BY JOHN BECKER AND BRAD GUILMINO

THE RISE OF DIVERGENT THINKING IN FUNDING AND FINANCING TOLL PROJECTS

True or false: Unless a toll project can fund itself completely with its own resources — it's not viable. The answer is false. Toll revenues alone rarely fund 100 percent of a project's upfront construction costs and ongoing operations and maintenance costs. However, if a toll project satisfies a transportation need and tolls provide a considerable amount of the funding, the sponsoring entity should explore ways to supplement the funding plan and deliver the critical project. We need to trade conventional "sink or swim" attitudes toward toll road projects for new thinking that integrates multiple funding solutions to deliver projects years ahead of schedule.

TOLL REVENUES ALONE RARELY FUND 100 PERCENT OF A PROJECT'S UPFRONT CONSTRUCTION COSTS.

Divergent thinking is a thought process or method used to generate creative ideas by exploring many possible solutions. In tolling, it means looking at many alternative funding sources — including federal, state or private sources — to complete a funding package.

AMERICANS RANKED TOLLING AHEAD OF OTHER OPTIONS TO SUPPORT LONG-TERM TRANSPORTATION IMPROVEMENTS IN THEIR AREA.

In this article, we look at the reasons why more and more state departments of transportation are considering user-fee based options to develop road infrastructure. Then we present three case studies of how toll authorities have used divergent thinking to generate new ways to fund toll projects.

THE RISE OF TOLLING

One answer to the challenge of maintaining and expanding America's aging transportation infrastructure lies in a modern version of tolling that financed roads and bridges before the advent of a national gas tax more than 50 years ago. There are six reasons why tolling is even more popular now than ever before.

1. **The federal government expanded states' authority.** The most recent federal transportation bill, SAFETEA-LU, significantly expanded states' authority to advance toll and value-pricing projects. As a result, user-fee based financing is playing a larger role in helping state departments of transportation and tolling authorities get critical mobility projects off the drawing board and on the ground.

2. **DOTs have fewer options.** States are losing confidence in the gas tax as a sustainable way to pay for road infrastructure projects. Inflation and higher fuel economy continue to rob the fuel tax of its purchasing power every year. At a House Transportation and Infrastructure Committee hearing in July 2010, Republican leader John L. Mica said the prospect of increasing the federal gas tax to fund a long-term transportation bill is dead. Further, it is uncertain whether the new Congress will continue to transfer general fund revenues to the Highway Trust Fund. With little expectation that Washington will be part of the transportation solution, many state DOTs are turning to tolling as the go-to strategy to address their transportation funding problems.

   More than 10 state DOTs have statewide tolling authority and more are considering this option. Even

U.S. Transportation Secretary Ray LaHood is encouraging states to consider greater use of tolls. Speaking to a transportation conference in Illinois in April 2010, Secretary LaHood said the Highway Trust Fund has run out of money and that tolling and public private partnerships are the wave of the future.

3. **Technology is advancing.** The toll industry has been moving away from manual toll collection systems to electronic payment systems for more than a decade. Electronic tolling enables higher speeds through toll collection points and reduces the need for capital-intensive toll plazas. It is also helping to reduce labor costs and improve the customer experience while allowing owners to squeeze more capacity from existing assets.

4. **It's a solution for managing congestion.** Many states and toll agencies are using high-occupancy toll lanes and dynamic variable pricing to improve traffic flow and safety. More and more, tolling is becoming a powerful congestion management tool.

5. **Attitudes toward tolling are changing.** Although some motorists are initially opposed to toll projects, they frequently become dedicated users once a project is implemented because toll facilities offer a measureable, reliable service that improves their everyday life. According to the Federal Highway Administration, toll

roads account for 30 percent to 40 percent of new high-end road mileage during the past decade. Today, 32 states have significant toll road systems. And, polls show Americans support it.

In a 2009 America THINKS survey, HNTB asked how America should pay for roads and bridges in the future. An overwhelming majority supported some form of tolling. In a 2010 HNTB America THINKS survey, when given a choice between several alternatives, Americans expressed their preference for tolls (41 percent) compared to no new road at all (41 percent) or increased gas taxes (18 percent).

6. **Americans are focused locally, not nationally.** In fall 2010, residents in hundreds of cities and counties across the country voted to raise taxes. According to the Center for Transportation Excellence website, voters across the country approved 44 of 57 transportation ballot measures on election day, a 77 percent approval rating.

STATES ARE LOSING CONFIDENCE IN THE GAS TAX AS A SUSTAINABLE WAY TO PAY FOR ROAD INFRASTRUCTURE PROJECTS.

Apparently, Americans are not fed up with all taxes, just the ones from which they perceive no direct benefit. The growing support for tolling may reflect this shift away from the "greater good" to a new, narrower-focused trend of localism. Localism says: I don't want to pay for a national gas tax hike where I may not see my money at work, but I will pay for something I can see, use and benefit from daily. That includes tolling.

The results of HNTB's 2010 America THINKS poll support this new movement. Asked where they would be willing to spend more money to support long-term transportation improvements in their area, more Americans chose tolling, with nearly 4 in 10 (39 percent) selecting additional road and bridge tolls; next comes additional public transportation fees (29 percent), vehicle registration fees (23 percent), sales taxes (20 percent), gas taxes (18 percent), income taxes (11 percent) and property taxes (9 percent).

HOW TO FILL THE GAP

The main funding tools for toll projects are toll revenue bonds and federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loans.

- Current interest bonds and capital appreciation bonds fund the upfront cost of constructing new toll facilities and support the rehabilitation and expansion of existing systems.
- TIFIA offers credit assistance that can fund up to 33 percent of a project's total development cost. TIFIA leverages federal funds with tolls and local or private investment — typically in the form of a low-cost, flexible loan — to finance projects more efficiently and deliver them faster than conventional means could. Repayment can be subordinate to the senior toll revenue debt.

Because tolling rarely pays 100 percent of a project's capital cost and ongoing operations and maintenance, it's important for a financial plan to identify additional funding sources and evaluate their viability. Some of those sources include:

Private Activity Bonds (PABS). PABS allow private entities to use tax-exempt debt to fund new transportation projects. Dallas' LBJ Express was financed with $615 million in PABS, a TIFIA loan, as well as public and private equity.

Non-Tolled Public Bonding. Highway revenue bonds, Grant Anticipation Revenue Vehicles (GARVEE bonds), general obligation bonds, and state appropriation bonds can be used to fund upfront funding shortfalls for toll projects in a low-cost manner.

State Infrastructure Banks. SIBs allow states to increase the efficiency of their transportation investment and significantly leverage federal resources by attracting non-federal public and

private investment. Seeded with federal or state money, these banks offer state and local government agencies a range of loans and credit enhancements to finance transportation projects.

Other innovative but less common funding alternatives to support toll projects include:

- Sales taxes and vehicle registration fees.
- Creating transportation improvement districts that finance projects through an incremental increase in property taxes.
- Cost-sharing the expense of a new project such as an interchange with a local community that would benefit from the new facility.
- Approaching vested developers about donating the necessary right-of-way to help make a toll road happen.

Public-Private Partnerships. A P3 does not represent a new revenue source; rather, it is a way to include additional players in the financing of toll projects. P3s are contractual agreements between the public and private sector that allow the private sector to finance, design, manage and/or operate transportation facilities. These strategic alliances — typically between states and private sector developers — are accelerating new construction and delivering some of the nation's most complex projects. Most P3s today are aimed at building new roads and adding additional capacity to existing ones. These arrangements can include upfront payments that a private entity makes upon the award of a concession or franchise and revenue-sharing arrangements between the equity partner and the state over the life of the project. Twenty-three states have laws that authorize the use of P3s.

Now, let's look at how three toll authorities are using some of these innovative financing methods to deliver much-needed projects years ahead of schedule.

CASE STUDY NO. 1: The Triangle Expressway's Multiple Funding Sources

On July 29, 2009, the North Carolina Turnpike Authority closed on approximately $270 million in toll revenue bonds and $353 million in state appropriations bonds, and secured a $387 million TIFIA loan to complete a $1.01 billion financing package for the Triangle Expressway.

> **AS TOLL AUTHORITIES AND STATE DOTS CONTINUE TO ENGAGE IN DIVERGENT THINKING, WE WILL SEE MORE AND MORE INNOVATION IN THE FINANCING OF SURFACE TRANSPORTATION PROJECTS.**

North Carolina's Triangle Expressway is a perfect example of how many projects will be funded in the future. An 18.8-mile project in Wake and Durham counties, the Triangle Expressway is the state's first toll road. It will feature all-electronic tolling and is expected to save customers up to 20 minutes per round trip.

The project had been on the state's long-range transportation plan for years, and it looked as though it would stay there because the North Carolina Department of Transportation would not have the necessary funding for another 20 years or so.

Turning the project over to the Turnpike Authority enabled the state to get the structure in the ground sooner. The authority was created by the general assembly in response to concerns about rapid growth, heavy congestion, and fewer transportation dollars. The state needed new options to finance megaprojects such as the Triangle Expressway. By tolling the Expressway, it will deliver this billion-dollar project decades sooner than otherwise possible. All segments are slated to open by 2012.

CASE STUDY NO. 2: The Miami-Dade Expressway's Matching Funds

The previous two case studies have described how toll authorities are adopting alternative funding methods and delivering projects sooner. In

the Miami-Dade Expressway example, the toll authority is part of the funding solution.

Several multimillion-dollar projects are moving ahead in Florida's Miami-Dade County because of key partnerships between the Miami-Dade Expressway Authority and other state and local agencies. MDX has contributed more than $300 million to fund critically needed transportation projects in south Florida. Among them: the reconstruction of Miami's Central Boulevard.

Central Boulevard is the main entrance to Miami International Airport. At an estimated cost of more than $100 million, reconstruction of the corridor had been shelved for 20 years due to lack of funding. The Florida Department of Transportation had allocated partial funding of $48.5 million, but the airport could not close the gap.

The MDX stepped up and offered to match FDOT's $48.5 million provided the project could be completed for under $100 million. Central Boulevard is not part of the MDX system but it feeds the system, which is one reason why the agency agreed to the partnership.

According to the resulting arrangement, the MDX will provide all project management and the local match required for the airport to secure the $48.5 million from FDOT. Once reconstruction is complete, the airport will operate and maintain the new roadway. In return, the agreement gives the MDX a permanent easement to property along the boulevard, which it can declare as an asset.

CASE STUDY NO. 3: New Jersey Turnpike's Build America Bonds

The recession made it tougher to

finance infrastructure projects through traditional tax-exempt bond financing. That's where Build America Bonds come in. Despite the most challenging financial climate in decades, these bonds have enabled toll authorities to draw in a wider network of investors with a lower rate of interest to raise the funds needed. While the future of BABs is uncertain pending a new Congressional extension, it is important for toll agencies and DOTs to evaluate the effectiveness of all available federal programs.

The New Jersey Turnpike Authority became the first transportation agency in America to sell more than $1 billion in these taxable bonds that come with a 35 percent reimbursement from the federal government under the American Recovery and Reinvestment Act. Along with $375 million in traditional tax-exempt bonds, Build America Bonds will seed $1.375 billion of the authority's 10-year, $7 billion capital program.

To sell the bonds, the authority embarked on a groundbreaking road show, pitching to nontraditional municipal bond buyers in five major U.S. cities. The road show gave the NJTA leadership the opportunity to tell investors face-to-face who they are, how they operate their business, and what their expectations are for the capital program.

FILLING THE FUNDING GAP IN TEXAS

BY TERRY BRECHTEL

Becker and Guilmino make a strong case for divergent thinking when it comes to funding a toll project. This is especially important in Texas where we fund many new highway infrastructure projects with multiple revenue sources including tolls. In Texas, unless you are constructing a greenfield project, new toll lanes cannot replace existing non-toll lanes. Many of the projects undergoing feasibility studies are within existing corridors that have "free" lanes and frontage roads. Frontage roads are a Texas specialty that allows development to occur parallel to the corridor.

With diminishing federal funds and limited state gas tax revenues, the Texas legislature created the Texas Mobility Fund. This fund, which is supported by a combination of court fines and fees, serves as the public equity closing the gap on toll projects after senior lien bonds and TIFIA credit assistance. The legislature also enacted a law that allows cities and counties to create Transportation Reinvestment Zones to take advantage of the incremental tax revenue from future development along transportation corridors. Some communities have increased vehicle registration fees and dedicated those new revenues to newly formed regional mobility authorities to cover the initial pre-development cost of projects. The latest development, the State Infrastructure Bank, provides gap funding and credit assistance in the form of loans.

The Alamo Regional Mobility Authority has approximately 40 miles of roadway under environmental study and we are exploring all our options to finance highway infrastructure in Bexar County.

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Both the Build America Bonds and the tax-exempt bonds were oversubscribed, generating nearly $5 billion in orders. The authority's board originally had authorized a minimum of $650 million and a maximum of $1 billion in bond sales, with plans to sell more once market conditions rebounded. Given the road show's success, the board increased the maximum to $1.75 billion, and the authority sold the bonds in April 2009. The aggregated interest rate settled at an impressive 4.92 percent.

CONCLUSION

As this article demonstrates, toll financed transportation is on the rise and new financing methods are supporting this trend. As toll authorities and state DOTs continue to engage in divergent thinking, we will see more and more innovation in the financing of surface transportation projects. The benefits of delivering mobility-enhancing infrastructure years ahead of schedule are well worth the investment in these new financing vehicles.

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