



Gordie Howe International Bridge

VALUE FOR MONEY REPORT

September 28, 2018

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I. EXECUTIVE SUMMARY

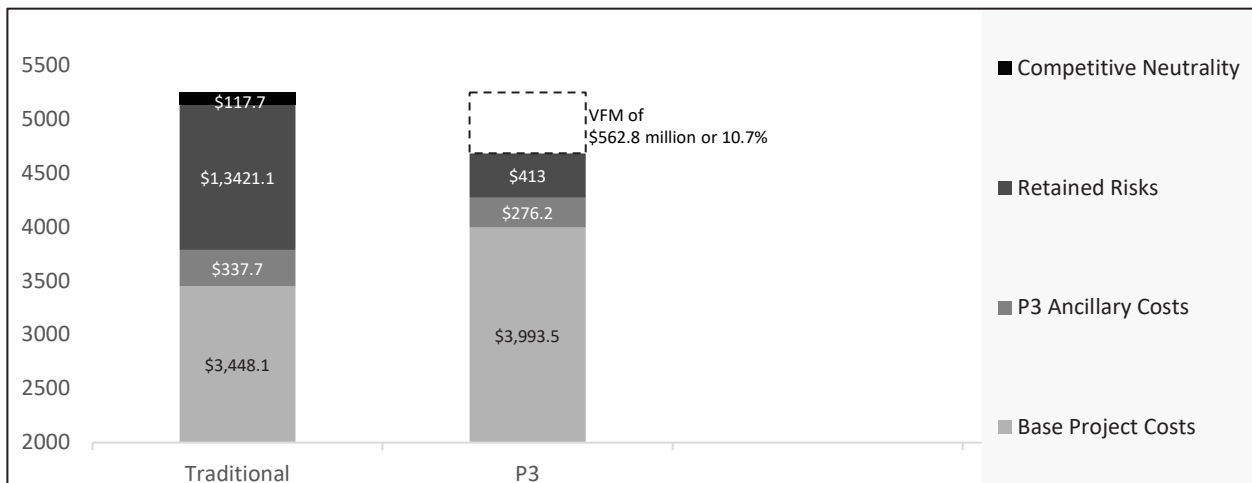
This report provides a summary of the procurement process for the Gordie Howe International Bridge project (the “Project”) and demonstrates how an estimated Value For Money (“VFM”) benefit will be achieved by delivering the Project as a Design-Build-Finance-Operate-Maintain (“DBFOM”) Public Private Partnership (“P3”).

Windsor-Detroit Bridge Authority

Windsor-Detroit Bridge Authority (WDBA) is a not-for-profit Canadian Crown corporation created to deliver the Gordie Howe International Bridge project between Windsor, ON and Detroit, MI through a public-private partnership (P3). WDBA is responsible for overseeing and managing the construction and operation of the new crossing. For more information on WDBA visit wdbridge.com.

Achieving Value for Money

The VFM assessment of the Project indicates an estimated risk adjusted cost savings of \$562.8 million or 10.7% percent (in present value terms) by using the P3 approach compared to traditional delivery.



External Review

Deloitte was retained by WDBA to complete the VFM assessment. WDBA, Deloitte, and its other advisors (Parsons [technical advisor] and Fasken Martineau DuMoulin LLP (legal advisor) contributed to the development of the risk matrix used in the VFM Assessment.

II. PROJECT HIGHLIGHTS



Purpose	Efficient movement of goods and people Redundancy, capacity, system connectivity, improved border processing Positive economic development
Public Partner	Windsor-Detroit Bridge Authority (WDBA)
Private Partner	Bridging North America (BridgingNA)
Location	Windsor, Ontario and Detroit, Michigan
Project Type	Design-Build-Finance-Operate-Maintain (DBFOM)
Infrastructure Type	Border Transportation Infrastructure
Contract Value	\$5.7 Billion (nominal)
Construction Period	2018 to 2024
Length of Project Agreement	36 years: 6 years construction + 30 years operation, maintenance and rehabilitation
Estimated Value for Money (VFM) (Present Value)	\$562.8 million or 10.7%

Background

There are four major components to the Gordie Howe International Bridge project:

The Gordie Howe International Bridge is a 6-lane cable-stayed bridge, 2.5 kilometres/1.5 miles in length with a clear span of 853 metres/0.53 miles. The bridge also incorporates a multi-use path for pedestrians and cyclists that is 3.6 metres/ 11.8 feet wide.

The Canadian Port of Entry is an approximate 53 hectare or 130 acre site and will be the largest Canadian port along the Canada-US border, and one of the largest anywhere in North America. It includes inbound border inspection facilities for both passenger and commercial vehicles, outbound inspection facilities, toll collection facilities, a maintenance facility and parking.

The US Port of Entry has an approximate 68 hectare or 167 acre site and will be one of the largest US ports along the Canada-US border and in North America. It includes US inbound border inspection facilities for both passenger and commercial vehicles, US outbound inspection facilities, commercial exit control booths and parking.

The Michigan Interchange to Interstate-75 consists of primary connecting ramps to and from the US Port of Entry and associated local road improvements that will be required due to the Project. Three kilometres or 1.8 miles of I-75 require modifications to accommodate the ramps connecting to the US POE. This component is a significant piece of construction, consisting of over a dozen roadway and pedestrian bridges ranging in length from 30 to 518 metres or 100 to 1,700 feet.

Objectives

The Windsor-Detroit Gateway is the busiest commercial land border crossing between Canada and the US and is vital to the economies of Ontario, Michigan, Canada and the United States. Canada is committed to delivering a new border crossing for Windsor-Detroit.

Once complete, the Gordie Howe International Bridge project will facilitate the movement of people, goods and services by ensuring there is sufficient border crossing capacity to handle growth in cross-border trade and traffic, by providing a much-needed crossing alternative.

Overall key objectives of the Gordie Howe International Bridge project include:

- Redundancy
- Capacity
- System connectivity
- Improved border processing
- Public ownership
- Minimize disruption during construction
- Design excellence
- A maintained asset for the long-term
- Delivered on-time, on budget

Project Scope

The project agreement with Bridging North America contains their requirements to:

- **DESIGN AND CONSTRUCT** – lead the design and construction of the project for substantial completion in 2024
- **FINANCE** – secure sufficient financing to finance the construction and capital costs over the term of the project
- **OPERATE** – tolling infrastructure and facilitate lane availability
- **MAINTAIN** – provide maintenance, lifecycle repair and renewal of the project for a 30-year service period as per maintenance performance standards in the project agreement
- **THIRD-PARTY CERTIFICATION** – obtain a third-party independent certification that the requirements of the project agreement are met.

Economic Benefits and Job Creation

The Gordie Howe International Bridge project is generating economic stimulus by creating and supporting jobs. Bridging North America estimates labour will come from Windsor, Detroit and First Nations communities. They anticipate the creation of 2,500 direct jobs including direct hires, sub-contractors and seconded individuals.

III. ACHIEVING VALUE FOR MONEY

The VFM approach used by Deloitte was primarily based on the methodology used by Infrastructure Ontario prior to 2015, as outlined in Infrastructure Ontario's *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*.¹

Value for money concept

The VFM compares the estimated total-risk adjusted project costs, expressed in dollars measured at the same point in time, of delivering an infrastructure project under two delivery models: the traditional Design, Bid, Build (DBB) model ("PSC Costs") and the P3 model ("P3 Costs"), which in the case of the Project, is a DBFOM.

Model #1 Traditional DBB Delivery (PSC)	Model #2 DBFOM (P3)
<p>Estimated costs to the public sector of delivering an infrastructure project using a traditional procurement delivery model.</p> <p>Total risk-adjusted costs are known as the Public Sector Comparator or PSC Costs.</p>	<p>Estimated costs to the public sector of delivering the same project to the identical specifications using the P3 delivery model.</p> <p>Total risk-adjusted costs are known as P3 Costs.</p>

The difference between the total estimated PSC Costs and the total estimated P3 Costs is referred to as VFM. Positive VFM is demonstrated when the cost of delivery under P3 is less than PSC.

Calculating Value for Money – Inputs & Assumptions

The VFM assessment relies on a number of inputs and assumptions, including:

1. Base Project Costs
 - a. Adjusted Base Costs (design, construction, lifecycle and maintenance)
 - b. Financing Costs
2. P3 Ancillary Costs (procurement, project management, etc.)
3. Quantified Value of Retained Risks

¹ The original VFM Assessment was conducted in 2012. For consistency purposes, subsequent updates have continued to be based on the original methodology.

1. Base Project Costs

Calculation of Base Costs

P3 Model		PSC Model	
Base Costs Adjusted for:	(\$)	Base Costs Adjusted for:	(\$)
Risk Premium	Increase to Base Costs	Risk Premium	N/A
Competitive Neutrality	N/A	Competitive Neutrality	Increase to Base Costs
Adjusted Base Costs	Base Costs (\$) +/- Adjustments	Adjusted Base Costs	Base Costs (\$) +/- Adjustments

Base costs include design, construction, maintenance, and lifecycle costs. For the PSC model, these would be the costs paid to a design team, contractor, and OM provider over the lifecycle of the project. For the P3, base costs represent the costs of payments to Project Co for the design, construction, financing, operations and maintenance of the Project. In the estimation of base costs, WDBA relies on external engineers and cost consultants to estimate the costs of the project. These costs become the starting point for both the PSC and P3 models which are then adjusted for:

- A 10% risk premium that the private sector may charge which leads to an increase in construction costs for the P3.
- Competitive Neutrality which is an adjustment to account for the benefit of items paid by the private sector under a P3 that would not be paid to the Government under a traditional model.

Calculation of Financing Costs

P3 Model		PSC Model	
Financing Costs	15% Long-Term Private Sector Financing / 85% Public Sector Financing Costs	Financing Costs	100% Public Sector Financing Costs

One of the common elements of P3 model is the use of private finance for some or all of the project period. Under the traditional delivery model, the public sector makes progress payments throughout construction. Whereas under a P3 model, the government pays a portion of construction costs during construction as interim payments and/or pays the entire amount at the end of the construction period and/or through a series of regular service payments over the term of the concession agreement (for DBFOM projects). Financing costs are reflected as follows:

- Traditional Delivery Model or PSC - the public sector financing cost is based on the rate that the federal government could obtain if it borrowed funds to finance the Project.
- P3 Model – the private sector party borrows at private financing rates to pay for the project costs during construction and carries that financing until fully repaid by the public sector. This private sector financing cost is ultimately passed through to the public sector as a cost and reflected in the P3 model.

2. Ancillary Costs

Pre-Substantial Completion, and post-Substantial Completion costs incurred directly by WDBA such as procurement, project management, design & construction oversight (and any other upfront costs),

administration costs during construction and operations, and other transaction costs have been included in the VFM as these tend to differ between the two delivery models assessed.

3. Quantified Value of Retained Risks

The concepts of risk transfer and mitigation are key to understanding the overall VFM assessment. To estimate and compare the total cost of delivering a project under the traditional delivery model versus the P3 model, the risks borne by the public sector, which are called “retained risks”, are identified and quantified.

Project risks are defined as potential adverse events that may have a direct impact on project costs. To the extent that the public sector retains these risks under both delivery models, the quantified value of these risks are included in the estimated cost under the PSC and P3 model as “retained risks”. The value of risk retained by the public sector under the P3 model are typically lower than under the PSC model. This reflects the transfer of certain project risks from the public sector to the private sector under P3 and the appropriate allocation of risk between the public and private sectors based on the party best able to manage, mitigate, and/or eliminate the project risk.

The following are examples of key Project risks that have been transferred by WDBA to the private sector under the Project Agreement:

- Project Schedule – risk of a longer construction period and resulting in a higher total project cost
- Asset Residual Risk – risk that at the end of the appraisal period, the asset residual value is less than expected because the quality of the asset is not equivalent to the handback requirements stipulated in the Project Agreement
- Latent Defects – Risk that latent defects result in operational difficulties, and additional lifecycle maintenance costs
- Quality Management – risk associated with meeting design standards and codes as they relate to long-term asset performance.

VFM Results

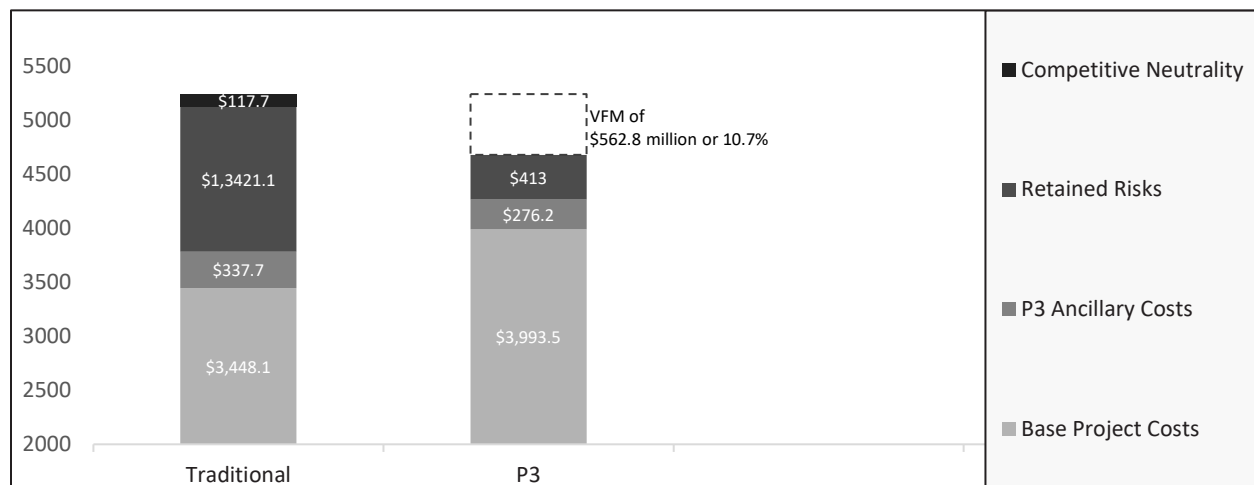
The VFM Assessment for the Project demonstrates an estimated risk adjusted cost savings of \$562.8 million or 10.7%.

P3 Model (\$ Millions, Present Value)		PSC Model (\$ Millions, Present Value)	
Adjusted Base Project Costs	\$3,993.5	Adjusted Base Project Costs	\$3,448.1
Competitive Neutrality	N/A	Competitive Neutrality	\$117.7
Ancillary Costs	\$276.2	Ancillary Costs	\$337.7
Retained Risks	\$413.1	Retained Risks	\$1,342.1
Total	\$4,682.8	Total	\$5,245.6

Estimated Value for Money	\$562.8 million
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Estimated Percentage Savings

10.7%



External Review

Deloitte was retained by WDBA to complete the VFM assessment. WDBA, Deloitte, and its other advisors Parsons (technical advisor) and Fasken Martineau DuMoulin LLP (legal advisor) contributed to the development of the risk matrix used in the VFM Assessment.

IV. PROJECT AGREEMENT

Highlights of the Project Agreement

The Project Agreement (“PA”) signed between Bridging North America (“BridgingNA”) and WDBA defines the obligations and risks of all parties involved. Key highlights that pertain to the construction and maintenance terms are below:

Bridging North America Responsibilities

Bridging North America will be Responsible for various activities throughout the term of the PA, including:

- Obtaining and expending financing equivalent to 15% of the design and construction costs prior to receiving progress payments from WDBA
- Completing the design and construction of the Project components and achieving Substantial Completion by November 30, 2024
- Providing operations, maintenance and rehabilitation of the Project over the Operations Period
- Assuming operational and procedural responsibilities of the tolling systems, including revenue collection, cash management, and service centre management
- Meeting the detailed availability, service, and tolling performance requirements under the payment mechanism provisions of the Project Agreement, over the 30-year operating period
- Meeting the detailed pre-handback and handback requirements, with the specifications and timing as outlined in the Project Agreement.

WDBA Responsibilities

To ensure Bridging North America is prepared to complete the design and construction work necessary to reach Substantial Completion, WDBA is responsible to ensure acquisition of the required lands on which to construct the Project, and ultimately to make the lands accessible to Bridging North America clear of existing utility infrastructure.

As the owner of the Project and its assets, WDBA continues to have responsibilities as the Project Owner during the entire term of the Project Agreement, including:

- Making all applicable payments as outlined in the PA. Monitoring the performance of Bridging North America throughout the term of the PA
- Assuming demand risk for tolling revenue operations
- Remaining accountable for the Project upon the expiry of the PA.

V. COMPETITIVE SELECTION PROCESS

The procurement process for the Project, from RFQ to Financial Close took 38 months to complete. WDBA then entered into a Project Agreement with Bridging North America to design, build, finance, operate and maintain the project.

Procurement Process

I. Request for Qualifications | July 20, 2015

- WDBA issued a request for qualifications (RFQ) to solicit interested parties to design, build, finance, operate and maintain the Project.
- In September 2015, the RFQ period closed and the Sponsors received statements of qualifications from six interested teams.
- RFQ submissions were evaluated by WDBA. High standards were set to ensure the pre-qualified consortia exceeded the technical and financial standards required for this complex and large project. The evaluation process resulted in three proponents being pre-qualified.

Bridging North America (BNA)	Legacy Link Partners	CanAm Gateway Partners
Aecon Infrastructure Management Inc. Dragados Canada, Inc. Fluor Canada, Ltd. Turner VSL AECOM Carlos Fernandez Casado, S.L. and Ingenieros Consultores Moriyama & Teshima Smith-Miller+Hawkinson Architects ACS Infrastructure Canada Aecon Concessions	American Bridge SNC-Lavalin Construction Pacific VINCI Construction Grands Projets Barton Malow DRICCA HDR Corporation SNC-Lavalin Capital Inc. John Laing VINCI Concessions SNC-Lavalin O&M VINCI Concessions SNC-Lavalin Security Consulting	Arup Bechtel EllisDon Traylor Bros Hatch Mott MacDonald NORR Ltd. Bergmann Associates Amec Foster Wheeler CH2MHill Brownlie, Ernst and Marks Crossey Engineering Ltd. LEA Consulting Ltd. Fengate BBGI

<p> Dragados ACS Aecon O&M DBi Services IBI Group SICE </p>		<p> Egis Roy Jorgenson </p>
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II. Request for Proposals | November 10, 2016

- A request for proposals (RFP) was issued to the pre-qualified proponents, setting out the bid process and proposed Project Agreement for the project.
- The proponents spent 16 months to prepare high-quality, competitive submissions.

III. Proposal Submission | Technical – April 3, 2018, Financial – May 8, 2018

- RFP Technical Submission deadline was April 3, 2018. All three proponents submitted on time.
- RFP Financial Submission deadline was May 8, 2018. All three proponents submitted on time.
- From April 3 to July 4, 2018, submissions were evaluated based on criteria set out in the RFP by Evaluation Teams comprised of subject matter experts from WDBA, MDOT, CBSA, CBP, and technical and financial consultants enlisted by WDBA. The extensive evaluation process resulted in Bridging North America receiving the highest score.

IV. Preferred Proponent Notification | July 5, 2018

- Bridging North America was selected as the preferred proponent. Bridging North America best demonstrated the ability to meet the specifications outlined in the RFP, including technical requirements, price and financial backing, as well as maintenance and rehabilitation plans.

V. Financial Close | September 28, 2018

- Upon conclusion of negotiations and the rate reset process (WDBA offers protection for Bridging North America against fluctuations in interest rates on debt, fluctuations in credit spreads on financing instruments, and exchange rate fluctuations between the period when Proponents submit bids and rates are locked in for the Project Agreement (i.e. Financial Close), a Project Agreement (contract) was executed between WDBA and Bridging North America and financial close was reached on September 28, 2018.
- The entire Bridging North America team, including identifying subcontractors, includes the following organizations:

Design & Construction

- Aecon Infrastructure Management Inc.
- Dragados Canada, Inc.
- Fluor Canada, Ltd.
- Turner
- VSL
- AECOM
- Carlos Fernandez Casado, S.L. and Ingenieros Consultores

- Moriyama & Teshima
- Smith-Miller+Hawkinson Architects

Development & Financing

- ACS Infrastructure Canada
- Fluor Canada Limited
- Aecon Concessions

O&M, Tolling & Security

- Dragados
- ACS
- Fluor
- Aecon
- Aecon, O&M
- DBi Services
- IBI Group
- SICE
- AECOM

VI. CONCLUSION

This report provides a project overview and summary of the procurement process for the Project, and demonstrates an estimated risk adjusted cost savings of \$562.8 million or 10.7% will be achieved by using the P3 approach compared to traditional delivery.

September 28, 2018

Private and confidential

Kevin Wilkinson
Windsor Detroit Bridge Authority
100 Ouellette Ave., Suite 400
Windsor, ON N9A 6T3
Canada

Dear Mr. Wilkinson,

Subject: Value for Money Analysis – Gordie Howe International Bridge Project

Deloitte LLP (“Deloitte”) has prepared the Preferred Proponent stage Value for Money (“VFM”) assessment for the Gordie Howe International Bridge Project (the “Project”). The VFM assessment approach is primarily based on the methodology used by Infrastructure Ontario (“IO”) prior to 2015, as outlined in *Infrastructure Ontario’s Assessing Value for Money: A Guide to Infrastructure Ontario’s Methodology*. The VFM Methodology appears consistent with approaches used in other jurisdictions.

The VFM assessment is based on a comparison of the present value of estimated total project costs under:

1. The traditional delivery approach, as reflected in the Public Sector Comparator (“PSC”) model; and
2. The Design-Build-Finance-Operate-Maintain (“DBFOM”), Public Private Partnership (“P3”) approach, as reflected in the Preferred Proponent’s financial model at Bid Submission.

The VFM assessment was compiled using the following information (collectively the “Information”) within the VFM model:

1. A Risk Matrix developed previously by Transport Canada and its advisors in 2012 that reflected the Project specific risks, and adapted by WDBA and its advisors to reflect changes since the original assessment; and
2. Cost and other input assumptions developed by WDBA and its external advisors.

While Deloitte did not audit or attempt to independently verify the accuracy or completeness of the Information, Deloitte confirms, based on our familiarity with the application of VFM methodologies, that the Information has been appropriately used in the VFM model. The VFM assessment of the Project indicates an estimated risk adjusted cost savings of \$562.8 million or 10.7% percent (in present value terms) by using the P3 approach compared to traditional delivery.

Sincerely,



Deloitte LLP

July 4th, 2018

André Juneau
Interim Chief Executive Officer
Windsor-Detroit Bridge Authority
100 Ouellette Avenue, Suite 400
Windsor, Ontario
Canada N9A 6T3

Subject: Fairness Attestation - Request for Proposals for the Gordie Howe International Bridge by the Windsor-Detroit Bridge Authority (“WDBA”)

Dear Mr. Juneau:

P1 Consulting acted as the Fairness Monitor to review and monitor the communications, evaluations and decision-making processes associated with the procurement process for the Request for Proposals (“RFP”) to Design-Build-Finance-Operate-Maintain the Gordie Howe International Bridge Project (the “Project”) in terms of ensuring fairness, equity, objectivity, transparency and adequate documentation of the evaluation process.

To date, in our role as Fairness Monitor, P1 Consulting has made certain that the following steps were taken to ensure a fair and transparent process:

- Clarity and consistency of the RFP, Evaluation Framework and related documentation;
- Adherence to the processes described in the RFP and Evaluation Framework, including the evaluation process;
- Objectivity and diligence during the procurement process in order to ensure that it was conducted in a transparent manner;
- Compliance of participants with strict requirements of conflict of interest and confidentiality during the procurement and evaluation processes;
- Security of information; and
- Oversight to provide a process where the Proponents are treated fairly.

The Fairness Monitor actively participated in the following steps to ensure that fairness was maintained throughout the process:

- Reviewing the draft RFP and related documentation;
- Monitoring all communication with the Proponents, both in writing and in person;
- Reviewing the Evaluation Framework;
- Monitoring the receipt of Proposals; and
- Monitoring the Proposal evaluation and the selection of the Preferred Proponent.

Our fairness review was conducted without influence and as of the date of this letter, we confirm that we are satisfied that, from a fairness perspective, the processes undertaken related to the

P1 Consulting Inc.

Mr. Juneau
July 4th, 2018
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Gordie Howe International Bridge Project have been conducted in a fair, open and transparent manner. As Fairness Monitor for this Project we are satisfied that the WDBA has followed the procedures in accordance with the applicable RFP and WDBA policy documentation and that the participants followed the procedures and fairly applied the evaluation criteria.

Yours truly,

A handwritten signature in cursive script that reads "Jill Newsome".

Jill Newsome
Fairness Monitor
P1 Consulting Inc.

