

ADDENDUM - Public-Private Partnerships Best Practices Summary

The United States Congress has passed legislation encouraging states to pursue public-private partnerships (PPPs) to meet their transportation needs. Specifically, congress has authorized a program allowing states to issue up to \$15 billion in tax-exempt debt, for use in combination with private equity. This program offers an efficient finance plan for user fee-supported highway infrastructure. So far however, California has not passed the necessary State legislation to qualify for these funds.

Until recently, most US transportation agencies (and their advisors) generally favored issuing tax-exempt debt to the exclusion of private equity. However, increasing market evidence suggests that private equity captures the “growth wedge” in future project revenues more effectively than tax-exempt markets. Thus, private equity offers agencies greater leverage on limited tax revenues in capital finance plans.

California was once at the forefront of public-private partnership use in transportation. Led by the Orange County Transportation Corridor Agencies, California pioneered the successful development and implementation of these tools. Other states quickly realized the value of such partnerships, however, and today have moved ahead of California in identifying projects and preparing and submitting applications. This is a critical time for California. If our leadership commits to a long-term PPP program, it could attract billions of dollars in private investment for new construction.

The following is a look at what vital tools are needed for California to “re-launch” PPPs, criteria that businesses look for in PPPs, and examples of best practices from successful PPPs around the nation and the world.

What is needed to move California forward?

To create effective PPPs, California needs legislation, institutional capacity, and effective project screening.

Legislation should authorize, among other things:

- State and regional agency selection and procurement of projects;
- “Best value” selection;
- “Best project plan” selection;
- Unsolicited proposals, followed by request for competing proposals;
- Pre-Qualification of proposer teams;
- Post-selection negotiation;
- Long-term private contracts;
- Flexible agreement terms and conditions; and,
- A range of financing tools.

Building institutional capacity to deliver PPPs requires:

- A mechanism to facilitate the public-private partnership;
- Institutional commitments and leadership;
- Dedicated staff with can-do attitude and a willingness to do things differently; and,
- Experienced, conflict-free consultant support.

Projects should be screened for PPP suitability, including:

- Ease of environmental clearance;
- Suitability for performance-based specifications;
- Value of anticipated user fees and/or tolls; and,
- Political acceptability.

What is the private sector looking for in efficient projects and partnerships?

A reasonable rate of return on investment. ROI is the primary private-sector yardstick. Private sector partners are going to expect a higher return on investment than revenue bonds or subordinated debt in exchange for the assumed risk.

Manageable and shared risks. The distribution of responsibilities and risks (including political, real estate, environmental, permitting, and timing risks) should match participant strengths and investment in the development process. Furthermore, private partners will seek assurance that the ground rules governing the partnership will not change due to changes in the political landscape, as has happened in some states following changes in administration.

A publicly supported project that has a genuine and pressing need. Private partners may avoid projects that are controversial or have strong opposition from the general public because of the risks and uncertainty involved.

Broad stakeholder support. Projects with support from public sector employees, private sector parties, labor unions, end users, and competing interests are more attractive to potential partners. Getting there will require a transparent development process that includes open and frank discussion that promotes understanding, reduces uncertainty, dispels distrust, and results in a transparent project development process. This can be a challenge because the private sector and public sector have different strategic objectives and focus on different performance criteria.

Statutory permission. Enabling legislation and a regulatory framework and timeline for PPPs must be in place, especially if unsolicited proposals are sought.

Political leadership. The private sector needs to be able to count on the public sector as a full-fledged and responsible partner. This means the public sector needs to resist the temptation to add on new taxes, tolls, or fees or redistribution of existing revenues.

A public sector project management structure committed to PPPs. The private sector will be encouraged to enter PPPs if they see an opportunity to work with a dedicated corps of public sector personnel who understand how to let the private sector do its job.

Timely project execution. Time wasted is money lost for private sector partners, who simply cannot afford delays. Having strong leadership, a solid organization structure, and clear lines of communication promote project timeliness.

A detailed business plan. The private sector will be looking to sign an enforceable, performance-oriented contract that allows for innovation. The contract or plan should include specific milestones and goals, reporting metrics and frequency, and dispute resolution procedures.

Early public sector support. The private sector will look to the public sector to take a lead on early project elements such as right-of-way acquisition and environmental clearance, which represent areas of high risk and uncertainty for the private sector.

Clear lines of communication. Private sector partners in particular will seek to interact with one point person (or team) from the public sector to report issues and progress and to ask questions. Many projects find that communications are eased when private and public sector partners are co-located at a joint project office, often on-site.

A pre-defined dispute resolution process. Private sector partners will want to know in advance the roles, responsibilities, and procedures for addressing disputes that may arise during the project regarding contract compliance by all members of the partnership.

Best Practices From Around the World.

- Washington State: HB 1541-Transportation Innovative Partnerships Act-provides for both solicited and unsolicited proposals and mix of public/private capital.
- Chicago: City to lease Chicago Skyway for 99 years for \$1.83 billion to Cintra/Macquarie.
- Georgia: SB 270 allows the state to issue RFPs and increases to 135 days (from 90 days) the time during which potential competitors can respond.
- Texas: Trans-Texas Corridor 35 is a transaction that will develop the first 44 miles of new toll roads, truck lanes and high speed freight rail in what will be a 400-mile corridor. Instead of the state putting up 80% of the capital, and 100% of the O&M, under this private equity model, the state will put up 0% of the capital and 0% of the O&M. Indeed, the private operator will pay a franchise fee to the state for the right to operate the toll road for 50 years.
- High Occupancy Toll (HOT) lanes in California (SR 91 & SR 125) and in Texas (I-10 & US290).
- TIFIA, federal program providing patient, back-loaded credit support.

- Congress just passed a program authorizing states to issue up to \$15B in tax exempt debt, to be used in combination with private equity.
- Brazil has over 9,000 km of toll highways run by private operators, under 36 concession agreements.
- France: Early 2005, Vinci finalized a 65-year concession to develop and operate the \$800 million A-19.
- Israel to proceed with next phase of TransIsrael Highway, which has been developed under a 30-year concession and uses the Raytheon electronic toll system for \$130 million.
- Australia: \$3 billion Mitcham-Frankston Freeway was awarded to ConnectEast.
- Malaysia: \$525 million project combines flood and congestion relief in a single, double-deck tunnel.
- China: An increasing fraction of \$150B National Truck Highway System is being developed under concession models.

Appendix: 5 Source Documents

A Public Private Partnership PowerPoint

Public Private Partnerships An Opportunity for California

- **Historic Policy Drivers of Project Delivery Decisions**
- **California as the Pioneer of Public-Private Partnerships (PPPs)**
- **Other States Following California's Lead**
- **Current Policy Drivers of Project Delivery Decisions**
- **How California can “Re-Launch” PPPs: Key Elements of a Successful Institutional Framework**

Current Legislative Vehicles for PPP

- **Governor's "Strategic Growth Plan" and associated Bond Measures and related Legislative proposals:**
 - **SB 1165 (Dutton)**
 - **AB 1838 (Oropeza)**
 - **SB 1024 (Perata)**
 - **AB 1783 Nunez)**

Historic Policy Drivers of Project Delivery Decisions (cont.)

- **BUT borrowing against limited tax revenues has not closed the gap between capital requirements and available cash**
- **As a result, agencies have moved toward Design-Build, PPPs and other innovative forms of contracting:**
 - **To shift project risks usually publicly retained**
 - **To achieve price certainty early in design life**
 - **To further accelerate completion**
 - **To attract private equity investment**
 - **To capture private sector innovations in project definition, technology, lifecycle cost efficiencies, design and construction, O/M performance and customer service**
 - **While still ensuring transparency**

California as Public-Private Partnership Pioneer

- **Led by Orange County Transportation Corridor Agencies, California pioneered the successful development and implementation of these tools**
 - Eastern Tollroad
 - San Joaquin Hills Tollroad
 - Foothill North Tollroad
 - Foothill South Tollroad (pending)
 - State Route 91 Express Lanes
 - Alameda Freight Corridor
 - State Route 125 Tollroad
 - Pasadena Gold Line LRT
- **These projects proved to be PPP models for the country**
- **Other States took notice of California's successes and have put our experience to active work**

Other States Following California's Lead

PPP Delivery Option	Examples
Traditional Funding using Design-Build and Public Operations	Utah DOT - I-15 (\$1.4B); Colorado DOT - T-REX (\$1.67B); Minnesota DOT - Hiawatha LRT (\$715M) and Highway Program; City of Reno-ReTRAC (\$231M)
Traditional Funding using DBOM	New Jersey Transit-River Line LRT (\$998M) and Hudson-Bergen LRT (\$1.9B)
Dedicated Revenue Stream using DBOM or DBM	Massachusetts Highway Department-Route 3 North
Project Revenue Financing using Design-Build and Public Operations	Texas DOT – SH 130 (\$1.3B); Colorado E-470-Segments 1-4; Virginia DRPT – Dulles Rail Project (\$4B) (in negotiations); Washington State DOT Tacoma Narrows Bridge (\$849M)(GO Bonds sized to match anticipated toll revenues)
Project Revenue Financing using Non-Profit Concession	Nevada Department of Business and Industry – Las Vegas Monorail (\$650M); South Carolina DOT – Greenville Connector; Virginia DOT – Pocahontas Parkway (\$323M)
Project Revenue Financing using For-Profit Concession	Virginia DOT – Dulles Greenway (\$1B); Province of Ontario – Toronto Highway 407; Texas DOT – Trans Texas Corridor 35 (\$20B); Virginia DOT – I-495 Beltway HOT Lanes; Virginia DOT – I-95/395 Hot Lanes (in negotiations); Texas DOT – Cintra/Zachary SH 130/Segments 5-6 (\$895M) (under negotiation); Texas DOT – I-635 (\$3.5+B), SH 121 (\$1+B), SH 161 (under procurement); Texas DOT – Trans Texas Corridor 69 (procurement to be released March 06)

Other States Following California's Lead (cont.)

- **The list of states using these tools is growing quickly**
- **Texas, Virginia, Florida, Georgia, Oregon, North Carolina and Colorado have already announced significant new multi-billion, PPP initiatives**
- **New York, Utah, Indiana and Idaho are among additional states with bills actively pending in their legislatures**
- **Regional areas moving aggressively on PPP's are the same areas competing most aggressively for California's economic future**

Current Policy Drivers of Project Delivery Decisions

- **Currently, the project delivery model receiving the most public sector attention is the private concession, using private equity investment**
- **Among very first examples were California's own:**
 - **SR 91 (Orange County)**
 - **SR 125 (San Diego)**
- **For the decade following these projects, U.S. interest in concessions flagged while the international concession market grew and flourished**
- **Until recently, U.S. transportation agencies (and their advisors) were generally biased against private equity and in favor of tax exempt debt**

Current Policy Drivers of Project Delivery Decisions (cont.)

- **Current U.S. tax laws generally preclude mixing of tax exempt financing with private equity**
- **Result = less U.S. concessions**
- **Other countries, without a tax exempt credit option, saw immediate value in private equity and aggressively pursued concessions**
- **Eyebrows raised in 2003 when private equity bridged gap that tax exempt financing couldn't fill in San Diego Route 125 project**
- **Bigger shocks came in 2005 when jurisdictions leased existing assets at multiples above what tax exempt credit markets could offer**
 - **Chicago Skyway**
 - **Indiana Tollroad (pending legislative approval)**
 - **Virginia Pocahontas Parkway (under negotiation)**

Current Policy Drivers of Project Delivery Decisions (cont.)

- While asset lease deals are very different than development concessions, increasing market evidence suggested that private equity captures “growth wedge” in future project revenues more effectively than tax-exempt markets
- Proof found in precedent-setting 2005 Trans-Texas Corridor 35 transaction for development of new tollroads, truck lanes and high speed freight rail in 400 mile corridor
- For the first TTC 35 development project (44 mile tollroad):
 - Tax exempt model required 80% tax funding of capital and 100% public funding of O/M
 - Private equity model suggested 0% tax funding, with private payment to state, and 100% private funding of O/M

Current Policy Drivers of Project Delivery Decisions (cont.)

- **Result = under current market conditions, private equity offers agencies the means to greater leverage of limited tax revenues in capital finance plans**
- **Further facilitating projects with dedicated revenue sources is TIFIA, federal program providing patient, back loaded credit support**
- **Even better, Congress just authorized program authorizing states to issue up to \$15 billion in tax exempt debt, combined with private equity**
 - **For the right projects, this offers the most efficient finance plans in the world for user fee-supported highway infrastructure**
 - **Program will be competitive, though, and other states are ahead of California in identifying projects and preparing/considering applications**

How California Can Re-Launch PPPs: Key Elements of Successful Institutional Framework

- **If California's leadership commits to a long term PPP program, it can attract billions of dollars in private investment for new construction, including:**
 - **Adding managed lanes to existing highways**
 - **Completing important gaps in highway network**
 - **Dedicated truck lanes**
 - **Freight corridor improvements**
- **To carry out this commitment and produce the desired results, the tools needed are:**
 - **Legislation**
 - **Institutional capacity**
 - **Effective project screening for PPP suitability**

How California Can Re-Launch PPPs: Key Elements of Successful Institutional Framework (cont.)

- **Legislation should authorize, among other things:**
 - **State and regional agency selection and procurement of projects**
 - **“Best value” selection**
 - **Best “project plan” selection**
 - **Unsolicited proposals, followed by request for competing proposals**
 - **Call for project proposals**
 - **Pre-Qualification of proposer teams**
 - **Negotiation post-selection**
 - **Long term durations of private contracts**
 - **Flexible agreement terms and conditions**
 - **A range of financing tools**

How California Can Re-Launch PPPs: Key Elements of Successful Institutional Framework (cont.)

- **Building institutional capacity to delivery PPPs requires:**
 - **Institutional commitments and leadership**
 - **Dedicated staff with can-do attitude, ability to bring along middle management, willingness to do things differently**
 - **Experienced, conflict-free consultant support**
- **PPPs are neither a panacea for all transportation needs nor suitable for all projects**
- **Projects should be screened for PPP suitability, including:**
 - **How close to environmental clearance**
 - **Suitability for performance-based specifications**
 - **Value of anticipated user fees and/or tolls**
 - **Political acceptability**

2/13/06

States with Significant Legislation

**OVERVIEW OF STATES WITH SIGNIFICANT TRANSPORTATION
PUBLIC PRIVATE PARTNERSHIP ("PPP") AUTHORITY
(Reflects legislative developments through August
2005)1**

AL

ALA.CODE§§ 23-1-80 to 23-1-95

Authorizes the Alabama DOT and county commissions to establish toll roads, toll bridges, ferries or causeways or allow for their operation by private parties. No express provision regarding the solicitation or acceptance of unsolicited proposals. Not appropriate to use as a model for PPP enabling legislation.

AZ

ARIZ. REV. STAT. §§ 28-7701 to 28-7758

Two pilot programs each allow up to two solicited and unsolicited proposals. Not appropriate to use as a model for PPP enabling legislation.

CA

CAL STS & HY CODE § 143(A)

CAL GOV CODE § 5956

The legislation authorizing Caltrans to enter into PPPs (known as AB 680) was recently repealed; new legislation is pending pursuant to Governor

Schwarzenegger's "GoCalifornia" transportation initiative (AB 850).

This legislation (also known as AB 2660) authorizes PPPs for a range of "fee-producing infrastructure projects," but explicitly excludes the use of toll roads on state highways.²

CO

COLO. REV. STAT. §§ 43-1-1201 to 1209

COLO. REV. STAT. §§ 43-4-801 to 812

COLO. REV. STAT. §§ 43-3-201 to 43-3-416

Allows solicited and unsolicited proposals for PPPs.

Created a statewide tolling enterprise to finance, build, operate and maintain toll highways. Operated as a government-owned business within the Colorado DOT.

Provides PPP authority to Colorado DOT for specific projects including turnpikes and HOT lanes.

DE

DEL. CODE ANN. tit. 2, part II, ch. 20, §§ 2001 to 2012

Authorizes solicited and unsolicited proposals for PPP projects, including highways and bridges.

FL

FLA. STAT. ANN. § 334.30

FLA. STAT. ANN. §§ 338.22 to 338.241

Allows Florida DOT to receive or solicit proposals for PPPs.

1953 statute that established the Florida Turnpike Enterprise, which is operated like a private-sector business within the Florida DOT.

GA

GA. CODE. ANN. §§ 32-2-78 to 32-2-80

Now allows Georgia DOT to both receive and solicit proposals for PPPs. In May of 2005, several significant amendments to this statute were enacted as S.B. 270. Potential competitors, for example, now have 135 days (instead of 90 days) to respond to an unsolicited proposal.

LA

LA. REV. STAT. §§ 48:1251 to 1281

LA. REV. STAT. §§ 48:2020 to 2037

Allows parishes, municipalities and Louisiana Transportation Authority to enter into PPPs. No express provision regarding the solicitation or acceptance of unsolicited proposals. Not appropriate to use as a model for PPP enabling legislation.

MD

MD. TRANSPORTATION CODE ANN. § 8-204

Maryland does not have a statute expressly authorizing highway PPPs. According to a 1996 Attorney General opinion referenced in the annotations to this statute, the Maryland Transportation Authority has authority to

construct toll roads using certain forms of PPPs.³ Additional legislative authority may be needed, however, depending on the form of the transaction. There is also no express provision regarding the acceptance of unsolicited proposals for highway projects.

MN

MINN. STAT. ANN. §§ 160.84 - 160.93

Authorizes solicited and unsolicited PPPs for toll facilities. Authorizes HOT lanes.

MO

MO. REV. STAT. §§ 238:300 to 238:367

Creates a special purpose non-profit corporation known as a Transportation Corporation as a vehicle for PPPs. No express provision regarding the solicitation or acceptance of unsolicited proposals. Not appropriate to use as a model for PPP enabling legislation.

NV

NEV. REV. STAT. §§ 338.161 to 168

Authorizes public bodies to accept unsolicited proposals to develop, construct, improve, maintain or operate transportation facilities. Toll bridge and toll road projects, however, are prohibited under this statute.

NC

N.C. GEN. STATE. §§ 136-89.180 to 136-89.197

H.B. 253 became law in August. North Carolina Turnpike Authority now authorized to develop, construct, operate and maintain up to nine toll facilities, including a toll bridge.⁴ Solicited process only. No projects implemented to date, but Executive Director just appointed.

OR

OR. REV. STAT. §§ 367.800 to 367.826

OR. REV. STAT. §§ 383.001 to 383.019

Establishes the Oregon Innovative Partnerships Program with detailed guidelines at

OAR 731-070-0005 to 731-070-0360.

Allows Oregon DOT to solicit and accept unsolicited PPPs for tollway projects.

PR

9 LEYES P.R. AN. §§ 2001 to 2021

This Spanish language statute establishes a toll transportation facility authority with broad powers to authorize private participation in public highway projects.

SC

S.C. CODE § 57-3-200

S.C. CODE § 57-5-1310 et. al.

Allows South Carolina DOT to enter into PPPs.

Allows DOT to construct and operate turnpike facilities; § 57-5-1330(1)4 appears to permit SC DOT to use PPPs to develop these facilities. No express provision regarding the solicitation or acceptance of unsolicited proposals.

TX

TEX. TRANSP. CODE ANN. ch. 227, 361 and 370

Allows TxDOT, the Texas Turnpike Authority, and Regional Mobility Authorities to accept solicited and unsolicited proposals for PPPs. Pending legislation (H.B. 2702) would require a popular vote for any conversion from free lanes to tolled. The bill also would limit toll franchises to 50 years.

VA

VA. CODE ANN. §§ 56-556 to 56-575

Virginia's Public-Private Transportation Act of 1995 authorizes PPPs and was modified during the 2005 legislative session. Allows solicited and unsolicited proposals. Contains detailed guidelines to assist VDOT and other public entities in implementing this program.

WA

WASH. REV. CODE §§ 47.46.010 to 47.46.900

New PPP enabling legislation was passed in May of 2005 (as H.B. 1541), but it is unlikely to encourage much private sector investment because (1) the only significant projects that require PPPs are state (WashDOT) projects; (2) the exclusive source of

financing for WashDOT projects is state treasurer-issued indebtedness; and (3) no such indebtedness, or expenditures from it, may occur without prior legislative approval. Presently, solicited proposals only, but unsolicited proposals may be accepted after 1/1/07.

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State Public Private Partnership Laws by Reason Foundation

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| <ul style="list-style-type: none">* State PPP Laws* Sale/Lease of Existing Toll Roads* PPP Toll Road Projects* HOT Lanes and ETLs* Federal Reauthorization of Surface Transportation* Overseas Toll Road Developments |
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State PPP Laws

Thanks in part to continued fiscal pressures and in part to encouragement from the federal Department of Transportation, more state legislatures took action on public-private partnership laws during the past year.

The only completely new law was enacted in Washington State. HB 1541 is the Transportation Innovative Partnerships Act. This legislation repeals the 1995 law under which a number of franchises were issued but the projects were not built due to later amendments to the law that made it unattractive to the private sector. The new law provides for both solicited and unsolicited proposals, as well as a mix of public and private capital (as in Texas and Virginia). The Washington legislature also enacted SB 6091, which allocated \$1.5 million for a comprehensive tolling study, as called for by HB 1541.

Considerable interest has followed the progress of a bill to enable tolling and public-private partnerships in California, AB 850. The bill was introduced in February 2005, with bipartisan support and the backing of Gov. Arnold Schwarzenegger (as part of his Go California transportation package). At press time, the bill had cleared the transportation committees in both houses. The Senate committee version removed a 35-year limit on the length of franchise agreements, thereby permitting the longer terms that can lead to significant equity investments in projects. California currently has no enabling legislation for tolls or highway PPPs, due to the repeal of the previous pilot program law, AB 680, at the end of 2002. The need for a replacement was highlighted in Reason Foundation's

policy study 324, Building for the Future: Easing California's Transportation Crisis with Tolls and Public-Private Partnerships.

Several state legislatures enacted revisions to existing highway PPP laws. In Georgia, SB 270 newly allows the state to issue RFPs for such projects, instead of only dealing with unsolicited proposals. In addition, in the case of the latter, it increases to 135 days (from 90 days) the time during which potential competitors can respond to an unsolicited proposal.

The Texas legislature took up revisions to its landmark HB 3588, enacted in 2003. The main point of contention has been the law's provision allowing the conversion of existing free lanes or highways to tolled operation as part of tolled and/or PPP projects. That prospect set off a huge political backlash in Austin, inspiring amendments in both houses of the legislature. The House version (HB 2702) at press time had passed both houses. It would require a popular vote for any such conversion from free to toll. The bill also limits toll franchises to 50 years.

The Virginia legislature enacted the first revisions in 10 years to that state's Public Private Transportation Act. The revised version clarifies the point that any "responsible public entity" may authorize PPTA projects, not just the Virginia DOT. And it permits both RFPs and unsolicited proposals to be used by such entities. In addition, if permitted by other federal and state laws, a private partner may toll existing free lanes under revised language that no longer requires expansion of capacity to accompany tolling.

Colorado also saw legislative action. The legislature passed two bills dealing with the proposed private Front Range Toll Road, which would parallel congested I-25 to the east of Denver International Airport. This project has been proposed under a 19th century Colorado law, still on the books, under which some 80 pre-auto-era private toll roads were developed. But under that law, county governments regulate the toll rates, and there are seven of them along the Front Range's planned

route. HB 1342 would modernize the old law, including a shift to the state of control over toll rates. It passed both houses in May and Gov. Bill Owens has indicated he would sign it. He also said he would veto SB 230 which would have repealed the old law's utility-like powers to acquire right of way. (Most proposed PPP toll roads in Colorado are proceeding under the 1995 Public Private Initiatives legislation.)

In New York, Gov. George Pataki proposed legislation that would permit tolls and PPPs for both existing and new transportation infrastructure. It would apply to both state and New York City entities, would permit the sale or lease of existing projects, and provides for both RFPs and unsolicited proposals. As of mid-May 2005, the bill was being marked up in the Senate, and observers hoped that at least a pilot-project version would be enacted.

Sale/Lease of Existing Toll Roads

An issue that had not previously been part of the U.S. transportation policy debate—the sale of existing toll roads—burst onto the scene at the end of 2004 when the city of Chicago announced that it had reached agreement with a global consortium to lease the Chicago Skyway for 99 years, for \$1.83 billion. The winning bid from the CINTRA/Macquarie team dwarfed the other two bids, both of which were less than \$1 billion. The lease will run for 99 years, and toll rate increases are limited to the rate of inflation. Chicago is using the proceeds largely to pay down debt and for one-time public-works improvements. Even before the Skyway funds flowed on January 24, 2005, officials in other states had begun to consider whether they might do likewise with respect to toll roads in their states.

Acting New Jersey Gov. Richard Codey in January called for looking into a similar transaction involving the New Jersey Turnpike and/or the Garden State Parkway. The state has a multi-billion-dollar budget shortfall, and the state's transportation trust fund's resources are nearly all committed to paying debt service on a series of bond issues. The two facilities generate

about \$750 million a year in toll revenue, 17 times what the Skyway generates. Assembly Transportation Committee chairman John Wisniewski told local reporters that "It is something we should examine to understand whether it is something that can work for New Jersey." As noted above, the response of New York's Gov. George Pataki was to introduce legislation that would, among other things, permit the sale or lease of existing toll facilities such as the New York Thruway and the toll bridges and tunnels in New York City.

In the Midwest, newly elected Indiana Gov. Mitch Daniels had campaigned on a platform that included greater use of tolling to finance highway investments, so it was no surprise that on taking office in January 2005 he proposed looking into the privatization of the Indiana Toll Road. Daniels has said asset sales will be a key part of his fiscal reforms, and he also continues to see serious possibilities in using toll revenues to finance such new projects as the proposed extension of I-69 from Indianapolis to Evansville near the state's southern border and the expansion and modernization of US31 from Indianapolis north to South Bend.

Most recently, in April 2005 Delaware Secretary of Transportation Nathan Hayward proposed the possible privatization of the state's 51-mile Route 1, from I-95 south to Dover. With \$31 million per year in current toll revenues, DE 1 may not be that attractive a proposition on a stand-alone basis. Hence, this project may be combined with a \$500 million widening of US301 from Route 1 to the Maryland border. Delaware's legislature enacted a PPP law in 2003, under which it has received bids for a project to make improvements to I-95 (Delaware Turnpike).

PPP Toll Road Projects

The idea that the private sector can play a larger and more meaningful role in addressing the nation's transportation funding needs, and better meeting highway users' needs, got a large boost when the U.S. Department of Transportation published its 164-page Report to Congress on Public-Private Partnerships in

December 2004. It provides a good overview of the types of PPPs applicable to surface transportation, ranging from outsourced highway maintenance to long-term build-operate-transfer (BOT) concession agreements. It includes profiles of 21 such projects from around the country. The report is available in hard copy and also on the Web.

Texas

The biggest single proposed PPP to date was announced in December 2004 when TxDOT announced the winning bidder for TTC-35, the first major project of the Trans-Texas Corridor. A team of CINTRA and Zachry Construction proposed a \$7.2 billion project, all privately financed, for the new corridor from north of Dallas to south of San Antonio, parallel to congested I-35. An estimated \$6 billion of that total would fund construction of the all-new four-lane toll road; the other \$1.2 billion would be a franchise fee, paid out in installments during the construction period, in exchange for the right to toll the project for 50 years. TxDOT has suggested that it may use that sum to complete TTC-35 on the north to the Oklahoma border and on the south to the Mexican border. In March 2005 TxDOT and CINTRA/Zachry signed a one-year comprehensive development agreement (as PPPs are known in Texas) to develop a master plan for the project.

Texas is also the site of another large proposal, this one unsolicited. A team headed by Kiewit proposed to add tolled managed lanes to the median of the Airport Freeway in Dallas (SH 183 and I-820), a length of 27 miles. The project has an estimated cost of \$650 million. The Perot Group has separately proposed adding tolled express lanes on 20 miles of I-35W in downtown Ft. Worth. Also in the DFW Metroplex, the North Central Texas Council of Governments has received a federal Value Pricing Pilot Program grant to plan for and design tolled managed lanes on I-30, another major east-west freeway. The new lanes would extend from Dallas to Arlington.

Yet another unsolicited proposal was submitted in January 2005 by Skanska, for the proposed extension of SH 121 from north of the DFW Airport to US75. The Texas Transportation Commission, acting under the terms of HB 3588, asked for competing proposals, to be due by June.

Virginia

The largest proposed PPP project in this state calls for truck-only toll lanes to be added to the entire 325-mile length of I-81, a major truck route across the state. The project resulted from an unsolicited proposal submitted several years ago by STAR Solutions, a multi-company consortium. Virginia applied for and received preliminary approval to take part in a federal pilot program (under TEA-21) to rebuild selected Interstate highways using toll revenue financing. But the \$7 billion project is bitterly opposed by the trucking industry, whose studies project significant diversions of trucks onto other highways if the plan for mandatory truck use of the toll lanes goes through. As of mid-2005, the overall reconstruction of I-81 is still in the environmental review process. The final form that tolling might take is not yet decided.

The northern Virginia suburbs of Washington, D.C. are the location of not one but two private-sector HOT lane projects. The first, proposed by Fluor several years ago, received VDOT approval in April 2005, pending final environmental clearance expected early in 2006. It would add four HOT lanes to the median of the Beltway (I-495) from I-95 on the south to the Dulles Toll Road on the north. Fluor has added Australian firm Transurban to its team as both equity investor and toll-road operator. With an equity-plus-debt funding approach, the entire \$900 million project is expected to be supportable with private capital, meeting VDOT's desire for additional ramps without requiring VDOT funds. Instead of an all-debt, 30-year nonprofit corporation approach (which would require about 15 percent public funding), the new approach of debt plus equity would require a 50-60-year franchise term, to enable the equity provider to earn a return on its investment.

The second DC-suburbs HOT lanes project still has two competing proposals—from Fluor and from Clark/Shirley—in the running. Both would convert the existing HOV lanes on I-95 south of the Beltway to HOT lanes, and would extend those lanes further south. Fluor's would also convert the HOV lanes on the Shirley Highway (I-395) to HOT lanes, all the way to the Potomac River. Preliminary numbers suggest that these projects could also be self-supporting from value-priced toll revenues. Virginia also has competing private-sector proposals pending for an ambitious project to create a third river crossing in the Hampton Roads area.

Virginia's first modern-day private toll road, the Dulles Greenway, is looking healthier than ever. Though plagued by low traffic in the first few years after it opened (which pushed the toll road into a financial restructuring), the road now faces some degree of congestion, thanks to booming development in Loudon County. In February 2005, after winning approval of a toll rate increase, the company issued new toll revenue bonds to pay for a \$72 million expansion, to widen the entire 14 miles from two lanes to three lanes. The expansion will also provide a direct connector ramp to Dulles Airport.

Georgia

Under its 2003 PPP law, Georgia has received three unsolicited proposals thus far. The first, early in 2004, was from the Parkway Group, headed by Washington Group International (WGI). The \$800 million project would add a third lane each way to SR 316, from Athens to Atlanta, paid for by turning the entire highway into a toll road. That conversion feature sparked considerable opposition, and in January 2005, the Georgia Transportation Board put the process on hold, until WGI and GDOT have time to assess the impact of the state's revised PPP law.

In November 2004, a second unsolicited proposal was submitted, this time by a team led by Bechtel and

Kiewit. The \$1.2 billion project would add express toll/bus rapid transit lanes to I-75 and I-575 in the Northwest Corridor. Toll revenues would finance about \$500 million of the cost (about 42 percent). Adding truck-only toll lanes would increase the cost to \$1.8 billion, but thanks to higher commercial tolls, the fraction of the cost met by tolls would increase to 67 percent.

And in December 2004, WGI submitted a \$2.8 billion proposal to widen GA 400 and I-285. All of 31 miles of GA 400 would become a toll road (the four miles inside the I-285 perimeter already is tolled). The WGI team would add elevated HOT lanes along 13 miles of I-285. Overall, toll revenues would fund an estimated 80 percent of project costs.

California

A new private-sector proposal emerged in California in April 2005. Macquarie Group proposed to rescue the troubled San Joaquin Hills (SR 73) toll road from possible default, by leasing it for something like 50 years. The company would refinance the road and take on the risk of paying off the debt from toll revenues over the 50-year period, relieving the public-sector Transportation Corridor Agency of that risk. Initial local reaction was mixed.

Maryland

Although it does not have specific PPP enabling legislation on its books, the Maryland State Highway Administration (SHA) thinks it may be able to use this approach via the parent transportation authority. SHA continues to study the feasibility of adding express toll lanes (with no special HOV privileges) to the Washington and Baltimore Beltways, I-270, and I-95. In addition, they plan to develop the long-postponed InterCounty Connector as a value-priced toll road.

HOT Lanes and ETLs

As of the start of 2005, four high occupancy toll (HOT) lanes were in operation in the United States: the 91 Express Lanes in Orange County, California, the SR 125 HOT lanes in San Diego, the reversible HOT lane on the Katy Freeway (I-10) in Houston, and a similar HOT lane on US290 in Houston. By the end of 2005, there will be two more in operation, in Denver and Minneapolis, both conversions of underutilized HOV lanes.

The latter project, on I-394, went "live" in May 2005, to generally positive user and media reaction. It is the first HOT lane project to use only a white stripe buffer for separation from the adjacent lanes (rather than plastic pylons or a concrete barrier). It is also the first to use dynamic pricing on a HOT lane with multiple access points. The Denver project, on I-25 North, is expected to begin operations before the end of 2005. It will be the first HOT lanes project to require all carpool users to register and acquire transponders. This is expected to ease enforcement difficulties.

Two more HOT lane projects have received permission to be implemented, both via legislation. In 2004 the California legislature approved a bill to let Alameda County implement a long-planned HOT lane on I-680's Sunol Grade, a major commuter route between Silicon Valley and the East Bay. (The same bill also permits Santa Clara to consider HOT lanes and San Diego County to expand its I-15 HOT lanes.) And in early 2005, the Washington legislature approved WSDOT's plan to convert the underutilized HOV lanes on SR 167 (between Renton and Auburn, paralleling congested I-5) to HOT lanes. This will be the pilot project for a potential network of HOT lanes in the Puget Sound region.

The Miami, Florida area is also the site of HOT/managed lanes activities. Both the Florida Turnpike Enterprise and the Miami-Dade Expressway Authority have done feasibility studies on adding value-priced express toll lanes to the medians of, respectively, the Homestead Extension of Florida's Turnpike and the Dolphin Expressway. Meanwhile, under a federal Value Pricing grant, FDOT is doing an investment-grade traffic and

revenue study of alternatives for converting the HOV lanes on congested I-95 into some form of HOT lanes. FDOT is also researching tolled express lanes for Orlando (I-4) and Fort Lauderdale (I-595).

Two large new HOT lanes projects are currently under construction. In Houston, the Katy Freeway (I-10) is being rebuilt in a \$1.2 billion project. As part of this, the existing single reversible HOT lane is being replaced by four HOT lanes, two in each direction, with variable pricing. The HOT lanes will be operated by the Harris County Toll Road Authority, which is providing \$250 million for their construction. And San Diego is under way on the first phase of expanding the existing I-15 managed lanes project from the current two lanes (reversible) extending eight miles to four lanes (two each direction, with a movable barrier) extending 20 miles.

Another major project involving HOT lanes is the reconstruction of the LBJ Freeway (I-635) in Dallas. This \$1.7 billion project will add HOT lanes for a considerable portion of its length. One several-mile section of HOT lanes will be in mined tunnels, beneath the freeway right of way. This project is currently in the design stage.

Large-scale studies of whole sets or networks of managed lanes are under way in several major metro areas. Atlanta's HOT lanes study final report was released in April 2005. Among its conclusions was that to maximize revenue and minimize enforcement problems, a policy of permitting only super-high-occupancy (HOV-4+) vehicles to gain free passage would be best. Other comprehensive studies of possible networks of priced managed lanes have been completed in Minneapolis/St. Paul and the Denver area, as of early 2005. Each evaluated a number of corridors and several alternative basic network possibilities. The Twin Cities study estimated that toll revenues could cover an average of 22 percent of the capital costs of a \$3.5 billion system, while the Denver study, using somewhat different criteria, estimated 50-60 percent coverage of capital costs for a \$4.8 billion system.

Currently under way are other large-scale HOT network studies in both Dallas and Houston. And two metro areas have put networks of managed lanes into their long-range transportation plans. The Metropolitan Transportation Commission for the nine-county San Francisco Bay Area included consideration of a \$3 billion HOT Network in its year 2030 plan, adopted in February 2005. SANDAG, the metropolitan planning organization for San Diego, was the first to include a set (though not really a network) of managed lanes in its 2030 plan, adopted in 2003. And the task force on value pricing for transportation of the Metropolitan Washington (DC) Transportation Planning Board in 2004 developed a Proposed Regional Variably Priced Lanes network for 2030, along with a set of principles and goals for such a system.

Federal Reauthorization of Surface Transportation

The current federal surface transportation program and the excise taxes (on fuel, tires, etc.) that support it expired September 30, 2003. But Congress failed to reauthorize the program in 2003 or 2004, debating and passing bills but not reconciling them. Hence, in January 2005 the new Congress began again, once again debating tolling and pricing issues.

As of late May 2005, both houses had passed their respective bills, and another extension of time, past the May 31 deadline, was in the works. The House bill (HR 3) would continue the current Value Pricing Pilot Program, but revert to its original name (Congestion Pricing) and limit the number of toll-charging projects to 25. (The current Value Pricing program provides for up to 15 "project partners" who can do any number of pricing projects.) It would retain the present pilot program for rebuilding up to three Interstate highways with tolls and adds another pilot program for building new Interstates with tolls. It would permit conversion of HOV lanes to HOT lanes without limit. But it would ban states from entering into non-compete agreements for toll facilities (which may be necessary in some form in order to finance the projects). It also fails

to include an Administration-backed provision to permit private firms to issue tax-exempt toll revenue bonds on the same basis as government toll agencies.

The Senate bill (S.732) would replace the Value Pricing Pilot Program with a FAST lanes program with no limit on the number of projects, but would reduce to one state (Virginia) the pilot program for rebuilding Interstates with tolls. Like its House counterpart, it would permit conversion of HOV to HOT with no limit. It would permit states to add electronically tolled FAST lanes to Interstates without limit, but tolls could not be added to any currently free general-purpose lanes. It includes authorization for private companies to issue up to \$15 billion in tax-exempt toll revenue bonds over a 10-year period.

Overseas Toll Road Developments

North America

The hemisphere's largest private toll project, Toronto's Highway 407 ETR, won important court victories that uphold key provisions of its 99-year lease agreement with the province of Ontario. The current government challenged a routine 2004 toll increase as requiring its permission, but the lease agreement clearly provides for toll increases to be done by a formula spelled out in some detail, as a matter of right. By early 2005, the government had lost both at arbitration and in court, but as of April 2005 was considering another appeal. The highway itself is showing signs of congestion, despite annual toll increases, and hence lane additions in some segments might be on the horizon. The right of way can accommodate 10 lanes, compared with the six currently in place.

Several new PPP transportation projects are under way in Canada. In British Columbia, a long-term concession approach is being used for the \$500 million Golden Ears toll bridge project across the Fraser River. Three private-sector teams have been short-listed to provide

formal proposals. BC is using a design-build-finance-operate approach to modernize the (non-toll) Sea-to-Sky Highway in time for the 2010 Winter Olympics. The concession for the \$340 million project will run for 25 years, and the government will provide shadow toll payments over the life of the agreement. A similar approach is being used in Alberta for a \$400 million project to design, build, finance, and maintain an 11 km. section of the ring road around Edmonton. The term of this deal will be 30 years.

Mexico, which had numerous problems with a poorly designed PPP toll roads program in the 1990s, is trying again on what looks like a more realistic basis. Although the Transport and Communications Secretariat (SCT) is far behind its ambitious schedule of holding dozens of competitive procurements, the build-operate-transfer concessions it has awarded seem much better thought out than those of the previous program. The first-generation program sought to limit the private-sector role to as short a period of time as possible. Winners were often those who proposed the shortest concession term, sometimes as little as 10 or 15 years. Two results were that most of the competitions attracted construction firms that had no long-term interest in operating a toll road. And to recover construction costs in such a short time period, the firms set toll rates at such high levels that very few were willing to pay them.

The new Mexican toll concessions are for much longer terms, typically 30 years. And the financing includes significant equity investments by the winning consortia, which means the toll roads are much less vulnerable to going into default if early traffic is below projections. It also means the consortia have a real stake in the project's long-term success. Among the recent projects are a \$190 million toll tunnel under the Coatzacoalcos River in Veracruz (21 percent equity is being invested by the bidder), and a \$334 million 52 km. bypass of northern Mexico City (40 percent equity). Leading European firms such as Spain's Sacyr-Vallehermoso and Fomento de Construcciones y Contratas are among the players this time around.

Latin America

Argentina, Brazil and Chile continue to be the leading practitioners of long-term concession-based toll roads in South America.

Brazil has by far the largest program, with over 9,000 km. of toll highways run by private operators, under 36 concession agreements. The largest firm, CCR (1,290 km., five concessions) made a stock offering in 2004, giving it funds to buy up concessions from other operators. Near year-end it did just that, buying the Via Oeste network in Sao Paulo state, bringing its size up to 1,452 km. It plans to invest \$226 million in upgrading that network. The Brazilian government in 2005 plans to offer a new round of concessions, representing another 2,500 km. and potential investment of up to \$3 billion.

Argentina has two concessioned toll road networks, both in the Buenos Aires metro area. One consists of radial commuter routes into the city (six concessions) and the other comprises longer-distance access routes to Buenos Aires (five concessions). All have been in financial difficulties due to Argentina's several years of devaluation and defaults on bonds. Most had contracts denominated in dollars, and their financing costs continued to be in dollar terms, while their toll revenues since 2002 have been in devalued pesos. Most are still negotiating large toll increases with the government and working on debt relief with their creditors.

Chile has used long-term toll concessions to upgrade much of its major north-south road (the Pan American highway). But recent attention has focused on the new urban tollway system, which began to open in early 2005. Developed by four separate concessionaires, the system uses an interoperable all-electronic toll system, with no tollbooths at all. It comprises 150 km of urban expressway, at a cost of about \$1.5 billion.

Europe

Great Britain has only one true private toll road, the M6Toll, which opened late in 2003. Users save about 30 minutes by using it to bypass the congested M6 motorway in the Birmingham area. Thanks to its popularity, the Department for Transport is considering several other projects to be funded by tolls and developed under long-term concession agreements. One is a toll road parallel to M6 from Birmingham to Manchester, about 50 km. Another would be adding tolled lanes to the M25 ring road around London and the M1 arterial route in central England. DfT continues to talk about the possibility of shifting to direct road pricing for the entire highway system in about 10 years. Transport Secretary Alistair Darling has said that, based on recent studies, a national pricing scheme could cut congestion in half. The UK Road Users Alliance has responded cautiously, expressing willingness to support such a system if the funds would be invested in a better road system. The United Kingdom also has a number of DBFO highway projects, under which private firms design, build, finance, and operate various highways, but no tolls are charged. Instead, the government makes annual payments under a long-term concession agreement.

France, which pioneered the long-term concession model to develop its tolled motorway system, continues to make use of this method for additions to its system. Cofiroute continues construction on the \$2 billion tunnel beneath Versailles, to complete the missing link in the A-86 ring road around Paris. The world's highest bridge (and longest cable-stayed bridge)—the Viaduc de Millau—opened to traffic in late 2004. Developed under a 75-year concession by Compagnie Eiffage, the \$536 million project is financed solely via toll revenues. It completes a missing link in the A-75 toll road between Paris and the Mediterranean coast. In early 2005, infrastructure giant Vinci finalized a 65-year concession to develop and operate the \$800 million A-19 in central France.

Germany's long-delayed truck tolling project met the revised deadline for opening to traffic at the beginning of 2005. The Toll Collect consortium uses a GPS-based system to charge all heavy trucks using the autobahns (about 1.2 million vehicles). Early reports were that the system worked as expected, and initial revenues were as high as projected. Half the revenues are earmarked for highway improvements; the other half goes to railway and canal improvements. The government has begun the highway improvement program, using what it calls its "A Model" approach: privately financed and developed, but without tolls being charged; the government will provide payments ("shadow tolls") based on the traffic served. In March 2005 the Transport Ministry published information on the first five such projects, all 30-year contracts to widen various motorways. It also plans a small number of "F Model" projects: stand-alone projects (such as bridges and tunnels) to be funded directly by tolls.

Greece has decided to privatize its entire national toll motorway system. The existing 1,425 km. of toll motorways will be parceled out among the winners of concessions to develop and operate 761 km. of new toll roads, to complete the national network. Annual toll revenues (E150 million) will thereby help to support the E7 billion cost of the new toll roads. The government and the EU will each provide E1 billion, with the private sector providing the E5 billion balance.

Spain continues to expand its toll motorway system. In spring 2005 the financing was completed for a \$798 million toll motorway between Madrid and Toledo, under a 36-year concession to a Spanish-Portuguese joint venture. Portugal's government made a historic decision in 2004 to cease developing shadow-toll projects and, in fact, to convert the six shadow-toll motorways (590 miles) into tolled projects. It will cost the government an estimated \$1.5 billion in transition costs, but will save nearly a billion dollars a year in what it would have been paying out in shadow tolls later this decade.

Tolling and concessions are playing a role in developing modern motorway systems in Central and Eastern Europe, too. The Czech Republic is close to a decision on road tolling, given the huge increase in truck traffic, especially now that Austria, Germany, and Switzerland all charge tolls for trucks. Hungary has experienced significant political opposition to tolling on its M5 motorway, and a refinancing deal in 2004 changed the concession to shadow tolling instead. The new financing will permit the M5's remaining 47 km. to be constructed. In early 2005, Hungary finalized a 22-year DBFO concession for the M6 motorway, under which the consortium will be paid annual "availability fees" for the non-tolled highway. Poland is still wrestling with the best way to develop modern motorways, with a shadow toll concession awarded to a Skanska-led consortium in late 2004 for the 118 km. A-1 motorway south of Gdansk. One recently opened toll road is suffering from significant truck diversions, causing political opposition. Bulgaria has awarded a 35-year concession to a Portuguese-led consortium for the 443 km. Trakia toll motorway, but the decision is being challenged in court.

Even Russia is moving in this direction. Early in 2005 the government gave the Federal Road Agency permission to proceed with a high-speed toll road between Moscow and St. Petersburg, a distance of 650 km. The financing and delivery model have yet to be specified, but a tender is expected in 2006, with construction to start in 2007. Other routes planned for toll roads include Moscow-Minsk-Berlin, a St. Petersburg ring road, and several smaller projects near Moscow.

The Middle East and Africa

Israel is proceeding with the next phase of the TransIsrael Highway, an all-electronic toll road whose first phase opened in 2002. Developed under a 30-year concession agreement, the toll road uses the Raytheon electronic toll system developed for Toronto's Highway 407 ETR. The final section is 18 km. in length and will cost \$130 million.

The only private toll roads in Africa are in South Africa, where this sector is thriving. The massive, 383 km. Bakwena Platinum toll road opened to traffic in 2004. It was developed under a 30-year concession by a consortium owned 50 percent by Spain's Dragados and partners, 25 percent by South Africa Investment Fund, and 25 percent by various South African businesses. The already completed N4 toll road saw a change of ownership in 2004. The concession company, TRAC, which built the 503 km. project, is now mostly owned by South African financial institutions, after France's Bouygues sold its 25 percent share. Another significant investor is the U.K. CDC Capital Partners.

Australia and Asia

Over the past decade and a half, nearly all the new motorways in Sydney and Melbourne have been developed as toll roads by the private sector, operating under competitively awarded long-term concessions. This process continued in 2004 with the award of a \$3 billion toll road project in the suburbs of Melbourne. The Mitcham-Frankston Freeway was awarded to ConnectEast, a consortium of Macquarie Bank and two major construction firms. The 24-mile, six-lane expressway will include 17 interchanges, numerous bridges, and a mile-long tunnel. It will use the same fully electronic (no toll booths) toll system as the Melbourne CityLink. In early 2005 the Queensland government gave the okay for a \$775 million toll tunnel under the Brisbane River on a long-term concession basis. It is the first of five new river crossings in Brisbane. And in Sydney, the 1.3 mile, \$520 million Cross City Tunnel will open in June 2005 on-budget and four months ahead of schedule. Two other toll tunnel projects are in the planning and bidding stages in Sydney.

The Philippines cut the ribbon on the \$253 million modernization of the 84 km. North Luzon Expressway. The project was financed with commercial debt and equity, and to repay the investors, tolls were raised in

February 2005 from the previous 0.25 pesos per km. to 2.5 pesos (\$0.046). Despite the tenfold increase, traffic was virtually unchanged at around 160,000 vehicles per day.

Malaysia is going forward with an innovative toll tunnel project. The 10 km., \$525 million project combines flood relief and congestion relief in a single, double-deck tunnel. When needed for flood relief, either the lower deck or both decks will be closed to traffic. Given the project's dual uses, the government provided \$340 million of the cost, with the private concession company providing the balance.

China is emerging as the champion tollster in Asia, if not the world. The government is creating the equivalent of the U.S. Interstate highway system, a \$150 billion National Trunk Highway System of 35,000 km, connecting the 100 largest cities. An increasing fraction of the system is being developed under concession models, with toll financing covering much of the cost.

India's previous government talked about plans for a 45,000 km. toll highway system in 2004, but little action has been visible since the new Congress Party government took over around mid-year. State governments also have highway responsibilities, and a number of them are planning to use tolls and concession models. Maharashtra already has a billion dollars worth of toll projects completed, and has invited bids for another \$1.5 billion worth. Overall, according to the head of Consolidated Toll Network Ltd., India has completed 3,470 km. of national toll roads and 800 km. of state toll roads.

(Source: THE REASON FOUNDATION)

An Oregon Example: Innovative Partnerships

January 10, 2006

To: House Interim Committee on Transportation

**From: James Whitty, Oregon Department of Transportation
Oregon Innovative Partnerships Program Manager**

RE: Update on Oregon Innovative Partnerships Program

INTRODUCTION

I am here today to give you an update on the Oregon Innovative Partnerships Program (OIPP). I will give you a quick background on the program, talk about selection of projects we are pursuing under the program and how we selected a private sector partner. I will describe the current negotiations and what the contract with the private sector partner will include, talk about the advantages of working with a private sector firm and finally discuss next steps.

BACKGROUND

The 2003 Legislative Assembly enacted the Oregon Innovative Partnerships Program to allow new, cutting edge approaches to funding and financing transportation projects. The statutorily established goals for this new program direct ODOT to focus on innovation, speed and partnerships with private sector firms and other units of government. Always discussed in and around legislative hearings on the legislation was a fourth goal – leveraging private sources of capital. The Oregon Transportation Investment Act (OTIA) bonding programs notwithstanding, Oregon in 2003 through today suffers from lack of the traditional funding necessary to fund various transportation needs, one of which are the state's major transportation projects which can be several hundred million dollars apiece. The Oregon Innovative Partnerships Program may well play a large role in resolving this funding quandary.

The OIPP contracting process is an alternative to the traditional government contracting process. The program allows entry of private partners early in the project development process. Partners are selected by best value or qualifications rather than low bid, and use private sector methodology to assess project viability in terms of engineering, cost, funding and financing. Simply put, transportation projects are viewed much differently when regarded as a for-profit business. That said, not all projects attract a business interest, but some can.

The use of tolling as a way of funding road projects undertaken by the OIPP is a possibility but not yet a certainty. This is not the first time the issue has arisen in Oregon. Oregon governmental entities have used tolling to fund bridge projects for decades. To give you an understanding of the context for creation of the Oregon Innovative Partnerships Program, I will give you a brief background on tolling policy adopted by the Oregon Legislature. The first legislation for toll roads passed in 1995 (ORS 383.003 et. seq.) and allowed tolling on the Newberg Dundee By-pass and the Tualatin Sherwood Connector. The toll road statute was then amended in 1997, to add a project for the Portland area. The Legislature passed a separate requirement in 1999, that any new road capacity examine the feasibility of tolling as part of the project funding process (ORS 366.292). The toll road statute was amended a third time in 2001 to open up tolling possibilities for road projects statewide.

The 2001 legislation also required the Oregon Department of Transportation (ODOT) to form an advisory committee to investigate how Oregon might eliminate the impediments to creation of public private partnerships so that the private sector could play a stronger role in transportation infrastructure development, operation and funding. Thus, ODOT formed the Innovative Finance Advisory Committee (IFAC), consisting of individuals with extensive backgrounds in public private arrangements across the globe, and reported to the 2003 Legislative Assembly its recommendations for creation of the Oregon Innovative Partnerships Program. The 2003 Oregon Legislature approved legislation that allowed the department to move ahead with the program.

PROJECT SELECTION

One year ago, on January 20, 2005, the Oregon Transportation Commission (OTC) gave its approval for ODOT, through the Oregon Innovative Partnerships Program, to solicit proposals for three major highway projects. This approval resulted from an extensive project identification process undertaken by all of ODOT's regions and divisions, applying objective criteria to identify those projects appropriate and ready for the program. The first three projects selected are:

SUNRISE PROJECT

The proposed project is construction of a new four-lane, limited access roadway from I-205 to SE 172nd (segment 1) and additional transportation infrastructure to serve the newly incorporated City of Damascus (segment 2) in Clackamas County. Future development of this area will contribute to increased traffic volumes along the Sunrise Project Corridor.

NEWBERG-DUNDEE TRANSPORTATION IMPROVEMENT PROJECT

Over the past decade, traffic on 99W has increased by about 40 percent and congestion has reached unacceptable levels through Newberg, Dundee and the surrounding areas of Yamhill County. An identified alternative corridor

(bypass) is approximately 11 miles long, starting at the east end of Newberg and ending near Dayton at the junction with OR 18.

SOUTH I-205 CORRIDOR PROJECT

This project is a major north-south freight and commuter route in the Portland metropolitan region. The transition from six lanes to four lanes at the Willamette River crossing contributes to significant congestion along the corridor. Preliminary ODOT assessment has determined that widening the South I-205 Corridor to three lanes in each direction is feasible without undue adverse impacts.

SELECTION OF PRIVATE PARTNER

Through the Oregon Innovative Partnerships Program, ODOT issued a Request for Proposals (RFP) on April 29, 2005 on these three projects. The RFP sought private sector interest in a two-phase contracting process. The first contract is for “pre-development” services to develop the project to the point it can be financed by either borrowing from firms that are capital market lenders (e.g. similar to bonds) or investing by firms that are private equity providers (e.g. similar to stocks). By satisfactorily completing and delivering the work tasks under the contract so that the projects are demonstrated to be technically and financially feasible and acceptable to the public, the private partner would earn the exclusive right to enter into negotiations with ODOT on the “implementation contract” to actually build and perhaps operate and maintain the new facilities.

The RFP closed on August 29th. ODOT received proposals from two firms on Newberg Dundee and one each on South I-205 and Sunrise. ODOT began an extensive evaluation process that involved internal and external subject matter experts and consultation with local government representatives. The proposals were evaluated on (1) the qualifications and experience of the proposers; (2) their approach and understanding of the project; (3) their plans for gaining public support for the project; and (4) the proposed compensation arrangements. Reviews included analysis by nationally recognized firms under contract with ODOT, Carter and Burgess, Wilbur Smith Associates and Public Financial Management, Inc. The Oregon Department of Justice provided additional oversight. Consultations with local partners also informed the evaluation process.

The ODOT evaluation team unanimously invited the Oregon Transportation Improvement Group (OTIG) to interview, as the top ranked proposer on all three projects. OTIG is led by Macquarie Infrastructure Group (MIG), based in Sydney, Australia. Macquarie is one of the largest public infrastructure companies in the world. Macquarie’s technical advisor is Hatch Mott MacDonald, an engineering consulting firm with 33 offices across North America and staff resources of 12,000

worldwide. Macquarie worked with Hatch Mott MacDonald most recently on the Sea-to-Sky Highway Project in British Columbia in preparation for the 2010 Winter Olympics. Macquarie purchased toll roads in Chicago in 2004 and Virginia in 2005 and has nearly completed development of a new toll road in Southern California.

The ODOT interview process included local representatives from each of the project areas and an Oregon Transportation Commissioner. Following the interview, including debriefings from the local representatives and the OTC commissioner, the ODOT evaluation team found that the Macquarie-led consortium had the qualifications, experience and approach needed to successfully pursue all three projects and recommended selection of the OTIG consortium to the Oregon Transportation Commission for approval. On October 19, 2005, the OTC gave its approval for ODOT commence negotiations with the consortium on a contract for pre-development services.

Macquarie is eminently qualified to develop and operate transportation projects. The team proposed investment of substantial up-front capital to develop the projects to the point of project financing by the capital markets and, most importantly, a willingness to assume the risk that the revenues will develop sufficiently to pay the cost of financing. Macquarie has proposed to finance, construct and operate these new facilities as toll facilities for a period of years (yet to be negotiated). For a number of the early years, these projects are projected to operate at a loss. Macquarie would operate the new facilities in exchange for the right to receive a return on its investment in the later years of its lease term. No other firm offered anything even close to this financial offer.

NEGOTIATIONS

When the Oregon Transportation Commission authorized ODOT to enter into negotiations with the Macquarie Infrastructure Group, the Commission provided two conditions for successful negotiations.

1. ODOT's financial exposure under the pre-development contracts, in the event any or all of the projects do not proceed successfully, will at no time exceed the net funds available from the \$20 million set-aside amount for projects of statewide significance or other committed sources of funding for the three projects.
2. The work plan for each project will be structured around specific milestones and will include "off ramps" that will allow termination of the contracts if milestones are not achieved or either party finds reason to exit.

Negotiations began November 1st and are nearing conclusion. The negotiated contracts must receive the Commission's approval in order for the work to begin. The OTC is scheduled to consider approval at its next meeting on January 18.

THE CONTRACTUAL ARRANGEMENT

You have heard that these projects may be built as toll roads. We will know a lot more about the financial and political viability of these projects as privately run toll roads after about the first six months of work by Macquarie. Progress under the contract is marked by milestones. The first milestone will determine the feasibility of each project. Prospects for tolling will be evaluated as well as other potential funding sources such as direct contributions from private beneficiaries, development levies and tax increment financing. The objective is to determine whether these projects can be developed with stand-alone funding (i.e. funded by its own revenues) or whether there will be a funding gap. If a gap exists, work will be completed to determine how much that funding gap is expected to be. We expect to have this information by about September 2006.

ODOT views this new contracting approach as having great potential, yet the agency is proceeding cautiously as well. For example, as I mentioned earlier, both parties are able to exit the relationship at the end of each milestone. These "off-ramps" are built into the contract. While less than half of Macquarie's internal expenses are subject to reimbursement should the contract end early, there are specific caps placed on the amounts that can be reimbursed at a given milestone and an overall expenditure cap for all three projects. Most importantly, ODOT will pay only for work determined to be valuable to advance each project. So, even if the projects don't move into a construction phase under the Oregon Innovative Partnerships Program, the work completed will benefit the development of these three projects and the state nevertheless.

ADVANTAGES TO MACQUARIE APPROACH

There are strong advantages for ODOT to pursue the Macquarie approach to developing the three projects.

1. ODOT accesses a substantial source of private sector capital to develop the projects to the point of financing. As I mentioned, ODOT will be obligated to reimburse less than half of the Macquarie internal investment in project development should this creative experiment end prematurely.
2. ODOT shifts the risk that revenues will be sufficient to repay the debt and recoup an equity investment for the projects to Macquarie. If the identified revenues come short, investors will suffer the loss, not the taxpayers of Oregon.
3. Macquarie provides a source of investment beyond the revenues of the projects to enable them to successfully proceed to financing. This investment is equity capital, essentially other Macquarie assets. Without Macquarie's

involvement, it is unlikely ODOT could put up the necessary investment beyond project revenues to enable the projects to proceed to financing by this nation's capital markets.

4. ODOT accesses the highly specialized expertise and entrepreneurial attitude of one of the world's largest financiers of transportation infrastructure. Macquarie will bring a broad understanding of the full spectrum of private road financing into its analysis including accessing revenue sources other than tolling.

NEXT STEPS

Should the Oregon Transportation Commission approve the pre-development contracts with Macquarie for the three projects on January 18th, work will begin immediately. The projects will proceed according to milestones based on each project's state of readiness.

- Milestone 0 – Scoping Study. A determination of whether a project is ready to be fully developed now or is fatally flawed or whether development should be deferred. I-205 and Sunrise will go forward into Milestone 0. This work should be complete by six months after start (about July 2006). For Newberg-Dundee, a streamlined version of scoping will be completed under Milestone 1.
- Milestone 1 – Commercial and Financial Viability. A determination of how the projects will be funded and developed and whether there is a gap in available funding and how much the gap is. Only Newberg Dundee will go forward initially to Milestone 1. This work should be complete by 8 to 10 months after start (about Autumn 2006).
- Milestone 2 – Implementation Plan Development. A determination of how the project will be financed, how to contract with a construction firm and development of a terms sheet for negotiating the Implementation Agreement between ODOT and Macquarie. This work may be complete for Newberg Dundee by 18 months after start (about July 2007).
- Milestone 3 – Implementation Agreement Negotiations and Closing. ODOT and Macquarie negotiate to an Implementation Agreement and the project proceeds to financing following completion of the environmental process. This work may be complete for Newberg Dundee by 24 months after start (about December 2007).

These estimated dates of completion can be altered by events not within the control of ODOT or Macquarie. Unknown issues may arise for each project that may either speed up or delay project development. For example, regulatory approvals or local, state and national politics or local, state, national or worldwide economics can all alter a project's timeline.

Additional legislation may be needed to move ahead into negotiation of an Implementation Agreement with Macquarie. We are looking at whether all the elements that allow the operation of a highway by a private sector firm can occur under existing laws and whether additional enforcement authority is needed if tolls are used to finance the three projects. These are items you may need to consider during the 2007 Legislative Session.

SUMMARY

By embracing public private partnerships for these three projects, the State of Oregon is heading in a bold, new direction to provide the transportation infrastructure necessary to support our economy and our quality of life. Oregon is taking this path because we are currently unable to meet the transportation needs of our citizens and businesses for large infrastructure improvements in the foreseeable future.

It is yet to be known whether Oregonians will accept this new approach. Nevertheless, the public must be engaged in order find out. ODOT, through its Oregon Innovative Partnerships Program, has created a relationship with a private sector firm that minimizes the state's risk during the developmental stage. If the private effort proves unacceptable to Oregonians, ODOT has numerous opportunities to back out at limited and affordable cost. At the same time, this effort also provides Oregon the best opportunity to build the Newberg Dundee By-pass, the Sunrise Corridor and to expand South Interstate 205.

SUCCESS CRITERIA FOR PRIVATE SECTOR SPONSORS

**Prepared by The REASON
FOUNDATION**

PPP SUCCESS CRITERIA FOR PRIVATE SECTOR SPONSORS

Private sector criteria for a successful PPP include the following:

- . ***A reasonable rate of return on investment*** – which is the primary yardstick the private sector uses to evaluate a PPP project. The motivation for the private sector to get involved in a PPP to deliver a project for a public sector sponsor is profit, and without the potential for a reasonable return on their investment, prospective private sector sponsors will lose interest in a project. Agreements between public and private sector sponsors should include methods to determine the applicable costs and returns from a project, and their relative distribution between private and public sector partners. In addition, the private sector will seek agreement on how toll rates, user fees, or other revenues will be determined and distributed, as project revenues will impact the return on investment. Any private sector equity in a project should have a reasonably higher return on investment than revenue bonds or subordinated debt in exchange for the assumed risk.
- . ***Manageable and shared risks*** – that mitigate as much as possible potential political, real estate, environmental, permitting, and timing risks. Private sector partners want as much certainty as possible going into a PPP, and will avoid engagements in which unmitigated risk could derail the project. The distribution of responsibilities and risks should match participant strengths and investment in the development process. Private sector participants will look to public sector partners to manage those risks that are best left to the public sector, such as right-of-way acquisition and environmental assessment. Furthermore, partners will seek assurance that the ground rules governing the partnership will not change due to changes in the political landscape, as has happened in some states following changes in administration.
- . ***A publicly supported project that has a genuine and pressing need*** – as with the public sector, private partners will avoid projects that are controversial or have strong opposition from the general public.
- . ***Stakeholder support*** – from all groups with interest in the project, including public sector employees, private sector parties, labor unions, end users, and competing interests. Political, public, and agency support should span the project life cycle. This requires open and frank discussion between all stakeholders that promotes understanding, reduces uncertainty, dispels distrust, and results in a transparent project development process. This can be a challenge because the private sector and public sector have different strategic objectives and focus on different performance criteria. For

example, businesses focus on "customer satisfaction," "return on investment," and "risk/reward evaluation," while public agencies focus on "responsibility," "accountability," and "risk avoidance."

- . ***Statutory permission*** – whereby enabling legislation and a regulatory framework and timeline for PPPs must be in place, especially if unsolicited proposals are sought. Governing statutes and policies must be current and flexible to reflect market conditions—especially in regards to bonding and risk requirements if applicable to a project.
- . ***Political leadership*** – from the public sector that demonstrates a solid partnership philosophy. Political support should match a project's characteristics, especially for large or controversial projects; efforts involving new taxes, tolls, or fees or redistribution of existing revenues; and projects with checkered histories.
- . ***A public sector project management structure committed to PPPs*** – with a trained and dedicated corps of personnel to promote and monitor the implementation of PPPs on the agency's behalf that understands how to let the private sector do its job.
- . ***Timely project execution*** – since time is money to private sector partners who cannot afford to allow the duration of a project to drag out. Having strong leadership, a solid organization structure, and clear lines of communication promote project timeliness.
- . ***A detailed business plan*** – or enforceable contract that is performance-goals oriented to allow for innovation. The contract or plan should include specific milestones and goals, reporting metrics and frequency, and dispute resolution procedures.
- . ***Early project development activities that are shared and supported by the public sector*** – commensurate with the capability of the public sector to carry out these activities and manage their inherent risks. The private sector will look to the public sector to take a lead on those project elements that it is best able to handle, especially such activities as right-of-way acquisition and environmental clearance, which represent areas of high risk and uncertainty to the private sector.
- . ***Clear lines of communication*** – between all project sponsors. Having a communications plan in place will result in fewer crossed wires and enable smooth and timely project completion. Private sector partners in particular will seek to interact with one point person (or team) from the public sector to report issues and progress and to ask questions. A good plan will detail

the project's regular reporting cycle, as well as whom to contact when issues arise. Many projects find that communications are eased when private and public sector partners are co-located at a joint project office, often on-site.

Pre-defined dispute resolution process – that lays out the roles, responsibilities, and procedures for addressing disputes that may arise during the project regarding contract compliance by all members of the partnership. PPPs are intended to minimize the need for such a process through on-going communication, close coordination, and mutual self-interest to resolve differences without having to resort to a dispute resolution process. However, having such a process in place before the project begins will reduce the risk of potential disputes negatively impacting the viability of the project and undermining the essential trust between members of the partnership.

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