

APS Question #2 to JFAC: How do other Virginia jurisdictions incorporate schools in Public-Private partnerships?

Draft for JFAC Review, January 24, 2023

Introduction

The Arlington School Board and County Board asked the Joint Facilities Advisory Commission (JFAC) to investigate three questions as part of the JFAC's 2021-22 workplan. The second of these questions, and the subject of this brief, was to research how Virginia jurisdictions outside of Arlington incorporate schools in Public-Private Partnerships. The JFAC began exploring this question in the Spring of 2021 over the course of a few meetings. In late 2021 and 2022, the JFAC switched gears to consider the Missing Middle question from the County, review of the APS and County CIP proposals, and have recently come back to complete the work we started on the Public Private Partnership question.

In considering this question, the members of the JFAC first discussed whether the scope was solely to research and comment on potential P3 agreements as part of the Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA), or to also consider and advise on potential forms of public-private partnerships generally. Does the question pertain to land, funding, community support, operations, and maintenance agreements as well as design-build agreements, or all the above? The JFAC determined we would primarily consider the questions of partnerships under the PPEA and included an appendix that could include additional partnership possibilities outside of the PPEA.

The JFAC also considered whether we should investigate how other States had implemented public-private partnerships. Since the question specified Virginia jurisdictions, and because the code governing public-private partnerships could be different from State to State, JFAC members determined that we would limit our research and conversation to Virginia projects.

Executive Summary

As part of its FY 2021-2022 workplan, the Arlington School and County Boards requested that the Joint Facilities Advisory Commission (JFAC) research how other Virginia jurisdictions have incorporated schools in Public-Private Partnerships (P3) under the Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA). In Virginia, projects under this act have included the planning construction and maintenance of public schools from primary grades through post-secondary education. Examples include five (5) schools in Norfolk, VA, George Mason High School in Falls Church, VA, and The George Mason University Institute of Digital Innovation (IDIA) currently under construction in Arlington, VA. Despite the name of the act, the partnerships enabled under this legislation do not apply only to educational facilities but may include design, construction, operations, and improvements of different types of public facilities (including parks), infrastructure and technology projects.

The JFAC held a series of conversations to review the research on P3 projects undertaken by other Virginia jurisdictions. We discovered a number of potential reasons to pursue P3 agreements, among them potential for cost containment and reduced overall investment of public funds, risk reduction, transfer of or shared risk with a third party, innovation in terms of building methods and materials that

could reduce operations costs in the long run (if the P3 agreement included a contract for operations once the project is built), and reduction or transfer of administrative burden on the public (school or government) entity.

This document contains a brief discussion of the research, a list of considerations for Arlington County, and four appendices. Appendix A provides a glossary of terms, Appendix B provides a listing of resources used in the research Appendix C captures the partnership opportunities that do not fall under the PPEA and were identified as worthy of additional investigation, and Appendix D lists additional actions and conversations the JFAC would like to conduct to further understand the success of such arrangements in other areas and contrast those P3 arrangements with the outcomes of more recent construction projects in Arlington, to determine if the potential benefits to Arlington County would justify the additional actions the County must take to define eligible projects for P3, create guidelines, and outline a process for the jurisdiction to follow for solicitation and selection of private entities for P3 projects. There is a Virginia P3 Office that can provide guidance and templates for guidelines, processes, and agreements that Arlington could modify and adopt. It appears that the County and APS would need to each define eligible projects and a process, since they each have jurisdiction over facilities in Arlington.

In our review, the JFAC found that Public Private partnerships should be further explored and could provide a cost-effective and streamlined approach to the design, construction, and maintenance of public projects in Arlington. Based on examples from other jurisdictions, the JFAC believes that P3 agreements may provide an increased potential for creating co-located and multi-use facilities, given that a third party and neither the County or APS would need to take the lead for designing, building, and operating a site with multiple uses. For these reasons, the JFAC

Background: The Public-Private Education Facilities and Infrastructure Act of 2002

The State of Virginia has an Office of Public-Private Partnerships (VAP3) which was formed to implement the statewide program for projects under the Public-Private Transportation Act (PPTA) of 1995 and the Public-Private Education and Facilities Act (PPEA) of 2002. These acts are intended to facilitate more nimble and efficient project procurement and delivery methods throughout the State.¹

The PPTA has been used for projects like the Toll Lanes on the Beltway/I-495 in Northern Virginia. The PPEA has been used for at least 37 projects throughout Virginia and not all of them relate to school or have been strictly applied to education projects. Types of projects that qualify under PPEA have been expanded to include public- private partnership (P3) agreements beyond educational facilities.

The Virginia Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA) grants authority to public entities to enter into comprehensive agreements that include design, finance, construction, operations, and maintenance terms with private entities to provide public facilities, infrastructure and technology related goods and services. Before entering into agreements under the PPEA, a public entity must adopt guidelines and processes for soliciting, receiving, considering, and selecting proposals from private entities.

¹ Virginia Office of Public Private Partnerships, [Office of Public-Private Partnerships | Virginia.gov](https://www.virginia.gov/office-of-public-private-partnerships/)

The PPEA provides guidance for qualifying projects under the Act, which despite the title is not limited to physical school buildings.² As defined in the Virginia State Code, a “Qualifying project” means (i) any education facility, including, but not limited to a school building, any functionally related and subordinate facility and land to a school building (including any stadium or other facility primarily used for school events), and any depreciable property provided for use in a school facility that is operated as part of the public school system or as an institution of higher education; (ii) any building or facility that meets a public purpose and is developed or operated by or for any public entity; (iii) any improvements, together with equipment, necessary to enhance public safety and security of buildings to be principally used by a public entity; (iv) utility and telecommunications and other communications infrastructure; (v) a recreational facility; (vi) technology infrastructure, services, and applications, including, but not limited to, telecommunications, automated data processing, word processing and management information systems, and related information, equipment, goods and services; (vii) any services designed to increase the productivity or efficiency of the responsible public entity through the use of technology or other means, (viii) any technology, equipment, or infrastructure designed to deploy wireless broadband services to schools, businesses, or residential areas; (ix) any improvements necessary or desirable to any unimproved locally- or state-owned real estate; or (x) any solid waste management facility as defined in § [10.1-1400](#) that produces electric energy derived from solid waste.”³

Sample Preliminary Process

- The public entity interested in moving forward with public-private partnerships using PPEA must first define the types of projects the jurisdiction defines as eligible for this project design method.
- The jurisdiction eligible to enter into agreements and operate public facilities must create guidelines for P3 projects. There are several examples in Virginia of adopted documents. It is unclear whether the adoption may only be done by the County and that extends to APS, or whether APS can create its own guidelines independent of the County, since they own and operate public buildings and as long as the adopted guidelines follow those of the State of Virginia’s Public-Private Partnership Office.
- In its guidelines, the jurisdiction must include information for submission, review, process (including public process), and timelines for both solicited and unsolicited proposals.
- The public entity must develop requirements for the project, including specific service levels for building operations, energy usage and sustainability (if there are known benchmarks), and “hand back” requirements at the end of an operations and maintenance term to ensure the assets are like new and have roofs and systems that will last for a reasonable amount of time. The State has specific requirements for documentation to be included as part of an RFP process under PPEA.
- The public entity can put out an RFP to obtain Conceptual Design Responses, which respond to the RFP at a high level. The RFP may be open to all respondents or may be limited to specific firms.
- When the public entity reviews the Conceptual Design Responses, it may narrow the field of respondents in the next round, may select a single respondent to continue, or may not choose any of the respondents, in accordance with the guidelines adopted by the public entity.

² The State of Virginia formed a PPEA Working group that issued Guidelines for public entities or owners to adapt and adopt, a PPEA checklist for agreements, and recommended procedures for local P3 Commissions to follow. <https://dls.virginia.gov/ppea.htm>

³ ([The Public-Private Education Facilities and Infrastructure Act of 2002 \(virginia.gov\)](#), 56-575.1.Definitions)

- If a respondent or a narrow group of respondents are selected to go onto the next stage, they will receive a more in-depth RFP and will be invited to submit Detailed Design Responses by a specific date. An award may be given after this review, the RFP could be amended to request additional information, or no award may be granted, in accordance with the adopted guidelines.

How is a Public-Private Partnership different from existing contracting models currently used by APS?

For the past several years, APS has used a Construction Manager at Risk (CMAR) process for its projects, which is an improvement from the more traditional Design-Bid-Build approach with a Project Manager (who often worked neither for the design nor the build contractor) and separate entities for the design and construction portion of the project. The CMAR delivery method is one in which APS hires a construction manager to oversee the project from the design stage to completion of construction. The Construction Manager provides APS with a Guaranteed Maximum Price (GMP) at the bid stage (post-design) of the project. There is a built-in incentive for the Construction Manager to manage the budget and schedule, because if the project cost exceeds the GMP, that cost will be paid by either the Construction Manager or the construction company.

Using the Public Private Partnership (P3) model under the PPEA, a public entity like APS would solicit proposals to a group of pre-qualified contractors which means it could transfer certain risks to the partner that is best able to manage the risks rather than having the school system and ultimately the taxpayers bear the risk. To win the contract the equity partner would squeeze margins and ideally encourage lower margins and contingencies of their sub-contracted partners. The thinking is that by lowering contingencies and the profit margins, the overall cost of the P3 project should turn out to be less expensive than traditionally bid and managed project delivery methods.

The Pros and Cons of Public Private Partnerships

POTENTIAL ADVANTAGES OF USING P3 AGREEMENTS	POTENTIAL CONS OF USING P3 AGREEMENTS
<p>APS doesn't compete separately for the design, construction, operation, and maintenance of the assets but can do all of that in a single procurement. Single point of contact and accountability for the project.</p>	<p>Guidelines for agreements must be developed and adopted by the County and, or APS prior to executing a P3 agreement. While the State of Virginia's PPEA Working group has issued sample guidelines, it appears that every jurisdiction has spent time creating their own from the State's model.</p>
<p>Outputs, performance and service levels are built into the agreement. Examples of this are specific temperature ranges for each classroom, or a level of energy performance for a building. There is a built-in incentive to be innovative in building in energy efficiency and not cut costs (like value engineering that could impact the performance of a building)</p>	<p>When asked, it did not appear that APS has an energy or performance baseline for its buildings on a site-by-site basis (with the possible exception of newer schools like Discovery or Fleet Elementary). Without a baseline for each building, it would be difficult to understand the current level of energy usage or building inefficiency, which could mean APS could pay more as part of long-term agreements where sustainable features become cheaper to implement. The private team responsible for operations and maintenance would reap the benefit of such improvements and not APS from a cost perspective. (We all may win from an environmental perspective.)</p>

POTENTIAL ADVANTAGES OF USING P3 AGREEMENTS	POTENTIAL CONS OF USING P3 AGREEMENTS
<p>With P3 agreements risk is shifted from the taxpayer to the team because they are measured and receive full payment based on the output-based performance of the asset and compliance with the service requirements.</p>	<p>While other P3 agreements are available for review from other projects in Virginia, it is difficult to foresee future conditions and make them part of the agreement. For instance, a new form of cheap energy could be discovered, and the entity retrofits the buildings to take advantage. The savings from such operational decisions would not be passed on to APS or the County.</p>
<p>P3 agreements that include post-construction operations and maintenance bring more eyes looking for quality construction, building efficiencies, and sustainable design to a project.</p>	<p>In examining the planning and development timelines available from other Virginia city and county projects under PPEA, it does not appear that the overall acquisition, planning and construction timeline would be reduced for Arlington. The acquisition and planning process still took about two to three years, and the construction process another three on average. This is roughly the timeline for school construction in Arlington. A more comprehensive look may reveal some acceleration of timeline, and this does not take into account the transfer of risk from the public entity to their private partners, so cost savings that were not apparent in looking at timelines are not taken into account.</p>
<p>This integrated service approach can bring in additional innovations which lead to efficiencies for operations. Everyone on the project has the aligned goal of delivering exactly what is stipulated contractually so they will realize full payments over the period they operate and manage an asset.</p>	<p>The Arlington Way is generally understood to mean a fairly high level of engagement- would PPEA agreements change or limit the level and opportunities for input? Is this a con if it holds down costs?</p>
<p>In several schools, some features and services did not function properly (examples: Wakefield’s geo-thermal system, W-L’s HVAC (especially cooling), Wakefield’s leaking [?] water faucets in bathrooms throughout the building, Fleet’s lack of compliance with ADA accessibility requirements for students). Functional features included as requirements in the contract with the private partner could not be overlooked or value-engineered out of the final building – since a well-executed agreement sets the regular payments up front and stipulates a certain level of service.</p>	<p>Arlington values placemaking, and public input has often changed designs for the better. Would Arlington lose something important by using PPEA to build schools and public facilities? Would a Heights building have been built using PPEA? How should we think about balancing placemaking and gaining efficiencies and lowering cost – where is this balance?</p>
<p>This is a good option for jurisdictions that require funding by private partners to build, or don’t have enough staff to construct schools with traditional design-build contracts.</p>	<p>How are standard site plan conditions and comp plan requirements incorporated into a bid? Are the items outlined up front as part of the agreement? What if there are changes during the process – it seems it is difficult to handle new information once the negotiation is completed. Would need to specify a change process and risk threshold for not making the change.</p>
<p>Since contract terms are detailed and negotiated up front and changes to scope are not readily made, there should only be rare instances where the project would go back to the Board to request additional funding.</p>	<p>It would seem fairly difficult to anticipate leaps in technologies that drop operational costs. For instance, APS would not have known to put an SLA about air exchange in an agreement in 2019 prior to the pandemic that became very important a year later. It could be very lucrative for companies to drastically reduce costs and APS could lose money in the long run especially if agreements are well-constructed to reassess / renegotiate payment structure if certain conditions are met.</p>

Examples of Public-Private Partnerships under the PPEA

Since the PPEA was passed in 2002, at least 37 projects have been listed in the State of Virginia to build, restore, or maintain schools, public facilities, park facilities, bus maintenance, arts facilities, stream restoration, broadband, and other infrastructure projects.

The most recent and/or local examples of PPEA agreements are:

- **George Mason University Institute of Digital InnovAtion (IDIA)** center being built in Arlington VA. ⁴
 - A pre-bid conference held in October 2021 to review the requirements for the project. The award was made in April 2022 to Mason Innovation Partners of Bethesda for Program/Project Development and Management.
 - The structure of the agreement includes outside equity partners, building construction and a long-term lease of a portion of the building to private entities.
 - The RFP requests to "partner and work to design, build, finance, furnish, equip operate and maintain a new headquarters for the Institute of Design InnovAtion (IDIA) on the George Mason University Arlington Virginia campus in accordance with the Public-Private Educational Facilities and Infrastructure Act (PPEA) of 2002 and the PPEA Guidelines adopted by Mason.
 - It will have 225,500SF of Mason owned and operated facilities, and 135,000 SF of developer-owned and operated corporate innovation and leased corporate offices and retail facilities and an underground parking garage.
 - The development partner financed the development costs up front.

- **George Mason High School** in Falls Church City, VA⁵
 - Falls Church City Public Schools had previously used PPEA procurement for its most recent school projects: Henderson Middle School, Thomas Jefferson Elementary, Jessie Thackrey Preschool (expansion) and Mount Daniel Elementary (expansion).
 - They adopted their Guidelines for Implementation of PPEA in 2015, went through PPEA conceptual and detailed design processes in 2017 and broke ground on George Mason High School in 2019. It was completed in 2021.
 - The team selected was Gilbane, Stantec, and Quin Evans Architects.
 - The school cost \$120 million to build but the contract was for \$108 million in 2017. It was partially funded by commercial development of 10 acres along Haycock Road.
 - The scope of work stipulated LEED Gold, geothermal HVAC for heating and cooling, and produced a net zero energy ready building.⁶
 - The maximum capacity of the school is 1500 students, but the contract stipulated that future expansion plans for the building must be included if the high school expands beyond 1500 students.

⁴ [Virginia Business Opportunities \(cgieva.com\)](https://www.cgieva.com/)

⁵ (agreement: [Falls Church Public Schools PPEA 7.27.18.pdf \(virginia.gov\)](#))

⁶ [Microsoft Word - Attachment E - Scope of Work 11-30-17 - Final \(fallschurchva.gov\)](#)

- It included the creation of a stadium and field, four additional sports fields with running tracks, and tennis courts. All fields and courts have lighting and other facilities.
- **Norfolk Virginia**⁷
 - P3 agreement with team of S.B. Ballard, RRMM Architects, Thompson Consulting Engineers and other partners constructed five new schools in three years.
 - Energy efficiencies include daylighting, energy efficient lighting controls, single energy HVAC with rooftop units and variable air distribution
 - Monitoring software tracking building energy consumption available on demand to students and teachers
 - Schools ranges in size from approximately 92,000 SF to 181,800 SF and cost a total of \$133 million dollars.
- **City of Alexandria, Virginia** ([Public-Private Partnerships | City of Alexandria, VA \(alexandriava.gov\)](#))
 - The City of Alexandria had a robust and deliberate public planning effort and recently completed long range school, facilities, and infrastructure planning (especially related to flood mitigation) and has been looking at P3 agreements to help them execute their plans.
 - Comprehensive agreements that include design, finance, construction, operations, and maintenance are on the table in planning for the Energy and Waste Facility, the Torpedo Factory, Potomac Yard Metro Development, Waterfront areas, and the construction of public parking garages with private development.⁸
 - Alexandria is taking the long view where P3 is concerned; in 2021 the city created a PPEA Office within the County government and hired Julian Gonsalves as the Assistant City Manager for Public-Private Partnerships.
 - Alexandria defined qualifying projects they would pursue for the City, and developed guidelines based on a number of best practices and experience of other jurisdictions and outlined the public engagement process and City Council approval for P3 projects under PPEA. The first version was adopted in September of 2021 and updated in September of 2022 to include a process to accept and review unsolicited proposals from private entities interested in partnering on development projects with the City of Alexandria.

Considerations

- Contrary to the name, the Public-Private Educational Facilities and Infrastructure Act of 2002 (PPEA) pertains to more than projects for the construction of schools or other educational facilities.
- Before entering into Public Private partnership agreements, a public entity or owner must develop and adopt guidelines for implementation of the Public-Private Educational Facilities and Infrastructure Act of 2002 for its jurisdiction that defines potential projects and provides guidelines for review of both unsolicited and solicited proposals. Arlington County would need

⁷ [Norfolk Public Schools PPEA - Five New Elementary Schools — Thompson Consulting Engineers \(mjtengineers.com\)](#)

⁸ [Public-Private Partnerships | City of Alexandria, VA \(alexandriava.gov\)](#)

to do this as well, to indicate what types projects would qualify or be considered for P3 agreements.

- What is the advantage of P3 in a County like Arlington where we are triple-triple-A bond rating? PG County is also a triple-triple-A bond rating. P3 should not be seen as a financing mechanism but an agreement that may include any of all of the design, construction, operations, maintenance, and return of a building or asset that works for the public entity because it transfers risk, leverages professional services, expertise, and innovation of private sector companies, and may result in better, more efficient buildings constructed.
- Given the broad scope of the PPEA, the JFAC believes public-private partnerships provide potential for efficiencies and cost savings for school and a wide range of public facilities if employed. It could also enhance the possibility of co-locating School and County public functions, or School or County functions that co-exist with non-profit interests or compatible commercial or retail enterprises through long-term lease and operation agreements.⁹
- APS does not have a performance baseline for most of its assets in terms of energy costs and consumption. It would be wise for our buildings to be retrofitted to generate data so APS can assess the efficacy of existing systems, including for reasons of sustainability. It will also be difficult for APS to determine if their buildings will be meeting the climate goals established for Arlington in a little over 10 years. Contracting for this could also fall under a PPEA agreement.
- P3 agreement possible for water treatment plant updates? Was it considered and is it too late to consider it?
- Given the high price tag of the Career Center, the shrinking footprint of instructional space due to rising cost estimates, and the above ground structured parking that is eating up valuable green space, are there opportunities to use the P3 George Mason IDIA model to build more space than needed and lease it to private entities or other public ones which have compatible functions (like colleges or university classrooms or small business space like sports therapy or other therapy offices, private counseling facilities, general medical office space and Web3 startups) which could rent space from APS in a long-term leasing arrangement? Should APS consider this site for a public-private partnership deal to get the project built?
- Articulating a clear vision and a robust plan for the future helps potential private development partners understand how and why they should partner with a public entity. As Arlington continues to increase density and knowing that a policy like “adequate public facilities” is not possible in Virginia, APS and the County must continue

⁹ See George Mason Institute for Digital InnovAtion (IDIA) Campus Public Hearing Notice, which describes the commercial leased spaces for compatible businesses, the ground floor retail and the underground parking garage available via a long-term lease from GMU that allows for outside and upfront funding of the project that ultimately reduces GMU’s overall investment in the construction, [Gateway Building - Arlington, Virginia Campus: Public Hearing Notice 247-18482-PPEA | George Mason University \(gmu.edu\)](#)

to collaborate closely to refine student generation projections and improve long-range planning efforts for all areas of infrastructure and especially plan for schools and public facilities.

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Appendix A: Glossary

Construction-Manager-at-Risk or CMAR:

In CM at risk contracts, the construction manager commits to delivering the project within a guaranteed maximum price (GMP). The construction manager acts as a consultant to the project owner or public entity during the development and design phases (preconstruction services) of the project, and as a general contractor during construction.¹⁰ The risk with this method, as we have seen with some APS projects, is that desirable features are then value-engineered out of the building before and during the construction phase to keep the costs under the agreed to costs.

Design-Build

There is a single contract for both the designer and construction, and the two entities work together from the beginning, as a team, providing unified project recommendations to fit the Owner's schedule and budget. Any changes are addressed by the entire team, leading to collaborative problem-solving and innovation.¹¹ While the transition from design to construction is generally seamless and may not experience the delays of a design-bid-build contract, this option can be more costly.¹²

Design-Bid-Build

Design-Bid-Build is a simple method but may carry the most risk to the owner. The person who needs a building (i.e. the project owner) employs a designer to prepare the structure's plans and schematics. Then, the designer can hire the necessary consultants who will report directly to the designer. Once the building is outlined, the designer's work on the project is complete outside of providing consultation and tweaks. With the plans, the project owner receives bids from an array of construction firms to create the building. The project owner will pick their favorite bid and employ the contractor. Like the designer, the contractor can hire sub-contractors who would report directly to them rather than the project owner. Afterwards, the building is constructed by using the designer's schematics and documents as a guide.¹³ The disadvantages of this method is a lack of continuity from the design to the finished product, and the owner assumes most of the risk, and delays if sub-contractors' availability does not conform to the stated schedule.

¹⁰ [CM at Risk \(CMAR\): Pros & Cons of Construction Management at Risk Delivery Method \(projectmanager.com\)](https://www.projectmanager.com/cm-at-risk-cmar-pros-cons-of-construction-management-at-risk-delivery-method)

¹¹ [What Is Design-Build? – DBIA](#)

¹² [Design and Build Advantages and Disadvantages | BUILD IT](#)

¹³ [Design and Build Advantages and Disadvantages | BUILD IT](#)

Public Private Partnerships or P3

Public-private partnerships (P3s) are contractual arrangements between public and private sectors that allow for greater private sector participation in delivery of public sector projects, services, and infrastructure. Public-private partnerships serve as another tool to bring about investment and private sector expertise to the public sector.¹⁴ In Virginia these agreements are governed by terms under the Public Private Education Facilities and Infrastructure Act (PPEA) of 2002, and there is a Virginia State Office that provides guidance and resources to cities, towns, and counties pursuing P3 project delivery contracts. The advantages to these agreements are the potential to leverage private equity to fund construction in larger projects. In design, build, operations, and maintenance agreements the asset may benefit from innovation and sustainable building since the team will also need to operate it post-construction and will have an incentive to incorporate technologies to track energy and other efficiencies of the building to enhance and reduce the cost of long-term operations. In a well-constructed contract, after the terms of the operations and maintenance agreement have expired, there would be commitments to replace any systems nearing the end of their useful life, such that when the building is turned over it remains a sustainable and efficient asset that has 'like new' systems.

¹⁴ [Public-Private Partnerships | City of Alexandria, VA \(alexandriava.gov\)](http://alexandriava.gov)

Appendix B: Listing of Resources Used in Research

Entity	Contact	Link	Comments / Additional Info
Alexandria City	Julian Gonsalves,	City of Alexandria - File #: 22-0266 (legistar.com)	Resolution to adopt changes to Section 3-3-2 of the City's general ordinance to adopt guidelines for use of PPEA Facilities and Infrastructure Act voted on September 18, 2021.
Alexandria City	Julian Gonsalves,	https://www.alexandriava.gov/P3	The City of Alexandria updated and adopted their PPEA guidelines in September 2022 which defines qualifying projects and project guidelines: https://www.alexandriava.gov/sites/default/files/2022-09/PPEAGuidelines.pdf
State of Virginia	PPEA Working Group	http://dls.virginia.gov/PPEA.HTM	Working group developed guidelines of best practices for the PPEA in September 2002 and substantially revised them in 2009.
Norfolk, VA	Solicitation	PPEA Solicitation Request for Proposals Conceptual Phase Design and Construction of East	Garage
Norfolk, VA	Elementary Schools	Norfolk Public Schools PPEA - Five New Elementary Schools — Thompson Consulting	These are the consulting engineers on the project.
Norfolk, VA	Elementary Schools	Public/Private Partnerships (sballard.com)	Site for work on 5 elementary schools - they are the construction firm that leads the project. The contract was signed in 2014.

 Norfolk, VA	Elementary Schools	Lasting Change Through PPEA's (sballard.com)	
Norfolk, VA	Bolwing Elementary	Richard Bowling Elementary School	
Arlington, VA	GMU Innovation Center	Virginia Business Opportunities (cgieva.com)	<p>Pre-bid conference held in October 2021 to review the requirements for the project. The award was made in April 2022 to Mason Innvation Partners of Bethesda for Program/Project Development and Management. The structure of the agreement includes outside equity partners, building construction and a long-term lease of the building to GMU. The RFP requests to "partner and work to design, biuld, finance, furnish, equip operate and maintain a new headquarters for the Institute of Design InnovAtion (IDIA) on the George Mason University Arlington Virginia campus in accordance with the Public-Private Educational Fcilities and Infrastructure Act (PPEA) of 2002 and the PPEA Guidelnes adopted by Mason. It will have 225,5000SF of Mason owned and operated facilities, and 135,000 SF of developer-owned and operated orporate innovation, and leased corporate offices and retail facilities and an underground parking garage. The development partner finances the development costs</p>

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Gateway Building Public Hearing	Gateway Building Public Hearing	Arlington, Virginia Campus: Public Hearing Notice 247-18482-PPEA George Mason University	
Arlington, VA	GMU RFP	IDIQ HQ Detailed RFP (07.22.2020).pdf	Briefings and public notice of the comprehensive agreement were given to Arlington County, the P3 Advisory Commission and university stakeholders for comment. The comment period was 60 days. This was part of the engagement and review required under PPEA guidelines.
McKinsey, Jul	The Rising Advantage of public-private partnerships, Michael Della Rocca	The rising advantage of public-private partnerships McKinsey	In our experience, institutions face eight recurring challenges with their capital project portfolios, often unrelated to financing. P3s can potentially address each of these pain points to varying degrees depending on the project. Unclear responsibilities, Poor alignment with strategy, Insufficient optimization of project features, lack of ownership mindset in the delivery team, lack of discipline in execution, poor project controls, low initial cost mind-set (take lowest price and value engineer items out rather than considering the full cost of life cycle operation and maintenance), Poor resource optimization.
Lorman	A Brief History of the PPEA and PPTA and Current Changes	Partnerships in Virginia: Brief History of the PPEA and PPTA and Current Changes Lorman Education Services	Useful history and details on recent changes (in past 10 years)
John Foote, Walsh Colucci	PPEA Can be Used to Create Beneficial Partnerships	Private Education Facilities and Infrastructure Act of 2002 (thelandlawyers.com)	Explains unsolicited proposals, need for process, and site where individual Virginia guidelines are posted.
S.B. Ballard Co	Way to Develop Complex Builds	Public/Private Partnerships (sballard.com)	Indicates advantages are no upfront costs for school systems during pre-construction design period, and provides an opportunity to choose among different designs.

Appendix C: Partnership Opportunities and other ideas that may not fall under the PPEA guidelines but could still be pursued

- In a post-pandemic Arlington with rising office vacancy levels, are there more opportunities for public entities to engage in long-term rentals or contribution of privately-owned space? Recent examples of this include the County library space negotiated as part of the community benefits package for Crystal House project, leasing space for career and technical education spaces in the Crystal City underground, or the creation of the Arlington Community High School space on the grounds of the Amazon HQ2. With leases as opposed to new construction, APS would not be adding to their debt service, but it would come out of the operating budget.
- There is always an opportunity for increased partnership between our two public entities: Arlington Public Schools and Arlington County. Examples of this are the planned charging infrastructure for the County bus fleet that may not include APS buses in its plans. Development of the central library is also an opportunity for co-location of public facilities and services; the water treatment plant could have housing or classroom space co-located with it.
- APS may want to explore outsourcing more services, like food preparation, after school activities or transportation.
- We need to refine what we consider public facilities, and what we are looking for the County to include in any sort of needs assessment. Does the County's planning need to align with school planning? Idea about P3 applying to different needs around the County is a good one. With JFAC, we have struggled with scoping over the life of our Commission. We should focus on the big footprints facilities that have the capacity to handle joint use projects. Facilities have a useful life and planning for future joint use would be beneficial.

APPENDIX D: Recommendations for Follow-Up Mentioned at Prior Meetings and Additional Interviews or Research Suggested

1. Conduct a conversation with Julian Gonsalves, Assistant City Manager for Public-Private Partnerships, City of Alexandria to ask about his experience with P3 so far and advice he would give to APS in contracting under PPEA. In an email exchange with Mr. Gonsalves, he mentioned a joint solar PPA project that is led by Alexandria Public Schools and where the City is providing subject matter expertise. He would like to defer speaking with the JFAC until around March 2023, when the City and Schools will have more information to share. The JFAC will reach out again at the end of March.
2. Research on last several APS school buildings to assess issues (if any), cost, and whether P3 under PPEA could have reduced costs, value-engineering, or improved delivery. (Note: the assessment of whether PPEA would have reduced costs or eliminated issues experienced at delivery could be difficult to assess, but we would have a baseline of costs, additional funding requests to complete the project, and post-construction issues that resulted in additional funds being spent to correct the issues.)

School	Approved Cost	Additional Fund Request	Issues at Delivery?
Cardinal Elementary			
Fleet Elementary			ADA Accessibility Issues in school and playground
Dorothy Hamm MS			
The Heights			Additional funding, issues with policies around parking/garage

3. Does the JFAC need to include a section in this report about how APS schools are currently funded (it could be an appendix) or is it generally understood?
4. Conduct a survey with APS. Speak with Renee Harbor (and/or staff Ben Burgin, Jeff Chambers and Cathy Lin) and ask their experiences and thoughts on the following questions:

The Joint Facilities Advisory Commission (JFAC) has been tasked by the Arlington County School Board with reviewing options for public-private partnerships within Arlington County. As part of that process, we are looking to understand our past experiences using design-build and construction manager at risk (CMAR) mechanisms in the past several years. In particular, we are interested in understanding any limitations that these mechanisms placed on our ability to conduct in our usually

set of public engagement processes. With that in mind, we have the following questions regarding the <project> construction procedure that we would appreciate either your responses to or the opportunity to discuss at an upcoming JFAC committee meeting.

1. Can you provide a brief overview of the construction process and the design-build or CMAR mechanism that was used?
2. If you know, why was design-build partnership or CMAR used for this project? How far along in the process was it decided that we should use such a partnership?
3. How far along in the design process was the project when the design-build partner or construction manager was selected?
 - a. What public engagement on the project had occurred prior to that point?
 - b. What occurred after that point?
4. Were there any public engagement checkpoints that would likely have occurred if this was a more traditional construction contract that were not able to occur due to the use of design-build or CMAR?
5. Were there any problematic limitations on the ability to adapt the building as it went through construction due to the use of design-build or CMAR?
6. Were there any circumstances on this project where the use of design-build or CMAR resulted in APS or ACG not being responsible for paying for cost overruns?
7. Do you have any experience or opinions on whether P3 under PPEA would be a useful tool for Arlington to employ?