

AGC White Paper on Public-Private Partnerships

The Risks and Opportunities



Building Your Quality of Life

Executive Summary

As public-private partnerships (PPPs) garner more attention as a means of financing and addressing our nation's growing infrastructure deficit, the Associated General Contractors of America (AGC) developed this white paper to outline the issues that contractors will confront with PPPs. Former AGC President Harry Mashburn put forth a goal to "determine the best way for AGC to present the latest information and encourage an internal dialogue to determine the policies and practices that will best guide our interaction with PPPs," and a task force of AGC members focused on creating a document that succinctly and thoroughly describes the variables that must be contemplated as contractors participate in PPP projects.

This white paper focuses on two primary areas: the legislative issues that arise when states and localities consider utilizing PPPs, and the issues that contractors confront when they consider participating in a PPP project. Before even addressing the specifics involved in PPPs, AGC makes clear that increasing public investment in our nation's infrastructure is essential. PPPs simply provide supplemental funding to traditional public financing. Furthermore, if PPPs yield an upfront payment to a public entity or a future revenue sharing agreement, the revenues derived from the transaction should be dedicated to investment in the type of infrastructure from which it originated. The revenue should not be diverted to other purposes.

As states explore utilizing PPPs, they need to approve enabling legislation. This first part of the white paper outlines the key issues that a state legislature will likely consider as part of such legislation. Many of these issues are important to contractors and they should be engaged in the debate.

The second part of the white paper addresses the new risks and opportunities that contractors encounter when they consider participating in PPPs. These projects take many forms to address the unique attributes of each project and each team. Many of the risks that are typically held in a design/bid/build project by the public entity are transferred to the private consortium in a PPP. This white paper highlights the risks that are unique to PPPs and the need to ensure that the risks are properly allocated so that contractors are not left with an inappropriate amount or type of risk. Since PPPs involve a team approach, we stress the importance of contracts and Memorandums of Understanding (MOUs) with the other team members, and the need for contractors to be at the table from the outset in any negotiations with the owner. Furthermore, we discuss how contractors must involve their insurer, bonding agent, and lender early in the process to assist in evaluating the risk potential in the projects.

Contractors play a critical role in developing PPPs. The expertise a contractor brings to the table when forging a public/private partnership maximizes the efficiency of both the planning and execution stages of the design, construction, operation, and maintenance of the project. Contractors are also knowledgeable of and take into account the impact a project will have on the local community, as well as considering the importance of the public relations component of developing a project.



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Why PPPs Have Emerged

As governments from around the world struggle to address their infrastructure needs, many have turned to PPPs to help meet these needs. The United States is now facing an infrastructure crisis and is seeking ways to address this challenge. The American Society of Civil Engineers' "2005 Report Card for America's Infrastructure" gives the overall condition of the nation's infrastructure a grade of "D" and calls for an investment of \$1.6 trillion in infrastructure over the next five years.³ PPPs have emerged as one of the tools that may help states and other public entities address a portion of their infrastructure deficits.

The U.S. Department of Transportation (DOT) in its most recent Conditions and Performance report said we need to spend \$61 billion more annually to adequately address our highway and bridge needs. The report estimated that it would take an annual investment of \$31 billion just to fund Interstate preservation.⁴ Adjusting that "constant dollar" estimate to "year-of-expenditure dollars" the American Association of State Highway and Transportation Officials (AASHTO) estimates that it will take at least an annual investment of \$49 billion to preserve the Interstate System in 2015, and \$72 billion annually by 2030.⁵ If investment fails to keep pace with preservation needs, the costs will spiral upward to even greater levels.

The U.S. Environmental Protection Agency estimates that we will need to invest \$300 to \$500 billion over the next 20 years in our water and sewer infrastructure.⁶ Furthermore, according to the Association of Dam Safety Officials, \$30 billion is needed to bring U.S. dams into compliance with current safety standards, or to remove obsolete dams.⁷

In the highway arena, increased tolling to expand capacity is spurring additional interest in PPPs. According to AASHTO, between the years 2000 and 2006, 30 to 40 percent of the approximately 150 miles of new expressways built nationally each year was financed through tolls. By 2030, the percentage of new arterials in metropolitan areas financed through tolling may increase to nearly 50 percent.⁸

While PPPs will not be the sole solution to meeting our infrastructure needs, they may play a role in addressing some of those needs and enhancing the capacity of public works ventures like water systems, road systems, and school systems. Even proponents of PPPs believe that PPPs will only address about 10 percent of our highway and bridge needs. Notwithstanding, because the gap between available public resources and funding needs is so staggering, federal, state, and local governments are looking at every possible solution to build the improvements needed by the public.



Case Study 1: Using the PPP Model for School Construction

The Houston Independent School District (HISD) had a fast growing school district and a failed bond referendum. A solution was created when HISD entered into a lease/purchase transaction with Gilbane Development Co., whereby the private company assumed all the delivery risk for two 500,000 square foot high schools. The agreement called for Gilbane to take on the risk of financing and developing the facilities under a stipulated sum and specific schedule. Some of the advantages of this approach included the school district not incurring long-term debt and making school bond capital available for other purposes. HISD makes lease payments on the facilities from funds annually appropriated by the District.

3. American Society of Civil Engineers, "2005 Report Card for America's Infrastructure" http://www.asce.org/report_card/2005/index.cfm

4. U.S. Department of Transportation, "2004 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance" 2006

5. American Association of State Highway and Transportation Officials, "Transportation Invest in Our Future," 2007 http://www.transportation1.org/tif5_report/trans_network.html

6. U.S. Environmental Protection Agency, "The Clean Water and Drinking Water Infrastructure Gap Analysis" 2002

7. American Society of Civil Engineers, "2005 Report Card for America's Infrastructure" http://www.asce.org/report_card/2005/index.cfm

8. American Association of State Highway and Transportation Officials, "Transportation Invest in Our Future," 2007 http://www.transportation1.org/tif5_report/trans_network.html

Private Capital Investing in Our Infrastructure

The emergence of private capital wanting to invest in infrastructure projects is driving government's interest in PPPs. Over the past several years, a substantial amount of money has been invested in infrastructure projects by investment funds, private equity firms, institutional money managers, pension funds, insurance companies and wealthy individual investors. New infrastructure funds are being established at home and abroad, and it has been widely reported that Goldman Sachs and the Carlyle Group have already established infrastructure investment funds that total \$7.5 billion. These two funds alone could leverage \$37.5 billion in total infrastructure improvements, and are just two U.S. companies that have recently targeted this market.

These infrastructure investment funds are looking to invest in toll roads, parking lots, water treatment facilities, power plants, airports, dormitories, hospitals, schools, prisons, and other infrastructure. The attraction of infrastructure project investments is that they are seen as long-term, secure, inflation-protected investments that fit well with the payout schedules of pensions and life insurance policies.

Major Infrastructure Areas Where PPPs Apply

With the recent lease of the Chicago Skyway and the Indiana Toll Road, the media has focused on the role of PPPs in the highway and bridge sectors. While transportation is a significant focus of PPP activity, many other infrastructure areas are also ripe for PPPs. PPPs have been utilized as an infrastructure delivery mechanism to build drinking-water and wastewater treatment facilities, schools, hospitals, prisons, and military housing.

As noted above, we have tremendous needs that must be addressed in all these infrastructure areas. In school construction alone, the National Education Association (NEA) reported in 2000 that an investment of \$268 billion is needed to bring our nation's schools into overall good condition.⁹ In a typical PPP school construction project, the private sector would finance, design, build, and often maintain a school under a contract with a governmental entity for a certain number of years. At the end of the contract, ownership and responsibility for the school is transferred to the governmental entity. The key ingredient that entices the private sector to be interested in a PPP is a long-term revenue stream. All of these infrastructure sectors noted above have that essential element. In turn, the public sector is interested in pursuing a PPP because they believe a PPP will provide revenue to build, operate, and maintain the project and that the public will benefit by a faster completion time.

PPPs often allow for increased innovation. For example, a contractor/operator brought new efficiencies to a municipal water treatment facility by enhancing maintenance and operation of the facility. The contractor utilized the latest technologies to reduce energy consumption so the private contractor could save money and reduce the downtime for maintenance by accurately and aggressively planning critical maintenance activities. In another situation, contractors and developers collaborated at early stages in the construction of schools to design multi-use elements into the project that opened the facility up to rental income during after-school hours and during the summer months. In this instance, it was critical to get the authority to offer the facility for rent into both the concession agreement and the design. These protections assured the tenant that the additional activity could be carried out safely without compromising their use of the facility, or imposing risks upon them.

Case Study 2: Using the PPP Model for Water Construction

The El Paso County Water Authority (EPCWA) is responsible for water and sewer services to 9,000 connections or approximately 16,000 residents in a 91 square-mile area east of the city of El Paso, Texas. While there is a supply of groundwater in the area, most of the water has an extremely high mineral content. The "fresh" water isn't fresh; it is brackish and, therefore, undrinkable without extensive treatment. Even the name of the water-bearing aquifer, the Salt Basin, aptly illustrates the problems faced by the EPCWA.

Because its water was not meeting minimum government guidelines, the Authority hired ECO Resources, Inc. in 1994 to address both the short-term need for potable water and the long-term need of assuring a water supply for the rapidly growing community. ECO formed a public-private task force composed of the EPCWA's engineer, attorney, board members and financial advisor, as well as local developers. Under ECO's guidance, the group's recommendations were to raise water and sewer rates, institute a connection fee for each new meter, and modify the water distribution system to blend water from wells of varying quality to achieve the required standards.

To meet the long-term challenge, ECO recommended building not only four wells in a well field where the water was plentiful but quality was low, but also a reverse osmosis (RO) treatment plant nearby that could provide four million gallons of water per day. ECO offered to fund and build the project on behalf of the Authority and put the amortized cost of the facility into a 20-year lease-purchase agreement tied to a new 20-year operations and maintenance contract, a win-win solution for the citizens and ECO Resources.

Construction began in late 1999 and was substantially completed by December 2000. After extensive testing, the plant - the second largest of its kind in Texas - was put into service in February 2001. It provides water that is about 35 percent cleaner than required and about 24 cents per 1,000 gallons cheaper than the U.S. average for treated water; which is slightly more than \$2 per 1,000 gallons. In fact, the cost of the plant will not be passed to ratepayers, whose tax rate has actually gone down, thanks to the area's 14 percent yearly growth rate and careful management of resources. A key feature of the plant's design is its expandability - as projected growth in the area occurs, treatment capacity can be tripled.

9. American Society of Civil Engineers, "2005 Report Card for America's Infrastructure" <http://www.asce.org/reportcard/2005/index.cfm>

South County Secondary School

LORTON, VA



FIRM
Clark Educational Advisors, LLC

CONTRACT VALUE
\$64 million

COMPLETION DATE
Fall 2005

Benefits of PPPs

Public-private partnerships help fill the void between typical annual government accounting and capital budgeting. The private markets know the benefits of capital budgeting and are investing heavily in U.S. capital infrastructure. Those who support the advancement of PPPs highlight many advantages. In a recent report by Deloitte titled, "Closing America's Infrastructure Gap: The Role of Public-Private Partnerships," it succinctly outlines six perceived benefits to governments utilizing PPPs as follows:

1. PPPs allow the costs of investment to be spread over the lifetime of the asset and, therefore, allow infrastructure projects to be brought forward in years compared to the pay-as-you-go financing that is typical of many infrastructure projects.
2. PPPs have a solid track record of on-time, on-budget delivery.
3. PPPs transfer certain risks to the private sector and provide incentives for assets to be properly maintained.
4. PPPs can lower the cost of infrastructure to the public entity by reducing both construction costs and overall life-cycle costs.
5. Since satisfaction metrics can be built into the contract, PPPs encourage a strong customer service orientation.
6. Because the destination, not the path, becomes the organizing theme around which a project is built, PPPs enable the private sector to focus on the outcome-based public value they are trying to create.¹⁰

The merits of the points may be debatable, but they outline some of the key reasons governmental entities in the United States are interested in PPPs.

Concerns with PPPs

Over the past several years, many concerns have been raised over the use of PPPs. The most recent challenge came from Congressmen Jim Oberstar (D-MN) and Peter DeFazio (D-OR), chairmen of the Committee on Transportation and Infrastructure and Subcommittee on Highway and Transit in the U.S. House of Representatives. These two congressmen raised concerns that many PPP arrangements "do not protect the public interest." They raised numerous issues and concerns in a letter and position paper released in June 2007.¹¹ The two chairmen wrote a joint letter to all governors, key legislators, and top transportation officials in all 50 states to express their concerns with PPPs in transportation. The letter provoked a strong reaction from several states and both the National Governors Association and Republican Governor Rick Perry of Texas wrote letters in response to the Oberstar/DeFazio letter.

Case Study 3: Using the PPP Model for School Construction

In 2001 it became evident that Fairfax County would need a new school years before the budgeted funding would be available. As the project predated the adaptation of the PPEA and publication of the implementation guidelines, Fairfax County Public Schools solicited proposals for public-private partnerships to provide a new school on a portion of the former prison site in Lorton, Virginia.

Clark submitted a proposal that called for the monetization of unused Fairfax County land assets, thereby lowering the overall net cost of the school project to the County and allowing Clark to accelerate the school without taking any funds out of the school system's capital improvement plan until they were originally programmed. In addition, through this land sale, value engineering, and other creative tools, the proposal would save the county more than \$25 million and get other desired public and private infrastructure into this fast growing community. The two parties entered into an agreement for the development, design, financing, and construction of the first K-12 public school in Virginia to try this alternative, turnkey approach to procuring a school. If not for the work of the Lorton community and the efforts of Clark, the South County Secondary School would be nothing more than a dream until 2008.

Case Study 4: Public-Private Education Facilities and Infrastructure

The Public-Private Education Facilities and Infrastructure Act (PPEA) in Virginia is an alternative procurement tool that allows Virginia communities to develop non-transportation related infrastructure projects through public-private partnerships. The PPEA passed the Virginia Assembly in 2002. The Act grants responsible public entities the authority to create public-private partnerships for the development of a wide range of projects if the public entities determine there is a need for the project and the private involvement may provide the project in a timely and cost-effective fashion. Qualifying projects include the following:

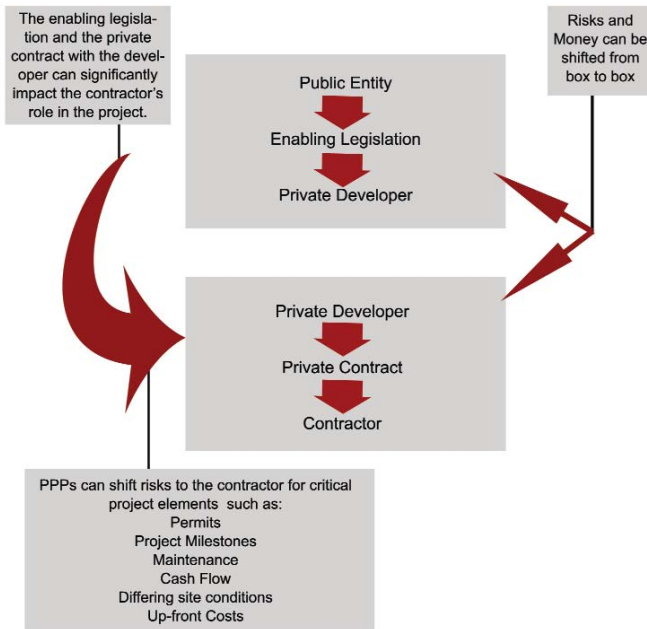
- education facility (public school or higher education)
- equipment to enhance public safety and security at public buildings
- utility and telecommunications and other communications infrastructure
- recreational facilities
- technology infrastructure
- any building or facility that meets a public purpose and is developed by or for any public entity
- any improvements necessary or desirable to any unimproved locally or state owned real estate

10. Deloitte "Closing America's Infrastructure Gap: The Role of Public-Private Partnerships" 2007

11. Position Paper from the Chairmen of the House Committee on Transportation and Infrastructure and the Subcommittee on Highways and Transit Outlining Their Concerns Over Public-Private Partnerships in Transportation. 2007
<http://transportation.house.gov/news/prarticle.aspx?newsid=219>

Legislative Issues and Contractor Issues

In an effort to address the major issues that contractors face when dealing with PPPs, the task force split the issues into two camps: legislative issues that arise when federal, state, or local governments attempt to utilize PPPs (Legislative Issues), and issues that contractors face when participating in a PPP project (Contractor Issues).

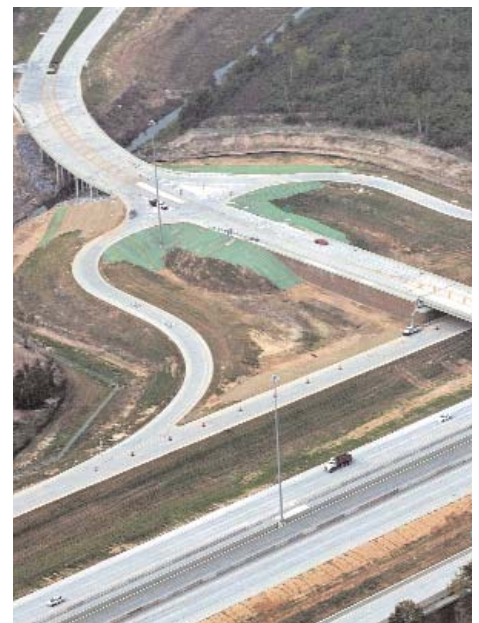


PPP Legislative Issues

The issue of PPPs has become controversial and contractors and AGC chapters should engage in this debate by lobbying for provisions that protect long-term infrastructure investment and ensure that risks are efficiently allocated. Many of the issues that arise when PPPs are utilized take shape beginning in the legislative process. The following issues are key to the debate.

Role of PPPs in Relation to Traditional Public Funding

For many decades, AGC has advocated for increased investment in our nation's infrastructure. It is well documented that the United States is facing an infrastructure crisis, and that the amount of money needed to address our infrastructure needs far exceeds the current amount of dedicated public funding. This infrastructure deficit includes all types of infrastructure, including roads and bridges, airports, railways, water systems, hospitals, schools, and military housing. As noted above, the infrastructure gap that needs to be bridged over the next five years in order to maintain our standard of living is estimated to be \$1.6 trillion.¹² AGC recognizes that PPPs are not the "panacea" or "sole solution" to meeting our needs, but may be one mechanism to help us address our goal of closing our nation's infrastructure gap.



12. American Society of Civil Engineers, "2005 Report Card for America's Infrastructure" <http://www.asce.org/reportcard/2005/index.cfm>

It is imperative, however, that PPPs are utilized to supplement public funding, not supplant it. AGC strongly believes that PPPs should be used to bring additional revenue to address our infrastructure needs; it cannot replace the current revenue which needs to be maintained and increased just to continue our standard of living. We continue to aggressively advocate for significantly increasing public investment in our infrastructure and believe that PPPs can leverage additional private investment.

Mary Ellen Henderson Middle School

FALLS CHURCH, VA



FIRM
Public-Private Alliances, LLC
(Clark)

CONTRACT VALUE
\$25 million

COMPLETION DATE
Fall 2005

We recommend that AGC members and chapters make clear to public officials that they do not want PPPs to replace public investment.

Different Types of PPPs

PPPs come in many different shapes and sizes. They include both existing facilities, referred to as "brownfields," and new-capacity facilities known as "greenfield" projects. Although the brownfield projects have received the bulk of the attention thus far in the transportation area, the long-term PPP role will be in building new greenfield projects. The financial entities and concessionaires have gravitated to the leasing of existing facilities because it is easier to quantify the risk than building a new facility that involves all the construction risk as well as the uncertainty of how much the facility will be used, which determines the amount of revenue that will be derived.

One commonality among the different types of PPPs is a need for a dedicated revenue stream. Often the private entity will provide all or some of the upfront funding for the building or improving of a facility, but there must be a method of repayment over the duration of the partnership. The revenue stream can be derived from a number of different sources, including fees, tolls, shadow tolls, availability payments, and local taxation.

State Enabling Legislation - How They Impact PPPs

When a state or local government wants to utilize a PPP approach for a transportation project, or other types of infrastructure projects, they must first acquire legislative authority, referred to as state enabling legislation.

Case Study 5: Using the PPP Model for School Construction

To much fanfare, the Mary Ellen Henderson Middle School opened to students in September 2005. The first school built in the City of Falls Church, Virginia in over 50 years, this 130,000 square-foot, four-story facility accommodates up to 600 students for grades 5-7. Taking just 16 months to construct, Mary Ellen Henderson Middle School was the first school procured under Virginia's Public-Private Educational Facilities and Infrastructure Act of 2002 (PPEA).

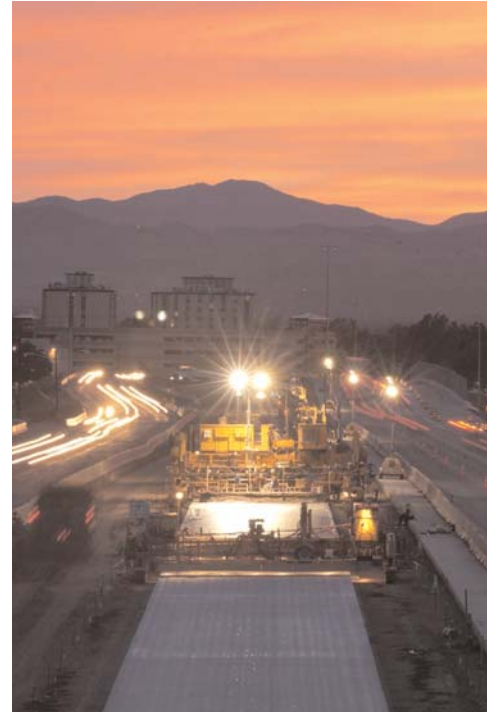
Faced with building a new middle school to replace an older facility which could no longer adequately serve a growing population of students, the school district solicited PPEA proposals. Under the entity, Public Private Alliances, LLC, Clark Ventures proposed a unique solution that did not require the purchase of additional land for the school. By avoiding the cost and time associated with acquiring a new site, Clark Venture's plan saved the school district several years on the schedule and between \$7 million to \$10 million in land costs. Additionally, by utilizing the expedited PPEA process to procure the school, the client was able to avoid rapidly escalating construction prices and issue bonds at historically-low interest rates.

The building features, apart from traditional classrooms and hallways, a 10,400 SF gymnasium with 1,000 seats, media center/library, art lab, technical labs, media production rooms and a dual-purpose cafeterium - a combined cafeteria and auditorium complete with lighting and stage equipment. The school also features Internet access in every classroom and in the labs.

The school board required that the building achieve numerous environmental goals, and the community wanted to substantiate the efforts of sustainability in the design and construction of the project. Clark Ventures assisted the school board in selecting feasible and cost-effective, environmentally-friendly materials throughout the school.

This enabling legislation can provide broad authority, or it can be limited to a specific project and provide numerous restrictions or limitations. Some of the key issues that a state legislature will likely consider in this legislation involve the following:

- Are all governmental entities (state, county, city, toll agency, etc.) empowered to enter into PPPs?
- Does the legislation allow broad authority for the governmental entities to enter into a number of PPP projects, or does it limit the number, or even specify a particular project?
- What restrictions, if any, are placed on where any potential revenue that may be derived through a concession agreement can be invested/spent?
- Will the legislation permit both solicited (through an RFP) and unsolicited proposals?
- How will the proposals be evaluated?
- How will the legislation address protecting the bidders' intellectual property during the competition phase?
- How long is the competition phase?
- Will toll rates and usage fees be regulated?
- Will the rate-of-return be restricted?
- How will they ensure transparency of the process?
- Will the legislation allow each concession agreement to be tailored to the specifics of the project?
- Will the length of a concession agreement be limited to a number of years in the statute?
- Will the legislation allow or prohibit non-compete provisions?
- Will the legislation require a revenue-sharing agreement that enables the state to share in potential revenue growth?
- How does the legislation allow risk-shifting that differs from traditional design-bid-build or traditional design-build?
- How does the enabling legislation address sovereign immunity and long-term legal liability for contractors working on the project?



These issues and others need to be considered by all affected parties when a state legislature considers PPP-enabling legislation. Many of these issues are of importance to contractors, and they should be influential in the debate.

Use of Proceeds from PPP Transactions

In some cases, PPP transactions yield an upfront payment to a public entity or a revenue sharing agreement whereby the public entity receives revenue from a private entity or consortium. In two recent high-profile examples, the lease of the Indiana Toll Road and the Chicago Skyway, a private consortium paid \$3.8 billion and \$1.83 billion, respectively, for 75- and 99-year leases of the facilities.

In the Chicago transaction, little, if any, of the money was invested or dedicated to other transportation improvements. Conversely, in the Indiana lease, most, if not all of the money is dedicated to roads and bridges.

AGC strongly believes that the public entity that receives revenues from a PPP transaction should dedicate that revenue to the type infrastructure where it is derived (i.e., surface transportation reinvested in surface transportation, water systems reinvested in water systems). Some governors and other public officials will consider using the proceeds from a PPP to pay off public debt, pay for pensions, or pay for other types of unrelated infrastructure. AGC believes it is important to reinvest the revenue in related/like-kind infrastructure projects. With public infrastructure funds in such short supply, this revenue should not be considered fungible.

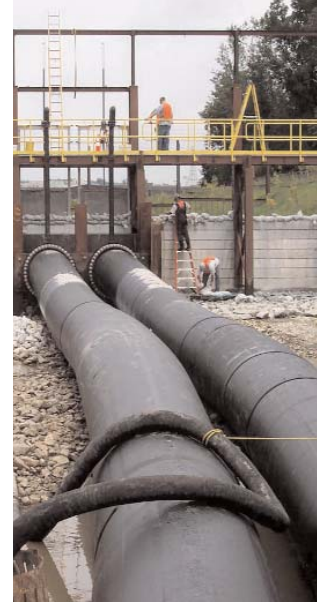
Challenges to Implementing PPPs

Once PPP legislation is approved, the focus shifts to approving and building a specific PPP project or projects. The main goal is to convince the public that your state's particular PPP approach is sound and has benefits such as delivering new capacity, incorporating new technologies, and meeting new federal, state or local standards. Since this is a new method of financing and delivering projects, the public is skeptical. Because the public will pay for it through user fees, they are fearful of the cost of future fee increases. In addition, all the interest groups that are devoted to stopping any infrastructure project from moving forward use the uneasiness about PPPs as another justification to stop the project. It is incumbent upon those who want to advance these projects to educate the public and local lawmakers about the benefits and risks that this innovative approach delivers and counter the misinformation that the opposition may put forth. As it is with anything new, the public needs to get comfortable with PPPs as a worthy approach, and, with success, more PPP projects will likely follow. Conversely, if the public is not convinced of their merits, and PPPs are unsuccessful, few, if any PPP projects will follow.

PPP Contractor Issues

Introduction

When contractors consider participating in a PPP, they face new risks and new opportunities. This section of the white paper is intended to outline the different challenges and issues that contractors might encounter with PPPs. Included in this section are the various roles contractors can play in a PPP and where, as well as when they can add value. The risks that are unique to PPPs are highlighted. The risks should be properly allocated so that contractors are not holding an inappropriate amount or type of risk. Since PPPs require a team effort, contracts and Memorandums of Understanding (MOUs) with other team members are very important and contractors need to be at the table from the beginning in any negotiations with the owner. Furthermore, it is essential that contractors involve experienced insurers, bonding agents, counsels and bankers to assist in understanding the risk potential in some PPPs. After examining these and other related factors, contractors can then determine if PPPs are a good opportunity.



13. The Washington Post, "Daley's Art of The Lease," Feb 8, 2007

In addition, this section focuses on the various roles contractors can play in PPPs and the various delivery systems that have been successful in delivering projects. We describe how various forms of financing and ownership can impact contractors. Regardless of whether it is a low-bid delivery or involves private financing of public infrastructure, contractors play a critical role in design, construction, operation, and maintenance of the project. With that in mind, AGC members need to be cognizant of the new roles they have the opportunity to play and the supplemental risks that are taken on at each step of the process.

Partnering

Partnering with a developer, concessionaire or financier, engineer, supplier, and other team members is important in participating in PPPs. The rewards from PPP contracting come from accurately identifying, analyzing, and pricing risks at all levels. Because of the increased complexity of the contractor's role, partnering among team members is critical to the project's success. Knowing the capabilities and vulnerabilities of your team will help you to evaluate holes in the team's capabilities, risks to team participants, mutual (and sometimes conflicting) long-term commitments or pay schedules - all of which are critical to mutually understanding project milestones.



AGC promotes partnering in public and private work. Partnering is simply a voluntary system for handling normal, everyday problems in a mutually agreeable manner before they turn into major issues that create disputes. Partnering is not dispute resolution; it is dispute prevention. Because of the common goals and interests in PPPs, all stakeholders need to resolve issues quickly and fairly. Partnering begins before construction starts. Common goals are identified, communications standards are established, and dispute resolution standards are developed. Partnering continues throughout the project, thus ensuring that all parties adhere to the agreement, that there are no lingering issues, and that potential conflicts can be identified. With private interests taking on many roles in PPPs, the success of the partnering process will likely determine the success of the project.

How and When Contractors Get Involved

Public-private partnership projects encompass a different relationship than typical publicly-financed projects. Contractors work for a concessionaire or equity contributor/financier. Team roles and responsibilities need to be specified in the contract or MOU. Specific responsibilities, such as who is going to pay for development costs, need to be established as early as possible. It is critical that contractors are at the table to shape the deal and make sure the risks are appropriately allocated and that their sureties and insurers are fully informed of the terms of the agreements. Construction is a business of high risk and PPP opportunities should be evaluated based on the experience of individual firms involved. This paper attempts to identify possible risks unique to PPPs and those risks that are also common to public contracting.

PPP Roles for Contractors

In traditional public works financing and in the first generation of PPPs, the owner usually took responsibility for important preconstruction activities such as permitting and differing site conditions. However, PPPs are now evolving into shifting more risk to developers, who are, in turn, trying to shift more risk to contractors.

A contractor's role in a PPP could simply be that of a low-bid subcontractor or as a design-build contractor, or any other traditional contractor role. The design-build process shifts design responsibility to the contractor, theoretically reducing the number of change orders and identification of design flaws during construction. In essence, the design and construction of the job is outsourced by the owner. The contractor can then be in control of and responsible for the price, process, and completion, all of which are critical to both cost reduction and revenue generation in a PPP.

Case Study 6: Using the PPP Model for Government Facilities

Gilbane Development Co. developed a new 158,000 square foot, five-story county government building along with a 418-car garage by partnering with a Virginia county to form a 501 (c)(3) not-for-profit entity, and securing tax exempt lease/purchase financing at below market rates for the new facility. Gilbane provided a single-source development program for the delivery of turnkey financing, development, and construction services, Saving the county more than \$22 million during the lease purchase term.

Another PPP model could have the contractor or consortium design, build, operate, and maintain the project for a public entity wherein the long-term physical performance risks are shifted to the operator. Concession agreements offer an exclusive right to a consortium to plan, finance, construct, build, and operate a facility for a fixed period of time. This approach offers flexibility to the operators and encourages innovation in design, construction, operation, and maintenance because the bottom line drives innovation. Additionally, an option recently employed in Florida has been a design-build finance operation in which the state retains control but the contractor foregoes payment for a couple of years after the construction is completed.

There are also other models being utilized. In each model it is important to remember that the contractor should evaluate both the typical construction risks and the atypical risks (such as long-term maintenance requirements) and work to reduce risks. Because each PPP is uniquely structured, it is important to know exactly who you are working for and what risks you have assumed, and recognize any long-term liabilities that may be transferred by contract or MOU.

Understanding the Contractor's Role

In a PPP project the contractor may face many new challenges, including public relations, providing equity investments, and managing gaps in insurance. It is important to understand the MOUs and/or contracts with financial partners and other team members outlining the rights of the contractor in the deal. Know going into this whether or not you are "just a contractor" with typical responsibilities, or if you are investing, taking on unusual risk, etc. These are key questions that must be determined through a teaming agreement/MOU. The agreement may require equity investment or significant upfront costs. These costs, along with your "sweat equity," can easily exceed a million dollars and can take years to bear fruit. You have to be able to determine if there is value in putting equity into the deal and if your contractual incentives are aligned with the lead financial partner.

Once again, this highlights the need for the contractor to be at the table at the outset - both in negotiating the teaming/MOU with team members and in negotiating the contract with the public entity.

Public Relations/Government Relations/Community Outreach

Often the increased risks and responsibilities and the desire to win the project require the project team to become experts in new areas such as public or government relations and community outreach. The experience of the team building the project is just the tip of the iceberg.

PPP projects tend to be controversial because of their size and/or how they are being financed or procured. Some projects even shift the responsibility of acquiring the right-of-way to the private consortium. These circumstances frequently require significant outreach to the impacted communities to explain why the particular project will be a benefit and why the different approach. If this outreach is not done effectively, it is unlikely that the public entity will move forward with the project. Therefore, it is essential that the private consortium work with the public entity to reach out to the public.

Construction teams are often local teams who are well-known in the community. Contractors, knowledgeable about local zoning laws and procedural requirements, are experts in gaining public consensus for community improvements. Contractors can significantly increase the public acceptance of a project, especially when the developer or concessionaire is not local. This is one of the significant contributions that contractors bring to a team. Contractors should not undervalue this contribution.

Role of Equity Investments by Contractors

While not common, some project teams want contractors to provide equity up front. Putting your money at risk early in the process is a new element of risk for public works contractors, or even for contractors who work for private owners. In some cases contractors may be called upon to pay for design long before the public entity even considers a project. It is not unusual for bidding preparation to cost more than a million dollars. Stipends are offered on some projects, but they are often a pool of funds divided among all bidders. Understand up front if stipends will be paid and how the stipend pool will be allocated to bidders. In a project that involves a consortium that packages an unsolicited proposal, it may take years before your development or design investment bears fruit.

Contractors may be called upon to finance a portion of public projects where states or localities receive annual apportionments of project funds. The demand for the public improvement drives the public entity to accelerate the project ahead of the public funding being made available. In this case, the contractor must evaluate the ability of the public entity to make good on multiyear commitments.

No matter the structure of the deal, it is imperative to know who you are working for, how and when you will be paid, and the limitations and strengths of everyone on the team. The success of the project depends heavily on the strength of the team.

Private funding for projects frequently comes from financiers who will not need contractor equity. Major players in public-private transportation projects approach it differently - some have requested equity, while others do not require upfront equity but need the contractor's expertise and local knowledge. Almost always, however, the financier or concessionaire will require the contractor to take significant construction risk (see more detail below).

For the success of the project and contractors alike, it is important to go to developers and provide expertise early. In many situations, contractors have taken the lead in the construction processes, including early input on design, materials, quantities, scheduling, and maintenance that can make the difference between a successful or disastrous project.

Sizing Up the Risk

Fully understanding and anticipating risks will make the difference between success and failure for the contractor. Risk-shifting is complicated, and it varies depending on the strength and experience of the consortium, public owners, and the contractors.

When contractors work with developers and concessionaires, it is important to know how the enabling legislation, contracts, laws, and circumstances dictate the roles and responsibilities of the parties involved in the contract. Risk-shifting is further complicated by the levels of agreements, and, like any other type of construction project, shifting away risk is always preferable. Risks not shifted away must be accurately priced into the construction costs.

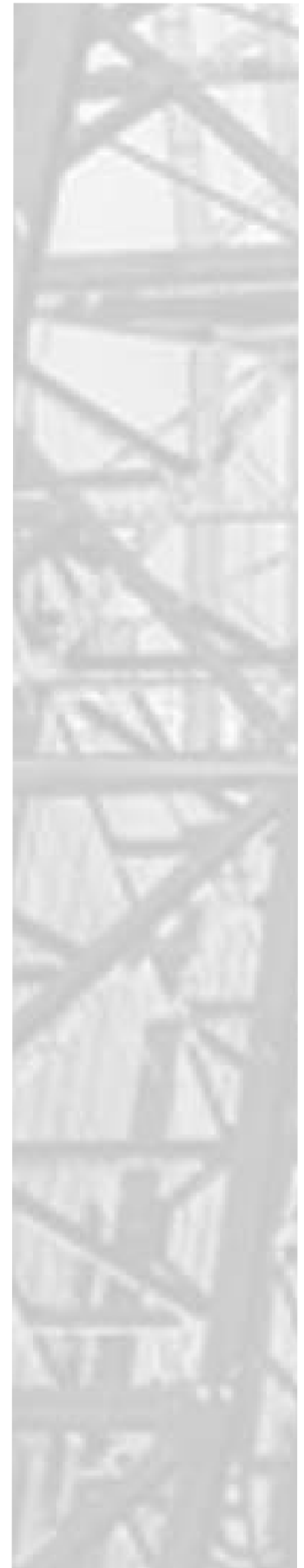
It is important to remember that many of the risks typically borne by the public entity in public works contracting are candidates for risk-shifting. Public entities are trying to get the public use of an asset with as little cost and responsibility as possible. If successful, they can focus their resources on other projects in the area.



The table below identifies many of these risks and who is likely to be responsible for the risk.

Potential Risks	Typical Contractor Responsibility	Shifted to Contractor in PPP
Major environmental permits	No	Maybe
Usage rates and traffic and revenue	Never	Not Likely
Conflicts and delays from unknown historical conditions	No	Yes
Conflicts and delays from unknown archeological conditions	No	Yes
Conflicts and delays from unknown endangered species conditions	No	Yes
Conflicts and delays from unknown utility conditions	Maybe	Yes
Cost and delays from hazardous waste unidentified and not caused by contractor	No	Likely
Accuracy of design and survey data initially supplied	No	Yes
Geotechnical and soil conditions	No	Yes
Differing site conditions	No	Yes
Delays from legal action against the project	No	Yes
Delays from public interference	No	Yes
ROW acquisition cost and time to procure (need the public entity's right of Eminent Domain)	No	Likely
Changes in zoning, laws or rules that may affect the project	No	Yes
Delays by the grantor and/or other agencies	No	Yes
Insurance coverage	Partial	Likely
Up front costs to design and develop projects	No	Likely
Long-term liability exposure for maintenance, structures	Maybe	Likely
Long-term liability exposure to litigation	Maybe	Maybe
High and unusual liquidated damages for delays	No	Likely
Extraordinary guarantees such as substantial letters of credit in addition to surety bonds	No	Likely

As illustrated in this chart, many risks that are typically held by the public entity are often shifted to the private consortium in a PPP. As these risks are allocated in negotiations with the public entity, it is important to stress again that contractors should be a part of these negotiations from the outset. Contractors must have a "seat at the table." Furthermore, contractors should have input as to which other stakeholders need to be at the table. Those who have "skin in the game" and are taking on additional risk should be part of the negotiations. Including the appropriate stakeholders in the negotiations will ultimately minimize the number of delays a project may encounter and, therefore, limit the cost incurred by delays. To allow the most efficient development of a project, the risk should be held by the entity best able to mitigate each risk type (contractor, concessionaire, or public owner).



Insurance Gaps

PPPs change the nature of public works construction. Instead of working for a government agency, a contractor finds him or herself working for a private entity or consortium of private firms. Such an "owner" typically has much more flexibility than a government agency. The private entity is typically free to select or create a project delivery system that fits its particular needs, and, in the process of doing so, may well request the construction contractor to expand its role beyond what the contractor has traditionally played in public works construction. Such an owner may select the Design-Build delivery system, or CM Agency, or CM At-Risk, and without going that far, the owner may still request a range of individual services that increase the contractor's risk of "professional" liability, including:

- Definition of project goals
- Documentation of existing conditions
- Development of space or site program
- Advice on optimum use of available funds
- Early coordination during the design phase
- Value engineering
- Constructability reviews
- Control over the scope of work
- Optimum use of the design and construction firms' skills and talents
- Operation and future maintenance

If the owner requests such services, the contractor may well find itself providing "professional" services consistent with its expertise but outside the scope of its risk management program. The fine line between professional and other risks is elusive. Professional services are generally understood to be those requiring "extensive training, study, and mastery of specialized knowledge," or "certification or licensing," or compliance with ethical standards set by an association. If the contractor's failure to perform such a service properly could result in bodily injury, property damage, or economic loss, the contractor may have a "professional" risk.

Before a contractor expands its role in what would otherwise be a public project, the contractor should carefully identify any potentially costly gaps in its insurance coverage. Commercial general liability (CGL) policies typically exclude coverage for professional risks, and many contractors have little or no coverage for such risks. Contractors can purchase professional liability policies, but such policies tend to be costly, have higher deductibles, and provide lower limits of coverage. They also differ from the CGL policies in other ways that can make the two difficult to dovetail with each other.

While professional liability policies can cover the additional risks that a contractor takes when working under a PPP, there are no standard forms or endorsements that will cover all situations. It is therefore important for the contractor to assess its risk management program in relation to its role in the project and then purchase insurance coverage commensurate with that role. While "professional" risks may not be unique to PPPs, since many private projects already carry such risks, PPPs may introduce them to public works construction in a way that contractors have not seen in the past.

Additionally, contractors should work to cap their liability and its duration to the concessionaire and the public owner. This could be achieved through contractual arrangements that cover the duration of the project and insure that each project allocate risk to the entity (contractor, concessionaire or public owners) best able to handle each type of risk.

With each project, contractors should consult their surety and insurer because every project is unique. Risks are being allocated because it is important to have the surety involved as soon as possible. The surety needs to understand how to quantify the risks so they should work closely with the contractor in their negotiations with the concessionaire.

Conclusion

While the role of PPPs in developing and improving our nation's infrastructure is still evolving, it is important that contractors help shape the outcome. As states continue to look to utilize PPPs as one of the tools to address our overwhelming infrastructure deficit, contractors should be a key contributor to that debate. It is also vital that the federal, state, and local governments look to PPPs as only a supplement to and not as a replacement for public investment in U.S. infrastructure.

Although PPPs present contractors with new opportunities, they also present significant new risks. Many of the risks that are typically held by the public entity are transferred to the private consortium in a PPP. By being involved early in the process, contractors can ensure that the risks are most efficiently allocated and that contractors do not take on too much risk. Not all risks in a PPP should be shifted to the private sector, some risks are better held by the public entity. Contractors also need to work closely with other team members from the outset to develop the necessary contracts and MOUs. Together with involving their insurer, bonding agent, and lender early in the process, contractors can evaluate the amount of risk they are taking on with a PPP project and determine if the project is a worthy opportunity.

Useful Links

For information on state PPP legislation see: The Nossaman, Guther, Knox & Elliott Web site
Nossaman.com/showarticle.aspx?show=2143

For PPP Case Studies See: The National Council for Public-Private Partnerships Web site
ncppp.org/cases/index/shtml

For Information on Transportation Related PPPs See: The Federal Highway Administration's Web site
Fhwa.dot.gov/ppp/index.htm

AGC's PPP Web site.
www.agc.org/ppp

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