent) allocated to the State.
- **Transit:** The Recovery Act provides California \$1.068 billion for federally eligible transit projects with administration and apportionment as follows;
 - \$968 million to Grant 5307-Urbanized Area Transit administered by Federal Transit Agency (FTA).
 - \$67 million to Grant 5309-Urban Fixed Guideway administered by FTA.
 - \$34 million to Grant 5311-Non-Urban Area Transit administered by Caltrans.
- **Highway/Transit/Freight/Rail/Ports Grants:** The Recovery Act provides \$1.5 billion nationally for competitive grants to State or local governments or transit agencies. There is a cap on grants to any one state of \$300 million. The United States Department of

Transportation (USDOT) will define administration of this funding and provide guidance for applications. Applications are due November 14, 2009 and selection by USDOT is expected by February 17, 2010.

- **Rail:** The Recovery Act provides \$8 billion nationally for Capital Assistance for High Speed Rail Corridors. The national strategic plan was released on April 16, 2009. Guidance on grant competition will be provided by the USDOT by June 2009.
- **Aviation:** The Recovery Act provides \$1.3 billion nationally for discretionary or competitive grants to be administered by the Federal Aviation Administration for federally eligible airport projects.

What obstacles stand in the way of getting projects to completion, including both ongoing obstacles that existed before the current economic downturn and challenges that have arisen as a result of the present environment?

The biggest problem has been the volatility in funding. Funding changes mid-stream as projects are being developed, often faster than projects can be delivered. This results in stop-start issues which lead to inefficiencies, increased costs, and project delays. When the funds change on a project, the funding change must be reflected in the Federal Program document which is accomplished through a formal amendment process. This process is time-consuming and also delays project completion.

Most large transportation projects have several fund sources. For example, support for capital projects is currently funded from 13 different fund sources, most of which are not interchangeable. Funding changes due to funding volatility have a major impact on Caltrans' ability to effectively manage support resources within these budget constraints. The ultimate solution to these issues is a stable and simplified funding stream. In the short term, legislatively providing for "fungibility" across various sources of funding within the annual budget would allow for better management of support resources and more efficient delivery of capital projects.

Project delivery is also affected by regulatory changes. For example, changes in Stormwater Permit requirements impact how Caltrans implements "Best Management Practices" that result in both project capital cost increases and schedule delays.

Protecting the environment is important, and the State should pursue opportunities to achieve this goal while streamlining administrative requirements. Delegating approval authority in specific situations, shortening review times, reducing organizational redundancies, and allowing processes to be done in parallel rather than sequentially could significantly accelerate project delivery. For example, the differences in approach and regulation between Regional Water Quality Control Board and local Air Boards, Coastal Development Plan agencies, and others, make standard approaches, standard contract language, and standard industry practices difficult, driving up costs and adding time.

Project studies and regulatory negotiations have shelf lives that can be fairly short. Endangered species surveys and hazardous waste investigations have to be redone after a few years because of changing conditions. Underlying assumptions in regulatory negotiations – land use, traffic, the regulations themselves and court decisions – change, requiring that environmental analyses and negotiations be redone to avoid and minimize impacts. Reductions in staff at regulatory agencies have at times caused delayed reviews.

Another issue impacting project delivery is the right-of-way acquisition process. The current economy and real estate market are driving low appraisals, which property owners are unwilling to accept, thus driving the need for more Resolutions of Necessity. The added requirements and timelines for right-of-way acquisition due to SB 1210 (effective January 1, 2007) put some projects at risk. Some potential tools for project cost savings that could be explored include offering property owners "signing bonuses" and/or raising the level of the single agent process from \$10,000 to \$25,000.

What kinds of innovations have been incorporated in transportation infrastructure funding, delivery and use in the last several years? What additional innovations could be made to improve the way projects get done?

Transportation Infrastructure funding

Proposition 1B Bonds

- Proposition 1B, approved by voters in November 2006, authorized the issuance of \$19.925 billion in State general obligation bonds under the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 (Bond Act). The objectives of the Bond Act are to improve transportation, air quality, and port security through the creation of new transportation accounts and programs, and by providing new funding for existing programs. Of the \$19.925 billion total, \$15.6 billion is authorized for programs managed by Caltrans.

Grant Anticipation Revenue Vehicle Bonds

- The Grant Anticipation Revenue Vehicle Bonds (GARVEE) program is a federal innovative financing mechanism that has gained nationwide interest in recent years as the availability of traditional cash-funded sources becomes more and more constrained. GARVEE is tax-exempt revenue anticipation note or bonds repaid from future federal receipts. Statute allows for financing of the right-of-way and/or construction of eligible (SHOPP, STIP, Traffic Congestion Relief Program or toll bridge seismic) highway projects for up to 12 years.
- In 2004, Caltrans issued its first GARVEE bonds, which provided \$657 million to fund the advance construction of eight STIP transportation projects. In October 2008, Caltrans issued approximately \$98 million in GARVEE bonds to finance two Interstate 80 (I-80) pavement rehabilitation SHOPP projects. Caltrans also has plans to issue an additional \$2 billion of GARVEE from FY 2009-10 through FY 2011-12 to finance the construction of 13 more SHOPP projects.

Public Private Partnership Program

- SB X2 4 authorizes Caltrans and Regional Transportation Agencies to use Public Private Partnership Program (PPP) to advance transportation infrastructure projects in California.
- While PPP is not the answer to every transportation need, PPP can be an extremely effective way to capitalize on and leverage the skills and resources of the private sector, while maintaining the appropriate level of public control.

Transportation Infrastructure Finance and Innovation Act Loan Program

- The Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides federal credit assistance to nationally or regionally significant surface transportation projects, including highway, transit and rail. The program is designed to fill market gaps and leverage substantial private co-investment by providing projects with supplemental or subordinate debt. Up to 33 percent of total project costs can be financed through TIFIA credit assistance.
- Due to high demand, the TIFIA program currently is out of program capacity.
- Caltrans does not have state statutory authority to utilize the TIFIA program.
- TIFIA can be a very useful tool for Caltrans.

Project Development/

Contracts for Delivery

- In the past Caltrans has had a reputation for being slow in delivery of projects. This was remedied by initiating “Contracts for Delivery”. These are written commitments from Caltrans District Directors and Caltrans Director to delivery a specific list of projects each year.
- As of result of these “Contracts for Delivery”, over the past three fiscal years Caltrans delivered 753 of 754 projects, \$8 billion
 - 2005-06: 173 of 174 projects
 - 2006-07: All 286 projects
 - 2007-08: All 294 projects
- Caltrans is continuously looking for opportunities to accelerate delivery of projects.

National Environmental Policy Act Delegation

- California is the only State to receive delegation of Federal Highway Administration’s (FHWA) National Environmental Policy Act (NEPA) responsibilities as authorized by Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. The goal of the pilot is to streamline the environmental process while maintaining environmental protections. Under this delegation, Caltrans is approving NEPA documents in-house acting as FHWA representative and is coordinating directly with federal resource agencies. Initial results indicate a savings of 4 months on Draft Environmental Documents and 1.5 months on Final Environmental Documents.

Permit Engineering Evaluation Report Process for projects funded by others

- Projects costing \$1-3 million that qualify may follow a streamlined process by replacing the standard Project Study Report and Project Report with a simpler Permit Engineering Evaluation Report. Generally a cooperative agreement is not required for these projects.

Project Agreement Construction Tool

- Caltrans has developed a new automated tool for preparing cooperative agreements that utilizes an online interview process to develop agreements in a Project Development Team meeting. The tool was initially made available in August 2007. On March 31, 2009, an enhanced version became available that could develop pre-approved agreements eliminating two approval steps in the process. This tool will allow Caltrans to meet its goal of having cooperative agreements completed within 60 days.

Automated Machine Guidance

- Automated Machine Guidance technology uses positioning devices (e.g. GPS), alone or in combination, to determine and compare the position against a Digital Design Model stored in an onboard computer. A pilot project was awarded in February 2009 to evaluate the technology. This technology has the potential to increase the contractor's productivity, reduce the number of survey stakes and reduce construction working days. Industry estimates that productivity gains of 25 percent or more in grading operations could be realized.

Additive Bidding

- Caltrans began a pilot program to evaluate Additive Bidding as an alternative contracting method. Additive bidding allows Caltrans to maximize the scope of work constructed by adding scope incrementally until the programmed value is reached. *Two of four projects in pilot program have been successfully awarded meeting the goal of this pilot program.*

Innovative Contracting

- Caltrans began a two-year effort to evaluate a variety of innovative contracting methods. The results of this effort are an Innovative Contracting Report and an Innovative Contracting Guide. Methods selected for further evaluation are Design-Build, Construction Manager at Risk, Additive Bidding, Alternate Design, Alternate Bids, Flexible Notice to Proceed, No Excuse Incentives, Shared Risk Contingencies, and Warranties.

Risk Management

- Project risk management is the systematic process of identifying, analyzing, and responding to project risk. Risk Management can assist the project team to manage the cost, schedule and quality of the project and will likely result in more successfully meeting our cost and schedule commitments as well as eliminating rework as the project team takes proactive measure to avoid or mitigate risks.

Lessons Learned Database

- The Lessons Learned Database is a tool to capture the lessons learned during the course of a project. Its purpose is to benefit Caltrans by identifying continuous improvement needs and by

channeling the lessons learned information to the appropriate person(s). It is anticipated that the Lessons Learned Database will lead to further streamlining efforts as ongoing issues are identified.

District Delegation of Authority to Advertise

- District Directors have been delegated the authority to authorize advertisement of construction contracts for minor projects, major maintenance projects, and major projects up to \$1 million. *On average one to three weeks can be saved on these low-risk projects.*

Right of Way Acquisition prior to Environmental Approval

- When Caltrans is not the NEPA decision-maker, Right of Way may acquire the property prior to environmental approval if the project is non-controversial and the project has been programmed. Saves time by allowing right of way acquisition and finalizing environmental process to proceed concurrently.

Use of Flexible Resources to Deliver Projects

- With passage of Proposition 35, Caltrans has increased its effort to use consultant resources. Caltrans is using on-call contracts to alleviate delivery bottlenecks and project-specific contracts to augment project delivery efforts.

Value Analysis

- Value Analysis is a structured problem-solving approach utilizing a multi-disciplinary team. This tool can expedite the project development process by facilitating consensus and can serve as an effective tool to help manage the project scope, cost and schedule. Caltrans has saved more than \$1.9 billion over the past 17 years through use of Value Analysis.

A+B Bidding

- A+B Bidding requires the contractor to bid both cost and time resulting in shorter construction times. Awarded 25 projects in FY 2006/07, reduced 2,900 days of construction (30 percent) resulting in \$42 million in Road User Costs saved.

Environmental Process Improvements

- Caltrans has a number of programmatic agreements in place with a number of resource agencies to delegate and/or expedite approvals and funds for 30 positions at review agencies to expedite permits and approvals. Caltrans has also developed the most complete on-line resources and guidance for transportation projects in the nation.

Additional innovations that could be made to improve projects delivery include:

- Construction Management (C&M) at Risk - Potential contractors provide input during the project development of a project (i.e. Project Development Team & Constructability Review Meetings) at a fee then provide a lump sum bid on the project.
- New Roadway Design System - This system will help Caltrans improve how it designs and delivers projects.
- Pavement Management System - This system would improve asset management and keep to prioritize pavement projects.

How will SB X2 4 change the game in financing and delivering transportation projects? What else could be done to help your department and local jurisdictions in making projects happen?

SB X2 4 has provided two new tools for financing and delivering transportation projects – Design-Build contracting and Performance Based Infrastructure (also known as Public Private Partnership). Design-Build allows Caltrans to award a single contract for the design and construction of a transportation project to a single entity. Design-Build allows for earlier cost certainty, faster delivery, and innovation. Cost is realized because these contracts are awarded as

lump sum contracts in the early design phase. Faster delivery is achieved by overlapping the design and construction of the transportation project. Innovation occurs because the design can be customized to the particular strengths of the builder rather than designing a project so any “competent mechanic” can construct the project.

Performance Based Infrastructure will allow Caltrans to capture private investment to develop and construct transportation projects. This can be accomplished in a variety of ways including Design-Build finance and concessions. Design-Build finance utilizes private financing to construct the project with Caltrans paying the cost back over a period of time. Concessions utilize private investment to construct a facility in exchange for tolling revenue over a period of years.

While these innovations are a step in the right direction, they do not replace the urgent need for a reliable, simplified and growing financial stream to fund transportation projects. Increased funding for transportation should also be accompanied by improvements in performance management, reporting and accountability to ensure that the dollars provided are well-spent to improve mobility across California.