Chapter 16
SaskBuilds—Evaluating Potential Use of P3s

1.0 Main Points

Public-private partnerships (P3s) are an approach for delivering public infrastructure (such as schools, hospitals, and highways) that involves significant participation by the private sector. Saskatchewan, like other jurisdictions, is increasing its use of P3s. SaskBuilds is responsible for coordinating, managing, and overseeing infrastructure projects, including the use of P3s.

Deciding to use a P3 involves multiple stages. These stages include evaluating whether a P3 approach is suitable for a particular infrastructure project, tendering the project, signing an agreement with a successful bidder, and constructing and operating the facility (which can extend for up to 30-40 years). This chapter focuses on the first stage, evaluating the suitability of using a P3 approach – we call this the business-case development stage.

The Government asked SaskBuilds to evaluate as potential P3s the following four projects: the Swift Current Long-Term Care Centre, the Regina Bypass, the Saskatchewan Hospital North Battleford – Integrated Correctional Facility, and nine joint-use schools. The Government estimates the total cost for all four projects to be from $2.5 billion to $3.5 billion.

This chapter reports that, SaskBuilds had, other than the following, effective processes for evaluating infrastructure projects at the business-case development stage to determine whether the projects should use a P3 approach. It needs to:

- Specify, at the start of its evaluation, the minimum estimated savings that a P3 approach must demonstrate over a conventional approach before it recommends to the Government to sign an agreement with a successful bidder. Setting such an amount would recognize the significant uncertainties in cost estimates. It would help reduce the risk of proceeding using a P3 approach where projected savings are only minimally better than a conventional approach, and may not materialize given the uncertainties.

- Make available to all of its risk workshop participants key empirical data to facilitate better evaluation of infrastructure project risks, calculation of related costs, and support for decisions. Providing such data would permit participants to review, consider, and challenge the information and would furnish a record of the basis of key decisions made in workshops.

In addition, SaskBuilds had not specified the minimum content required in its public value-for-money reports that it is to publish after the financial close. It had also not required the release of public value-for-money reports related to infrastructure projects within timeframes consistent with those set out in *The Executive Government Administration Act*. Furthermore, it needs to leverage its value-for-money analysis to evaluate and include feasible benefits and efficiencies in future public sector conventional approaches.

2.0 INTRODUCTION

The Government of Saskatchewan, consistent with other provinces, is increasing its use of public private-partnerships (P3s) for delivery of infrastructure and related services. In its *2014 Speech from the Throne*, the Government indicated that it was "leveraging the forces of innovation and competition through public-private partnerships." The Speech indicated the Government would "save hundreds of millions of dollars on P3 capital projects…" By January 2015, the Government had identified the following as potential P3 projects (in the indicated sectors):

- Swift Current Long-Term Care Centre (health care) – This is a 225-bed facility and the first of the four projects, mentioned here, to have proceeded to the contracting stage. The Government announced the successful bidder (the P3 partner)[1] on September 18, 2014 at a cost of $108 million.[2]

- Regina Bypass (transportation) – The Government expects this project to be the largest transportation infrastructure project in Saskatchewan's history.[3] It also indicates that it expects the bypass to take less than four years to build with construction commencing in the summer of 2015.

- Saskatchewan Hospital North Battleford – Integrated Correctional Facility (healthcare and justice) – The Government plans this to be a 188-bed replacement hospital for mental health and 96-room correctional facility that will house both male and female offenders.

- Nine joint-use schools (education) – This project is for the construction of nine joint-use schools in the communities of Saskatoon, Regina, Warman, and Martensville.

At January 30, 2015, the Government had not engaged a P3 partner for the last three projects noted above. The Government expects construction for these projects to begin in the summer of 2015.[4]

The cost of new infrastructure is expensive. The Government estimates the total cost for all four projects will be in the range of $2.5 billion to $3.5 billion.[5] It is important that the Government carefully consider available options to develop new infrastructure with appropriate regard to the use of public money over the entire life of that infrastructure.

2.1 Use of P3s in Canada

Governments sometimes use P3s for infrastructure projects that provide health, transportation, education or environmental services over an extended period (often up to 30-40 years). As shown in **Figure 1**, according to the Canadian Council for Public-Private Partnerships, from 2003-14, 11 Canadian governments participated in 218 P3 projects, of which 50% were in Ontario.[6] Over this period, governments in Saskatchewan participated in eight P3 projects including the previously mentioned four, as well as four municipal government projects.[7]

[1] For simplicity, we refer to a single partner, although groups of private sector companies are common. Also, the words "partner" and "partnership" are used in a general, not legal, sense.
[2] Government of Saskatchewan media release September 18, 2014.
[3] www.highways.gov.sk.ca/Regina_bypass (5 February 2015).
[4] Source: www.saskbuilds.ca (6 February 2015).
[5] Source: SaskBuilds' projects documentation.
[6] Data generated from P3 Canada website: http://projects.pppcouncil.ca (11 December 2014).
[7] The City of Saskatoon North Commuter Parkway and Traffic Bridge Replacement, the City of Saskatoon Civic Operations Centre Phase One, the City of Regina Wastewater Treatment Plant, and the City of Regina Mosaic Stadium.

Figure 1—2003-14 P3 Projects by Province/Territory and Sector

Sector	Defence	Education	Energy	Environment	IT Infrastructure	Gov't Services	Hospitals & Health Care	Justice	Real Estate	Recreation & Culture	Transportation	Total	Percentage
Province/Territory													
Alberta	-	3	1	4	-	-	1	1	-	1	7	18	8.26
British Columbia	-	1	2	8	-	-	13	4	2	2	8	40	18.35
Manitoba	-	-	-	1	-	-	-	-	-	-	4	5	2.29
New Brunswick	-	2	-	2	-	-	2	1	-	1	3	11	5.05
Ontario	1	3	2	7	-	4	55	11	1	11	14	109	50.00
Quebec	-	-	-	1	-	-	9	1	-	2	6	19	8.72
North West Territories	-	-	-	-	1	-	1	-	-	-	-	2	0.92
Nunavut	-	-	-	-	-	-	-	-	1	-	1	2	0.92
Nova Scotia	-	1	-	-	-	-	-	1	-	-	1	3	1.38
Newfoundland & Labrador	-	-	-	-	1	-	-	-	-	-	-	1	0.46
Saskatchewan	-	1	-	1	-	-	2	-	-	1	3	8	3.67
Total	**1**	**11**	**5**	**24**	**2**	**4**	**83**	**19**	**4**	**18**	**47**	**218**	**100.0**
Percentage	**0.46**	**5.05**	**2.29**	**11.01**	**0.92**	**1.83**	**38.07**	**8.72**	**1.83**	**8.26**	**21.56**	**100.0**	

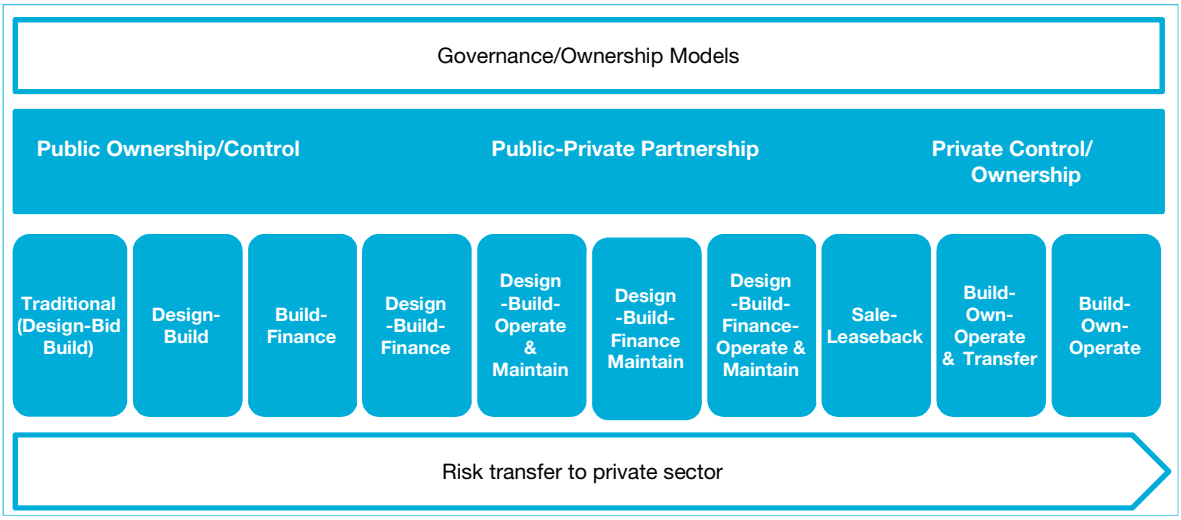
Source: Canadian Council for Public-Private Partnerships website.

2.2 What are P3s?

Historically, governments have built and operated public infrastructure directly. This method of procurement is typically referred to as "conventional procurement."[8]

P3s are a different way for governments to deliver public infrastructure (such as schools, hospitals, and highways). As shown in **Figure 2**, P3 arrangements can take different forms, depending on the nature and extent of private sector participation. Each form involves the private sector in the different phases of the project such as design, build, finance, operate, and maintain. These varying forms have given rise to the acronyms often used in relation to P3s, such as DBF, DBFM, and DBFOM.

Figure 2—Project Delivery Models



Source: P3 Canada, *P3 Business Case Development Guide*, p.12.

[8] A conventional procurement can be considered as "design-bid-build", where a government prepares detailed asset design specifications and tenders its construction to a contractor. In doing so, a government will usually retain responsibility for design flaws and cost and/or schedule over-runs.

P3s differ from conventional procurement approaches in a number of ways. **Figure 3** outlines examples of often-cited differences between P3s and conventional procurement.

Figure 3—Examples of Often-Cited Differences Between P3s and Conventional Procurement Responsibilities and Authorities [a]

	P3 Procurement	Conventional Procurement
Project Phases	Can include elements of the following: design, build, finance, operate, and maintain; elements or several projects may be integrated into one bundle	Typically, elements are design, bid, and build; often elements of maintenance and operation are handled separately
Contracts	Performance based. Long-term, including operations and maintenance over extended period	Typically limited to design and build. Maintenance and operation are handled separately
Timing of Payments	Can include lump-sum contributions, and annual-service payments extending over life of the contracts	Progress payments over construction period with contractor fully paid upon completion of construction
Financing	Private sector (with possible government contributions)	Government
Stewardship	Management of constructed asset (subject to contract) remains with private sector for the life of the contract	Management of constructed asset remains with government
Risk Allocation	Risks allocated between government and private sector	Risks borne by government

Source: Adapted from presentation by CCAF-FCVI and Ontario Internal Audit Division, October 2014.[9]
[a] Many different types of P3 exist. The differences listed here are for illustration and are not necessarily present in all cases.

Typically, P3s are designed to:

- Gain benefits by integrating multiple phases or projects into one larger project
- Transfer risks (such as the risk of late construction completion or cost overruns) from government to the private sector partner
- Focus on the overall outputs or outcomes to be achieved
- Link payment to achievement of those outputs or outcomes[10]

Deciding which procurement approach is best includes calculating the costs of the various approaches. This includes costs that relate to various risks and the cost of a government paying the private sector to take on some of those risks. Certain costs in a P3 are inherently higher than in a conventional procurement, such as P3 financing costs (because the private sector pays more to borrow money than the public sector) and transaction costs (because additional costs are incurred to set up and oversee the complicated P3 contracts). Overall, the purported advantage of a P3 approach is that potential benefits (e.g., increased likelihood of being on time and on budget) outweigh these additional costs to government. The analysis to support these considerations is key to evaluating whether a P3 is suitable for an infrastructure project.

[9] www.ccaf-fcvi.com/index.php?option=com_content&view=article&id=1164%3Auditing-p3-projects-challenges-opportunities-and-lessons-learned&catid=121%3Aperformance-audit-g-presentations&Itemid=535&lang=en (17 December 2014).
[10] See "Managing Risks of Public Private Partnerships" in our *2014 Report – Volume 1*, Chapter 31 available at www.auditor.sk.ca.

2.3 Role of SaskBuilds in Evaluating Suitability of Projects for P3 Approach

In October 2012, Cabinet established SaskBuilds. At October 2014, SaskBuilds' Cabinet-appointed Board consisted of four members of Cabinet and two government Members of the Legislative Assembly.[11] Cabinet gave SaskBuilds the mandate to "undertake, co-ordinate, develop, manage and oversee infrastructure development projects."[12] SaskBuilds' mandate also includes advising upon, determining, and recommending to its Board the most effective and appropriate methods for advancing infrastructure projects, including using P3s.[13]

Cabinet made SaskBuilds responsible for evaluating the suitability of using a P3 approach on specific infrastructure projects. To do these evaluations, SaskBuilds was to work with the ministry responsible for the services the infrastructure project was expected to deliver. For example, the Ministry of Education is the Ministry responsible for the nine joint-use schools and the Ministry of Health for the Swift Current Long-Term Care Centre. SaskBuilds and the responsible ministry are to jointly submit recommendations for proceeding with the infrastructure project to Treasury Board (a committee of Cabinet) for approval. Ultimately, Cabinet decides whether to proceed with the use of a P3 approach for each infrastructure project analyzed.

As we reported in our *2014 Report – Volume 1*, public sector procurement always presents risks and challenges that a government must manage. P3s present additional risks and challenges.[14] If SaskBuilds does not do an effective job of evaluating infrastructure projects, it may not correctly assess the costs and risks of alternate approaches and may not correctly recommend if a P3 approach is appropriate. This could result in the Government using a P3 approach where it is not in the best interests of the public (e.g., it is more expensive or will not deliver the services when and where needed).

3.0 Audit Objective, Scope, Criteria, and Conclusion

The objective of this audit was to assess whether SaskBuilds had effective processes, for the period of March 1, 2013 to January 30, 2015, for evaluating infrastructure projects to determine whether the projects should use a public-private partnership (P3) approach (i.e., at business-case development stage). We did not examine tendering and delivery of P3s, which occur later in the P3 process. We examined SaskBuilds' processes for evaluating potential P3s, including development of the business case.

To conduct this audit, we followed the standards for assurance engagements published in the *CPA Canada Handbook – Assurance*. To evaluate SaskBuilds' processes, we used criteria based on P3 best practices. SaskBuilds' management agreed with the criteria (see **Figure 4**).

By January 30, 2015, Cabinet asked SaskBuilds to evaluate the four infrastructure projects – Swift Current Long-Term Care Centre, Regina Bypass, Saskatchewan

[11] Order in Council 523/2014 dated 16 October 2014.
[12] Order in Council 550/2012 dated 17 October 2012.
[13] Ibid.
[14] *2014 Report – Volume 1*, Chapter 31 available at www.auditor.sk.ca.

Hospital North Battleford – Integrated Correctional Facility, and nine joint-use schools. We examined SaskBuilds' policies, procedures, and criteria that related to evaluating these infrastructure projects. For the four infrastructure projects, we examined contracts related to evaluating those projects and other documents. We interviewed key employees of SaskBuilds and participants in working groups. We examined the business cases and supporting documentation for the four projects and examined SaskBuilds' processes for creating and reviewing these business cases and reporting on progress.

Figure 4—Audit Criteria

1. **Set framework for evaluation**
   - 1.1 Specify requirements for evaluation (i.e., who develops business case and how)
   - 1.2 Set criteria for determination of recommended approach
   - 1.3 Maintain capacity to evaluate
   - 1.4 Specify reporting requirements (internal, external)
2. **Communicate with stakeholders on infrastructure procurement**
   - 2.1 Communicate evaluation framework requirements to stakeholders
   - 2.2 Provide advice on procurement options
   - 2.3 Fully understand government and user needs
3. **Prepare business case**
   - 3.1 Verify clear objectives meet government and user needs
   - 3.2 Establish reasonableness of assumptions
   - 3.3 Analyze costs and benefits over entire lifecycle of project
   - 3.4 Analyze project financing
   - 3.5 Analyze risks over entire lifecycle of project
   - 3.6 Demonstrate risk transfer
   - 3.7 Compare alternatives
   - 3.8 Determine recommended approach
4. **Confirm and communicate approach based on business case**
   - 4.1 Verify business case
   - 4.2 Meet reporting requirements (internal, external)

We concluded that, for the period of March 1, 2013 to January 30, 2015, SaskBuilds had, other than the following, effective processes for evaluating infrastructure projects at the business-case development stage to determine whether the projects should use a P3 approach. SaskBuilds needs to:

- **Specify, at the start of its evaluation, the minimum estimated savings that a P3 approach must demonstrate over a conventional approach before it recommends to the Government to sign an agreement with a successful bidder**
- **Make available to all risk-workshop participants key empirical data to facilitate better evaluation of infrastructure project risks, calculation of related costs, and support for decisions**

In addition, SaskBuilds had not specified the minimum content required in its public value-for-money report that it is to publish after the financial close, or required the release of public value-for-money reports related to infrastructure projects within timeframes consistent with those set out in *The Executive Government Administration Act*. Also, it needs to leverage its value-for-money analysis to evaluate and include feasible benefits and efficiencies in future public sector conventional approaches.

4.0 KEY FINDINGS AND RECOMMENDATIONS

In this section, we describe our expectations (in italics), key findings and recommendations related to the audit criteria in **Figure 4.**

4.1 Framework and Guidelines for Evaluation

4.1.1 Organizational Framework Established for Evaluating Projects and Communicating Decisions – Requirements for Public Reporting Not Yet Set

The primary tool for evaluating procurement approaches for an infrastructure project is preparation of a business case. Business cases examine qualitative and quantitative aspects of undertaking projects. The purpose of the business case is to determine whether project objectives (such as timely delivery and public safety) and value for money can be best achieved by a P3 or conventional approach. A P3 will be described as delivering value for money to the extent that the total costs over the lifetime of the project are estimated to be less than through the alternate approaches considered (this includes estimated costs attributed to risks that are transferred to the private sector or retained by government).

We expected SaskBuilds to establish an evaluation framework that would require the preparation of a business case for each project. We expected the framework to specify who should prepare business cases, the process and timing for their preparation, and their required contents. Also, it would specify reporting relationships of those involved and reporting requirements (internal, external).

We expected SaskBuilds to communicate its evaluation framework and requirements to stakeholders including key participants involved in evaluating procurement options. SaskBuilds would provide advice on procurement options.

In May 2014, the SaskBuilds Board approved its *P3 Project Assessment and Procurement Guideline* (Guideline). This Guideline reflected the practices SaskBuilds used prior to its formal release of the Guideline. The Guideline is available to the public on the SaskBuilds website.[15]

Consistent with **Figure 5**, the Guideline outlines SaskBuilds' P3 project governance, requirements for P3 business cases (such as qualitative and quantitative requirements), as well as project procurement information. It describes how SaskBuilds leads the development of the business case, working with the responsible ministry. It also notes that SaskBuilds' Board is responsible for submitting, jointly with the responsible ministry, decision items to Treasury Board and Cabinet for approval.

SaskBuilds' framework identifies the key participants in evaluating procurement options for selected projects and defines their responsibilities and reporting relationships. SaskBuilds used this framework in evaluating the projects Cabinet asked it to assess.

As specified in the Guideline, SaskBuilds' framework provides for public release of a value-for-money report after the close of the procurement process at the financial close (i.e., once the Government has signed an agreement with the successful bidder). The

[15] www.saskbuilds.ca (16 October 2014).

objective of value-for-money reports is to provide the public with an understanding of the project and basis for the Government's decision to use a P3 procurement approach.

We found that the Guideline does not set out the minimum information to include in a value-for-money report. Value-for-money reports typically include at a minimum:

- A description of the project including the public sector and private sector partners
- Approaches considered (e.g. DBFM, DBFOM)[16]
- Costs of procurement options considered
- Value-for-money assessment including a description of key risk allocations
- Processes used to select private sector partners
- Summary of key terms from the agreement
- Financial details including the aggregate net-present-value of all bids, the public sector comparator, and aggregate total of required payments under the agreement (see **Figure 7**)[17]

Some value-for-money reports include additional information. For example, the City Of Regina's *Wastewater Treatment Plant Expansion & Upgrade Project Value for Money Report (July 24, 2014)*[18] discloses the discount rate and the inflation rate assumptions that the City used in its value-for-money analysis.

1. **We recommend SaskBuilds specify the minimum content required in its public value-for-money report that it is to publish after the Government signs an agreement with the successful bidder (i.e., financial close).**

Also, unlike other key accountability reports,[19] the Guideline does not specify the timeframe in which SaskBuilds must make this report public (e.g., 120 days after close of the procurement process). We found that at January 30, 2015, SaskBuilds had not yet released the value-for-money report for the Swift Current Long-Term Care Centre project, for which SaskBuilds signed the agreement with the successful bidder in September 2014.

Not specifying a timeframe in keeping with other key accountability reports increases the risk that the public will not receive timely information about procurement decisions. Also, determining and advising participants at the outset, when SaskBuilds plans to make public its value-for-money reports will help ensure reports are prepared and ready for issuance within a reasonable time.

[16] DBFM – refers to design, bid, finance, and maintain: DBFOM- refers to design, bid, finance, operate, and maintain
[17] Adapted from *Alberta's Public-Private Partnership Framework and Guideline*, p. 89.
[18] www.p3canada.ca/en/about-p3s/p3-resource-library/regina-wastewater-treatment-plant-value-for-money-report/ (April 10, 2015).
[19] Key accountability documents include annual reports, which under *The Executive Government Administration Act* (s.13), must be tabled within 120 days after the end of the period to which the document relates.

2. We recommend that SaskBuilds require release of public value-for-money reports related to infrastructure projects within timeframes consistent with those set out in *The Executive Government Administration Act.*

Consistent with the Guideline, we found the following for each of the four projects:[20]

- SaskBuilds created a steering committee to oversee the project and preparation of the business case, provide direction to the core project team, and to provide recommendations to SaskBuilds' Board. Members of the steering committees included the SaskBuilds' Chief Executive Officer, and a senior representative of the responsible ministry, such as the Deputy Minister of Education for the Joint-Use Schools Project.

- SaskBuilds assembled a core project team to review major issues and options, and provide advice and recommendations to the steering committee. The core project team reported to the steering committee. Members of core project teams included the project director (a SaskBuilds representative) and a team member representing the responsible ministry. The Guideline refers to including representation on the core project team from the ministries of Finance and Justice. We found that SaskBuilds had not done this for all four projects at the evaluation stage.

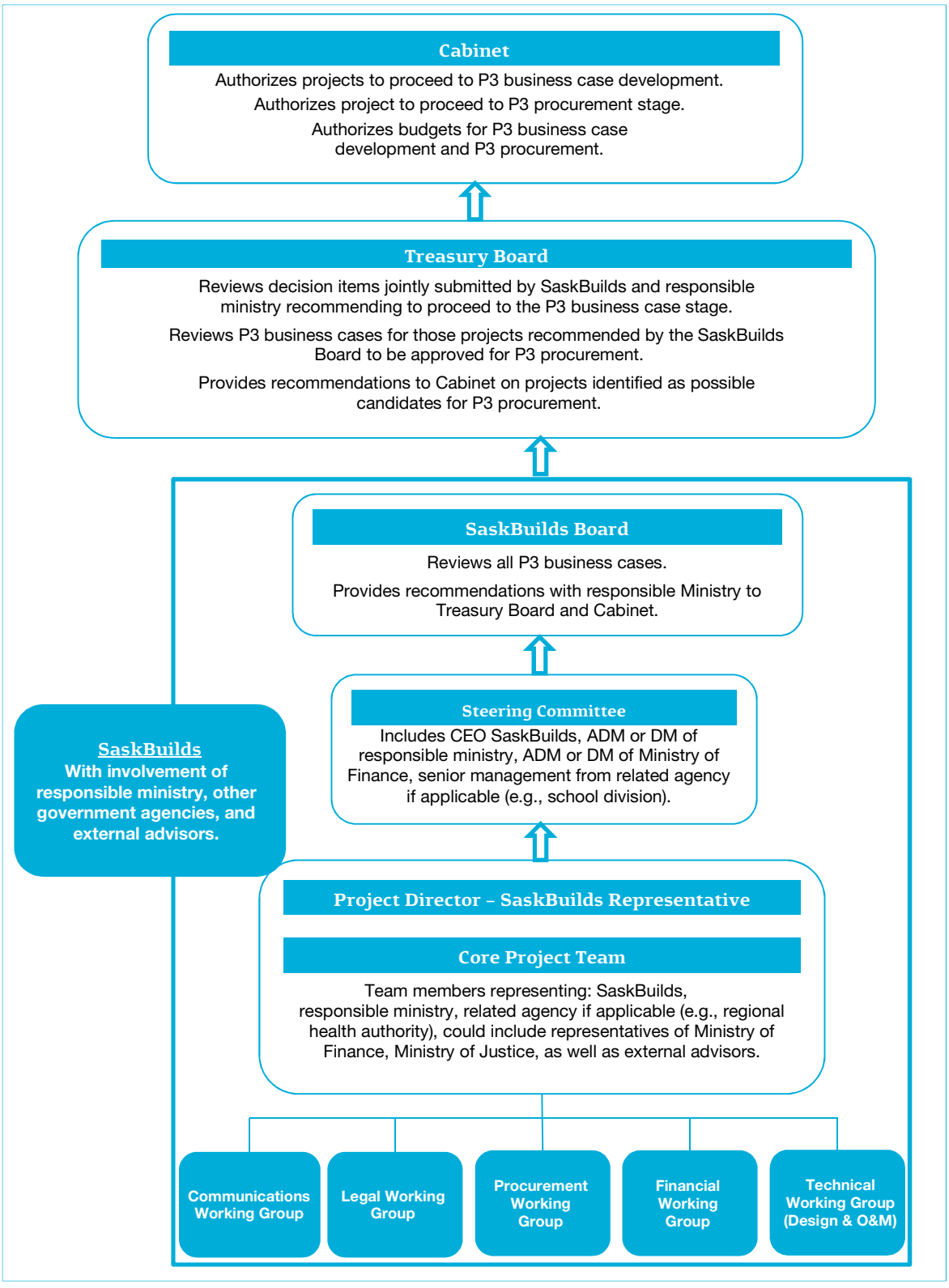
- SaskBuilds assembled various working groups for specific subject areas including communications, legal, procurement, financial, and technical. Each of these working groups reported to the core project team. These groups involved representatives from SaskBuilds, the related responsible ministry, other government agencies, as well as external advisors. The working groups were responsible for their specific subject areas within the evaluation process. For example, the financial working group's responsibilities included working with external advisors in the development of the financial model used in the business case analysis, and helping secure Treasury Board and other funding approvals.

- SaskBuilds held frequent (e.g., weekly or biweekly) conference calls between all of the various working groups on a project. It used these conference calls to update the working groups on a project's status.

- SaskBuilds' Board reviewed the evaluations and recommendations as set out in the business cases prior to submission to Treasury Board and Cabinet.

[20] Note that certain activities related to the Swift Current Long-Term Care Centre occurred before the creation of SaskBuilds.

Figure 5—Responsibilities and Authorities Related to Deciding on Use of a P3 Approach



Source: Adapted from SaskBuilds Project Assessment and Procurement Guideline.

4.1.2 Use of Minimum Estimated Savings to Support Use of P3 Could Mitigate Risks Posed by Uncertainty Inherent in Costs

Across Canada, governments have used similar methodologies for the development of P3 business cases. While the methodologies contain certain differences (e.g., different discount rate methodologies), they all require preparation of business cases to set out analysis of risks and costs for projects and compare conventional and P3 approaches.

We expected SaskBuilds to use and document its methodology for developing business cases for each project to compare P3 procurement approaches against conventional procurement approaches. We expected SaskBuilds to set criteria to help it recommend a procurement approach to deliver the project (e.g., recommend to proceed as a P3 or not).

We found that the business cases for each of the four projects included consideration of the following two factors set out in SaskBuilds' Guideline. The Guideline specifies that, to proceed to a business case, potential projects should:

- Meet threshold criteria on the importance, size, and complexity of the project. The responsible ministry must identify the project as a priority. The project must be large-scale, complex, and with a capital cost of $100 million or greater.[21]

- Satisfy qualitative considerations. As reflected in **Exhibit 6.1**, these considerations include areas such as technical requirements, public acceptability, land availability and location, and timing of the project.

Even though SaskBuilds finalized its Guideline after it started evaluating projects, it used methodology generally consistent with the Guideline to evaluate the four projects. Following its methodology, SaskBuilds, with the assistance of external advisors, developed business cases to identify and compare alternate procurement approaches (e.g., P3 versus conventional) for each of the four projects.

SaskBuilds' methodology set out detailed requirements for business cases. It included the following criteria for adoption of the recommended approach. The Guideline states that the overarching policy is that, to support proceeding as a P3, the business case must demonstrate that the P3 approach will:

- Deliver greater value for money[22] than a conventional procurement approach

- Deliver infrastructure qualitatively equal to or better than that delivered by a conventional approach

- Not compromise related service delivery[23]

In our view, the "greater value for money" aspect of this policy is unclear as to what constitutes "greater value for money than a conventional procurement approach." That

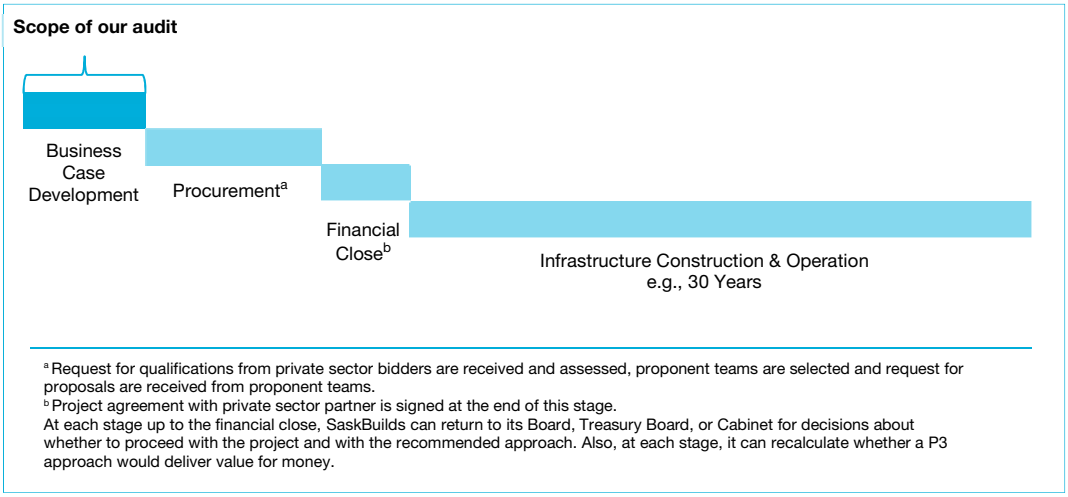
[21] Guideline, p. 14. SaskBuilds is permitted to consider projects with a capital cost of $50 million in certain circumstances.
[22] According to P3 methodologies, including the SaskBuilds Guideline, a value-for-money business-case analysis compares the costs of a conventional procurement (referred to as the Public Sector Comparator or PSC) to a P3 procurement (referred to as the Shadow Bid or SB). As noted, a P3 will be described as delivering value for money to the extent that the total costs over the lifetime of the project are estimated to be less than through the alternate approach.
[23] Guideline, p. 7.

is, it implies the use of a straight comparison of estimated costs (a "pass/fail" approach). Clarification is important so that the decision to proceed with the use of P3 sufficiently takes into account the potential impact of the high degree of uncertainty inherent in value-for-money cost calculations.

High degree of uncertainty in costs exists at the business case stage because of the extensive use of assumptions and estimates (see **Figure 6**). This uncertainty is reduced, although not eliminated, as value for money is reassessed at each stage (e.g., at procurement, and financial close). As reflected in the Guideline and in **Figure 6**, SaskBuilds can discontinue a project at any stage until it signs a contract with a private sector partner (i.e., the successful bidder) at the financial close.

Uncertainty means actual results may differ significantly from estimates, which could result in projects not achieving projected savings or benefits. We found that SaskBuilds' estimates of value for money in the business cases for the four projects, using P3 approaches for each, ranged from under 4% to 13%. The extent of uncertainty at the business case stage could result in the comparison of the costs of the P3 approach not necessarily being greater than a conventional procurement approach. For example, the business case for one project indicated that a 1% increase in the planned private sector financing rate would have the effect of reducing the expected value for money to less than 1% of the cost of the project (i.e., the cost of using the P3 approach would have been essentially the same as using a conventional procurement).

Figure 6—Stages of a P3 Project



Source: Adapted from *SaskBuilds Project Assessment and Procurement Guideline,* p. 11.

When determining "greater value for money," taking into account the high degree of uncertainty is important when "greater value for money" is a key factor used to justify the choice between a P3 and conventional procurement. Setting a "cushion" (minimum amount of estimated savings)[24] can help take into consideration the possible impact of actual costs differing from estimates. It helps decision makers avoid proceeding with a P3 approach, at financial close, where the projected savings under the P3 approach are only minimally better than the conventional approach – savings at risk of not materializing given uncertainties. We discuss the uncertainty inherent in estimated costs further in **Section 4.3.3**.

[24] A cushion could reflect a minimum required percentage or dollar amount that estimated costs of a P3 must be less than estimated costs of the conventional procurement approach.

For three of the four projects, SaskBuilds' approach did not set out a "cushion" at the business-case development stage, before deeming the P3 approach delivered "greater value for money" over the conventional procurement approach. Management indicated that it does not expect a minimum estimated amount of savings (other than having positive value for money) that must be met at the financial close of the project before SaskBuilds recommends a P3 approach.

Setting a cushion at the start of the evaluation and using it throughout the process would reinforce to all participants and decision makers the uncertainty inherent in the estimated costs. Furthermore, the setting and use of a cushion reduces the risk of decision makers proceeding with a P3 approach, at financial close, where the projected savings under the P3 approach are only minimally better than the conventional approach – savings that may not materialize given uncertainties.

3. We recommend that SaskBuilds specify, at the start of its evaluation, the minimum estimated savings that a P3 approach must demonstrate over a conventional approach before it recommends to the Government to sign an agreement with a successful bidder.

4.1.3 Capacity to Evaluate Business Cases Exists

We expected SaskBuilds to maintain capacity to evaluate whether infrastructure projects should proceed as P3s.

Since its creation in 2012, SaskBuilds has developed its in-house capability to evaluate and manage P3s, and to monitor and review the work of the external advisors. For example, to help build capacity, SaskBuilds used the expertise of Partnerships British Columbia[25] from 2013 to 2014 to assist it in managing the development and review of P3 business cases. Also, it leveraged expertise of staff from the related responsible ministry in the business case development stage. By January 2015, SaskBuilds had added expertise in areas such as project management, finance, engineering, and accounting.

4.2 User Needs Understood

To develop a business case, SaskBuilds and the responsible ministry must know the needs of government and users. We expected SaskBuilds to take steps to fully understand government and user needs for infrastructure it was considering.

SaskBuilds expected each related responsible ministry, with relevant agencies (e.g., regional health authorities or school divisions), to identify the user needs for its project and provide SaskBuilds with documents that set out the identified needs and related project design requirements (e.g., needs, design plans, and planned uses).

For each project, we found that SaskBuilds reviewed documents to determine whether they sufficiently outlined the project requirements, and sought additional information where it deemed necessary. This included discussing different ways to deliver services (e.g., exploring how different approaches could address needs). SaskBuilds, through its

[25] Partnerships British Columbia is a corporation owned by the Government of British Columbia. It assists public-sector agencies in planning and procurement of complex capital projects. www.partnershipsbc.ca (10 January 2015).

group and committee structure, incorporated the user needs and requirements in the development of the related business case.

4.3 Process Analysis in Business Cases Needs Improvement

We expected SaskBuilds to prepare business cases for each project. Business cases would analyze the costs and benefits of projects. Analysis would include calculation of the value for money of the project with a comparison of the estimated costs and risks under both conventional and P3 procurement approaches.

4.3.1 Preparatory Steps Carried Out

In the preparation of the business case, we expected SaskBuilds to:

- *Verify clear objectives meet government and user needs*
- *Analyze project financing*

We also expected the business case to clearly document the results of each of these steps.

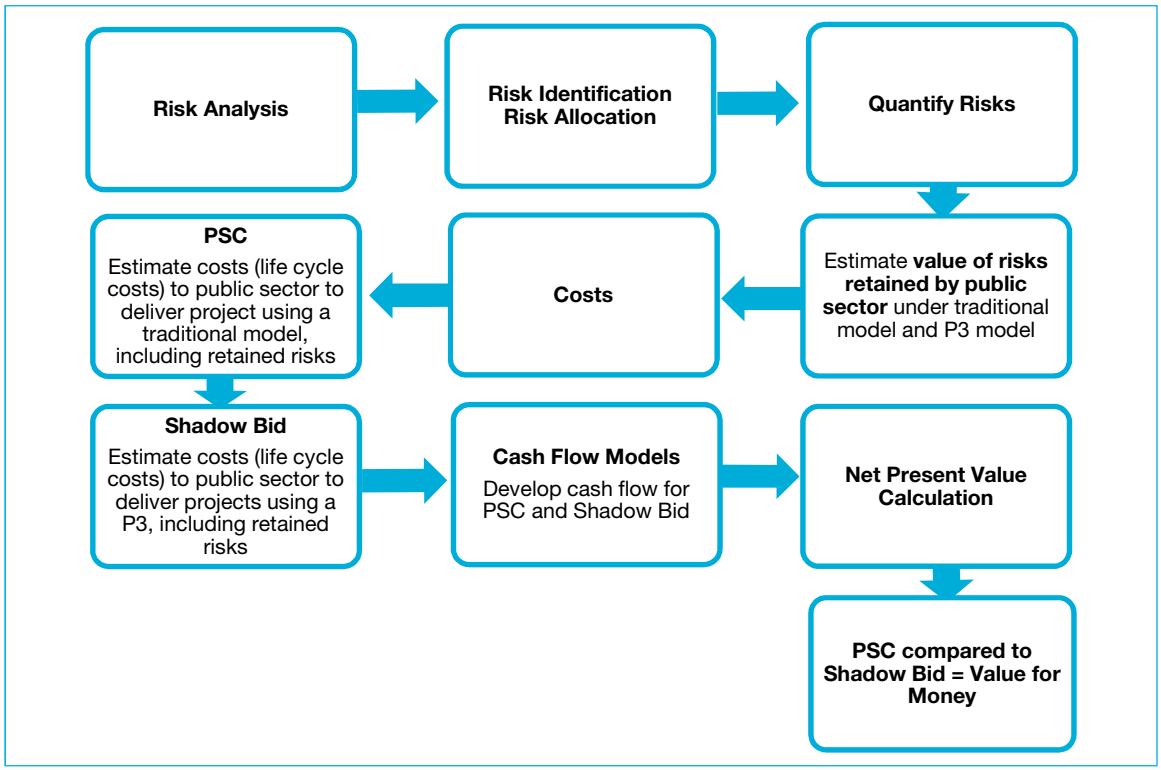
The length of the business cases for the four projects varied from less than 100 to almost 150 pages, in addition to supporting documents. We found SaskBuilds prepared business cases for each of the four projects generally consistent with steps to determine the value for money of a P3 as set out in **Figure 7** and its Guideline.

We found that the business case of each project showed that SaskBuilds:

- Incorporated the needs and requirements that the responsible ministry and, where applicable, related agencies (e.g., regional health authority) had identified.
- Engaged various external advisors[26] to help it prepare the business case. For example, external advisors developed financial models and helped evaluate the value-for-money (i.e., savings) for the different procurement options.
- Consulted with the private sector to help assess the private sector's market interest in the project, and to help analyze and estimate finance costs (e.g., determine the optimal timeframe for funding the project and then calculate the associated financing costs).

[26] External advisors included technical, financial, and capital market advisors.

Figure 7—Steps in a Value-for-Money Analysis



Source: *SaskBuilds Project Assessment and Procurement Guideline*, p. 20.
PSC means public sector comparator—this assumes a conventional procurement approach; **Shadow bid** assumes a P3 procurement approach.

4.3.2 Process for Allocation of Risks and Benefits Needs Improvement

To prepare business cases, we expected SaskBuilds to:

- *Analyze risks over the entire lifecycle of projects under each procurement method*
- *Demonstrate risk transfer*
- *Use, to the extent possible, related documented information (e.g., past historical prices, results of similar projects).*

We expected business cases would clearly document the results of each of these steps.

We found that SaskBuilds, in conjunction with its teams, used a detailed framework and a consistent process to analyze risks for each business case. To mitigate the risk of reliance on a single individual's or external advisor's view of risk, as reflected in **Figure 5** and previously discussed in **Section 4.1.1**, it used a committee approach.

SaskBuilds conducted risk workshops to consider risks and allocate costs to the risks. The workshops for each project involved the related responsible ministry or ministries and additional agencies as required (e.g., school divisions), the SaskBuilds project director, other SaskBuilds' project team members, and external advisors.

Figure 8—Potential Project Risks

Potential project risks include:

- Site risk including physical suitability, availability, environmental, historical resources, statutory approvals, conventional land use, geotechnical, permitting risk
- Design, construction and commissioning risk
- Contractual risk including that the private sector party, its sub-contractors, or the public sector will not fulfill their contractual obligations
- Financial risks including that private financing will not be available, that the project cannot be financed competitively, changes in the financial parameters before financial close, or that the project fails financially later
- Operating and performance risk
- Industrial relations risk
- Demand or usage risk
- Asset ownership risk including latent defect, obsolescence, upgrade, residual and force majeure
- Change in law

Source: SaskBuilds, *Project Assessment and Procurement Guideline*, p. 21.

Risk workshop participants:

- Started with a preliminary list of risks (i.e., risk register) and attempted to determine all risks for that project over its entire lifecycle. Consistent with **Figure 8**, risk categories analyzed included: site risk, design and construction risk, contractual risk, financial risk, operating and performance risk, industrial relations risk, demand or usage risk, asset ownership risk, and changes in law.[27]

- Analyzed and assessed each risk using their collective judgment and experience. SaskBuilds required that participants of the risk workshops reach a consensus before proceeding further in the analysis of risks.

- Further analyzed risks to identify their significance and to assess the probability of occurrence at low, high, and most likely (called a risk triangulation).

The external advisors, in preparing financial models for the value-for-money analysis, input the risk triangulation into a statistical simulation model to estimate the cost (i.e., the value) of each risk.[28]

We found that, for each project, the participants identified which:

- Risks the public sector would retain (e.g., scope changes during the project)

- Risks to transfer to the private sector (e.g., construction delays or rehabilitation costs)

- Risks the public and private sectors would share (e.g., certain environmental conditions)

[27] Guideline, p. 21.
[28] This was done through use of a Monte Carlo Analysis. This is a statistical simulation that runs many scenarios to estimate the probability of certain risks occurring.

We found that the business case of each project documented the project's risks and evaluations of those risks (their probability of occurrence, potential impact, cost).

The Guideline states that sources of information for costs should be based on the best available evidence that would typically include "internal government records of historical prices" and "review of past similar projects."[29] SaskBuilds advised us it expected workshop participants and external experts to share their experiences using their organizations' data. Participants in the workshops shared their knowledge and expertise, participating in detailed risk discussions. However, we did not find evidence that participants consistently made this data available, in writing, to all risk workshop participants. Rather, we found that participants and external experts made decisions about identified risks, and calculation of related costs based primarily on the results of verbal discussions. Not making information available in writing or maintaining key empirical data makes it difficult to substantiate or scrutinize decisions, particularly those that require a high level of expertise and professional judgement.

Not consistently providing workshop participants with empirical, historical information, in writing, decreases the ability of participants to review, consider, and challenge the information presented and use it to inform their decisions. Also, collecting and assembling key information would provide SaskBuilds with a record of the basis of key decisions made in risk workshops.

4. We recommend that SaskBuilds assemble and make available to all risk workshop participants key empirical data to facilitate better evaluation of infrastructure project risks, calculate related costs, and support decisions.

Consistent with its guideline, for each project, SaskBuilds developed the public sector comparator (PSC) based on the government's experience on similar past projects using a conventional procurement model. Also for each project, it attributed significant cost savings of risk transfers to the private sector obtained by using a P3 approach. SaskBuilds valued the cost savings from using a P3 approach, as compared to using the PSC, from just under 10% to over 30% of the cost of each project. For all four projects combined, SaskBuilds estimated the cost of the risks that the public sector would retain, if it used conventional approaches, to be six times higher than if it used P3s.

For each project, we found the business cases allocated several benefits or efficiencies (e.g., timely delivery, innovation, and effective maintenance) only or in increased amount to a P3 procurement approach (that is, the P3 approach was assessed as having lower risks in these areas). For example, in one project, the business case indicated that the use of a P3 procurement approach would deliver a more efficient design, and use less floor space. These benefits or efficiencies contributed to SaskBuilds estimating lower costs for the P3 approach.

In our review of the business case development process, we noted benefits attributed to P3s that could be used in conventional procurement processes (e.g., more efficient building designs, facilities maintained at required levels). We also noted certain risks were attributed more to conventional public sector procurements (e.g., scope changes contributing to increased costs and delay). We are of the view that conventional

[29] Guideline, p. 26.

procurement processes could likely benefit from the time and effort that SaskBuilds and the responsible ministries and other related agencies spent on planning for and assessing the four potential P3 projects.

Furthermore, we noticed the business case development process for these four projects noted the same or similar problems with the conventional public sector procurement approach. These problems may contribute to currently creating a more favorable environment for the use of a P3 approach.

The Government can use and, in a few cases, is already using in more conventional procurements, some of the benefits or efficiencies attributed only to P3s (e.g., use of performance-based contract for the Sweet Dreams housing project).[30] However, more work remains. In our view, the Government needs to make a concerted effort to identify and address barriers to gaining efficiencies under the conventional approach for procurement projects (e.g., addressing the number of change orders, which increases project costs).

In June 2014, the Government created Priority Saskatchewan as a branch of SaskBuilds. One of the goals of Priority Saskatchewan is to identify opportunities to improve government procurement. This, along with SaskBuilds' responsibility to "undertake, coordinate …infrastructure development projects,"[31] makes it well positioned to explore problems and efficiencies it has identified during its analysis of P3 procurements, and consider how to best apply them to future conventional approaches.

5. We recommend SaskBuilds leverage its analysis of value-for-money for infrastructure projects to evaluate and include feasible benefits and efficiencies in future public sector conventional procurement approaches.

SaskBuilds indicated that it plans, in the future, to work with responsible ministries to build the perceived benefits and efficiencies of P3s into conventional procurements.

4.3.3 Sensitivity Analysis of Key Assumptions

In the preparation of the business case, we expected SaskBuilds to:

- *Establish reasonableness of assumptions*
- *Analyze the sensitivities of each key assumption*
- *Analyze costs and benefits over entire lifecycle of project*
- *Compare alternatives*
- *Determine recommended approach*

[30] www.saskatchewan.ca/government/news-and-media/2014/may/12/social-impact-bond (22 January 2015).
[31] Order in Council 550/2012 dated 17 October 2012.

We expected certain assumptions (e.g., the discount rate and inflation rate) to be consistent among projects with similar timeframes. We also expected the business case to clearly document the results of each of these steps.

The calculation of value for money is complex requiring the use of many assumptions, risk assessments, and estimations of cost. Key assumptions included the inflation rate, construction escalation rate, discount rate, timing of cash inflows and outflows, financing costs, and private-sector financing estimates.

SaskBuilds hired various types of external advisors to help it make assumptions and cost calculations, and to develop financial models to support the business cases. SaskBuilds and/or the responsible ministry hired professional cost-estimates advisors (known as quantity surveyors) to prepare estimates including construction, operation, and maintenance cost estimates (or lifecycle costs). The external advisors incorporated lifecycle costs into the financial models and analyzed them for completeness and accuracy.

We found, for each project, that SaskBuilds reviewed and assessed the information and assumptions used for reasonableness. For example, for financial models, SaskBuilds corroborated estimated inflation rates with Bank of Canada information, and project financing assumptions (e.g., financing costs, and private sector financing estimates) through market analysis with a group representing potential bidders. As we expected, certain key assumptions (i.e., the discount rate and inflation rate) were consistent among the projects.

As noted earlier, all procurement approaches involve uncertainty because of the need to make assumptions about future events. Decisions often take place in an environment where precise data and information is not available. Uncertainty increases when the life cycle of the project increases. Because infrastructure projects typically provide services over long terms (often up to 30-40 years), the extent of uncertainty in these projects can be significant. Some of this uncertainty is reduced, before the Government enters into a P3 contract, through the request for competitive bids from potential partners (see **Figure 6**). Those bids will inform SaskBuilds as to whether its estimated costs for the P3 procurement approach were reasonably accurate.[32] We noted that for the Swift Current Long-Term Care Centre, the successful bid confirmed that SaskBuilds' estimated costs were reasonably accurate.

Sensitivity analysis is a method to calculate uncertainty.[33] The Guideline states that SaskBuilds should use sensitivity analysis to identify changes in assumptions that are significant enough to potentially change recommendations.[34]

A small percentage change in certain assumptions can have a big impact on a project. For example in one project, a one-percentage point decrease in the discount rate[35] would result in a loss of almost 60% of the projected savings of using a P3 procurement approach. Unreasonableness in one or more assumptions could result in an inaccurate estimate of costs and in turn, value-for-money estimate.

[32] For the Swift Current Long-Term Care Centre, SaskBuilds estimated the cost using a P3 approach to be $113 million. The amount bid by the eventually successful P3 partner was $108 million. SaskBuilds was then able to update its calculations based on the new, actual cost information and calculate value for money based on the more certain cost information before signing the contract.

[33] The purpose of a sensitivity analysis is to show the effects of changing assumptions on a calculation such as the value-for-money calculation.

[34] Guideline, p. 28.

[35] The discount rate is a value used to determine how much a certain amount of money, at a certain point in the future, is worth now.

We found that SaskBuilds carried out sensitivity analysis for key assumptions in preparing the business cases for each project. Based on its assumptions, SaskBuilds reviewed and assessed costs, including the timing and amount of cash flows (cash flow models), for the different procurement options for each project.[36] Each of the business cases compared alternatives upon which SaskBuilds based its recommendation for which procurement method to use.

4.4 Business Cases Verified Prior to Recommending Approach

We expected SaskBuilds to verify business cases before reaching decisions on appropriate methods for projects and making recommendations. It would do this through review, challenge, confirmation, and approval. SaskBuilds would assess the accuracy and completeness of the information in the business cases, including information and analysis its external advisors prepared for each project.

Also, we expected SaskBuilds to take steps to meet the reporting requirements as reflected in its Guideline. The Guideline documents the expectation for reporting the evaluation and recommendations to Cabinet. The Guideline also requires public reporting after the close of the procurement process (this is because of the confidential nature of the business case during the procurement process).

We found that SaskBuilds analyzed the information input into the financial models, and asked for clarifications. SaskBuilds verified how information gathered from responsible ministries and related agencies, the preliminary research into the views of market potential bidders, and results from risk management workshops were used in the business cases.

We also found SaskBuilds' management gave its Board (comprised of four members of Cabinet and two government members of the Legislative Assembly):

- Monthly updates that included the current status of each project underway (e.g., project schedules and budgets).
- The results of each business case along with its recommended procurement approach to the Board consistent with the overarching policy set out in the Guidelines. The results included a summary of the value-for-money analysis, the estimated costs of the project including information on the range of subjectivity of the estimated costs, and the calculated value-for-money savings in using the P3 procurement approach.

The Board approved SaskBuilds' recommendations to proceed to Treasury Board and Cabinet for the four projects. Cabinet received similar information as the Board on each project.

At the time of our audit, SaskBuilds had reached an agreement with a private sector provider for one of the four projects: the Swift Current Long-Term Care Centre. As noted in **Section 4.1.1**, at January 30, 2015, SaskBuilds had not released a public value-for-money report.

[36] SaskBuilds determined and documented in the business cases the net present value for conventional and P3 procurement options. To calculate the net present value amount, SaskBuilds discounted the cash flows to current dollars using the assumed discount rate in a net present value analysis (i.e., to arrive at the cost in today's dollars).

5.0 Selected References

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6.0 Exhibit

Exhibit 6.1—P3 Qualitative Considerations in proceeding to a Business Case Analysis

Qualitative Considerations	Criteria
Technical	Can definable and measurable technical output/service/performance specifications for the project be developed?
	Are the long term operation or service needs and performance requirements relatively stable and/or predictable?
	Can mechanisms be established to monitor private sector performance?
	Can technical constraints be effectively addressed by the private sector?
	Is there the potential to transfer technical risks from the public sector to the private sector?
	Are there opportunities for private sector innovation in design, construction, operation and maintenance?
	Are there opportunities to enhance service performance through use of a P3?
	Are there opportunities to advance timing of delivery of needed infrastructure through use of a P3?
	Does the private sector have superior skills and experience that can be expected to reduce costs or increase benefits?
	Are there opportunities for the private sector to implement life-cycle management practices in the design, construction, operation and maintenance of the project?

Qualitative Considerations	Criteria
Duration and Technological Change	Is the capital asset of an enduring, long-lived nature and is the service life of the asset at least 20 years?
Operation and Maintenance	Can the private sector undertake the operation and maintenance? (Are there jurisdictional or liability related issues that require the public sector to undertake the operation and/or maintenance?)
Legal	Is the proposed P3 approach for the provision of the service free of any potential conflict with legislation or regulations (that cannot be changed in the short term?)
	Is there legislative authority to undertake the project?
Financial	Can it be expected that the higher financing costs associated with private sector financing will be offset by the P3 benefits (e.g. efficiencies, economies of scale, innovation, etc.) and by the value of the risks being transferred from the public sector?
	Is it possible to establish equitable and effective payment mechanisms that include appropriate incentives and controls based on clear outcomes?
	Can financial issues or risks be managed by the private sector?
	Does the project have revenue sources? (e.g., user fees, ancillary fees)
	If the project has revenue sources, is there the opportunity to transfer the revenue risk to the private sector?
Acceptability	Is the public willing to accept the proposed role of the private sector in the project?
	Are other stakeholders (e.g., elected officials, current users) willing to accept the proposed role of the private sector in the project?
	Will the private sector accept the public's need for disclosure, openness and fairness?
Procurement	Have projects of a similar nature been successfully procured using a P3 approach?
	Are there sufficient expertise, capacity and interest in the private sector to conduct a competitive procurement?
	Can a fair, accountable and transparent selection process be used?
	If relevant, can a successful plan of transition to the private sector be developed?
	Will the public sector entity have adequate resources to effectively procure, deliver and monitor the project?
	Is it demonstrable that the P3 process is likely to offer greater value for money to the Government of Saskatchewan compared to the conventional form of procurement?
Project Risk	Are there risks associated with conventional procurement that might be better managed by a private partner?
Land	Is the land for the project being provided by the public sector entity?
Project Stage	Is the project new build/greenfield? Renovations are, in general, less suitable for P3; however, every case is different.
Integration	Is the project relatively independent of other project, infrastructure, or control systems?
Human Resources	Does the project, if delivered by a private partner, affect any current public sector staff positions?
Timing	Are the timelines adequate to develop specifications and contract documents and to undertake a P3 procurement?
	Can the issues raised in the items above be addressed in the project timelines?

Source: SaskBuilds, *Project Assessment and Procurement Guideline*, p. 14-16.