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Cost, Quality and Accountability

Public Tendering versus Self-Performance
for Municipal Infrastructure Delivery
in Canada





For more than 200 years and with few exceptions, Canada's municipal infrastructure has been built and maintained by private contractors through the public tendering process. As our cities and towns have been established, so to have the local civil contractors that have supported their development, whether through building and maintaining roads and bridges, installing sewer, water and hydroelectric systems and generally delivering the core infrastructure that enables growth and economic prosperity.

The time and legal-tested public tendering system that has evolved in Canada ensures the lowest cost for taxpayers and enshrines the principles of fairness, transparency and accountability in the municipal procurement process. The system has supported the development of a highly-skilled and efficient civil contracting industry; small, large and specialized contractors that, in turn are cornerstones of local economies. They employ local workers, produce or source materials locally, provide considerable local tax revenue and invest heavily in local economic development.

Where a municipal council might consider self-performing infrastructure construction and/or maintenance, it must weigh any perceived benefit to their constituents with any negative impacts that such a decision might entail.

The broad question facing elected municipal officials must always be: **'Does self-performance, or 'in-house' performance, of infrastructure construction work meet the imperatives of cost, quality and accountability?'**

This document presents some of the specific questions municipalities should consider when assessing the potential risks and benefits of self-performing their infrastructure construction and maintenance. The costs and risks identified are all reflected in private contractors' bids for tendered work. It does not suggest definitive answers to these pertinent questions, but rather provides some useful context and perspective to assist councils in analyzing their options.



QUESTIONS about the Cost of Self-Performance

Q #1 Has the municipality done an independent cost accounting to **compare the cost of self-performing infrastructure construction with the historic cost of its publicly tendered work**?



Q #2 Are all **administrative costs** included in the cost of self-performance analysis?

Q #3 Are all the **overhead and operating costs** included in the cost of self-performance analysis?

Q #4 Are all **construction equipment costs** included in the analysis of the cost of self-performance?



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When a contractor submits a bid for municipal infrastructure construction or maintenance work, the price includes a host of administrative and other real costs that may not always be considered when developing comparative costs for self-performing the work. An accurate comparative analysis must include all costs that are considered in a contractor's bid price. These are costs that will be incurred by the municipality but may be accounted for in other departments or separate budgets of the corporation. Regardless of how the municipality accounts for these costs, they are real cost components of self-performed construction work.

It is important to not only conduct an analysis of real costs of self-performance versus contractor bid prices through public tendering, but also ensure transparency and accountability of the comparison through independent cost accounting and analysis. Comparisons developed by municipal staff or offered by the public sector unions do not meet the tests of transparency or accountability. This can only be ensured by independent, third-party cost analysis.

"Head office" administration is a real cost that should be included in the analysis of self-performance costs. For an accurate comparison with a contractor's bid price for tendered work, the municipality's costs of accounting, bookkeeping, A/R, human resources, government reporting, record keeping and other normal administrative functions related to its construction activities must be included in the assessment of the true cost of self-performance.

The proportionate cost of physical overhead such as office space, office equipment, telephone and computer systems, heat and utilities, vehicle parking and maintenance facilities, staff vehicles or vehicle allowances and other items of overhead that are used to facilitate in-house construction activities must be included in the assessment of the true cost of self-performance.

Any decision to self-perform infrastructure construction and maintenance work will necessitate the acquisition and maintenance of construction equipment and tools. Although the various costs of owning and/or leasing expensive construction equipment may be incurred in different, autonomous departments of the municipality, in order to develop a true cost for self-performance of construction work these costs must be assessed and included.

A contractor's bid price for publicly-tendered work includes all costs related to owning and/or leasing construction equipment. These costs include, but are not limited to:

- The capital cost of purchase or leasing costs;
- The financing costs on purchases, if applicable;
- Maintenance and repair costs;
- Fuel costs to operate;



Q #5 Is the **cost of workers' compensation** included in the cost of self-performance analysis?

- Licencing and insurance;
- Depreciation;
- Costs of transporting and storing equipment;
- Disposition and replacement; and
- Maintaining support equipment (fuel trucks, welding vehicles, water trucks, etc.)

Covering employees for workers' compensation is a major cost for contractors and is included in their bid price for the work. In considering self-performance of infrastructure construction work, municipalities will assume the cost of covering workers involved in those activities. Workers' compensation coverage for construction work is exponentially higher than for other municipal employees; as much as 10 per cent or more of gross wages depending on the construction trade. Workers' compensation costs are significant and must be included in the assessment of the true cost of self-performance. In the case of serious injury, the municipality will assume long-term liability for future pension and disability benefits.

Q #6 Are all **costs of procurement** included in the cost of self-performance analysis?



In most Canadian municipalities, procurement is a major activity and a significant budget item. Procurement is also a critical and specialised aspect of the construction process, requiring expertise not inherent in traditional municipal procurement activities. Municipalities that might consider self-performing infrastructure construction or maintenance will incur costs in staff and systems required to procure construction products and services. These costs must be included in assessing the true cost for self-performance of construction work.

Q #7 Are all **insurance costs** included in the cost of self-performance analysis?

A contractor's bid on a publicly-tendered construction contract includes not only General Commercial Insurance coverage but a host of other insurance coverages that are necessary to perform construction work. These include construction equipment, third-party liability insurance, commercial and personal vehicle insurance, environmental accident insurance, officers' and directors' liability insurance and specialized work, worksite or operations insurances. These are all insurances that are necessary for a municipality that might consider self-performing construction work. The proportionate cost of these insurances must be considered in assessing the true cost of self-performance.

Q #8 Are **costs related to quality control** included in the cost of self-performance analysis?



Contractors invest significantly in quality control to ensure the products and materials they provide to municipal construction work meet or exceed specifications. Many contractors operate or pay for sophisticated quality control testing laboratories staffed by skilled testing personnel. They also incur considerable cost in capital investment in equipment to sample and test materials, from gyratory compactors for testing asphalt mixes and profilographs for testing pavement smoothness, to nuclear gauges for testing density and compaction.

Municipalities that might consider self-performing their infrastructure construction and maintenance work will incur costs for private consultants for quality control of their in-house work. These costs must be considered in assessing the true cost of self-performance. Further questions of accountability and transparency arise should a municipality ever consider establishing in-house quality control systems to evaluate its own construction work and materials. This can undermine the integrity of the process should an organization test and evaluate its own products.

Q #9 Are the **costs of safety training and systems** included in the cost of self-performance analysis?



Provincial health and safety laws and regulations governing construction work and workers requires specialised training and programs to continually upgrade safety training for onsite workers, and especially for those performing specific activities such as working in confined spaces or in high locations. Contractors have expert staff in place to manage workplace safety programs and responsibilities. They have a significant investment in health and safety equipment and programs. Safety systems, training and equipment are costs that municipalities considering self-performance of construction work should expect to incur and must be considering in assessing the true cost of self-performance.

Q #10 Are the **costs of environmental compliance and stewardship** included in the cost of self-performance analysis?

The cost of complying with rapidly expanding environmental laws and regulations is one of the fastest growing cost items on a contractor's balance sheet. Expectations are often unclear or impractical and the risk of unpredictable non-compliance is high. Financial penalties for non-compliance are extreme and mitigation is expensive. The cost of complying with environmental regulation, the cost of administrating environmental regulation and the cost of the unpredictable risk must be considered in assessing the true cost of self-performance.

Q #11 Are the **costs of training and developing construction workers** to ensure a sustainable workforce included in the cost of self-performance analysis?

One of the biggest problems facing civil contractors in the near and mid-term future is the availability of skilled workers. Contractors invest substantially in the recruitment, training and retention of their tradespeople. Municipalities that might consider self-performing construction work will require a strategy and incur some cost in ensuring their in-house workforce is well-trained and sustainable. These costs must be considered in assessing the true cost of self-performance.

Q #12 Are all **costs related to labour relations** considered in the cost of self-performance analysis?



Municipalities that consider self-performing construction work will be responsible for workers usually covered by public sector union agreements. This will require the administrative infrastructure for collective bargaining and, where that already exists, expansion of that role. There is also considerable cost involved with maintaining the collective agreement between rounds of bargaining. When work is publicly tendered, the contractor assumes all costs and responsibilities for labour relations and maintaining collective agreements with its construction unions or directly with its employees. The cost of labour relations for municipalities considering self-performing construction work must be taken into account when assessing the true cost of self-performance.

Q #13 Can the Municipality protect itself against **rising costs** during the course of construction?

Very seldom does a construction project unfold exactly as planned. Site conditions, the weather, unknown or mislocated utilities, issues with materials supply and delivery, subcontractors and scheduling issues are just some of the factors that can impact the cost of the project after it has begun. In most cases, such factors are the responsibility of the contractor on publicly-tendered work and will not cause the owner's cost to rise. If the work is self-performed, the municipality assumes responsibility for any increased cost of performing the work and these costs must be considered in the comparative analysis.



QUESTIONS about the Quality of Work

Q #14 Can self-performance **guarantee long-term performance** of the work?



Q #15 Does the municipality have the **specialized expertise** necessary to procure construction materials, products and services?



Q #16 Does the municipality have the **construction expertise** required to deliver the project to the highest possible standards?

Q #17 If self-performing the work, are there mechanisms in place to **ensure that projects are completed on schedule**?



When infrastructure work is publicly tendered, the successful contractor becomes responsible for delivering the specified quality of work. This responsibility is dictated by the owner's contract, which may contain extended warranties. Contractors have developed sophisticated systems and equipment to ensure quality and bear any costs associated with deficiencies, repairs or even rejected work. It is not in the best interest of the contractor to deliver anything but the best quality of work as they will be responsible for the cost of litigation .

Self-performed construction work does not offer the municipality any protection against work that does not meet quality standards. There are no warranties or contractual obligations to deliver quality work. If issues with the quality of the work performed do arise, municipalities will incur the added cost of repair and remediation.

Although municipal corporations have general experience and expertise in procurement, typically this expertise does not extend to procuring construction products, materials and services.

Procurement in construction is a highly specialised function for which contractors have developed specific expertise to identify the best possible products and materials at the lowest possible price. This expertise includes close relations with networks of producers and suppliers of everything from aggregates and equipment to expansion joints for bridges and structural steel components.

The procurement expertise that a contractor brings to a municipal construction project has significant benefits in terms of controlling project costs, ensuring the best and most appropriate products and materials are used, and guaranteeing they are available when and where they are needed. Procurement costs must be considered in the comparative analysis.

Workers, supervisors and project managers employed by private contractors are professionals in their fields; experts with considerable experience in delivering construction projects on-time and on-budget. Without knowledgeable people planning, executing and overseeing the work, the chances of a successful construction project are greatly diminished. Municipalities considering self-performing their infrastructure construction work must examine whether they have in place the construction expertise and experience necessary to deliver their work successfully and at what cost.

When work is tendered publicly, the successful contractor is bound by the construction contract to interim and final completion schedules. This obligation is generally enforced by significant financial penalties for late completion. There are no such guarantees or incentives to complete the work on time when a municipality chooses to self-perform their construction work. In fact, there is ample documentation to show that late completion is a relatively common outcome when work is self-performed by public agencies in Canada. The direct and indirect costs to the municipality associated with delays to the work must be considered in the comparative analysis.

QUESTIONS about Fairness and Accountability

Q #18 Is the work awarded through a **public tendering process**?



Q #19 What is the impact from self-performance on **local businesses and employment**?



This question speaks to some fundamental issues about the mandate and role of municipal governments in Canada. Is it government's place to deliver services that can be performed cost-effectively by the private sector? Is it appropriate for governments to compete against taxpaying private contractors to perform construction work? In Canada, a sophisticated and efficient system of public tendering is based on the traditional understanding that it is not within government's purview to perform work or provide services that are more appropriately delivered by the private sector.

A major consideration in the decision to self-perform construction work should be the impact such a decision will have on local residents and businesses. While self-performance may create new jobs within the civil service, each new public sector job will displace a worker employed by local contractors. In many cases where local municipalities are primary customers, contracting firms will fail if that work is no longer available to them. By extension, other local businesses from which contractors buy their materials and services will also suffer from the loss of business from their major customers.

A close look at the economies of many Canadian municipalities will show that local civil contractors invest heavily in the economic development and prosperity of their communities. Many are active in local residential and commercial development, others in establishing other local businesses. The money earned by the contractor stays in the community and generates economic benefit locally. Contractors also generate considerable tax income for all levels of government. As well, in their local economies they generally need significant operational space, generating much higher rates of municipal property tax.



A few final QUESTIONS about Self-Performing Infrastructure Construction and Maintenance work

Q #20 Is the municipality prepared to accept the **cost and human resources challenges** associated with seasonal workers?



Q #21 Does the municipality understand and is it prepared to accept the **risk and liability associated with injury or death of a worker or member of the public, or damage to property?**



Q #22 Is a decision to self-perform construction work defensible in the context of **current trends to outsourcing and imperatives to reduce government operating costs?**



The nature of the construction industry is such that a large part of the workforce is seasonal workers. The climate in Canada dictates most civil construction activities cannot take place for several months each year or more, depending on the part of the country. While contractors seek means of keeping workers employed during the offseason, seasonal layoffs are a fact of life in the industry.

Municipalities considering self-performing construction work must be aware and consider the cost and labour relations implications of maintaining a seasonal workforce. Contractors and their unions are experienced in managing a system in which large numbers of workers may be laid off for extended periods of time. How the dynamics might be approached by a municipality will in large part be dependent on negotiations with their public sector unions. Municipalities must be aware that considerable new costs may arise from agreements about how seasonal workers on the municipal payroll will be managed.

By performing its own construction work a municipality or other public agency assumes the legal responsibilities of the 'Constructor.' These responsibilities require specialized health and safety training and programs and, in the case of injury or death to a worker or member of the public, financial liabilities are significant. The Constructor is liable for any long-term financial responsibilities arising from injury or fatalities, including ongoing rehabilitation costs, disability and pension costs. In the case of injury to a member of the public, the Constructor also bears any costs arising from civil legal action. Damage to private property is another risk borne by the Constructor that has significant financial implications. When work is publicly tendered, these liabilities are assumed by the private sector contractor.

For more than the past two decades, public policy in Canada has seen a marked shift to private sector outsourcing. Many of the activities municipalities have traditionally performed in-house are now delivered by the private sector. The impetus for this shift in public procurement policy has been the need for governments across Canada to reduce their operating costs and the ability of private sector outsourcing has been shown repeatedly to be successful in this objective. With respect to infrastructure construction and maintenance services, even activities once managed by some municipalities with in-house staff and equipment have been outsourced to the private sector with good results. A prime example is winter highway maintenance, which has been outsourced in most provinces.

Within the context of the shift to greater outsourcing of government services and responsibilities, and the demonstrable rationale for doing so, Canadian municipalities considering a contradictory shift to in-house performance of infrastructure construction work must adopt the highest possible standards of scrutiny and due diligence in assessing the potential benefits and risks.

Q #23 Is council getting **complete and accurate information** when considering self-performance?



The most commonly cited reason a municipality might consider self-performing aspects of its infrastructure construction work is cost reduction. In assessing the arguments for and against self-performance, and particularly the discussion about the relative cost, municipal councils should seek independent analysis. Information and analysis generated by municipal staff or offered by the public sector unions should be recognized as having the potential to be influenced by interests other than those purported. Independent analysis avoids potential bias in the information upon which councils must frame their decisions.





Summary

These questions and commentary will provide municipal councils with some points for consideration in ensuring a complete and unbiased comparison between self-performance and public tendering to the private sector forms the basis for the decisions they face.



