December 20, 2017

Jeffrey T. Folden, P.E., DBIA
Chief, Innovative Contracting
MDOT State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202-3601
I495_I270_P3@sha.state.md.us

Re: Response to Request for Information regarding the I-495 and I-270 Congestion Relief Improvements Program

Dear Mr. Folden,

Meridiam Infrastructure North America Corp. ("**Meridiam**") is pleased to submit to the Maryland Department of Transportation, State Highway Administration ("**MDOT**") its response to the Request for Information ("RFI") for the I-495 and I-270 Congestion Relief Improvements Program.

Meridiam is highly experienced in the formulation of effective partnership arrangements with governmental entities, including the allocation of risk between government and the private sector in the context of the development of large and complex projects such as the Interstate 495 and Interstate 270 Corridor Improvements Program.

We would be pleased to provide any further information you may require, and welcome the opportunity to meet with you in regards to the Project.

Should you have any further questions, please do not hesitate to get in touch with:

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Best Regards,
Thilo Tecklenburg

Thilo Tecklenburg
Meridiam Infrastructure North America Corp.
Chief Operating Officer

MARYLAND DEPARTMENT OF TRANSPORTATION ("MDOT")

PROJECT
I-495 AND I-270 CONGESTION RELIEF IMPROVEMENTS PROGRAM

RESPONSE TO REQUEST FOR INFORMATION FOR I-495 AND I-270 CONGESTION RELIEF IMPROVEMENTS PROGRAM

December 20, 2017

RESPONDENT
MERIDIAM INFRASTRUCTURE NORTH AMERICA CORPORATION ("MERIDIAM")

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Information Requested

a. General

1. Please describe your firm, its experience in relation to P3 projects, and its potential interest in relation to these potential congestion relief improvements.

Meridiam is an independent investment firm specialized in the development, financing, and management of long-term and sustainable public infrastructure projects. With global assets under management of approximately $7 billion and over $50 billion of constructed value, Meridiam has a distinct position in the industry as a stable long-term investment partner for governments in transportation, social, and environmental infrastructure projects. Meridiam is one of the very few infrastructure funds that has a truly long-term investment strategy, which enables it to be a long-term partner with the public sector from project development through operation and handback.

Alongside its public and private sector partners, Meridiam is involved in the financing and management of public infrastructure projects that require long-term commitments, usually in excess of 25 years, and is dedicated to delivering sustainable and essential public infrastructure in the United States that will improve the quality of life of the communities that we serve. As a leading investor, developer, manager, and long-term partner in Public-Private Partnerships ("P3") in the United States, Meridiam continues to be at the forefront of developing P3s. Globally Meridiam is actively involved on 22 highway P3 projects including 9 with toll revenue risk. In the U.S., Meridiam's portfolio includes 6 highway projects, among them 4 concessions for managed lanes projects. With this experience and our local presence on the Purple Line project, Meridiam would be uniquely qualified to develop the I-495 and I-270 congestion relief improvement projects.

The following table lists relevant toll revenue risk projects within the Meridiam portfolio:

Project	Total Project Cost	Location	Project Type
I-66	$3.5B	VA, USA	Managed Lanes
IH 635 (LBJ)	$2.6B	TX, USA	Managed Lanes
NTE 1-2	$2.0B	TX, USA	Managed Lanes
NTE 3A3B	$1.3B	TX, USA	Managed Lanes
Limerick Tunnel	€437M	Ireland	Tolled Tunnel
A2	€866M	Poland	Toll Road
A4	€315M	Poland	Truck Toll Concession
A5 (Vienna Ring Road)	€1.0B	Austria	Road – Shadow Toll
A5 (Malsch-Offenburg)	€630M	Germany	Truck Toll Concession

2. What would be the benefits and risks to MDOT entering a P3 agreement for congestion relief improvements? What risks do you believe would best be retained by MDOT and what risks would be best transferred to the private sector? Please explain your reasoning.

We believe that the best P3 delivery option for this project is through a Design-Build-Finance-Operate & Maintain ("DBFOM") contract. A DBFOM allows for a whole-life asset approach combining construction innovation and risk transfer with long-term operations and lifecycle optimizations into the design phase where a traditional procurement process tends to focus only on the construction phase. The following is an assessment of the benefits and risks to MDOT entering into a P3 DBFOM agreement for congestion relief improvements.

A DBFOM delivery model would produce innovation throughout the entire life of the project with the major driver coming from the alignment of the private and public sectors' long-term interests in the Project. Typical advantages of the DBFOM model include:

- Accelerated delivery and clear accountability for all performance aspects
- The value of design and construction risk transfer as well as long-term operations, maintenance and lifecycle risk transfer
- The ability to access long-term private capital that will accept long-term performance and, in some cases, revenue risk
- Transfer of certain risks related to construction schedule and cost
- Overall operations, maintenance and lifecycle costs certainty (reducing deferred maintenance risk)
- Operational discipline stemming for an appropriate performance evaluation regime
- A fulsome due diligence process with bidders incentivized to find creative technical innovations to help optimize costs or toll revenues

MDOT can mitigate much of the potential risks associated with the procurement of such large and complex infrastructure projects (regardless of the contractual delivery model) by implementing an early stage strategy that accounts for clear communications with all stakeholders, third party engagement and support as well as establishing the resources necessary to manage the overall process/procurement.

- **Clear communication with all stakeholders:** Early and clear communication about the rationale for and benefits of the project as well as the delivery model is critical to earn the necessary support of local stakeholders. Such communication will have to address both, concerns regarding the impact of the project itself on such stakeholders, as well as questions and possible misunderstandings regarding the DBFOM delivery model. Meridiam has broad experience with the impact such projects have on the local community and can share effective strategies to address general and specific concerns to build the local support that is so critical for the short- and long-term success of these types of projects.
- **Third Party Engagement and Support**: The project will have interfaces with a significant number of third parties (e.g. land owners, governmental oversight bodies, utilities, rails, roads). MDOT should involve such third parties as early as possible. This will provide such parties sufficient time to become familiar with the project and its complexities, with the input it requires from them, and with a view on possible resource requirements along the procurement and the project implementation. Early engagement will allow third parties to flag possible resource constraints that can then be mitigated efficiently as the procurement is developed, which in turn will avoid delays at the various stages of the project. Project success will also be dependent on these entities fully understanding the contract requirements and the expectations of a private partner performing the services required under the project agreement.
- **Establishing Necessary Resources:** MDOT has experience in the procurement of DBFOM projects and is familiar with the requirements related to the quality and quantity of the resources involved in such a procurement. Establishing a project team that has the experience, expertise and capacity to run the procurement of such a complex project under the contemplated delivery structure will be critical to a successful and efficient procurement process.

The risk allocation in a DBFOM method is based on a project agreement that allocates the risks to the party best suited to manage them. For example, the private developer manages the construction risks, such as delays and cost overruns and integration with commissioning activities of the operator, while the public sector is best able to manage certain other risks such as geotechnical and regulatory risk. The private sector

partner or developer also has a responsibility to the lenders and investors to the project to meet the project milestones and project completion on time. The liquidated damages ("LDs") that quantify the cost of a delay are built into the long-term DBFOM model and provide a huge incentive for the Design-Builder to finish on time or ahead of schedule.

The DBFOM model provides a full transfer of all short- and long-term technical, performance and interface risk to a sole party with full accountability to MDOT. A single point of responsibility will create synergies in the planning and design of the project and would allow MDOT to avoid the typical interface issues between the design-builder, the maintenance contractor and the operator. This contract type provides the assurance that deficiencies or failing components will be corrected promptly leading to better performance over time.

The following risks are generally best retained by the public sector because they are challenging to quantify and control from the private sector perspective and/or could raise funding concerns:

- Environmental Permitting (NEPA)
- Unknown Ground Conditions:
    - Hazardous Material
    - Utilities
    - Geotechnical Conditions
- Interest Rate Risk and partial Credit Spread Risk between bid submission and financial close
- Regulatory Risk

The allocation of the following risks can vary depending on the nature of the project and the goals the public sector is aiming to achieve:

- Tolling Collection
- Revenue Risk
- Right of way

For example, on Virginia's I-66 and some of the managed lanes projects in Texas the private partner retained right-of-way and revenue risk, while on the I-595 and I-4 projects in Florida as well as the Central70 project in Colorado tolling and revenue risk and responsibility for right-of-way was retained by the public sector because the project goal was to maximize throughput and relieve congestion. Projects that seek to maximize revenue generally transfer tolling and revenue risk to the private sector. In such cases, the responsibility for collecting the tolls should also be transferred to the private sector partner. The operation of managed lanes under a revenue risk concession is very much a true business operation that is focused on attracting and retaining customers that pay for the service provided by such business. The toll collection process is part of the business' interface with these customers and contributes to such customers' experience with the business. Not having control over this critical interface bears a significant risk to the business' ability to retain customers and generate the revenues required for a successful investment case.

3. What, if any, advantages will MDOT potentially gain by entering an agreement in which operations and maintenance and lifecycle responsibility and/or traffic and revenue risk are transferred to the private section? How do you assess the likely magnitude of such advantages? What are the potential offsetting disadvantages?

Transferring operations and maintenance risk will present room for innovation that will significantly add value to the project and therefore allow for optimized lifecycle costs. An important advantage for having the maintenance component as part of the concession agreement is that MDOT will benefit from the operator's input and experience in materials and maintainability from the beginning of the design which will ensure value for money. The long-term operation and maintenance costs are budgeted from the start in

the developer's financial model allowing for "whole-life" cost optimization and long-term cost certainty for MDOT. This forces the developer to put as much emphasis on the long-term planning of the project as on the construction planning ensuring that at completion of the concession term (not just at construction completion), MDOT will be handed a well-designed, well-maintained and fully tested asset that will continue to provide value well into the future.

Traffic and revenue risk transferred to the private sector will focus the private partner on optimizing the entire layout of the project to maximize revenue by capturing as many users as possible through simplifying decision making and offering maximum choice, reliability and connectivity. The magnitude of potential advantages largely depends on the public sector's assessment of the risk and goals it wishes to accomplish. In the context of providing maximum congestion relief, it is also important to note that additional revenue may not come from the project directly, but from the improvement of the quality of life in the region, and the resulting overall population and economic growth.

Additionally, transferring such risk can, in some cases, generate an upfront concession payment to the public sector client. This beneficial outcome is solely dependent on the financial viability of the project, i.e. its ability to cover its costs through the toll revenues generated on the corridor. Such an upfront concession payment is typically made when there is a high degree of confidence in the project's business case; it is the most extreme form of revenue sharing, as the payment is made long before any revenues are generated. Projects with cash-flows that are still assumed to be sufficient to support the project without any construction subsidy payment by the public client, but that are much less predictable can benefit from the concept of a Minimum Revenue Guarantee (MRG). A MRG is a support mechanism that protects debt and equity against severe downside scenarios, thereby enabling a more economical financing structure and reducing the project's cost of capital. It is typically combined with a sharing mechanism for the potential upside of certain project scenarios; such sharing mechanism can either involve a tiered structure above the threshold where the MRG would kick in or it simply allocates all of the project revenues above a certain return threshold to the public sector.

Disadvantages to transferring traffic and revenue risk to the private sector are higher financing costs and more expensive equity. Generally, a revenue risk project will require a longer concession period. Regarding toll rate control – transferring traffic and revenue risk presents concerns that revenue maximization may not be the panacea to a congestion problem in the region. Clients throughout the United States have used the Availability Payment based model to mitigate some of these risks. An Availability Payment structure still ensures that the private partner is service and quality-oriented in their provision of the asset to users through a performance regime that incentivizes the private partner to meet standards or else suffer deductions from the availability payments. As further explained in the answer to question a.2, the public sector's desire to retain the responsibility for toll collection (for example, due to the project's setting in a wider network of toll roads) would also favor an availability payment model.

It should be noted that operations and maintenance and lifecycle responsibility can be transferred to the private partner without the transfer of traffic and revenue risk, but traffic and revenue risk cannot be transferred without the transfer of the operations and maintenance and lifecycle responsibility for the tolled portion(s) of the project. This is due to the importance of the customer experience, as highlighted in the answer to question a.2.

4. Would it be advantageous for MDOT to transfer the operations and maintenance and lifecycle responsibility for the entire freeway or just the added congestion relief improvements? What would be the advantages and disadvantages of transferring the operations and maintenance and lifecycle responsibility for the entire freeway?

The specific project circumstances will best gauge whether it would be advantageous to transfer the operations and maintenance and lifecycle responsibility for the entire freeway or only the added portion. As described in the answers to questions a.2 and a.3, it is imperative to transfer such responsibility for the tolled managed lanes, as it is part of the overall service offering of the private sector partners. Whether the operations and maintenance and lifecycle responsibility for the General Purpose Lanes can and should be transferred to the private partner depends on, among other factors, whether

- the toll revenues can support the additional costs related to non-revenue generating assets;
- a consistent appearance and coherent operations and maintenance standards throughout the entire freeway are desired; and
- there is an expectation that MDOT's crews continue to service these freeway lanes.

It should be noted, however, that transferring lifecycle responsibility for those portions of the freeway that have not been newly constructed or thoroughly rehabilitated during the project's construction period will present challenges and may disadvantage the project's business case.

5. Would it be feasible to have a single solicitation for both corridors? If not, would you recommend any specific phasing for the solicitations including the corridor(s) and limits and why? What would your recommendation be for staggering multiple solicitations and why?

Yes, it would be feasible to have a single solicitation for both corridors, however we also recommend phasing sections of the corridors to create feasible segments for private development. The private financing of a $7.6 billion infrastructure project under a DBFOM delivery model is unprecedented in the U.S., therefore we recommend dividing the project into three sections at approximately $2.5 billion each and each section would undergo its own financial closing. The most efficient and beneficial way to structure such a phased procurement is through a Comprehensive Development Agreement (CDA) approach, as has been used for some of the managed lanes projects in Texas, most notably the North Tarrant Expressway (NTE). TxDOT adopted the single solicitation approach for the three phases of this project and achieved significant cost savings and efficiencies gains.

The benefits of this approach are the ability to more seamlessly utilize private financing and to save procurement costs. It also reflects and addresses the fact that, given the large interdependency of the phases and the cost efficiency potential when operating more than one phase, follow-on solicitations for the second and third phase would have significantly limited competition, once the private partner for phase one has been chosen. For example, a solicitation for the Texas State Highway183 managed lanes project (Middle Section), which connects to other toll road and managed lanes projects in the area, only attracted the incumbent.

A CDA approach may also allow MDOT to get the private partner involved at an earlier stage in the project development process, if such early involvement was desired. Additionally, some sections of the highway may require more upfront funding in comparison to other sections that are likely to more quickly generate revenue. Given this mix, phasing the development of the sections to account for funding needs would be the recommended approach.

b. Project Development

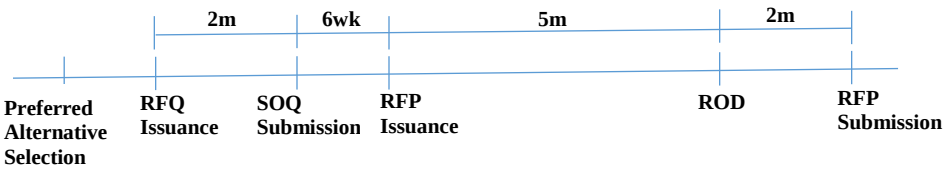
1. Do you believe your firm would be interested in submitting a detailed proposal for the development of any of the congestion relief improvements? Are there any particular concerns that may prevent your firm from getting engaged in the project development? How might these concerns be resolved?

Yes, Meridiam would be interested in submitting a detailed proposal for the development of the I-495 and I-270 P3 provided that the procurement meets the general market standard principles we have laid out in this response. This includes the use of a stipend that would help partially offset the large, at risk costs associated with developing a detailed proposal. Important for an efficient and successful procurement will be also be the selection of advisors that have relevant experience with the DBFOM delivery model and the selected payment mechanism. Given the number of successful procurements of managed lanes projects in the US (with both payment mechanisms), there is the great opportunity to mitigate the risk of an overly costly and lengthy procurement process by using precedent project documentation from one of these successfully implemented projects. Although each project is unique, the fundamental principles of risk allocation and acceptable contract language are the same across all these projects and do not need to be challenged with the start of a new procurement.

2. At what stage of the NEPA and project development process would it be most beneficial to issue a RFQ: after establishment of the purpose and need, after determination of alternatives retained for detailed study, after selection of an MDOT preferred alternative, or after approval of the environmental document? At what stage would it be most beneficial to issue a RFP? Please discuss your reasoning.

The RFQ should be issued after you have a Preferred Alternative (PA) selection. Given that different alternatives can involve different technical solutions, an RFQ process may not be able to generate the desired outcome of selecting and short-listing the most qualified teams, if the PA has not been selected yet. Such a selection is only possible once the qualifications and experience of the various team members can be assessed in light of the specific project requirements, which may be vastly different from one alternative to another. The RFP should be issued when you have confidence that you will receive the Record of Decision (ROD) approval within two months of the RFP submission deadline. It is then helpful to backtrack from this initial assessment to determine the entire procurement timeline, assuming a minimum 2-month RFQ period and a minimum 7-month RFP period. The overall timing depends on the time it takes to get from PA to ROD.

The following timeline charts this assessment:



3. What are the critical path items for the solicitation for these improvements and why?

The ROD is a critical path item, as well as the components that lead up to it. Additionally, any legislative and government approvals of the procurement and contract are critical. Lastly, a clear understanding on Right-of-Way procurement is essential for the contractor to be able to provide a true, date-certain solution.

These are critical path items because the entire procurement process and project relies on these decisions/steps in order to progress in a timely manner with certainty.

4. What is the minimum amount of time that your firm would require to develop and submit a response after the issuance of a potential RFQ?

As indicated in the chart above, two months is sufficient time that should be allocated to the preparation of a response to the RFQ, provided that the RFQ follows a market-standard format. If MDOT decides to include additional requirements compared to what is typically requested in RFQ documents, additional time would be required.

5. What is the minimum amount of time that your firm would require to develop and submit a detailed proposal after the issuance of a potential RFP?

As indicated in the chart above, seven months. This phase would include several one on one meetings with the private sector competitors to discuss contractual aspects as well as technical and financial innovations. The RFP phase will result in a fixed price, detailed proposal that will rely on technical work and a 30% design solution, detailed traffic and revenue due diligence including traffic counting, detailed due diligence from a lenders perspective, and time needed to develop a rated financing solution.

6. What information would your firm need in order to prepare a response to a potential RFP? What information should MDOT, the offeror, or others provide?

The following is some of the information that would be necessary in order to prepare a response:

- Ground Conditions
- Geotechnical Data
- Hazardous Materials
- Utilities
- Knowledge of MDOTs application for TIFIA and PABs
- Traffic Data
- Detailed technical specifications
- Legislative and other approvals (obtained, pending and required in the future) relevant for the procurement and the project

The more traffic data made available during the procurement process, the better private sector bidders will be able to assess the economic viability of the project which will be influential in developing a competitive but sound equity investment proposal as well as conducting lender and rating agency analysis. The longer the data collection the higher the confidence the proposers will have in the data they use. The following is data that should be collected by MDOT:

- Long-term historic traffic counts on the corridor and parallel and feeder roads as applicable, at least at Annual Average Daily Traffic (AADT) levels
- Hourly traffic counts between all interchanges in both directions over (at minimum) a number of weeks. This should be assessed at an “average” time of year that avoids major holidays and vacation periods.
- Vehicle classification counts – hourly per above
- Origin-destination data – which can be captured using Bluetooth data

- Purchase of INRIX Speed data or self-collection of hourly average speeds along the corridor and parallel and feeder routes as applicable
- Travel time runs along the corridor and parallel routes as applicable

Additional data may be required that is specific to the corridor. This data can and may be also collected by the Sponsors for verification purposes but the additional data points allow for increased certainty which we have seen is an important contributor in gaining the acceptance of forecasts and the confidence in these forecasts with Rating Agencies and lenders leading to more efficient financial structures.

7. What would you consider a reasonable stipend payment for unsuccessful proposers responding to a potential RFP? Please discuss how the stage of project development (purpose and need, alternatives retained for detailed study, preferred alternative, final environmental document, etc.) completed prior to RFP issuance would impact the stipend payment amount.

The stipend payment for unsuccessful proposers responding to a potential RFP should be in the $3 million range. The aspect of the when in the project development process to commence the procurement process is not so much a question of the stipend as it is a question of the procurement structure. A Comprehensive Development Agreement, as described in the answer to question a.5 may allow MDOT to commence the procurement at an earlier stage in the project development process. If the private partner is already brought in at a very early stage, when the project definition is still being developed and environmental approvals and stakeholder input have not been obtained yet, the process will likely require the definition of manageable deliverables packages linked to clearly defined off ramps and decision points that would also be assigned applicable payment amounts.

8. Would it be more beneficial for right-of-way acquisition activities to be transferred to the developer or should MDOT retain that risk? Please discuss your reasoning.

The allocation of Right-of-Way (ROW) acquisition activities can depend on the nature of the project. In some circumstances, there are potential innovations relevant to the strategic acquisition of certain parcels that could add significant benefits to a project and enable certain Alternative Technical Concepts. In other circumstances, it is most beneficial for the public partner to retain the responsibility for ROW acquisition, as they are best situated to manage the risk. When the public partner retains this responsibility, a clear schedule for the ROW acquisition should be included in the RFP documents. The ability to deliver a project on time and on budget requires seamless collaboration with the granting authority regarding the acquisition of key parcels that are needed to deliver the project scope. As described above, we have experience on projects under both scenarios.

c. Technical Challenges

As an Investment Fund, Meridiam does not provide specific technical recommendations. However the DBFOM structure will permit MDOT to select the best suited Designer, Contractor and O&M provider for the project who will be able to most efficiently mitigate or overcome the challenges such system may impose. Phasing the project, as described above, will also allow for a competitive dynamic that will drive innovation and cost savings.

1. Based on your experience in the development of similar projects and characteristics of the I-495/I-95 and I-270 corridors, please explain the technical challenges, including minimization of right-of-way impacts, to providing congestion relief improvements.

Please provide any recommendations for mitigating or overcoming those challenges that you would be willing to share.

2. Are there recommendations that you may be willing to share concerning the project scope or development strategies to reduce the upfront capital costs and/or the lifecycle costs of potential corridor congestion relief improvements?

3. Please explain any technical solutions that you may be willing to share that may enhance the development of the potential congestion relief improvements. Identify risks associated with the solutions and, if possible, discuss estimated cost of the solutions.

d. Contract Structure

1. What is your recommended approach for financing the capital cost of potential congestion relief improvements?

The recommended approach to financing the capital costs of potential congestion relief improvements begins with ensuring the business case analysis demonstrates this is a viable project. Even if it is not anticipated to be necessary, it would be advantageous for MDOT to demonstrate a willingness to provide a subsidy of up to 25% - 30% if after further analysis the project does not generate sufficient toll revenues for a full toll risk concession. This will instill confidence in the procurement process. Assuming the project may be segmented into three phases, we would approach each $2.5 billion phase similarly.

If MDOT decides to procure the project as a revenue risk toll concession, the project will require more equity investment to protect debt holders – in the 30% - 45% range – with a higher required rate of return on the equity investment due to the additional risk transferred. In contrast, an availability structure would require a 10-15% equity investment. Typically, a fully privately financed availability-type project uses 90% debt and 10% equity as sources of funds.

Utilizing TIFIA loans, long-term private debt financing, in the form of Private Activity Bonds and/or taxable bonds (widely distributed or potentially privately placed), we would find the most competitive financing plan to meet the project needs.

2. Should MDOT set a concession term or allow proposers to establish a concession term as part of the response to a potential RFP? If MDOT were to set the concession term, what is a reasonable concession term and why?

MDOT should set a concession term, as a prescribed concession term would allow for more easily comparable proposal offerings. For a revenue risk based concession such as toll concessions, the necessity of a significantly longer period is due to the higher risk profile of this method of payment over others. A typical term is between 40 to 50 years as this length of project gives comfort to both debt and equity players that should there be shortfalls early in the project there is a significant tail later in the concession to allow the parties to re-structure and in time break-even. A concession that benefits from a minimum revenue guarantee mechanism the concession period could be reduced.

For an availability concession a typical term (operating term post-construction) is between 30 to 40 years. The duration should be set to allow the private developer to design, build and plan for a long term successful project and to match the duration of one, two or three major renovations/replacements of main elements of the asset. This way, the project is in a freshly rehabilitated and good condition when it is handed back to the client. In addition, this allows sufficient time for an efficient amortization of debt, which reduces the annual payments and reduces the requirement from MDOT's annual budget.

3. Are there any contract terms you would recommend, such as Alternative Technical Concepts, Alternative Financial Concepts, contract balancing, pre-development agreements or progressive agreements, etc. to minimize risk to proposers, maximize opportunities for innovation, maximize a concession payment to MDOT, or are key to obtaining competition? Please discuss the benefit and risks of the recommended contract terms.

We would recommend the inclusion of an Alternative Technical Concepts (ATC) process in the procurement:

- Cost savings generated through innovative design collaboration between all parties are somewhat dependent on the owner not being over-prescriptive with its preliminary designs (thus allowing plenty of scope for bidder innovation). Allowing for design flexibility will increase the value of a DBFOM delivery model. We consider that in a DBFOM model, MDOT should only advance the design solution to the minimum level required for the environmental approval process. Once in the procurement phase, bidders should develop the design up to 30%.

- There is an important balance between providing detailed and prescriptive technical criteria and affording flexibility in alternative design solutions. Early in the procurement process, teams should be encouraged to develop innovative design solutions through the ATC process that can provide better value for money to MDOT. In order to encourage the maximum amount of ATCs, we propose a process whereby teams first submit conceptual ATC designs. Once MDOT has approved (or not) the conceptual ATC designs, the respective team can spend more time and money further developing their design. The process will allow MDOT to approve (or not) the detailed ATC designs and eventually, the preferred bidder can implement the design. We recommend MDOT review the ATC processes undertaken on the LBJ Freeway project in Dallas, Texas, and the Central 70 Project in Denver, Colorado, as they allowed for ample back and forth between technical teams of the public and private sectors.

- ATCs can provide significant value for MDOT and the winning team and are therefore critical to the success of the project. We recommend that MDOT remains open to design changes to encourage a life-cycle analysis of the project. Operational and maintenance considerations will also present room for innovation which can significantly add value to the project and therefore allow to optimize lifecycle costs and to reduce maintenance requirements and operating costs. An important advantage for having maintenance as part of the scope is that MDOT would benefit from the operator's input and its experience in materials and maintainability from the beginning of the design which would reduce the life-cycle cost of the project and provide value for money.

We also recommend the use of a Comprehensive Development Agreement structure as used, for example, on the North Tarrant Expressway project in Dallas, Texas, for the reasons described in the answer to question a.5.

e. Miscellaneous

1. Are there any particular concerns with the information provided in this RFI? Please explain any concerns and provide any proposed solutions or mitigation to address those concerns.

2. Please provide any suggestion or comments on how MDOT can encourage participation by Minority Business Enterprise/Disadvantaged Business Enterprise firms and local workforce in the development of the congestion relief improvements.

While Meridiam is not a registered MBE/DBE, we always seek to work with MBE/DBE and local contractors on projects. Meridiam follows a comprehensive Sustainable Development Charter that sets out strict environmental, social, and governance ("ESG") guidelines for all of its investments. Our ESG guidelines often surpass the public owner's MBE/DBE goals ensuring a high level of local hiring and community involvement to the greatest extent possible.

MDOT could help Disadvantaged Business Enterprises and Small, Women-owned and Minority-owned Business in three ways. The first is to keep these firms informed as the procurement progresses. The second strategy is to provide them an easy way to establish a relationship with the winning team. One possibility is to hold Outreach Events and Meetings and present the project scope and the subcontracting possibilities to interested firms. The third way is to provide these firms with specialist training that will enhance their skills and expertise. For MDOT to facilitate such training could be valuable for the I-495 and I-270 congestion relief improvements and the local businesses.

3. What opportunities would you like to see for industry outreach related to these potential P3 opportunities?

We would like to schedule an in-person one-on-one meeting. Since attending the industry forum we are aware that MDOT is aiming for dates in January 2018 and are looking forward to participating then.

4. Please provide any additional comments or questions you may have related to the information in this RFI.

We have set out our thoughts above, and commend MDOT on its visionary approach to congestion relief in Maryland's Baltimore-Washington corridors commuter areas and thank you for the opportunity to participate in this RFI process. We are happy to discuss items further in the format of one-on-one meetings.