December 20th, 2017

For the Attention of:

Jeffrey T. Folden, P.E., DBIA  
Chief, Innovative Contracting  
MDOT State Highway Administration  
email: I495_I270_P3@sha.state.md.us

RE: Request for Information, I-495/I-95 & I-270 Congestion Relief Improvements.

Dear Mr. Folden,

FCC (Fomento de Construcciones y Contratas S.A.) is pleased to register its interest, in participating further in the development of the I-495/I-95 & I-270 Congestion Relief Improvements Program with this response to the Request of Information. The document has been structured to satisfy the requirements of the recent RFI published by MDOT.

FCC is the parent company of one of the world's leading infrastructure and citizen services groups, with headquarters in Madrid, Spain, and US offices in Miami, Houston, and Los Angeles. We have been in business for over 100 years and operate across a wide but complimentary range of businesses. FCC Construction S.A. (FCC Construction) is the FCC Group’s entity responsible for our construction business activities.

FCC Construction’s project portfolio includes more than 200 highways and highway improvement projects, including the delivery of one of the 5 managed lanes pilot projects built in the US, the I-95 Managed Lanes Phase 1 in Miami-Dade County, FL.

FCC Concessions – FCC Construction has had a strong presence in the P3 sector for over two decade. FCC Concessions participates in P3 projects as long term partners and infrastructure developers, providing equity and managing the design, construction, financing, operation and maintenance of these projects. The construction of the Mersey Gateway Bridge in Liverpool, UK, with a CAPEX od $650 million, has been recently completed and we expect to achieve financial close in early 2018 for the $300 million CAPEX Haren Prison Project in Belgium.
Thank you for providing us with this opportunity to express our interest in the I-495/I-95 & I-270 Congestion Relief Improvements Program, and we look forward to discussing the project with you in the near future.

We would like to request a one-on-one meeting with MDOT to further discuss the project and expand on any answer in the RFI or indeed provide you with any further information about FCC’s experience you may require.

Sincerely,

Jesus M. de la Fuente
VP Business Development for North America
1101 Brickell Ave, Suite M100-N
Miami, FL, 33131
jmfuente@fcco.com; phone: +1.305.372.2536; cell: +1.305.775.0133
I-95 Highway
Miami (USA)

I-495 / I-95 (Capital Beltway) & I-270
Congestion Relief Improvements

FCC Response to RFI
December 2017
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**Introduction**

FCC is one of the world’s leading infrastructure groups and welcomes this opportunity to assist Maryland Department of Transportation (“MDOT”) in determining the optimum delivery model for the congestion relief improvements on the I-495/I-95 (Capital Beltway) from the American Legion Bridge to the Woodrow Wilson Bridge and on the I-270 from I-495 to I-70 (“the Project”).

FCC is expanding its presence in the US and given our track record on similar infrastructure projects worldwide we feel that we have a lot to offer MDOT. We understand the challenges of building complex infrastructure projects and have participated globally as design-builder, concessionaire, operator and maintenance provider on transportation infrastructure P3 projects such as Mersey Gateway Bridge (UK), C-25 Eix Transversal Highway (Spain), N-6 Highway – Galway to Ballinasloe (Ireland) and Transmontana Highway (Portugal). FCC has also built other similar projects such as I-95 Managed Lanes Highway in Miami-Dade County, Florida.

At FCC we combine our experience, capacity and the multi-disciplinary yet complementary services available within the group in such a way to ensure the delivery of a world-class product for our client and future users. Our value creation is based on the following cornerstones:

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**FCC Contact Details**

FCC’s primary point of contact for future liaison with MDOT is:

**Jesús M. de la Fuente** - VP Development for North America
Mailing Address: 1101 Brickell Ave, Suite M100-N, Miami, FL, 33131
Email: jmfuente@fccco.com
Phone: +1.305.372.2536
Cell: +1.305.775.0133

We are at your disposal to discuss the Project or indeed any other upcoming opportunities which MDOT may have. At FCC we pride ourselves on working with the public and private sectors to plan, build and maintain better services for urban communities together.
Response to RFI

A. General

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

An Overview of FCC Group

A leader in Infrastructure & Environmental Services

Fomento de Construcciones y Contratas S.A. (FCC) is the parent company of one of the world’s leading infrastructure and citizen services groups, with headquarters in Madrid, Spain, and headquarters for North America in Miami, Florida. We operate across a wide but complimentary range of businesses. Inversora Carso, S.A. de C.V. (Inversora Carso), owned by the family of Mr. Carlos Slim, is the majority shareholder in FCC. Mr. Carlos Slim is considered as a highly influential global investor. Other important investors of FCC Group are Mrs. Esther Koplowitz and Mr. William H. Gates who own respectively 20.01% and 5.7% of the company’s shares.

FCC Group generated over $6.6 billion in revenues in 2016, of which 48% came from international markets, mainly Europe and America. The company has more than 110 years history, a footprint in more than 35 countries worldwide and more than 55,000 staff.
A balanced business model

Our business portfolio is now highly diversified. FCC’s core businesses are construction, environmental services, water management and development of concessions for large infrastructure projects.

**Infrastructure** - the Group operates under FCC Construction, FCC Industrial and Cementos Portland Valderrivas; the latter is a listed company and a leader in cement production in Spain with facilities also in the North East of the US through its subsidiary Giant Cements. FCC Construction & FCC Industrial design, build and maintain civil & industrial infrastructure all over the world. In North America FCC Construction is currently building the $850 million Gerald Desmond Bridge in California and the $320 million Spadina Subway Extension in Toronto Canada.

**Environmental Services** – FCC offers a complete range of environmental services, from domestic and industrial waste collection to the most advanced waste treatment systems. This business stream has already a strong presence in Florida and Texas with contracts for the next 10 years.

**Water** - which operates under FCC Aqualia, provides end-to-end water management services, from operating infrastructure to supplying households and businesses. FCC Aqualia is currently building the $130 million desalination plant in El-Alamein (Egypt) and was recently awarded the contract for the design, construction and operation of the El Salitre wastewater treatment plant in Bogotá (Colombia) worth $450 million.

**Concessions** – each of the business units has specialist concessions departments which participate in P3 projects as long term partners and infrastructure developers, providing equity and managing the design, construction, financing, operation and maintenance of these projects. The construction of the Mersey Gateway Bridge in Liverpool, UK, with a CAPEX of $670 million, has been recently completed and we expect to achieve financial close in early 2018 for the $300 million CAPEX Haren Prison Project in Belgium.
FCC Construction Relevant Experience

FCC Group, through its subsidiary FCC Construcción S.A., is one of Europe’s leading infrastructure developers. FCC Construction established its headquarters for North America in Miami in 2005, and maintains its office for the west coast in Orange County, CA. FCC Construction is responsible for the group’s construction business activities, including development of infrastructure and construction of:

✓ Roads & Highways
✓ Railways (metro, light rail, high speed rail)
✓ Tunnels
✓ Bridges & viaducts
✓ Water infrastructure
✓ Ports & airports
✓ Residential and non-residential buildings.

In 2016, FCC Construccion’s turnover was $1.8 billion over 65% of which was generated outside Spain.

Our international project portfolio includes the following recent high profile projects, where FCC is part of the design-build JV and, in some cases, equity investors.

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>DBB</th>
<th>D&amp;B</th>
<th>P3</th>
<th>CAPEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riyadh Metro, Saudi Arabia, Line 4, 5, 6</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>$7,890 Million</td>
</tr>
<tr>
<td>New International Airport Terminal for Mexico City</td>
<td>✓</td>
<td></td>
<td></td>
<td>$4,450 Million</td>
</tr>
<tr>
<td>Lima Metro, Line 2, Peru</td>
<td></td>
<td></td>
<td>DBFMO*</td>
<td>$4,300 Million</td>
</tr>
<tr>
<td>Panama Metro, Line 1</td>
<td>✓</td>
<td></td>
<td>DBF</td>
<td>$2,000 Million</td>
</tr>
<tr>
<td>Panama Metro, Line 2</td>
<td>✓</td>
<td></td>
<td>DBF</td>
<td>$1,830 Million</td>
</tr>
<tr>
<td>Gerald Desmond Bridge, Los Angeles</td>
<td>✓</td>
<td></td>
<td></td>
<td>$850 Million</td>
</tr>
<tr>
<td>Doha Metro, Qatar, Red Line</td>
<td>✓</td>
<td></td>
<td></td>
<td>$745 Million</td>
</tr>
<tr>
<td>Barcelona Metro Line 9, Spain</td>
<td></td>
<td></td>
<td>DBFMO*</td>
<td>$690 Million</td>
</tr>
<tr>
<td>Mersey Gateway Bridge, UK</td>
<td></td>
<td></td>
<td>DBFMO*</td>
<td>$670 Million</td>
</tr>
<tr>
<td>Highway between Avila Camacho and Tihuatan, Mexico</td>
<td></td>
<td></td>
<td>DBFMO*</td>
<td>$510 Million</td>
</tr>
<tr>
<td>Acu Port, Brazil</td>
<td></td>
<td></td>
<td></td>
<td>$350 Million</td>
</tr>
<tr>
<td>Bucharest Metro, Romania, Line 5</td>
<td>✓</td>
<td></td>
<td></td>
<td>$345 Million</td>
</tr>
<tr>
<td>Spadina Subway Extension &amp; 407 Station, Toronto, Canada</td>
<td></td>
<td></td>
<td>✓</td>
<td>$320 Million</td>
</tr>
<tr>
<td>Haren Prison, Belgium</td>
<td></td>
<td></td>
<td>DBFMO*</td>
<td>$300 Million</td>
</tr>
<tr>
<td>Coatzacoalcos Submerged Highway Tunnel, Mexico</td>
<td></td>
<td></td>
<td>DBFMO*</td>
<td>$290 Million</td>
</tr>
</tbody>
</table>

*P3 with FCC Concessions as equity investor.
FCC and P3 Projects

FCC Construction has had a strong presence in the P3 and concessions sector for more than two decades and it is now one of our most specialist business streams. We have recently seen an increase in public and private initiatives with the number of projects awarded exceeding 20 in the last ten years. This brings the total number of P3 projects which have been developed during the whole life of the company to over 60. Some of our most recent and relevant PPP projects are listed in the previous table.

FCC has developed 14 road transportation projects under a DBFOM contract during the last 10 years, acting as both equity investor and contractor. FCC Concessions is currently operating sections of the Mersey Gateway Bridge (UK), the Highway from San Antonio to Ibiza (Spain), the A-3 & A-31 Highway Cuenca to Albacete (Spain) and the Coatzaocacos Tunnel in Mexico. In 2017, FCC Concessions sold its shareholding in the Cedinsa Highways (C-25, C-17, C-16 & C-35) SPV (Spain), following successful construction completion and 5 years of operation.

FCC’s internal team of international PPP experts has a strong basis in both the world of finance and construction. Our success is largely based on our team’s experience and capacity to understand and manage all project stages; from tender, financing, design, construction, completion, operation, maintenance through to handback; and the long-term partnering approach we adopt with our clients. We have a wide network of investor, contractor, due diligence and financial institution contacts who we work with to develop world class winning consortia.

In addition, FCC Construction has a strong in-house project management and technical team who ensure that the latest design and construction technologies and innovations are used on our projects and that lessons learnt benefit our future work.

FCC & the Congestion Relief Improvements Projects

FCC has the experience, interest and capacity to participate as developer, equity provider, design-builder, operator and maintenance provider in the Project.

FCC combines the complementary business skills within the group, in such a way to ensure the delivery of high quality infrastructure and service to our clients. Our company takes pride in its ability to allocate specific responsibilities effectively and efficiently to meet strict quality and performance requirements.

FCC uses the very latest technology in its infrastructure projects. Government bodies and private entities alike recognize the capacity of FCC’s Technical Services as something that sets it apart in an increasingly competitive market, bringing value and risk management during and after project execution. We believe that we can bring this experience and competitiveness to the Project.

FCC Construccion has acted as design-build contractor for roads, highways, bridges and tunnels, which gives us valuable experience across the full spectrum of road transportation projects.

Our strategy is to pursue technically complex projects in the US where we believe that we can add value, and clearly this Project fits with that goal.
We have outlined below some of FCC´s relevant experience to demonstrate our capacity to deliver the Project.

<table>
<thead>
<tr>
<th>CONSTRUCTION PROJECTS</th>
<th>CAPEX (US$ million)</th>
<th>Length (Miles)</th>
<th>P3</th>
<th>Construction completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerald Desmond Bridge Highway, US</td>
<td>850</td>
<td>1.6</td>
<td></td>
<td>Under Construction</td>
</tr>
<tr>
<td>Mersey Gateway Bridge Highway, UK</td>
<td>670</td>
<td>8</td>
<td>✓</td>
<td>2017</td>
</tr>
<tr>
<td>Highway between Nueva Necaxa and Avila Camacho, Mexico</td>
<td>510</td>
<td>23</td>
<td>✓</td>
<td>2015</td>
</tr>
<tr>
<td>A-3/A-31 Highway Upgrade – Cuenca to Albacete, Spain</td>
<td>160</td>
<td>81</td>
<td>✓</td>
<td>2015</td>
</tr>
<tr>
<td>C-25 Eix Transversal Highway, Spain</td>
<td>660</td>
<td>95</td>
<td>✓</td>
<td>2013</td>
</tr>
<tr>
<td>Transmontana Highway, Portugal</td>
<td>630</td>
<td>119</td>
<td>✓</td>
<td>2013</td>
</tr>
<tr>
<td>C-17 Eix Ter Highway, Spain</td>
<td>280</td>
<td>31</td>
<td>✓</td>
<td>2011</td>
</tr>
<tr>
<td>C-16 Eix Llobregat Highway, Spain</td>
<td>270</td>
<td>25</td>
<td>✓</td>
<td>2011</td>
</tr>
<tr>
<td>Arad-Timisoara Highway, Romania</td>
<td>210</td>
<td>20</td>
<td></td>
<td>2011</td>
</tr>
<tr>
<td>I-95 Managed Lanes Highway – South of SR 112 to North of SR 826, US</td>
<td>160</td>
<td>11</td>
<td>✓</td>
<td>2010</td>
</tr>
<tr>
<td>M-50 Ring Road Widening Works, Ireland</td>
<td>360</td>
<td>15</td>
<td>✓</td>
<td>2010</td>
</tr>
<tr>
<td>N-6 Highway – Galway to Ballinasloe, Ireland</td>
<td>475</td>
<td>35</td>
<td>✓</td>
<td>2010</td>
</tr>
</tbody>
</table>

Should FCC be given the opportunity, we would seek to build a world-class project team encompassing the following key elements:

- ✓ A team, focused on partnering with MDOT to deliver. One that understands the political and public importance of major infrastructure projects, and is committed to working with MDOT and the relevant stakeholders to realize the project objectives.
- ✓ Should it be necessary - investment partners with a substantial development and investment track record in new-build transportation and / or infrastructure projects;
- ✓ Strong construction partners with local experience and resources, who will work with FCC to optimize the project programme and costs.
- ✓ World-class road infrastructure designers, with experience providing innovative solutions for projects of similar complexity.
- ✓ A maintenance team of local and global partners combining local knowledge and resources with the latest innovations from around the world.
A.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.

Based on our experience, we have included below the benefits and risks that MDOT could consider in adopting the following types of P3 contract:

- DBFOM with revenue risk;
- DBFOM without revenue risk (availability payment);
- Design-Build-Finance; and
- Design Build

<table>
<thead>
<tr>
<th>DBFOM CONTRACT WITH REVENUE RISK</th>
<th>Benefits</th>
<th>Risks/Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This delivery method is more advantageous in terms of project schedule. There isn’t an extensive detailed design period for MDOT before procuring a Contractor like there is in some other contract types.</td>
<td></td>
<td>The transfer of demand risk to the concessionaire can impede or delay the successful achievement of private funding for the project. Subsequently this can result in delays in achieving financial close, construction completion and the opening of the scheme to the public.</td>
</tr>
<tr>
<td>Fair competition is assured by the competitive dialogue process which has the advantage of involving the developers and benefiting from their feedback during the whole process. However it is very costly for the unsuccessful developers. In order to enhance competition we recommend the inclusion of an appropriate mechanism to compensate unsuccessful developers (such as a stipend).</td>
<td></td>
<td>This model does not allow leverage of the revenues to deliver other projects developed by MDOT. The transfer of revenue risk and income to the concessionaire entitles them to take the risk and any upside of increased toll revenues.</td>
</tr>
<tr>
<td>Fair procurement of sub-contractors is assured by the business model itself. The developer is responsible for the infrastructure quality and the final price and is therefore incentivized to adopt a competitive procurement procedure. In addition at prequalification stage we recommend that MDOT requests detail on the quality/management systems of the consortium partners and the subcontracting procedures that would be adopted for this project.</td>
<td></td>
<td>With this model it is difficult to amend or to ensure compatibility of the allowable toll with future regional practices. In order to transfer the demand risk directly to the concessionaire the Contract should include a clear statement of the initial toll and a mechanism to regulate any change during the Contract period.</td>
</tr>
<tr>
<td>The private sector can contribute significantly to optimizing the infrastructure and systems for the Project. All over the world FCC is developing innovative designs and using cutting edge construction techniques to tackle specific problems. A P3 contract model ensures that this critical thinking is brought into the project at an early stage. By procuring the full range of services together, MDOT can be sure that the design will be developed to consider constructability, the construction completion criteria and the handback criteria, thereby ensuring that the infrastructure is built with maximum efficiency and to a high standard.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DBFOM CONTRACT WITH REVENUE RISK

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Risks/Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>This model minimizes the financial obligations of MDOT</td>
<td>This model minimizes MDOT’s financial obligations and reliance on federal government subsidies if the Project is viable by itself; i.e. where the revenues generated by the tolls exceed the required payments to the concessionaire. If the project is not self-sufficient, it will require MDOT to make certain financial obligations and federal government subsidies.</td>
</tr>
<tr>
<td>and federal government subsidies.</td>
<td></td>
</tr>
<tr>
<td>This model helps to close the funding gap. However as pointed out under “Risks” funders can sometimes avoid revenue risk deals.</td>
<td></td>
</tr>
<tr>
<td>A P3 can cost significantly less than a traditional design-bid-build model.</td>
<td></td>
</tr>
<tr>
<td>Once P3 contracts close, they frequently deliver projects faster than traditional procurement, in part because private parties pay stiff penalties if they fall behind schedule.</td>
<td></td>
</tr>
<tr>
<td>When the public sector builds and operates infrastructure, taxpayers bear responsibility when costs are higher or revenue is lower than expected. With a DBFOM the private sector can take on some of those risks.</td>
<td></td>
</tr>
</tbody>
</table>

DBFOM CONTRACT WITH AVAILABILITY PAYMENTS STRUCTURE

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Risks/Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>This delivery method is more advantageous in terms of project schedule.</td>
<td>This delivery method is more advantageous in terms of project schedule. There isn’t an extensive detailed design period for MDOT before procuring a Contractor like there is in some other contract types. Whilst there is a period between contract award and contract signature to achieve financial close, because of the availability payment structure this period should be relatively streamlined.</td>
</tr>
<tr>
<td>Fair competition is assured by the competitive dialogue process which has the advantage of involving the developers and benefiting from their feedback during the whole process. However it is very costly for the unsuccessful developers. In order to enhance competition we recommend the inclusion of an appropriate mechanism to compensate unsuccessful developers (such as a stipend).</td>
<td>Fair competition is assured by the competitive dialogue process which has the advantage of involving the developers and benefiting from their feedback during the whole process. However it is very costly for the unsuccessful developers. In order to enhance competition we recommend the inclusion of an appropriate mechanism to compensate unsuccessful developers (such as a stipend).</td>
</tr>
<tr>
<td>This model helps to close the funding gap.</td>
<td>This model helps to close the funding gap.</td>
</tr>
<tr>
<td>Fair procurement of sub-contractors is assured by the business model itself. The developer is responsible for the infrastructure quality and the final price and is therefore incentivized to adopt a competitive procurement procedure. In addition at prequalification stage we recommend MDOT to request detail on the quality/management systems of the consortium partners and the subcontracting procedures that would be adopted for this project.</td>
<td>Fair procurement of sub-contractors is assured by the business model itself. The developer is responsible for the infrastructure quality and the final price and is therefore incentivized to adopt a competitive procurement procedure. In addition at prequalification stage we recommend MDOT to request detail on the quality/management systems of the consortium partners and the subcontracting procedures that would be adopted for this project.</td>
</tr>
<tr>
<td>The private sector can contribute significantly optimizing</td>
<td>The private sector can contribute significantly optimizing</td>
</tr>
</tbody>
</table>
### DBFOM CONTRACT WITH AVAILABILITY PAYMENTS STRUCTURE

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Risks/Disadvantages</th>
</tr>
</thead>
</table>
| the infrastructure and systems for the project. All over the world FCC is developing innovative designs and using cutting edge construction techniques to tackle specific problems. A P3 contract model ensures that this critical thinking is brought into the project at an early stage. By procuring the full range of services together, MDOT can be sure that the design will be developed to consider constructability, the construction completion criteria and the handback criteria, thereby ensuring that the infrastructure is built with maximum efficiency and to a high standard.  
- There is full compatibility of the project toll with future regional tolling practices. The revenues would be owned by MDOT and could be adapted in accordance with their needs as long as they don’t increase the risk related to this Project.  
- The revenues collected in the Project will be owned by MDOT, after fulfilling all the liabilities related to this Project they could leverage them to deliver other related projects.  
- A P3 can cost significantly less than a traditional design-bid-build model.  
- Once P3 contracts close, they frequently deliver projects faster than traditional procurement, in part because private parties pay stiff penalties if they fall behind schedule.  
- When the public sector builds and operates infrastructure, taxpayers bear responsibility when costs are higher or revenue is lower than expected. With a DBFOM the private sector can take on some of those risks. | |

### DESIGN-BUILD-FINANCE CONTRACT

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Risks/Disadvantages</th>
</tr>
</thead>
</table>
| This delivery method is more advantageous in terms of project schedule. There isn’t an extensive detailed design period for MDOT before procuring a Contractor. Once awarded, the design and construction start immediately.  
- This model does not minimize MDOT’s financial obligations. However, even if MDOT will have to identify the sources for the project funding before starting construction, this model allows for starting the construction (therefore the operation) before all the funds are available.  
- The possibility of beginning the operation of a facility | The cost of financing the project is higher than PABs.  
- The private sector will contribute to innovation during the design and construction phase, but may be constrained by the solution originally selected by MDOT. Performance optimization and value resulting from having an integrated operation, maintenance, life cycle and hand over team working together from the start will not be achieved, as it would in a DBFOM model. Additionally the involvement of potential different entities to Design/Build, Operate/Maintain and |
### DESIGN-BUILD-FINANCE CONTRACT

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Risks/Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>several years in advance than the availability of funds would permit. This offers the owner the possibility of recovering part of the investment (including financial costs) where a toll (i.e. managed lanes) is collected.</td>
<td>taking care of the life cycle could result in the loss of important synergies and know how.</td>
</tr>
<tr>
<td>▪ A gap financing solution enables MDOT to minimise its debt and to use bonds for other projects not as suitable for a DBF form of contract.</td>
<td></td>
</tr>
<tr>
<td>▪ This type of model allows a significant risk transfer to the private sector.</td>
<td></td>
</tr>
<tr>
<td>▪ Fair competition is assured due to the nature of the competitive procurement.</td>
<td></td>
</tr>
<tr>
<td>▪ Fair procurement of sub-contractors is assured by the business model itself. The Design-Builder is responsible for the infrastructure quality and the final price and is therefore incentivized to adopt a competitive procurement procedure. In addition at prequalification stage we recommend MDOT to request detail on the quality/management systems of the consortium partners and the subcontracting procedures that would be adopted for this project.</td>
<td></td>
</tr>
<tr>
<td>▪ There is full compatibility of the Project toll with future regional tolling practices. The revenues would be owned by MDOT and could be adapted in accordance with their needs.</td>
<td></td>
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<tr>
<td>▪ This model allows full leverage of the revenues to deliver more transportation needs. The revenues collected in the Project will be owned by MDOT.</td>
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### DESIGN-BUILD CONTRACT

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Risks/Disadvantages</th>
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</thead>
<tbody>
<tr>
<td>▪ This delivery method is more advantageous in terms of project schedule. There isn’t an extensive detailed design period for MDOT before procuring a Contractor. Once awarded and the funds have been allocated (resources from the Public side), the design and construction start immediately.</td>
<td>▪ The private sector will contribute to innovation during the design and construction phase, but may be constrained by the solution originally selected by MDOT. Performance optimization and value resulting from having an integrated operation, maintenance, life cycle and hand over team working together from the start will not be achieved, as it would in a DBFOM model. Additionally the involvement of potential different entities to Design/Build, Operate/Maintain and taking care of the life cycle will result in the loss of important synergies and know how.</td>
</tr>
<tr>
<td>▪ Fair competition is assured due to the nature of the competitive procurement.</td>
<td>▪ This model does not minimize MDOT’s financial obligations. MDOT will have to find the sources for the project funding before starting construction.</td>
</tr>
<tr>
<td>▪ Fair procurement of sub-contractors is assured by the business model itself. The Design-Builder is responsible for the infrastructure quality and the final price and is therefore incentivized to adopt a competitive procurement procedure. In addition at prequalification stage we recommend MDOT to request detail on the quality/management systems of the consortium partners and the subcontracting</td>
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</table>
### DESIGN-BUILD CONTRACT

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Risks/Disadvantages</th>
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<tr>
<td>procedures that would be adopted for this project.</td>
<td>This type of model allows a moderate risk transfer to the private sector.</td>
</tr>
<tr>
<td>▪ There is full compatibility of the Project toll with future regional tolling practices. The revenues would be owned by MDOT and could be adapted in accordance with their needs.</td>
<td></td>
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<tr>
<td>▪ This model allows full leverage of the revenues to deliver more transportation needs. The revenues collected in the Project will be owned by MDOT.</td>
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In order to achieve best value for money for the Project and ensure sufficient interest from the Industry, it is essential to define an appropriate risk allocation, passing the risk to the party who is best able to manage it. We have listed below the key risk allocation that could be considered for this project:

<table>
<thead>
<tr>
<th>Risk</th>
<th>Suggested Risk Owner</th>
<th>Suggested Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface Risk</td>
<td>MDOT primarily</td>
<td>Clear lines of responsibility should be specified in the contracts. An effective co-ordination and communication plan is critical to ensure that interface risks are managed efficiently.</td>
</tr>
<tr>
<td>Civil Infrastructure built by others</td>
<td>MDOT/General Contractor</td>
<td>The design-build contractor may be required to use existing infrastructure that has built as part of other construction packages. The contract should not assume any risk in case of hidden/latent defects in these existing assets. Notwithstanding this a comprehensive asset inventory and supporting surveys should be provided to bidders in order to fully appreciate the asset being taken over. More information is provided on this in Question A.4. below.</td>
</tr>
<tr>
<td>Agreements with third parties</td>
<td>MDOT</td>
<td>MDOT advance 3rd party liaison and co-ordination with other affected parties will be key to the success of the project. Terms of agreements should be discussed and agreed in advance of the bid phase in so far as possible.</td>
</tr>
<tr>
<td>Utility diversions</td>
<td>MDOT</td>
<td>Utility risk is always a key consideration for a construction project of this scale. FCC has seen the benefits of a proactive approach by the authority to utility diversions in advance of contract award. We suggest that as much work needs to be done in advance as possible in order to locate and divert utilities. Close coordination with third party utility companies should be in place, with MDOT leading these discussions.</td>
</tr>
<tr>
<td>Impacts on the public</td>
<td>All project parties should be responsible for ensuring the impacts on the public are minimized in so far as possible</td>
<td>It is clear that MDOT already recognizes that one of the key success factors of the project is public support. This can be achieved through effective consultation, communication and stakeholder management. The project parties need to work together to minimize impact on the public and ensure that co-ordinated messages are delivered.</td>
</tr>
<tr>
<td>Right of Way</td>
<td>MDOT</td>
<td>The acquisition of the necessary right of way (ROW) to build the project should be completed well in advance by MDOT in order to minimize the impact to the project schedule and to achieve a reasonable price for the land/facilities affected by the project.</td>
</tr>
<tr>
<td>Risk</td>
<td>Suggested Risk Owner</td>
<td>Suggested Strategy</td>
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<tr>
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</tr>
<tr>
<td>Changes in law</td>
<td>MDOT</td>
<td>Unforeseen changes in law may result in higher operational or maintenance costs due to technical reviews that can affect project costs. These changes are completely out of the control of the private partner and should be offset by the public partner.</td>
</tr>
<tr>
<td>Private Markets Support</td>
<td>MDOT/Private Sector</td>
<td>Based on our recent project finance experience, when suitable, high-quality projects come to the market investors are ready to invest.</td>
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<tr>
<td></td>
<td></td>
<td>The market is looking for long-term investments and the US appears to be positioned to become one of the world’s largest P3 markets.</td>
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<tr>
<td></td>
<td></td>
<td>The Project appears to make sense as a P3 project. However the project structure and risk profile will need to be carefully planned to ensure that the project is bankable and that private sector value is optimized.</td>
</tr>
<tr>
<td>Fundable Payment Mechanism</td>
<td>MDOT/Private Sector</td>
<td>FCC considers the payment mechanism as a key issue in assessing the risk profile of projects. FCC currently manages P3 projects with all kinds of payment risks, such as demand, availability or a mix of those. However, we prefer to promote projects with an availability payment structure instead of “full revenue risk” for the following reasons:</td>
</tr>
<tr>
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<td>▪ Because of its lower risk profile, this type of payment mechanism attracts more interest from the debt market and therefore reduces financial close risk.</td>
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<tr>
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<td></td>
<td>▪ One of the advantages of developing infrastructure projects under a P3 scheme is the potential to attract private equity, helping regional economic growth. One of the best ways to access such private equity comes from multinational pure equity investors focused on infrastructure projects. However, many of these companies are reluctant to take part in projects with revenue risk.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ One of the biggest issues of a demand risk project is the need to develop a thorough demand study that helps forecast the future revenue flow. These due diligence studies have schedule and cost implications. No matter how detailed the study is some level of uncertainty is unavoidable resulting in increased risk allowances by the private sector. An availability project therefore delivers benefits to the project schedule and the project budget.</td>
</tr>
<tr>
<td>Financial Close Risk</td>
<td>MDOT</td>
<td>We propose that the risk of volatility in the financing conditions between the bid submission date and financial close (those which do not relate to the credit standing of the project as offered by the successful bidder) is retained by MDOT. MDOT is logically concerned about the ability of bidders to raise the necessary funding in the form of debt, especially when the project has a high risk profile. However, to request that the financial package be closed at bid submission may affect value for money. Requiring the financial package upfront also necessitates a longer time for bid submission. This is to allow for the required due diligence and negotiations with the banks in advance of the bid deadline. In large PPPs it is not unusual to see the authority taking an active role in securing competitive financing terms by imposing a debt</td>
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</table>
funding competition at the preferred bidder stage. FCC has extensive experience of running funding competitions and most recently did so on the Mersey Gateway Bridge P3 Project ($670 million capital expenditure) in the UK and the Haren Prison P3 Project ($300 million capital expenditure) in Belgium.

A.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 sector? How do you assess the likely magnitude of such advantages? What are the potential offsetting disadvantages?

The advantages and disadvantages of transferring operations and maintenance and lifecycle responsibility and/or traffic and revenue risk to the private sector have already been described in the answer to Question A.2 above.

As mentioned previously, one of the greatest benefits in adopting a DBFOM structure is the whole-life cost optimization approach to the Project. Within our teams, we like to ensure that the construction team and the operation and maintenance team put their heads together from an early stage in the tender process, and that the D&B Contractor has a very clear picture of the impact their design solutions and material choices have on operation and maintenance management strategies and lifecycle costs. We then carry out optioneering to optimize the capex/lifecycle profile, thus ensuring that the cost of the project is minimized and that the authority gets the best value for money. Additionally, by transferring O&M and lifecycle risk to the private sector, MDOT will know exactly the cost of owning, operating and maintaining the asset over the complete contract term.

Transferring traffic and revenue risk to the private sector should be evaluated for each project depending on the Traffic and Revenue (T&R) study. The main benefit for MDOT is that a minimised financial contribution is required from public funds since the tolling risk is passed to the private sector. Nevertheless, this delivery method, involving traffic risk on the developers side, can jeopardize the whole project due to difficulties in the financing or failure due to revenue shortfall. Availability payment schemes have a lower risk profile compared to risk demand, and thus attract more market interest ensuring more competitive pricing and better value for money for MDOT.

Considering that not all the segments of the Traffic Relief Plan have the same level of traffic, it would be beneficial to implement a mechanism that could compensate the segments with lower traffic with incomes coming from segments with higher traffic, in order to complete both the I-270 and the I-495/I-95 to the same standards. In this case it makes sense for MDOT to retain toll risk and make the appropriate funding distribution to each corridor.
A.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?

By transferring the operations and maintenance and lifecycle responsibility for the entire freeway, the Authority will realize benefits such as:

- Cost saving through economy of scale and bringing private sector expertise to the entire freeway.
- A reduction in the interfaces with other nearby maintenance crews.
- Having a unique contract for the entire freeway will avoid conflicts between different subcontractors and will optimize the resources needed to solve conflicts.
- Traffic management benefits.

All these benefits could lead to a reduction of cost and risk to the Authority. Nevertheless, MDOT would have to assume the responsibility of the latent defects in the existing freeway since the developer is inheriting a part of the project that has been designed, built, supervised, maintained and operated by others. We would encourage MDOT to provide bidders with an inventory of the existing assets, along with as-built records, maintenance records, recent surveys and performance tests, to ensure that the developer can assess the baseline asset condition.

A.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?

We are seeing more “mega projects” coming into the market place and successfully raising funding however they are still the exception rather than the norm. FCC has previously delivered private sector funding for P3 contracts with a construction value of $4.3 billion (the Lima Metro, Line 2 DBFMO, with a 2014 contract close).

Securing funding over $5 million is ambitious, and the structure of the deal would have to be specifically designed to attract lenders. On the Lima Metro project, we were successful in raising the necessary finance because the government provided over 70% of the construction costs in milestone payments. In addition, the Peruvian government committed to providing monthly certificates to the concessionaire to guarantee the capex expenditure to date, in case of termination. We worked together with the client to sculpt this guarantee structure, and this creative thinking meant that the project was deliverable, and the funds to develop the project were achieved.

The Traffic Relief Plan issued by MDOT indicates an estimated cost of $7.6 billion for both corridors. In the case of a single solicitation, MDOT will therefore need to consider a creative solution, with a significant portion of the capex covered by milestone payments during construction and a suitable payment security structure in place to attract lenders. The payments during
construction whilst helping to reduce the level of interest as part of the funding, also reduce the level of equity to be provided by the Concessionaire and generally will bring better value for MDOT. Considering the proximity of both corridors, it could make sense to deliver the Congestion Relief Improvements of the I-495/I-95 and I-270 corridors in one project; however, it is difficult to see how such a large project would be financed, with the current funding levels envisaged. The option of launching the Project solicitations in two or three phases would also open the tender up to a greater number of contracting entities that, whilst having the necessary skills and proven ability to deliver such a complex project, would not be capable of providing the necessary guarantees. In this sense, we consider that dividing the program in several projects with CAPEX value between $2 to $2.5 billion can be more appropriate. Moreover, we believe that the financial risk of MDOT and the traffic impact for users would be reduced by staggering multiple solicitations.

Our ability to establish the corridor limits is limited at such an early stage but FCC is willing to meet MDOT to discuss this issue further at your convenience.
B. Project Development

B.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?

FCC would be interested in participating in this project, however to respond to an RFP with a committed price, we have listed below some key factors which our board will consider when evaluating the project.

- **Project Viability:** If at an early stage the project is perceived as a “real” project with a defined procurement model and timeline, we will devote the time and resources of our experienced international team to develop this proposal. To achieve this, environmental approvals (NEPA) and/or any outstanding legislative approvals should occur early in the process, before significant commitment from the private sector is required.

- **Optimised Procurement Timeline:** The project programme should consider the benefits of giving bidders the time to optimise financing solutions and value engineer the project thereby achieving value for money. The timeline should consider the need to develop proposal design, undertake ATC dialogue with MDOT, quantities take-off, supply chain, engagement, estimating, co-ordination between design-builder, developer, maintainer and operator and bid close.

- **Number of Candidates:** Bid costs in a private finance project can be significantly higher than traditional design-build contracts. The number of shortlisted candidates should be sufficient to ensure competition, whilst not being too large to reduce the developer’s incentive to allocate significant resources. We feel that shortlisting 3 to 4 teams ensures that the client receives value for money.

- **Process:** We would encourage a clear and transparent RFQ and RFP processes where MDOT clearly defines its goals and proposal deliverables along with an objective and detailed scoring criteria. This is critical to allow developers to understand MDOT’s needs. By providing the weight and qualitative scoring values of each element we can tailor our proposal to be as competitive as possible, giving the owner the optimum value.

- **Dialogue:** A delivery and meeting schedule, which is designed to promote ongoing dialogue and ongoing development of final proposal documents through the dialogue period, is essential. This ensures that the bidder is not wasting time developing proposals that do not meet MDOT’s needs and ensures that project risks are better understood and proposal prices consider the full picture.

- **Appropriate level of survey information to inform the proposals:** Money spent up front on advance works/surveys/testing can reduce risk pricing and improve construction schedules.

- **Stipend:** A reasonable stipend that covers as a minimum 3rd Party bidding costs with the appropriate transfer to MDOT of intellectual property and bidders’ design ideas.

- **Clearly defined and appropriate risk allocation:** Base contracts should be developed at any early stage in the process, with on market terms, and room for dialogue with bidders. To
achieve value for money risks should be assigned to the party who has more control/leverage over it. Please refer to the answer to question A.2.

B.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 an RFP? Please discuss your reasoning.

Launching the procurement process for a project too early can be detrimental to the tender process. The issuance of a RFQ implies that an authority has a relatively clear vision of their project and is ready to select the most appropriate candidates to move forward to the RFP stage. Considering the Project magnitude in this case and the wide spectrum of potential solutions the Project is not at that stage yet. By selecting a preferred alternative prior to launching the RFQ, MDOT will give a clear message to the industry that the project is “real” and thus, will ensure committed and responsive proposals from the private sector.

Ideally, the NEPA process, ROW acquisition and legal and technical tender documents should be completed or significantly advanced prior to the issuance of the RFP. This is set out in more detail in Question B.1. It is also possible to overlap the RFP process and the environmental permit process if the programme is well defined without the risk of third party objections and appeal processes. We also recommend that MDOT defines the project in a manner that allows some flexibility for the developer to incorporate value engineering and innovation within its proposals.

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

The critical path items for the procurement of this Project are:

- Right-of-way acquisition, to be completed before RFP submission – refer to the answer to question B.8;
- Completion of the NEPA process – refer to our response to question B.2;
- Determination of procurement method, to be completed before launching the RFQ since many companies might decide not to bid if the project is developed as demand risk or a dual procurement process is followed (i.e. DBF and P3);
- Define a technical preferred alternative – refer to our response to question B.2;
- Develop a bankable outline finance plan – refer to our response to question A.5;
- TIFIA and PABs application process – multiple stages in the process that can extend the financial close date.
- Availability of T&R studies;
B.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?**

Based on our experience in similar projects, we recommend MDOT allows a minimum of 3 months between the issuance of an RFQ and the submission of the Statement of Qualifications (SOQ).

B.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?**

Due to the size and complexity of the project, we suggest that a competitive dialogue procedure is the most appropriate procurement model to achieve value for money for MDOT. In this case, we believe that a minimum of 10 months is an adequate time period between the issuance of the RFP and the submission deadline in order to develop the tender design, innovative cost saving technical solutions (through ATCs) and optimization of the financing of the project.

We have provided below an optimum timeline of for a P3 procurement from the issuance of the RFQ, considering an availability payment:

- **Month 1:** Issuance of RFQ.
- **Month 4:** Submission of Statement of Qualifications (SOQ).
- **Months 4-6:** Review of SOQ’s, shortlist of proponents and issue of Draft RFP.
- **Months 6-12:** One-to-one meetings with MDOT to dialogue the draft RFP and develop the tender solution.
- **Month 12:** Issuance of Final RFP
- **Months 12-16:** Preparation of final bids and submission
- **Month 16:** Final Bid

A shorter procurement schedule could impact the developer’s ability to incorporate technical innovation, appropriate risk mitigation and creative funding solution analysis adequately into its proposals. An overly extended programme can also lead to excessive bid costs.

Adopting a demand payment mechanism could require additional time due the detailed traffic study due diligence required, both by the developer and the lenders.

B.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?**

To guarantee a successful bid process it is essential that the bidders are presented with appropriate information on the project. This is key to ensuring that bidders fully appreciate the project and can mitigate risks instead of pricing for them, thereby reinforcing project deliverability. As a minimum the following documents should made available during the RFP stage:

- Geotechnical investigation reports and records
 Environmental reports;
 Traffic and revenue studies;
 Utilities & ROW information;
 As Built drawings and detailed surveys of existing assets, including but not limited to structures and pavements;
 Proposed payment mechanism & contract conditions.
 Technical specifications
 Clear assignment of project risks
 3rd party agreements
 Accommodation works schedules

B.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.**

For a project of this size, we consider that the inclusion of a reasonable stipend for the unsuccessful proponents participating in the RFP phase of the procurement is fundamental to encourage competition and a strong involvement from the private sector in terms of time and resources. The stipend amount depends on the complexity of the Project but we suggest MDOT consider providing a minimum of 0.4% of the CAPEX to cover at least some of the development costs incurred.

B.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.**

We believe that MDOT should take the risk of right-of-way acquisition activities since it is the party that has more control over the land acquisition process. These works should be completed by MDOT well in advance of contract close in order to minimize the impact on the project programme and to achieve a market value agreement for the land/facilities affected by the project.
C. Technical Challenges

C.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.

Whilst we would need more detailed information about the project to identify all of the Project challenges, we have set out a high level summary of some key technical items which could have a significant impact on the design and construction of the project, based on FCC’s previous experience of projects of this nature:

- **Health and Safety:** FCC’s first priority is to keep our workforce and the general public safe by adopting an integrated quality management system for the project.

- **Limited availability of sufficient land/ROW:** could lead to the requirement for complex technical and construction solutions and ultimately higher construction, operation and maintenance costs. We recommend that MDOT start ROW acquisition as early as possible as described in the response to Question B.8. In addition accurate and comprehensive geotechnical investigation data can help developers to provide technical solutions which minimise ROW required. FCC’s experience working in congested urban areas on projects such as the Mersey Gateway Bridge or the Gerald Desmond Bridge will be invaluable in developing the required technical solutions.

- **Impact on existing highway infrastructure in particular interchanges and existing road and railroad crossings:** Traffic management will be a key mitigation measure. As an example, FCC kept 260,000 vehicles per day moving during construction in the M-30 South Tunnel Project in Madrid.

- **Environmental approvals:** a project in a sensitive environment area with forest and wild fauna requires strong coordination with several local and federal agencies. To ensure the start of the works on time and a proper development of the site activities, securing the environmental permit should be one of MDOT’s first priorities.

- **ITS integration:** FCC can design, supply and build state of the art ITS solutions to ensure safe and efficient operation of the Project, whilst also integrating with any existing ITS assets and providing live data to MDOT and emergency services as required.

- **Project phasing, buildability and management of interfaces between phases:** FCC’s experience building similar projects will prove invaluable in ensuring that the project phasing is optimised;

- **Impact on utilities, with specific emphasis on those electric and gas lines where diversions can have a long lead in time and be costly;**

- **Impact on surrounding neighbourhoods and facilities:** FCC prides itself on its ability to reach out to the public and local communities during the construction of major infrastructure and whilst disruption can be completely mitigated the impact can be managed through effective communication strategies, safe working practices and education and employment initiatives related to the project;

- **Building the new infrastructure around the existing infrastructure.** As described in the response to Question B.6, it is essential that the bidders are presented with appropriate as-
built information relating to existing assets at the RFP stage. This is key to ensuring that bidders can develop a value for money technical solution.

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

Whilst it depends on multiple factors, MDOT could minimise upfront capital expenditure costs by deferring the construction of future capacity measures until closer to the time that this future capacity is actually required. This could result in few lanes being built during the initial construction phase of the project. The initial design would however have to allow for certain measures which would facilitate simplified construction of future capacity improvement works which would mitigate traffic impacts and disruption (such as including earthworks/capping/bridge widths) to accommodate these future lanes. This approach could result in an NPV benefit for the project but it would be difficult for the private sector to absorb the risk for these future intervention works. Any NPV benefit would have to be weighed up against future construction disruption.

Through consultation with the operation and maintenance team we will ensure that the materials and products which are used during the initial construction phase are chosen with the optimum future maintenance and lifecycle regime in mind to minimise the whole life cost of the individual assets. A well-considered pavement intervention strategy can be particularly effective in optimising lifecycle costs and therefore it is prudent to allow the developer flexibility in determining the initial pavement construction depths and materials.

C.3. Please explain any technical solutions that 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.

The information currently available to us does not allow us to expand on specific technical solutions. During the RFP phase we will analyse all available project information to develop an optimised technical solution within a deliverable timeframe at a competitive cost. This is a very challenging project, but also susceptible to out of the box solutions that we are more than used to exploring. In fact FCC´s centralized technical services team, in Madrid, works on all FCC highway projects throughout the world, and therefore acts as a central powerhouse for technical challenges and solutions.
D. Contract Structure

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

On all our PPP projects, as a central component of our funding strategy and to guarantee delivery, we normally work with our financial advisors to run a continuous multi-track process of several funding solutions up to the preferred bidder phase. We therefore analyse structures based on long term, mini-perm and public and private capital market solutions. We undertake quantitative and qualitative analysis on the options with the objective of delivering the most competitive offer to our clients. Emphasis is placed upon constant interaction with funders, ensuring detailed and timely feedback on the status of the financial markets and availability of funding solutions. Potential lenders receive regular updates on due diligence reports with the target of having on market term sheets with a strong level of commitment included in the final tender financing plan.

To guarantee this commitment we appoint world-class due diligence advisors, with relevant experience, with special emphasis on their US experience.

FCC has extensive experience globally working on deals with government backed funding as part of the finance package. In addition we were one of the bidders for the I4Ultimate $2.5 billion highway project in Florida, where Federal funding was part of the package. During this tender process we gained valuable experience and understand clearly the key considerations that the federal funding will bring to the project. If the Congestion Relief Improvements Project adopts a federal funding approach, the optimum structure will be a Design, Build, Finance, Operation and Maintenance type contract. The involvement of TIFIA in the financing plan will be one of the main drivers to ensure appropriate risk allocation between the parties, because the project risk profile will dictate the project ratings achieved.

TIFIA will require:

- Investment grade indicative credit rating from a nationally recognized rating agency on the senior debt and a rating on the TIFIA loan; or
- An investment grade indicative credit rating on TIFIA, to the extent that the TIFIA loan amount exceeds the senior debt amount, as required by the TIFIA program.

These rating agencies will assign a high importance to the level of revenue risk for the developer in the deal. Therefore to ensure that the ratings achieved are maximized MDOT should consider retaining revenue risk or adopt a mixed model with a minimum revenue guaranty where MDOT would guarantee a minimum amount of revenue every month to the developer.

Another option is the use of milestone payments during construction as we mentioned previously in this RFI. We refer to the Lima Metro example we gave in the response to Question A.5. To deliver the project we suggest that a significant percentage of the capital expenditure should be repaid by the Authority in milestone payments during construction and the security structure for the future payments to the concessionaire should be considered carefully to ensure that the project risk profile is attractive to lenders.
We would like to understand how the ongoing tax reform in the US will impact on Public Activity Bonds (PABs), as this is certainly a funding source that we’ll explore for use in the project.

D.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?

We think that having a defined scope with a concession term set by MDOT is the best option for the development of the Project since it will be easier for MDOT to evaluate the different tenderers proposals than in the case of a variable concession term. If the concession term is open this will leave various whole life cycle strategies open complicating the tender evaluation process unnecessarily. Thus, in our view a defined concession term will lead to a more competitive and more transparent procurement process, avoiding a high degree of subjectivity.

The T&R studies will assist in defining the most appropriate concession term for the project but based on FCC’s global concessions experience, we feel that a 30-year concession term is a minimum market standard for this kind of project. This period of time normally allows the private partner to generate enough revenues to repay the entire debt and interest, whilst maintaining unitary payments at acceptable levels. At the end of the concession period the Authority will own a fully operational asset which will have been well maintained across the contract term.

D.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 a concession payment to MDOT, or are key to obtaining competition? Please discuss the benefit and risks of the recommended contract terms.

We definitely recommend MDOT to work closely with the bidders using ATCs and AFCs which provide the tenderers with an opportunity to submit ideas which deviate from the RFP but provide an equal or better product to the client. This approach could result in programme and/or costs savings to the Project.

For the ATC process to be meaningful, MDOT needs to get fully involved, such as having one on one meetings and a clear and empowered decision making process. Sufficient time should be allowed for tenderers to develop these alternative concepts, submit, discuss and vet them with the Client and fully develop and price the proposals after approval. Whilst this mechanism may slightly lengthen the procurement process it could add a lot of value. The bottom line is that by adopting this partnering approach during the procurement phase the client receives the benefits of these any potential cost/programme/quality solutions without compromising overall quality and the tenderer in return can be more competitive thereby motivating innovative thinking and increasing the tenderers chances of success. In return for a work product stipend, MDOT will have the chance to incorporate these innovations within the project even if the project is not awarded to the team that proposed the ATC.
We also recommend MDOT to include a contract balancing clause in the case of “force majeure”, change of law, change of scope, or the RoW acquisition the NEPA process not being completed on time by MDOT or any other appropriate authority risks in order to ensure that the developers risks are maintained at an on-market and level and to achieve the best value for money.

If MDOT decide to finally adopt a revenue risk approach, a system that could be used by MDOT to maximize the concession payment is the profit sharing mechanism between the client and the private sector in case the income from the toll is significantly higher than assumed during the tender stage. At the same time, MDOT should ensure a minimum monthly payment to the concessionaire in the case the traffic is much lower than the forecast. A possible scenario could be as follows:

- Toll income is less than 80% of the expected: MDOT compensates the developer by an extra payment to reach 80% of the value offered in the tender phase.
- Toll income is in the range of 80% to 110% of the expected: no compensation, the developer gets the toll payment as it is.
- Toll income is higher than 110% of the expected: the developer shares the extra revenue over 110% with MDOT.
E. Miscellaneous

E.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.

We do not have any particular concerns with the information provided in the RFI, but would suggest that the proposed approach outlined in our responses above be given due consideration.

E.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.

FCC’s strategy is to team up with local firms both as partners and as subcontractors. FCC values the participation of national, regional or local companies in its team, from medium to large size companies joining us as CJV partners, to small and SBEs engaging with us as sub-contractors and sub-consultants.

Therefore, local participation is an important aspect of FCC’s participation in any project, not only during the design and construction periods but also during the operational phase. We consider local participation in the following roles:

- Construction Joint Venture partners;
- Communication and Marketing;
- Lead designers and sub-consultants (surveyors; electromechanical designers; utility relocation design, environmental design);
- Construction materials and equipment suppliers;
- sub-contractors (haul material; electrical and mechanical; QA/QC; material processing);
- Maintenance and Operation – joint venture partners, material supply, call-out services.

We start sub-contractors engagement at an early stage in the process, organizing meet the buyer events to attract suppliers. This is especially effective at reaching out to local suppliers who often find it difficult to register their interest in a project.

One of the most outstanding projects in the field of integration of people with disabilities is the creation of FCC EQUAL CEE, promoted by the environment division. FCC EQUAL is a Special Employment Centre in which eighteen people, thirteen of whom have disabilities, are already working. Thus, the goal sought is not only to provide job opportunities but to provide the skills, capacity and appropriate competencies for professional development in the company.

In line with FCC’s strategy to collaborate with MBEs/DBEs in its projects, MDOT could also enhance their participation by promoting the following initiatives:

- Organization of outreach events with the local community where MBEs/DBEs can meet potential developers;
Participation in training programmes for the promotion and development of MBEs/DBEs: workshops on leadership, programmes for developing executive abilities and development of strategic competencies and abilities in middle management;

Advertise opportunities for contracts on MDOT local contract award portal (if applicable);

Establishing a responsible procurement policy not only based on the core business credentials of the developers but also on issues such as integrity and equal opportunities.

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

We welcomed the opportunity to attend the industry forum organised by MDOT in December 2017. The information presented was very useful. We would like to see further industry forum´s such as this as the project develops with one-to-one meetings to further understand the project details. An interest parties email list, and regular updates via the website would also be beneficial.

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

FCC understands the challenges of building in an suburban environment and has participated globally as design-builder, concessionaire, operator and maintainer on metropolitan transport projects with billion dollar capital expenditure budgets.

By teaming with local partners we will compliment this international experience with Maryland specific knowledge thereby delivering a high quality, sustainable, cost effective and deliverable end product.

FCC´s highway experience, approach to innovation and ability to deliver could be invaluable to the MDOT in achieving their goals for the Project, no matter what delivery model is finally deemed most appropriate.

Finally, we would like to express our interest in partnering with MDOT to make the Congestion Relief Improvements project a reality and we would welcome a follow up meeting to expand on or clarify any point that MDOT may have.

**Disclaimer**

The response provided in this questionnaire is offered in good faith on a non-reliance basis to provide feedback to MDOT on the Congestion Relief Improvements. No warranty or representation (express or implied) is given as to the accuracy or completeness of the responses and neither FCC nor any of its subsidiaries or advisors shall have any liability in relation to the responses.