

# Chapter 1

## Section 1.05

Ministry of Infrastructure (formerly the Ministry of Economic Development, Employment and Infrastructure)

# Infrastructure Ontario— Alternative Financing and Procurement

Follow-Up on VFM Section 3.05, 2014 Annual Report

RECOMMENDATION STATUS OVERVIEW					
	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	1		1		
Recommendation 2	3	2	1		
Recommendation 3	1			1	
Recommendation 4	1			1	
Recommendation 5	1		1		
Recommendation 6	1	1			
Recommendation 7	1		1		
Recommendation 8	1	1			
Recommendation 9	1	1			
Recommendation 10	1	1			
<b>Total</b>	<b>12</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>0</b>
<b>%</b>	<b>100</b>	<b>50</b>	<b>33</b>	<b>17</b>	<b>0</b>

## Background

When the Province constructs public-sector facilities such as hospitals, court houses and schools, it can either manage and fund the construction itself or have the private sector finance and deliver the facilities under what is called an Alternative Financing and Procurement (AFP) approach, a form of public-private partnership frequently used in Ontario. Contractual agreements between the gov-

ernment and the private sector define AFP arrangements. Under these agreements, private-sector businesses deliver large infrastructure projects, and the various partners (private sector and public sector) share the responsibilities and business risks of financing and constructing the project on time and on budget. In some cases, the private sector is also responsible for the maintenance and/or operation of the project for 30 years after it is built.

The private sector initially finances construction of AFP projects, but as with projects delivered by the public sector, the Province ultimately pays for

these projects under the terms of their contracts, some of which are up to 30 years. The Province's March 31, 2016, public accounts reported almost \$36.6 billion in liabilities and commitments that the present and future governments, and ultimately taxpayers, will have to pay. However, the financial impact of AFP projects is higher since the Province has also borrowed funds to make the payments to AFP contractors when the various projects reached substantial completion. These borrowed amounts are part of the total public debt recorded in the Province's Public Accounts.

Since 2005, large-scale infrastructure projects under the AFP model have been managed by Infrastructure Ontario. To assess whether each large infrastructure project should be delivered using the AFP approach versus directly by the public sector, Infrastructure Ontario conducts "value-for-money" (VFM) assessments. These VFM assessments compare the estimated project costs of the public sector delivering the project (known as the public-sector comparator, or PSC) with the estimated cost of delivering the same project to the identical specifications using the AFP delivery model. If the cost for the AFP delivery model is less than the cost for public-sector delivery, then there is positive VFM by procuring the project using the AFP approach.

For 74 infrastructure projects, either completed or under way at the time of our audit in 2014, where Infrastructure Ontario concluded that private-sector project delivery under the AFP approach would be more cost effective, we noted that the tangible costs (such as construction, financing, legal services, engineering services and project management services) were estimated to be nearly \$8 billion higher than they were estimated to be if the projects were contracted out and managed by the public sector. The majority of this (\$6.5 billion) relates to private-sector financing costs.

However, Infrastructure Ontario estimated that this \$8-billion difference was more than offset by the risk of potential cost overruns if the construction and, in some cases, the maintenance of these 74 facilities was undertaken directly by the public

sector. In essence, Infrastructure Ontario estimated that the risk of having the projects not being delivered on time, and on budget, was about five times higher if the public sector directly managed these projects versus having the private sector manage the projects.

We also noted the following:

- There is no empirical data supporting the key assumptions used by Infrastructure Ontario to assign costs to specific risks. Instead, the agency relies on the professional judgment and experience of external advisers to make these cost assignments, making them difficult to verify. In this regard, we noted that often the delivery of projects by the public sector was cast in a negative light, resulting in significant differences in the assumptions used to value risks between the public sector delivering projects and the AFP approach.
- In some cases, a risk that the project's VFM assessment assumed would be transferred to the private-sector contractor was not actually transferred, according to the project's contractual agreement. For example, the VFM assessment for a hospital project assumed the contractor would bear the risks of design changes; however, this hospital project's contract indicated that the contractor was not responsible for project design, and that the public sector was responsible for the risk of design changes.
- Two of the risks that Infrastructure Ontario included in its VFM assessments should not have been included. Their combined cost over the 74 AFP projects was almost \$6 billion. If they had not been included in the VFM assessments, public-sector delivery for 18 of these projects would have been assessed as \$350 million cheaper than delivery under the AFP approach.

Based on our audit work and review of the AFP model, we noted that achieving value for money under public-sector project delivery would be possible if contracts for public-sector projects have

strong provisions to manage risk and provide incentives for contractors to complete projects on time and on budget, and if there is a willingness and ability on the part of the public sector to manage the contractor relationship and enforce contract provisions when needed.

Infrastructure Ontario has a strong track record of delivering projects such as hospitals, courthouses and detention centres on time and on budget. It may now be in a position to utilize its expertise to directly manage the construction of certain large infrastructure assets and thereby reduce the cost to taxpayers of private-sector financing. There is a role for both private-sector and public-sector project delivery. As experience with AFPs has developed, it may be time to assess what those roles and the financing mix should be going forward.

We recommended that Infrastructure Ontario gather data on actual costs from recent projects—both AFP and non-AFP—and revise its VFM assessment methodology to ensure that its risk valuations are justified; confirm that all risks assumed to be transferred to the AFP contractor are actually transferred in contracts; and that Infrastructure Ontario be engaged in traditional forms of procurement to utilize the experience that it has gained in delivering AFPs, for the most part, on time and on budget, in order to achieve additional cost benefits for Ontario taxpayers.

We made a number of recommendations for improvement and received commitments from Infrastructure Ontario that it would take action to address them.

## Standing Committee on Public Accounts

On March 25, 2015, the Standing Committee on Public Accounts (Committee) held a public hearing on our 2014 audit on Alternative Financing and Procurement. In June 2015, the Committee tabled a report in the Legislature resulting from this hearing. The Committee endorsed our findings and recommendations. The Committee made six additional

recommendations. Infrastructure Ontario and the Ministry of Infrastructure (called the Ministry of Economic Development, Employment and Infrastructure at the time of our audit) reported back to the Committee at the end of September 2015. The Committee's recommendations and follow-up on their recommendations are found in **Chapter 3**.

## Infrastructure Ontario Special Committee Review and Investigation

In September 2015, reporters from *The Globe and Mail* met with Infrastructure Ontario's senior executives and the then vice-chair of its board of directors regarding allegations against a former employee who had been fired in February 2012. The employee was alleged to have been involved in a false invoicing scheme at York University and to have failed to disclose conflicts of interest in the procurement of the St. Michael's Hospital redevelopment project.

Due to the seriousness of these allegations, Infrastructure Ontario formed a Special Committee in October 2015 to review and report on the following:

- whether the employee's conduct or activities were improper or unauthorized in any way, including whether the employee communicated confidential Infrastructure Ontario business information to unauthorized persons or engaged in any financial malfeasance;
- the St. Michael's Hospital procurement and other Infrastructure Ontario projects in which the employee was involved;
- the circumstances relating to the employee's departure from Infrastructure Ontario; and
- any other related or ancillary matters that the Special Committee or the Minister of Infrastructure determines should be looked into.

On September 6, 2016, Infrastructure Ontario made the results of this review public. The review found that the employee failed to disclose all of his potential conflicts of interest in the St. Michael's

Hospital procurement. However, no evidence was found of any attempt to inappropriately influence the procurement evaluation for this project, and the procurement process for this project was not compromised.

The review also noted that Infrastructure Ontario's decision to terminate the employee was appropriate. This was based on the employee being implicated in the York University false invoicing scheme. However, Infrastructure Ontario's then CEO failed to consult with or inform Infrastructure Ontario's board of directors and audit committee of the circumstances of the employee's termination and also failed to note them in the employee's file. This resulted in two Infrastructure Ontario employees unwittingly providing positive references for the employee, who then obtained employment at St. Michael's Hospital.

## Status of Actions Taken on Recommendations

Infrastructure Ontario has made progress on a number of our recommendations, including updating the evaluation threshold for AFP project delivery to \$100 million, changing the process to incentivize project companies to complete minor deficiencies within the agreed-to period, and providing training and updates on its centralized database system to improve the completeness and accuracy of information on AFP projects.

However, some areas that still require work include gathering empirical data to support the valuation of risks in the value-for-money assessment used to justify the AFP approach, and ensuring that risks assumed to be transferred in the value-for-money assessments are reflected in the project agreements.

The status of the actions taken on each recommendation is described in the following sections.

## Value-for-Money (VFM) Assessment

### Recommendation 1

*Infrastructure Ontario should, in conjunction with the Ministry of Economic Development, Employment and Infrastructure, gather data on actual cost experience from recent public-sector infrastructure procurements and alternative financing and procurements (AFPs) and revise its VFM assessment methodology to ensure that the valuation of risks assumed to be retained under both the AFP and public-sector delivery models are well justified.*

**Status: In the process of being implemented by March 2017.**

### Details

A key component of Infrastructure Ontario's VFM assessment is the valuation and assignment of risks retained under both the AFP and public-sector delivery models. For the projects we reviewed, it was only Infrastructure Ontario's costing of the risks and the impact of allocating them between the two delivery models that tipped the balance in favour of AFP over public-sector project delivery. In our 2014 audit, we noted that there was no empirical data to support those risk valuations and that Infrastructure Ontario's reliance on the judgment of external advisers made them difficult to verify.

Since our audit, Infrastructure Ontario has been able to access the recent actual costs only of the projects it manages under the Province's real estate portfolio. Beginning in 2015, Infrastructure Ontario included in its annual reporting of the track record for AFP projects the performance on traditionally delivered capital projects valued between \$10 and \$50 million that were delivered in 2013/14 and 2014/15 by its Real Estate Services division. These were found to be 71% on budget and 86% on time. AFP projects were found to be 98% on budget and 73% on time.

Infrastructure Ontario did hire a cost consultant in September 2015 to review five major hospital projects (with capital costs over \$100 million) that had been traditionally delivered 10 years ago. The

consultant's report found that in comparing tender cost to final cost, the cost overruns for these five hospital projects ranged from 5.0% to 95.5%, with three of the projects under 10%, one at 35% due to environmental issues and other costs, and one at 95.5% due to lack of controls, insufficient resources and inexperience on large capital projects. Infrastructure Ontario has used these findings to justify estimating cost overruns at approximately 15% to 25% in its risk assessment for projects delivered under the traditional approach.

In addition, Infrastructure Ontario engaged another consulting firm to update the risk matrix for highway/transit projects in April 2015. However, this update did not rely on any empirical data, as the consultant's report stated, "there is no single comprehensive data base of public or private projects that could be identified or relied upon for the estimation of risk."

Infrastructure Ontario also used as further evidence to support its risk valuations a City of Toronto Staff Report on the Toronto-York Spadina Subway Extension, which noted that the project was over budget by as much as 21%.

In summer 2015, the Treasury Board/Management Board of Cabinet issued a new "Major Public Infrastructure Projects" directive that establishes the approval process and reporting requirements for large infrastructure projects in the province. Under this directive, ministries will start to report quarterly on the status of major projects including those that are delivered using either traditional or the Alternative Financing Procurement model by the end of 2016/17. We will continue to monitor the status of this initiative to collect comparable data on traditionally delivered and AFP projects.

Infrastructure Ontario indicated that it would like to migrate to a more business case approach from the current value-for-money assessments used to evaluate the suitability of projects for AFP delivery. In order to implement the new approach, it will need to work with the Treasury Board Secretariat, the Ministry of Infrastructure and other stakeholder ministries. It expects to start this process early 2017

and make recommendations to its board of directors by summer 2017.

### Recommendation 2

*To ensure that value-for-money assessments in procuring large-scale infrastructure projects are valid and objective, Infrastructure Ontario should confirm:*

- *that all risks assumed to be transferred to the AFP contractor are supported by relevant provisions of the project agreement; and*

**Status: In the process of being implemented by December 2016.**

### Details

In our 2014 audit, we found a number of inconsistencies between the risks assumed to have been transferred to the private sector in Infrastructure Ontario's VFM assessments and their respective project agreements. Although Infrastructure Ontario has since updated its VFM assessment to consolidate and eliminate some redundant risks, we continue to see some risks that the assessments assumed to have been transferred to the AFP contractor but for which the contractor and province in fact continue to share or be responsible for the costs according to the project agreements.

For example, in our review of VFM assessments in 2014, we noted that a risk associated with permit approvals was considered to have been transferred to the AFP contractor; however, in the agreement it was shared between the contractor and the project owner. This remains the case in the updated VFM assessment and current project agreement.

On the same basis, the VFM assessments for Build Finance projects continue to assume that the risk of design errors is transferred to the AFP contractor, but according to the project agreement, this risk remains with the project owner.

At the time of our follow-up, Infrastructure Ontario was planning to amend the VFM assessments to align with the provisions in the project agreements for the two risk areas that we identified. Infrastructure Ontario was also expecting to

amend the risk templates for all new projects by December 2016.

- *that the costs assigned to retained risks in the public-sector comparator are not accounted for elsewhere in the assessments.*

**Status: Fully implemented.**

#### Details

We identified in our 2014 audit two specific risks in Infrastructure Ontario's risk assessments whose costs accounted for one-third of the value in retained risks for the public-sector comparator that should not have been included.

The first was the "asset residual risk" being double counted for AFP projects with a maintenance component. Specifically, in addition to including a cost of nearly \$3 billion in retained risk on the public-sector side in its VFM assessments, Infrastructure Ontario also assumed a base cost on the public-sector side for maintaining projects and replacing their major components in the same amount and timing as in the base cost on the AFP side. Under this situation, there should not be any difference in the condition of assets between the two procurement approaches and hence there should be no need for an additional public-sector comparator cost related to "asset residual" risk.

The second was the "planning, process and allocation practices" risk associated with delays caused by internal government approvals, which would be equally applicable under both delivery models, so there should be no difference in the risk under either model.

Infrastructure Ontario's update to its VFM assessment in 2014/15 reduced the amount of lifecycle costs by 40% under the public-sector comparator to recognize the historically observed under-spending by the Province. The asset residual risk also reflects the condition of the Province's real estate portfolio based on the amount of lifecycle spending by the Province. On average, the buildings in this portfolio have a Facility Condition Index (FCI = value of deferred maintenance/replace-

ment value of the asset) of 18% by the time they are 30 years old. Infrastructure Ontario indicated that it typically assumes that traditionally delivered projects will have an FCI of approximately 20% as part of the value-for-money assessment.

In March 2015 Infrastructure Ontario also revised the probability and impact associated with the "planning, process and allocation practices" risk in its VFM risk matrix for both delivery models, in effect making this risk equally applicable under both models in the case of the civil projects (e.g., highway and transit projects) and significantly reducing the difference between the two models for social infrastructure projects (e.g., hospital projects). This risk has also been renamed "government approvals for program" as part of the update to provide clarity on the various risks in the assessment.

*Infrastructure Ontario should also confirm that the threshold for what is considered a large-scale project is useful in screening projects that should be procured using the AFP approach versus the public sector delivering the project.*

**Status: Fully implemented.**

#### Details

The Ministry of Infrastructure, in co-operation with Infrastructure Ontario, undertook a review of the screening threshold for AFP projects to determine whether an increase to the \$50 million threshold was necessary. In spring 2015, the government announced that it will be moving to a new \$100 million threshold to identify projects to assess for delivery through AFP. This new threshold is in line with thresholds for public-private partnership projects in other Canadian jurisdictions.

The government will assess complex projects under \$100 million on a case-by-case basis for AFP delivery.

### Recommendation 3

*Infrastructure Ontario should ensure that all proposed changes to its VFM assessment methodology,*

including its plan to increase the base cost on the public-sector comparator side by up to 13.3% to reflect value-added innovations that the private sector may be bringing to projects, can be and are fully supported and can sustain scrutiny.

**Status: Little or no progress.**

**Details**

At the time of our audit in 2014, Infrastructure Ontario had proposed a number of changes to its methodology for future VFM assessments. See **Figure 1** for the proposed and subsequent changes made.

Regarding the adjustment to reflect value-added innovations that the private sector may be bringing to projects, Infrastructure Ontario hired two consulting firms to review its AFP projects. Both firms surveyed and interviewed external companies involved in the delivery of infrastructure projects; one of the firms compared the winning bid to the average of all the bids for AFP projects.

Both firms concluded that the winning bidders were able to submit a lower-price bid by providing a design with reduced project area that could provide the same performance as defined in the

**Figure 1: Changes to Infrastructure Ontario’s Methodology for VFM Assessments**

Source of data: Infrastructure Ontario

Proposed Change in 2014	Actual Change Subsequent to Our 2014 Audit	Support for the Change
1. Increase the base cost on the public-sector side by up to 13.3% to reflect value-added innovations that the private sector brings to projects that are not realized under public-sector procurement.	Included an innovation factor by increasing the base cost on the public sector side by 7.5% for Design Build Finance projects and 12% for Design Build Finance Maintain projects in the VFM assessment.	This adjustment was based on a comparison of the winning bid and the average of all the bids for the projects, as well as surveys and interviews conducted by two cost-consulting firms.
2. Vary the percentage of the payment when a project’s construction is substantially complete to optimize financing costs and ensure that the contractor has sufficient “skin in the game.”	Increased the substantial completion payment from 50% to 60% on social infrastructure projects (e.g., hospitals, courthouses) and up to 85% for civil projects (e.g., highways, transit). Introduced “progress payments” on large Design Build Finance Maintain projects.	These adjustments were based on a review of past projects and comparison of the cost of public financing versus private financing. They are intended to manage the financing costs of AFP projects while still ensuring that there is effective risk transfer.
3. Reduce the estimate of the risk premium on the AFP side from 5% to 10% of the base cost depending on the type of project to 0% to 6%.	Removed the risk premium adjustment on the AFP side of the VFM assessment.	Infrastructure Ontario provided no support for the removal of the risk premium from the VFM assessment on the AFP side apart from indicating that it was done as part of the review of the innovation factor adjustment.
4. Exclude insurance premiums in the competitive neutrality adjustment on the public-sector comparator to avoid the double-counting of this cost.	Excluded insurance premiums from the competitive neutrality adjustment.	Adjustment recommended by our 2014 audit to avoid the double-counting of this cost.
5. Consolidate the number of risks considered and assign new risk probabilities and impact to reflect Infrastructure Ontario’s experience gained to date on the delivery of AFPs.	Reduced the number of risks in the VFM assessment from 60 to 40 and adjusted risk probabilities and impact where necessary.	The risk matrix for each asset class and delivery model was reviewed and a number of risks consolidated to reflect AFP project experience and risk allocation. However, new risk probabilities and impacts were not based on actual empirical data from traditional builds.

output specifications, or by providing a shorter construction schedule in some cases, and that these were deemed to be innovations that the bidders incorporated into their designs.

We continue to question whether the differences in bid prices are a good proxy for the innovation adjustment, as lower bids could be due to a number of other factors, such as idle capacity that a project company wishes to deploy and hence lowers its costs.

In addition, Infrastructure Ontario removed the 5% to 10% risk premium on the AFP side. However, it did not provide any support to justify this change.

As a result, the inclusion of the innovation adjustment of 7.5% to 12% to the public-sector-comparator side, combined with the removal of the risk premium of 5% to 10% on the AFP side, results in an actual adjustment of 12.5% to 22% in favour of the AFP delivery model.

Lastly, in adjusting risk probabilities and impacts, Infrastructure Ontario has not included the extent to which the adjustments are based on actual empirical data on traditional builds.

#### Recommendation 4

*The Ministry of Economic Development, Employment and Infrastructure should also engage Infrastructure Ontario in traditional forms of procurement that utilize the experience that the agency has gained in delivering AFPs, for the most part, on time and on budget, in order to achieve cost benefits and to be consistent with the government's June 2011 strategic framework to guide investments in infrastructure in the province.*

**Status: Little or no progress.**

#### Details

A January 2016 letter from the Ministry of Infrastructure noted that a review of Infrastructure Ontario's mandate under the new Agencies and Appointments Directive is scheduled to take place in 2016/17. This review will play a critical role in helping to ensure that the activities of Infrastructure Ontario are current and appropriately align with the government's policy objectives and priorities.

## Procurement of AFP Contractor

### Recommendation 5

*In order to have a good estimate of project costs before seeking Treasury Board approval, as well as to better evaluate the reasonableness of future bids, Infrastructure Ontario should identify the reasons for the significant differences between actual contract values and its estimates of project cost, especially for projects that have long-term financing, maintenance and life-cycle costs. Infrastructure Ontario should accordingly review and update its process for arriving at these estimates.*

**Status: In the process of being implemented by winter 2017.**

#### Details

In our 2014 audit we noted that there was a significant difference between the initial budgets approved for the projects and the actual contract value at financial close. We found that for 56 projects that were either substantially complete or under construction at the time of our audit, the contract value was about \$12 billion (27%) lower than the initial budget. The majority of the difference was from long-term financing, lifecycle and maintenance costs. Overall, this variance indicated that Infrastructure Ontario's budgeting practices were not accurately estimating these longer-term costs of AFP projects.

Since our audit, Infrastructure Ontario has undertaken an analysis of budget trends from 2007 to 2015 for AFP projects to identify the reasons for differences between actual contract values and its estimates of project costs. It found that very conservative approaches were used in the initial AFP projects to compensate for the lack of industry familiarity and lack of good-quality data for AFP life-cycle and maintenance-cost estimates. The analysis showed improvement in the budget estimates over time with increasing industry familiarity as well as increased use of project data.

In addition, Infrastructure Ontario retained a cost-consulting firm to review its methodology in developing AFP project budgets. The final report

released in March 2016 found that while Infrastructure Ontario’s methodology for producing budgets follows a process consistent with industry practice, there were some areas for improvements, including the following:

- Infrastructure Ontario appears to treat each project uniquely and does not apply standard percentage mark-ups for the various categories of costs across all projects. The consultant recommended that Infrastructure Ontario should continue to consider each project on its own initially and then compare it to benchmarks as part of its due diligence. This is a critical component of establishing reasonable budgets.
- Although the Social Design Build Finance Maintain (DBFM) portfolio (including, for example, hospitals and courthouses) appears to perform well, there is room for improvement with the Civil DBFM portfolio (including, for example, highways and transit), with only two out of the five project budgets in that portfolio meeting industry standards.
- Infrastructure Ontario should continue to track trends and make adjustments to the assumptions for projects currently in the transaction phase, working with data from completed projects to further refine its budgeting process.

In response to the concerns identified in the report, Infrastructure Ontario is setting up a new project database. The database will allow greater analysis and reporting on individual projects and sectors for comparative purposes. This will be useful information for developing project budgets. Infrastructure Ontario anticipates this system will be implemented in the spring or summer of 2017. In addition, the budget and cost management team was restructured in 2016. The resources needed to improve the budget performance for the Civil DBFM portfolio were identified. These included bringing in a Quantitative Surveyor or Analyst, expected to be hired in the fall or winter of 2016, and a new

Cost Consultant Vendor of Record, expected to be developed in winter 2017.

## Evaluation of Bidders for AFP Projects

### Recommendation 6

*Infrastructure Ontario should review and update its system of scoring bidders’ submissions to ensure that due consideration is afforded to both the technical merits of the submissions and to price.*

**Status: Fully implemented.**

### Details

In our 2014 audit we noted that Infrastructure Ontario’s scoring system for evaluating bids gave the lowest bidder a decided edge, which often resulted in the strength of the submissions’ technical aspects not being a significant factor. We noted a number of projects that were awarded to the lowest bidder, which in some cases had met only the minimum technical-design requirements for the project.

Following our audit, Infrastructure Ontario undertook a review of its evaluation methodology and concluded that changes to its scoring system were not necessary, as the current process requires all bidders to meet not only stringent qualification standards but also minimum design-technical requirements, which are of a high standard. However, Infrastructure Ontario introduced a number of other changes subsequent to its review, including the following:

- a sequential evaluation of requests for proposals, whereby technical results are now completely evaluated before any financial submissions are opened (in the past this was done simultaneously by the technical and financial evaluation teams);
- a minimum scoring threshold for technical submissions for Build Finance projects to ensure that certain construction standards, primarily dealing with scheduling, are met; and

- development of formal evaluation frameworks to describe and outline the evaluation process, which will be used to select the preferred bid for projects.

### Recommendation 7

*Infrastructure Ontario should ensure that participants involved in evaluating the submissions sign the required conflict of interest declaration that discloses any relationships with entities identified in the submissions.*

**Status:** In the process of being implemented by spring 2017.

#### Details

It is important to ensure that all participants involved in the procurement of a project have declared all situations that could impact their objectivity in the evaluation processes. During our 2014 audit, Infrastructure Ontario was unable to provide us with signed conflict-of-interest declarations for a number of the participants involved in the evaluation of request for qualifications (RFQ) and request for proposals (RFP) submissions. In our follow-up work we also noted that Infrastructure Ontario still did not have signed conflict-of-interest declarations from all participants involved in evaluating the RFQs and RFPs submitted subsequent to our 2014 audit.

Since our 2014 audit, Infrastructure Ontario has established a Conflict Review Team (accountable to Infrastructure Ontario's General Counsel) whose role is to ensure that all participants in the evaluation process are clear of any disclosed conflicts of interest and that any perceived, potential or actual conflicts of interest are adequately managed and mitigated.

Infrastructure Ontario has also made a number of changes to its record-management process since our audit, including transferring the responsibility for record-management from the Procurement department to the General Counsel's Office and developing a close-out checklist to ensure the

necessary digital and physical storage of all related paperwork is maintained.

To improve its record-keeping process, Infrastructure Ontario has entered into a contract with a third-party service provider to pilot an electronic evaluation system, including creating an audit trail of the conflict-of-interest check-in and compliance. The effective date of the agreement was April 27, 2016, and Infrastructure Ontario expects to pilot the system on an AFP project in the spring of 2017.

### Recommendation 8

*Consistent with the March 2012 letter from the Minister of Economic Development, Employment and Infrastructure, Infrastructure Ontario should develop a formal process for managing the intellectual property rights acquired in exchange for the bid fees paid to unsuccessful bidders to ensure that the province receives any benefits from these rights in planning new projects.*

**Status:** Fully implemented.

#### Details

As noted in the Framework for the Development and Delivery of Alternative Financing and Procurement Projects issued in June 2016 by the Ministry of Infrastructure, Infrastructure Ontario continues to be responsible for managing the intellectual property rights acquired in exchange for the design bid fees paid to unsuccessful bidders.

Since our audit in 2014, Infrastructure Ontario has centralized all electronic design submissions in its document management system, and project teams can now access them to inform the planning of future projects.

## Monitoring of AFP Projects

### Recommendation 9

*Infrastructure Ontario should review the amount of the payments that it holds back at substantial completion of the projects it delivers to help ensure that minor deficiencies are corrected on a timely basis.*

**Status:** Fully implemented.

### Details

AFP agreements typically require minor deficiencies to be rectified within 45 to 120 days after reaching substantial completion. However, in our 2014 audit we observed that the average time to resolve such deficiencies was close to 13 months and, in two cases, hospital projects had not reached final close three years after substantial completion because all minor deficiencies had not yet been resolved.

Since our audit, Infrastructure Ontario has reviewed the holdback amount as well the methodology for calculating and paying it out. After its review it proposed a number of changes to the project agreements to incentivize the private sector to rectify minor deficiencies in a timely manner. These include the following:

- Changing the methodology for calculating the amount to be held back for minor deficiencies to hold back more money—Historically, the holdback was calculated at 200% of the project company’s estimate of the cost to complete the work. Now this calculation is based on 200% of the Independent Certifier’s estimate of what it would cost if Infrastructure Ontario or the project sponsor had to complete the work.
- No progress payments to the project company for completed minor deficiencies—No minor deficiency holdback monies will be released until all minor deficiencies, including seasonal work, are rectified as certified by the Independent Certifier/Consultant.
- Removal of the contingency of 30/75 days post-expiration of the minor deficiency rectification period—This effectively limits the project company’s cure period solely to the time period established in the project agreements of 45 days for Design Build Finance and Design Build Finance Maintain projects, and 120 days for Build Finance projects, or as otherwise established by the Independent Certifier at the project’s substantial completion. This permits the province to step in immediately after rectification periods have

expired to complete the deficiencies using the holdback funds.

These proposals were adopted in principle for all in-market and future projects in February 2016. At the time of our follow-up in August 2016, Infrastructure Ontario had implemented these new proposals in its six projects currently on the market.

### Recommendation 10

*In order to properly monitor the construction phase of projects, Infrastructure Ontario should ensure that information on individual projects is stored in a centralized database using a consistent structure and that its construction status reports are accurate and complete.*

**Status: Fully implemented.**

### Details

Infrastructure Ontario produces a monthly construction status report for each project. In our 2014 audit we noted instances of incorrect or incomplete reports. For example, in some of the reports the budgeted costs for the projects did not agree with their most recent budgets, and the list of change orders related to certain projects was not complete. We also noted that information on projects was stored in multiple locations or databases, including staff personal computers and emails. There was no consistent structure or centralized database for this information. This created a real risk of a loss of knowledge on projects if a staff person responsible for monitoring a project were to leave the agency.

In the fall of 2014, Infrastructure Ontario made a number of modifications to its centralized database system to make it more user-friendly and comprehensive for staff use. Training on the use of the system and reporting templates have been provided to all staff following these modifications:

- expanding the functionality of the system to capture projects in the pre-transaction phase that is before the request for proposal stage, allowing for more complete project status information in the system (in the past,

projects were only added to the centralized database when they reached the request for proposal stage);

- automating transaction reports and claims processes in the system to ensure easy transition of project information and tracking from the transaction phase to the construction phase; and
- enhancing the “help” function for the Risk Register and Project Status Update processes to provide clarification to users when needed.

As well, to ensure the completeness and accuracy of the information being reported, Infrastructure Ontario undertook a review of the data

in its Construction Status Reports and worked with project teams to align all budget, contingency and variation information back to source documents. As of August 2016, this review had been completed for 34 AFP projects.

In July 2016 Infrastructure Ontario established a new Project Management team inside its Major Projects Division. This team is responsible for ensuring the completeness of the information reported in the system and the consistent use of the system. Where missing information or non-compliance is identified, the appropriate project team is to be notified so that it may rectify the issue.