



The United States: The World's Largest Emerging P3 Market

Rebuilding America's Infrastructure

By Dan McNichol, Author of *The Roads that Built America*



Foreword by William Marino,
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Foreword

The United States is poised to become the largest public-private partnership (P3) market in the world for infrastructure projects. The opportunity to rebuild crumbling American infrastructure and create first class assets is now.

After decades of underinvestment and an increasing population, today's infrastructure needs are large and continue to grow. Federal, state and local governments are finding it difficult to finance new projects on their own due to decreased tax revenue and shrinking budgets. These two factors have increased the political will and desire to seek alternatives to the traditional "design-bid-build" procurement methodology. Many states and the federal government agree the P3 model maximizes value for their constituents, delivers a lower total cost, and can be delivered quicker.

A confluence of factors, many of which are outlined in this paper, have created a robust and growing pipeline of good investment opportunities in the P3 infrastructure sector. I started an American Greenfield Infrastructure fund to address this need. I also partnered with other leading infrastructure companies to organize the Association for the Improvement of American Infrastructure (AIAI) to assist state legislatures in adopting policies that incentivize growth through P3's, and remove obstacles to these developments and promote more of these opportunities. 33 states have already passed some form of P3 legislation. It is clear the U.S. is moving in the right direction. The growing political will and continued success of this model should create a virtuous cycle to further accelerate P3 growth.

Investors are noticing these trends and are increasingly interested in the sector. Public owners looking to complete or begin new projects find this attractive because of the potential capital available. This convergence of trends has positioned the U.S. P3 market for robust development.

I have been involved with the North American infrastructure and construction sectors for over 30 years and have seen multiple growth cycles. The upcoming P3 boom should allow the U.S. market to learn from its own experience as well as other countries' to adapt a model that works best at home.

This white paper provides a good primer for those interested in learning about the history and current trends in the U.S. P3 market from many of the industry's key leaders. Additionally, this paper explains why all the P's in public-private partnerships are important for the structure. The public sector can stretch its investment for more new infrastructure; the private sector will utilize best practices to deliver this infrastructure more efficiently than traditional methods; and most importantly, each will need to work in partnership to ensure the best results for all stakeholders.



William A. Marino
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Executive Summary

America’s economic strength is built upon a foundation of private infrastructure investment going back centuries. Some of the names are familiar: the Lancaster Turnpike, the Transcontinental Rail Road and the Golden Gate Bridge. These impressive domestic undertakings, financed with private equity, were the nation’s norm when forging its vital transportation infrastructure: ports, inland waterways, canals, rail lines, power grids and toll ways. As America’s economy grew, so too did the federal government. Ambitious federal programs such as the Eisenhower Interstate Highway System became the model for the latter half of the 1900s. Today however, severe economic downturn, taxpayer anger and a lack of political will have eroded support for large scale federal projects. Increasingly, state governments are responsible for financing the maintenance and expansion of their infrastructure. Therefore, states are returning to a traditional form of infrastructure delivery: private investment.

The tectonic plates necessary to recreate a robust, sustainable, market for public-private partnerships (P3s) are beginning to shift into place. Dilapidated infrastructure, significant budgetary shortcomings and growing political will among elected officials have created an emerging P3 market inside the United States. As communities attempt to confront current economic challenges, P3s are steadily becoming a viable delivery mechanism in the financing of civic projects, especially large, complex undertakings in the transportation sector. But this brings new challenges along with new opportunities.

Thomas Grandmaison, Executive Vice President of Construction Casualty and Executive Sponsor for AIG’s Construction Industry Practice Group, drives the need for enhanced risk management inside a P3: “The ‘value for money’ predicate for the P3 model depends upon significant risk transfer from the public to private sector. All private sector participants will be challenged to accept risk beyond their comfort zone and what had traditionally been the regime in other project delivery methods; and a significant portion of that risk, will not be transferrable to conventional insurance coverages. As such, the development of a proactive and effective risk management plan and implementation of a manuscripted project-specific insurance program are essential to successful and profitable P3 participation.”

David Hatem, a founding partner of the Boston-based law firm Donovan Hatem LLP, further drives the need for upstream thinking in the private sector: “We are at an early and formative stage in P3 risk allocation thinking. There are many ranges of opportunities to achieve prudent and sensible risk allocation and, as many, if not more, opportunities to achieve the opposite result.”

“The market is coming—the tools need to be manufactured,” explains Grandmaison. “In anticipation of a potential paradigm shift in the construction procurement modeling process in the United States, AIG is designing a product to address contractual insurance liability issues. Because of the U.S. litigation landscape, compared with other parts of the world, we expect P3 contracts to be even more voluminous here. There will be lessons learned for all stakeholders in years to come. We at AIG remain ready to engage these projects with the proper mindset to provide comprehensive insurance solutions to assist in successful P3 delivery across the United States and Canada.”

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P3 initiatives are not totally foreign territory here; several states have already begun aggressively pursuing private investment. In order of relevance, Virginia, Texas and Florida are the leading states in the rise of a national acceptance of P3s. Sun Belt states are

most challenged by increasing populations and the demands of growing economies. Exploring previously unconventional solutions to financing has been a necessity. In particular, these states and Sun Belt states in general, are accustomed to building expensive, long-term public projects. And for the past few decades, these southern states have successfully launched several complex P3s.

New York, Pennsylvania and Massachusetts stand to be the next states to follow their pioneering

southern counterparts. Once these and other northern states embrace the P3 model, their own successes are likely to create an even stronger market in the region. Over the past several decades, the project engineers possessing the institutional know-how of managing ambitious construction endeavors have retired. Given the lack of large projects occurring there, young engineers haven't come along to take their places. Having less wherewithal in the management of ambitious projects, northern states have been slow—even unable—to adapt to the complexities of P3s. Additionally, organized labor and elected officials in northern states previously resisted adopting P3s as a viable delivery mechanism. Under recent pressures to foster development, union leaders and politicians are steadily embracing P3s as a legitimate way of launching construction projects to replace outdated infrastructure.

Recently, the U.S. has shown the willingness to embrace large-scale projects again, making it a ripe P3 market. The U.S. Census Bureau announced late in 2012 that projected construction spending for the year is estimated to be \$851.6 billion, up 7.8% from the previous year. Today, private financing of public projects in the world's largest emerging P3 market is nearly nonexistent. Some experts estimate that U.S. private investments could reach 10% of the nation's total spend in construction.¹ Regardless of the percentage, industry experts and the public agree that P3s must be considered as an additional facilitator to transportation projects.

The Rockefeller Foundation's recent Infrastructure Survey revealed that, "with overwhelming support for transportation and infrastructure improvements, Americans are open to several funding streams. Seventy-eight percent encourage more private investment and 72% of voters support imposing penalties on projects that go over budget or exceed their deadline. Sixty percent of voters support establishing a National Infrastructure Bank, [and] 59% support issuing new transportation bonds." Interestingly, in the same survey, only 27% of voters support increasing the gas tax. With a reluctance to increase the federal gas tax, the main driver of transportation tax revenue, private investments in public transportation projects become a near necessity."²

Long-term forecasts for low interest rates have another boosting effect on the emerging market for P3s. Chris Hogg, Managing Director of Macquarie Capital makes the case: "We're in something of a perfect storm in terms of fixed income investor appetite. That's well-evidenced by the fact that we have been in a rally environment in both the investment grade and non investment grade fixed income markets for most of 2012. Investors are now more prepared to look at structured products to gain enhanced yields in what looks to be a sustained low yield environment."



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¹ US Census Bureau News, US Department of Commerce, Washington, DC, 1 November 2012.

² Rockefeller Foundation case, "Rockefeller Foundation Infrastructure Survey Reveals Bipartisan Support for Transportation and Infrastructure Investments and Reform," released 14 February 2011.

P3s – PPPs – Triple Ps

The United States Department of Transportation (USDOT) defines P3s as “contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects.”


With 42 years of experience in underwriting, bonding and construction services, Mark Reagan, Chairman of Marsh Global Construction Practice, is bullish on emerging P3s in the U.S.: “In the last two years we’ve established at the parent company level down, through all of the operating companies within Marsh & McLennan Companies, a focus on infrastructure.”

Looking back at the intersection of Reagan’s career and P3’s rise, he reflects, “we had begun to see what became known specifically as a pioneering national effort in [England] with P3s. It was the beginning of what they called a Private Finance Initiative (PFI), driven by the same forces that spread through Europe and Australia and in Canada and are now coming to a P3 theater near you here in the United States” Reagan adds, “The current political debate, the discussion around deficits and spending are endless, but the need for infrastructure in the U.S. is infinite.”

“Necessity creates partnerships,” explains Granite Construction’s CEO Jim Roberts. “That’s what public-private partnerships are about. States want to expand their infrastructure, especially large projects in metropolitan areas. Governments need to stretch dollars by bringing private capital into these complex P3 ventures. The construction community and the investment community are employed on a cost effective basis to help them do that. There’s a movement afoot to go forward with more of these in the future and it’s very positive for the country to do so.”

Geoffrey Heekin, Aon’s P3 Global Leader, explains a common P3 misconception: “Probably the greatest misnomer that was out there—even a stigma—was that the public-private partnerships were selling assets to the private sector.” The fact is ownership of the asset remains the property of the public. Citing Marriott as an example, Heekin notes that: “They rarely own the hotel. They manage it. Marriott got out of real estate years ago. They use their brand and their core competency, which is management, facilities management, hospitality management. It’s a developer or real estate trust that actually owns the asset. Frankly, that’s the premise of P3.”

Heekin sees an emerging market by the numbers. “In the U.S., in 2004, there was \$1.4 billion worth of work done. In 2009, private investments rose to \$6.7 billion. In 2010 there were eight projects totaling \$5.8 billion that went to commercial close. In 2011, private investment dropped to \$1.2 billion. In 2012, we’ll see \$5 billion closing and next year closer to \$7 billion. I believe by 2018 private investments in public projects will reach somewhere around \$15 billion.”



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Finally, Heekin explains the encouraging news of a growing political will: “There’s an uptick. What’s been lacking in the past is the proper political framework, a lack of sponsor education and awareness so some of those issues in the past were causing deal frustration and/or what I’ll call a public aversion to P3s [which] is finally being dampened and/or removed as people are getting a better understanding of what P3s are and what they are not.”

“As budgets shrink in municipalities and state governments and at the federal level, there’s a gap to be filled,” believes Andrew J. (Josh) Markus, an attorney with one of Florida’s oldest law firms, Carlton Fields. “Private finance can fill that gap provided there’s a return on investment that makes sense. It’s not too difficult to get into the process and not too costly to get into the process. It’s a long-term commitment however, usually 20-35 years.”



Today, America’s infrastructure grade mark is a D+. Over the next five years, an estimated \$1.723 trillion is needed for surface transportation, \$100 billion for rail and \$134 billion for the aviation sector, according to ASCE.

Historically, P3 projects have been delivered on time and on budget more often than traditional procurement projects, despite the fact that the P3 projects were typically larger and more complex. Infrastructure Partnerships Australia performed a detailed study on P3s during 2000-2007. From a time basis, they found that on average, 18% of traditionally procured projects had timing overruns, while only 10% of P3 projects missed deadlines. In addition, if a project was delivered late, traditional projects were delivered 26% later than originally expected, while P3 projects were delivered only 13% later than expected. On the cost side 45% of traditionally procured projects were delivered with expenditure overruns, compared to only 14% of P3 projects. Additionally, when there were cost overruns, traditional projects were 35% over budget, while P3 projects were only 12% over.³

The State of the States

Three forces are driving the emerging P3 market in the United States: the rapid deterioration of nearly all types of infrastructure in every state, investment shortfalls for building and rebuilding vital public systems, and a growing population’s increasing burden upon existing systems. Three years ago the U.S. ranked ninth in infrastructure quality on a global level. In 36 months the U.S. has plummeted to 24th worldwide.⁴ As U.S. infrastructure systems break down and tax revenues diminish, while the nation’s population grows, a robust P3 market moves from being possible to being probable.

Case in point: broken sewage pipes contaminate U.S. population centers with 900 billion gallons of wastewater each year. The U.S. Environmental Protection Agency (EPA) estimates that funding needed for the nation’s water infrastructure is approximately \$335 billion.⁵ Another \$298 billion is needed for wastewater infrastructure.⁶ Systemic neglect in water infrastructure, as in nearly all categories of infrastructure, threatens public safety.

Private partnerships in the municipal water market are sure to grow. A 2002 report shows that 98% of the nation’s public water treatment facilities are owned by municipalities. This is at a time when the public is taking notice of the nation’s decrepit water systems. Good water treatment facilities are attracting homebuyers as strongly as good school systems.⁷

The American Society of Civil Engineers (ASCE), the country’s oldest national civil engineering organization, issues a regular report tracking the grade point average of the nation’s infrastructure across 15 categories, from airports to solid waste facilities. In 1988, the first year the ASCE Report Card was released, the U.S. infrastructure’s cumulative grade point average (GPA) was a C. And since then, that GPA has been on a steady downward trend. Today, America’s infrastructure grade mark is a D+, a modest improvement over the

³ Performance of PPPs and Traditional Procurement in Australia: Infrastructure Partnerships Australia, 2007

⁴ World Economic Forum: Global Competitiveness Report, 2011-2012: US ranks 24th globally

⁵ EPA, Drinking Water Infrastructure Needs Survey and Assessment: Fourth Report to Congress, February 2009.

⁶ EPA, Clean Watersheds Needs Survey 2008.

⁷ Failure to Act: Economic Impact of Current Investment Trends in Water and Waste Water Treatment Infrastructure, 2011, p.V

D- in the 2009 report. Still, significant shortfalls are as alarming as the investment requirements. Over the next five years, an estimated \$1.723 trillion is needed for surface transportation, \$100 billion for rail and \$134 billion for the aviation sector, according to ASCE.

“The 2013 Report Card demonstrates that we can improve the current condition of our nation’s infrastructure — when investments are made and projects move forward, the grades rise,” ASCE reports. “For example, greater private investment for efficiency and connectivity brought improvements in the rail category; renewed efforts in cities and states helped address some of the nation’s most vulnerable bridges; and, several categories benefited from short-term boosts in federal funding.

“We know that investing in infrastructure is essential to support healthy, vibrant communities. Infrastructure is also critical for long-term economic growth, increasing GDP, employment, household income, and exports. The reverse is also true – without prioritizing our nation’s infrastructure needs, deteriorating conditions can become a drag on the economy.”

The report card estimates that an investment of \$3.6 trillion is needed between now and 2020 to bring the nation’s infrastructure up to a good condition—an increase of nearly \$1.5 trillion since the 2009 Report Card.⁸ To address the shortfall, ASCE stresses the need for more private-sector involvement, increased federal investment and the leveraging of state and local government revenues.

Over the last half century, the federal government has been the driving force behind large civic projects. Its role, however, has been diminishing steadily over the past several years along with the roles of state and local governments. P3s are never going to be enough to supplant government spending, but government expenditure is no longer enough if the breakdown of vital public facilities is to be reversed.

As declining public investment in infrastructure remains unabated, the public is becoming aware that alternative forms of delivery are needed. According to the 2012 McGraw-Hill Construction Dodge Report, “public works construction in 2011 dropped 14% to \$103.2 billion. For 2012, public works is forecast to drop another 6% to \$96.7 billion, reflecting diminished funding at the federal level from fiscal 2012 appropriations, combined with cutbacks in public works spending by state and local governments.”

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In response, state officials are showing the will to seek out private investment. The Dodge Report points out: “States have already begun to adapt to flat-to-declining federal support. Individual large projects particularly bridges and limited access roads, are being funded through a combination of debt financing, public-private enterprises and tolls.” The crisis has begun to change the public perception of P3s. Decaying systems have opened the door to a new willingness by the public and elected officials in deploying P3s as an alternative delivery method for infrastructure projects.⁹

Dorian Grey, Head of Construction Insurance for Latin America & Caribbean Region for AIG, began training to be an underwriter in 1965 in London. “Since then, one of the main classes of insurance in which I’ve been engaged in is construction. I’ve had the privilege to work with AIG in Asia [and] Latin America. Currently I insure all kinds of construction. Right now I’m insuring construction [of a] few roadways in Panama, and the construction

⁸ American Society of Civil Engineers, 2013 Report Card for America’s Infrastructure, <http://www.infrastructurereportcard.org/>, accessed 29 March 2013.

⁹ McGraw-Hill Construction 2012 Dodge Construction Outlook Midyear Update, <http://www.construction.com/about-us/press/new-construction-starts-to-rise-2-percent-in-2012.asp>, accessed 29 March 2013.

[of] several pipelines across the Andes between Chile and Argentina, as well as ones in Peru, Bolivia, and Brazil. And, a lot of power plants in Chile, Argentina, Brazil, [and] Colombia.”

“When I moved to Houston, Texas in 2000 it came as a shock to me that pipelines in the U.S. were in much poorer conditions than in Indonesia or Chile. The reason of course is self-evident; the U.S. has had its infrastructure for decades longer than Indonesia or Malaysia.”

“Some of these pipelines are toll pipelines,” continues Grey. “A lot of the pipelines are just in the ownership of one or a consortium of gas companies. There are a couple that run between Louisiana and New York. We used to insure them. It’s purely a tolling function. The government doesn’t have too much interest in pipelines because it’s not something they’re required to supply. But the infrastructure is so aged that the governments now have a liability on their hands. They’re now vested in efforts to avoid another major pipeline disaster. If regulation requires it, replacement of the tolled facilitates could become an impressive P3 opportunity.”



In a classic case of, ‘everything old is new again,’ today’s P3s are deeply rooted in an old way of delivering public projects.

P3 Precedence

Today’s emergence of the modern P3 market is the reemergence of a standard way of building in America. In a classic case of, ‘everything old is new again,’ today’s P3s are deeply rooted in an old way of delivering public projects.

Public and private ventures have been the norm in the U.S. counterintuitively, today’s federal and state largess—their abilities to fund large projects like the Interstate System that was launched in 1956 and built into the 1990s—is the exception. Before World War II, when the federal and state governments were without reliable sources of tax revenue, governments did what they’ve begun to do again; they leveraged their assets, offered concessions and partnered with private enterprise in order to deliver public projects.

In the early 1800s, when a youthful U.S. did not have the funds for large public projects needed to support a growing population and robust economy, private investment built the nation’s turnpikes and later laid its railroads. In exchange for making improvements, the states and federal government offered private firms what it had plenty of: land. Right-of-ways were tendered in the form of land grants. The public benefited from privately built roads and railroads constructed on public property. The private ventures running the roads and rails were often profitable businesses, capable of making further improvements that generated a healthy cycle of economic development.

The Golden Gate Bridge, built between 1933 and 1937, is a classic example of an “old school” public-private partnership. Erecting the largest suspension bridge in the world, across one of the earth’s most scenic landscapes required a \$35 million commercial loan from a large national bank based in California and four private investment firms. Private citizens agreed to post their properties as collateral in order to obtain the construction loan. The War Department in Washington, D.C., and California’s Sacramento-based state legislature granted permits and permission. Landowners in six counties on both ends of the bridge formed the Bridge District in the 1920s.¹⁰

¹⁰ Zee, John, “The Gate: The True Story of the Design and Construction of the Golden Gate Bridge,” Simon & Schuster, New York, 1986, p.291

The impetus behind the Golden Gate's ambitious public-private partnership of the 1930s is similar to what's driving today's P3 market: financial collapse. In 1932, during the darkest days of the Great Depression, the Bridge District's directors agreed to push forward with a \$200,000 cash advance and funding promised to them by the commercial bank. The Bridge District had seen their hopes of public funding disappear with the stock market crash in 1929. In choosing a private sector loan instead of waiting on unlikely funding from the Reconstruction Finance Corporation, President Herbert Hoover's Depression-era emergency funding agency, the Bridge District, avoided costly bureaucratic delays to the start of construction.

In its 75th anniversary year, the stalwart public-private partnership now hailed as the Golden Gate Bridge and Highway District, continues to collect revenue while maintaining the bridge's impressive superstructure which carries 38 million vehicles annually. The quasi-private authority is also operating buses and ferries that make up two public transit systems. A modern P3 project to rebuild an arterial highway leading to the Golden Gate Bridge called the Presidio Parkway is currently under construction.¹¹

In 1989, ground was broken on the first modern-day P3 in the United States. The project, a 47-mile highway outside Denver, Colorado, called E-470, was built by eight counties and cities to accommodate future traffic to the soon to be opened Denver International Airport. Void of federal or state funding, E-470 was built with private funds. Opening in 1991, four years ahead of the new airport, the toll road paved the way for economic development.

Nationally, E-470 was the first large toll way to install electronic tolling equipment. Regionally, the toll road was a rarity in the western United States. Locally, growth along the E-470 corridor primed the economy and the population along the toll road's corridor is expected to double over the coming years.

In the wake of E-470, toll roads became the standard P3 product in the growing U.S. market. The Chicago Skyway (2005), the Indiana Toll Road (2006), the Pocahontas Parkway (2006), and the Northwest Parkway (2007) are recent examples of P3 toll way projects. A quarter of a century later, the scope of P3s in the U.S. has finally broadened beyond the toll plaza.

As the US P3 market has developed, the appetite for infrastructure investment has increased steadily as well. As early as 2008, the largest U.S. public pension fund, the California Public Employees' Retirement System (CalPERS), with over \$230 billion in assets, stated its intention to allocate 3% of its assets to infrastructure. Other U.S. pension funds, including the California State Teachers' Retirement Systems (CalSTRS), Washington State Investment Board, the Teachers Retirement System of Texas (TRS), the Oregon Investment Council, New Mexico Investment Council, the Alaska Permanent Fund Corp., and the Kansas Public Employees Retirement System, have made similar commitments toward infrastructure investing.¹² Even in the private sector side, infrastructure is becoming a more attractive investment option. Specifically, Ullico Investment, an investor for many union pension funds is raising a fund to invest in U.S. infrastructure. We have even started to see the green shoots of P3 investments by U.S. based capital sources in TIAA-CREF's acquisition of I-595 and Dallas Fire and Police Pension Fund's investment into the North Tarrant Expressway and LBJ Expressway projects. Overall, infrastructure investing and P3 specifically are still in their early stages here in the United States, but the interest in the sector from domestic sources is large and growing.

¹¹ Van Der Zee, John, "The Gate: The True Story of the Design and Construction of the Golden Gate Bridge," Simon & Schuster, New York, 1986, p.152

¹² Pension Fund Investment in Infrastructure (A Survey): OECD, September 2011
Global Infrastructure (Winter 2012): Bingham McCutchen LLP, 2012

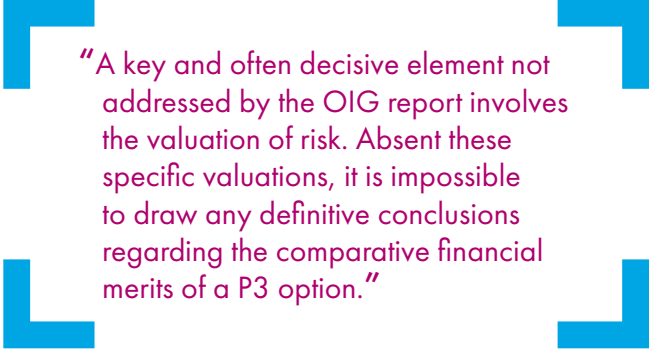
Emerging Federal Influence

The USDOT is the federal agency with the most impact on P3s, with an annual budget of \$74 billion. It controls vast amounts of funding while reigning over regulatory controls in areas which impact P3s. The USDOT is the closest thing states and territories have to a ministry of infrastructure or an infrastructure bank—two critical institutions in countries with successful P3 cultures.

The USDOT is a rich source of P3 projects. The large agency administers federally funded surface transportation projects (i.e. highways, bridges, tunnels, rail lines, transit systems), as well as seaports, airports and pipelines. Inside USDOT, the Federal Highway Administration (FHWA), a 3,500-person division, directly oversees technical and financial assistance in the construction, improvement and maintenance of roads and bridges, the infrastructure projects most associated with existing P3 projects. FHWA helps develop the emerging P3 market by dedicating grants, personnel and know-how, while emphasizing P3s as an alternative delivery mechanism for transportation infrastructure.

Administrator Victor Mendez, the White House appointed head of the FHWA, underscores the sophistication the private sector brings to the advanced management of risk in a letter to USDOT's Office of Inspector General (OIG). Focusing on the impact risk has on P3s, Mendez addressed an OIG report, indicating that the report underestimated the impact P3s are having on infrastructure development: "A key and often decisive element not addressed by the OIG report involves the valuation of risk. Absent these specific valuations, it is impossible to draw any definitive conclusions regarding the comparative financial merits of a P3 option."

An often heard complaint from private firms wanting to further P3s as a viable delivery mechanism is the unrealistic allotment of risk the government places on private partners. Mendez sees the best way of facilitating P3s is in seeking a fair balance between public and private forces. Mendez addressed this, writing: "A comprehensive analysis of P3 financial viability must evaluate risk versus reward. Starting with the premise that the private sector will have a higher cost of capital, the public sponsor must place a dollar value on the risks a private partner would be willing to assume."¹³



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The FHWA's current and future roles in P3s are critical. One of the Administration's many responsibilities is the oversight of the 47,000 miles of the Dwight D. Eisenhower System of Interstate and Defense Highways. The red, white and blue shielded system makes up less than 2% of the entire U.S. road network but handles approximately 25% of the nation's traffic.¹⁴ Many P3 projects stem from it in the form of connector roads or managed High Occupancy Toll (HOT) lanes, one of the strongest growth areas for P3s.

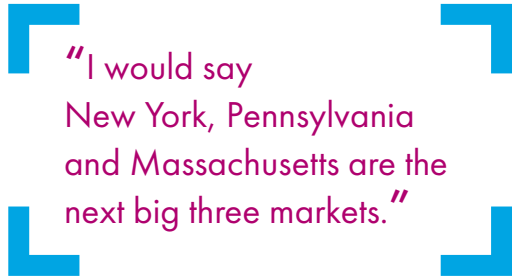
Administered by the FHWA, HOT lanes are emerging as the answer to reducing gridlock in urban areas, where 45% of the roadways are congested. Commuters tend to support these toll lanes as they have been successfully relieving bottlenecks along the Interstate System's traffic-clogged corridors.¹⁵

¹³ Administrator Victor M. Mendez's memorandum to Calvin L. Scovel III Inspector General, titled, "Response to the Office of Inspector General's Report titled, "Financial Analysis of Transportation-related public-private partnerships" July 21, 2011

¹⁴ Federal Highway Administration, FAQs, <http://www.fhwa.dot.gov/interstate/faq.htm#question19>, accessed 29 March 2013.

¹⁵ Federal Highway Administration publication, "Hot Lanes, Cool Facts," <http://ops.fhwa.dot.gov/publications/fhwahop12031/fhwahop12027/fhwahop12027.pdf>, accessed 29 March 2013.

Since 2006, the entire Indiana Toll Road, a 150-plus mile section of I-80 between Illinois and Ohio, is being managed through a public-private partnership. Still, concessionaires have unsuccessfully attempted to negotiate long-term leases of the New Jersey Turnpike, the Pennsylvania Turnpikes and Alligator Alley in Florida. Political opposition was too strong. But building upon the success of the Indiana Toll Road project, it is possible that leases on existing toll roads and the building of new ones—like the Ohio Turnpike—could return.



“I would say New York, Pennsylvania and Massachusetts are the next big three markets.”

Tolling the vast stretches of the “free” Interstate System holds enormous potential for future P3 projects. Each successive federal transportation bill has opened the door wider to the possibility. Today, the FHWA’s Interstate System Reconstruction and Rehabilitation Pilot Program has filled the three slots available for the public experiment. These include North Carolina’s I-95, Virginia’s I-95 and Missouri’s I-70.¹⁶

P3’s Population Boom

Like most public projects, the prospects for P3 development are intertwined with geographic locales and political cultures. Not surprisingly, Sun Belt states with Right-to-Work laws are a natural setting for P3s. “Like a smile across the country, P3s have been successfully taking root in Virginia and running south all the way out to California,” suggests Geoff Heekin of AON. “The South tends to be a little more fertile and a little quicker at adopting alternative project delivery.” In northern states, labor unions at first resisted private participation in public services, but they are now seeing P3s as a legitimate way to move stalled projects forward.

And as P3s continue to gain ground in the U.S., attorney David Hatem envisions three eastern states emerging as the next leading markets: “It’s clearly nationwide now when you look at the map. Today 33 states have P3 enabling legislation—a 50% increase over the last three years. I would say New York, Pennsylvania and Massachusetts are the next big three markets. New York has legislation pending. Once it’s passed, it’s going to boom. Pennsylvania just passed legislation in July. There, I think it will boom as well. And the Commonwealth of Massachusetts is daring to try to make P3s work. They need them, they have dire needs, especially when it comes to their bridges. The line curve is very long,” he cautions. “It takes political stamina to go ahead. So just because a state passes a piece of legislation doesn’t mean that a state is equipped to pull the trigger and implement on a long-term P3.”

Christopher Voyce of Macquarie Capital (USA) Inc. also sees widespread opportunity: “The most active states historically have been Virginia, which has closed three transactions since 2007, including the Midtown Tunnel Project (in which funds managed by Macquarie Group hold a 50% interest); Florida, which has completed two projects under the ‘availability payment’ model, the I-595 Improvement Project and the Port of Miami Tunnel Project; and Texas, which has also closed three projects since 2007. California has closed the Presidio Parkway Project (Golden Gate Bridge approach), and could be a very large market if P3s become more widely accepted. New legislation has been passed in Ohio and Pennsylvania and those states appear prospective to us as well.”

In what is the world’s eighth largest economy, the state of California is fertile ground for private investment in public works. Malcolm Dougherty is the Director of the California Department of Transportation, an agency managing a \$14 billion budget and a payroll of 21,000 employees. One of those employees reports directly to Dougherty as a dedicated P3 professional. Important, considering California needs \$500 billion over

¹⁶ http://www.fhwa.dot.gov/ipd/revenue/road_pricing/tolling_pricing/interstate_rr.htm

the next five years in order to manage its 50,000 miles of highways, 400 public airports and commuter rail services. With only \$200 billion in public funds available, some of the shortfall may well be financed by private investment in order to ease taxpayer burdens.

Dougherty reflects: “On October 12, 2012, we broke ground on the first P3 project of its kind authorized under state legislation: Phase II of the Presidio Parkway. This multiagency partnership was formed to replace the 1936 Doyle Drive segment of U.S. Highway 101 that connects the iconic Golden Gate Bridge with the city of San Francisco. Golden Link Concessionaire, LLC, a consortium of well-known, California-based businesses, secured all necessary funding and is now constructing a new bridge, main post tunnels, battery tunnel and a Girard Road interchange to create a spectacular and safe highway for the 100,000 daily motorists that drive this section of the highway every day.”

Los Angeles-based Geoff Clark, Managing Director of Marsh Global Construction Practice observes that, “if you look at certain jurisdictions, even at the municipal level, there are certain states and certain localities that are not reliant on federal funding and will take matters into their own hands.” Clark continues that “if you look at Los Angeles through Measure R, we had a sales tax that is specifically earmarked for transportation and it’s been very, very successful in raising funds. Those funds can be applied to a variety of projects whether light rail or surface transportation. Everyone can agree on the need, but the question is, ‘who’s going to pay for it and how?’ For the private sector, the project has to be not only viable and essential, but certainly has to have a revenue and return component to it.”



“The U.S. could—and should—reach investment levels of about \$80 billion if we were building at the same rate of market share as Canada.”

Looking Ahead

California—and the rest of the U.S. for that matter—need look no further than Canada for inspiration. Though the Canadian economy is slightly smaller than California’s; private investment in infrastructure in Canada is about \$1 billion higher than all of the private investment currently in the United States. Geoff Heekin of AON suggests: “Canada is about one-tenth the size of the U.S. in population and GDP. This year Canada will invest about \$4 billion in private money into public projects. Next year they’re scheduled to do \$8 billion with just 10 projects. That’s \$8 billion in Canada and only \$7 billion in the U.S. next year.”

Heekin’s point: “The U.S. could—and should—reach investment levels of about \$80 billion if we were building at the same rate of market share as Canada. They’ve got it right—they’re the best in the world at it—they go out to the private sector and hire lawyers and technical advisers and financial advisers and they all work inside Infrastructure Ontario (a province-owned entity that repairs, rebuilds and renews infrastructure across Ontario, [and] is responsible for overseeing public-private partnerships in the region). They’ve got competency to sit across the table from the private sector and do it with the credibility and expertise necessary to ensure the public interests are being preserved.” As does Canada, so too should the private sector.

AIG’s Grandmaison anticipates the changes coming as P3s are more widely adopted: “We are thinking about this as a sea change for the industry, for our customers and owners and DOTs and all those who have a role in P3 in the future.” Grandmaison also notes that, “we’ll continue to monitor and develop new products and

services to satisfy the needs of the stakeholders involved in a P3 today and going forward. As we embark on this sea change or paradigm shift, neither we at AIG nor anyone else have it all buttoned up or have all the answers. We as an industry are going to need to learn from our mistakes and recognize when a mistake is made and adapt and make necessary changes so that they don't happen again and things are properly managed on a macro basis."

Hurricane Sandy's devastating forces of wind and water demonstrated three key needs that are dictating P3 development in infrastructure: new standards for robust structures capable of surviving manmade and natural disasters; upgrades to aging infrastructure; and the development of sustainable infrastructure that preserves resources. "The Hudson River was literally pouring into the Ground Zero site with such a force we were worried about the structure of the pit itself," said New York Governor Andrew Cuomo.¹⁷ "We have a 100-year flood every two years now. We have a new reality when it comes to these weather patterns. We have an old infrastructure and we have old systems and that is not a good combination."¹⁸

Super storms of the future threaten inland states which are going to have to reconsider their infrastructure needs. Hurricane Sandy's 1,000-mile breadth was wider than the state of Texas. Wind, water and snow wreaked havoc over nearly half of the states in the U.S. Robert Puentes, Senior Fellow and Director of the Brookings Institution's Metropolitan Infrastructure Initiative, explains Sandy's public and private ramifications: "It will spur action, not necessarily just in terms of huge federal outlays, but in deciding what the infrastructure needs are for a 21st century economy, and what is needed to withstand the kinds of storms we're seeing."¹⁹

Amid fiscal uncertainties and global economic challenges, the nation's infrastructure is quickly decaying. Infrastructure preparedness is vital in order to withstand 100-year storm conditions currently happening with alarming frequency. The imperative need for increased utilization of public-private partnerships has arrived in the U.S. and AIG remains ready to engage these projects with the proper mindset to provide comprehensive property, casualty, professional and specialty insurance solutions to assist in successful P3 delivery across the United States and Canada.

¹⁷ Daniel Geiger, "Cuomo assesses damage of WTC site," Crain's New York Business, http://www.craigslist.com/article/20121030/REAL_ESTATE/121039991, accessed 29 March 2013.

¹⁸ Darren Goode, "Hurricane Sandy update: Cuomo notes weather's new reality, toll on states," <http://www.politico.com/news/stories/1012/83055.html#ixzz2P3zi16ER>, accessed 29 March 2013.

¹⁹ Andrew Ross, "Sandy highlights fragile infrastructure," San Francisco Chronicle, <http://www.sfgate.com/business/bottomline/article/Sandy-highlights-fragile-infrastructure-4001695.php>, accessed 29 March 2013.

Credit: Thank you to Michal Cialowicz of michalography.com for the Golden Gate Bridge photo.



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