



making projects
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Value for Money Assessment

Ontario Provincial Police Modernization Project



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Oct 18, 2010

Private and confidential

Jim Cahill, VP of Project Finance
Infrastructure Ontario
777 Bay Street, 9th Floor
Toronto, ON, M5G 2C8
Canada

Dear Mr. Cahill,

Subject: Re: Value for Money Assessment at Financial Close Stage – OPPM Project

Deloitte & Touche LLP (“Deloitte” or “We”) has prepared the Value for Money (“VFM”) assessment for the OPP Modernization Project (“Project”) at the Financial Close stage, in accordance with Infrastructure Ontario’s (“IO”) value for money assessment methodology outlined in *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which is consistent with approaches used in other jurisdictions.

The VFM assessment is based on a comparison of the net present costs (“NPC”) for the Project under:

1. The traditional delivery approach, as reflected in the Public Sector Comparator (“PSC”) model; and
2. The Alternative Finance and Procurement approach (“AFP”), as reflected by the proposed costs of the Preferred Bid.

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

- i. A Risk Matrix developed for IO by Altus Group and adapted to reflect project specific risks for the Project; and
- ii. Cost and other input assumptions extracted from the Preferred Proponent’s Financial Submission (“Preferred Bid”).

The VFM assessment submitted to you on October 18, 2010, demonstrates that the AFP approach will provide an estimated value savings of 10.5% (in comparison to the traditional delivery approach), using a 3.23% discount rate.

While we did not audit or attempt to independently verify the accuracy or completeness of the Information, we confirm, based on our familiarity with VFM methodologies in other jurisdictions and current market data, that IO’s VFM methodology is reasonable, yields a fair estimate of value for money and that the Information has been appropriately used in the VFM Model.

Yours very truly,

Deloitte & Touche LLP

Audit • Tax • Consulting • Financial Advisory.

Member of
Deloitte Touche Tohmatsu



PRP International, Inc.
Fairness Monitor Services

June 30, 2010

Mr. Bruce Gray
Vice President, Project Delivery
Infrastructure Ontario
777 Bay Street, 6th Floor
Toronto, ON M5G 2C8

Dear Mr. Gray:

Subject: Letter Report of Fairness Monitor
Request For Proposals Phase
Ministry of Community Safety and Correctional Services – Ontario
Provincial Police Modernization Project

PRP International, Inc., the Fairness Monitor, concludes that Infrastructure Ontario conducted the RFP and the evaluation of the Proposals received for this RFP, in accordance with the terms and conditions, the evaluation methodology and processes, and the decision making protocols, as disclosed in the RFP.

Accordingly, PRP International, Inc. attests that the determination of Shield Infrastructure Group, as the Proponent to be approved/designated the Preferred Proponent, was made in a fair (objective and competent) manner and consistent with the evaluation and selection processes set out in the RFP, issued August 24, 2009, and as amended by Addenda through to the RFP Closing Date of March 25, 2010. A summary Fact Sheet is attached.

Should you have any questions or require clarification of any matter contained in the report, please contact the undersigned.

Yours truly,

Peter Sorensen
President

cc: Mr. Eric P. Gilmore, Procurement Specialist

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Page 1 of 1



Architectural rendering of a typical Ontario Provincial Police detachment

Courtesy of Shield Infrastructure Partnership

Highlights of the Ontario Provincial Police Modernization Project

- The project will include the construction of new Ontario Provincial Police (OPP) detachments, regional headquarters and forensic identification units in 16 communities across Ontario: Kenora, Dryden, Armstrong, Nipigon, Kapuskasing, Timmins, Iroquois Falls, North Bay, Burk's Falls, Chatham-Kent, Walkerton, Mount Forest, Orillia, Peterborough, Smiths Falls and Long Sault.
- The new OPP buildings will be designed and built to meet the Canada Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver standards, incorporating environmentally sustainable construction practices and energy efficient design.

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Summary

ReNew Ontario 2005-2010 is a \$30-billion-plus strategic infrastructure investment plan to modernize, upgrade and expand Ontario's public infrastructure.

Infrastructure Ontario is an essential component of the *ReNew Ontario* plan. The Crown Corporation ensures that new infrastructure projects are delivered on time and on budget.

The Ontario Provincial Police (OPP) Modernization project is being delivered under the Province's Alternative Financing and Procurement (AFP) model.

The project will include the construction of new OPP detachments, regional headquarters and forensic identification units in 16 communities across Ontario.

These new facilities, which in many cases are replacing facilities that have exceeded their useful life, will provide Ontario with more efficient and effective policing infrastructure that will enhance community safety and support the justice system.

The new OPP buildings will be designed and built to meet the Canada Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver standards, incorporating environmentally sustainable construction practices and energy efficient design.

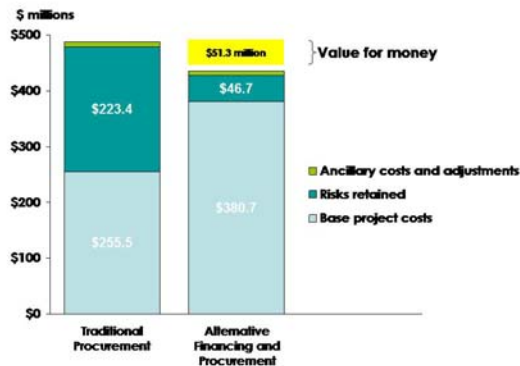
The purpose of this report is to provide a summary of the project scope, the procurement process and the project agreement, and to demonstrate how value for money was achieved by delivering the OPP Modernization project through the AFP process.

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 the OPP Modernization project indicates estimated cost savings of 10.5 per cent or \$51.3 million, by using the AFP approach in comparison to traditional delivery.

Deloitte & Touche LLP (Deloitte) completed the value for money assessment of the OPP Modernization project. Their assessment demonstrates projected cost savings of 10.5 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.

PRP International Inc. acted as the Fairness Monitor for the project. They reviewed and monitored the communications, evaluations and decision-making processes associated with the OPP Modernization project, ensuring the fairness, equity, objectivity, transparency and adequate documentation of the process. PRP International certified that these principles were maintained throughout the procurement process (please see letter on page 2).

Infrastructure Ontario will work with the Ministry of Community Safety and Correctional Services to build the OPP facilities, which will remain publicly owned, publicly controlled and publicly accountable.

Project description

Background

ReNew Ontario 2005-2010 is a \$30-billion-plus strategic infrastructure investment plan to modernize, upgrade and expand Ontario's public infrastructure.

Infrastructure Ontario is an essential component of the *ReNew Ontario* plan. The Crown Corporation was created in 2005, to ensure that infrastructure projects are delivered on time and on budget.

Under the *ReNew Ontario* plan, projects are assigned to Infrastructure Ontario by the provincial government, which uses a made-in-Ontario project delivery model called Alternative Financing and Procurement (AFP). AFP brings private-sector expertise, ingenuity and rigour to the process of managing and renewing Ontario's public infrastructure while shifting risks associated with cost and schedule overruns away from the public sector.

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:

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

Project Scope

The Ontario Provincial Police (OPP) is the provincial police service for the province of Ontario. The service is responsible for providing policing services in areas of the province lacking local police forces. It also provides specialized support to smaller municipal police forces.

The OPP Modernization infrastructure project will provide the province with a more efficient and effective policing infrastructure that will enhance community safety and support the justice system.

The project will involve the construction of 18 new detachments, regional headquarters and forensic identification units in 16 communities across Ontario. The new facilities, which in many cases are replacing facilities that have exceeded their useful life, will feature up-to-date amenities to better support the demands of modern police operations and meet the needs of the community.

Job Creation

The project will provide a sizeable boost to the regional and provincial economies during construction by directly and indirectly creating and supporting jobs across Ontario. Construction labour will be drawn from across the province.

New facilities will be constructed in:

Armstrong	Detachment
Burk's Falls	Detachment
Chatham	Forensic Identification Unit
Dryden	Detachment
Iroquois Falls	Detachment
Kapuskasing	Detachment
Kenora	Forensic Identification Unit
Long Sault	Forensic Identification Unit
Mount Forest	Forensic Identification Unit
Nipigon	Detachment
North Bay	Regional Headquarters and Forensic Identification Unit
Orillia	Regional Headquarters
Peterborough	Forensic Identification Unit
Smiths Falls	Regional Headquarters and Forensic Identification Unit
South Porcupine	Forensic Identification Unit
Walkerton – South Bruce (Brockton)	Detachment

Shield Infrastructure Partnership will design, build, finance and maintain the 18 new OPP facilities for a 30-year period. The new OPP buildings will be designed and built to meet the Canada Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver standards, incorporating environmentally sustainable construction practices and energy efficient design.

Competitive selection process timeline

The Province of Ontario has entered into a project agreement with Shield Infrastructure Partnership to design, build, finance and maintain new OPP facilities in 16 communities across Ontario. The procurement stages for the project were as follows:

February 26, 2009

Request for Qualifications

In 2009, the Ministry of Community Safety and Correctional Services and Infrastructure Ontario issued a request for qualifications (RFQ) for the project. Three building teams were short-listed:

- **Forum Social Infrastructure** - Forum Equity Partners Inc., Brookfield Financial Corp., Stantec Inc., Bondfield Construction Co. Ltd., M. Sullivan & Sons Ltd., Dominion Construction Co. Inc., Johnson Controls Inc., and TD Securities Inc.
- **Integrated Team Solutions** - Ellis Don Corp., Fengate Capital Management Ltd., LPF Infrastructure Fund, WZMH Architects, Genivar Consultants Limited Partnership, PBK Architects, Smith Group, Habib Architects, Kalmantis Architects, Tom Jones Corp., Finn Way General Contractor Inc., Monteith Building Group Ltd., Black & McDonald, and Scotia Capital
- **Shield Infrastructure Group** - HOCHTIEF PPP Solutions North America Inc., Bird Design-Build Ltd., Honeywell Ltd., NORR Ltd. Architects & Engineers, Shore Tilbe Irwin & Partners, MCW Consultants Ltd., Banerjee & Associates Ltd., MMM Group Ltd., Evans Bertrand Hill Wheeler Architecture Inc., Trow Global Inc., Frecon Construction Ltd., Collaborative Structures Ltd., Miller Paving Ltd., and CIT Financial Ltd.

August 25, 2009

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, finance and maintain the project.

Proposal submission

The RFP period closed on March 25, 2010. Three bids were received by Infrastructure Ontario and the Ministry of Community Safety and Correctional Services. The bids were evaluated using the criteria set out in the RFP.

July 22, 2010

Preferred proponent notification

Shield Infrastructure Partnership was selected as the successful RFP proponent based on predetermined criteria, including construction schedule, technical requirements, price, operational and management plans and financing packing, in accordance with the evaluation criteria set out in the RFP.

The Shield Infrastructure Partnership's consortium included: HOCHTIEF PPP Solutions North America Inc., NORR Ltd.; Shore Tilbe Perkins + Will; MCW Consultants Ltd.; Banerjee & Associates Ltd.; MMM Group Ltd., Bird Design-Build Ltd., Honeywell Ltd., HOCHTIEF PPP Solutions GmbH, Concert Real Estate Corp.

September 14, 2010

Commercial close

A project agreement was executed by Shield Infrastructure Partnership and Infrastructure Ontario on behalf of the Province.

September 14, 2010

Financial close

Financing for the OPP modernization project is being provided by KfW IPEX-Bank, WestLB and Nord/LB. Equity is being provided by HOCHTIEF PPP Solutions GmbH and Concert Real Estate Corporation.

September 2010 – November 2012

Construction

Construction began following the Financial Close agreement. 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 Bird Design Build Ltd.

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 Shield Infrastructure Partnership, the Ministry of Community Safety and Correctional Services and Infrastructure Ontario.

Completion and payment

Shield Infrastructure Partnership will receive incremental payments from the Province once each site is completed, and a final lump sum substantial completion payment when the final site is delivered, which is expected in November 2012. This payment will be followed by monthly service payments over a 30-year period for construction of the facility, building maintenance, life-cycle repair and renewal, and project financing.

November 2012 – October 2042

Maintenance

Shield Infrastructure Partnership will maintain the OPP facilities for 30 years and be responsible for building maintenance, repair and life-cycle replacement during that period.

Project agreement

Legal and commercial structure

The Province of Ontario entered into a project agreement with Shield Infrastructure Partnership, comprising approximately 27 months of construction and a 30-year maintenance timeframe. Under the terms of the project agreement, Shield Infrastructure Partnership will:

- design and build the facilities comprising the OPP Modernization project;
- finance the construction and capital costs of the OPP facilities over the term of the project;
- obtain a third-party independent certification that the OPP facilities are built;
- provide facility management and life-cycle maintenance for the OPP facilities for the 30-year service period under pre-established maintenance performance standards in the project agreement; and
- ensure that, at the end of the contract term, the facilities meet the conditions specified in the project agreement.

Shield Infrastructure Partnership will receive incremental payments from the Province once each site is complete, and a final lump sum substantial completion payment when the final site is delivered, which is expected in November 2012. This payment will be followed by monthly service payments over a 30-year period for construction of the facility, building maintenance, life-cycle repair and renewal and project financing.

The new OPP facilities will continue to be publicly owned, publicly controlled and publicly accountable.

The building and maintenance team will be granted a licence to access the sites in order to provide the construction and facility maintenance services over the term of the agreement. However, as noted above, the OPP facilities will at all times remain publicly owned and the building and maintenance team are contractually bound to follow the terms of the project agreement.

Facility management and maintenance

Facility management

Services associated with the day-to-day management of the physical facilities, such as maintaining the electrical and mechanical systems, ventilation systems and other similar maintenance work.

Life-cycle maintenance

Life-cycle maintenance represents the total cost of replacing, refurbishing and refreshing building structure and systems over their useful life. With respect to this project, "life-cycle costs" will involve the replacement of the facilities' base building elements that have exceeded their useful life (e.g., floor finishes and certain mechanical and electrical components); these components must be left in a state acceptable to the government at the completion of the 30-year maintenance agreement. Life-cycle costs are typically capital costs.

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 Shield Infrastructure Partnership. 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

Shield Infrastructure Partnership will finance and construct the OPP facilities. Shield Infrastructure Partnership will receive incremental payments from the Province once each site is completed, and a final lump sum substantial completion payment when the final site is delivered, which is expected in November 2012. This payment will be followed by monthly service payments over a 30-year period for construction of the facility, building maintenance, life-cycle repair and renewal, and project financing.

Shield Infrastructure Partnership'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

Shield Infrastructure Partnership has agreed to reach substantial completion of the facilities by November 2012.

The construction schedule can only be modified in very limited circumstances, in accordance with the project agreement. Shield Infrastructure Partnership's final payment will not commence until substantial completion (i.e., until it has completed building the

OPP facilities and it has been certified as complete by an independent consultant).

Costs associated with delays that are the responsibility of Shield Infrastructure Partnership must be paid by Shield Infrastructure Partnership.

Site conditions and contamination

Shield Infrastructure Partnership accepted the sites and the site conditions and shall not be entitled to make claims against the Province on any grounds relating to the sites. Furthermore, Shield Infrastructure Partnership shall be responsible for remediation of any contamination at the sites 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 Shield Infrastructure Partnership or any of its parties.

Development approvals

Shield Infrastructure Partnership is responsible for applying, obtaining, maintaining, renewing and complying with all development approvals.

Mechanical and electrical systems responsibility

Shield Infrastructure Partnership shall be responsible for:

- any issues with respect to the functionality, durability, maintainability and life-cycle cost of the mechanical and electrical systems specified in their design, including whether such systems will be adequate to meet the output specifications on a consistent basis for the duration of the operational term; and
- the operation and periodic replacement of all elements of the facility, whether part of the mechanical and electrical systems or otherwise, including finishes, seals, structural components, hardware and building fabric, as required to achieve the output specifications for the duration of the operational term.

Construction financing

Shield Infrastructure Partnership is required to finance the construction of the project until the OPP facilities are substantially complete and the OPP can occupy the facilities. Shield Infrastructure Partnership will be responsible for all increased financing costs should there be any delay in Shield Infrastructure Partnership reaching substantial completion. This shifts significant financial risk to Shield Infrastructure Partnership in the case of late delivery.

Commissioning and facility readiness

Shield Infrastructure Partnership must achieve a prescribed level of commissioning of the OPP facilities at substantial completion and must coordinate the commissioning activity within the agreed-upon construction schedule. This ensures that the Province will receive functional facilities at the time payments to Shield Infrastructure Partnership commence. Shield Infrastructure Partnership will work closely with the OPP to facilitate transition from existing facilities to the new facilities.

Activity protocols

Shield Infrastructure Partnership and Infrastructure Ontario have established a schedule for project submittals taking into account the time for review needed by Infrastructure Ontario's compliance architect.

This protocol mitigates against Shield Infrastructure Partnership 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 the Ministry of Community Safety and Correctional Services;
- 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;
- approval by Infrastructure Ontario for any change orders which exceed pre-determined thresholds; and
- approval by Infrastructure Ontario when the cumulative impact of the change orders exceed a pre-determined threshold.

Facilities maintenance risk

As part of the project agreement, key risks associated with the maintenance responsibility (including life-cycle renewal) of the OPP facilities over the 30-year service period have been transferred to Shield Infrastructure Partnership. Shield Infrastructure Partnership's maintenance of the building's life-cycle repair and renewal must meet the performance requirements set out in the project agreement. Under the project agreement, Shield Infrastructure Partnership faces deductions to its monthly payments if it does not meet its performance obligations.

In addition to the transfer of the above key risks to Shield Infrastructure Partnership under the project documents, the financing arrangement entered into between Shield Infrastructure Partnership 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 OPP Modernization project, Deloitte's value for money assessment demonstrates a projected cost savings of 10.5 per cent, or \$51.3 million, by using the alternative financing and procurement (AFP) approach, as compared to the traditional procurement approach.

Deloitte 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 Deloitte on page 1.

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.

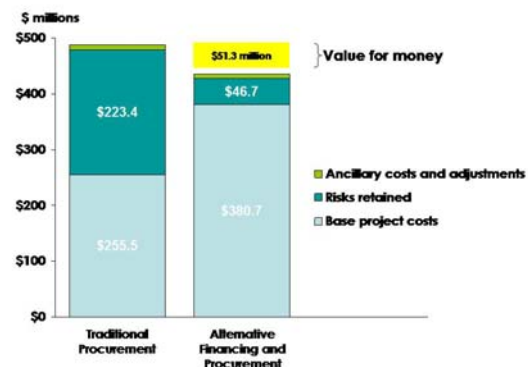
Model #1 Traditional project delivery (Public sector comparator)	Model #2 Alternative financing and procurement
Total project costs that would have been incurred by the public sector to deliver an infrastructure project under traditional procurement processes.	Total project costs incurred by the public 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 construction project management.

Components of the total project costs under each delivery model are illustrated below:



The value for money assessment of the OPP Modernization project indicates estimated cost savings of 10.5 per cent or \$51.3 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. It would be difficult to put a dollar value on the people of Ontario gaining access to an expanded health care facility sooner than would be the case with a traditionally delivered project.

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 and maintain 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 Shield Infrastructure Partnership, and include all construction, maintenance 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 OPP Modernization project, these are \$380.7 million.

If the traditional model had been used for the OPP Modernization project, base costs are estimated to be \$255.5 million.

Risks retained

Historically, on traditional projects, the public sector had to bear costs that go beyond a project's base costs because of the contingencies necessary developed to respond to the project risks.

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 is key 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 fulsome 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 Shield Infrastructure Partnership:

- 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 life-cycle 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. Because of the historic Don Jail, this project carries additional design risks for the builder in its obligation to restore and repurpose the jail. 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 facilities for use by the Ministry of Community Safety and Correctional Services 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 OPP Modernization project.

Using the AFP model reduces these results 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 Shield Infrastructure Partnership.

A detailed risk analysis of the OPP Modernization project concluded that the average value of project risks retained by the public sector under traditional delivery is \$223.4 million. The analysis also concluded that the average value of project risks retained by the public sector under the AFP delivery model decreases to \$46.7 million. This is a savings of \$176.7 million for Ontario taxpayers.

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

Ancillary costs and adjustments

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 OPP Modernization project under the traditional delivery method are estimated to be \$3.9 million as compared to \$8.6 million under the AFP approach.

An adjustment is made when estimating costs under traditional delivery. This adjustment is referred to as competitive neutrality and accounts for items such as taxes paid under AFP that flow back to the public sector and are not taken into account under the traditional model, and private sector insurance premiums that can be used as a proxy for valuing insurance costs when the public sector self-insures under the traditional method. In the case of the OPP Modernization project, this adjustment is made by adding \$4.5 million to the traditional delivery costs (i.e. on the PSC side).

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 Deloitte 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 OPP Modernization project, the estimated traditional delivery cost (i.e. PSC) is \$487.3 million as compared to \$436 million under the AFP delivery approach.

The positive difference of \$51.3 million or 10.5 per cent represents the estimated value for money by using the AFP delivery approach in comparison to the traditional delivery model.