

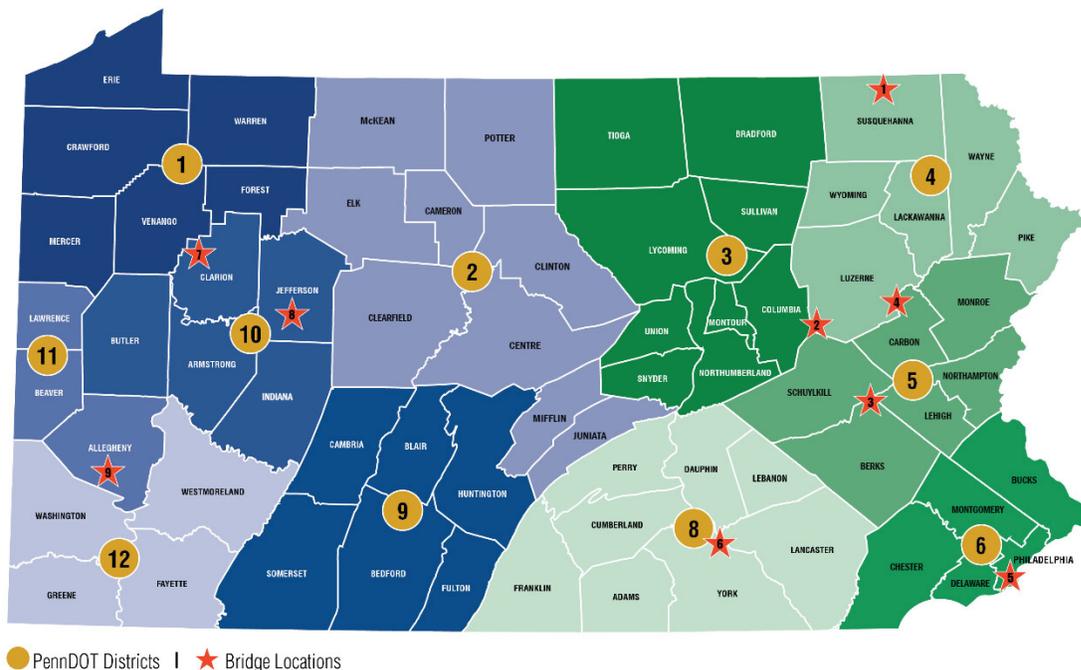
**Work Plan for Alternative Contracting
Special Experimental Project No. 14 (SEP – 14)**

**Pre-Development Agreement / Progressive Public-Private Partnership
Pennsylvania Department of Transportation (PennDOT)
Pathways Major Bridges P3 Initiative
March 9, 2022**

A. Introduction

The Pennsylvania Department of Transportation (“PennDOT”) submits this work plan for review and approval as a Pre-Development / Progressive Public-Private Partnership alternative bidding procedure under the provisions of Special Experimental Project No. 14 (“SEP-14”) for the PennDOT Pathways Major Bridge P3 Initiative (“Project”). Specifically, PennDOT seeks to rehabilitate or replace the following nine major bridges and related facilities in the following locations across the Commonwealth of Pennsylvania (“Commonwealth”) according to this procedure:

1. I-81 Susquehanna
2. I-80 Nescopeck Creek Bridges
3. I-78 Lenhartsville Bridge Replacement
4. I-80 over Lehigh River Bridge
5. I-95 Girard Point Bridge Improvement
6. I-83 South Bridge
7. I-80 Canoe Creek Bridges
8. I-80 North Fork Bridges
9. I-79 Widening, Bridges and Bridgeville Interchange Reconfiguration



Historically, PennDOT has used the design-bid-build (DBB) or low-bid design-build (LBDB) method or delivery with projects being awarded to the lowest responsible bidder. However, public-private partnership (P3) procurements are permitted under Act 88 of 2012, 74 Pa. C.S. §§ 9101-9124, as amended (the “P3 Law”). This law enables the Commonwealth to enter agreements with

the private sector to participate in the delivery, operations, maintenance, and financing of transportation related projects. The Implementation Manual and Guidelines, approved for use on January 9, 2013, as last amended on December 4, 2019 (the “Implementation Manual”), provides guidance regarding Public Private Transportation Project development and implementation in the Commonwealth. PennDOT has used a P3 in its Rapid Bridge Replacement Project, then under a conventional availability payment-based P3 procedure. For this Project, however, PennDOT intends to use its predevelopment authority. Sec. 9108(1) & (10) of the P3 Law; *see* Sec. 9109(f) of the P3 Law (best value); *see also* Section 5.1 of the Implementation Manual.

B. Purpose

The proposed Pre-Development / Progressive Public-Private Partnership contracting method is an innovative process that will provide travelers, residents, and businesses with high-quality transportation infrastructure via alternative funding to address near- and long-term highway and bridge funding needs. *See* RFQ, § 2.1. PennDOT is requesting approval of federal participation in the Project to solicit a single, competitive Pre-Development / Progressive Public-Private Partnership procurement that will lead to conventional P3 agreement(s) for the iterative reconstruction and rehabilitation of nine geographically widespread major bridges located throughout the Commonwealth, as more fully described below.

C. Scope

PennDOT intends to enter into a pre-development agreement (“PDA”) with the selected proposer, or Pre-Development Agreement Entity¹ (“PDA Entity”), that while not acting as an agent of PennDOT or the Commonwealth under 23 CFR § 636.119(b)², nevertheless will perform pre-development work (i.e., generally the work that PennDOT would otherwise perform itself or through other contractors prior to a formal P3 procurement) for the Project, and by effect, instead of PennDOT or the Commonwealth. The PDA will detail work required to be performed prior to commercial close of one or more Public-Private Transportation Partnership Agreements (each a “Project Agreement”), as detailed below. A diagram of the relationships between all entities as well as the general cadence of PDA to Project Agreement is attached as Attachment 1.

The total direct costs of the Project are \$3.2 billion, inclusive of pre-development, construction, maintenance and lifecycle costs (see chart immediately below), of that, \$2.7 billion is estimated to be federal-aid. However, with financing through availability payments over the 30-year term. the Project’s total cost is estimated to be \$7.7 billion, of that, \$6.3 billion is estimated to be federal-aid eligible.

¹ Although referred to here as a PDA Entity, under the Commonwealth P3 enabling legislation the PDA Entity would fall under the definition of a “development entity”. The counterparties to PennDOT on the design-build-finance-operate-maintain Project Agreements for the Project are referred to also as the Development Entities and are also “development entities” under Commonwealth P3 law.

² Please see summary chart of those federal design-build regulations from which PennDOT seeks deviation under this SEP-14, attached as Attachment 2.

Direct Cost Category	Year of Expenditure Costs (dollars in thousands)
Pre-Development costs	\$25,000
Construction	2,275,391
Operations and Maintenance during construction	11,216
Total Construction	\$ 2,311,607
Maintenance costs	574,052
Lifecycle costs	320,011
Total	\$ 3,205,669

As with other procurement methods that afford some qualifications-based selection factors (such as design-build (DB), P3, and Construction Manager / General Contractor (CM/GC)), PennDOT intends to use a two-step³ procurement to select the PDA Entity. PennDOT has issued a Request for Qualifications (“RFQ”), which required proposers to identify its equity membership and the members of the PDA Entity’s team that will perform the pre-development work and lead the Project Agreement work, within the constraints imposed. The members of the selected PDA Entity’s team will include, at the very least, entities it was required to identify in its response to the RFQ: (1) a lead construction contractor; (2) a lead engineering firm; (3) at least one independent quality assurance firm; and, if identified; and, (4) optional nominated subconsultants and subcontractors. The PDA Entity will be a special-purpose vehicle/entity (likely a limited liability company), which will be comprised of its equity members/owners like any other company/entity.

PennDOT evaluated the statements of qualification submitted in response to the RFQ and shortlisted the three highest scoring teams. PennDOT has since issued a draft Request for Proposals (“RFP”) to the shortlisted teams and is in the process of finalizing the procurement documents through the typical P3 procurement process, compliant with applicable sections of 23 CFR § 636. Ultimately PennDOT will select a team it determines to be the best value (defined in section E and F) for and in the best interests of the Commonwealth⁴. The selected team will become the PDA Entity and will be required to perform the pre-development work.

The PDA Entity will divide the nine bridges into packages under an “open book” contracting process, which is commonly used in public procurements involving a pre-development stage and a construction stage. In open book contracting, the development entity team (most often the designer, constructor, often construction manager, and in P3, often operations/maintenance contractor) collaboratively provide full transparency to the public owner regarding common goals of the project, including but not limited to design, schedule and cost estimates and price estimates to ultimately come to an agreement through negotiation on a fixed price, guaranteed maximum

³ The procurement consists of two steps, but with multiple proposals (i.e., a request for clarification (step 1) shortlists to those eligible bidders and committed team members who then propose (step 2) certain fee and return constraints, alongside technical approaches, for “packages” on fixed-price design and construction costs within such constraints, bringing the payment stream of post-completion availability payments to their net present value on an open book basis.)

⁴ See 74 Pa. C.S. § 9109(f).

price, or other final, committed pricing. This open book sharing of information is similar to what occurs during the CM/GC pre-construction phase between the designer and the CM/GC. While this is earlier in-time than a design-builder is traditionally brought into a project, it does fairly parallel the time period in which a CM/GC is brought into a project.

In order to package the bridge(s) into Project Agreements and as part of the pre-development work, the PDA Entity will work with PennDOT to evaluate all nine bridges and perform customary pre-development work. This effort includes customary project work, such as risk register preparation and risk mitigation, environmental commitment and mitigation tracking; preparation and implementation of a quality management plan. But this effort will also include P3-specific features, such as preparation of a financing plan (to be updated every 60 days and to include types of debt financing explored and terms and conditions of pricing); a plan for maintenance work and handback work; among other things.⁵

None of this pre-development work will be compensated during the predevelopment stage, but instead will be recouped, on a capped basis, by the PDA Entity's equity members, through the formation of Development Entities⁶ (DEs), which will execute firm, fixed price Project Agreements with PennDOT for specific packages of bridges.

The Project Agreements will require the DEs to be responsible for the completion of the design, construction, and maintenance of the package as proposed.⁷ Note that under each Project Agreement, the DE team must self-perform a minimum of 30% (federal requirement) and may maximum of 35% (PennDOT commercial imposition) of each Project Agreement's construction scope of work to enter into one to nine Project Agreements.

A Project Agreement term sheet, included as part of the RFP, will be the basis for the Project Agreements. Terms of the Project Agreement term sheet will not be negotiated after PDA selection since, during the course of the procurement, proposers will have had an opportunity to discuss their concerns during one-on-one meetings with PennDOT that will be held with all Proposers. Limited terms to be negotiated on an individual Project Agreement basis will include a firm, fixed price contract (D&C Period), Availability Payments (Maintenance Period), scope of work and project deadlines. The DEs will close a P3 financing specific to each package. Often, in the DB delivery process, owners have been preparing the solicitation and 35% design up to this point and would now bring on a design-builder.

The ability of the PDA Entity to act in a pre-construction and design capacity and then negotiate a firm, fixed price and deliver the project is similar to CM/GC project delivery in which the CM/GC

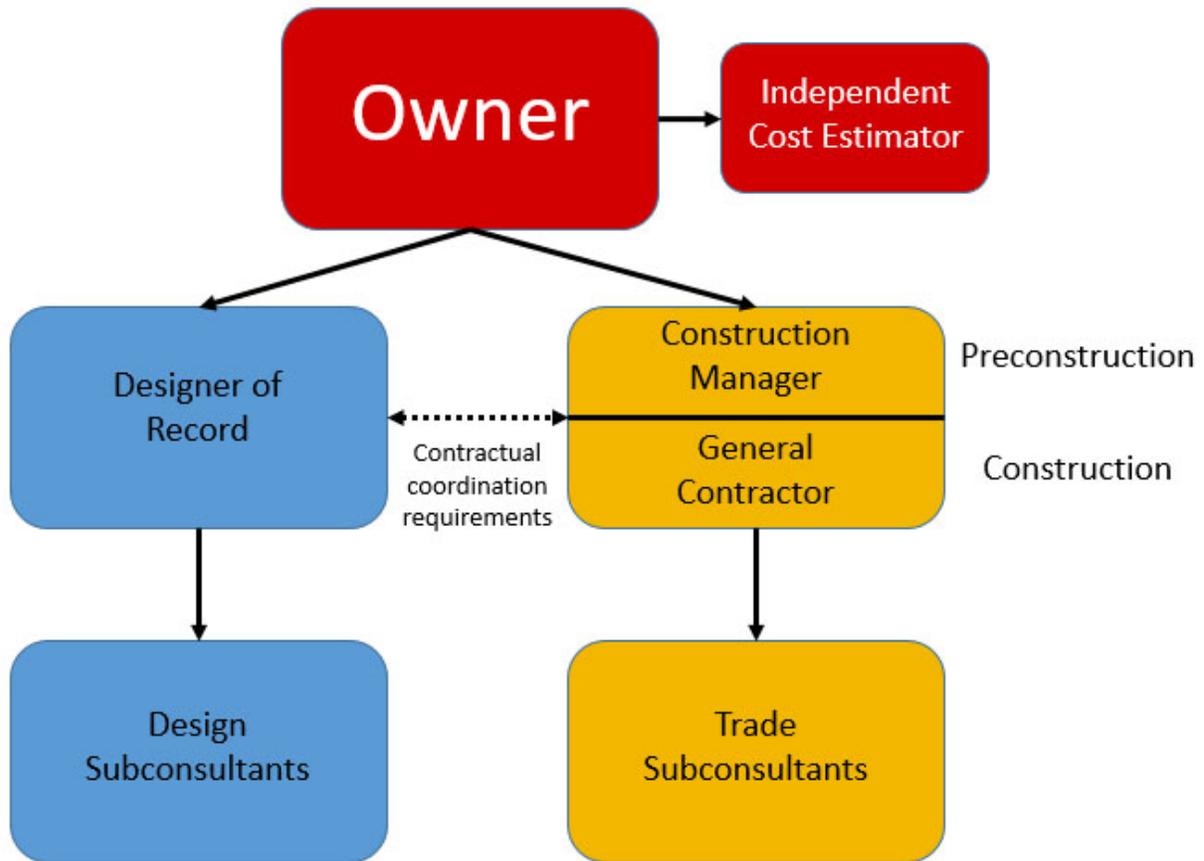
⁵ Other efforts of note: preparation of a plan for the installation of tolling infrastructure; a package design proposal for each bridge; a draft baseline project schedule; a draft schedule of values; an overall project management plan; a design and construction ("D&C") Costing Model; a Maintenance Costing Model; each of which to be continually updated and refined during performance of the PDA work.

⁶ By the terms of the procurement, at commercial close and for two years after final acceptance of the package itself, the Development Entities must be comprised of at least 51% of the equity members of the PDA Entity.

⁷ Other activities include: permitting, equipping, modification, reconstruction, rehabilitation, restoration, renewal and replacement of the Maintenance Limits, and utility adjustment work.

advises on constructability of a project during design and then, sometime between 60-90% design completion, negotiates a guaranteed maximum price to construct the project on which it advised, thus becoming general contractor in addition to construction manager. As in a CM/GC delivery method, and during typical low bid change order scenarios, PennDOT will employ its own independent cost estimator to verify estimates supplied by the DE. Further pricing will be informed by the major project cost estimates.

CM/GC Structure



In arriving at a firm, fixed contract (design-and construction and net present value maintenance) price, the DE will be locked into financial parameters that will be used to calculate the ultimate firm, fixed price that the PDA Entity commitment to a part of its financial proposal, during the two-phase competitive procurement. PDA Ex. 7, § 1.14.⁸

⁸ E.g., the Instructions to Proposers states that the PDA Entity’s proposals will be evaluated on their “approach to achieving a firm, fixed price and costs for each Package . . . [T]his should include preliminary methodologies for the development of a D&C Costing Model and Maintenance Costing Model and should highlight the Proper’s strategies for facilitating transparent and collaborative costing processes.” ITP § 4.6.1(d).

The current draft PDA work requirements⁹ set criteria of the D&C Costing Model, which must be provided to PennDOT, to include a mutually agreed upon risk evaluation; a mitigation and management assessment; a mutually agreed upon final scope of work; line items for general conditions, costs and markup costs; line items of work identifying whether self-performed, subcontracted with competitive pricing or competitively solicited; mutually agreed upon values, cost reconciliation, model assumptions, contingencies for uncertainties (such as estimate variability, variation for inflation, schedule impacts, project threats and opportunities); and underlying assumptions, all to build, within this transparent environment, to firm, fixed price (design-build work) and out-year maintenance costs within the context of the private financing¹⁰. PDA Ex. 6, § 12.1.1.

The out-year maintenance pricing effort during the pre-development phase is similarly covered in the PDA work requirements, which set forth criteria for package-specific Maintenance Costing Models.¹¹

Throughout the predevelopment phase under the PDA, PennDOT will negotiate¹² with the PDA Entity in its development of the D&C Costing Model and, similarly, the Maintenance Costing Model. The continuous updating and refinement of these models is based on information obtained during the predevelopment stage and makes for a collaborative process. A goal of both parties is to mitigate risk and thereby reduce contingencies to resulting in a more accurate price than is available in typical contract negotiations where there is no new information. Ultimately updates to the model are subject to PennDOT's acceptance. *See* PDA Exhibit 6 (PDA Work Requirements), Sections 12 and 13 (November 15, 2021 draft).

The open book methodology of the D&C Costing Model and the Maintenance Costing Model will facilitate PennDOT's validation of costs and determination of cost reasonableness for each package, which PennDOT will verify with an independent cost estimate. PennDOT will see the actual cost of the work by viewing a breakdown of all labor, materials, expenses, and equipment, and be able to check and critique unit prices, contingencies and subcontractor/vendor profit margins for the activities, materials, risks and other line items. This is similar to a customary

⁹ Dated November 15, 2021.

¹⁰ Inasmuch as pricing inputs (e.g., steel prices) are transparent, the work-up of the pricing is not negotiated so much as collaborated upon to arrive at a "real" price. This notwithstanding, there are commercial risks in the Project Agreement that results from the "real" price workup in the PDA, which merit risk contingencies, about which PennDOT and the PDA Entity, on behalf of its SPV Development Entity, may disagree. To that end, the price is not fully "worked up" so much as priced with negotiated risk contingency sizing to get to the firm, fixed price. It is important to note that the financing governs the bulk of the maintenance payments (debt service plus service component valuation), with some risk contingencies for out-year pricing (e.g., lifecycle costing). *See* PDA Exhibit 6 (PDA Work Requirements), Sections 12 and 13 (November 15, 2021 draft).

¹¹ These include anticipated inventory of assets to be maintained, benchmarked work load and maintenance activities and percentages to be self-performed and subcontracted, staffing plan and fleet complement; routine, non-routine and emergency maintenance assumptions, mutually agreed contingencies, separate line item for maintenance work general conditions derived from maintenance work general conditions cost percentage; and underlying assumptions.

¹² The November 15, 2021 draft RFP expressly requires that in developing the model, the parties mutually agree (i.e., negotiate and come to an agreement) on specific criteria for the models such as risk evaluation, final scope of work, values and cost reconciliation, assumptions and contingencies. *See* PDA Exhibit 6 (PDA Work Requirements), Sections 12 and 13 (November 15, 2021 draft).

engineer's estimating process, under PennDOT procedures, only here, PennDOT will not be speculating as to what risk contingency pricing bidders would present for unknown or not fully mitigated project/package risks. Instead, as part of this pre-development/pricing transparency advantage, PennDOT will enjoy the benefits of a CM/GC-type approach where decisions will be made as to efficient pre-Project Agreement risk mitigations to reduce the ultimate Development Entity's pricing contingency for each package or change order-type risk post-Project Agreement when construction begins. After these models are validated, the PDA Entity's bid margins, rates of return, and caps from its initial PDA proposal are applied to finalize a price (price estimate), which becomes the commercial basis for the Project Agreement.

The elements of the firm, fixed contract price to be negotiated between PennDOT and the DE will begin to take shape during the two-phase competitive procurement when each PDA Entity Proposer will make financial commitments that will form pricing parameters that will be locked into calculating the ultimate firm, fixed price for each package. PDA Ex. 7, § 1.14. Each PDA Entity's proposal will include financial proposals that will be scored using a point system as set forth in Section E, based on calculations, and subject to the limitations, below:

- (a) The Proposal Equity Internal Rate of Return ("IRR") for each package.

The Proposal Equity IRR may not exceed 12%.

- (b) The Development Entity Closing Fee for each package.

The Development Entity Closing Fee may not exceed 2%.

- (c) The Pre-Development Cost Cap as an aggregate for all packages.

The Pre-Development Cost Cap for the Project may not exceed \$25,000,000.

- (d) The D&C General Conditions Cost Percentage is the maximum percentage that may be applied to the D&C Costs (excluding D&C General Conditions Costs, D&C Markup Costs, and any mutually agreed D&C Work cost contingencies) for each Package on account of D&C General Conditions Costs in the D&C Costing Model required under Section 12 of the PDA Work Requirements.

D&C General Conditions Costs means direct project overhead costs, without contingencies, incurred for supervision and administration of the D&C Work inclusive of all self-performed and subcontracted D&C Work (refer to the definition of D&C General Conditions Costs for further details).

The D&C General Conditions Cost Percentage may not exceed 15%.

- (e) The D&C Markup Percentage is the maximum percentage that may be applied to the D&C Costs (excluding D&C General Conditions Costs, D&C Markup Costs, and any mutually agreed D&C Work cost contingencies) for each Package on account of D&C Markup Costs in the D&C Costing Model required under Section 12 of the PDA Work Requirements.

D&C Markup Costs means general and administrative indirect overhead costs and profit applied to self-performed and subcontracted D&C Work for each Package. D&C Markup Costs shall include all markups applied to all D&C Work cost categories, including labor, equipment, materials, and subcontract costs.

The D&C Markup Percentage may not exceed 20%.

- (f) The Maintenance Work General Conditions Cost Percentage is the maximum percentage that may be applied to the Maintenance Costs (excluding any mutually agreed Maintenance Work cost contingencies) for each Package on account of Maintenance Work General Conditions Costs in the Maintenance Costing Model required under Section 13 of the PDA Work Requirements.

Maintenance Work General Conditions Costs means direct project overhead costs incurred for any contracted/subcontract for Maintenance Work (refer to the definition of Maintenance Work General Conditions Costs for further details).

- (g) *The Maintenance Work General Conditions Cost Percentage may not exceed 15%.*

Depending on the circumstances, if PennDOT and the PDA Entity/DEs are unable to agree on a firm, fixed price during the pre-development phase, a number of cancellation clauses exist, including:

- In its sole discretion, PennDOT may terminate the PDA agreement at any time. PDA § 21.1(a). If PennDOT chooses to terminate for convenience, PennDOT will pay the PDA Entity allowed incurred costs for each bridge that has not closed subject to pre-development costs caps and will return the PDA Entity's Performance Security. PDA §21.1(c).
- If, despite good faith negotiations, a form Project Agreement cannot be agreed upon, PennDOT in its sole discretion, can terminate the PDA. PDA § 12.1(d). Good faith is determined, in part, on whether a party seeks to deviate from the terms or commercial intent of the Project Agreement term sheet of the draft Project Agreement technical provisions or are otherwise materially inconsistent with the terms generally accepted onbridge and/or tolling P3 projects of similar size and scope in the United States. PDA § 12.6(a)(i), (ii). In such circumstances, the PDA Entity can recover certain allowed costs and receive its performance security. PDA § 21.4.
- If PennDOT determines a package proposal to be non-compliant¹³ after a second resubmission, PennDOT, in its sole discretion, can terminate the PDA Entity. PDA

¹³ Please note, a price that PennDOT does not agree with is not a matter of compliance, but instead continuing negotiation of "objections and concerns" that, if not agreed, "off-ramps" the bridges in the package from the program, with recovery by the PDA Entity of the value of its pre-development efforts.

§12.3(b). Under such a circumstance, PennDOT is entitled to draw upon posted performance security. PDA § 21.2(c).

- PennDOT also has the ability to reject a package proposal that is compliant but for which PennDOT has objections or concerns, in which case the PDA Entity will be entitled to its Allowed Costs plus a proportional rate of return, having complied with the PDA. PDA § 12.3(c).
- The PDA Entity defaults if it fails to execute a Project Agreement for any package of bridge(s). PDA § 12.2(b); see PDA § 20.1(q). Such a default entitles PennDOT to perform the PDA Entity's obligations, and be reimbursed by the PDA Entity for the work in that package. PDA § 20.4. Bridges not in that package remain eligible for packaging under the PDA.

Value for Money Analysis

The PennDOT P3 Office conducts a "Best Value" analysis under the implementation guidelines for Pennsylvania P3 projects. Here, PennDOT conducted project screening which considered sources of funding with a focus on user fees and it was clear that the Project, procured as a P3 project, would deliver greater revenues to the Commonwealth while surpassing a conventional delivery approach in achieving the established objectives of the Transportation Project, given that a conventional delivery approach could not utilize user fees as a funding source. The MBI P3 proposal will "cost" far less, in terms of actual PennDOT cash flow dollars spent, than a traditional DBB procurement given the tolling option provided for under the P3 program is a previously unused revenue source.

Given that a P3 approach in Pennsylvania provides statutory authority to allow for tolling as the primary source of funding, a traditional value for money analysis is appropriately deferred. Recognizing that the individual Project components should show a value for money, the PDA affords PennDOT visibility into actual costs to compare against the would-be comparator of a DBB approach. Accordingly, following successful PDA work, the value for money analysis will occur as an internal impetus to enforce the initial choice and to calibrate continued pre-development work through the PDA/PP3.

Again, the PDA approach allows PennDOT to partner earlier with a development entity in order to advance design, ensure constructability, manage contingencies and mitigate risks associated with project delivery and maintenance prior to entering into the DBFM agreement and commencing construction. PennDOT anticipates this approach to result in a smoother and faster construction phase and address lessons learned from prior major projects.

PennDOT's screening assessment identified a P3 DBFM as the optimal delivery method as it also allows PennDOT to:

- leverage upfront private investment (private equity and debt) in addition to the toll revenue stream, which also would not be available outside the allowed structures under the P3 Law (e.g., DB structure would not allow for this). Furthermore, the

availability payment mechanism allows PennDOT to reduce the cost of capital for the project without using other state or federal funding sources

- secure value through the transfer of long-term maintenance and lifecycle risk: Through the DBFM structure PennDOT will be transferring portions of O& M responsibilities potentially combined with long term “warranties” ensuring the quality of critical bridges that would not be available under a DB structure.
- expedite the delivery of critical transportation infrastructure, which would not be possible under alternative delivery methods as DBFM creates incentives to development entity to accelerate the development of bridges and tolling infrastructure and manage interface risks.

On November 12, 2020, Pennsylvania’s P3 Board approved the P3 approach for the Major Bridge P3 Initiative based on the preliminary findings that a DBFM would allow for the delivery of major bridges through the appropriate contracting P3 delivery model.

PD/PP3 Advantages and Similarities with Design-Build and CM/GC

This procurement strategy offers advantages over the traditional DBB, DB and CM/GC delivery methods including: (1) proposer selection based on qualification, commercial pricing impositions, and other proposal-based criteria (rather than solely on price) similar to a two-phase RFQ and RFP DB procurement; (2) conservation of PennDOT resources by shifting pre-development work to the PDA Entity resulting in the advancement of other needed projects within the remaining program similar to a two-phase CM/GC contract, which begins even sooner than if advanced under DB; 3) efficient delivery whereby the project design is advanced in the pre-development phase by the PDA Entity, thus allowing for the incorporation of the strengths of the PDA Entity team’s means and methods of delivery resulting in projects with a more definitive scope and content of work similar to CM/GC, and again, at a point in time even earlier than under DB; (4) realization of many of the benefits of a competitive price-based procurement in the formation of the Project itself, given the deferred payments and most notably the need for the ultimate DE to finance the project (benefitting from lender scrutiny and their underwriting of the financial viability of the project) and similar to a traditional public-private-partnership and mitigation of risk and associated costs by advancing project during the pre-development phase prior to establishing the fixed cost, (5) similarly, realization of other benefits of competitive price-based procurement, such as DBB, however, insofar as the PDA Entity’s pricing of the packaging work is prepared on an open book basis based on early risk assessment and subject to the competitively bid monetary constraints set forth in the RFP, much like CM/GC; and (6) acceleration of schedule through packaging of bridges into discrete projects and early utilization of design-builder predesign and design (essentially mirroring many of the advantages of DB and CM/GC contracting).

At this early stage of the Project, the scope of work for each of the nine bridges is not completely defined because, in some instances design has advanced, in others, little pre-construction investigation has been performed, and for each, synergies of packaging has not been explored from a commercial perspective. Bringing a PDA Entity into the Project at the pre-development stage to perform these services will shift responsibility of completing pre-development work from PennDOT to the PDA Entity which again is similar to when a CM/GC might be brought on board.

However – and a marked advantage under this delivery method - the PD/PP3 method allows design risk to be shifted to the PDA Entity and DEs, where with the CM/GC method the design risk could not be shifted to the CM/GC. If PennDOT chose to lead the pre-procurement investigation itself, a longer procurement lead time would result leading to a longer amount of time to realize bridge repairs, nor would PennDOT have the benefit of the market informing the procurement based on the PDA Entity’s investigations, all while the bridges continue to deteriorate. This is similar to a CM/GC who would advise on preconstruction services, but not on any design.

Similarly, packaging the bridges into a single procurement with multiple steps, rather than nine separate procurements, will conserve PennDOT and bidder resources considerably as well as accelerate overall bridge procurement and delivery. In a traditional DBB, PennDOT would have to completely design nine separate bid packages. In DB and CM/GC, PennDOT would have to advance designs sufficient for nine separate bid packages and manage an alternative technical concepts process. If PennDOT utilized another alternative form of delivery, even traditional P3, PennDOT would still expend a great deal of effort soliciting nine separate procurements, each with a set of proposers, and then have to evaluate all nine sets of proposals and speculate on the best way to package the bridges, which would not present the efficiencies of early counterparty participation of the PDA Entity contemplated in this project, thus portending financing inefficiencies or higher prices, at the least. Instead of absorbing the costs of those up to nine separate procurements for each bridge, which would include advisor costs, likely payment of stipends (if PennDOT advanced these as public-private partnerships as used in DB procurements), other procurement costs and, importantly, PennDOT’s time, PennDOT will select a single entity to form other entities best composed to the challenges of each package.

By utilizing a single procurement, PennDOT will realize the same benefits of nine individual procurements, but with a streamlined process resulting in schedule and cost savings. By pre-negotiating almost all of the substance of the Project Agreements to be executed by DEs (whose majority equity interest will be a competitively procured PDA Entity) once, as would be done in a CM/GC procurement, and as part of the procurement of the PDA Entity itself, PennDOT will avoid unnecessary costs internally, and avoid paying for the unnecessary proposal costs would-be proposers would price into the proposals if there were nine bridge procurements.

In a traditional DBB, the contractor would not have the ability, as the PDA Entity does here, to tailor designs to each bridge using the knowledge it gained in pre-development. A design-builder is traditionally brought on board after pre-development investigation and 35% design. While a CM/GC might be engaged at a point in time similar to the PD/PP3 entity to provide preconstruction services. However, as stated before, a CM/GC does not offer the breadth of design services of the PDA Entity and a design-builder. The pre-development work will identify many risks and opportunities that effect final design, construction, and maintenance of the bridge package – with the advantage of informing PennDOT and the PDA Entity of these issues and concerns prior to negotiation of the Project Agreements. This structure aligns the PDA Entity’s and PennDOT’s interests in Project formation. Functionally, this allows PennDOT to mitigate risks that might not have been known or would be discovered much later in a traditional DBB procurement or even competitively-priced traditional P3 procurements. Consequently, the package work will be priced collaboratively, rather than without visibility as would occur in a straight competitive construction contract-type solicitation. Put another way, knowledge of these risks and opportunities will reduce unknown risks, for which contractors otherwise would need to provide contingencies, and thus the

proposed Pre-Development / Progressive Public-Private Partnership procurement results in the appropriate, rather than inflated, pricing of contracts.

An additional advantage is that the PDA Entity will take the initial risk of developing the package of bridges and will not be paid for this pre-development work unless the package(s) are approved by PennDOT, and thereafter contracted under the Project Agreement and lastly financed, again, under the scrutiny of underwriters and lenders. Under a traditional DBB, price can be the sole factor for selection because the project is completely designed, but here the services to be provided under the PDA and the Project Agreements are not defined well enough to select a contractor solely based on price. In traditional DB or P3, qualifications are taken into account, but ultimate price – predicated on opaque pricing and risk contingencies, albeit under competitive tension, are worked out before project validation and further advantages of pre-development participation (like in CM/GC) are realized. Furthermore, packaging inefficiencies, created by PennDOT attempting to do the packaging itself, as it might in a longer traditional P3 procurement, would likely drive up prices or create unnecessary financing risks, were a non-traditional DBB procurement engaged.

Instead, when ripe, the price for final design and construction of a package will be collaboratively established and ultimately contingencies negotiated with the PDA Entity using the open book approach discussed at length above, which also affords PennDOT confirmation that the price is reasonable as well as the benefits of having potentially driven prices lower by mitigating risks that the DEs priced into their contracts. Closed book (low bid) contracting (DBB, DB and P3), by contrast, may appear to present lower costs, but as a project progresses, contractors are quick to invoke risk sharing provisions when project risks and gaps in scope are present, which can lead to change orders and ultimately higher final costs than would result from open book contracting. Contractors also are motivated to “buy” a project (underbid) in an effort to invoke those risk sharing provisions to make a profit, rather than have a reasonable profit be built into the price estimate. Under open book contracting, owners have a better opportunity to control the cost structure of the contractor, use the tension of the procurement itself to compete for a lower margin, while at the same time protecting contractors’ contingencies, ensure contractors understand the requirements specifications of the contract at the outset of the procurement and have the opportunity both to shape the project further when risks present actual higher costs as compared to expected reward and to mitigate risk before construction starts. Again, in this Pre-Development / Progressive Public-Private Partnership procurement, those margins, caps, and rates of return are bid before the packages are presented.

The pre-development trend (and “progressive” forms of DB and P3) speaks to the private sector’s desire for more protections from risk contingencies in exchange for lower margins that are more assured. Open book contracting is a feature of pre-development/”progressive” alternative project delivery.

PennDOT will have visibility into packaging efficiencies, pricing all the while mitigating risks identified cooperatively, in exchange for procurement of the PDA Entity under the financing constraints proposed. In many ways, PennDOT enjoys the advantages of DB, P3, and CM/GC at once.

D. Schedule

A diagram of the procurement approach is attached in Attachment 1.

Phase I: Release of RFQ, RFP Selection of the PDA Entity.

The first phase involves a competitive procurement resulting in the selection of the PDA Entity.

Evaluation Criteria	Maximum Score
Technical Experience and Capability (including development, construction design and maintenance and lifecycle experience of similar size, scope and complexity, as well as experience meeting DBE goals)	600
Investment and Financing Experience (including securing equity commitments)	300
Project Development Understanding and Approach (including approach to quality assurance of the overall design and construction of the Project)	100
Total	1,000

On September 30, 2021, PennDOT issued the first draft RFP to the Shortlisted Proposers.

- RFP Proposals will be scored on technical and financial criteria, including proposals for the first package of bridges (see criteria in E).

On October 14 and 19, 2021 PennDOT issued a draft Project Agreement Term Sheet and PDA Technical Work Requirements

Selection of PDA Entity

- Unsuccessful proposers may be eligible for a reimbursement of up to \$300,000.

Phase II: Commencement of Pre-Development Work, Commercial and Financial Close of Package #1, Negotiation of Remaining Project Agreement(s)¹⁴ and Issuance of Notices to Proceed.

- Commercial and financial close of Package #1 March 2022-December 2022.
- Execution of additional Project Agreements with separate DEs.

¹⁴ Current draft PDA, issued with the first draft RFP, contemplates a “long stop date” by which all bridges are to be “packaged” for Project Agreements.

PennDOT is requesting approval for federal participation in PennDOT’s use of this Pre-Development / Progressive Public-Private Partnership methodology for a 8-year evaluation period, which will include all packages ultimately assembled for the nine bridges.

Below is the current procurement timeline:

Event	Date and Time
Issuance of first Draft RFP (ITP and PDA)	September 30, 2021
Issuance of first Draft RFP (Project Agreement Term Sheet and PDA Technical Work Requirements)	October 14, 2021
Deadline for (i) One-on-One Meeting agenda and (ii) any RFCs and white papers Proposer wishes to discuss in One-on-One Meeting	October 26, 2021
One-on-One Meetings	Week of November 1, 2021
Issuance of second Draft RFP and responses to RFCs and white papers	November 15, 2021
Deadline for Pre-Proposal Submittals related to change in organization and Key Personnel	November 22, 2021
Deadline for final RFCs and white papers from Proposers	December 1, 2021
One-on-One Meetings	Week of December 6, 2021
Final RFP and responses to RFCs and white papers	December 13 ¹⁵ , 2021
PDA and Proposal Preliminary Package #1 Proposal Due Date	January 12, 2022
Anticipated notification of Apparent Best Value Proposer	February 23, 2022
PDA Effective Date	March 31, 2022
Effective Date Deadline for the First Package	Fall 2022
Financial Close Deadline for the First Package	December 2022

¹⁵ Intended date.

E. Technical and Cost Proposal¹⁶ PDA Evaluation and Scoring

In September 2021, PennDOT Shortlisted RFQ Proposers. Successful Statements of Qualifications passed all “pass/fail” requirements and were scored based on the following criteria:

Evaluation Criteria	Maximum Score
Technical Experience and Capability (including development, construction design and maintenance and lifecycle experience of similar size, scope and complexity, as well as experience meeting DBE goals)	600
Investment and Financing Experience (including securing equity commitments)	300
Project Development Understanding and Approach (including approach to quality assurance of the overall design and construction of the Project)	100
Total	1,000

PDA and Preliminary Package #1 will be evaluated on pass/fail criteria for administrative and legal information and their financial proposal, but they also will be evaluated and scored based on technical and financial criteria with a maximum available score for a PDA Proposal of 1,000 points, as allocated below:

Evaluation Criteria	Maximum Score
Technical Proposal	700
Financial Proposal	300
Total	1,000

Proposers will be requested to make an oral presentations of their technical proposal and answer any questions PennDOT may have with respect to the technical proposal during one-on-one meetings. While 400 points is awarded for the PDA Technical Proposal, 300 points is awarded for first package work. This means that PennDOT will be evaluating each proposer not just on its approach to the PDA, but its actual approach to packaging. The total technical score will be based on a scale of 0 to 700 with each proposal comprehensively addressing:

- (a) schedule acceleration (the delivery of as many bridges as possible in the first package with a required financial close of December 2022);

¹⁶ The draft RFP structures and values are under continuing PennDOT review and comment, may also change via feedback from proposers and FHWA. As of this submission, PennDOT is advancing into an “industry review” phase pre-release of a Final RFP. PennDOT will also seek FHWA concurrence in final RFP.

- (b) user experience (avoid or mitigate time and financial impacts to the traveling public);
- (c) value and affordability (value to the Commonwealth that enables a sustainable funding model for the bridges);
- (d) partnership (collaborative approach to pre-development and delivery);
- (e) opportunities (optimize subcontracting opportunities for a wide range of firms, include DBE firms).

The following are the criteria and point values that will be considered in determining the technical score:

PDA Technical Proposal Evaluation Criteria	Point Values
<i>PDA Work (400 points)</i>	
Introduction to Proposer’s High-Level Approach to Pre-Development and Packaging (including timeline, consistency across packages, risk mitigation, and subcontracting)	[a] 65 points
Preliminary PDA Work Schedule	[b] 60 points
PDA Technical Proposal Evaluation Criteria	
Preliminary PDA Organization	[c] 60 points
Approach to D&C Work Pricing and Maintenance Work Pricing for Packages (approach to achieving a firm, fixed price and costs for each Package)	[d] 55 points
Approach to PDA Partnering and Collaboration	[e] 55 points
Preliminary PDA Quality Management Plan	[f] 55 points
Approach to PDA Reporting	[g] 50 points
<i>First Package Work (300 points)</i>	
First Package Approach, Schedule, and Organizational Strategy	[i] 100 points
Approach to D&C Work for the First Package	[j] 100 points
Preliminary Versions of PDA Work Submittals for the First Package	[k] 100 points

Financial scores will be based on a scale of 0 to 300. Proposals are awarded for their sensitivity to cost with points awarded for design and construction work pricing and maintenance work pricing (with a focus highlighting proposer’s strategies for facilitating transparent and collaborative costing processes). Below is the criteria and point value that will be considered in determining the financial proposal score:

PDA Financial Proposal EvaluationCriteria	Point Values	Calculations
Proposal Equity Internal Rate of Return (for each Package)	[a] 30 points	$30 \text{ points} \times (12\% - \text{Proposer's Proposal Equity IRR}) / (12\% - \text{Lowest Proposal Equity IRR})$
Development Entity Closing Fee (for each Package)	[b] 15 points	$15 \text{ points} \times (2\% - \text{Proposer's Development Entity Closing Fee}) / (2\% - \text{Lowest Development Entity Closing Fee})$
Pre-Development Cost Cap (Aggregate for all Packages)	[c] 40 points	$40 \text{ points} \times \text{Lowest Pre-Development Cost Cap} / \text{Proposer's Pre-Development Cost Cap}$
Design and Construction General Conditions Cost Percentage (includes direct project overhead, without contingencies)	[d] 75 points	$(75 \text{ points} \times \text{D\&C General Conditions Adjustment Factor}) \times (15\% - \text{Proposer's D\&C General Conditions Cost Percentage}) / (15\% - \text{Lowest D\&C General Conditions Cost Percentage})$
Design and Construction Markup Percentage (design and construction markup costs, but not those in (d) above)	[e] 100 points	$(100 \text{ points} \times \text{D\&C Markup Adjustment Factor}) \times (20\% - \text{Proposer's D\&C Markup Percentage}) / (20\% - \text{Lowest D\&C Markup Percentage})$
Maintenance Work General Conditions Cost Percentage	[f] 25 points	$(25 \text{ points} \times \text{Maintenance Work General Conditions Adjustment Factor}) \times (15\% - \text{Proposer's Maintenance Work General Conditions Cost Percentage}) / (15\% - \text{Lowest Maintenance Work General Conditions Cost Percentage})$
Indicative Financing Plan	[g] 15 points	

F. Selection of Developer

The evaluation committee will determine which Proposer's submittal provides the Commonwealth with the best value. Award may be made to a Proposer even if the Proposer's score on any individual volume is not the highest. This recommendation will then be presented to the selection committee, who will utilize their technical and financial judgment and discretion to make a final recommendation of the submittal that provides the Commonwealth with the best value, considering all scores, relative weightings, qualitative evaluations, and other factors set forth in this ITP. This may result in a tradeoff.

PennDOT will engage in limited negotiations of the final PDA with the apparent best value proposer, without further negotiation or amendment, except for extremely limited revisions. If negotiations with the apparent best value proposer are unsuccessful (including insisting on terms or conditions inconsistent with the ITP), PennDOT may negotiate with another proposer.

G. Measures

The following measures will be tracked throughout the Project and incorporated into the Project Reports and Final Pre-Development / Progressive Public-Private Partnership Project Report set forth in Section H.

Cost-Effectiveness of Delivery Method: As the establishment of project price is established at a later point in time than when the PDA Entity is procured, PennDOT will evaluate whether this method results in project delivery efficiencies and is a cost-effective contract delivery method. This would include a cost analysis comparing these bridges to other bridges of similar scope.

Industry Reaction: PennDOT will record and track the response from developers regarding the procurement. This will also include an assessment of improvements to the procurement process that may be proposed by industry.¹⁷

Time Savings: PennDOT will monitor the DE's schedule to design and construct each package, plus the relevant portions of the pre-development phase. This will be compared to the schedule of previous PennDOT projects of similar complexity, size and scope performed as DBB projects as well as the construction time contained in the major projects cost estimate reviews 1 and 2.

Appropriate Pricing: PennDOT will record and track mitigation of risks discovered in the pre-development phase and analyze proposed prices during the pricing approach. The size of the contingency will be of particular focus. PennDOT will also compare the proposed prices to the major projects cost estimate reviews 1 and 2.

Lessons Learned (benefits, difficulties): PennDOT will provide a summary of any lessons learned throughout the project, both from PennDOT's and industry's perspectives, and will include any items that may be improved for any future projects that propose to utilize this technique. This will focus on the early identification and sharing of risks to reduce contingencies through assumption

¹⁷ It is worthy of note that, as of this writing, the P3 sponsor community, and its contracting community in particular, are wary of hard-bid, 30% design, "conventional" P3 procurements and instead prefers "progressive" varieties, affording collaboration and teaming, much as is proposed in this SEP-14. PennDOT anticipates market interest and support for the structure.

of pre-development activities by the developer and how unknown and unmitigated risks could have affected a bid in a DBB procurement and the potential of lost time if bids were too high and needed to be let again.

Conservation of PennDOT resources: PennDOT will monitor the utilization of procurement, legal, design and construction resources for this project compared to nine separately designed and bid bridge contracts of comparable size and scope. As noted above, any other procurement method, including a traditional P3 would involve multiple procurements.

Quality improvement/benefits. Where difficult to measure, a packaging approach under the PD/PP3 method principally affords PennDOT collaborative preparation of a program (nine bridge)-wide quality posture, employed through packages that PennDOT and the PDA Entity (for its affiliated DE) execute, rather than evolved quality postures across what could be nine separate procurements. Furthermore, a collective Major Bridges project affords bridge- and package-specific quality work with the commercial backdrop of successes (and learning opportunities) back feeding into further package development and validation of program-wide quality processes and positions. Generally, however, the point of PD/PP3 is not foremost a quality-based deviation from the regulations, but instead a means by which greater value and efficiencies are delivered at the same time as the subject bridge packages are delivered earlier than would otherwise be the case.

H. Reporting

Project Reports

The above measures will be captured and reported in each report.

For each individual package (Project Agreement), PennDOT will prepare three reports:

Initial Report

The Initial Report shall be prepared after the financial closing of each package and address the selection process and results.

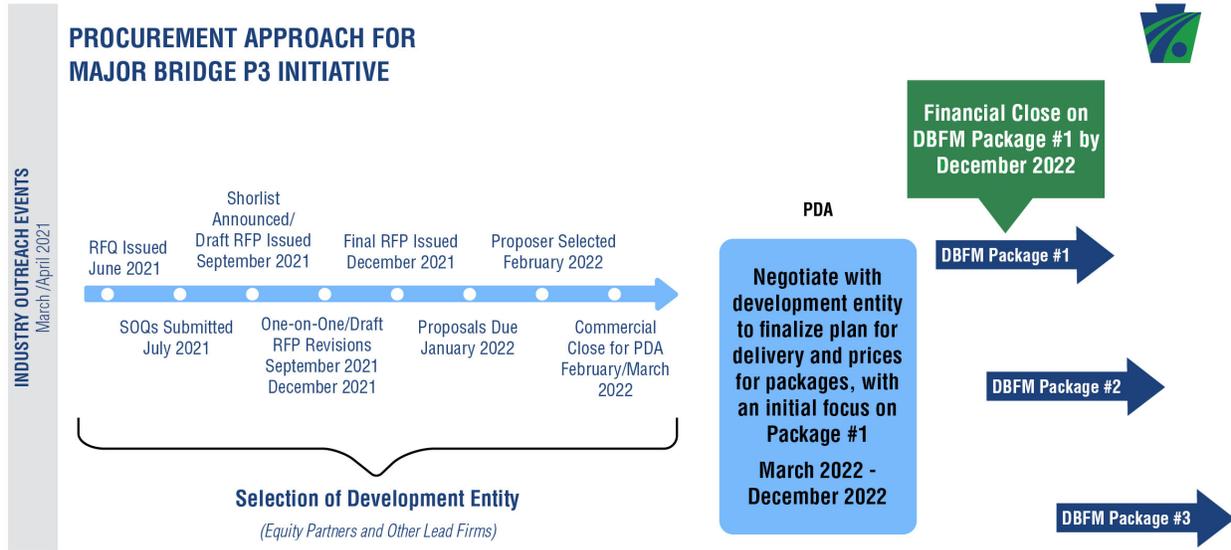
Interim Yearly Reports

One year after the Initial Report, PennDOT shall prepare Interim Yearly Reports and address: design progress; construction progress (including change orders, claims, contract amendment and other major issues, and the measures, discussed above in section G.

Final Report

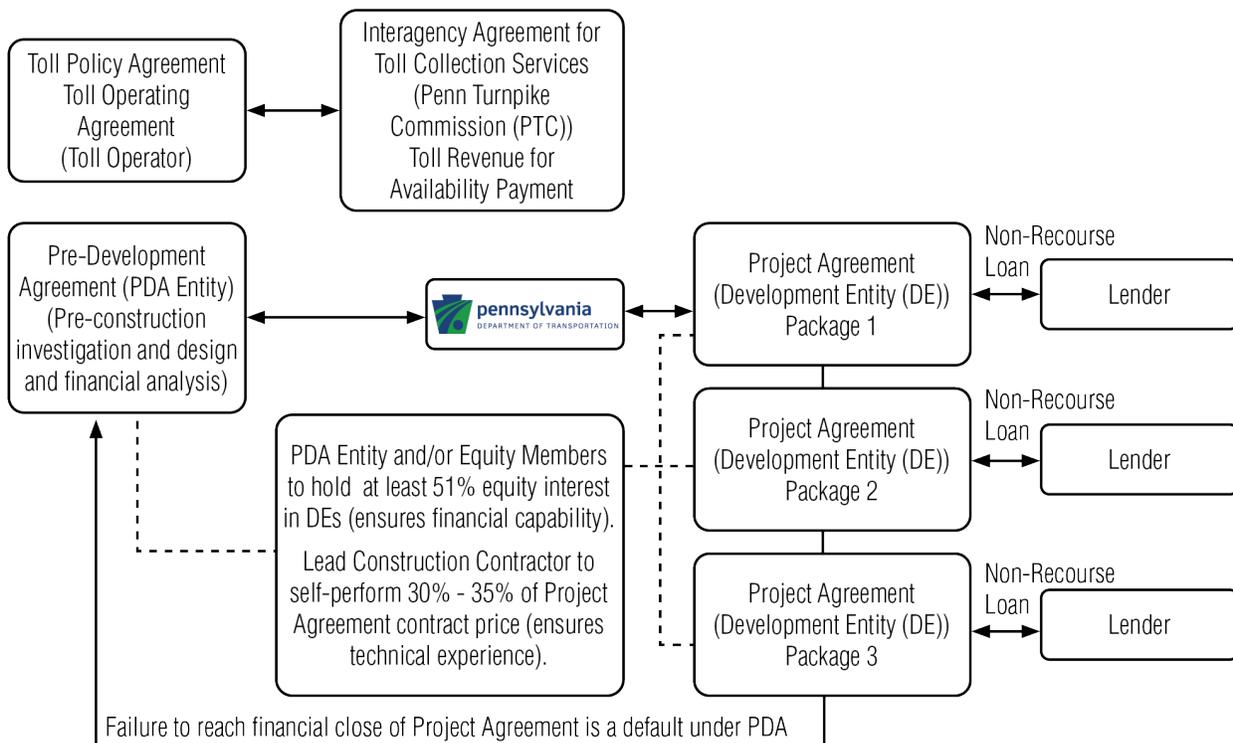
Six months after completion of construction of each package, PennDOT shall prepare a Final Report and include a full discussion of the measures, discussed above in section G, major issues and recommendations.

Attachment 1: Diagrams



Number of packages are under development and subject to change.
Actual dates are under development and subject to change.

CONTRACTUAL RELATIONSHIPS BETWEEN AND AMONG GOVERNMENTAL AND COMMERCIAL ENTITIES – MAJOR BRIDGE P3 INITIATIVE



Attachment 2 – table of deviations sought from 23 CFR § 636¹⁸

Requirement	Citation	Explanation of Deviation Sought	Comments, if any
1. Proceeding to award prior to conclusion of NEPA process, FHWA concurrence for RFP issuance, award and proceeding with preliminary design work	23 CFR § 636.109(b),(c), (d)	Inasmuch as the PDA Entity is awarded the concession, and under the specific facts of the nine bridges, some in varying stages of design, PennDOT seeks “award a design-build contract” to mean “entry into a Project Agreement” and not entry into the PDA.	PennDOT does not intend to enter into any Project Agreements prior to conclusion of the NEPA process.
2. Stipends are allowed	23 CFR § 636.112-113	Allowed Costs to the PDA Entity if the PDA is terminated or if a bridge within a package (or a package) is removed from the program are fairly “stipends” inasmuch as the PDA Entity is proposing packages as part of the PDA Work.	
3. Organizational conflicts of interest – ITP must reference certain state and federal conflicts standards and require proposers to disclose potential conflict of interests (COIs).	23 CFR § 636.116(a),(b)	Section 6.3 of the RFQ and Section 1.12 of the RFP required Respondents/Proposers to abide by federal and state law, including, but not limited to federal organizational conflict of interest laws and rules (found in 23 CFR Part 636, 2 CFR § 200.112, 23 CFR § 1.33 and 23 CFR Part 172), the laws and rules relating to the National Environmental Policy Act, the State Adverse Interest Act (71 P.S. §§ 776.1 –776.8), and the P3 Law (74 Pa.C.S. § 9120 (discussing the State	Inasmuch as the purpose of the program is the pre-development of packages, and insofar as the bidding PDA Entities and their team members compete, post-selection the engineers of record that had helped PennDOT with early bridge design are not “participating as an offeror” or “join[ing] a team submitting a proposal...” with respect to a bridge where the team member has previously performed work, so much as being eligible for contracting,

¹⁸ Only those sections within 23 CFR § 636 from which PennDOT seeks a deviation cited, it being PennDOT’s position that the subject procurement otherwise meets all other federal regulatory requirements (and thus is not seeking permission to deviate therefrom). See, e.g., 23 CFR § 636.107 (geographic preference), where PennDOT is not using a geographic preference.

Requirement	Citation	Explanation of Deviation Sought	Comments, if any
		<p>Adverse Interest Act as it pertains to P3 projects)). Further, if a Respondent/Proposer sought a conflict of interest determination, the RFQ and RFP set a process for submittals and for PennDOT to review. PennDOT has determined that a team member is precluded from working on any of the nine bridges where that team member has previously performed work (i.e. “their bridges) but where the PDA Entity will have won the concession (and with it the right to propose packages), inasmuch as the engineers of record for the nine bridges that comprise the program are precluded from working on “their” bridges as part of the PDA Entity’s team, the Development Entity affiliate of the PDA Entity would be permitted to contract with such engineers of record after selection of the PDA Entity (see 23 CFR § 636.116(a)(1)).¹⁹</p>	<p>ultimately to PennDOT’s benefit. No competitive advantage will have been realized during the solicitation for the PDA Entity itself.</p>
4. Application to P3s	23 CFR § 636.119(a)	<p>The “competitive process” to award the contract includes the Pre-Development / Progressive Public-Private Partnership alternative bidding procedure whereby the competitive constraints on fees and rates of return, coupled with the maximum self-performance regime, among other things, suffices for purposes of this regulation.</p>	<p>Please see above, sections C and E in particular</p>

¹⁹ PennDOT Office of Chief Counsel may wish to further amend. To be clear, this is not so much as a sought deviation from the obligation to have conflicts of interest provisions in place as an effort to explain how the current procurement approaches this EOR issue.

Requirement	Citation	Explanation of Deviation Sought	Comments, if any
5. Nature of the P3	23 CFR § 636.119(b)	<p>The constraints on fees and rates of return, coupled with open-book pricing, “off-ramping” of bridges/packages within the PDA, and the maximum self-performance constraint suffice for “establishing price” and the PDA Entity is not required to competitively bid the Project Agreements as an “agent of the owner”</p> <p>Furthermore, price determinations on a package basis after PDA Entity selection (and performance under the PDA) affords PennDOT a legitimate, risk-informed price and the benefit of 23 CFR 636(b)(1)</p>	Please see above, sections C and E in particular
6. Competitive procurement process; Two-phase selection procedure with weighted criteria should be considered	23 CFR § 636.201-204, 23 CFR § 636.207-208	That selection of the PDA Entity, via the procurement described above, constitutes the equivalent of a “best value” procurement	Please see above, sections C and E in particular
7. RFP must include requirements for technical proposals and price proposals in phase two of solicitation	23 CFR § 636.209(a)	That the fee constraints, constraints on rate of return, coupled with open-book pricing during the package preparation process - which will result in a price/cost proposal that PennDOT may accept or reject - suffices for a “price proposal” in a two-phase solicitation, mindful that the DBFM ultimately entered into under an accepted package proposal will have a fixed-price “price proposal”	Please see above, sections C and E in particular

Requirement	Citation	Explanation of Deviation Sought	Comments, if any
8. Requirement to Evaluate Price	23 CFR § 636.302(a)(1)	That the fee constraints, constraints on rate of return, coupled with open-book pricing during the package preparation process, suffices for the necessity to evaluate price in every source selection where construction is a significant component of the scope of work	<p>Where the regulation appears permissive for when price must be evaluated, it only does for those design-build contracts let before conclusion of the NEPA process. Here, with no payment made to the PDA Entity, and Allowed Costs are to be recovered only after a financing of an approved package, the attenuation from the need for pricing in a design-build selection as relates to this pre-development P3 renders our proxies for “pricing” sufficient guardians of the public interest.</p> <p>Furthermore, selection of the PDA involves little to no construction work, properly speaking, and package preparation will be focused on risk mitigation but foremost on open-book pricing, thus “evaluating price” in the package approval process.</p>