North Carolina Department of Transportation

REQUEST FOR INFORMATION: Alternative Delivery Contract Option – Cape Fear Memorial Bridge Replacement Project

Submitted By:

ASTM North America

HALMAR International

May 26, 2022

ASTM North America

26 May 2022

Mr. David Stark
Manager, Priority Projects
1000 Birch Ridge Drive
Raleigh, NC 27610

Greetings Mr. Stark,

It is our privilege to share with you our joint response to the North Carolina Department of Transportation ("NCDOT") Request for Information – Alternative Delivery Contract Option for the Cape Fear Memorial Bridge Replacement Project. In the attached response, we have recommended an Alternative Delivery Contract to accelerate procurement and project delivery, utilizing an integrated Design-Build-Finance-Operate-Maintain ("DBFOM") contract.

Through a well-structured Alternative Delivery Contract, NCDOT would benefit from a collaborative partnership emphasizing appropriate risk allocation and effective mitigation, while accelerating bridge replacement to improve traffic flows and eliminate escalating operating costs associated with the existing facility. Finally, by incorporating private finance and revenue risk transfer, NCDOT would maximize opportunities for innovation, efficient cost containment and continuous improvement of operations over the whole lifecycle of the project.

As detailed hereafter, ASTM North America and Halmar International are responding as an integrated developer-contractor. Our fully integrated, interdisciplinary approach to project development and delivery is tailor-made for complex projects where risks and opportunities are best identified early and appropriately allocated to the stakeholder best placed to mitigate such risks (and conversely, capitalize on opportunities) ensuring such risks are neither stranded nor borne by a party ill-equipped to manage and mitigate them.

We are committed to working in a collaborative fashion in all instances and seek to manage and mitigate risk in a systematic way to ensure projects are delivered on-time and on-budget in an efficient manner to ensure commercial success, while ensuring best practices in procurement, project delivery and partnership for our Public Sponsor partners.

We look forward to discussing this exciting bridge replacement project with you and assisting the Department with advancing an Alternative Delivery procurement for the project. We remain at your disposal should you require further information.

Sincerely yours,

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Overview: ASTM Group

ASTM North America Inc. ("**ANA**"), is the North American infrastructure investment and development arm of ASTM S.p.A. ("**ASTM**"), a global vertically-integrated owner-operator of motorway concessions. ASTM established ANA in 2019 to pursue P3 surface transportation projects in North America. ASTM is the second largest motorway operator in the world based on nearly 3,500 miles of motorway concessions in operations and under management in Italy, Brazil and the UK. In Brazil, ASTM is the controlling shareholder of EcoRodovias ("ECO"), the second largest motorway concessions operator. Following a recent tender success, ECO is poised to ascend to the first position amongst private operators in Brazil.

ANA is based in New York and co-located with affiliate EPC Contractor, Halmar International, collaborating together on integrated surface transportation P3 tenders throughout North America. To date, the partnership has been short-listed for six P3 tenders in Florida, Georgia, Louisiana, Maryland, New York and Pennsylvania, due in part to Halmar and its unparalleled track record in the United States delivering complex surface transportation coupled with the ASTM global portfolio of motorway assets in Europe and South America and its extensive history of delivering complex infrastructure improvements across its operating portfolio.

Halmar International ("Halmar") is a leading heavy civil contractor based in Nanuet, NY with offices across the southeastern United States. Halmar brings more than 60-years' experience constructing and upgrading transportation and related infrastructure in the northeast. With a backlog in excess of $1 billion and extensive experience working with transport agencies, we bring cutting-edge technology and best practices to the design and construction of complex infrastructure projects in congested urban environments.

Halmar has earned a reputation as a result-driven, heavy civil construction firm guided by a commitment to quality work at every level of design-build, design-bid-build, and CMGC delivery. Innovative solutions to design and construction challenges, coupled with an award-winning partnering approach, allow Halmar to achieve accelerated schedules, lower costs, and trusted client relationships. In-house engineers and experienced staff have delivered billions of dollars of complex transit, rail, bridge, highway, and aviation projects for agencies.

A list of large-scale reference projects is provided below:

Major Bridges and Interchanges	ADT	Total Value (USD)
Alexander Hamilton Bridge (New York)	300,000	$400M
Mill Basin Bridge (New York)	141,300	$240M
Patroon Island Bridge (New York)	84,000	$150M
Hutchison Parkway Interchanges and Bridge (New York)	200,000	$90M
I-287/I-87 Suffern Interchange (New York)	92,000	$100M
Kew Gardens Interchange (New York)	600,000	$370M

Our fully integrated, interdisciplinary approach to project development and delivery is tailor-made for complex megaprojects where risks and opportunities are identified early in the pre-development phase and appropriately allocated to the stakeholder best placed to mitigate such risks (and capitalize on opportunities) to ensure such risks are neither stranded nor borne by a party ill-equipped to manage such risk. Opportunities are assigned and managed by the party best-placed to realize such benefit for the good of the Project and to bring best value to the Public Sponsor. We work in a collaborative fashion in all instances and seek to manage and mitigate risk in a systematic way to ensure projects are delivered on-time and on-budget in an efficient manner to ensure commercial success, while delivering best practices in procurement, project delivery and partnership for our Public Sponsor partners.

ASTM S.p.A., the parent company of wholly-owned subsidiary ANA and indirect, controlling shareholder in Halmar, currently operates has 24 concessions worldwide, in Italy, Brazil, and the United Kingdom. The Group has two lead civil construction companies, Itinera S.p.A. (Italian-based) and Halmar International (US-based). Together the group brings a strong understanding of the complexities and risks that come with building roads, transit, rail, large-span bridges, tunnels, and airports in congested urban environments over the longer term. ASTM is a fully integrated, solution-minded organization bringing the latest in innovation, while maintaining safety, integrity, and excellence in all that we do. ASTM is controlled through an intermediate holding company by affiliates of the Gavio family at (50.5%), and funds managed by Ardian (49.5%), a world-leading private equity investment company.

In 2021, ASTM reported adjusted gross revenue in excess of $3.5 billion yielding EBITDA of nearly $1.4 billion. Financial resources at year-end 2021 amounted to $3.5 billion in consolidated financial receivables and cash and cash equivalents. EPC backlog stood at $4.7 billion of which 40% is in the Italian market with the remainder in international jurisdictions.[1]

[1] USD equivalent based on an effective exchange rate of $1.1373 as reported by WSJ at 31 December 2021.

Cape Fear Memorial Bridge

Alternative Delivery Contract Option

Summary

ASTM North America Inc. ("**ANA**"), as developer and equity investor, along with its affiliated design-builder, Halmar International ("**Halmar**") submit this response to the Request for Information issued on April 25th, 2022 by the North Carolina Department of Transportation ("**NCDOT**") for the Cape Fear Memorial Bridge ("**CFMB**") Alternative Delivery Contract Option for accelerated bridge replacement.

As detailed herein, we would strongly encourage NCDOT to initiate a formal procurement and select a private partner to deliver this critical bridge replacement project through an integrated, design-build-finance-operate-maintain ("**DBFOM**") turnkey contract. We are confident that once NCDOT and key stakeholders, including Wilmington Urban Area Metropolitan Planning Organization identify a locally preferred alternative, the most efficient delivery solution would result from a two-phase procurement process and integrated contractual structure. Through an Alternative Delivery Contract, NCDOT will realize substantial benefits, including turnkey, date certain project delivery, with limited recourse and performance-based operations and maintenance by the private sector development team, all while maximizing opportunity for innovation and value-engineering across all aspects of the project lifecycle.

Furthermore, based on our preliminary feasibility analysis, we would strongly recommend NCDOT consider toll revenue risk transfer to the private sector developer to further incentivize the development team to expedite project delivery and testing and commissioning of the new tolled facility, while ensuring a robust operations and maintenance program to improve traffic flow and enhance safety with open-road toll operations. Toll revenue and related user fees appear sufficient to fund the project delivery and compensate all costs over the anticipated operating term. From prior experience, where patronage is sufficient to cover operating costs and allow for capital cost recovery, both public and private sector partners benefit from integrated contracting with revenue risk transfer.

In particular, we would note the following attributes as justification for an integrated delivery model:

- The scope of work is reasonably complex, requiring specialist contracting services;
- Operations and long-term maintenance are critical scope elements, which would benefit from integrated delivery and lifecycle cost optimization requiring multi-disciplinary team members;
- Major project elements are path dependent and should be delivered sequentially, necessitating robust scheduling and coordination services; and
- Finally, private sector remuneration may be limited to facility user fees, including a fixed toll schedule based on vehicle classification and (potentially) frequency of facility use.

The Case for P3 procurement and DBFOM integrated delivery

North Carolina Department of Transportation ("**NCDOT**") with its partners in the Wilmington Urban Area Metropolitan Planning Organization ("**WMPO**") and local stakeholders, including the City of Wilmington as well as New Hanover and Brunswick Counties, are considering options for procuring and delivering the replacement of the existing CFMB. ASTM North America Inc. ("**ANA**") and Halmar International ("**Halmar**") are pleased to provide feedback on alternative and innovative delivery and procurement options aimed at expediting delivery and optimizing risk allocation amongst the public and private sectors.

In short, ANA and Halmar strongly recommend an integrated delivery model combining all facets of the project, including design and construction of the civil infrastructure, long-term operations and maintenance as well as toll operations, all integrated and bound together with private finance and revenue risk transfer.

The integrated delivery model promotes private sector innovation and lifecycle cost optimization, while transferring turnkey delivery obligations and performance-based remuneration and patronage risk to the private sector partner. In turn, the contractual framework would provide NCDOT fixed-price, date certain delivery and ongoing operations and lifecycle maintenance of the CFMB and tolling infrastructure.

The Case for Public-Private Partnerships

As NCDOT understands from its prior experience with Public-Private Partnerships ("**P3**"), alternative delivery and integrated contracting represent a departure from conventional design-bid-build project delivery. The key distinction lies in the integration of both design and construction with operations and maintenance. Instead of advancing a design solution and tendering for its implementation, integrated design-build-operations-maintenance contracts promote private sector innovation and lifecycle cost optimization across design and construction and long-term operations and maintenance. By integrating design and construction with lifecycle responsibilities, integrated contracting and competitive procurement encourage bid participants to optimize construction means and methods with lifecycle maintenance obligations for the better of the infrastructure delivered.

When combined with private finance and performance-based contracting, P3 contracting promotes efficient risk allocation to the party best placed to mitigate and manage such risks, while affording the procuring authority turnkey, date-certain delivery of new infrastructure assets. Private financing, performance-based deductions and the tolling franchise with the attendant patronage risk directly link project completion and ongoing operations and maintenance to satisfactory, timely performance throughout the project lifecycle.

Beyond the scope of work, however, partnership remains at the core of successful P3 projects.

Each party brings significant resources to the project and together they forge a partnership with a singular focus on project execution, lifecycle cost optimization and long-term operations and maintenance. Through an effective procurement, NCDOT priorities and objectives should guide proposal evaluation and ultimate contract award determination. Through the contractual arrangements, NCDOT priorities and constraints may be enumerated and memorialized in the project agreement.

For example, we understand minimizing tariffs for local residents and frequent users is a top priority for project stakeholders. One way to promote such objectives is through clearly defined goals and direct incorporation of such objectives into proposal evaluation – NCDOT and WMPO could establish the lowest base tariff as the basis of award or instead link award to the lowest base tariff with the shortest toll franchise or concession term. Louisiana Department of Transportation and Development (LADOTD) successfully employed similar evaluation criteria in procuring the Belle Chasse Bridge and Tunnel Replacement Project, currently under construction outside New Orleans, LA.

The Procurement Model

Successful P3 contracting begins with effective procurement.

The procurement process ultimately leads to selection of a preferred bidder, which in turn will produce a partnership extending for the duration of the whole project lifecycle. As NCDOT appreciates from its experience in alternative project delivery, getting the procurement process right and selecting the best private sector partner, prepared to collaborate and forge a partnership for the long-term, is an essential first-step in achieving a truly successful project and efficient project delivery.

From the outset, the procurement process should focus on selection of the preferred bidder with the demonstrated experience and capability to deliver the full scope of work and the intangibles necessary to demonstrate capacity for collaboration and true partnership. Similar to design-build procurement, the typical process for P3 contract procurement follows a two-stage model and begins with a Request for Qualifications ("RFQ") used to elicit statements of qualification and resulting in down-selection of RFQ

respondents. We would recommend NCDOT consider pre-qualifying three (3) teams based on prior experience, as well as technical and financial capabilities.

The RFQ evaluation criteria typically would include both threshold and pass-fail elements, such as prior experience of team members delivering projects of similar complexity and scale through integrated contracts. Further, team member experience necessarily includes both design and construction ("D&C") services and long-term operations and maintenance (O&M) for the O&M contractor. Such experience may be satisfied by the lead project sponsor(s) or dedicated subcontractors, including D&C and O&M services, exclusive to the consortium. Finance parties (the "Equity Sponsors") should possess both experience and financial capacity to arrange all necessary project financing, including debt and equity to finance delivery and future operations, as well as, possessing the necessary administrative expertise to manage project delivery through the D&C contract and O&M phase.

Following down selection or "short-listing," the next stage of procurement involves issuance of a Request for Proposals ("RFP"), which typically includes Instructions to Proposers ("**ITP**") and the draft Project Agreement ("**PA**"), where the full scope of work is outlined and accompanying Technical Provisions, (collectively, the "**Procurement Documents**") where the technical scope is detailed and the performance standards are set out for both the D&C and O&M periods. At this stage, one or more one-on-one meetings are convened to solicit feedback from the shortlisted consortia and negotiate terms and conditions in the Procurement Documents.

To promote innovation and project value enhancements, we would encourage including provisions allowing for alternative technical concepts ("ATC") at the RFP stage as well as alternative financial concepts ("AFC") and alternative commercial concepts ("ACC"). These alternative concepts allow the private participants to propose innovative technical scope changes or amended and alternative commercial and financial concepts, for example, to reduce cost, promote better alignment of interest or enhance commercial prospects of the infrastructure improvements.

Where value engineering is paramount, as may be the case here, additional incentives, including preferential scoring and stipend payments, may be warranted to encourage independent work product development by the competing consortia.

Bridge Alternatives

NCDOT has identified four alternatives for the replacement of the Cape Fear Bridge, as described in the Project Initiation Form.

Table 1: Alternative Bridge Design and Construction Budget

	Design Option	Construction Cost	Utility Cost	ROW Cost	Total Cost
1	Fixed Span 65' Vertical Clearance	$185	$2	$10	$197
2	Fixed Span 135' Vertical Clearance	$214	$2	$30	$246
3	Movable Span 65' Vertical Clearance	$476	$3	$10	$489
4	Movable Span with Rail 65' Vertical Clearance	$597	$3	$10	$610

Option 1 - fixed low-level bridge, is the least expensive alternative to build and would also be the least costly to operate and maintain, resulting in the lowest overall life cycle cost and likely the lowest corresponding toll schedule.

Reducing the vertical clearance in the navigation channel would involve navigational studies, US Coast Guard deliberation, and possible community resistance, with the potential to delay the start of construction or increase the overall project budget due to attendant mitigation costs.

Option 2 - high-level fixed span, may be feasible with approach grades of 6% or higher. The capital and maintenance costs would be slightly higher than for Option 1.

Option 3 - essentially replaces the bridge in kind. The construction, operating and maintenance costs would all be higher than for Option 1, resulting in higher tolls. The NEPA process would be the simplest and most expeditious, allowing construction to start earlier than other options.

Option 4 - low level fixed with rail, introduces numerous uncertainties and delay prospects, as well as higher lifecycle project costs. The uncertainties, delays and required railroad coordination present unique circumstances, but would resolve multi-modal challenges in the region.

From a P3 contractor perspective, there are several factors that will make the project attractive for investment and ensure ample competition amongst qualified development teams, including:

- Clear statement of need and broad stakeholder support for the project and procurement process
- A high likelihood that the procurement process will result in contract award and the project will progress to construction
- Minimal delay before the start of construction, so that money is not tied up unnecessarily
- Project complexity that is likely to benefit from lifecycle cost optimization with a dedicated funding stream to recover capital and lifecycle costs
- For “hard bid,” well-advanced environmental review processes, stakeholder buy-in and a viable locally preferred alternative

Options 1 and 2, (or a variation with a vertical clearance between 65’ and 135’) are well suited for consideration under a P3 delivery method. The routine operation and maintenance costs are low, resulting in lower tolls or affording greater flexibility for frequent user or local discounts, and long-term maintenance requirements are easily identified and programmed.

The main concern for a P3 developer would be potential delays for environmental and navigational approvals. Public acceptance of a new toll bridge would also have to be assured before bidders line up.

Option 3, the movable bridge, has significantly higher routine operating and maintenance costs, all else equal, necessitating higher tolls than a fixed-span alternative. The higher toll rates required to recover higher costs during operations in turn may not be acceptable for community stakeholders and the traveling public. That said, because the new bridge would essentially be a replacement in kind, environmental and navigational approvals could be expedited.

Option 4, a movable bridge with rail, likely carries the greatest risk from a procurement perspective, as the added complexities associated with freight rail would likely necessitate a more involved environmental review process and added coordination obligations to accommodate the interests of the Class 1 railroad.

Recommendations

We recommend that NCDOT conduct further studies to define the project and develop a realistic timeline to complete environmental review and permitting. To make the project more attractive for P3 investors, we suggest that NCDOT:

1. Identify a preferred alternative and advance preliminary design;
2. Determine the level of environmental review required and establish a schedule;
3. Develop initial cost estimates and establish baseline feasibility;
4. Determine base toll rate and develop frequent user discount; and,
5. Engage with key stakeholders and the public to introduce the proposed toll rate and gain public acceptance of a new tolled structure.

Revenue Risk Transfer

Based on a preliminary feasibility assessment, ASTM would anticipate toll revenue, in combination with related ancillary revenues would alone be sufficient to pay for the capital investment required for most of the alternatives under consideration by NCDOT and WMPO. And while toll collection and patronage risk could be retained by the public sector, we would note considerable advantages for both the public sector and the user community through private sector risk transfer.

First and foremost, toll revenue risk transfer firmly aligns the concessionaire with the procuring agency and user community by deferring investment capital remuneration until satisfactory completion of the new facility and operations commencement. Unlike an availability payment model, equity contributions as a proportion of total capital are significantly higher, which further enhances the financial incentive to ensure the delivery solution is both timely and cost effective on a lifecycle cost basis.

Indeed, contrary to the conventional capital structures with debt gearing at 90% (i.e., equity contribution of 10% of total private capital), revenue risk transactions typically feature gearing of no more than 80% with equity typically exceeding 20% of total private capital. Acknowledging the capital structure necessarily results in a higher weighted average cost of capital, the equity contribution in these types of transaction bears legitimate risk with a pay-off profile much more akin to equity in the conventional sense than the “quasi-equity” featuring in availability payment remuneration deals.

As indicated, patronage and user demand are inherently risky and typically, the private sector through specialized operations and tolling systems is best placed to manage such risk. The procuring agency establishes the operating standards and toll parameters, whereas the private sector implements the tolling operation subject to the constraints imposed in the project agreement.

When combined with private finance, the equity contribution from the private partner is sized in proportion to the underlying risk of patronage and in the capital structure, sits ahead of the debt providers in a first loss position. Typically, recourse back to the procuring agency is limited to a discrete set of supervening events, which are agreed through negotiated and enumerated in the project agreement. Otherwise, the private partner bears all risk and opportunity associated with the toll franchise.

Finally, patronage risk and the resultant revenue opportunity provides he appropriate incentive for innovation and continuous improvement both during the design and construction phase as well as throughout the operating term. Hereafter, we discuss some of the potential innovations tailored to the CFBR project.

Innovation and value-added enhancements

One of the principal advantages of alternative delivery and procurement involves the greater opportunity for innovation and value enhancements conceived and developed by the private sector contractor. Emerging technologies can be readily incorporated into new construction and replacement projects, such as the CFBR. The technologies ANA and Halmar would recommend for implementation at CFBR would be designed to protect the long-term value of the new bridge, facilitate its efficient operation, and provide benefits in safety and reliability to the traveling public. The ASTM Group, through its transportation technology company Sinelec, has substantial experience in implementing intelligent transportation systems (ITS) and smart road technology in its highway concessions throughout the world. Elements of this technology ideally suited for CFBR include the following:

- Intelligent Bridge Management Systems (BMS) – New bridge construction provides the opportunity to embed state-of-the art sensors and monitoring equipment into the bridge structure to provide on-going real-time data on the condition and function of important structural elements. Sensors are connected to a Bridge Management System to provide alerts, dashboard summaries of structural condition, and automated work-order and inspection scheduling for the benefit of the bridge operator and NCDOT in its oversight capacity. We have found that sensor systems greatly enhance the longevity and safety of a river crossing and provide efficiencies in cost by reducing the frequency for on-water or over-water human inspection. This is of particular importance for CFBR where the inconvenience and congestion produced by lane closures must be kept to a minimum on this important access corridor. Sensors could be seamlessly integrated into a digital twin of the bridge constructed from computer aided design and drafting (CADD) as-built files in a bridge management system database which could include artificial intelligence and machine-learning automation to optimize lifecycle planning and ensure optimal bridge condition on handback at the conclusion of the concession.
- Corridor ITS Enhancements – The CFMB and approach causeway are one of the more highly congested corridors in Wilmington. Because of its importance as a freight route for accessing the Port, and a visitor access route essential to the local economy, the replacement of the bridge would provide an opportunity to implement several useful ITS enhancements to promote safety and congestion relief.
    - Variable message delivery – route guidance, safety information and toll rate information may be provided on electronic signs and, in future, transmitted directly to vehicles through V2I channels. Message delivery can also be directed to web-portals, social media, and cellphone applications in cooperation with NCDOT and local agencies.
    - Variable speed limit and lane control – Given the presence of heavy vehicles and coastal weather conditions it may be useful to have lane and speed control signage to provide speed limit adjustments or speed recommendations based on congestion and weather conditions. This has been shown to improve traffic flow overall and promote safety.
    - Incident management – Automated video monitoring to dispatch incident management is an important innovation to maintain traffic flow and aide first responders.
    - Evacuation lane control – As a key evacuation route, the new CFMB might need to be converted to all one-way flow during emergencies. The lane control indicators, automated barriers and monitoring systems could be integrated into the design of the bridge and key entry and exit ramps on the causeway to greatly facilitate emergency use.
- Weigh-in-Motion (WIM) – In our bridge operations around the world we have found it useful to implement weigh-in-motion technology to assess the frequency of overweight vehicle use and adjust maintenance planning, enforcement and even toll rate assessment accordingly. With integrated video monitoring, vehicle classification detection, and in-pavement weight sensors this system can provide real-time information on bridge loading and the presence of overweight vehicles. A WIM and Smart Road technology platform would undergo calibration/testing to meet AASHTO/NCDOT standards to certify that the technology can accurately weigh vehicles and capture truck identifying information (including vehicle license plate /classification – all while traveling at highway speeds). We have experience in applying this technology as part of an Intelligent BMS (see above) purely for monitoring and planning purposes. We also have experience in implementing a system to provide real-time sign warnings to vehicles to flag weight-limit violators and request stop at off-bridge pull-off location with transmission of vehicle information to enforcement personnel for inspection and issuance of summonses. Another option for a toll bridge with a large share of heavy vehicle traffic would be weight-based tolling for heavy vehicle classes, with a surcharge for overweight violators. These systems promote preservation of the bridge asset and safety for all travelers.

- Open Road Tolling – We would strongly recommend that any toll-collection solution at CFRB be designed as a fully open-road solution with gantry mounted multi-protocol transponder readers and automated license plate detection. Such a system could be operated entirely by the concessionaire or through a commercial back office (CBOS) integrated with North Carolina Turnpike Authority or local toll authority operations.

Initial Feasibility

Based on the preliminary information available, including the technical alternatives for bridge design and the current and future traffic volumes, ASTM believes the project is self-sustaining through toll and ancillary revenue. We have made conservative assumptions relating to the project financing, including a single tranche of senior-secured debt and private equity as the capital sources along with a comprehensive budget for construction phase of the project.

The indicative Sources and Uses table is presented in Table 2.

Table 2: Indicative Sources & Uses

Sources	USD (M)	% Total
Total Debt	$398	77.9%
Project Equity	$95	18.6%
Interest Income	$18	3.6%

D&C expenditure	USD (M)	% Total
D&C expenditure	$400	78.2%
Financing Costs	$87	17.1%
Development costs	$14	2.8%
Reserve funding	$10	1.9%

With tolls commencing post-partial acceptance (i.e., with the opening of the new facility), we model an operating term of approximately 35-years just sufficient to repay the project debt and fully recover an acceptable return on project equity. The ultimate duration of the concession term and the targeted returns from an operational perspective will be driven in part by the composition of traffic volumes (i.e., the mixture and type of commercial and passenger vehicles) along with the base toll rate and the criteria for toll application. Other factors requiring further diligence and verification relate to competing routes, tolling systems and transponder usage, as well as enforcement and collection rules in the Project Agreement.

In closing, we believe the need for the bridge replacement is clear; the existing facility is outdated, requires considerable operation and maintenance expenditure and is ill-equipped to handle the anticipated future growth in passenger and commercial vehicle traffic. In the current budgetary environment, funding options are significantly constrained and therefore user fees are an important means for paying for new facility construction. To accelerate project delivery and achieve an optimal delivery solution, we would note the clear advantages inherent in Alternative Delivery.

The fully integrated delivery model promotes innovation and cost optimization, while transferring key project risks, including budget, schedule and critically patronage and financing risk to the private partner.

In exchange, NCDOT and WMPO benefit from accelerated project delivery and safe and efficient project operations without direct capital outlay and ongoing exposure to operational risk and maintenance obligations. Moreover, the appropriate public authority would retain ownership of the new infrastructure and having established all necessary business rules in the Project Agreement, it contractually maintains ultimate oversight and control of the facility.