



Value for Money Assessment

Hamilton Health Sciences' McMaster Children's Health Centre



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24 April 2014

Mr. Martin Lavoie
Vice President, Transaction
Finance Infrastructure Ontario
777 Bay Street, 9th Floor Toronto,
ON M5G 2C8

Dear Mr. Lavoie:

Re: Value for Money Analysis – Hamilton Health Sciences’ McMaster Children’s Hospital Project

Ernst & Young Orenda Corporate Finance (“EYOCF”) has reviewed the Value for Money (“VFM”) assessment for the Hamilton Health Sciences’ McMaster Children’s Hospital Project (the “Project”) at the Financial Close stage. The analysis was prepared following the principles of an Infrastructure Ontario (“IO”) VFM analytical framework which is consistent with approaches used in other jurisdictions.

The VFM assessment is based on a comparison of the total project costs of the Project under:

The traditional delivery approach, as reflected in the Public Sector Comparator (“PSC”) model; and

The Alternative Financing and Procurement (“AFP”) model estimation of the total project costs, as reflected by the Adjusted Successful Bid.

The VFM as noted above was prepared by applying an estimation of project risks under the traditional and AFP scenarios to the construction cost estimates as reflected in the Adjusted Successful Bid. The cost information and other underlying assumptions were not independently audited for accuracy or completeness.

The results of the VFM assessment demonstrate an estimated VFM cost savings of 18.1 % by using the AFP approach to deliver the Project in comparison to using the traditional delivery approach.

Yours sincerely,

*Ernst & Young Orenda
Corporate Finance Inc.*

ERNST & YOUNG ORENDA CORPORATE FINANCE INC.

A member firm of Ernst & Young Global Limited



December 16th, 2013

Mr. Michael Inch
Vice President, Procurement
Infrastructure Ontario
1 Dundas Street West, 20th Floor
Toronto, Ontario M5G 2L5

Subject: McMaster Children's Health Centre Project ("MCHC"), RFP No. 12-509P

Dear Mr. Inch:

P1-Consulting acted as the Fairness Monitor to review and monitor the communications, evaluations and decision-making processes that were associated with the procurement process for the **McMaster Children's Health Centre Project ("MCHC")** in terms of ensuring fairness, equity, objectivity, transparency and adequate documentation of the evaluation process.

Currently the McMaster Children's Hospital Ambulatory Services is located in four buildings on the Chedoke site of Hamilton Health Sciences. These facilities present a number of shortcomings that prevent services from being operated in a more integrated, co-supportive and operationally effective manner. The redevelopment (the "McMaster Children's Health Centre" or "MCHC") will consolidate the entire program on a single site on the Hamilton General Hospital Site at 325 Wellington Street North, Hamilton, Ontario. The MCHC is to support client care processes through improved relationships between programs and services and improved functionality of space. The new facility will consist of:

- Clinical Programs
- Autism Spectrum Disorders Service (ASD),
- Child and Youth Mental Health Program (CYMHP),
- Developmental Pediatrics and Rehabilitation Services (DPR), and
- Prosthetic and Orthotic Services.
- Support Services
- Support Services, and
- Main Lobby Services

The scope of the Project includes:

- design of the MCHC;
- construction of the MCHC;
- financing of the Project; and
- coordination of the procurement, receipt, installation and
- commissioning of furniture, fixtures and equipment.



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Mr. Inch
December 16th, 2013
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In our role as Fairness Monitor, P1 Consulting made certain that the following steps were taken to ensure a fair and open process:

- Compliance with the requisite procurement policies and procedures and the laws of tendering for the acquisition of services relating to public sector procurement;
- Adherence to confidentiality of bids, as applicable, and the evaluation process;
- Objectivity and diligence during the procurement process in order to ensure that it was conducted in an open and transparent manner;
- Proper definition and use of evaluation procedures and assessment tools in order to ensure that the process was unbiased;
- Compliance of project participants with strict requirements of conflict of interest and confidentiality during the procurement and evaluation processes;
- Security of information;
- Prevention of any conflict of interest amongst evaluators on the selection committee;
- Oversight to provide a process where all Bidders were treated fairly.

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

- Project kick-off meeting
- Review session of the Draft RFQ and RFP Documents
- Commercially Confidential Meetings with the pre-qualified Bidders by interested Bidders
- Site and facility visits by the Proponents
- Review of the RFQ and RFP Addenda
- Review of evaluation process and guideline
- Proposal receipt, bid evaluation and selection of the Negotiation Proponents

As the Fairness Monitor for the **McMaster Children's Health Centre Project ("MCHC") Project** we certify that, at the time at which this report was prepared, the principles of fairness, openness, consistency and transparency have, in our opinion, been maintained throughout procurement process. Furthermore, no issues emerged during the process, of which we were aware, that would impair the fairness of this initiative.

Yours truly,

A handwritten signature in black ink that reads "Jill Newsome". The signature is written in a cursive, flowing style.

Jill Newsome
Lead Fairness Monitor



Artist's concept of the McMaster Children's Health Centre



Courtesy of PCL Partnerships (Stantec Architecture)

Highlights of McMaster Children's Health Centre:

Project Name	McMaster Children's Health Centre
Building Type / Location:	Four storey building 325 Wellington Street North, Hamilton, Ontario
Project Type	Design-Build-Finance
Details	<p>Services include:</p> <ul style="list-style-type: none"> • Autism Spectrum Disorders Service, • Child and Youth Mental Health Program, • Developmental Pediatrics and Rehabilitation <p>Services, including:</p> <ul style="list-style-type: none"> • Audiology Services • Prosthetic and Orthotic Services • Parking and landscaping on the site. • LEED Silver certified
Square Footage	165,000 sq. ft

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Summary

McMaster Children’s Health Centre supports the Province of Ontario’s long-term infrastructure plan to repair, rebuild and renew the province’s roads and highways, bridges, public transit, schools and post-secondary institutions, hospitals and courthouses in communities across Ontario.

Infrastructure Ontario plays a key role in procuring and delivering infrastructure projects, on behalf of the Province. When Infrastructure Ontario was created, its mandate included using an Alternative Financing and Procurement (AFP) method to deliver large, complex infrastructure projects. In June 2011, the Province expanded Infrastructure Ontario’s role to deliver projects of various sizes, including ones suitable for an AFP delivery model, as well as other delivery models.

The McMaster Children’s Health Centre project is being delivered under the Province’s AFP model. The project will involve the construction of a new children’s treatment centre that will be part of Hamilton Health Sciences’ McMaster Children’s Health Centre. The new facility will be built on Wellington Street near Barton Street, across from the Regional Rehabilitation Centre.

The Ministry of Children and Youth Services is funding this project to bring together under one roof four programs currently located at Hamilton Health Sciences’ Chedoke campus. The new site will provide:

- Autism Spectrum Disorders services;
- Child and Youth Mental Health Program;
- Developmental Pediatrics and Rehabilitation services; and
- Prosthetic and Orthotic services.

The public sector retains ownership, control and accountability for the McMaster Children’s Health Centre.

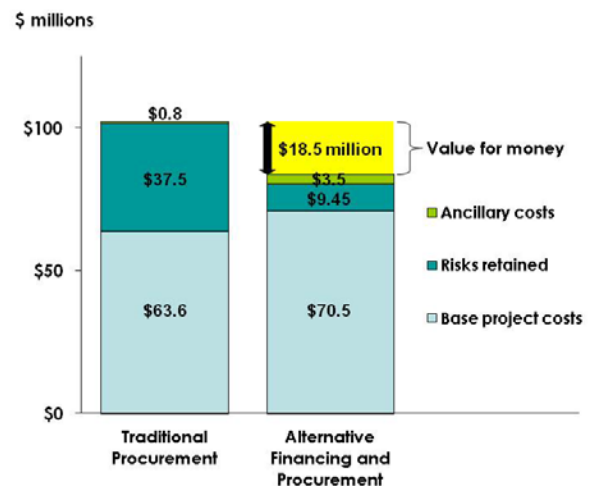
The purpose of this report is to provide a summary of the project scope, the procurement process and the project agreement, and to demonstrate how value for money was achieved by delivering the

McMaster Children’s Health Centre through the AFP process.

The value for money analysis refers to the process of developing and comparing the total project costs under two different delivery models expressed in dollar values measured at the same point in time.

Value for money is determined by directly comparing the cost estimates for the following two delivery models:

Model #1 Traditional project delivery (Public sector comparator)	Model #2 Alternative Financing and Procurement
Total project costs that would have been incurred by the public sector to deliver an infrastructure project under traditional procurement processes.	Total project costs incurred by the public sector to deliver the same infrastructure project with identical specifications using the AFP approach.



The cost difference between model #1 and model #2 is the estimated value for money for this project.

The value for money assessment of McMaster Children’s Health Centre project indicates estimated cost savings of 18.1 per cent or \$18.5 million, by using the AFP approach in comparison to traditional delivery.

Ernst & Young Orenda (E&Y) completed the value for money assessment. Their assessment demonstrates projected cost savings of 18.1 per cent by delivering the project using the AFP model, versus what it would have cost to deliver the project using a traditional delivery model.

P1 Consulting acted as the Fairness Monitor for the project. They reviewed and monitored the communications, evaluations and decision-making processes associated with the McMaster Children's Health Centre project, ensuring the fairness, equity, objectivity, transparency and adequate documentation of the process. P1 Consulting certified that these principles were maintained throughout the procurement process (see letter on page 3).

Infrastructure Ontario is working with the Ministry of Children and Youth Services to build the new McMaster Children's Health Centre, which will remain publicly owned, controlled and accountable.

Project description

Background

Ontario's public infrastructure projects are guided by the five principles set out in the provincial government's *Building a Better Tomorrow Framework*, which include:

1. public interest is paramount;
2. value for money must be demonstrable;
3. appropriate public control and ownership must be preserved;
4. accountability must be maintained; and
5. all processes must be fair, transparent and efficient.

McMaster Children's Hospital (MCH) is a pediatric academic health science centre serving the special and unique health care needs of children and youth using a family-centred model of care. Founded in 1988, MCH has rapidly become a leader in pediatric evidence-based care, collaborative research and innovative leading-edge education.

Project Scope

The project will involve the construction of a new children's treatment centre that will be part of Hamilton Health Sciences' McMaster Children's Health Centre. The new facility will be built on Wellington Street near Barton Street, across from the Regional Rehabilitation Centre.

The Ministry of Children and Youth Services is funding this project to bring together under one roof four programs currently located at Hamilton Health Sciences' Chedoke campus. The new site will provide:

- Autism Spectrum Disorders services
- Child and Youth Mental Health Program
- Developmental Pediatrics and Rehabilitation services
- Prosthetic and Orthotic services

Job Creation

The project will help provide economic stimulus by creating and supporting hundreds of jobs. At the peak of construction, it is estimated that 120 workers will be on site daily.

Competitive selection process timeline

The McMaster Children's Health Centre project underwent an open, fair and transparent procurement process to design, build and finance the project and PCL Partnerships submitted the proposal which delivers the best value bid.

The procurement stages for the project were as follows:

August 27, 2012

Request for Qualifications

In 2012, Infrastructure Ontario and Hamilton Health Sciences issued a request for qualifications for the project, which resulted in three bidders being pre-qualified:

- PCL Partnerships
- Integrated Team Solutions
- The Kids Health Infrastructure Solutions

April 19, 2013

Request for Proposals

A request for proposals (RFP) was issued to the pre-qualified proponents, setting out the bid process and proposed project agreements to design, build and finance the project.

Proposal submission

The RFP period closed on October 25, 2013. Three bids were received. The bids were evaluated using the criteria set out in the RFP.

Preferred Bidder Announcement

PCL Partnerships was selected as the successful RFP proponent based on predetermined criteria, including technical requirements such as project management and construction plan, works schedule, equipment procurement and coordination plan, transition and commission plan. Their selection was also based on operation plan, design requirements such as clinical functionality,

general functionality, as well as price and financial backing, in accordance with the evaluation criteria set out in the RFP.

March 27, 2014

Commercial and Financial Close

A project agreement between PCL Partnerships (PCL) and Hamilton Health Sciences was announced.

March 2014 – fall 2015

Construction

During the construction period, the builder's construction costs will be funded by its lenders in monthly instalments based on the construction program set out by PCL. Construction will be carried out in accordance with the project agreement. The project will be overseen by a joint building committee made up of representatives from Infrastructure Ontario and Hamilton Health Sciences.

Completion and payment

PCL will receive a payment from the Province when the project reaches substantial completion, which is expected in fall 2015.

Project agreement

Legal and commercial structure

Hamilton Health Sciences entered into a project agreement with PCL, comprising approximately 18 months of construction. Under the terms of the project agreement, PCL will:

- finance the construction and capital costs of the hospital redevelopment;
- obtain a third-party independent certification that the hospital is built; and
- ensure that, at the end of the contract term, the building meets the conditions specified in the project agreement.

The province will make a substantial completion payment of \$70.5 million for the facility once substantial completion has been achieved.

McMaster Children's Health Centre will be publicly owned and publicly controlled. The hospital will continue to be publicly funded and publicly administered – this is non-negotiable for the Government of Ontario and more importantly, for the people of Ontario.

Construction and completion risk

All construction projects have risks. Some project risks are retained in varying magnitude by the public sector. Examples of risks retained by the public sector under either the AFP or traditional model include planning, unknown site conditions, changes in law, public sector initiated scope change, and force majeure (shared risk).

Under the AFP model, some key risks that would have been retained by the public sector are contractually transferred to PCL. On a traditional project, these risks and resource availability can lead to cost overruns and delays. Examples of risks transferred to the private sector under the AFP project agreement include:

Construction price certainty

PCL will finance and construct the new facilities. PCL will receive a payment from the government at substantial completion, which is expected in fall 2015. PCL's payment may only be adjusted in very

specific circumstances, agreed to in advance and in accordance with the detailed variation (or change order) procedures set out in the project documents.

Scheduling, project completion and delays

PCL has agreed to reach substantial completion of the hospital by fall 2015.

The construction schedule can only be modified in very limited circumstances, in accordance with the project agreement. PCL's final payment will not commence until substantial completion (i.e., until it has completed building the facilities and it has been certified as complete by an independent consultant).

Costs associated with delays that are the responsibility of PCL must be paid by PCL.

Site conditions and contamination

PCL accepted the site and the site conditions and shall not be entitled to make claims against the Province on any grounds relating to the site. Furthermore, PCL is responsible for remediation of any contamination at the site that was disclosed in or could have been reasonably anticipated from the environmental report or any of the geotechnical reports, or that is caused by PCL or any of its parties.

Development approvals

PCL is responsible for applying, obtaining, maintaining, renewing and complying with all development approvals.

Construction financing

PCL is required to finance the construction of the project until the hospital is substantially complete. PCL will be responsible for all increased financing costs should there be any delay in them reaching substantial completion. This shifts significant financial risk to PCL in the case of late delivery.

Commissioning and facility readiness

PCL must achieve a prescribed level of commissioning of the new hospital at substantial completion and must co-ordinate the commissioning activity within the agreed-upon construction schedule. This ensures that Hamilton Health Sciences will receive a functional building facility at the time that payments to PCL commence. PCL will work closely with Hamilton Health Sciences to facilitate transition from other facilities.

Activity protocols

PCL and Hamilton Health Sciences have established a schedule for project submittals taking into account the time for review needed by Hamilton Health Sciences' compliance architect.

This protocol mitigates against PCL alleging delay as a result of an inability to receive responses in a timely manner in the course of the work.

Change order protocol

In addition to the variation procedure set out in the project documents, Infrastructure Ontario's protocols set out the principles for any changes to the project work/scope during the construction period, including:

- requiring approval and processing of change orders from Infrastructure Ontario and McMaster Children's Health Centre;
- specifying the limited criteria under which change orders will be processed and applied;
- timely notification of change orders to Infrastructure Ontario;
- approval by Infrastructure Ontario for owner-initiated scope changes; and
- approval by Infrastructure Ontario for any change order.

In addition to the transfer of the above key risks to PCL under the project documents, the financing arrangement entered into between PCL and its lenders ensures that the project is subject to additional oversight, which may include:

- an independent budget review by a third-party cost consultant;
- monthly reporting and project monitoring by a third-party cost consultant; and
- the requirement that prior approval be secured for any changes made to the project budget in excess of a pre-determined threshold.

Achieving value for money

For the McMaster Children’s Health Centre project, Ernst & Young Orenda’s value for money assessment demonstrates a projected cost savings of 18.1 per cent, or \$18.5 million, by using the Alternative Financing and Procurement approach, as compared to the traditional procurement approach.

Ernst & Young Orenda was engaged by Infrastructure Ontario to independently assess whether – and, if so, the extent to which – value for money will be achieved by delivering this project using the AFP method. Their assessment was based on the value for money assessment methodology outlined in *Assessing Value for Money: A Guide to Infrastructure Ontario’s Methodology*, which can be found at www.infrastructureontario.ca. The approach was developed in accordance with best practices used internationally and in other Canadian provinces, and was designed to ensure a conservative, accurate and transparent assessment. Please refer to the letter from Ernst & Young Orenda on page 2.

Value for money concept

The goal of the AFP approach is to deliver a project on time and on budget and to provide real cost savings for the public sector.

The value for money analysis compares the total estimated costs, expressed in today’s dollars and measured at the same point in time, of delivering the same infrastructure project under two delivery models - the traditional delivery model (public sector comparator or “PSC”) and the AFP model.

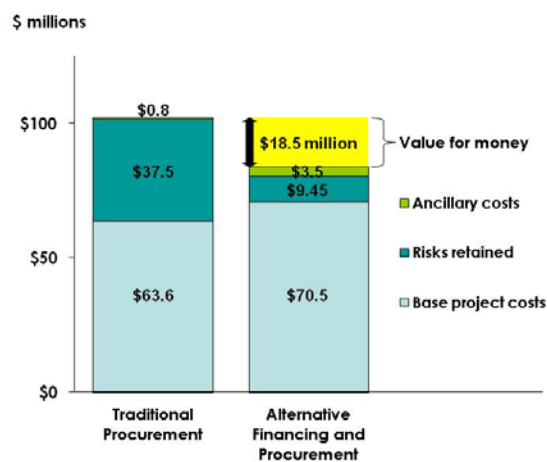
Model #1 Traditional project delivery (Public sector comparator)	Model #2 Alternative Financing and Procurement
Total project costs that would have been incurred by the public sector to deliver an infrastructure project under traditional procurement processes.	Total project costs incurred by the public sector to deliver the same infrastructure project with identical specifications using the AFP approach.

The cost difference between model #1 and model #2 is referred to as the value for money. If the total cost to deliver a project under the AFP approach (model #2) is less than the total cost to deliver a project under the traditional delivery approach (model #1), there is said to be positive value for money. The value for money assessment is completed to determine which project delivery method provides the greatest level of cost savings to the public sector.

The cost components in the VFM analysis include only the portions of the project costs that are being delivered using AFP. Project costs that would be the same under both models, such as land acquisition costs, furniture, fixtures and equipment, are excluded from this VFM calculation.

The value for money assessment is developed by obtaining detailed project information and input from multiple stakeholders, including internal and external experts in project management and construction project management. Components of the total project costs under each delivery model are illustrated below:

The VFM assessment of the McMaster Children’s Health Centre project indicates estimated cost savings of 18.1 per cent, or \$18.5 million, by using the AFP approach in comparison to traditional delivery.



It is important to keep in mind that Infrastructure Ontario's value for money calculation methodology does not attempt to quantify a broad range of qualitative benefits that may result from using the AFP delivery approach. For example, the use of the AFP approach will more likely result in a project being delivered on time and on budget. The benefits of having a project delivered on time cannot always be accurately quantified.

These qualitative benefits, while not expressly quantified in this value for money analysis, are additional benefits of the AFP approach that should be acknowledged.

Value for money analysis

For a fair and accurate comparison, the traditional delivery costs and AFP costs are present-valued to the date of financial close to compare the two methods of delivering a design, build, finance project at the same point in time. It is Infrastructure Ontario's policy to use the current public sector rate of borrowing for this purpose to ensure a conservative and transparent analysis. For more information on how project costs are time-valued and the value for money methodology, please refer to *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which is available online at www.infrastructureontario.ca

Base costs

Base project costs are taken from the price of the contract signed with PCL and include all construction and financing costs. The base costs between AFP and the traditional delivery model mainly differ as follows:

1. Under the AFP model, the private party charges an additional premium as compensation for the risks that the public sector transfers to them under the AFP project documents. In the case of traditional delivery, the private party risk premium is not included in the base costs as the public sector retains these risks.
2. The financing rate that the private sector is charged under AFP is higher than the financing

rate of the public sector and is not included in the traditional delivery base costs.

In the case of the AFP model, the base costs are extracted from the price agreed among the parties under the project agreement. For the hospital project, these were \$70.5 million.

If the traditional model had been used for the hospital project, base costs are estimated to be \$63.6 million.

Risks retained

Historically, on traditional projects, the public sector had to bear costs that go beyond a project's base costs.

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, they are included in the estimated project cost.

The concept of risk transfer and mitigation are keys to understanding the overall value for money assessment. To estimate and compare the total cost of delivering a project under the traditional delivery versus the AFP method, the risks borne by the public sector (which are called "retained risks") should be identified and accurately quantified.

Comprehensive risk assessment not only allows for a detailed value for money analysis, but also helps Infrastructure Ontario and the public sector sponsors to determine the party best able to manage, mitigate and/or eliminate the project risks and to appropriately allocate those risks under the project documents.

Under the traditional delivery method, the risks retained by the public sector are significant. As discussed on pages 11-12, the following are examples of risks retained by the public sector under the traditional delivery method that have been transferred under the project agreement to PCL:

- design compliance with the output specifications;
- construction price certainty;
- scheduling, project completion and potential delays;
- design co-ordination;
- site conditions and contamination;
- development approvals;
- design and lifecycle responsibility;
- mechanical and electrical systems responsibility;
- construction financing;
- schedule contingency;
- coordination of equipment procurement installation;
- commissioning and facility readiness; and
- activity protocols.

Examples of these risks include:

- *Design coordination/completion:* Under the AFP approach, the builder is responsible for design coordination activities to ensure that the facility is constructed in full accordance with the design in the project agreement. The builder is responsible for inconsistencies, conflicts, interferences or gaps in these design documents, particularly in the plans drawings and specifications; and for design completion issues that are specified in these design documents but erroneously left out.
- *Scheduling, project completion and delays:* Under the AFP approach, the builder has agreed that it will provide the facility for use by Hamilton Health Sciences by a fixed date and at a pre-determined price. Therefore, any extra cost (financing or otherwise) incurred as a result of a

schedule overrun caused by the builder will not be paid by the province, thus providing the builder a clear motivation to maintain the project's schedule. Further oversight includes increased upfront due diligence and project management controls imposed by the builder and the builder's lender.

Infrastructure Ontario retained an experienced, third-party construction consulting firm, Altus Helyar, to develop a template for assessing the project risks that the public sector relinquishes under AFP compared to the traditional approach. Using data from actual projects as well as its own knowledge base, the firm established a risk profile under both approaches for infrastructure facilities.

It is this generic risk matrix that has been used for validating the risk allocation for the specific conditions of the hospital project.

Using the AFP model reduces these risks to the public sector. For example, had this project been delivered using the traditional approach, design coordination risks that arise would be carried out through a series of change orders issued during construction. Such change orders would, therefore, be issued in a non-competitive environment, and would typically result in a significant increase in overall project costs for the public sector.

The added due diligence brought by the private party's lenders, together with the risk transfer provisions in the project documents result in overall cost savings as these transferred risks will either be better managed or completely mitigated by PCL.

A detailed risk analysis of the project concluded that the average value of project risks retained by the public sector under traditional delivery is \$37.56 million. The analysis also concluded that the average value of project risks retained by the public sector under the AFP delivery model decreases to \$9.45 million.

For more information on the risk assessment methodology used by Infrastructure Ontario, please refer to Altus Helyar's Risk Assessment Template for DBF projects, available at www.infrastructureontario.ca

Ancillary costs

There are significant ancillary costs associated with the planning and delivery of a large complex project that vary depending on the project delivery method.

For example, there are costs related to each of the following:

- *Project management:* These are essentially fees to manage the entire project. Under the AFP approach, these fees will also include Infrastructure Ontario costs.
- *Transaction costs:* These are costs associated with delivering a project and consist of legal, fairness and transaction advisory fees. Architectural and engineering advisory fees are also incurred to ensure the facility is being designed and built according to the output specifications.

The ancillary costs are quantified and added to both models for the value for money comparison assessment. Both project management and transaction costs are likely to be higher under AFP given the greater degree of up-front due diligence. The ancillary costs for the project under the traditional delivery method are estimated to be \$0.8 million as compared to \$3.5 million under the AFP approach.

For a detailed explanation of ancillary costs, please refer to *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which is available online at www.infrastructureontario.ca

Calculating value for money

The analysis completed by Ernst & Young Orenda concludes that the additional costs associated with the AFP model are more than offset by the benefits which include: a much more rigorous upfront due

diligence process, reduced risk to the public sector, and controls imposed by both the lenders and Infrastructure Ontario's standardized AFP procurement process.

Once all the cost components and adjustments are determined, the aggregate costs associated with each delivery model (i.e., traditional delivery and AFP) are calculated, and expressed in Canadian dollars, as at financial close. In the case of the McMaster Children's Health Centre project, the estimated traditional delivery cost (i.e. PSC) is \$101.9 million as compared to \$83.5 million under the AFP delivery approach.

The positive difference of \$18.5 million or 18.1 per cent represents the estimated value for money by using the AFP delivery approach in comparison to the traditional delivery model.